Kea Messages Manual

Release 2.1.7

Internet Systems Consortium

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Contents

Kea is an open source implementation of the Dynamic Host Configuration Protocol (DHCP) servers, developed and maintained by Internet Systems Consortium (ISC).

This is the reference guide for Kea version 2.1.7. Links to the most up-to-date version of this document (in PDF, HTML, and plain text formats), along with other useful information about Kea, can be found in ISC's Knowledgebase.

Please note that in the messages below, the percent sign ("%") followed by a number is used to indicate a placeholder for data that is provided by the Kea code during its operation.

CHAPTER 1

ALLOC

ALLOC_ENGINE_LEASE_RECLAIMED

successfully reclaimed lease %1

This debug message is logged when the allocation engine successfully reclaims a lease. The lease is now available for assignment.

ALLOC_ENGINE_REMOVAL_NCR_FAILED

sending removal name change request failed for lease %1: %2

This error message is logged when sending a removal NameChangeRequest to DHCP DDNS failed. This NameChangeRequest is usually generated when the lease reclamation routine acts upon expired leases. If a lease being reclaimed has a corresponding DNS entry it needs to be removed. This message indicates that removal of the DNS entry has failed. Nevertheless the lease will be reclaimed.

ALLOC_ENGINE_V4_ALLOC_ERROR

%1: error during attempt to allocate an IPv4 address: %2

An error occurred during an attempt to allocate an IPv4 address, the reason for the failure being contained in the message. The server will return a message to the client refusing a lease. The first argument includes the client identification information.

ALLOC_ENGINE_V4_ALLOC_FAIL

%1: failed to allocate an IPv4 address after %2 attempt(s)

This is an old warning message issued when the allocation engine fails to allocate a lease for a client. This message includes a number of lease allocation attempts that the engine made before giving up. If the number of attempts is 0 because the engine was unable to use any of the address pools for the particular client, this message is not logged. Even though, several more detailed logs precede this message, it was left for backward compatibility. This message may indicate that your address pool is too small for the number of clients you are trying to service and should be expanded. Alternatively, if the you know that the number of concurrently active clients is less than the addresses you have available, you may want to consider reducing the lease lifetime. This way, addresses allocated to clients that are no longer active on the network will become available sooner.

ALLOC_ENGINE_V4_ALLOC_FAIL_CLASSES

%1: Failed to allocate an IPv4 address for client with classes: %2

This warning message is printed when Kea failed to allocate an address and the client's packet belongs to one or more classes. There may be several reasons why a lease was not assigned. One of them may be a case when all pools require packet to belong to certain classes and the incoming packet didn't belong to any of them. Another case where this information may be useful is to point out that the pool reserved to a given class has ran out of addresses. When you see this message, you may consider checking your pool size and your classification definitions.

ALLOC_ENGINE_V4_ALLOC_FAIL_NO_POOLS

%1: no pools were available for the address allocation

This warning message is issued when the allocation engine fails to allocate a lease because it could not use any configured pools for the particular client. It is also possible that all of the subnets from which the allocation engine attempted to assign an address lack address pools. In this case, it should be considered misconfiguration if an operator expects that some clients should be assigned dynamic addresses. A subnet may lack any pools only when all clients should be assigned reserved IP addresses. Suppose the subnets connected to a shared network or a single subnet to which the client belongs have pools configured. In that case, this message is an indication that none of the pools could be used for the client because the client does not belong to appropriate client classes.

ALLOC_ENGINE_V4_ALLOC_FAIL_SHARED_NETWORK

%1: failed to allocate an IPv4 address in the shared network %2: %3 subnets have no available addresses, %4 subnets have no matching pools

This warning message is issued when the allocation engine fails to allocate a lease for a client connected to a shared network. The shared network should contain at least one subnet, but typically it aggregates multiple subnets. This log message indicates that the allocation engine could not find and allocate any suitable lease in any of the subnets within the shared network. The first argument includes the client identification information. The second argument specifies the shared network name. The remaining two arguments provide additional information useful for debugging why the allocation engine could not assign a lease. The allocation engine tries to allocate addresses from different subnets in the shared network, and it may fail for some subnets because there are no leases available in those subnets or the free leases are reserved to other clients. The number of such subnets is specified in the third argument. For other subnets the allocation may fail because their pools may not be available to the particular client. These pools are guarded by client classes that the client does not belong to. The fourth argument specifies the number of such subnets. By looking at the values in the third and fourth argument, an operator can identify the situations when there are no addresses left in some of the pools. He or she can also identify a client classification misconfigurations causing some clients to be refused the service.

ALLOC_ENGINE_V4_ALLOC_FAIL_SUBNET

%1: failed to allocate an IPv4 lease in the subnet %2, subnet-id %3, shared network %4

This warning message is issued when the allocation engine fails to allocate a lease for a client connected to a subnet. The first argument includes the client identification information. The second and third arguments identify the subnet. The fourth argument specifies the shared network, if the subnet belongs to a shared network. There are many reasons for failing lease allocations. One of them may be the pools exhaustion or existing reservations for the free leases. However, in some cases, the allocation engine may fail to find a suitable pool for the client when the pools are only available to certain client classes, but the requesting client does not belong to them. Further log messages provide more information to distinguish between these different cases.

ALLOC_ENGINE_V4_DECLINED_RECOVERED

IPv4 address %1 was recovered after %2 seconds of probation-period

This informational message indicates that the specified address was reported as duplicate (client sent DECLINE) and the server marked this address as unavailable for a period of time. This time now has elapsed and the address has been returned to the available pool. This step concludes the decline recovery process.

ALLOC_ENGINE_V4_DISCOVER_ADDRESS_CONFLICT

%1: conflicting reservation for address %2 with existing lease %3

This warning message is issued when the DHCP server finds that the address reserved for the client can't be offered because this address is currently allocated to another client. The server will try to allocate a different address to the client to use until the conflict is resolved. The first argument includes the client identification information.

ALLOC_ENGINE_V4_DISCOVER_HR

client %1 sending DHCPDISCOVER has reservation for the address %2

This message is issued when the allocation engine determines that the client sending the DHCPDISCOVER has a reservation for the specified address. The allocation engine will try to offer this address to the client.

ALLOC_ENGINE_V4_LEASES_RECLAMATION_COMPLETE

reclaimed %1 leases in %2

This debug message is logged when the allocation engine completes reclamation of a set of expired leases. The maximum number of leases to be reclaimed in a single pass of the lease reclamation routine is configurable using 'max-reclaim-leases' parameter. However, the number of reclaimed leases may also be limited by the timeout value, configured with 'max-reclaim-time'. The message includes the number of reclaimed leases and the total time.

ALLOC_ENGINE_V4_LEASES_RECLAMATION_SLOW

expired leases still exist after %1 reclamations

This warning message is issued when the server has been unable to reclaim all expired leases in a specified number of consecutive attempts. This indicates that the value of "reclaim-timer-wait-time" may be too high. However, if this is just a short burst of leases' expirations the value does not have to be modified and the server should deal with this in subsequent reclamation attempts. If this is a result of a permanent increase of the server load, the value of "reclaim-timer-wait-time" should be decreased, or the values of "max-reclaim-leases" and "max-reclaim-time" should be increased to allow processing more leases in a single cycle. Alternatively, these values may be set to 0 to remove the limitations on the number of leases and duration. However, this may result in longer periods of server's unresponsiveness to DHCP packets, while it processes the expired leases.

ALLOC_ENGINE_V4_LEASES_RECLAMATION_START

starting reclamation of expired leases (limit = %1 leases or %2 milliseconds)

This debug message is issued when the allocation engine starts the reclamation of the expired leases. The maximum number of leases to be reclaimed and the timeout is included in the message. If any of these values is 0, it means "unlimited".

ALLOC_ENGINE_V4_LEASES_RECLAMATION_TIMEOUT

timeout of %1 ms reached while reclaiming IPv4 leases

This debug message is issued when the allocation engine hits the timeout for performing reclamation of the expired leases. The reclamation will now be interrupted and all leases which haven't been reclaimed, because of the timeout, will be reclaimed when the next scheduled reclamation is started. The argument is the timeout value expressed in milliseconds.

ALLOC_ENGINE_V4_LEASE_RECLAIM

%1: reclaiming expired lease for address %2

This debug message is issued when the server begins reclamation of the expired DHCPv4 lease. The first argument specifies the client identification information. The second argument holds the leased IPv4 address.

ALLOC_ENGINE_V4_LEASE_RECLAMATION_FAILED

failed to reclaim the lease %1: %2

This error message is logged when the allocation engine fails to reclaim an expired lease. The reason for the failure is included in the message. The error may be triggered in the lease expiration hook or while performing the operation on the lease database.

ALLOC_ENGINE_V4_NO_MORE_EXPIRED_LEASES

all expired leases have been reclaimed

This debug message is issued when the server reclaims all expired DHCPv4 leases in the database.

ALLOC_ENGINE_V4_OFFER_EXISTING_LEASE

allocation engine will try to offer existing lease to the client %1

This message is issued when the allocation engine determines that the client has a lease in the lease database, it doesn't have reservation for any other lease, and the leased address is not reserved for any other client. The allocation engine will try to offer the same lease to the client.

ALLOC_ENGINE_V4_OFFER_NEW_LEASE

allocation engine will try to offer new lease to the client %1

This message is issued when the allocation engine will try to offer a new lease to the client. This is the case when the client doesn't have any existing lease, it has no reservation or the existing or reserved address is leased to another client. Also, the client didn't specify a hint, or the address in the hint is in use.

ALLOC_ENGINE_V4_OFFER_REQUESTED_LEASE

allocation engine will try to offer requested lease %1 to the client %2

This message is issued when the allocation engine will try to offer the lease specified in the hint. This situation may occur when: (a) client doesn't have any reservations, (b) client has reservation but the reserved address is leased to another client.

ALLOC_ENGINE_V4_RECLAIMED_LEASES_DELETE

begin deletion of reclaimed leases expired more than %1 seconds ago

This debug message is issued when the allocation engine begins deletion of the reclaimed leases which have expired more than a specified number of seconds ago. This operation is triggered periodically according to the "flush-reclaimed-timer-wait-time" parameter. The "hold-reclaimed-time" parameter defines a number of seconds for which the leases are stored before they are removed.

ALLOC_ENGINE_V4_RECLAIMED_LEASES_DELETE_COMPLETE

successfully deleted %1 expired-reclaimed leases

This debug message is issued when the server successfully deletes "expired-reclaimed" leases from the lease database. The number of deleted leases is included in the log message.

ALLOC_ENGINE_V4_RECLAIMED_LEASES_DELETE_FAILED

deletion of expired-reclaimed leases failed: %1

This error message is issued when the deletion of "expired-reclaimed" leases from the database failed. The error message is appended to the log message.

ALLOC_ENGINE_V4_REQUEST_ADDRESS_RESERVED

%1: requested address %2 is reserved

This message is issued when the allocation engine refused to allocate address requested by the client because this address is reserved for another client. The first argument includes the client identification information.

ALLOC_ENGINE_V4_REQUEST_ALLOC_REQUESTED

%1: trying to allocate requested address %2

This message is issued when the allocation engine is trying to allocate (or reuse an expired) address which has been requested by the client. The first argument includes the client identification information.

ALLOC_ENGINE_V4_REQUEST_EXTEND_LEASE

%1: extending lifetime of the lease for address %2

This message is issued when the allocation engine determines that the client already has a lease whose lifetime can be extended, and which can be returned to the client. The first argument includes the client identification information.

ALLOC_ENGINE_V4_REQUEST_INVALID

client %1 having a reservation for address %2 is requesting invalid address %3

This message is logged when the client, having a reservation for one address, is requesting a different address. The client is only allowed to do this when the reserved address is in use by another client. However, the allocation engine has determined that the reserved address is available and the client should request the reserved address.

ALLOC_ENGINE_V4_REQUEST_IN_USE

%1: requested address %2 is in use

This message is issued when the client is requesting or has a reservation for an address which is in use. The first argument includes the client identification information.

ALLOC_ENGINE_V4_REQUEST_OUT_OF_POOL

client %1, which doesn't have a reservation, requested address %2 out of the dynamic pool

This message is issued when the client has requested allocation of the address which doesn't belong to any address pool from which addresses are dynamically allocated. The client also doesn't have reservation for this address. This address could only be allocated if the client had reservation for it.

ALLOC_ENGINE_V4_REQUEST_PICK_ADDRESS

client %1 hasn't specified an address - picking available address from the pool

This message is logged when the client hasn't specified any preferred address (the client should always do it, but Kea tries to be forgiving). The allocation engine will try to pick an available address from the dynamic pool and allocate it to the client.

ALLOC_ENGINE_V4_REQUEST_REMOVE_LEASE

%1: removing previous client's lease %2

This message is logged when the allocation engine removes previous lease for the client because the client has been allocated new one.

ALLOC_ENGINE_V4_REQUEST_USE_HR

client %1 hasn't requested specific address, using reserved address %2

This message is issued when the client is not requesting any specific address but the allocation engine has determined that there is a reservation for this client. The allocation engine will try to allocate the reserved address.

ALLOC_ENGINE_V4_REUSE_EXPIRED_LEASE_DATA

%1: reusing expired lease, updated lease information: %2

This message is logged when the allocation engine is reusing an existing lease. The details of the updated lease are printed. The first argument includes the client identification information.

ALLOC_ENGINE_V6_ALLOC_ERROR

%1: error during attempt to allocate an IPv6 address: %2

An error occurred during an attempt to allocate an IPv6 address, the reason for the failure being contained in the message. The server will return a message to the client refusing a lease. The first argument includes the client identification information.

ALLOC_ENGINE_V6_ALLOC_FAIL

%1: failed to allocate an IPv6 lease after %2 attempt(s)

This is an old warning message issued when the allocation engine fails to allocate a lease for a client. This message includes a number of lease allocation attempts that the engine made before giving up. If the number of attempts is 0 because the engine was unable to use any of the pools for the particular client, this message is not logged. Even though, several more detailed logs precede this message, it was left for backward compatibility. This message may indicate that your pool is too small for the number of clients you are trying to service and should be expanded. Alternatively, if the you know that the number of concurrently active clients is less than the leases you have available, you may want to consider reducing the lease lifetime. This way, leases allocated to clients that are no longer active on the network will become available sooner.

ALLOC_ENGINE_V6_ALLOC_FAIL_CLASSES

%1: Failed to allocate an IPv6 address for client with classes: %2

This warning message is printed when Kea failed to allocate an address and the client's packet belongs to one or more classes. There may be several reasons why a lease was not assigned. One of them may be a case when all pools require packet to belong to certain classes and the incoming packet didn't belong to any of them. Another case where this information may be useful is to point out that the pool reserved to a given class has ran out of addresses. When you see this message, you may consider checking your pool size and your classification definitions.

ALLOC_ENGINE_V6_ALLOC_FAIL_NO_POOLS

%1: no pools were available for the lease allocation

This warning message is issued when the allocation engine fails to allocate a lease because it could not use any configured pools for the particular client. It is also possible that all of the subnets from which the allocation engine attempted to assign an address lack address pools. In this case, it should be considered misconfiguration if an operator expects that some clients should be assigned dynamic addresses. A subnet may lack any pools only when all clients should be assigned reserved leases. Suppose the subnets connected to a shared network or a single subnet to which the client belongs have pools configured. In that case, this message is an indication that none of the pools could be used for the client because the client does not belong to appropriate client classes.

ALLOC_ENGINE_V6_ALLOC_FAIL_SHARED_NETWORK

%1: failed to allocate a lease in the shared network %2: %3 subnets have no available leases, %4 subnets have no matching pools

This warning message is issued when the allocation engine fails to allocate a lease for a client connected to a shared network. The shared network should contain at least one subnet, but typically it aggregates multiple subnets. This log message indicates that the allocation engine could not find and allocate any suitable lease in any of the subnets within the shared network. The first argument includes the client identification information. The second argument specifies the shared network name. The remaining two arguments provide additional information useful for debugging why the allocation engine could not assign a lease. The allocation engine tries to allocate leases from different subnets in the shared network, and it may fail for some subnets because there are no leases available in those subnets or the free leases are reserved to other clients. The number of such subnets is specified in the third argument. For other subnets the allocation may fail because their pools may not be available to the particular client. These pools are guarded by client classes that the client does not belong to. The fourth argument specifies the number of such subnets. By looking at the values in the third and fourth argument, an operator can identify the situations when there are no leases left in some of the pools. He or she can also identify client classification misconfigurations causing some clients to be refused the service.

ALLOC_ENGINE_V6_ALLOC_FAIL_SUBNET

%1: failed to allocate an IPv6 lease in the subnet %2, subnet-id %3, shared network %4

This warning message is issued when the allocation engine fails to allocate a lease for a client connected to a subnet. The first argument includes the client identification information. The second and third arguments identify the subnet. The fourth argument specifies the shared network, if the subnet belongs to a shared network. There are many reasons for failing lease allocations. One of them may be the pools exhaustion or existing reservations for the free leases. However, in some cases, the allocation engine may fail to find a suitable pool for the client when the pools are only available to certain client classes, but the requesting client does not belong to them. Further log messages provide more information to distinguish between these different cases.

ALLOC_ENGINE_V6_ALLOC_HR_LEASE_EXISTS

%1: lease type %2 for reserved address/prefix %3 already exists

This debug message is issued when the allocation engine determines that the lease for the IPv6 address or prefix has already been allocated for the client and the client can continue using it. The first argument includes the client identification information.

ALLOC_ENGINE_V6_ALLOC_LEASES_HR

leases and static reservations found for client %1

This message is logged when the allocation engine is in the process of allocating leases for the client, it found existing leases and static reservations for the client. The allocation engine will verify if existing leases match reservations. Those leases that are reserved for other clients and those that are not reserved for the client will be removed. All leases matching the reservations will be renewed and returned.

ALLOC_ENGINE_V6_ALLOC_LEASES_NO_HR

no reservations found but leases exist for client %1

This message is logged when the allocation engine is in the process if allocating leases for the client, there are no static reservations, but lease(s) exist for the client. The allocation engine will remove leases which are reserved for other clients, and return all remaining leases to the client.

ALLOC_ENGINE_V6_ALLOC_NO_LEASES_HR

no leases found but reservations exist for client %1

This message is logged when the allocation engine is in the process of allocating leases for the client. It hasn't found any existing leases for this client, but the client appears to have static reservations. The allocation engine will try to allocate the reserved resources for the client.

ALLOC_ENGINE_V6_ALLOC_NO_V6_HR

%1: unable to allocate reserved leases - no IPv6 reservations

This message is logged when the allocation engine determines that the client has no IPv6 reservations and thus the allocation engine will have to try to allocate allocating leases from the dynamic pool or stop the allocation process if none can be allocated. The first argument includes the client identification information.

ALLOC_ENGINE_V6_ALLOC_UNRESERVED

no static reservations available - trying to dynamically allocate leases for client %1

This debug message is issued when the allocation engine will attempt to allocate leases from the dynamic pools. This may be due to one of (a) there are no reservations for this client, (b) there are reservations for the client but they are not usable because the addresses are in use by another client or (c) we had a reserved lease but that has now been allocated to another client.

ALLOC_ENGINE_V6_DECLINED_RECOVERED

IPv6 address %1 was recovered after %2 seconds of probation-period

This informational message indicates that the specified address was reported as duplicate (client sent DECLINE) and the server marked this address as unavailable for a period of time. This time now has elapsed and the address has been returned to the available pool. This step concludes the decline recovery process.

ALLOC_ENGINE_V6_EXPIRED_HINT_RESERVED

%1: expired lease for the client's hint %2 is reserved for another client

This message is logged when the allocation engine finds that the expired lease for the client's hint can't be reused because it is reserved for another client. The first argument includes the client identification information.

ALLOC_ENGINE_V6_EXTEND_ALLOC_UNRESERVED

allocate new (unreserved) leases for the renewing client %1

This debug message is issued when the allocation engine is trying to allocate new leases for the renewing client because it was unable to renew any of the existing client's leases, e.g. because leases are reserved for another client or for any other reason.

ALLOC_ENGINE_V6_EXTEND_ERROR

%1: allocation engine experienced error with attempting to extend lease lifetime: %2

This error message indicates that an error was experienced during Renew or Rebind processing. Additional explanation is provided with this message. Depending on its nature, manual intervention may be required to continue processing messages from this particular client; other clients will be unaffected. The first argument includes the client identification information.

ALLOC_ENGINE_V6_EXTEND_LEASE

%1: extending lifetime of the lease type %2, address %3

This debug message is issued when the allocation engine is trying to extend lifetime of the lease. The first argument includes the client identification information.

ALLOC_ENGINE_V6_EXTEND_LEASE_DATA

%1: detailed information about the lease being extended: %2

This debug message prints detailed information about the lease which lifetime is being extended (renew or rebind). The first argument includes the client identification information.

ALLOC_ENGINE_V6_EXTEND_NEW_LEASE_DATA

%1: new lease information for the lease being extended: %2

This debug message prints updated information about the lease to be extended. If the lease update is successful, the information printed by this message will be stored in the database. The first argument includes the client identification information.

ALLOC_ENGINE_V6_HINT_RESERVED

%1: lease for the client's hint %2 is reserved for another client

This message is logged when the allocation engine cannot allocate the lease using the client's hint because the lease for this hint is reserved for another client. The first argument includes the client identification information.

ALLOC_ENGINE_V6_HR_ADDR_GRANTED

reserved address %1 was assigned to client %2

This informational message signals that the specified client was assigned the address reserved for it.

ALLOC_ENGINE_V6_HR_PREFIX_GRANTED

reserved prefix %1/%2 was assigned to client %3

This informational message signals that the specified client was assigned the prefix reserved for it.

ALLOC_ENGINE_V6_LEASES_RECLAMATION_COMPLETE

reclaimed %1 leases in %2

This debug message is logged when the allocation engine completes reclamation of a set of expired leases. The maximum number of leases to be reclaimed in a single pass of the lease reclamation routine is configurable using 'max-reclaim-leases' parameter. However, the number of reclaimed leases may also be limited by the timeout value, configured with 'max-reclaim-time'. The message includes the number of reclaimed leases and the total time.

ALLOC_ENGINE_V6_LEASES_RECLAMATION_SLOW

expired leases still exist after %1 reclamations

This warning message is issued when the server has been unable to reclaim all expired leases in a specified number of consecutive attempts. This indicates that the value of "reclaim-timer-wait-time" may be too high. However, if this is just a short burst of leases' expirations the value does not have to be modified and the server should deal with this in subsequent reclamation attempts. If this is a result of a permanent increase of the server load, the value of "reclaim-timer-wait-time" should be decreased, or the values of "max-reclaim-leases" and "max-reclaim-time" should be increased to allow processing more leases in a single cycle. Alternatively, these values may be set to 0 to remove the limitations on the number of leases and duration. However, this may result in longer periods of server's unresponsiveness to DHCP packets, while it processes the expired leases.

ALLOC_ENGINE_V6_LEASES_RECLAMATION_START

starting reclamation of expired leases (limit = %1 leases or %2 milliseconds)

This debug message is issued when the allocation engine starts the reclamation of the expired leases. The maximum number of leases to be reclaimed and the timeout is included in the message. If any of these values is 0, it means "unlimited".

ALLOC_ENGINE_V6_LEASES_RECLAMATION_TIMEOUT

timeout of %1 ms reached while reclaiming IPv6 leases

This debug message is issued when the allocation engine hits the timeout for performing reclamation of the expired leases. The reclamation will now be interrupted and all leases which haven't been reclaimed, because of the timeout, will be reclaimed when the next scheduled reclamation is started. The argument is the timeout value expressed in milliseconds.

ALLOC_ENGINE_V6_LEASE_RECLAIM

%1: reclaiming expired lease for prefix %2/%3

This debug message is issued when the server begins reclamation of the expired DHCPv6 lease. The reclaimed lease may either be an address lease or delegated prefix. The first argument provides the client identification information. The other arguments specify the prefix and the prefix length for the lease. The prefix length for address lease is equal to 128.

ALLOC_ENGINE_V6_LEASE_RECLAMATION_FAILED

failed to reclaim the lease %1: %2

This error message is logged when the allocation engine fails to reclaim an expired lease. The reason for the failure is included in the message. The error may be triggered in the lease expiration hook or while performing the operation on the lease database.

ALLOC_ENGINE_V6_NO_MORE_EXPIRED_LEASES

all expired leases have been reclaimed

This debug message is issued when the server reclaims all expired DHCPv6 leases in the database.

ALLOC_ENGINE_V6_RECLAIMED_LEASES_DELETE

begin deletion of reclaimed leases expired more than %1 seconds ago

This debug message is issued when the allocation engine begins deletion of the reclaimed leases which have expired more than a specified number of seconds ago. This operation is triggered periodically according to the "flush-reclaimed-timer-wait-time" parameter. The "hold-reclaimed-time" parameter defines a number of seconds for which the leases are stored before they are removed.

ALLOC_ENGINE_V6_RECLAIMED_LEASES_DELETE_COMPLETE

successfully deleted %1 expired-reclaimed leases

This debug message is issued when the server successfully deletes "expired-reclaimed" leases from the lease database. The number of deleted leases is included in the log message.

ALLOC_ENGINE_V6_RECLAIMED_LEASES_DELETE_FAILED

deletion of expired-reclaimed leases failed: %1

This error message is issued when the deletion of "expired-reclaimed" leases from the database failed. The error message is appended to the log message.

ALLOC_ENGINE_V6_RENEW_HR

allocating leases reserved for the client %1 as a result of Renew

This debug message is issued when the allocation engine tries to allocate reserved leases for the client sending a Renew message. The server will also remove any leases that the client is trying to renew that are not reserved for the client.

ALLOC_ENGINE_V6_RENEW_REMOVE_RESERVED

%1: checking if existing client's leases are reserved for another client

This message is logged when the allocation engine finds leases for the client and will check if these leases are reserved for another client. If they are, they will not be renewed for the client requesting their renewal. The first argument includes the client identification information.

ALLOC_ENGINE_V6_RENEW_REMOVE_UNRESERVED

dynamically allocating leases for the renewing client %1

This debug message is issued as the allocation engine is trying to dynamically allocate new leases for the renewing client. This is the case when the server couldn't renew any of the existing client's leases, e.g. because leased resources are reserved for another client.

ALLOC_ENGINE_V6_REUSE_EXPIRED_LEASE_DATA

%1: reusing expired lease, updated lease information: %2

This message is logged when the allocation engine is reusing an existing lease. The details of the updated lease are printed. The first argument includes the client identification information.

ALLOC_ENGINE_V6_REVOKED_ADDR_LEASE

address %1 was revoked from client %2 as it is reserved for client %3

This informational message is an indication that the specified IPv6 address was used by client A but it is now reserved for client B. Client A has been told to stop using it so that it can be leased to client B. This is a normal occurrence during conflict resolution, which can occur in cases such as the system administrator adding a reservation for an address that is currently in use by another client. The server will fully recover from this situation, but clients will change their addresses.

ALLOC_ENGINE_V6_REVOKED_PREFIX_LEASE

prefix %1/%2 was revoked from client %3 as it is reserved for client %4

This informational message is an indication that the specified IPv6 prefix was used by client A but it is now reserved for client B. Client A has been told to stop using it so that it can be leased to client B. This is a normal occurrence during conflict resolution, which can occur in cases such as the system administrator adding a reservation for an address that is currently in use by another client. The server will fully recover from this situation, but clients will change their prefixes.

ALLOC_ENGINE_V6_REVOKED_SHARED_ADDR_LEASE

address %1 was revoked from client %2 as it is reserved for %3 other clients

This informational message is an indication that the specified IPv6 address was used by client A but it is now reserved for multiple other clients. Client A has been told to stop using it so that it can be leased to one of the clients having the reservation for it. This is a normal occurrence during conflict resolution, which can occur in cases such as the system administrator adding reservations for an address that is currently in use by another client. The server will fully recover from this situation, but clients will change their addresses.

CHAPTER 2

ASIODNS

ASIODNS_FD_ADD_TCP

adding a new TCP server by opened fd %1

A debug message informing about installing a file descriptor as a server. The file descriptor number is noted.

ASIODNS_FD_ADD_UDP

adding a new UDP server by opened fd %1

A debug message informing about installing a file descriptor as a server. The file descriptor number is noted.

ASIODNS_FETCH_COMPLETED

upstream fetch to %1(%2) has now completed

A debug message, this records that the upstream fetch (a query made by the resolver on behalf of its client) to the specified address has completed.

ASIODNS_FETCH_STOPPED

upstream fetch to %1(%2) has been stopped

An external component has requested the halting of an upstream fetch. This is an allowed operation, and the message should only appear if debug is enabled.

ASIODNS_OPEN_SOCKET

error %1 opening %2 socket to %3(%4)

The asynchronous I/O code encountered an error when trying to open a socket of the specified protocol in order to send a message to the target address. The number of the system error that caused the problem is given in the message.

ASIODNS_READ_DATA

error %1 reading %2 data from %3(%4)

The asynchronous I/O code encountered an error when trying to read data from the specified address on the given protocol. The number of the system error that caused the problem is given in the message.

ASIODNS_READ_TIMEOUT

receive timeout while waiting for data from %1(%2)

An upstream fetch from the specified address timed out. This may happen for any number of reasons and is most probably a problem at the remote server or a problem on the network. The message will only appear if debug is enabled.

ASIODNS_SEND_DATA

error %1 sending data using %2 to %3(%4)

The asynchronous I/O code encountered an error when trying to send data to the specified address on the given protocol. The number of the system error that caused the problem is given in the message.

ASIODNS_SYNC_UDP_CLOSE_FAIL

failed to close a DNS/UDP socket: %1

This is the same to ASIODNS_UDP_CLOSE_FAIL but happens on the "synchronous UDP server", mainly used for the authoritative DNS server daemon.

ASIODNS_TCP_ACCEPT_FAIL

failed to accept TCP DNS connection: %1

Accepting a TCP connection from a DNS client failed due to an error that could happen but should be rare. The reason for the error is included in the log message. The server still keeps accepting new connections, so unless it happens often it's probably okay to ignore this error. If the shown error indicates something like "too many open files", it's probably because the run time environment is too restrictive on this limitation, so consider adjusting the limit using a tool such as ulimit. If you see other types of errors too often, there may be something overlooked; please file a bug report in that case.

ASIODNS_TCP_CLEANUP_CLOSE_FAIL

failed to close a DNS/TCP socket on port cleanup: %1

A TCP DNS server tried to close a TCP socket (one created on accepting a new connection or is already unused) as a step of cleaning up the corresponding listening port, but it failed to do that. This is generally an unexpected event and so is logged as an error. See also the description of ASIODNS_TCP_CLOSE_ACCEPTOR_FAIL.

ASIODNS_TCP_CLOSE_ACCEPTOR_FAIL

failed to close listening TCP socket: %1

A TCP DNS server tried to close a listening TCP socket (for accepting new connections) as a step of cleaning up the corresponding listening port (e.g., on server shutdown or updating port configuration), but it failed to do that. This is generally an unexpected event and so is logged as an error. See ASIODNS_TCP_CLOSE_FAIL on the implication of related system resources.

ASIODNS_TCP_CLOSE_FAIL

failed to close DNS/TCP socket with a client: %1

A TCP DNS server tried to close a TCP socket used to communicate with a client, but it failed to do that. While closing a socket should normally be an error-free operation, there have been known cases where this happened with a "connection reset by peer" error. This might be because of some odd client behavior, such as sending a TCP RST after establishing the connection and before the server closes the socket, but how exactly this could happen seems to be system dependent (i.e, it's not part of the standard socket API), so it's difficult to provide a general explanation. In any case, it is believed that an error on closing a socket

doesn't mean leaking system resources (the kernel should clean up any internal resource related to the socket, just reporting an error detected in the close call), but, again, it seems to be system dependent. This message is logged at a debug level as it's known to happen and could be triggered by a remote node and it would be better to not be too verbose, but you might want to increase the log level and make sure there's no resource leak or other system level troubles when it's logged.

ASIODNS_TCP_CLOSE_NORESP_FAIL

failed to close DNS/TCP socket with a client: %1

A TCP DNS server tried to close a TCP socket used to communicate with a client without returning an answer (which normally happens for zone transfer requests), but it failed to do that. See ASIODNS_TCP_CLOSE_FAIL for more details.

ASIODNS_TCP_GETREMOTE_FAIL

failed to get remote address of a DNS TCP connection: %1

A TCP DNS server tried to get the address and port of a remote client on a connected socket but failed. It's expected to be rare but can still happen. See also ASIODNS_TCP_READLEN_FAIL.

ASIODNS_TCP_READDATA_FAIL

failed to get DNS data on a TCP socket: %1

A TCP DNS server tried to read a DNS message (that follows a 2-byte length field) but failed. It's expected to be rare but can still happen. See also ASIODNS_TCP_READLEN_FAIL.

ASIODNS_TCP_READLEN_FAIL

failed to get DNS data length on a TCP socket: %1

A TCP DNS server tried to get the length field of a DNS message (the first 2 bytes of a new chunk of data) but failed. This is generally expected to be rare but can still happen, e.g, due to an unexpected reset of the connection. A specific reason for the failure is included in the log message.

ASIODNS_TCP_WRITE_FAIL

failed to send DNS message over a TCP socket: %1

A TCP DNS server tried to send a DNS message to a remote client but failed. It's expected to be rare but can still happen. See also ASIODNS_TCP_READLEN_FAIL.

ASIODNS_UDP_ASYNC_SEND_FAIL

Error sending UDP packet to %1: %2

The low-level ASIO library reported an error when trying to send a UDP packet in asynchronous UDP mode. This can be any error reported by send_to(), and can indicate problems such as too high a load on the network, or a problem in the underlying library or system. This packet is dropped and will not be sent, but service should resume normally. If you see a single occurrence of this message, it probably does not indicate any significant problem, but if it is logged often, it is probably a good idea to inspect your network traffic.

ASIODNS_UDP_CLOSE_FAIL

failed to close a DNS/UDP socket: %1

A UDP DNS server tried to close its UDP socket, but failed to do that. This is generally an unexpected event and so is logged as an error.

ASIODNS_UDP_RECEIVE_FAIL

failed to receive UDP DNS packet: %1

Receiving a UDP packet from a DNS client failed due to an error that could happen but should be very rare. The server still keeps receiving UDP packets on this socket. The reason for the error is included in the log message. This log message is basically not expected to appear at all in practice; if it does, there may be some system level failure and other system logs may have to be checked.

ASIODNS_UDP_SYNC_RECEIVE_FAIL

failed to receive UDP DNS packet: %1

This is the same to ASIODNS_UDP_RECEIVE_FAIL but happens on the "synchronous UDP server", mainly used for the authoritative DNS server daemon.

ASIODNS_UDP_SYNC_SEND_FAIL

Error sending UDP packet to %1: %2

The low-level ASIO library reported an error when trying to send a UDP packet in synchronous UDP mode. See ASIODNS_UDP_ASYNC_SEND_FAIL for more information.

ASIODNS_UNKNOWN_ORIGIN

unknown origin for ASIO error code %1 (protocol: %2, address %3)

An internal consistency check on the origin of a message from the asynchronous I/O module failed. This may indicate an internal error; please submit a bug report.

CHAPTER 3

BOOTP

BOOTP_BOOTP_QUERY

recognized a BOOTP query: %1

This debug message is printed when the BOOTP query was recognized. The BOOTP client class was added and the message type set to DHCPREQUEST. The query client and transaction identification are displayed.

BOOTP_LOAD

Bootp hooks library has been loaded

This info message indicates that the Bootp hooks library has been loaded.

BOOTP_PACKET_OPTIONS_SKIPPED

an error unpacking an option, caused subsequent options to be skipped: %1

A debug message issued when an option failed to unpack correctly, making it impossible to unpack the remaining options in the DHCPv4 query. The server will still attempt to service the packet. The sole argument provides a reason for unpacking error.

BOOTP_PACKET_PACK

%1: preparing on-wire format of the packet to be sent

This debug message is issued when the server starts preparing the on-wire format of the packet to be sent back to the client. The argument specifies the client and the transaction identification information.

BOOTP_PACKET_PACK_FAIL

%1: preparing on-wire-format of the packet to be sent failed %2

This error message is issued when preparing an on-wire format of the packet has failed. The first argument identifies the client and the BOOTP transaction. The second argument includes the error string.

BOOTP_PACKET_UNPACK_FAILED

failed to parse query from %1 to %2, received over interface %3, reason: %4

This debug message is issued when received DHCPv4 query is malformed and can't be parsed by the buffer4_receive callout. The query will be dropped by the server. The first three arguments specify source IP address, destination IP address and the interface. The last argument provides a reason for failure.

CHAPTER 4

COMMAND

COMMAND_ACCEPTOR_START

Starting to accept connections via unix domain socket bound to %1

This informational message is issued when the Kea server starts an acceptor via which it is going to accept new control connections. The acceptor is bound to the endpoint associated with the filename provided as an argument. If starting the acceptor fails, subsequent error messages will provide a reason for failure.

COMMAND_DEREGISTERED

Command %1 deregistered

This debug message indicates that the daemon stopped supporting specified command. This command can no longer be issued. If the command socket is open and this command is issued, the daemon will not be able to process it.

COMMAND_EXTENDED_REGISTERED

Command %1 registered

This debug message indicates that the daemon started supporting specified command. The handler for the registered command includes a parameter holding entire command to be processed.

COMMAND_HTTP_LISTENER_COMMAND_REJECTED

Command HTTP listener rejected command '%1' from '%2'

This debug messages is issued when a command is rejected. Arguments detail the command and the address the request was received from.

COMMAND_HTTP_LISTENER_STARTED

Command HTTP listener started with %1 threads, listening on %2:%3, use TLS: %4

This debug messages is issued when an HTTP listener has been started to accept connections from Command API clients through which commands can be received and responses sent. Arguments detail the number of threads that the listener is using, the address and port at which it is listening, and if HTTPS/TLS is used or not.

COMMAND_HTTP_LISTENER_STOPPED

Command HTTP listener for %1:%2 stopped.

This debug messages is issued when the Command HTTP listener, listening at the given address and port, has completed shutdown.

COMMAND_HTTP_LISTENER_STOPPING

Stopping Command HTTP listener for %1:%2

This debug messages is issued when the Command HTTP listener, listening at the given address and port, has begun to shutdown.

COMMAND_PROCESS_ERROR1

Error while processing command: %1

This warning message indicates that the server encountered an error while processing received command. Additional information will be provided, if available. Additional log messages may provide more details.

COMMAND_PROCESS_ERROR2

Error while processing command: %1

This warning message indicates that the server encountered an error while processing received command. The difference, compared to COMMAND_PROCESS_ERROR1 is that the initial command was well formed and the error occurred during logic processing, not the command parsing. Additional information will be provided, if available. Additional log messages may provide more details.

COMMAND_RECEIVED

Received command '%1'

This informational message indicates that a command was received over command socket. The nature of this command and its possible results will be logged with separate messages.

COMMAND_REGISTERED

Command %1 registered

This debug message indicates that the daemon started supporting specified command. If the command socket is open, this command can now be issued.

COMMAND_RESPONSE_ERROR

Server failed to generate response for command: %1

This error message indicates that the server failed to generate response for specified command. This likely indicates a server logic error, as the server is expected to generate valid responses for all commands, even malformed ones.

COMMAND_SOCKET_ACCEPT_FAIL

Failed to accept incoming connection on command socket %1: %2

This error indicates that the server detected incoming connection and executed accept system call on said socket, but this call returned an error. Additional information may be provided by the system as second parameter.

COMMAND_SOCKET_CLOSED_BY_FOREIGN_HOST

Closed command socket %1 by foreign host, %2

This is an information message indicating that the command connection has been closed by a command control client, and whether or not any partially read data was discarded.

COMMAND_SOCKET_CONNECTION_CANCEL_FAIL

Failed to cancel read operation on socket %1: %2

This error message is issued to indicate an error to cancel asynchronous read of the control command over the control socket. The cancel operation is performed when the timeout occurs during communication with a client. The error message includes details about the reason for failure.

COMMAND_SOCKET_CONNECTION_CLOSED

Closed socket %1 for existing command connection

This is a debug message indicating that the socket created for handling client's connection is closed. This usually means that the client disconnected, but may also mean a timeout.

COMMAND_SOCKET_CONNECTION_CLOSE_FAIL

Failed to close command connection: %1

This error message is issued when an error occurred when closing a command connection and/or removing it from the connections pool. The detailed error is provided as an argument.

COMMAND_SOCKET_CONNECTION_OPENED

Opened socket %1 for incoming command connection

This is a debug message indicating that a new incoming command connection was detected and a dedicated socket was opened for that connection.

COMMAND_SOCKET_CONNECTION_SHUTDOWN_FAIL

Encountered error %1 while trying to gracefully shutdown socket

This message indicates an error while trying to gracefully shutdown command connection. The type of the error is included in the message.

COMMAND_SOCKET_CONNECTION_TIMEOUT

Timeout occurred for connection over socket %1

This is an informational message that indicates that the timeout has occurred for one of the command channel connections. The response sent by the server indicates a timeout and is then closed.

COMMAND_SOCKET_READ

Received %1 bytes over command socket %2

This debug message indicates that specified number of bytes was received over command socket identified by specified file descriptor.

COMMAND_SOCKET_READ_FAIL

Encountered error %1 while reading from command socket %2

This error message indicates that an error was encountered while reading from command socket.

COMMAND_SOCKET_WRITE

Sent response of %1 bytes (%2 bytes left to send) over command socket %3

This debug message indicates that the specified number of bytes was sent over command socket identifier by the specified file descriptor.

COMMAND_SOCKET_WRITE_FAIL

Error while writing to command socket %1 : %2

This error message indicates that an error was encountered while attempting to send a response to the command socket.

COMMAND_WATCH_SOCKET_CLEAR_ERROR

watch socket failed to clear: %1

This error message is issued when the command manager was unable to reset the ready status after completing a send. This is a programmatic error that should be reported. The command manager may or may not continue to operate correctly.

COMMAND_WATCH_SOCKET_CLOSE_ERROR

watch socket failed to close: %1

This error message is issued when command manager attempted to close the socket used for indicating the ready status for send operations. This should not have any negative impact on the operation of the command manager as it happens when the connection is being terminated.

CHAPTER 5

CTRL

CTRL_AGENT_COMMAND_FORWARDED

command %1 successfully forwarded to the service %2 from remote address %3

This informational message is issued when the CA successfully forwards the control message to the specified Kea service and receives a response.

CTRL_AGENT_COMMAND_FORWARD_BEGIN

begin forwarding command %1 to service %2

This debug message is issued when the Control Agent starts forwarding a received command to one of the Kea servers.

CTRL_AGENT_COMMAND_FORWARD_FAILED

failed forwarding command %1: %2

This debug message is issued when the Control Agent failed forwarding a received command to one of the Kea servers. The second argument provides the details of the error.

CTRL_AGENT_COMMAND_RECEIVED

command %1 received from remote address %2

This informational message is issued when the CA receives a control message, whether it is destined to the control agent itself, or to be forwarded on.

CTRL_AGENT_CONFIG_CHECK_FAIL

Control Agent configuration check failed: %1

This error message indicates that the CA had failed configuration check. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

CTRL_AGENT_CONFIG_FAIL

Control Agent configuration failed: %1

This error message indicates that the CA had failed configuration attempt. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

CTRL_AGENT_CONFIG_SYNTAX_WARNING

Control Agent configuration syntax warning: %1

This warning message indicates that the CA configuration had a minor syntax error. The error was displayed and the configuration parsing resumed.

CTRL_AGENT_FAILED

application experienced a fatal error: %1

This is a fatal error message issued when the Control Agent application encounters an unrecoverable error from within the event loop.

CTRL_AGENT_HTTPS_SERVICE_STARTED

HTTPS service bound to address %1:%2

This informational message indicates that the server has started HTTPS service on the specified address and port. All control commands should be sent to this address and port over a TLS channel.

CTRL_AGENT_HTTP_SERVICE_STARTED

HTTP service bound to address %1:%2

This informational message indicates that the server has started HTTP service on the specified address and port. All control commands should be sent to this address and port.

CTRL_AGENT_RUN_EXIT

application is exiting the event loop

This is a debug message issued when the Control Agent exits its event loop.

CHAPTER 6

DATABASE

DATABASE_INVALID_ACCESS

invalid database access string: %1

> This is logged when an attempt has been made to parse a database access string and the attempt ended in error. The access string in question - which should be of the form 'keyword=value keyword=value...' is included in the message.

DATABASE_MYSQL_COMMIT

committing to MySQL database

> The code has issued a commit call. All outstanding transactions will be committed to the database. Note that depending on the MySQL settings, the committal may not include a write to disk.

DATABASE_MYSQL_FATAL_ERROR

Unrecoverable MySQL error occurred: %1 for <%2>, reason: %3 (error code: %4).

> An error message indicating that communication with the MySQL database server has been lost. If automatic recovery has been enabled, then the server will attempt to recover connectivity. If not, then the server will exit with a non-zero exit code. The cause of such an error is most likely a network issue or the MySQL server has gone down.

DATABASE_MYSQL_ROLLBACK

rolling back MySQL database

> The code has issued a rollback call. All outstanding transaction will be rolled back and not committed to the database.

DATABASE_MYSQL_START_TRANSACTION

starting new MySQL transaction

> A debug message issued when a new MySQL transaction is being started. This message is typically not issued when inserting data into a single table because the server doesn't explicitly start transactions in this case. This message is issued when data is inserted into multiple tables with multiple INSERT statements and there may be a need to rollback the whole transaction if any of these INSERT statements fail.

DATABASE_PGSQL_COMMIT

committing to PostgreSQL database

The code has issued a commit call. All outstanding transactions will be committed to the database. Note that depending on the PostgreSQL settings, the committal may not include a write to disk.

DATABASE_PGSQL_CREATE_SAVEPOINT

creating a new PostgreSQL savepoint: %1

The code is issuing a call to create a savepoint within the current transaction. Database modifications made up to this point will be preserved should a subsequent call to rollback to this savepoint occurs prior to the transaction being committed.

DATABASE_PGSQL_DEALLOC_ERROR

An error occurred deallocating SQL statements while closing the PostgreSQL lease database: %1

This is an error message issued when a DHCP server (either V4 or V6) experienced and error freeing database SQL resources as part of closing its connection to the PostgreSQL database. The connection is closed as part of normal server shutdown. This error is most likely a programmatic issue that is highly unlikely to occur or negatively impact server operation.

DATABASE_PGSQL_FATAL_ERROR

Unrecoverable PostgreSQL error occurred: Statement: <%1>, reason: %2 (error code: %3).

An error message indicating that communication with the PostgreSQL database server has been lost. If automatic recovery has been enabled, then the server will attempt to recover the connectivity. If not, then the server will exit with a non-zero exit code. The cause of such an error is most likely a network issue or the PostgreSQL server has gone down.

DATABASE_PGSQL_ROLLBACK

rolling back PostgreSQL database

The code has issued a rollback call. All outstanding transaction will be rolled back and not committed to the database.

DATABASE_PGSQL_ROLLBACK_SAVEPOINT

rolling back PostgreSQL database to savepoint: $1

The code is issuing a call to rollback to the given savepoint. Any database modifications that were made after the savepoint was created will be rolled back and not committed to the database.

DATABASE_PGSQL_START_TRANSACTION

starting a new PostgreSQL transaction

A debug message issued when a new PostgreSQL transaction is being started. This message is typically not issued when inserting data into a single table because the server doesn't explicitly start transactions in this case. This message is issued when data is inserted into multiple tables with multiple INSERT statements and there may be a need to rollback the whole transaction if any of these INSERT statements fail.

CHAPTER 7

DCTL

DCTL_ALREADY_RUNNING

%1 already running? %2

This is an error message that occurs when a module encounters a pre-existing PID file which contains the PID of a running process. This most likely indicates an attempt to start a second instance of a module using the same configuration file. It is possible, though unlikely, that the PID file is a remnant left behind by a server crash or power failure and the PID it contains refers to a process other than Kea process. In such an event, it would be necessary to manually remove the PID file. The first argument is the process name, the second contains the PID and PID file.

DCTL_CCSESSION_ENDING

%1 ending control channel session

This debug message is issued just before the controller attempts to disconnect from its session with the Kea control channel.

DCTL_CFG_FILE_RELOAD_ERROR

configuration reload failed: %1, reverting to current configuration.

This is an error message indicating that the application attempted to reload its configuration from file and encountered an error. This is likely due to invalid content in the configuration file. The application should continue to operate under its current configuration.

DCTL_CFG_FILE_RELOAD_SIGNAL_RECVD

OS signal %1 received, reloading configuration from file: %2

This is an informational message indicating the application has received a signal instructing it to reload its configuration from file.

DCTL_COMMAND_RECEIVED

%1 received command: %2, arguments: %3

A debug message listing the command (and possible arguments) received from the Kea control system by the controller.

DCTL_CONFIG_CHECK_COMPLETE

server has completed configuration check: %1, result: %2

This is an informational message announcing the successful processing of a new configuration check is complete. The result of that check is printed. This informational message is printed when configuration check is requested.

DCTL_CONFIG_COMPLETE

server has completed configuration: %1

This is an informational message announcing the successful processing of a new configuration. It is output during server startup, and when an updated configuration is committed by the administrator. Additional information may be provided.

DCTL_CONFIG_DEPRECATED

server configuration includes a deprecated object: %1

This error message is issued when the configuration includes a deprecated object (i.e. a top level element) which will be ignored.

DCTL_CONFIG_FETCH

Fetching configuration data from config backends.

This is an informational message emitted when the Kea server is about to begin retrieving configuration data from one or more configuration backends.

DCTL_CONFIG_FILE_LOAD_FAIL

%1 reason: %2

This fatal error message indicates that the application attempted to load its initial configuration from file and has failed. The service will exit.

DCTL_CONFIG_LOAD_FAIL

%1 configuration failed to load: %2

This critical error message indicates that the initial application configuration has failed. The service will start, but will not process requests until the configuration has been corrected.

DCTL_CONFIG_START

parsing new configuration: %1

A debug message indicating that the application process has received an updated configuration and has passed it to its configuration manager for parsing.

DCTL_CONFIG_STUB

%1 configuration stub handler called

This debug message is issued when the dummy handler for configuration events is called. This only happens during initial startup.

DCTL_CONFIG_UPDATE

%1 updated configuration received: %2

A debug message indicating that the controller has received an updated configuration from the Kea configuration system.

DCTL_DEVELOPMENT_VERSION

This software is a development branch of Kea. It is not recommended for production use.

This warning message is displayed when the version is a development (vs stable) one: the second number of the version is odd.

DCTL_INIT_PROCESS

%1 initializing the application

This debug message is issued just before the controller attempts to create and initialize its application instance.

DCTL_INIT_PROCESS_FAIL

%1 application initialization failed: %2

This error message is issued if the controller could not initialize the application and will exit.

DCTL_NOT_RUNNING

%1 application instance is not running

A warning message is issued when an attempt is made to shut down the application when it is not running.

DCTL_OPEN_CONFIG_DB

Opening configuration database: %1

This message is printed when the Kea server is attempting to open a configuration database. The database access string with password redacted is logged.

DCTL_PARSER_FAIL

: %1

On receipt of a new configuration, the server failed to create a parser to decode the contents of the named configuration element, or the creation succeeded but the parsing actions and committal of changes failed. The reason for the failure is given in the message.

DCTL_PID_FILE_ERROR

%1 could not create a PID file: %2

This is an error message that occurs when the server is unable to create its PID file. The log message should contain details sufficient to determine the underlying cause. The most likely culprits are that some portion of the pathname does not exist or a permissions issue. The default path is determined by –localstatedir or –runstatedir configure parameters but may be overridden by setting environment variable, KEA_PIDFILE_DIR. The first argument is the process name.

DCTL_PROCESS_FAILED

%1 application execution failed: %2

The controller has encountered a fatal error while running the application and is terminating. The reason for the failure is included in the message.

DCTL_RUN_PROCESS

%1 starting application event loop

This debug message is issued just before the controller invokes the application run method.

DCTL_SESSION_FAIL

%1 controller failed to establish Kea session: %1

The controller has failed to establish communication with the rest of Kea and will exit.

DCTL_SHUTDOWN

%1 has shut down, pid: %2, version: %3

This is an informational message indicating that the service has shut down. The argument specifies a name of the service.

DCTL_SHUTDOWN_SIGNAL_RECVD

OS signal %1 received, starting shutdown

This is a debug message indicating the application has received a signal instructing it to shutdown.

DCTL_STANDALONE

%1 skipping message queue, running standalone

This is a debug message indicating that the controller is running in the application in standalone mode. This means it will not connected to the Kea message queue. Standalone mode is only useful during program development, and should not be used in a production environment.

DCTL_STARTING

%1 starting, pid: %2, version: %3 (%4)

This is an informational message issued when controller for the service first starts. Version is also reported.

DCTL_UNLOAD_LIBRARIES_ERROR

error unloading hooks libraries during shutdown: %1

This error message indicates that during shutdown, unloading hooks libraries failed to close them. If the list of libraries is empty it is a programmatic error in the server code. If it is not empty it could be a programmatic error in one of the hooks libraries which could lead to a crash during finalization.

CHAPTER 8

DHCP4

DHCP4_ACTIVATE_INTERFACE

activating interface %1

This message is printed when DHCPv4 server enabled an interface to be used to receive DHCPv4 traffic. IPv4 socket on this interface will be opened once Interface Manager starts up procedure of opening sockets.

DHCP4_ALREADY_RUNNING

%1 already running? %2

This is an error message that occurs when the DHCPv4 server encounters a pre-existing PID file which contains the PID of a running process. This most likely indicates an attempt to start a second instance of the server using the same configuration file. It is possible, though unlikely that the PID file is a remnant left behind by a server crash or power failure and the PID it contains refers to a process other than the server. In such an event, it would be necessary to manually remove the PID file. The first argument is the DHCPv4 process name, the second contains the PID and PID file.

DHCP4_BUFFER_RECEIVED

received buffer from %1:%2 to %3:%4 over interface %5

This debug message is logged when the server has received a packet over the socket. When the message is logged the contents of the received packet hasn't been parsed yet. The only available information is the interface and the source and destination IPv4 addresses/ports.

DHCP4_BUFFER_RECEIVE_FAIL

error on attempt to receive packet: %1

The DHCPv4 server tried to receive a packet but an error occurred during this attempt. The reason for the error is included in the message.

DHCP4_BUFFER_UNPACK

parsing buffer received from %1 to %2 over interface %3

This debug message is issued when the server starts parsing the received buffer holding the DHCPv4 message. The arguments specify the source and destination IPv4 addresses as well as the interface over which the buffer has been received.

DHCP4_BUFFER_WAIT_SIGNAL

signal received while waiting for next packet

This debug message is issued when the server was waiting for the packet, but the wait has been interrupted by the signal received by the process. The signal will be handled before the server starts waiting for next packets.

DHCP4_CB_ON_DEMAND_FETCH_UPDATES_FAIL

error on demand attempt to fetch configuration updates from the configuration backend(s): %1

This error message is issued when the server attempted to fetch configuration updates from the database and this on demand attempt failed. The sole argument which is returned to the config-backend-pull command caller too contains the reason for failure.

DHCP4_CB_PERIODIC_FETCH_UPDATES_FAIL

error on periodic attempt to fetch configuration updates from the configuration backend(s): %1

This error message is issued when the server attempted to fetch configuration updates from the database and this periodic attempt failed. The server will re-try according to the configured value of the config-fetch-wait-time parameter. The sole argument contains the reason for failure.

DHCP4_CB_PERIODIC_FETCH_UPDATES_RETRIES_EXHAUSTED

maximum number of configuration fetch attempts: 10, has been exhausted without success

This error indicates that the server has made a number of unsuccessful periodic attempts to fetch configuration updates from a configuration backend. The server will continue to operate but won't make any further attempts to fetch configuration updates. The administrator must fix the configuration in the database and reload (or restart) the server.

DHCP4_CLASS_ASSIGNED

%1: client packet has been assigned to the following class(es): %2

This debug message informs that incoming packet has been assigned to specified class or classes. This is a normal behavior and indicates successful operation. The first argument specifies the client and transaction identification information. The second argument includes all classes to which the packet has been assigned.

DHCP4_CLASS_UNCONFIGURED

%1: client packet belongs to an unconfigured class: %2

This debug message informs that incoming packet belongs to a class which cannot be found in the configuration. Either a hook written before the classification was added to Kea is used, or class naming is inconsistent.

DHCP4_CLASS_UNDEFINED

required class %1 has no definition

This debug message informs that a class is listed for required evaluation but has no definition.

DHCP4_CLASS_UNTESTABLE

required class %1 has no test expression

This debug message informs that a class was listed for required evaluation but its definition does not include a test expression to evaluate.

DHCP4_CLIENTID_IGNORED_FOR_LEASES

%1: not using client identifier for lease allocation for subnet %2

This debug message is issued when the server is processing the DHCPv4 message for which client identifier will not be used when allocating new lease or renewing existing lease. The server is explicitly configured to not use client identifier to lookup existing leases for the client and will not record client identifier in the lease database. This mode of operation is useful when clients don't use stable client identifiers, e.g. multi stage booting. The first argument includes the client and transaction identification information. The second argument specifies the identifier of the subnet where the client is connected and for which this mode of operation is configured on the server.

DHCP4_CLIENT_FQDN_DATA

%1: Client sent FQDN option: %2

This debug message includes the detailed information extracted from the Client FQDN option sent in the query. The first argument includes the client and transaction identification information. The second argument specifies the detailed information about the FQDN option received by the server.

DHCP4_CLIENT_FQDN_PROCESS

%1: processing Client FQDN option

This debug message is issued when the server starts processing the Client FQDN option sent in the client's query. The argument includes the client and transaction identification information.

DHCP4_CLIENT_HOSTNAME_DATA

%1: client sent Hostname option: %2

This debug message includes the detailed information extracted from the Hostname option sent in the query. The first argument includes the client and transaction identification information. The second argument specifies the hostname carried in the Hostname option sent by the client.

DHCP4_CLIENT_HOSTNAME_MALFORMED

%1: client hostname option malformed: %2

This debug message is issued when the DHCP server was unable to process the the hostname option sent by the client because the content is malformed. The first argument includes the client and transaction identification information. The second argument contains a description of the data error.

DHCP4_CLIENT_HOSTNAME_PROCESS

%1: processing client's Hostname option

This debug message is issued when the server starts processing the Hostname option sent in the client's query. The argument includes the client and transaction identification information.

DHCP4_CLIENT_NAME_PROC_FAIL

%1: failed to process the fqdn or hostname sent by a client: %2

This debug message is issued when the DHCP server was unable to process the FQDN or Hostname option sent by a client. This is likely because the client's name was malformed or due to internal server error. The first argument contains the client and transaction identification information. The second argument holds the detailed description of the error.

DHCP4_COMMAND_RECEIVED

received command %1, arguments: %2

A debug message listing the command (and possible arguments) received from the Kea control system by the DHCPv4 server.

DHCP4_CONFIG_COMPLETE

DHCPv4 server has completed configuration: %1

This is an informational message announcing the successful processing of a new configuration. It is output during server startup, and when an updated configuration is committed by the administrator. Additional information may be provided.

DHCP4_CONFIG_FETCH

Fetching configuration data from config backends.

This is an informational message emitted when the DHCPv4 server about to begin retrieving configuration data from one or more configuration backends.

DHCP4_CONFIG_LOAD_FAIL

configuration error using file: %1, reason: %2

This error message indicates that the DHCPv4 configuration has failed. If this is an initial configuration (during server's startup) the server will fail to start. If this is a dynamic reconfiguration attempt the server will continue to use an old configuration.

DHCP4_CONFIG_NEW_SUBNET

a new subnet has been added to configuration: %1

This is an informational message reporting that the configuration has been extended to include the specified IPv4 subnet.

DHCP4_CONFIG_OPTION_DUPLICATE

multiple options with the code %1 added to the subnet %2

This warning message is issued on an attempt to configure multiple options with the same option code for a particular subnet. Adding multiple options is uncommon for DHCPv4, but is not prohibited.

DHCP4_CONFIG_PACKET_QUEUE

DHCPv4 packet queue info after configuration: %1

This informational message is emitted during DHCPv4 server configuration, immediately after configuring the DHCPv4 packet queue. The information shown depends upon the packet queue type selected.

DHCP4_CONFIG_RECEIVED

received configuration %1

A debug message listing the configuration received by the DHCPv4 server. The source of that configuration depends on used configuration backend.

DHCP4_CONFIG_START

DHCPv4 server is processing the following configuration: %1

This is a debug message that is issued every time the server receives a configuration. That happens at start up and also when a server configuration change is committed by the administrator.

DHCP4_CONFIG_SYNTAX_WARNING

configuration syntax warning: %1

This warning message indicates that the DHCPv4 configuration had a minor syntax error. The error was displayed and the configuration parsing resumed.

DHCP4_CONFIG_UNRECOVERABLE_ERROR

DHCPv4 server new configuration failed with an error which cannot be recovered

This fatal error message is issued when a new configuration raised an error which cannot be recovered. A correct configuration must be applied as soon as possible as the server is no longer working. The configuration can be fixed in several ways. If the control channel is open, config-set with a valid configuration can be used. Alternatively, the original config file on disk could be fixed and SIGHUP signal could be sent (or the config-reload command issued). Finally, the server could be restarted completely.

DHCP4_CONFIG_UNSUPPORTED_OBJECT

DHCPv4 server configuration includes an unsupported object: %1

This error message is issued when the configuration includes an unsupported object (i.e. a top level element).

DHCP4_CONFIG_UPDATE

updated configuration received: %1

A debug message indicating that the DHCPv4 server has received an updated configuration from the Kea configuration system.

DHCP4_DB_RECONNECT_DISABLED

database reconnect is disabled: max-reconnect-tries %1, reconnect-wait-time %2

This is an informational message indicating that connectivity to either the lease or host database or both and that automatic reconnect is not enabled.

DHCP4_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

This error indicates that the server failed to reconnect to the lease and/or host database(s) after making the maximum configured number of reconnect attempts. This might cause the server to shut down as specified in the configuration. Loss of connectivity is typically a network or database server issue.

DHCP4_DB_RECONNECT_LOST_CONNECTION

database connection lost.

This info message indicates that the connection has been lost and the dhcp service might have been disabled, as specified in the configuration, in order to try to recover the connection.

DHCP4_DB_RECONNECT_NO_DB_CTL

unexpected error in database reconnect

This is an error message indicating a programmatic error that should not occur. It prohibits the server from attempting to reconnect to its databases if connectivity is lost, and the server exits. This error should be reported.

DHCP4_DB_RECONNECT_SUCCEEDED

database connection recovered.

This info message indicates that the connection has been recovered and the dhcp service has been restored.

DHCP4_DDNS_REQUEST_SEND_FAILED

failed sending a request to kea-dhcp-ddns, error: %1, ncr: %2

This error message indicates that DHCP4 server attempted to send a DDNS update request to the DHCP-DDNS server. This is most likely a configuration or networking error.

DHCP4_DEACTIVATE_INTERFACE

deactivate interface %1

This message is printed when DHCPv4 server disables an interface from being used to receive DHCPv4 traffic. Sockets on this interface will not be opened by the Interface Manager until interface is enabled.

DHCP4_DECLINE_FAIL

%1: error on decline lease for address %2: %3

This error message indicates that the software failed to decline a lease from the lease database due to an error during a database operation. The first argument includes the client and the transaction identification information. The second argument holds the IPv4 address which decline was attempted. The last one contains the reason for failure.

DHCP4_DECLINE_LEASE

Received DHCPDECLINE for addr %1 from client %2. The lease will be unavailable for %3 seconds.

This informational message is printed when a client received an address, but discovered that it is being used by some other device and notified the server by sending a DHCPDECLINE message. The server checked that this address really was leased to the client and marked this address as unusable for a certain amount of time. This message may indicate a misconfiguration in a network, as there is either a buggy client or more likely a device that is using an address that it is not supposed to. The server will fully recover from this situation, but if the underlying problem of a misconfigured or rogue device is not solved, this address may be declined again in the future.

DHCP4_DECLINE_LEASE_MISMATCH

Received DHCPDECLINE for addr %1 from client %2, but the data doesn't match: received hwaddr: %3, lease hwaddr: %4, received client-id: %5, lease client-id: %6

This informational message means that a client attempted to report his address as declined (i.e. used by unknown entity). The server has information about a lease for that address, but the client's hardware address or client identifier does not match the server's stored information. The client's request will be ignored.

DHCP4_DECLINE_LEASE_NOT_FOUND

Received DHCPDECLINE for addr %1 from client %2, but no such lease found.

This warning message indicates that a client reported that his address was detected as a duplicate (i.e. another device in the network is using this address). However, the server does not have a record for this address. This may indicate a client's error or a server's purged database.

DHCP4_DEFERRED_OPTION_MISSING

can find deferred option code %1 in the query

This debug message is printed when a deferred option cannot be found in the query.

DHCP4_DEFERRED_OPTION_UNPACK_FAIL

An error unpacking the deferred option %1: %2

A debug message issued when deferred unpacking of an option failed, making it to be left unpacked in the packet. The first argument is the option code, the second the error.

DHCP4_DEVELOPMENT_VERSION

This software is a development branch of Kea. It is not recommended for production use.

This warning message is displayed when the version is a development (vs stable) one: the second number of the version is odd.

DHCP4_DHCP4O6_BAD_PACKET

received malformed DHCPv4o6 packet: %1

A malformed DHCPv4o6 packet was received.

DHCP4_DHCP4O6_PACKET_RECEIVED

received DHCPv4o6 packet from DHCPv4 server (type %1) for %2 on interface %3

This debug message is printed when the server is receiving a DHCPv4o6 from the DHCPv4 server over inter-process communication.

DHCP4_DHCP4O6_PACKET_SEND

%1: trying to send packet %2 (type %3) to %4 port %5 on interface %6 encapsulating %7: %8 (type %9)

The arguments specify the client identification information (HW address and client identifier), DHCPv6 message name and type, source IPv6 address and port, and interface name, DHCPv4 client identification, message name and type.

DHCP4_DHCP4O6_PACKET_SEND_FAIL

%1: failed to send DHCPv4o6 packet: %2

This error is output if the IPv4 DHCP server fails to send an DHCPv4o6 message to the IPv6 DHCP server. The reason for the error is included in the message.

DHCP4_DHCP4O6_RECEIVE_FAIL

failed to receive DHCPv4o6: %1

This debug message indicates the inter-process communication with the DHCPv6 server failed. The reason for the error is included in the message.

DHCP4_DHCP4O6_RECEIVING

receiving DHCPv4o6 packet from DHCPv6 server

This debug message is printed when the server is receiving a DHCPv4o6 from the DHCPv6 server over inter-process communication socket.

DHCP4_DHCP4O6_RESPONSE_DATA

%1: responding with packet %2 (type %3), packet details: %4

A debug message including the detailed data about the packet being sent to the DHCPv6 server to be forwarded to the client. The first argument contains the client and the transaction identification information. The second and third argument contains the packet name and type respectively. The fourth argument contains detailed packet information.

DHCP4_DYNAMIC_RECONFIGURATION

initiate server reconfiguration using file: %1, after receiving SIGHUP signal or config-reload command

This is the info message logged when the DHCPv4 server starts reconfiguration as a result of receiving SIGHUP signal or config-reload command.

DHCP4_DYNAMIC_RECONFIGURATION_FAIL

dynamic server reconfiguration failed with file: %1

This is a fatal error message logged when the dynamic reconfiguration of the DHCP server failed.

DHCP4_DYNAMIC_RECONFIGURATION_SUCCESS

dynamic server reconfiguration succeeded with file: %1

This is info message logged when the dynamic reconfiguration of the DHCP server succeeded.

DHCP4_EMPTY_HOSTNAME

%1: received empty hostname from the client, skipping processing of this option

This debug message is issued when the server received an empty Hostname option from a client. Server does not process empty Hostname options and therefore option is skipped. The argument holds the client and transaction identification information.

DHCP4_FLEX_ID

flexible identifier generated for incoming packet: %1

This debug message is printed when host reservation type is set to flexible identifier and the expression specified in its configuration generated (was evaluated to) an identifier for incoming packet. This debug message is mainly intended as a debugging assistance for flexible identifier.

DHCP4_GENERATE_FQDN

%1: client did not send a FQDN or hostname; FQDN will be generated for the client

This debug message is issued when the server did not receive a Hostname option from the client and hostname generation is enabled. This provides a means to create DNS entries for unsophisticated clients.

DHCP4_HANDLE_SIGNAL_EXCEPTION

An exception was thrown while handing signal: %1

This error message is printed when an ISC or standard exception was raised during signal processing. This likely indicates a coding error and should be reported to ISC.

DHCP4_HOOKS_LIBS_RELOAD_FAIL

reload of hooks libraries failed

A "libreload" command was issued to reload the hooks libraries but for some reason the reload failed. Other error messages issued from the hooks framework will indicate the nature of the problem.

DHCP4_HOOK_BUFFER_RCVD_DROP

received buffer from %1 to %2 over interface %3 was dropped because a callout set the drop flag

This debug message is printed when a callout installed on buffer4_receive hook point set the drop flag. For this particular hook point, the setting of the flag by a callout instructs the server to drop the packet. The arguments specify the source and destination IPv4 address as well as the name of the interface over which the buffer has been received.

DHCP4_HOOK_BUFFER_RCVD_SKIP

received buffer from %1 to %2 over interface %3 is not parsed because a callout set the next step to SKIP.

This debug message is printed when a callout installed on buffer4_receive hook point set the next step to SKIP. For this particular hook point, this value set by a callout instructs the server to not parse the buffer because it was already parsed by the hook. The arguments specify the source and destination IPv4 address as well as the name of the interface over which the buffer has been received.

DHCP4_HOOK_BUFFER_SEND_SKIP

%1: prepared response is dropped because a callout set the next step to SKIP.

This debug message is printed when a callout installed on buffer4_send hook point set the next step to SKIP. For this particular hook point, the SKIP value set by a callout instructs the server to drop the packet. Server completed all the processing (e.g. may have assigned, updated or released leases), but the response will not be send to the client.

DHCP4_HOOK_DDNS_UPDATE

A hook has updated the DDNS parameters: hostname %1=>%2, forward update %3=>%4, reverse update %5=>%6

This message indicates that there was a hook called on ddns4_update hook point and that hook updated the DDNS update parameters: hostname, or whether to conduct forward (A record) or reverse (PTR record) DDNS updates.

DHCP4_HOOK_DECLINE_SKIP

Decline4 hook callouts set status to DROP, ignoring packet.

This message indicates that the server received DHCPDECLINE message, it was verified to be correct and matching server's lease information. The server called hooks for decline4 hook point and one of the callouts set next step status to DROP. The server will now abort processing of the packet as if it was never received. The lease will continue to be assigned to this client.

DHCP4_HOOK_LEASE4_RELEASE_SKIP

%1: lease was not released because a callout set the next step to SKIP

This debug message is printed when a callout installed on lease4_release hook point set the next step status to SKIP. For this particular hook point, the value set by a callout instructs the server to not release a lease.

DHCP4_HOOK_LEASES4_COMMITTED_DROP

%1: packet is dropped, because a callout set the next step to DROP

This debug message is printed when a callout installed on the leases4_committed hook point sets the next step to DROP.

DHCP4_HOOK_LEASES4_COMMITTED_PARK

%1: packet is parked, because a callout set the next step to PARK

This debug message is printed when a callout installed on the leases4_committed hook point sets the next step to PARK.

DHCP4_HOOK_LEASES4_PARKING_LOT_FULL

The parked-packet-limit %1, has been reached, dropping query: %2

This debug message occurs when the parking lot used to hold client queries while hook library work for them completes has reached or exceeded the limit set by the parked-packet-limit global parameter. This can occur when kea-dhcp4 is using hook libraries (e.g. HA) that implement the "leases4-committed" callout and client queries are arriving faster than those callouts can fulfill them.

DHCP4_HOOK_PACKET_RCVD_SKIP

%1: packet is dropped, because a callout set the next step to SKIP

This debug message is printed when a callout installed on the pkt4_receive hook point sets the next step to SKIP. For this particular hook point, the value setting of the flag instructs the server to drop the packet.

DHCP4_HOOK_PACKET_SEND_DROP

%1: prepared DHCPv4 response was not sent because a callout set the next ste to DROP

This debug message is printed when a callout installed on the pkt4_send hook point set the next step to DROP. For this particular hook point, the setting of the value by a callout instructs the server to drop the packet. This effectively means that the client will not get any response, even though the server processed client's request and acted on it (e.g. possibly allocated a lease). The argument specifies the client and transaction identification information.

DHCP4_HOOK_PACKET_SEND_SKIP

%1: prepared response is not sent, because a callout set the next stp to SKIP

This debug message is printed when a callout installed on the pkt4_send hook point sets the next step to SKIP. For this particular hook point, this setting instructs the server to drop the packet. This means that the client will not get any response, even though the server processed client's request and acted on it (e.g. possibly allocated a lease).

DHCP4_HOOK_SUBNET4_SELECT_DROP

%1: packet was dropped, because a callout set the next step to 'drop'

This debug message is printed when a callout installed on the subnet4_select hook point sets the next step to 'drop' value. For this particular hook point, the setting to that value instructs the server to drop the received packet. The argument specifies the client and transaction identification information.

DHCP4_HOOK_SUBNET4_SELECT_SKIP

%1: no subnet was selected, because a callout set the next skip flag

This debug message is printed when a callout installed on the subnet4_select hook point sets the next step to SKIP value. For this particular hook point, the setting of the flag instructs the server not to choose a subnet, an action that severely limits further processing; the server will be only able to offer global options - no addresses will be assigned. The argument specifies the client and transaction identification information.

DHCP4_INFORM_DIRECT_REPLY

%1: DHCPACK in reply to the DHCPINFORM will be sent directly to %2 over %3

This debug message is issued when the DHCPACK will be sent directly to the client, rather than via a relay. The first argument contains the client and transaction identification information. The second argument contains the client's IPv4 address to which the response will be sent. The third argument contains the local interface name.

DHCP4_INIT_FAIL

failed to initialize Kea server: %1

The server has failed to initialize. This may be because the configuration was not successful, or it encountered any other critical error on startup. Attached error message provides more details about the issue.

DHCP4_INIT_REBOOT

%1: client is in INIT-REBOOT state and requests address %2

This informational message is issued when the client is in the INIT-REBOOT state and is requesting an IPv4 address it is using to be allocated for it. The first argument includes the client and transaction identification information. The second argument specifies the requested IPv4 address.

DHCP4_LEASE_ADVERT

%1: lease %2 will be advertised

This informational message indicates that the server has found the lease to be offered to the client. It is up to the client to choose one server out of those which offered leases and continue allocation with that server. The first argument specifies the client and the transaction identification information. The second argument specifies the IPv4 address to be offered.

DHCP4_LEASE_ALLOC

%1: lease %2 has been allocated for %3 seconds

This informational message indicates that the server successfully granted a lease in response to client's DHCPREQUEST message. The lease information will be sent to the client in the DHCPACK message. The first argument contains the client and the transaction identification information. The second argument contains the allocated IPv4 address. The third argument is the validity lifetime.

DHCP4_LEASE_REUSE

%1: lease %2 has been reused for %3 seconds

This informational message indicates that the server successfully reused a lease in response to client's message. The lease information will be sent to the client in the DHCPACK message. The first argument contains the client and the transaction identification information. The second argument contains the allocated IPv4 address. The third argument is the validity lifetime.

DHCP4_MULTI_THREADING_INFO

enabled: %1, number of threads: %2, queue size: %3

This is a message listing some information about the multi-threading parameters with which the server is running.

DHCP4_NCR_CREATION_FAILED

%1: failed to generate name change requests for DNS: %2

This message indicates that server was unable to generate NameChangeRequests which should be sent to the kea-dhcp_ddns module to create new DNS records for the lease being acquired or to update existing records for the renewed lease. The first argument contains the client and transaction identification information. The second argument includes the reason for the failure.

DHCP4_NOT_RUNNING

DHCPv4 server is not running

A warning message is issued when an attempt is made to shut down the DHCPv4 server but it is not running.

DHCP4_NO_LEASE_INIT_REBOOT

%1: no lease for address %2 requested by INIT-REBOOT client

This debug message is issued when the client being in the INIT-REBOOT state requested an IPv4 address but this client is unknown. The server will not respond. The first argument includes the client and the transaction id identification information. The second argument includes the IPv4 address requested by the client.

DHCP4_NO_SOCKETS_OPEN

no interface configured to listen to DHCP traffic

This warning message is issued when current server configuration specifies no interfaces that server should listen on, or specified interfaces are not configured to receive the traffic.

DHCP4_OPEN_CONFIG_DB

Opening configuration database: %1

This message is printed when the DHCPv4 server is attempting to open a configuration database. The database access string with password redacted is logged.

DHCP4_OPEN_SOCKET

opening service sockets on port %1

A debug message issued during startup, this indicates that the DHCPv4 server is about to open sockets on the specified port.

DHCP4_OPEN_SOCKETS_FAILED

maximum number of open service sockets attempts: %1, has been exhausted without success

This error indicates that the server failed to bind service sockets after making the maximum configured number of reconnect attempts. This might cause the server to shut down as specified in the configuration.

DHCP4_OPEN_SOCKETS_NO_RECONNECT_CTL

unexpected error in bind service sockets.

This is an error message indicating a programmatic error that should not occur. It prohibits the server from attempting to bind to its service sockets if they are unavailable, and the server exits. This error should be reported.

DHCP4_OPEN_SOCKET_FAIL

failed to open socket: %1

A warning message issued when IfaceMgr fails to open and bind a socket. The reason for the failure is appended as an argument of the log message.

DHCP4_PACKET_DROP_0001

failed to parse packet from %1 to %2, received over interface %3, reason: %4

The DHCPv4 server has received a packet that it is unable to interpret. The reason why the packet is invalid is included in the message.

DHCP4_PACKET_DROP_0002

%1, from interface %2: no suitable subnet configured for a direct client

This info message is logged when received a message from a directly connected client but there is no suitable subnet configured for the interface on which this message has been received. The IPv4 address assigned on this interface must belong to one of the configured subnets. Otherwise received message is dropped.

DHCP4_PACKET_DROP_0003

%1, from interface %2: it contains a foreign server identifier

This debug message is issued when received DHCPv4 message is dropped because it is addressed to a different server, i.e. a server identifier held by this message doesn't match the identifier used by our server. The arguments of this message hold the name of the transaction id and interface on which the message has been received.

DHCP4_PACKET_DROP_0004

%1, from interface %2: missing msg-type option

This is a debug message informing that incoming DHCPv4 packet did not have mandatory DHCP message type option and thus was dropped. The arguments specify the client and transaction identification information, as well as the interface on which the message has been received.

DHCP4_PACKET_DROP_0005

%1: unrecognized type %2 in option 53

This debug message indicates that the message type carried in DHCPv4 option 53 is unrecognized by the server. The valid message types are listed on the IANA website: http://www.iana.org/assignments/bootp-dhcp-parameters/bootp-dhcp-parameters.xhtml#message-type-53. The message will not be processed by the server. The arguments specify the client and transaction identification information, as well as the received message type.

DHCP4_PACKET_DROP_0006

%1: unsupported DHCPv4 message type %2

This debug message indicates that the message type carried in DHCPv4 option 53 is valid but the message will not be processed by the server. This includes messages being normally sent by the server to the client, such as DHCPOFFER, DHCPACK, DHCPNAK etc. The first argument specifies the client and transaction identification information. The second argument specifies the message type.

DHCP4_PACKET_DROP_0007

%1: failed to process packet: %2

This is a general catch-all message indicating that the processing of a received packet failed. The reason is given in the message. The server will not send a response but will instead ignore the packet. The first argument contains the client and transaction identification information. The second argument includes the details of the error.

DHCP4_PACKET_DROP_0008

%1: DHCP service is globally disabled

This debug message is issued when a packet is dropped because the DHCP service has been temporarily disabled. This affects all received DHCP packets. The service may be enabled by the "dhcp-enable" control command or automatically after a specified amount of time since receiving "dhcp-disable" command.

DHCP4_PACKET_DROP_0009

%1: Option 53 missing (no DHCP message type), is this a BOOTP packet?

This debug message is issued when a packet is dropped because it did contain option 53 and thus has no DHCP message type. The most likely explanation is that it was BOOTP packet.

DHCP4_PACKET_DROP_0010

dropped as member of the special class 'DROP': %1

This debug message is emitted when an incoming packet was classified into the special class 'DROP' and dropped. The packet details are displayed.

DHCP4_PACKET_DROP_0011

dropped as sent by the same client than a packet being processed by another thread: dropped %1 by thread %2 as duplicate of %3 processed by %4

Currently multi-threading processing avoids races between packets sent by a client using the same client id option by dropping new packets until processing is finished. Packet details and thread identifiers are included for both packets in this warning message.

DHCP4_PACKET_DROP_0012

dropped as sent by the same client than a packet being processed by another thread: dropped %1 by thread %2 as duplicate of %3 processed by %4

Currently multi-threading processing avoids races between packets sent by a client using the same hardware address by dropping new packets until processing is finished. Packet details and thread identifiers are included for both packets in this warning message.

DHCP4_PACKET_DROP_0013

dropped as member of the special class 'DROP' after host reservation lookup: %1

This debug message is emitted when an incoming packet was classified after host reservation lookup into the special class 'DROP' and dropped. The packet details are displayed.

DHCP4_PACKET_DROP_0014

dropped as member of the special class 'DROP' after early global host reservations lookup: %1

This debug message is emitted when an incoming packet was classified after early global host reservations lookup into the special class 'DROP' and dropped. The packet details are displayed.

DHCP4_PACKET_NAK_0001

%1: failed to select a subnet for incoming packet, src %2, type %3

This error message is output when a packet was received from a subnet for which the DHCPv4 server has not been configured. The most probable cause is a misconfiguration of the server. The first argument contains the client and transaction identification information. The second argument contains the source IPv4 address of the packet. The third argument contains the name of the received packet.

DHCP4_PACKET_NAK_0002

%1: invalid address %2 requested by INIT-REBOOT

This debug message is issued when the client being in the INIT-REBOOT state requested an IPv4 address which is not assigned to him. The server will respond to this client with DHCPNAK. The first argument contains the client and the transaction identification information. The second arguments holds the IPv4 address requested by the client.

DHCP4_PACKET_NAK_0003

%1: failed to advertise a lease, client sent ciaddr %2, requested-ip-address %3

This message indicates that the server has failed to offer a lease to the specified client after receiving a DISCOVER message from it. There are many possible reasons for such a failure. The first argument contains the client and the transaction identification information. The second argument contains the IPv4 address in the ciaddr field. The third argument contains the IPv4 address in the requested-ip-address option (if present).

DHCP4_PACKET_NAK_0004

%1: failed to grant a lease, client sent ciaddr %2, requested-ip-address %3

This message indicates that the server failed to grant a lease to the specified client after receiving a REQUEST message from it. There are many possible reasons for such a failure. Additional messages will indicate the reason. The first argument contains the client and the transaction identification information. The second argument contains the IPv4 address in the ciaddr field. The third argument contains the IPv4 address in the requested-ip-address option (if present).

DHCP4_PACKET_OPTIONS_SKIPPED

An error unpacking an option, caused subsequent options to be skipped: %1

A debug message issued when an option failed to unpack correctly, making it impossible to unpack the remaining options in the packet. The server will server will still attempt to service the packet.

DHCP4_PACKET_OPTION_UNPACK_FAIL

An error unpacking the option %1: %2

A debug message issued when an option failed to unpack correctly, making it to be left unpacked in the packet. The first argument is the option code, the second the error.

DHCP4_PACKET_PACK

%1: preparing on-wire format of the packet to be sent

This debug message is issued when the server starts preparing the on-wire format of the packet to be sent back to the client. The argument specifies the client and the transaction identification information.

DHCP4_PACKET_PACK_FAIL

%1: preparing on-wire-format of the packet to be sent failed %2

This error message is issued when preparing an on-wire format of the packet has failed. The first argument identifies the client and the DHCP transaction. The second argument includes the error string.

DHCP4_PACKET_PROCESS_EXCEPTION

exception occurred during packet processing

This error message indicates that a non-standard exception was raised during packet processing that was not caught by other, more specific exception handlers. This packet will be dropped and the server will continue operation.

DHCP4_PACKET_PROCESS_STD_EXCEPTION

exception occurred during packet processing: %1

This error message indicates that a standard exception was raised during packet processing that was not caught by other, more specific exception handlers. This packet will be dropped and the server will continue operation.

DHCP4_PACKET_QUEUE_FULL

multi-threading packet queue is full

A debug message noting that the multi-threading packet queue is full so the oldest packet of the queue was dropped to make room for the received one.

DHCP4_PACKET_RECEIVED

%1: %2 (type %3) received from %4 to %5 on interface %6

A debug message noting that the server has received the specified type of packet on the specified interface. The first argument specifies the client and transaction identification information. The second and third argument specify the name of the DHCPv4 message and its numeric type respectively. The remaining arguments specify the source IPv4 address, destination IPv4 address and the name of the interface on which the message has been received.

DHCP4_PACKET_SEND

%1: trying to send packet %2 (type %3) from %4:%5 to %6:%7 on interface %8

The arguments specify the client identification information (HW address and client identifier), DHCP message name and type, source IPv4 address and port, destination IPv4 address and port and the interface name. This debug message is issued when the server is trying to send the response to the client. When the server is using an UDP socket to send the packet there are cases when this operation may be unsuccessful and no error message will be displayed. One such situation occurs when the server is unicasting the response to the 'ciaddr' of a DHCPINFORM message. This often requires broadcasting an ARP message to obtain the link layer address of the unicast destination. If broadcast ARP messages are blocked in the network, according to the firewall policy, the ARP message will not cause a response. Consequently, the response to the DHCPINFORM will not be sent. Since the ARP communication is under the OS control, Kea is not notified about the drop of the packet which it is trying to send and it has no means to display an error message.

DHCP4_PACKET_SEND_FAIL

%1: failed to send DHCPv4 packet: %2

This error is output if the DHCPv4 server fails to send an assembled DHCP message to a client. The first argument includes the client and the transaction identification information. The second argument includes the reason for failure.

DHCP4_PARSER_COMMIT_EXCEPTION

parser failed to commit changes

On receipt of message containing details to a change of the DHCPv4 server configuration, a set of parsers were successfully created, but one of them failed to commit its changes due to a low-level system exception being raised. Additional messages may be output indicating the reason.

DHCP4_PARSER_COMMIT_FAIL

parser failed to commit changes: %1

On receipt of message containing details to a change of the DHCPv4 server configuration, a set of parsers were successfully created, but one of them failed to commit its changes. The reason for the failure is given in the message.

DHCP4_PARSER_EXCEPTION

failed to create or run parser for configuration element %1

On receipt of message containing details to a change of its configuration, the DHCPv4 server failed to create a parser to decode the contents of the named configuration element, or the creation succeeded but the parsing actions and committal of changes failed. The message has been output in response to a non-Kea exception being raised. Additional messages may give further information.

DHCP4_PARSER_FAIL

failed to create or run parser for configuration element %1: %2

On receipt of message containing details to a change of its configuration, the DHCPv4 server failed to create a parser to decode the contents of the named configuration element, or the creation succeeded but the parsing actions and committal of changes failed. The reason for the failure is given in the message.

DHCP4_POST_ALLOCATION_NAME_UPDATE_FAIL

%1: failed to update hostname %2 in a lease after address allocation: %3

This message indicates the failure when trying to update the lease and/or options in the server's response with the hostname generated by the server or reserved for the client belonging to a shared network. The latter is the case when the server dynamically switches to another subnet (than initially selected for allocation) from the same shared network.

DHCP4_QUERY_DATA

%1, packet details: %2

A debug message printing the details of the received packet. The first argument includes the client and the transaction identification information.

DHCP4_RECLAIM_EXPIRED_LEASES_FAIL

failed to reclaim expired leases: %1

This error message indicates that the reclaim expired leases operation failed and provides the cause of failure.

DHCP4_RELEASE

%1: address %2 was released properly.

This informational message indicates that an address was released properly. It is a normal operation during client shutdown. The first argument includes the client and transaction identification information. The second argument includes the released IPv4 address.

DHCP4_RELEASE_EXCEPTION

%1: while trying to release address %2 an exception occurred: %3

This message is output when an error was encountered during an attempt to process a DHCPRELEASE message. The error will not affect the client, which does not expect any response from the server for DHCPRELEASE messages. Depending on the nature of problem, it may affect future server operation. The first argument includes the client and the transaction identification information. The second argument includes the IPv4 address which release was attempted. The last argument includes the detailed error description.

DHCP4_RELEASE_FAIL

%1: failed to remove lease for address %2

This error message indicates that the software failed to remove a lease from the lease database. It is probably due to an error during a database operation: resolution will most likely require administrator intervention (e.g. check if DHCP process has sufficient privileges to update the database). It may also be triggered if a lease was manually removed from the database during RELEASE message processing. The first argument includes the client and the transaction identification information. The second argument holds the IPv4 address which release was attempted.

DHCP4_RELEASE_FAIL_NO_LEASE

%1: client is trying to release non-existing lease %2

This debug message is printed when client attempts to release a lease, but no such lease is known to the server. The first argument contains the client and transaction identification information. The second argument contains the IPv4 address which the client is trying to release.

DHCP4_RELEASE_FAIL_WRONG_CLIENT

%1: client is trying to release the lease %2 which belongs to a different client

This debug message is issued when a client is trying to release the lease for the address which is currently used by another client, i.e. the 'client identifier' or 'chaddr' doesn't match between the client and the lease. The first argument includes the client and the transaction identification information. The second argument specifies the leased address.

DHCP4_RESERVATIONS_LOOKUP_FIRST_ENABLED

Multi-threading is enabled and host reservations lookup is always performed first.

This is a message informing that host reservations lookup is performed before lease lookup when multi-threading is enabled overwriting configured value.

DHCP4_RESERVED_HOSTNAME_ASSIGNED

%1: server assigned reserved hostname %2

This debug message is issued when the server found a hostname reservation for a client and uses this reservation in a hostname option sent back to this client. The reserved hostname is qualified with a value of 'qualifying-suffix' parameter, if this parameter is specified.

DHCP4_RESPONSE_DATA

%1: responding with packet %2 (type %3), packet details: %4

A debug message including the detailed data about the packet being sent to the client. The first argument contains the client and the transaction identification information. The second and third argument contains the packet name and type respectively. The fourth argument contains detailed packet information.

DHCP4_RESPONSE_FQDN_DATA

%1: including FQDN option in the server's response: %2

This debug message is issued when the server is adding the Client FQDN option in its response to the client. The first argument includes the client and transaction identification information. The second argument includes the details of the FQDN option being included. Note that the name carried in the FQDN option may be modified by the server when the lease is acquired for the client.

DHCP4_RESPONSE_HOSTNAME_DATA

%1: including Hostname option in the server's response: %2

This debug message is issued when the server is adding the Hostname option in its response to the client. The first argument includes the client and transaction identification information. The second argument includes the details of the FQDN option being included. Note that the name carried in the Hostname option may be modified by the server when the lease is acquired for the client.

DHCP4_RESPONSE_HOSTNAME_GENERATE

%1: server has generated hostname %2 for the client

This debug message includes the auto-generated hostname which will be used for the client which message is processed. Hostnames may need to be generated when required by the server's configuration or when the client hasn't supplied its hostname. The first argument includes the client and the transaction identification information. The second argument holds the generated hostname.

DHCP4_SERVER_FAILED

server failed: %1

The DHCPv4 server has encountered a fatal error and is terminating. The reason for the failure is included in the message.

DHCP4_SHUTDOWN

server shutdown

The DHCPv4 server has terminated normally.

DHCP4_SHUTDOWN_REQUEST

shutdown of server requested

This debug message indicates that a shutdown of the DHCPv4 server has been requested via a call to the 'shutdown' method of the core Dhcpv4Srv object.

DHCP4_SRV_CONSTRUCT_ERROR

error creating Dhcpv4Srv object, reason: %1

This error message indicates that during startup, the construction of a core component within the DHCPv4 server (the Dhcpv4 server object) has failed. As a result, the server will exit. The reason for the failure is given within the message.

DHCP4_SRV_D2STOP_ERROR

error stopping IO with DHCP_DDNS during shutdown: %1

This error message indicates that during shutdown, an error occurred while stopping IO between the DHCPv4 server and the DHCP_DDNS server. This is probably due to a programmatic error is not likely to impact either server upon restart. The reason for the failure is given within the message.

DHCP4_SRV_DHCP4O6_ERROR

error stopping IO with DHCPv4o6 during shutdown: %1

This error message indicates that during shutdown, an error occurred while stopping IO between the DHCPv4 server and the DHCPv6o6 server. This is probably due to a programmatic error is not likely to impact either server upon restart. The reason for the failure is given within the message.

DHCP4_SRV_UNLOAD_LIBRARIES_ERROR

error unloading hooks libraries during shutdown: %1

This error message indicates that during shutdown, unloading hooks libraries failed to close them. If the list of libraries is empty it is a programmatic error in the server code. If it is not empty it could be a programmatic error in one of the hooks libraries which could lead to a crash during finalization.

DHCP4_STARTED

Kea DHCPv4 server version %1 started

This informational message indicates that the DHCPv4 server has processed all configuration information and is ready to process DHCPv4 packets. The version is also printed.

DHCP4_STARTING

Kea DHCPv4 server version %1 (%2) starting

This informational message indicates that the DHCPv4 server has processed any command-line switches and is starting. The version is also printed.

DHCP4_START_INFO

pid: %1, server port: %2, client port: %3, verbose: %4

This is a debug message issued during the DHCPv4 server startup. It lists some information about the parameters with which the server is running.

DHCP4_SUBNET_DATA

%1: the selected subnet details: %2

This debug message includes the details of the subnet selected for the client. The first argument includes the client and the transaction identification information. The second arguments includes the subnet details.

DHCP4_SUBNET_DYNAMICALLY_CHANGED

%1: changed selected subnet %2 to subnet %3 from shared network %4 for client assignments

This debug message indicates that the server is using another subnet than initially selected for client assignments. This newly selected subnet belongs to the same shared network as the original subnet. Some reasons why the new subnet was selected include: address pool exhaustion in the original subnet or the fact that the new subnet includes some static reservations for this client.

DHCP4_SUBNET_SELECTED

%1: the subnet with ID %2 was selected for client assignments

This is a debug message noting the selection of a subnet to be used for address and option assignment. Subnet selection is one of the early steps in the processing of incoming client message. The first argument includes the client and the transaction identification information. The second argument holds the selected subnet id.

DHCP4_SUBNET_SELECTION_FAILED

%1: failed to select subnet for the client

This debug message indicates that the server failed to select the subnet for the client which has sent a message to the server. The server will not be able to offer any lease to the client and will drop its message if the received message was DHCPDISCOVER, and will send DHCPNAK if the received message was DHCPREQUEST. The argument includes the client and the transaction identification information.

DHCP4_TESTING_MODE_SEND_TO_SOURCE_ENABLED

All packets will be send to source address of an incoming packet - use only for testing

This message is printed then KEA_TEST_SEND_RESPONSES_TO_SOURCE environment variable is set. It's causing Kea to send packets to source address of incoming packet. Usable just in testing environment to simulate multiple subnet traffic from single source.

DHCP4_UNKNOWN_ADDRESS_REQUESTED

%1: client requested an unknown address, client sent ciaddr %2, requested-ip-address %3

This message indicates that the client requested an address that does not belong to any dynamic pools managed by this server. The first argument contains the client and the transaction identification information. The second argument contains the IPv4 address in the ciaddr field. The third argument contains the IPv4 address in the requested-ip-address option (if present).

CHAPTER 9

DHCP6

DHCP6_ACTIVATE_INTERFACE

activating interface %1

This message is printed when DHCPv6 server enabled an interface to be used to receive DHCPv6 traffic. IPv6 socket on this interface will be opened once Interface Manager starts up procedure of opening sockets.

DHCP6_ADD_GLOBAL_STATUS_CODE

%1: adding Status Code to DHCPv6 packet: %2

This message is logged when the server is adding the top-level Status Code option. The first argument includes the client and the transaction identification information. The second argument includes the details of the status code.

DHCP6_ADD_STATUS_CODE_FOR_IA

%1: adding Status Code to IA with iaid=%2: %3

This message is logged when the server is adding the Status Code option to an IA. The first argument includes the client and the transaction identification information. The second argument specifies the IAID. The third argument includes the details of the status code.

DHCP6_ALREADY_RUNNING

%1 already running? %2

This is an error message that occurs when the DHCPv6 server encounters a pre-existing PID file which contains the PID of a running process. This most likely indicates an attempt to start a second instance of the server using the same configuration file. It is possible, though unlikely that the PID file is a remnant left behind by a server crash or power failure and the PID it contains refers to a process other than the server. In such an event, it would be necessary to manually remove the PID file. The first argument is the DHCPv6 process name, the second contains the PID and PID file.

DHCP6_BUFFER_RECEIVED

received buffer from %1:%2 to %3:%4 over interface %5

This debug message is logged when the server has received a packet over the socket. When the message is logged the contents of the received packet hasn't been parsed yet. The only available information is the interface and the source and destination addresses/ports.

DHCP6_BUFFER_UNPACK

parsing buffer received from %1 to %2 over interface %3

This debug message is issued when the server starts parsing the received buffer holding the DHCPv6 message. The arguments specify the source and destination addresses as well as the interface over which the buffer has been received.

DHCP6_BUFFER_WAIT_SIGNAL

signal received while waiting for next packet

This debug message is issued when the server was waiting for the packet, but the wait has been interrupted by the signal received by the process. The signal will be handled before the server starts waiting for next packets.

DHCP6_CB_ON_DEMAND_FETCH_UPDATES_FAIL

error on demand attempt to fetch configuration updates from the configuration backend(s): %1

This error message is issued when the server attempted to fetch configuration updates from the database and this on demand attempt failed. The sole argument which is returned to the config-backend-pull command caller too contains the reason for failure.

DHCP6_CB_PERIODIC_FETCH_UPDATES_FAIL

error on periodic attempt to fetch configuration updates from the configuration backend(s): %1

This error message is issued when the server attempted to fetch configuration updates from the database and this periodic attempt failed. The server will re-try according to the configured value of the config-fetch-wait-time parameter. The sole argument contains the reason for failure.

DHCP6_CB_PERIODIC_FETCH_UPDATES_RETRIES_EXHAUSTED

maximum number of configuration fetch attempts: 10, has been exhausted without success

This error indicates that the server has made a number of unsuccessful periodic attempts to fetch configuration updates from a configuration backend. The server will continue to operate but won't make any further attempts to fetch configuration updates. The administrator must fix the configuration in the database and reload (or restart) the server.

DHCP6_CLASS_ASSIGNED

%1: client packet has been assigned to the following class(es): %2

This debug message informs that incoming packet has been assigned to specified class or classes. This is a normal behavior and indicates successful operation. The first argument specifies the client and transaction identification information. The second argument includes all classes to which the packet has been assigned.

DHCP6_CLASS_UNCONFIGURED

%1: client packet belongs to an unconfigured class: %2

This debug message informs that incoming packet belongs to a class which cannot be found in the configuration. Either a hook written before the classification was added to Kea is used, or class naming is inconsistent.

DHCP6_CLASS_UNDEFINED

required class %1 has no definition

This debug message informs that a class is listed for required evaluation but has no definition.

DHCP6_CLASS_UNTESTABLE

required class %1 has no test expression

This debug message informs that a class was listed for required evaluation but its definition does not include a test expression to evaluate.

DHCP6_COMMAND_RECEIVED

received command %1, arguments: %2

A debug message listing the command (and possible arguments) received from the Kea control system by the IPv6 DHCP server.

DHCP6_CONFIG_COMPLETE

DHCPv6 server has completed configuration: %1

This is an informational message announcing the successful processing of a new configuration. it is output during server startup, and when an updated configuration is committed by the administrator. Additional information may be provided.

DHCP6_CONFIG_LOAD_FAIL

configuration error using file: %1, reason: %2

This error message indicates that the DHCPv6 configuration has failed. If this is an initial configuration (during server's startup) the server will fail to start. If this is a dynamic reconfiguration attempt the server will continue to use an old configuration.

DHCP6_CONFIG_PACKET_QUEUE

DHCPv6 packet queue info after configuration: %1

This informational message is emitted during DHCPv6 server configuration, immediately after configuring the DHCPv6 packet queue. The information shown depends upon the packet queue type selected.

DHCP6_CONFIG_RECEIVED

received configuration: %1

A debug message listing the configuration received by the DHCPv6 server. The source of that configuration depends on used configuration backend.

DHCP6_CONFIG_START

DHCPv6 server is processing the following configuration: %1

This is a debug message that is issued every time the server receives a configuration. That happens start up and also when a server configuration change is committed by the administrator.

DHCP6_CONFIG_SYNTAX_WARNING

configuration syntax warning: %1

This warning message indicates that the DHCPv6 configuration had a minor syntax error. The error was displayed and the configuration parsing resumed.

DHCP6_CONFIG_UNRECOVERABLE_ERROR

DHCPv6 server new configuration failed with an error which cannot be recovered

This fatal error message is issued when a new configuration raised an error which cannot be recovered. A correct configuration must be applied as soon as possible as the server is no longer working. The configuration can be fixed in several ways. If the control channel is open, config-set with a valid configuration

can be used. Alternatively, the original config file on disk could be fixed and SIGHUP signal could be sent (or the config-reload command issued). Finally, the server could be restarted completely.

DHCP6_CONFIG_UNSUPPORTED_OBJECT

DHCPv6 server configuration includes an unsupported object: %1

This error message is issued when the configuration includes an unsupported object (i.e. a top level element).

DHCP6_CONFIG_UPDATE

updated configuration received: %1

A debug message indicating that the IPv6 DHCP server has received an updated configuration from the Kea configuration system.

DHCP6_DB_BACKEND_STARTED

lease database started (type: %1, name: %2)

This informational message is printed every time the IPv6 DHCP server is started. It indicates what database backend type is being to store lease and other information.

DHCP6_DB_RECONNECT_DISABLED

database reconnect is disabled: max-reconnect-tries %1, reconnect-wait-time %2

This is an informational message indicating that connectivity to either the lease or host database or both and that automatic reconnect is not enabled.

DHCP6_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

This error indicates that the server failed to reconnect to the lease and/or host database(s) after making the maximum configured number of reconnect attempts. This might cause the server to shut down as specified in the configuration. Loss of connectivity is typically a network or database server issue.

DHCP6_DB_RECONNECT_LOST_CONNECTION

database connection lost.

This info message indicates that the connection has been lost and the dhcp service might have been disabled, as specified in the configuration, in order to try to recover the connection.

DHCP6_DB_RECONNECT_NO_DB_CTL

unexpected error in database reconnect

This is an error message indicating a programmatic error that should not occur. It prohibits the server from attempting to reconnect to its databases if connectivity is lost, and the server exits. This error should be reported.

DHCP6_DB_RECONNECT_SUCCEEDED

database connection recovered.

This info message indicates that the connection has been recovered and the dhcp service has been restored.

DHCP6_DDNS_CREATE_ADD_NAME_CHANGE_REQUEST

created name change request: %1

This debug message is logged when the new NameChangeRequest has been created to perform the DNS Update, which adds new RRs.

DHCP6_DDNS_FQDN_GENERATED

%1: generated FQDN for the client: %2

This debug message is logged when the server generated FQDN (name) for the client which message is processed. The names may be generated by the server when required by the server's policy or when the client doesn't provide any specific FQDN in its message to the server. The first argument includes the client and transaction identification information. The second argument includes the generated FQDN.

DHCP6_DDNS_GENERATED_FQDN_UPDATE_FAIL

%1: failed to update the lease using address %2, after generating FQDN for a client, reason: %3

This message indicates the failure when trying to update the lease and/or options in the server's response with the hostname generated by the server from the acquired address. The first argument includes the client and the transaction identification information. The second argument is a leased address. The third argument includes the reason for the failure.

DHCP6_DDNS_GENERATE_FQDN

%1: client did not send a FQDN option; FQDN will be

generated for the client. This debug message is issued when the server did not receive a FQDN option from the client and client name replacement is enabled. This provides a means to create DNS entries for unsophisticated clients.

DHCP6_DDNS_RECEIVE_FQDN

%1: received DHCPv6 Client FQDN option: %2

This debug message is logged when server has found the DHCPv6 Client FQDN Option sent by a client and started processing it. The first argument includes the client and transaction identification information. The second argument includes the received FQDN.

DHCP6_DDNS_REMOVE_OLD_LEASE_FQDN

%1: FQDN for a lease: %2 has changed. New values: hostname = %3, reverse mapping = %4, forward mapping = %5

This debug message is logged during lease renewal when an old lease that is no longer being offered has a different FQDN than the renewing lease. Thus the old DNS entries need to be removed. The first argument includes the client and the transaction identification information. The second argument holds the details about the lease for which the FQDN information and/or mappings have changed. The remaining arguments hold the new FQDN information and flags for mappings.

DHCP6_DDNS_REQUEST_SEND_FAILED

failed sending a request to kea-dhcp-ddns, error: %1, ncr: %2

This error message indicates that IPv6 DHCP server failed to send a DDNS update request to the DHCP-DDNS server. This is most likely a configuration or networking error.

DHCP6_DDNS_RESPONSE_FQDN_DATA

%1: including FQDN option in the server's response: %2

This debug message is issued when the server is adding the Client FQDN option in its response to the client. The first argument includes the client and transaction identification information. The second argument includes the details of the FQDN option being included. Note that the name carried in the FQDN option may be modified by the server when the lease is acquired for the client.

DHCP6_DDNS_SEND_FQDN

sending DHCPv6 Client FQDN Option to the client: %1

This debug message is logged when server includes an DHCPv6 Client FQDN Option in its response to the client.

DHCP6_DEACTIVATE_INTERFACE

deactivate interface %1

This message is printed when DHCPv6 server disables an interface from being used to receive DHCPv6 traffic. Sockets on this interface will not be opened by the Interface Manager until interface is enabled.

DHCP6_DECLINE_FAIL

%1: error on decline lease for address %2: %3

This error message indicates that the software failed to decline a lease from the lease database due to an error during a database operation. The first argument includes the client and the transaction identification information. The second argument holds the IPv6 address which decline was attempted. The last one contains the reason for failure.

DHCP6_DECLINE_FAIL_DUID_MISMATCH

Client %1 sent DECLINE for address %2, but it belongs to client with DUID %3

This informational message is printed when a client attempts to decline a lease, but that lease belongs to a different client. The decline request will be rejected.

DHCP6_DECLINE_FAIL_IAID_MISMATCH

Client %1 sent DECLINE for address %2, but used a wrong IAID (%3), instead of expected %4

This informational message is printed when a client attempts to decline a lease. The server has a lease for this address, it belongs to this client, but the recorded IAID does not match what client has sent. This means the server will reject this Decline.

DHCP6_DECLINE_FAIL_LEASE_WITHOUT_DUID

Client %1 sent DECLINE for address %2, but the associated lease has no DUID

This error condition likely indicates database corruption, as every IPv6 lease is supposed to have a DUID, even if it is an empty one.

DHCP6_DECLINE_FAIL_NO_LEASE

Client %1 sent DECLINE for address %2, but there's no lease for it

This informational message is printed when a client tried to decline an address, but the server has no lease for said address. This means that the server's and client's perception of the leases are different. The likely causes of this could be: a confused (e.g. skewed clock) or broken client (e.g. client moved to a different location and didn't notice) or possibly an attack (a rogue client is trying to decline random addresses). The server will inform the client that his decline request was rejected and client should be able to recover from that.

DHCP6_DECLINE_LEASE

Client %1 sent DECLINE for address %2 and the server marked it as declined. The lease will be recovered in %3 seconds.

This informational message indicates that the client leased an address, but discovered that it is being used by some other device and reported this to the server by sending a Decline message. The server marked the lease as declined. This likely indicates a misconfiguration in the network. Either the server is configured with an incorrect pool or there are devices that have statically assigned addresses that are supposed to be assigned by the DHCP server. Both client (will request a different address) and server (will recover the lease after decline-probation-time elapses) will recover automatically. However, if the underlying problem is not solved, the conditions leading to this message may reappear.

DHCP6_DECLINE_PROCESS_IA

Processing of IA (IAID: %1) from client %2 started.

This debug message is printed when the server starts processing an IA_NA option received in Decline message. It's expected that the option will contain an address that is being declined. Specific information will be printed in a separate message.

DHCP6_DEVELOPMENT_VERSION

This software is a development branch of Kea. It is not recommended for production use.

This warning message is displayed when the version is a development (vs stable) one: the second number of the version is odd.

DHCP6_DHCP4O6_PACKET_RECEIVED

received DHCPv4o6 packet from DHCPv4 server (type %1) for %2 port %3 on interface %4

This debug message is printed when the server is receiving a DHCPv4o6 from the DHCPv4 server over inter-process communication.

DHCP6_DHCP4O6_RECEIVE_FAIL

failed to receive DHCPv4o6: %1

This debug message indicates the inter-process communication with the DHCPv4 server failed. The reason for the error is included in the message.

DHCP6_DHCP4O6_RECEIVING

receiving DHCPv4o6 packet from DHCPv4 server

This debug message is printed when the server is receiving a DHCPv4o6 from the DHCPv4 server over inter-process communication socket.

DHCP6_DHCP4O6_SEND_FAIL

failed to send DHCPv4o6 packet: %1

This error is output if the IPv6 DHCP server fails to send an assembled DHCPv4o6 message to a client. The reason for the error is included in the message.

DHCP6_DYNAMIC_RECONFIGURATION

initiate server reconfiguration using file: %1, after receiving SIGHUP signal or config-reload command

This is the info message logged when the DHCPv6 server starts reconfiguration as a result of receiving SIGHUP signal or config-reload command.

DHCP6_DYNAMIC_RECONFIGURATION_FAIL

dynamic server reconfiguration failed with file: %1

This is a fatal error message logged when the dynamic reconfiguration of the DHCP server failed.

DHCP6_DYNAMIC_RECONFIGURATION_SUCCESS

dynamic server reconfiguration succeeded with file: %1

This is info message logged when the dynamic reconfiguration of the DHCP server succeeded.

DHCP6_FLEX_ID

flexible identifier generated for incoming packet: %1

This debug message is printed when host reservation type is set to flexible identifier and the expression specified in its configuration generated (was evaluated to) an identifier for incoming packet. This debug message is mainly intended as a debugging assistance for flexible identifier.

DHCP6_HANDLE_SIGNAL_EXCEPTION

An exception was thrown while handing signal: %1

This error message is printed when an exception was raised during signal processing. This likely indicates a coding error and should be reported to ISC.

DHCP6_HOOKS_LIBS_RELOAD_FAIL

reload of hooks libraries failed

A "libreload" command was issued to reload the hooks libraries but for some reason the reload failed. Other error messages issued from the hooks framework will indicate the nature of the problem.

DHCP6_HOOK_BUFFER_RCVD_DROP

received buffer from %1 to %2 over interface %3 was dropped because a callout set the drop flag

This debug message is printed when a callout installed on buffer6_receive hook point set the drop flag. For this particular hook point, the setting of the flag by a callout instructs the server to drop the packet. The arguments specify the source and destination address as well as the name of the interface over which the buffer has been received.

DHCP6_HOOK_BUFFER_RCVD_SKIP

received buffer from %1 to %2 over interface %3 is not parsed because a callout set the next step to SKIP

This debug message is printed when a callout installed on buffer6_receive hook point set the next step status to skip. For this particular hook point, this value set by a callout instructs the server to not parse the buffer because it was already parsed by the hook. The arguments specify the source and destination address as well as the name of the interface over which the buffer has been received.

DHCP6_HOOK_BUFFER_SEND_SKIP

%1: prepared DHCPv6 response was dropped because a callout set the next step to SKIP

This debug message is printed when a callout installed on buffer6_send hook point set the next step to SKIP value. For this particular hook point, the SKIP setting a callout instructs the server to drop the packet. Server completed all the processing (e.g. may have assigned, updated or released leases), but the response will not be send to the client. The argument includes the client and transaction identification information.

DHCP6_HOOK_DDNS_UPDATE

A hook has updated the DDNS parameters: hostname %1=>%2, forward update %3=>%4, reverse update %5=>%6

This message indicates that there was a hook called on ddns6_update hook point and that hook updated the DDNS update parameters: hostname, or whether to conduct forward (A record) or reverse (PTR record) DDNS updates.

DHCP6_HOOK_DECLINE_DROP

During Decline processing (client=%1, interface=%2, addr=%3) hook callout set next step to DROP, dropping packet.

This message indicates that the server received DECLINE message, it was verified to be correct and matching server's lease information. The server called hooks for the lease6_decline hook point and one of the callouts set next step status to DROP. The server will now abort processing of the packet as if it was never received. The lease will continue to be assigned to this client.

DHCP6_HOOK_DECLINE_SKIP

During Decline processing (client=%1, interface=%2, addr=%3) hook callout set status to SKIP, skipping decline.

This message indicates that the server received DECLINE message, it was verified to be correct and matching server's lease information. The server called hooks for the lease6_decline hook point and one of the callouts set next step status to SKIP. The server will skip the operation of moving the lease to the declined state and will continue processing the packet. In particular, it will send a REPLY message as if the decline actually took place.

DHCP6_HOOK_LEASE6_RELEASE_NA_SKIP

%1: DHCPv6 address lease was not released because a callout set the next step to SKIP

This debug message is printed when a callout installed on the lease6_release hook point set the next step to SKIP. For this particular hook point, this setting by a callout instructs the server to not release a lease. If a client requested the release of multiples leases (by sending multiple IA options), the server will retain this particular lease and proceed with other releases as usual. The argument holds the client and transaction identification information.

DHCP6_HOOK_LEASE6_RELEASE_PD_SKIP

%1: prefix lease was not released because a callout set the next step to SKIP

This debug message is printed when a callout installed on lease6_release hook point set the next step to SKIP value. For this particular hook point, that setting by a callout instructs the server to not release a lease. If client requested release of multiples leases (by sending multiple IA options), the server will retains this particular lease and will proceed with other renewals as usual. The argument holds the client and transaction identification information.

DHCP6_HOOK_LEASES6_COMMITTED_DROP

%1: packet is dropped, because a callout set the next step to DROP

This debug message is printed when a callout installed on the leases6_committed hook point sets the next step to DROP.

DHCP6_HOOK_LEASES6_COMMITTED_PARK

%1: packet is parked, because a callout set the next step to PARK

This debug message is printed when a callout installed on the leases6_committed hook point sets the next step to PARK.

DHCP6_HOOK_LEASES6_PARKING_LOT_FULL

The parked-packet-limit %1, has been reached, dropping query: %2

This debug message occurs when the parking lot used to hold client queries while hook library work for them completes has reached or exceeded the limit set by the parked-packet-limit global parameter. This can occur when kea-dhcp6 is using hook libraries (e.g. HA) that implement the "leases6-committed" callout and client queries are arriving faster than those callouts can fulfill them.

DHCP6_HOOK_PACKET_RCVD_SKIP

%1: packet is dropped, because a callout set the next step to SKIP

This debug message is printed when a callout installed on the pkt6_receive hook point sets the next step to SKIP. For this particular hook point, the value setting instructs the server to drop the packet.

DHCP6_HOOK_PACKET_SEND_DROP

%1: prepared DHCPv6 response was not sent because a callout set the next ste to DROP

This debug message is printed when a callout installed on the pkt6_send hook point set the next step to DROP. For this particular hook point, the setting of the value by a callout instructs the server to drop the packet. This effectively means that the client will not get any response, even though the server processed client's request and acted on it (e.g. possibly allocated a lease). The argument specifies the client and transaction identification information.

DHCP6_HOOK_PACKET_SEND_SKIP

%1: prepared DHCPv6 response is not built because a callout set the next step to SKIP

This debug message is printed when a callout installed on the pkt6_send hook point set the next step to SKIP. For this particular hook point, the setting of the value by a callout instructs the server to not build the wire data (pack) because it was already done by the book. The argument specifies the client and transaction identification information.

DHCP6_HOOK_SUBNET6_SELECT_DROP

%1: packet was dropped because a callout set the drop flag

This debug message is printed when a callout installed on the subnet6_select hook point set the drop flag. For this particular hook point, the setting of the flag instructs the server to drop the received packet. The argument holds the client and transaction identification information.

DHCP6_HOOK_SUBNET6_SELECT_SKIP

%1: no subnet was selected because a callout set the next step to SKIP

This debug message is printed when a callout installed on the subnet6_select hook point set the next step to SKIP value. For this particular hook point, the setting of this value instructs the server not to choose a subnet, an action that severely limits further processing; the server will be only able to offer global options - no addresses or prefixes will be assigned. The argument holds the client and transaction identification information.

DHCP6_INIT_FAIL

failed to initialize Kea server: %1

The server has failed to establish communication with the rest of Kea, failed to read JSON configuration file or encountered any other critical issue that prevents it from starting up properly. Attached error message provides more details about the issue.

DHCP6_LEASE_ADVERT

%1: lease for address %2 and iaid=%3 will be advertised

This informational message indicates that the server will advertise an address to the client in the ADVERTISE message. The client will request allocation of this address with the REQUEST message sent in the next message exchange. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated address and IAID.

DHCP6_LEASE_ADVERT_FAIL

%1: failed to advertise an address lease for iaid=%2

This message indicates that in response to a received SOLICIT, the server failed to advertise a non-temporary lease for a given client. There may be many reasons for such failure. Each failure is logged in a separate log entry. The first argument holds the client and transaction identification information. The second argument holds the IAID.

DHCP6_LEASE_ALLOC

%1: lease for address %2 and iaid=%3 has been allocated for %4 seconds

This informational message indicates that in response to a client's REQUEST message, the server successfully granted a non-temporary address lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated address, IAID and validity lifetime.

DHCP6_LEASE_ALLOC_FAIL

%1: failed to grant an address lease for iaid=%2

This message indicates that in response to a received REQUEST, the server failed to grant a non-temporary address lease for the client. There may be many reasons for such failure. Each failure is logged in a separate log entry. The first argument holds the client and transaction identification information. The second argument holds the IAID.

DHCP6_LEASE_DATA

%1: detailed lease information for iaid=%2: %3

This debug message is used to print the detailed information about the allocated lease or a lease which will be advertised to the client. The first argument holds the client and the transaction identification information. The second argument holds the IAID. The third argument holds the detailed lease information.

DHCP6_LEASE_NA_WITHOUT_DUID

%1: address lease for address %2 does not have a DUID

This error message indicates a database consistency problem. The lease database has an entry indicating that the given address is in use, but the lease does not contain any client identification. This is most likely due to a software error: please raise a bug report. As a temporary workaround, manually remove the lease entry from the database. The first argument includes the client and transaction identification information. The second argument holds the address to be released.

DHCP6_LEASE_PD_WITHOUT_DUID

%1: lease for prefix %2/%3 does not have a DUID

This error message indicates a database consistency failure. The lease database has an entry indicating that the given prefix is in use, but the lease does not contain any client identification. This is most likely due to a software error: please raise a bug report. As a temporary workaround, manually remove the lease entry from the database. The first argument includes client and transaction identification information. The second and third argument hold the prefix and the prefix length.

DHCP6_LEASE_RENEW

%1: lease for address %2 and iaid=%3 has been allocated

This informational message indicates that in response to a client's REQUEST message, the server successfully renewed a non-temporary address lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated address and IAID.

DHCP6_LEASE_REUSE

%1: lease for address %2 and iaid=%3 has been reused for %4 seconds

This informational message indicates that in response to a client's message, the server successfully reused a non-temporary address lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated address, IAID and validity lifetime.

DHCP6_MULTI_THREADING_INFO

enabled: %1, number of threads: %2, queue size: %3

This is a message listing some information about the multi-threading parameters with which the server is running.

DHCP6_NOT_RUNNING

IPv6 DHCP server is not running

A warning message is issued when an attempt is made to shut down the IPv6 DHCP server but it is not running.

DHCP6_NO_INTERFACES

failed to detect any network interfaces

During startup the IPv6 DHCP server failed to detect any network interfaces and is therefore shutting down.

DHCP6_NO_SOCKETS_OPEN

no interface configured to listen to DHCP traffic

This warning message is issued when current server configuration specifies no interfaces that server should listen on, or specified interfaces are not configured to receive the traffic.

DHCP6_OPEN_SOCKET

opening service sockets on port %1

A debug message issued during startup, this indicates that the IPv6 DHCP server is about to open sockets on the specified port.

DHCP6_OPEN_SOCKETS_FAILED

maximum number of open service sockets attempts: %1, has been exhausted without success

This error indicates that the server failed to bind service sockets after making the maximum configured number of reconnect attempts. This might cause the server to shut down as specified in the configuration.

DHCP6_OPEN_SOCKETS_NO_RECONNECT_CTL

unexpected error in bind service sockets.

This is an error message indicating a programmatic error that should not occur. It prohibits the server from attempting to bind to its service sockets if they are unavailable, and the server exits. This error should be reported.

DHCP6_OPEN_SOCKET_FAIL

failed to open socket: %1

A warning message issued when IfaceMgr fails to open and bind a socket. The reason for the failure is appended as an argument of the log message.

DHCP6_PACKET_DROP_DHCP_DISABLED

%1: DHCP service is globally disabled

This debug message is issued when a packet is dropped because the DHCP service has been temporarily disabled. This affects all received DHCP packets. The service may be enabled by the "dhcp-enable" control command or automatically after a specified amount of time since receiving "dhcp-disable" command.

DHCP6_PACKET_DROP_DROP_CLASS

dropped as member of the special class 'DROP': %1

This debug message is emitted when an incoming packet was classified into the special class 'DROP' and dropped. The packet details are displayed.

DHCP6_PACKET_DROP_DROP_CLASS2

dropped as member of the special class 'DROP' after host reservation lookup: %1

This debug message is emitted when an incoming packet was classified after host reservation lookup into the special class 'DROP' and dropped. The packet details are displayed.

DHCP6_PACKET_DROP_DROP_CLASS_EARLY

dropped as member of the special class 'DROP' after early global host reservations lookup: %1

This debug message is emitted when an incoming packet was classified after early global host reservations lookup into the special class 'DROP' and dropped. The packet details are displayed.

DHCP6_PACKET_DROP_DUPLICATE

dropped as sent by the same client than a packet being processed by another thread: dropped %1 by thread %2 as duplicate of %3 processed by %4

Currently multi-threading processing avoids races between packets sent by the same client by dropping new packets until processing is finished. Packet details and thread identifiers are included for both packets in this warning message.

DHCP6_PACKET_DROP_PARSE_FAIL

failed to parse packet from %1 to %2, received over interface %3, reason: %4

The DHCPv6 server has received a packet that it is unable to interpret. The reason why the packet is invalid is included in the message.

DHCP6_PACKET_DROP_SERVERID_MISMATCH

%1: dropping packet with server identifier: %2, server is using: %3

A debug message noting that server has received message with server identifier option that not matching server identifier that server is using.

DHCP6_PACKET_DROP_UNICAST

%1: dropping unicast %2 packet as this packet should be sent to multicast

This debug message is issued when the server drops the unicast packet, because packets of this type must be sent to multicast. The first argument specifies the client and transaction identification information, the second argument specifies packet type.

DHCP6_PACKET_OPTIONS_SKIPPED

An error unpacking an option, caused subsequent options to be skipped: %1

A debug message issued when an option failed to unpack correctly, making it impossible to unpack the remaining options in the packet. The server will server will still attempt to service the packet.

DHCP6_PACKET_PROCESS_EXCEPTION

exception occurred during packet processing

This error message indicates that a non-standard exception was raised during packet processing that was not caught by other, more specific exception handlers. This packet will be dropped and the server will continue operation.

DHCP6_PACKET_PROCESS_FAIL

processing of %1 message received from %2 failed: %3

This is a general catch-all message indicating that the processing of the specified packet type from the indicated address failed. The reason is given in the message. The server will not send a response but will instead ignore the packet.

DHCP6_PACKET_PROCESS_STD_EXCEPTION

exception occurred during packet processing: %1

This error message indicates that a standard exception was raised during packet processing that was not caught by other, more specific exception handlers. This packet will be dropped and the server will continue operation.

DHCP6_PACKET_QUEUE_FULL

multi-threading packet queue is full

A debug message noting that the multi-threading packet queue is full so the oldest packet of the queue was dropped to make room for the received one.

DHCP6_PACKET_RECEIVED

%1: %2 (type %3) received from %4 to %5 on interface %6

A debug message noting that the server has received the specified type of packet on the specified interface. The first argument specifies the client and transaction identification information. The second and third argument specify the name of the DHCPv6 message and its numeric type respectively. The remaining arguments specify the source address, destination IP address and the name of the interface on which the message has been received.

DHCP6_PACKET_RECEIVE_FAIL

error on attempt to receive packet: %1

The IPv6 DHCP server tried to receive a packet but an error occurred during this attempt. The reason for the error is included in the message.

DHCP6_PACKET_SEND

%1: trying to send packet %2 (type %3) from [%4]:%5 to [%6]:%7 on interface %8

The arguments specify the client identification information (HW address and client identifier), DHCP message name and type, source IPv6 address and port, destination IPv6 address and port and the interface name.

DHCP6_PACKET_SEND_FAIL

failed to send DHCPv6 packet: %1

This error is output if the IPv6 DHCP server fails to send an assembled DHCP message to a client. The reason for the error is included in the message.

DHCP6_PACK_FAIL

failed to assemble response correctly

This error is output if the server failed to assemble the data to be returned to the client into a valid packet. The reason is most likely to be to a programming error: please raise a bug report.

DHCP6_PARSER_COMMIT_EXCEPTION

parser failed to commit changes

On receipt of message containing details to a change of the IPv6 DHCP server configuration, a set of parsers were successfully created, but one of them failed to commit its changes due to a low-level system exception being raised. Additional messages may be output indicating the reason.

DHCP6_PARSER_COMMIT_FAIL

parser failed to commit changes: %1

On receipt of message containing details to a change of the IPv6 DHCP server configuration, a set of parsers were successfully created, but one of them failed to commit its changes. The reason for the failure is given in the message.

DHCP6_PARSER_EXCEPTION

failed to create or run parser for configuration element %1

On receipt of message containing details to a change of its configuration, the IPv6 DHCP server failed to create a parser to decode the contents of the named configuration element, or the creation succeeded but the parsing actions and committal of changes failed. The message has been output in response to a non-Kea exception being raised. Additional messages may give further information. The most likely cause of this is that the specification file for the server (which details the allowable contents of the configuration) is not correct for this version of Kea. This may be the result of an interrupted installation of an update to Kea.

DHCP6_PARSER_FAIL

failed to create or run parser for configuration element %1: %2

On receipt of message containing details to a change of its configuration, the IPv6 DHCP server failed to create a parser to decode the contents of the named configuration element, or the creation succeeded but the parsing actions and committal of changes failed. The reason for the failure is given in the message.

DHCP6_PD_LEASE_ADVERT

%1: lease for prefix %2/%3 and iaid=%4 will be advertised

This informational message indicates that the server will advertise a prefix to the client in the ADVERTISE message. The client will request allocation of this prefix with the REQUEST message sent in the next message exchange. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated prefix, prefix length and IAID.

DHCP6_PD_LEASE_ADVERT_FAIL

%1: failed to advertise a prefix lease for iaid=%2

This message indicates that in response to a received SOLICIT, the server failed to advertise a prefix lease for a given client. There may be many reasons for such failure. Each failure is logged in a separate log entry. The first argument holds the client and transaction identification information. The second argument holds the IAID.

DHCP6_PD_LEASE_ALLOC

%1: lease for prefix %2/%3 and iaid=%4 has been allocated for %5 seconds

This informational message indicates that in response to a client's REQUEST message, the server successfully granted a prefix lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated prefix, prefix length, IAID and validity lifetime.

DHCP6_PD_LEASE_ALLOC_FAIL

%1: failed to grant a prefix lease for iaid=%2

This message indicates that in response to a received REQUEST, the server failed to grant a prefix lease for the client. There may be many reasons for such failure. Each failure is logged in a separate log entry. The first argument holds the client and transaction identification information. The second argument holds the IAID.

DHCP6_PD_LEASE_RENEW

%1: lease for prefix %2/%3 and iaid=%4 has been allocated

This informational message indicates that in response to a client's REQUEST message, the server successfully renewed a prefix lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated prefix, prefix length and IAID.

DHCP6_PD_LEASE_REUSE

%1: lease for prefix %2/%3 and iaid=%4 has been reused for %5 seconds

This informational message indicates that in response to a client's message, the server successfully reused a prefix lease. This is a normal behavior and indicates successful operation. The first argument includes the client and transaction identification information. The remaining arguments hold the allocated prefix, prefix length, IAID and validity lifetime.

DHCP6_PROCESS_IA_NA_EXTEND

%1: extending lease lifetime for IA_NA option with iaid=%2

This message is logged when the server is starting to extend the lifetime of the address lease associated with the particular IAID. The first argument includes the client and transaction identification information. The second argument contains the IAID.

DHCP6_PROCESS_IA_NA_RELEASE

%1: releasing lease for IA_NA option with iaid=%2

This message is logged when the server is trying to release the client's as a result of receiving the RELEASE message. The first argument includes the client and transaction identification information. The second argument contains the IAID.

DHCP6_PROCESS_IA_NA_REQUEST

%1: server is processing IA_NA option with iaid=%2 and hint=%3

This is a debug message that indicates the processing of a received IA_NA option. The first argument contains the client and the transaction identification information. The second argument holds the IAID of the IA_NA option. The third argument may hold the hint for the server about the address that the client would like to have allocated. If there is no hint, the argument should provide the text indicating that the hint hasn't been sent.

DHCP6_PROCESS_IA_PD_EXTEND

%1: extending lease lifetime for IA_PD option with iaid=%2

This message is logged when the server is starting to extend the lifetime of the prefix lease associated with the particular IAID. The first argument includes the client and transaction identification information. The second argument contains the IAID.

DHCP6_PROCESS_IA_PD_REQUEST

%1: server is processing IA_PD option with iaid=%2 and hint=%3

This is a debug message that indicates a processing of received IA_PD option. The first argument contains the client and the transaction identification information. The second argument holds the IAID of the IA_PD option. The third argument may hold the hint for the server about the prefix that the client would like to have allocated. If there is no hint, the argument should provide the text indicating that the hint hasn't been sent.

DHCP6_QUERY_DATA

%1, packet details: %2

A debug message printing the details of the received packet. The first argument includes the client and the transaction identification information.

DHCP6_RAPID_COMMIT

%1: Rapid Commit option received, following 2-way exchange

This debug message is issued when the server found a Rapid Commit option in the client's message and 2-way exchanges are supported by the server for the subnet on which the client is connected. The argument specifies the client and transaction identification information.

DHCP6_RECLAIM_EXPIRED_LEASES_FAIL

failed to reclaim expired leases: %1

This error message indicates that the reclaim expired leases operation failed and provides the cause of failure.

DHCP6_RELEASE_NA

%1: binding for address %2 and iaid=%3 was released properly

This informational message indicates that an address was released properly. It is a normal operation during client shutdown.

DHCP6_RELEASE_NA_FAIL

%1: failed to remove address lease for address %2 and iaid=%3

This error message indicates that the software failed to remove an address lease from the lease database. It probably due to an error during a database operation: resolution will most likely require administrator intervention (e.g. check if DHCP process has sufficient privileges to update the database). It may also be triggered if a lease was manually removed from the database during RELEASE message processing. The first argument holds the client and transaction identification information. The second and third argument hold the released address and IAID respectively.

DHCP6_RELEASE_NA_FAIL_WRONG_DUID

%1: client tried to release address %2, but it belongs to another client using duid=%3

This warning message indicates that a client tried to release an address that belongs to a different client. This should not happen in normal circumstances and may indicate a misconfiguration of the client. However, since the client releasing the address will stop using it anyway, there is a good chance that the situation will correct itself.

DHCP6_RELEASE_NA_FAIL_WRONG_IAID

%1: client tried to release address %2, but it used wrong IAID (expected %3, but got %4)

This warning message indicates that client tried to release an address that does belong to it, but the address was expected to be in a different IA (identity association) container. This probably means that the client's support for multiple addresses is flawed.

DHCP6_RELEASE_PD

%1: prefix %2/%3 for iaid=%4 was released properly

This informational message indicates that a prefix was released properly. It is a normal operation during client shutdown. The first argument holds the client and transaction identification information. The second and third argument define the prefix and its length. The fourth argument holds IAID.

DHCP6_RELEASE_PD_FAIL

%1: failed to release prefix %2/%3 for iaid=%4

This error message indicates that the software failed to remove a prefix lease from the lease database. It probably due to an error during a database operation: resolution will most likely require administrator intervention (e.g. check if DHCP process has sufficient privileges to update the database). It may also be

triggered if a lease was manually removed from the database during RELEASE message processing. The first argument hold the client and transaction identification information. The second and third argument define the prefix and its length. The fourth argument holds the IAID.

DHCP6_RELEASE_PD_FAIL_WRONG_DUID

%1: client tried to release prefix %2/%3, but it belongs to another client (duid=%4)

This warning message indicates that client tried to release a prefix that belongs to a different client. This should not happen in normal circumstances and may indicate a misconfiguration of the client. However, since the client releasing the prefix will stop using it anyway, there is a good chance that the situation will correct itself. The first argument includes the client and the transaction identification information. The second and third argument include the prefix and prefix length. The last argument holds the DUID of the client holding the lease.

DHCP6_RELEASE_PD_FAIL_WRONG_IAID

%1: client tried to release prefix %2/%3, but it used wrong IAID (expected %4, but got %5)

This warning message indicates that client tried to release a prefix that does belong to it, but the address was expected to be in a different IA (identity association) container. This probably means that the client's support for multiple prefixes is flawed. The first argument includes the client and transaction identification information. The second and third argument identify the prefix. The fourth and fifth argument hold the expected IAID and IAID found respectively.

DHCP6_REQUIRED_OPTIONS_CHECK_FAIL

%1 message received from %2 failed the following check: %3

This message indicates that received DHCPv6 packet is invalid. This may be due to a number of reasons, e.g. the mandatory client-id option is missing, the server-id forbidden in that particular type of message is present, there is more than one instance of client-id or server-id present, etc. The exact reason for rejecting the packet is included in the message.

DHCP6_RESERVATIONS_LOOKUP_FIRST_ENABLED

Multi-threading is enabled and host reservations lookup is always performed first.

This is a message informing that host reservations lookup is performed before lease lookup when multi-threading is enabled overwriting configured value.

DHCP6_RESPONSE_DATA

responding with packet type %1 data is %2

A debug message listing the data returned to the client.

DHCP6_SERVER_FAILED

server failed: %1

The IPv6 DHCP server has encountered a fatal error and is terminating. The reason for the failure is included in the message.

DHCP6_SHUTDOWN

server shutdown

The IPv6 DHCP server has terminated normally.

DHCP6_SHUTDOWN_REQUEST

shutdown of server requested

This debug message indicates that a shutdown of the IPv6 server has been requested via a call to the 'shutdown' method of the core Dhcpv6Srv object.

DHCP6_SOCKET_UNICAST

server is about to open socket on address %1 on interface %2

This is a debug message that inform that a unicast socket will be opened.

DHCP6_SRV_CONSTRUCT_ERROR

error creating Dhcpv6Srv object, reason: %1

This error message indicates that during startup, the construction of a core component within the IPv6 DHCP server (the Dhcpv6 server object) has failed. As a result, the server will exit. The reason for the failure is given within the message.

DHCP6_SRV_D2STOP_ERROR

error stopping IO with DHCP_DDNS during shutdown: %1

This error message indicates that during shutdown, an error occurred while stopping IO between the DHCPv6 server and the DHCP_DDNS server. This is probably due to a programmatic error is not likely to impact either server upon restart. The reason for the failure is given within the message.

DHCP6_SRV_UNLOAD_LIBRARIES_ERROR

error unloading hooks libraries during shutdown: %1

This error message indicates that during shutdown, unloading hooks libraries failed to close them. If the list of libraries is empty it is a programmatic error in the server code. If it is not empty it could be a programmatic error in one of the hooks libraries which could lead to a crash during finalization.

DHCP6_STANDALONE

skipping message queue, running standalone

This is a debug message indicating that the IPv6 server is running in standalone mode, not connected to the message queue. Standalone mode is only useful during program development, and should not be used in a production environment.

DHCP6_STARTED

Kea DHCPv6 server version %1 started

This informational message indicates that the IPv6 DHCP server has processed all configuration information and is ready to process DHCPv6 packets. The version is also printed.

DHCP6_STARTING

Kea DHCPv6 server version %1 (%2) starting

This informational message indicates that the IPv6 DHCP server has processed any command-line switches and is starting. The version is also printed.

DHCP6_START_INFO

pid: %1, server port: %2, client port: %3, verbose: %4

This is a debug message issued during the IPv6 DHCP server startup. It lists some information about the parameters with which the server is running.

DHCP6_SUBNET_DATA

%1: the selected subnet details: %2

This debug message includes the details of the subnet selected for the client. The first argument includes the client and the transaction identification information. The second argument includes the subnet details.

DHCP6_SUBNET_DYNAMICALLY_CHANGED

%1: changed selected subnet %2 to subnet %3 from shared network %4 for client assignments

This debug message indicates that the server is using another subnet than initially selected for client assignments. This newly selected subnet belongs to the same shared network as the original subnet. Some reasons why the new subnet was selected include: address pool exhaustion in the original subnet or the fact that the new subnet includes some static reservations for this client.

DHCP6_SUBNET_SELECTED

%1: the subnet with ID %2 was selected for client assignments

This is a debug message noting the selection of a subnet to be used for address and option assignment. Subnet selection is one of the early steps in the processing of incoming client message. The first argument includes the client and the transaction identification information. The second argument holds the selected subnet id.

DHCP6_SUBNET_SELECTION_FAILED

%1: failed to select subnet for the client

This debug message indicates that the server failed to select the subnet for the client which has sent a message to the server. The cause is likely due to a misconfiguration of the server. The packet processing will continue, but the response will only contain generic configuration and no addresses or prefixes. The argument includes the client and the transaction identification information.

DHCP6_UNKNOWN_MSG_RECEIVED

received unknown message (type %1) on interface %2

This debug message is printed when server receives a message of unknown type. That could either mean missing functionality or invalid or broken relay or client. The list of formally defined message types is available here: http://www.iana.org/assignments/dhcpv6-parameters.

CHAPTER 10

DHCPSRV

DHCPSRV_CFGMGR_ADD_IFACE

listening on interface %1

An info message issued when a new interface is being added to the collection of interfaces on which the server listens to DHCP messages.

DHCPSRV_CFGMGR_ADD_SUBNET4

adding subnet %1

A debug message reported when the DHCP configuration manager is adding the specified IPv4 subnet to its database.

DHCPSRV_CFGMGR_ADD_SUBNET6

adding subnet %1

A debug message reported when the DHCP configuration manager is adding the specified IPv6 subnet to its database.

DHCPSRV_CFGMGR_ALL_IFACES_ACTIVE

enabling listening on all interfaces

A debug message issued when the server is being configured to listen on all interfaces.

DHCPSRV_CFGMGR_CFG_DHCP_DDNS

Setting DHCP-DDNS configuration to: %1

A debug message issued when the server's DHCP-DDNS settings are changed.

DHCPSRV_CFGMGR_CLEAR_ACTIVE_IFACES

stop listening on all interfaces

A debug message issued when configuration manager clears the internal list of active interfaces. This doesn't prevent the server from listening to the DHCP traffic through open sockets, but will rather be used by Interface Manager to select active interfaces when sockets are re-opened.

DHCPSRV_CFGMGR_CONFIG4_MERGED

Configuration backend data has been merged.

This is an informational message emitted when the DHCPv4 server has successfully merged configuration data retrieved from its configuration backends into the current configuration.

DHCPSRV_CFGMGR_CONFIG6_MERGED

Configuration backend data has been merged.

This is an informational message emitted when the DHCPv6 server has successfully merged configuration data retrieved from its configuration backends into the current configuration.

DHCPSRV_CFGMGR_CONFIGURE_SERVERID

server configuration includes specification of a server identifier

This warning message is issued when the server specified configuration of a server identifier. If this new configuration overrides an existing server identifier, this will affect existing bindings of the clients. Clients will use old server identifier when they renew their bindings. The server will not respond to those renews, and the clients will eventually transition to rebinding state. The server should reassign existing bindings and the clients will subsequently use new server identifier. It is recommended to not modify the server identifier, unless there is a good reason for it, to avoid increased number of renewals and a need for rebinding (increase of multicast traffic, which may be received by multiple servers).

DHCPSRV_CFGMGR_DDNS_PARAMETER_IGNORED

dhcp-ddns:%1 is deprecated, using existing global:%2

This is an informational message issued during configuration parsing when the server detects that a deprecated parameter has been specified in the "dhcp-ddns" element which conflicts with its corresponding global parameter. When this occurs the server simply ignores the value from dhcp-ddns. The log message shows be the deprecated and the supported parameter names. Note the configuration change only affects the in-memory configuration. Modify the configuration to comply with the supported parameters.

DHCPSRV_CFGMGR_DDNS_PARAMETER_MOVED

dhcp-ddns:%1 is deprecated, moving it to global:%2

This is an informational message issued during configuration parsing when the server detects that a deprecated parameter has been specified in the "dhcp-ddns" element for which no corresponding global value exists. When this occurs, the server removes the parameter from dhcp-ddns and inserts the parameter into the global scope. The log message shows the deprecated and the supported parameter names. Note the configuration change only affects the in-memory configuration. Modify the configuration to comply with the supported parameters.

DHCPSRV_CFGMGR_DEL_SUBNET4

IPv4 subnet %1 removed

This debug message is issued when a subnet is successfully removed from the server configuration. The argument identifies the removed subnet.

DHCPSRV_CFGMGR_DEL_SUBNET6

IPv6 subnet %1 removed

This debug message is issued when a subnet is successfully removed from the server configuration. The argument identifies the removed subnet.

DHCPSRV_CFGMGR_IPV4_RESERVATIONS_NON_UNIQUE_IGNORED

ignoring "ip-reservations-unique" setting because at least one of the host database backends does not support non-unique IP reservations in a subnet

This warning message is issued when the server failed to use the new setting of the ip-reservations-unique global parameter configured via the configuration backend. Some host database backends used apparently do not support specifying several reservations for the same IP address in a subnet. The administrator should either stop using the backend that does not support this setting or set the value of the ip-reservations-unique to true to resolve the configuration issue.

DHCPSRV_CFGMGR_IPV6_RESERVATIONS_NON_UNIQUE_IGNORED

ignoring "ip-reservations-unique" setting because at least one of the host database backends does not support non unique IP reservations in a subnet

This warning message is issued when the server failed to use the new setting of the ip-reservations-unique global parameter configured via the configuration backend. Some host database backends used apparently do not support specifying several reservations for the same IP address or delegated prefix in a subnet. The administrator should either stop using the backend that does not support this setting or set the value of the ip-reservations-unique to true to resolve the configuration issue.

DHCPSRV_CFGMGR_IP_RESERVATIONS_UNIQUE_DUPLICATES_POSSIBLE

setting "ip-reservations-unique" from false to true poses a risk that some host backends may still contain multiple reservations for the same IP address

This warning message is issued when the DHCP server is configured to not allow multiple reservations for the same IP address. However, the host database backends may still contain multiple reservations for the same IP addresses causing problems with lease allocation for certain addresses. Please ensure that all such duplicates are removed.

DHCPSRV_CFGMGR_NEW_SUBNET4

a new subnet has been added to configuration: %1

This is an informational message reporting that the configuration has been extended to include the specified IPv4 subnet.

DHCPSRV_CFGMGR_NEW_SUBNET6

a new subnet has been added to configuration: %1

This is an informational message reporting that the configuration has been extended to include the specified subnet.

DHCPSRV_CFGMGR_NO_SUBNET4

no suitable subnet is defined for address hint %1

This debug message is output when the DHCP configuration manager has received a request for an IPv4 subnet for the specified address, but no such subnet exists.

DHCPSRV_CFGMGR_NO_SUBNET6

no suitable subnet is defined for address hint %1

This debug message is output when the DHCP configuration manager has received a request for an IPv6 subnet for the specified address, but no such subnet exists.

DHCPSRV_CFGMGR_ONLY_SUBNET4

retrieved subnet %1 for address hint %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv4 subnet when given the address hint specified because it is the only subnet defined.

DHCPSRV_CFGMGR_ONLY_SUBNET6

retrieved subnet %1 for address hint %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv6 subnet when given the address hint specified because it is the only subnet defined.

DHCPSRV_CFGMGR_OPTION_DUPLICATE

multiple options with the code: %1 added to the subnet: %2

This warning message is issued on an attempt to configure multiple options with the same option code for the particular subnet. Adding multiple options is uncommon for DHCPv6, but it is not prohibited.

DHCPSRV_CFGMGR_RELAY_IP_ADDRESS_DEPRECATED

"relay" uses "ip-address", which has been deprecated, please use "ip-addresses": %1

This is debug message issued when the "relay" element being parse contains "ip-address" rather than its replacement, "ip-addresses". The server will still honor the value but users are encouraged to move to the new list parameter.

DHCPSRV_CFGMGR_SOCKET_RAW_UNSUPPORTED

use of raw sockets is unsupported on this OS, UDP sockets will be used

This warning message is logged when the user specified that the DHCPv4 server should use the raw sockets to receive the DHCP messages and respond to the clients, but the use of raw sockets is not supported on the particular environment. The raw sockets are useful when the server must respond to the directly connected clients which don't have an address yet. If the raw sockets are not supported by Kea on the particular platform, Kea will fall back to use of the IP/UDP sockets. The responses to the directly connected clients will be broadcast. The responses to relayed clients will be unicast as usual.

DHCPSRV_CFGMGR_SOCKET_TYPE_DEFAULT

"dhcp-socket-type" not specified , using default socket type %1

This informational message is logged when the administrator hasn't specified the "dhcp-socket-type" parameter in configuration for interfaces. In such case, the default socket type will be used.

DHCPSRV_CFGMGR_SOCKET_TYPE_SELECT

using socket type %1

This informational message is logged when the DHCPv4 server selects the socket type to be used for all sockets that will be opened on the interfaces. Typically, the socket type is specified by the server administrator. If the socket type hasn't been specified, the raw socket will be selected. If the raw socket has been selected but Kea doesn't support the use of raw sockets on the particular OS, it will use an UDP socket instead.

DHCPSRV_CFGMGR_SUBNET4

retrieved subnet %1 for address hint %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv4 subnet when given the address hint specified as the address is within the subnet.

DHCPSRV_CFGMGR_SUBNET4_ADDR

selected subnet %1 for packet received by matching address %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv4 subnet for a received packet. This particular subnet was selected, because an IPv4 address was matched which belonged to that subnet.

DHCPSRV_CFGMGR_SUBNET4_IFACE

selected subnet %1 for packet received over interface %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv4 subnet for a packet received over the given interface. This particular subnet was selected, because it was specified as being directly reachable over the given interface. (see 'interface' parameter in the subnet4 definition).

DHCPSRV_CFGMGR_SUBNET4_RELAY

selected subnet %1, because of matching relay addr %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv4 subnet, because detected relay agent address matches value specified for this subnet.

DHCPSRV_CFGMGR_SUBNET6

retrieved subnet %1 for address hint %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv6 subnet when given the address hint specified as the address is within the subnet.

DHCPSRV_CFGMGR_SUBNET6_IFACE

selected subnet %1 for packet received over interface %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv6 subnet for a packet received over given interface. This particular subnet was selected, because it was specified as being directly reachable over given interface. (see 'interface' parameter in the subnet6 definition).

DHCPSRV_CFGMGR_SUBNET6_IFACE_ID

selected subnet %1 (interface-id match) for incoming packet

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv6 subnet for a received packet. This particular subnet was selected, because value of interface-id option matched what was configured in the server's interface-id option for that selected subnet6. (see 'interface-id' parameter in the subnet6 definition).

DHCPSRV_CFGMGR_SUBNET6_RELAY

selected subnet %1, because of matching relay addr %2

This is a debug message reporting that the DHCP configuration manager has returned the specified IPv6 subnet, because detected relay agent address matches value specified for this subnet.

DHCPSRV_CFGMGR_UNICAST_LINK_LOCAL

specified link local address %1 for unicast traffic on interface %2

This warning message is logged when user specified a link-local address to receive unicast traffic. The warning message is issued because it is an uncommon use.

DHCPSRV_CFGMGR_UPDATE_SUBNET4

updating subnet %1 (result %2)

A debug message reported when the DHCP configuration manager is updating the specified IPv4 subnet in its current configuration. Subnet ID and result (expected to be true) are displayed.

DHCPSRV_CFGMGR_UPDATE_SUBNET6

updating subnet %1 (result %2)

A debug message reported when the DHCP configuration manager is replacing the specified IPv6 subnet in its current configuration. Subnet ID and result (expected to be true) are displayed.

DHCPSRV_CFGMGR_USE_ADDRESS

listening on address %1, on interface %2

A message issued when the server is configured to listen on the explicitly specified IP address on the given interface.

DHCPSRV_CFGMGR_USE_UNICAST

listening on unicast address %1, on interface %2

An info message issued when configuring the DHCP server to listen on the unicast address on the specific interface.

DHCPSRV_CLOSE_DB

closing currently open %1 database

This is a debug message, issued when the DHCP server closes the currently open lease database. It is issued at program shutdown and whenever the database access parameters are changed: in the latter case, the server closes the currently open database, and opens a database using the new parameters.

DHCPSRV_DEPRECATED

This configuration is using a deprecated feature: %1

This warning is printed every time a deprecated feature (identified by the parameter) is used. A deprecated feature is functional now, but there will be a future Kea release where it will be completely removed. If you see this message it's not a reason for panic, but you should consider your long term strategy to eventually stop using the deprecated feature.

DHCPSRV_DHCP4O6_RECEIVED_BAD_PACKET

received bad DHCPv4o6 packet: %1

A bad DHCPv4o6 packet was received.

DHCPSRV_DHCP_DDNS_ERROR_EXCEPTION

error handler for DHCP_DDNS IO generated an expected exception: %1

This is an error message that occurs when an attempt to send a request to kea-dhcp-ddns fails there registered error handler threw an uncaught exception. This is a programmatic error which should not occur. By convention, the error handler should not propagate exceptions. Please report this error.

DHCPSRV_DHCP_DDNS_HANDLER_NULL

error handler for DHCP_DDNS IO is not set.

This is an error message that occurs when an attempt to send a request to kea-dhcp-ddns fails and there is no registered error handler. This is a programmatic error which should never occur and should be reported.

DHCPSRV_DHCP_DDNS_NCR_REJECTED

NameChangeRequest rejected by the sender: %1, ncr: %2

This is an error message indicating that NameChangeSender used to deliver DDNS update requests to kea-dhcp-ddns rejected the request. This most likely cause is the sender's queue has reached maximum capacity. This would imply that requests are being generated faster than they can be delivered.

DHCPSRV_DHCP_DDNS_NCR_SENT

NameChangeRequest sent to kea-dhcp-ddns: %1

A debug message issued when a NameChangeRequest has been successfully sent to kea-dhcp-ddns.

DHCPSRV_DHCP_DDNS_SENDER_STARTED

NameChangeRequest sender has been started: %1

An informational message issued when a communication with kea-dhcp-ddns has been successfully started.

DHCPSRV_DHCP_DDNS_SENDER_STOPPED

NameChangeRequest sender has been stopped.

An informational message issued when a communication with kea-dhcp-ddns has been stopped. This normally occurs during reconfiguration and as part of normal shutdown. It may occur if kea-dhcp-ddns communications break down.

DHCPSRV_DHCP_DDNS_SUSPEND_UPDATES

DHCP_DDNS updates are being suspended.

This is a warning message indicating the DHCP_DDNS updates have been turned off. This should only occur if IO errors communicating with kea-dhcp-ddns have been experienced. Any such errors should have preceding entries in the log with details. No further attempts to communicate with kea-dhcp-ddns will be made without intervention.

DHCPSRV_HOOK_LEASE4_RECOVER_SKIP

DHCPv4 lease %1 was not recovered from the declined state because a callout set the skip status.

This debug message is printed when a callout installed on lease4_recover hook point set the next step status to SKIP. For this particular hook point, this indicates that the server should not recover the lease from declined state. The server will leave the lease as it is, in the declined state. The server will attempt to recover it the next time decline recovery procedure takes place.

DHCPSRV_HOOK_LEASE4_RENEW_SKIP

DHCPv4 lease was not renewed because a callout set the skip flag.

This debug message is printed when a callout installed on lease4_renew hook point set the skip flag. For this particular hook point, the setting of the flag by a callout instructs the server to not renew a lease. The server will use existing lease as it is, without extending its lifetime.

DHCPSRV_HOOK_LEASE4_SELECT_SKIP

Lease4 creation was skipped, because of callout skip flag.

This debug message is printed when a callout installed on lease4_select hook point sets the skip flag. It means that the server was told that no lease4 should be assigned. The server will not put that lease in its database and the client will get a NAK packet.

DHCPSRV_HOOK_LEASE6_EXTEND_SKIP

DHCPv6 lease lifetime was not extended because a callout set the skip flag for message %1

This debug message is printed when a callout installed on lease6_renew or the lease6_rebind hook point set the skip flag. For this particular hook point, the setting of the flag by a callout instructs the server to not extend the lifetime for a lease. If the client requested renewal of multiple leases (by sending multiple IA options), the server will skip the renewal of the one in question and will proceed with other renewals as usual.

DHCPSRV_HOOK_LEASE6_RECOVER_SKIP

DHCPv6 lease %1 was not recovered from declined state because a callout set the skip status.

This debug message is printed when a callout installed on lease6_recover hook point set the next step status to SKIP. For this particular hook point, this indicates that the server should not recover the lease from declined state. The server will leave the lease as it is, in the declined state. The server will attempt to recover it the next time decline recovery procedure takes place.

DHCPSRV_HOOK_LEASE6_SELECT_SKIP

Lease6 (non-temporary) creation was skipped, because of callout skip flag.

This debug message is printed when a callout installed on lease6_select hook point sets the skip flag. It means that the server was told that no lease6 should be assigned. The server will not put that lease in its database and the client will get a NoAddrsAvail for that IA_NA option.

DHCPSRV_INVALID_ACCESS

invalid database access string: %1

This is logged when an attempt has been made to parse a database access string and the attempt ended in error. The access string in question - which should be of the form 'keyword=value keyword=value...' is included in the message.

DHCPSRV_LEASE_SANITY_FAIL

The lease %1 with subnet-id %2 failed subnet-id checks (%3).

This warning message is printed when the lease being loaded does not match the configuration. Due to lease-checks value, the lease will be loaded, but it will most likely be unused by Kea, as there is no subnet that matches the IP address associated with the lease.

DHCPSRV_LEASE_SANITY_FAIL_DISCARD

The lease %1 with subnet-id %2 failed subnet-id checks (%3) and was dropped.

This warning message is printed when a lease was loaded, but Kea was told (by setting lease-checks parameter) to discard leases with inconsistent data. The lease was discarded, because either there is no subnet configured with matching subnet-id or the address of the lease does not belong to the subnet.

DHCPSRV_LEASE_SANITY_FIXED

The lease %1 with subnet-id %2 failed subnet-id checks, but was corrected to subnet-id %3.

This informational message is printed when a lease was loaded, but had incorrect subnet-id value. The lease-checks parameter was set to a value that told Kea to try to correct the problem. There is a matching subnet, so Kea updated subnet-id and loaded the lease successfully.

DHCPSRV_MEMFILE_ADD_ADDR4

adding IPv4 lease with address %1

A debug message issued when the server is about to add an IPv4 lease with the specified address to the memory file backend database.

DHCPSRV_MEMFILE_ADD_ADDR6

adding IPv6 lease with address %1

A debug message issued when the server is about to add an IPv6 lease with the specified address to the memory file backend database.

DHCPSRV_MEMFILE_BEGIN_TRANSACTION

committing to memory file database

The code has issued a begin transaction call. For the memory file database, this is a no-op.

DHCPSRV_MEMFILE_COMMIT

committing to memory file database

The code has issued a commit call. For the memory file database, this is a no-op.

DHCPSRV_MEMFILE_CONVERTING_LEASE_FILES

running LFC now to convert lease files to the current schema: %1.%2

A warning message issued when the server has detected lease files that need to be either upgraded or downgraded to match the server's schema, and that the server is automatically running the LFC process to perform the conversion. This should only occur the first time the server is launched following a Kea installation upgrade (or downgrade).

DHCPSRV_MEMFILE_DB

opening memory file lease database: %1

This informational message is logged when a DHCP server (either V4 or V6) is about to open a memory file lease database. The parameters of the connection including database name and username needed to access it (but not the password if any) are logged.

DHCPSRV_MEMFILE_DELETE_ADDR

deleting lease for address %1

A debug message issued when the server is attempting to delete a lease for the specified address from the memory file database for the specified address.

DHCPSRV_MEMFILE_DELETE_EXPIRED_RECLAIMED4

deleting reclaimed IPv4 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv4 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_MEMFILE_DELETE_EXPIRED_RECLAIMED6

deleting reclaimed IPv6 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv6 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_MEMFILE_DELETE_EXPIRED_RECLAIMED_START

starting deletion of %1 expired-reclaimed leases

A debug message issued when the server has found expired-reclaimed leases to be removed. The number of leases to be removed is logged in the message.

DHCPSRV_MEMFILE_GET4

obtaining all IPv4 leases

A debug message issued when the server is attempting to obtain all IPv4 leases from the memory file database.

DHCPSRV_MEMFILE_GET6

obtaining all IPv6 leases

A debug message issued when the server is attempting to obtain all IPv6 leases from the memory file database.

DHCPSRV_MEMFILE_GET6_DUID

obtaining IPv6 leases for DUID %1

A debug message issued when the server is attempting to obtain IPv6 leases from the memory file database for the DUID.

DHCPSRV_MEMFILE_GET_ADDR4

obtaining IPv4 lease for address %1

A debug message issued when the server is attempting to obtain an IPv4 lease from the memory file database for the specified address.

DHCPSRV_MEMFILE_GET_ADDR6

obtaining IPv6 lease for address %1 and lease type %2

A debug message issued when the server is attempting to obtain an IPv6 lease from the memory file database for the specified address.

DHCPSRV_MEMFILE_GET_CLIENTID

obtaining IPv4 leases for client ID %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the memory file database for a client with the specified client identification.

DHCPSRV_MEMFILE_GET_EXPIRED4

obtaining maximum %1 of expired IPv4 leases

A debug message issued when the server is attempting to obtain expired IPv4 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_MEMFILE_GET_EXPIRED6

obtaining maximum %1 of expired IPv6 leases

A debug message issued when the server is attempting to obtain expired IPv6 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_MEMFILE_GET_HOSTNAME4

obtaining IPv4 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the memory file database for a client with the specified hostname.

DHCPSRV_MEMFILE_GET_HOSTNAME6

obtaining IPv6 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the memory file database for a client with the specified hostname.

DHCPSRV_MEMFILE_GET_HWADDR

obtaining IPv4 leases for hardware address %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the memory file database for a client with the specified hardware address.

DHCPSRV_MEMFILE_GET_IAID_DUID

obtaining IPv6 leases for IAID %1 and DUID %2 and lease type %3

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the memory file database for a client with the specified IAID (Identity Association ID) and DUID (DHCP Unique Identifier).

DHCPSRV_MEMFILE_GET_IAID_SUBID_DUID

obtaining IPv6 leases for IAID %1, Subnet ID %2, DUID %3 and lease type %4

A debug message issued when the server is attempting to obtain an IPv6 lease from the memory file database for a client with the specified IAID (Identity Association ID), Subnet ID and DUID (DHCP Unique Identifier).

DHCPSRV_MEMFILE_GET_PAGE4

obtaining at most %1 IPv4 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_MEMFILE_GET_PAGE6

obtaining at most %1 IPv6 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_MEMFILE_GET_SUBID4

obtaining IPv4 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv4 leases for a given subnet identifier from the memory file database.

DHCPSRV_MEMFILE_GET_SUBID6

obtaining IPv6 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv6 leases for a given subnet identifier from the memory file database.

DHCPSRV_MEMFILE_GET_SUBID_CLIENTID

obtaining IPv4 lease for subnet ID %1 and client ID %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the memory file database for a client with the specified subnet ID and client ID.

DHCPSRV_MEMFILE_GET_SUBID_HWADDR

obtaining IPv4 lease for subnet ID %1 and hardware address %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the memory file database for a client with the specified subnet ID and hardware address.

DHCPSRV_MEMFILE_GET_VERSION

obtaining schema version information

A debug message issued when the server is about to obtain schema version information from the memory file database.

DHCPSRV_MEMFILE_LEASE_FILE_LOAD

loading leases from file %1

An info message issued when the server is about to start reading DHCP leases from the lease file. All leases currently held in the memory will be replaced by those read from the file.

DHCPSRV_MEMFILE_LEASE_LOAD

loading lease %1

A debug message issued when DHCP lease is being loaded from the file to memory.

DHCPSRV_MEMFILE_LEASE_LOAD_ROW_ERROR

discarding row %1, error: %2

An error message issued if the DHCP lease being loaded from the given row of the lease file fails. The log message should contain the specific reason the row was discarded. The server continues loading the remaining data. This may indicate a corrupt lease file.

DHCPSRV_MEMFILE_LFC_EXECUTE

executing Lease File Cleanup using: %1

An informational message issued when the memfile lease database backend starts a new process to perform Lease File Cleanup.

DHCPSRV_MEMFILE_LFC_LEASE_FILE_RENAME_FAIL

failed to rename the current lease file %1 to %2, reason: %3

An error message logged when the memfile lease database backend fails to move the current lease file to a new file on which the cleanup should be performed. This effectively means that the lease file cleanup does not take place.

DHCPSRV_MEMFILE_LFC_LEASE_FILE_REOPEN_FAIL

failed to reopen lease file %1 after preparing input file for lease file cleanup, reason: %2, new leases will not persist!

An error message logged when the memfile lease database backend failed to re-open or re-create the lease file after renaming the lease file for lease file cleanup. The server continues to operate but leases do not persist to disk.

DHCPSRV_MEMFILE_LFC_SETUP

setting up the Lease File Cleanup interval to %1 sec

An informational message logged when the memfile lease database backend configures the LFC to be executed periodically. The argument holds the interval in seconds in which the LFC will be executed.

DHCPSRV_MEMFILE_LFC_SPAWN_FAIL

lease file cleanup failed to run because kea-lfc process couldn't be spawned

This error message is logged when the Kea server fails to run kea-lfc, the program that cleans up the lease file. The server will try again the next time a lease file cleanup is scheduled. Although this message should not appear and the reason why it did investigated, the occasional failure to start the lease file cleanup will not impact operations. Should the failure persist however, the size of the lease file will increase without bound.

DHCPSRV_MEMFILE_LFC_START

starting Lease File Cleanup

An informational message issued when the Memfile lease database backend starts the periodic Lease File Cleanup.

DHCPSRV_MEMFILE_LFC_UNREGISTER_TIMER_FAILED

failed to unregister timer 'memfile-lfc': %1

This debug message is logged when Memfile backend fails to unregister timer used for lease file cleanup scheduling. There are several reasons why this could occur, although the most likely cause is that the system is being shut down and some other component has unregistered the timer. The message includes the reason for this error.

DHCPSRV_MEMFILE_NEEDS_DOWNGRADING

version of lease file: %1 schema is later than version %2

A warning message issued when the schema of the lease file loaded by the server is newer than the memfile schema of the server. The server converts the lease data from newer schemas to its schema as it is read, therefore the lease information in use by the server will be correct. Note though, that any data stored in newer schema fields will be dropped. What remains is for the file itself to be rewritten using the current schema.

DHCPSRV_MEMFILE_NEEDS_UPGRADING

version of lease file: %1 schema is earlier than version %2

A warning message issued when the schema of the lease file loaded by the server pre-dates the memfile schema of the server. Note that the server converts the lease data from older schemas to the current schema as it is read, therefore the lease information in use by the server will be correct. What remains is for the file itself to be rewritten using the current schema.

DHCPSRV_MEMFILE_NO_STORAGE

running in non-persistent mode, leases will be lost after restart

A warning message issued when writes of leases to disk have been disabled in the configuration. This mode is useful for some kinds of performance testing but should not be enabled in normal circumstances. Non-persistence mode is enabled when 'persist4=no persist6=no' parameters are specified in the database access string.

DHCPSRV_MEMFILE_READ_HWADDR_FAIL

failed to read hardware address from lease file: %1

A warning message issued when read attempt of the hardware address stored in a disk file failed. The parameter should provide the exact nature of the failure. The database read will continue, but that particular lease will no longer have hardware address associated with it.

DHCPSRV_MEMFILE_ROLLBACK

rolling back memory file database

The code has issued a rollback call. For the memory file database, this is a no-op.

DHCPSRV_MEMFILE_UPDATE_ADDR4

updating IPv4 lease for address %1

A debug message issued when the server is attempting to update IPv4 lease from the memory file database for the specified address.

DHCPSRV_MEMFILE_UPDATE_ADDR6

updating IPv6 lease for address %1

A debug message issued when the server is attempting to update IPv6 lease from the memory file database for the specified address.

DHCPSRV_MEMFILE_WIPE_LEASES4

removing all IPv4 leases from subnet %1

This informational message is printed when removal of all leases from specified IPv4 subnet is commencing. This is a result of receiving administrative command.

DHCPSRV_MEMFILE_WIPE_LEASES4_FINISHED

removing all IPv4 leases from subnet %1 finished, removed %2 leases

This informational message is printed when removal of all leases from a specified IPv4 subnet has finished. The number of removed leases is printed.

DHCPSRV_MEMFILE_WIPE_LEASES6

removing all IPv6 leases from subnet %1

This informational message is printed when removal of all leases from specified IPv6 subnet is commencing. This is a result of receiving administrative command.

DHCPSRV_MEMFILE_WIPE_LEASES6_FINISHED

removing all IPv6 leases from subnet %1 finished, removed %2 leases

This informational message is printed when removal of all leases from a specified IPv6 subnet has finished. The number of removed leases is printed.

DHCPSRV_MULTIPLE_RAW_SOCKETS_PER_IFACE

current configuration will result in opening multiple broadcast capable sockets on some interfaces and some DHCP messages may be duplicated

A warning message issued when the current configuration indicates that multiple sockets, capable of receiving broadcast traffic, will be opened on some of the interfaces. It must be noted that this may lead to receiving and processing the same DHCP message multiple times, as it will be received by each socket individually.

DHCPSRV_MYSQL_ADD_ADDR4

adding IPv4 lease with address %1

A debug message issued when the server is about to add an IPv4 lease with the specified address to the MySQL backend database.

DHCPSRV_MYSQL_ADD_ADDR6

adding IPv6 lease with address %1, lease type %2

A debug message issued when the server is about to add an IPv6 lease with the specified address to the MySQL backend database.

DHCPSRV_MYSQL_BEGIN_TRANSACTION

committing to MySQL database

The code has issued a begin transaction call.

DHCPSRV_MYSQL_COMMIT

committing to MySQL database

The code has issued a commit call. All outstanding transactions will be committed to the database. Note that depending on the MySQL settings, the commit may not include a write to disk.

DHCPSRV_MYSQL_DB

opening MySQL lease database: %1

This informational message is logged when a DHCP server (either V4 or V6) is about to open a MySQL lease database. The parameters of the connection including database name and username needed to access it (but not the password if any) are logged.

DHCPSRV_MYSQL_DELETED_EXPIRED_RECLAIMED

deleted %1 reclaimed leases from the database

A debug message issued when the server has removed a number of reclaimed leases from the database. The number of removed leases is included in the message.

DHCPSRV_MYSQL_DELETE_ADDR

deleting lease for address %1

A debug message issued when the server is attempting to delete a lease for the specified address from the MySQL database for the specified address.

DHCPSRV_MYSQL_DELETE_EXPIRED_RECLAIMED4

deleting reclaimed IPv4 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv4 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_MYSQL_DELETE_EXPIRED_RECLAIMED6

deleting reclaimed IPv6 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv6 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_MYSQL_FATAL_ERROR

Unrecoverable MySQL error occurred: %1 for <%2>, reason: %3 (error code: %4).

An error message indicating that communication with the MySQL database server has been lost. If automatic recovery has been enabled, then the server will attempt to recover the connectivity. If not the server will exit with a non-zero exit code. The cause of such an error is most likely a network issue or the MySQL server has gone down.

DHCPSRV_MYSQL_GET4

obtaining all IPv4 leases

A debug message issued when the server is attempting to obtain all IPv4 leases from the MySQL database.

DHCPSRV_MYSQL_GET6

obtaining all IPv6 leases

A debug message issued when the server is attempting to obtain all IPv6 leases from the MySQL database.

DHCPSRV_MYSQL_GET_ADDR4

obtaining IPv4 lease for address %1

A debug message issued when the server is attempting to obtain an IPv4 lease from the MySQL database for the specified address.

DHCPSRV_MYSQL_GET_ADDR6

obtaining IPv6 lease for address %1, lease type %2

A debug message issued when the server is attempting to obtain an IPv6 lease from the MySQL database for the specified address.

DHCPSRV_MYSQL_GET_CLIENTID

obtaining IPv4 leases for client ID %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the MySQL database for a client with the specified client identification.

DHCPSRV_MYSQL_GET_DUID

obtaining IPv6 lease for duid %1,

A debug message issued when the server is attempting to obtain an IPv6 lease from the MySQL database for the specified duid.

DHCPSRV_MYSQL_GET_EXPIRED4

obtaining maximum %1 of expired IPv4 leases

A debug message issued when the server is attempting to obtain expired IPv4 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_MYSQL_GET_EXPIRED6

obtaining maximum %1 of expired IPv6 leases

A debug message issued when the server is attempting to obtain expired IPv6 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_MYSQL_GET_HOSTNAME4

obtaining IPv4 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the MySQL database for a client with the specified hostname.

DHCPSRV_MYSQL_GET_HOSTNAME6

obtaining IPv6 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the MySQL database for a client with the specified hostname.

DHCPSRV_MYSQL_GET_HWADDR

obtaining IPv4 leases for hardware address %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the MySQL database for a client with the specified hardware address.

DHCPSRV_MYSQL_GET_IAID_DUID

obtaining IPv6 leases for IAID %1, DUID %2, lease type %3

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the MySQL database for a client with the specified IAID (Identity Association ID) and DUID (DHCP Unique Identifier).

DHCPSRV_MYSQL_GET_IAID_SUBID_DUID

obtaining IPv6 leases for IAID %1, Subnet ID %2, DUID %3, lease type %4

A debug message issued when the server is attempting to obtain an IPv6 lease from the MySQL database for a client with the specified IAID (Identity Association ID), Subnet ID and DUID (DHCP Unique Identifier).

DHCPSRV_MYSQL_GET_PAGE4

obtaining at most %1 IPv4 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_MYSQL_GET_PAGE6

obtaining at most %1 IPv6 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_MYSQL_GET_SUBID4

obtaining IPv4 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv4 leases for a given subnet identifier from the MySQL database.

DHCPSRV_MYSQL_GET_SUBID6

obtaining IPv6 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv6 leases for a given subnet identifier from the MySQL database.

DHCPSRV_MYSQL_GET_SUBID_CLIENTID

obtaining IPv4 lease for subnet ID %1 and client ID %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the MySQL database for a client with the specified subnet ID and client ID.

DHCPSRV_MYSQL_GET_SUBID_HWADDR

obtaining IPv4 lease for subnet ID %1 and hardware address %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the MySQL database for a client with the specified subnet ID and hardware address.

DHCPSRV_MYSQL_GET_VERSION

obtaining schema version information

A debug message issued when the server is about to obtain schema version information from the MySQL database.

DHCPSRV_MYSQL_HOST_DB

opening MySQL hosts database: %1

This informational message is logged when a DHCP server (either V4 or V6) is about to open a MySQL hosts database. The parameters of the connection including database name and username needed to access it (but not the password if any) are logged.

DHCPSRV_MYSQL_HOST_DB_GET_VERSION

obtaining schema version information for the MySQL hosts database

A debug message issued when the server is about to obtain schema version information from the MySQL hosts database.

DHCPSRV_MYSQL_HOST_DB_READONLY

MySQL host database opened for read access only

This informational message is issued when the user has configured the MySQL database in read-only mode. Kea will not be able to insert or modify host reservations but will be able to retrieve existing ones and assign them to the clients communicating with the server.

DHCPSRV_MYSQL_HOST_DB_RECONNECT_ATTEMPT_FAILED

database reconnect failed: %1

An error message issued when an attempt to reconnect has failed.

DHCPSRV_MYSQL_HOST_DB_RECONNECT_ATTEMPT_SCHEDULE

scheduling attempt %1 of %2 in %3 milliseconds

An info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

DHCPSRV_MYSQL_HOST_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

An error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

DHCPSRV_MYSQL_LEASE_DB_RECONNECT_ATTEMPT_FAILED

database reconnect failed: %1

An error message issued when an attempt to reconnect has failed.

DHCPSRV_MYSQL_LEASE_DB_RECONNECT_ATTEMPT_SCHEDULE

scheduling attempt %1 of %2 in %3 milliseconds

An info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

DHCPSRV_MYSQL_LEASE_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

An error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

DHCPSRV_MYSQL_NEGATIVE_LEASES_STAT

recount of leases returned a negative value

This warning message is issued when the recount of leases using counters in the MySQL database returned a negative value. This shows a problem which can be fixed only by an offline direct recount on the database. This message is issued only once.

DHCPSRV_MYSQL_NO_TLS

TLS was required but is not used

This error message is issued when TLS for the connection was required but TLS is not used.

DHCPSRV_MYSQL_ROLLBACK

rolling back MySQL database

The code has issued a rollback call. All outstanding transaction will be rolled back and not committed to the database.

DHCPSRV_MYSQL_START_TRANSACTION

starting new MySQL transaction

A debug message issued when a new MySQL transaction is being started. This message is typically not issued when inserting data into a single table because the server doesn't explicitly start transactions in this case. This message is issued when data is inserted into multiple tables with multiple INSERT statements and there may be a need to rollback the whole transaction if any of these INSERT statements fail.

DHCPSRV_MYSQL_TLS_CIPHER

TLS cipher: %1

A debug message issued when a new MySQL connected is created with TLS. The TLS cipher name is logged.

DHCPSRV_MYSQL_UPDATE_ADDR4

updating IPv4 lease for address %1

A debug message issued when the server is attempting to update IPv4 lease from the MySQL database for the specified address.

DHCPSRV_MYSQL_UPDATE_ADDR6

updating IPv6 lease for address %1, lease type %2

A debug message issued when the server is attempting to update IPv6 lease from the MySQL database for the specified address.

DHCPSRV_NOTYPE_DB

no 'type' keyword to determine database backend: %1

This is an error message, logged when an attempt has been made to access a database backend, but where no 'type' keyword has been included in the access string. The access string (less any passwords) is included in the message.

DHCPSRV_NO_SOCKETS_OPEN

no interface configured to listen to DHCP traffic

This warning message is issued when the current server configuration specifies no interfaces that the server should listen on, or when the specified interfaces are not configured to receive the traffic.

DHCPSRV_OPEN_SOCKET_FAIL

failed to open socket: %1

A warning message issued when IfaceMgr fails to open and bind a socket. The reason for the failure is appended as an argument of the log message.

DHCPSRV_PGSQL_ADD_ADDR4

adding IPv4 lease with address %1

A debug message issued when the server is about to add an IPv4 lease with the specified address to the PostgreSQL backend database.

DHCPSRV_PGSQL_ADD_ADDR6

adding IPv6 lease with address %1, lease type %2

A debug message issued when the server is about to add an IPv6 lease with the specified address to the PostgreSQL backend database.

DHCPSRV_PGSQL_BEGIN_TRANSACTION

committing to PostgreSQL database

The code has issued a begin transaction call.

DHCPSRV_PGSQL_COMMIT

committing to PostgreSQL database

The code has issued a commit call. All outstanding transactions will be committed to the database. Note that depending on the PostgreSQL settings, the commit may not include a write to disk.

DHCPSRV_PGSQL_DB

opening PostgreSQL lease database: %1

This informational message is logged when a DHCP server (either V4 or V6) is about to open a PostgreSQL lease database. The parameters of the connection including database name and username needed to access it (but not the password if any) are logged.

DHCPSRV_PGSQL_DEALLOC_ERROR

An error occurred deallocating SQL statements while closing the PostgreSQL lease database: %1

This is an error message issued when a DHCP server (either V4 or V6) experienced and error freeing database SQL resources as part of closing its connection to the PostgreSQL database. The connection is closed as part of normal server shutdown. This error is most likely a programmatic issue that is highly unlikely to occur or negatively impact server operation.

DHCPSRV_PGSQL_DELETE_ADDR

deleting lease for address %1

A debug message issued when the server is attempting to delete a lease for the specified address from the PostgreSQL database for the specified address.

DHCPSRV_PGSQL_DELETE_EXPIRED_RECLAIMED4

deleting reclaimed IPv4 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv4 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_PGSQL_DELETE_EXPIRED_RECLAIMED6

deleting reclaimed IPv6 leases that expired more than %1 seconds ago

A debug message issued when the server is removing reclaimed DHCPv6 leases which have expired longer than a specified period of time. The argument is the amount of time Kea waits after a reclaimed lease expires before considering its removal.

DHCPSRV_PGSQL_FATAL_ERROR

Unrecoverable PostgreSQL error occurred: Statement: <%1>, reason: %2 (error code: %3).

An error message indicating that communication with the PostgreSQL database server has been lost. If automatic recovery has been enabled, then the server will attempt to recover the connectivity. If not the server will exit with a non-zero exit code. The cause of such an error is most likely a network issue or the PostgreSQL server has gone down.

DHCPSRV_PGSQL_GET4

obtaining all IPv4 leases

A debug message issued when the server is attempting to obtain all IPv4 leases from the PostgreSQL database.

DHCPSRV_PGSQL_GET6

obtaining all IPv6 leases

A debug message issued when the server is attempting to obtain all IPv6 leases from the PostgreSQL database.

DHCPSRV_PGSQL_GET_ADDR4

obtaining IPv4 lease for address %1

A debug message issued when the server is attempting to obtain an IPv4 lease from the PostgreSQL database for the specified address.

DHCPSRV_PGSQL_GET_ADDR6

obtaining IPv6 lease for address %1 (lease type %2)

A debug message issued when the server is attempting to obtain an IPv6 lease from the PostgreSQL database for the specified address.

DHCPSRV_PGSQL_GET_CLIENTID

obtaining IPv4 leases for client ID %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the PostgreSQL database for a client with the specified client identification.

DHCPSRV_PGSQL_GET_DUID

obtaining IPv6 leases for DUID %1,

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the PostgreSQL database for a client with the specified DUID (DHCP Unique Identifier).

DHCPSRV_PGSQL_GET_EXPIRED4

obtaining maximum %1 of expired IPv4 leases

A debug message issued when the server is attempting to obtain expired IPv4 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_PGSQL_GET_EXPIRED6

obtaining maximum %1 of expired IPv6 leases

A debug message issued when the server is attempting to obtain expired IPv6 leases to reclaim them. The maximum number of leases to be retrieved is logged in the message.

DHCPSRV_PGSQL_GET_HOSTNAME4

obtaining IPv4 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the PostgreSQL database for a client with the specified hostname.

DHCPSRV_PGSQL_GET_HOSTNAME6

obtaining IPv6 leases for hostname %1

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the PostgreSQL database for a client with the specified hostname.

DHCPSRV_PGSQL_GET_HWADDR

obtaining IPv4 leases for hardware address %1

A debug message issued when the server is attempting to obtain a set of IPv4 leases from the PostgreSQL database for a client with the specified hardware address.

DHCPSRV_PGSQL_GET_IAID_DUID

obtaining IPv4 leases for IAID %1 and DUID %2, lease type %3

A debug message issued when the server is attempting to obtain a set of IPv6 leases from the PostgreSQL database for a client with the specified IAID (Identity Association ID) and DUID (DHCP Unique Identifier).

DHCPSRV_PGSQL_GET_IAID_SUBID_DUID

obtaining IPv4 leases for IAID %1, Subnet ID %2, DUID %3, and lease type %4

A debug message issued when the server is attempting to obtain an IPv6 lease from the PostgreSQL database for a client with the specified IAID (Identity Association ID), Subnet ID and DUID (DHCP Unique Identifier).

DHCPSRV_PGSQL_GET_PAGE4

obtaining at most %1 IPv4 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_PGSQL_GET_PAGE6

obtaining at most %1 IPv6 leases starting from address %2

A debug message issued when the server is attempting to obtain a page of leases beginning with the specified address.

DHCPSRV_PGSQL_GET_SUBID4

obtaining IPv4 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv4 leases for a given subnet identifier from the PostgreSQL database.

DHCPSRV_PGSQL_GET_SUBID6

obtaining IPv6 leases for subnet ID %1

A debug message issued when the server is attempting to obtain all IPv6 leases for a given subnet identifier from the PostgreSQL database.

DHCPSRV_PGSQL_GET_SUBID_CLIENTID

obtaining IPv4 lease for subnet ID %1 and client ID %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the PostgreSQL database for a client with the specified subnet ID and client ID.

DHCPSRV_PGSQL_GET_SUBID_HWADDR

obtaining IPv4 lease for subnet ID %1 and hardware address %2

A debug message issued when the server is attempting to obtain an IPv4 lease from the PostgreSQL database for a client with the specified subnet ID and hardware address.

DHCPSRV_PGSQL_GET_VERSION

obtaining schema version information

A debug message issued when the server is about to obtain schema version information from the PostgreSQL database.

DHCPSRV_PGSQL_HOST_DB

opening PostgreSQL hosts database: %1

This informational message is logged when a DHCP server (either V4 or V6) is about to open a PostgreSQL hosts database. The parameters of the connection including database name and username needed to access it (but not the password if any) are logged.

DHCPSRV_PGSQL_HOST_DB_GET_VERSION

obtaining schema version information for the PostgreSQL hosts database

A debug message issued when the server is about to obtain schema version information from the PostgreSQL hosts database.

DHCPSRV_PGSQL_HOST_DB_READONLY

PostgreSQL host database opened for read access only

This informational message is issued when the user has configured the PostgreSQL database in read-only mode. Kea will not be able to insert or modify host reservations but will be able to retrieve existing ones and assign them to the clients communicating with the server.

DHCPSRV_PGSQL_HOST_DB_RECONNECT_ATTEMPT_FAILED

database reconnect failed: %1

An error message issued when an attempt to reconnect has failed.

DHCPSRV_PGSQL_HOST_DB_RECONNECT_ATTEMPT_SCHEDULE

scheduling attempt %1 of %2 in %3 milliseconds

An info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

DHCPSRV_PGSQL_HOST_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

An error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

DHCPSRV_PGSQL_LEASE_DB_RECONNECT_ATTEMPT_FAILED

database reconnect failed: %1

An error message issued when an attempt to reconnect has failed.

DHCPSRV_PGSQL_LEASE_DB_RECONNECT_ATTEMPT_SCHEDULE

scheduling attempt %1 of %2 in %3 milliseconds

An info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

DHCPSRV_PGSQL_LEASE_DB_RECONNECT_FAILED

maximum number of database reconnect attempts: %1, has been exhausted without success

An error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

DHCPSRV_PGSQL_NEGATIVE_LEASES_STAT

recount of leases returned a negative value

This warning message is issued when the recount of leases using counters in the PostgreSQL database returned a negative value. This shows a problem which can be fixed only by an offline direct recount on the database. This message is issued only once.

DHCPSRV_PGSQL_NO_TLS_SUPPORT

Attempt to configure TLS (unsupported for PostgreSQL): %1

This error message is printed when TLS support was required in the Kea configuration: Kea was built with this feature disabled for PostgreSQL. The parameters of the connection are logged.

DHCPSRV_PGSQL_ROLLBACK

rolling back PostgreSQL database

The code has issued a rollback call. All outstanding transaction will be rolled back and not committed to the database.

DHCPSRV_PGSQL_START_TRANSACTION

starting a new PostgreSQL transaction

A debug message issued when a new PostgreSQL transaction is being started. This message is typically not issued when inserting data into a single table because the server doesn't explicitly start transactions in this case. This message is issued when data is inserted into multiple tables with multiple INSERT statements and there may be a need to rollback the whole transaction if any of these INSERT statements fail.

DHCPSRV_PGSQL_TLS_SUPPORT

Attempt to configure TLS: %1

This informational message is printed when TLS support was required in the Kea configuration: The TLS support in PostgreSQL will be initialized but its configuration is fully managed outside the C API. The parameters of the connection are logged.

DHCPSRV_PGSQL_UPDATE_ADDR4

updating IPv4 lease for address %1

A debug message issued when the server is attempting to update IPv4 lease from the PostgreSQL database for the specified address.

DHCPSRV_PGSQL_UPDATE_ADDR6

updating IPv6 lease for address %1, lease type %2

A debug message issued when the server is attempting to update IPv6 lease from the PostgreSQL database for the specified address.

DHCPSRV_QUEUE_NCR

%1: Name change request to %2 DNS entry queued: %3

A debug message which is logged when the NameChangeRequest to add or remove a DNS entries for a particular lease has been queued. The first argument includes the client identification information. The second argument indicates whether the DNS entry is to be added or removed. The third argument carries the details of the NameChangeRequest.

DHCPSRV_QUEUE_NCR_FAILED

%1: queuing %2 name change request failed for lease %3: %4

This error message is logged when sending a NameChangeRequest to DHCP DDNS failed. The first argument includes the client identification information. The second argument indicates whether the DNS entry is to be added or removed. The third argument specifies the leased address. The last argument provides the reason for failure.

DHCPSRV_QUEUE_NCR_SKIP

%1: skip queuing name change request for lease: %2

This debug message is issued when the server decides to not queue the name change request because the lease doesn't include the FQDN, the forward and reverse update is disabled for this lease or the DNS updates are disabled in the configuration. The first argument includes the client identification information. The second argument includes the leased address.

DHCPSRV_SUBNET4O6_SELECT_FAILED

Failed to select any subnet for the DHCPv4o6 packet

A debug message issued when the server was unable to select any subnet for the DHCPv4o6 packet.

DHCPSRV_SUBNET4_SELECT_BY_ADDRESS_FAILED

Failed to select any subnet using address: %1

A debug message issued when the server was unable to select any subnet using specified address.

DHCPSRV_SUBNET4_SELECT_BY_INTERFACE_FAILED

Failed to select any subnet using interface: %1

A debug message issued when the server was unable to select any subnet using specified interface name.

DHCPSRV_SUBNET4_SELECT_BY_RELAY_ADDRESS_FAILED

Failed to select any subnet using relay address: %1

A debug message issued when the server was unable to select any subnet using the specified relay address.

DHCPSRV_SUBNET4_SELECT_FAILED_NO_ADDRESS

Failed to select any subnet because no suitable address to use for subnet selection was found.

A debug message issued when the server was unable to select any subnet because no suitable address to use for subnet selection was found.

DHCPSRV_SUBNET4_SELECT_FAILED_NO_RAI_OPTIONS_ADDRESS

Failed to select any subnet because no suitable address to use for subnet selection was found in the relay supplied options.

A debug message issued when the server was unable to select any subnet because no suitable address to use for subnet selection was found in the relay supplied options.

DHCPSRV_SUBNET4_SELECT_FAILED_NO_RELAY_ADDRESS

Failed to select any subnet because no relay address to use for subnet selection was found.

A debug message issued when the server was unable to select any subnet because no relay address to use for subnet selection was found.

DHCPSRV_SUBNET6_SELECT_BY_ADDRESS_FAILED

Failed to select any subnet using address: %1

A debug message issued when the server was unable to select any subnet using specified address.

DHCPSRV_SUBNET6_SELECT_BY_INTERFACE_FAILED

Failed to select any subnet using interface: %1

A debug message issued when the server was unable to select any subnet using specified interface name.

DHCPSRV_SUBNET6_SELECT_BY_INTERFACE_ID_FAILED

Failed to select any subnet using interface-id: %1

A debug message issued when the server was unable to select any subnet using specified interface id.

DHCPSRV_TIMERMGR_CALLBACK_FAILED

running handler for timer %1 caused exception: %2

This error message is emitted when the timer elapsed and the operation associated with this timer has thrown an exception. The timer name and the reason for exception is logged.

DHCPSRV_TIMERMGR_REGISTER_TIMER

registering timer: %1, using interval: %2 ms

A debug message issued when the new interval timer is registered in the Timer Manager. This timer will have a callback function associated with it, and this function will be executed according to the interval specified. The unique name of the timer and the interval at which the callback function will be executed is included in the message.

DHCPSRV_TIMERMGR_RUN_TIMER_OPERATION

running operation for timer: %1

A debug message issued when the Timer Manager is about to run a periodic operation associated with the given timer. An example of such operation is a periodic cleanup of expired leases. The name of the timer is included in the message.

DHCPSRV_TIMERMGR_START_TIMER

starting timer: %1

A debug message issued when the registered interval timer is being started. If this operation is successful the timer will periodically execute the operation associated with it. The name of the started timer is included in the message.

DHCPSRV_TIMERMGR_STOP_TIMER

stopping timer: %1

A debug message issued when the registered interval timer is being stopped. The timer remains registered and can be restarted if necessary. The name of the timer is included in the message.

DHCPSRV_TIMERMGR_UNREGISTER_ALL_TIMERS

unregistering all timers

A debug message issued when all registered interval timers are being unregistered from the Timer Manager.

DHCPSRV_TIMERMGR_UNREGISTER_TIMER

unregistering timer: %1

A debug message issued when one of the registered interval timers is unregistered from the Timer Manager. The name of the timer is included in the message.

DHCPSRV_UNEXPECTED_NAME

database access parameters passed through '%1', expected 'lease-database'

The parameters for access the lease database were passed to the server through the named configuration parameter, but the code was expecting them to be passed via the parameter named "lease-database". If the database opens successfully, there is no impact on server operation. However, as this does indicate an error in the source code, please submit a bug report.

CHAPTER 11

DHCP

DHCP_DDNS_ADD_FAILED

DHCP_DDNS Request ID %1: Transaction outcome %2

This is an error message issued after DHCP_DDNS attempts to submit DNS mapping entry additions have failed. The precise reason for the failure should be documented in preceding log entries.

DHCP_DDNS_ADD_SUCCEEDED

DHCP_DDNS Request ID %1: successfully added the DNS mapping addition for this request: %2

This is an informational message issued after DHCP_DDNS has submitted DNS mapping additions which were received and accepted by an appropriate DNS server.

DHCP_DDNS_ALREADY_RUNNING

%1 already running? %2

This is an error message that occurs when DHCP_DDNS encounters a pre-existing PID file which contains the PID of a running process. This most likely indicates an attempt to start a second instance of DHCP_DDNS using the same configuration file. It is possible, though unlikely, that the PID file is a remnant left behind by a server crash or power failure and the PID it contains refers to a process other than DHCP_DDNS. In such an event, it would be necessary to manually remove the PID file. The first argument is the DHCP_DDNS process name, the second contains the PID and PID file.

DHCP_DDNS_AT_MAX_TRANSACTIONS

application has %1 queued requests but has reached maximum number of %2 concurrent transactions

This is a debug message that indicates that the application has DHCP_DDNS requests in the queue but is working as many concurrent requests as allowed.

DHCP_DDNS_CLEARED_FOR_SHUTDOWN

application has met shutdown criteria for shutdown type: %1

This is a debug message issued when the application has been instructed to shutdown and has met the required criteria to exit.

DHCP_DDNS_COMMAND

command directive received, command: %1 - args: %2

This is a debug message issued when the DHCP-DDNS application command method has been invoked.

DHCP_DDNS_CONFIGURE

configuration %1 received: %2

This is a debug message issued when the DHCP-DDNS application configure method has been invoked.

DHCP_DDNS_CONFIGURED_CALLOUT_DROP

configuration was rejected because a callout set the next step to 'drop': %1

This error message indicates that the DHCP-DDNS had failed configuration attempt because the next step of the configured callout was set to 'drop' by a hook library. The error message provided by the hook library is displayed.

DHCP_DDNS_CONFIG_CHECK_FAIL

DHCP-DDNS server configuration check failed: %1

This error message indicates that the DHCP-DDNS had failed configuration check. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

DHCP_DDNS_CONFIG_FAIL

DHCP-DDNS server configuration failed: %1

This error message indicates that the DHCP-DDNS had failed configuration attempt. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

DHCP_DDNS_CONFIG_SYNTAX_WARNING

DHCP-DDNS server configuration syntax warning: %1

This warning message indicates that the DHCP-DDNS configuration had a minor syntax error. The error was displayed and the configuration parsing resumed.

DHCP_DDNS_FAILED

application experienced a fatal error: %1

This is a debug message issued when the DHCP-DDNS application encounters an unrecoverable error from within the event loop.

DHCP_DDNS_FORWARD_ADD_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while adding a forward address mapping for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was adding a forward address mapping. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_FORWARD_ADD_BUILD_FAILURE

DNS Request ID %1: update message to add a forward DNS entry could not be constructed for this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting a forward address addition. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue.

DHCP_DDNS_FORWARD_ADD_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a forward mapping add for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a forward address update. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FORWARD_ADD_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to add the address mapping for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_FORWARD_ADD_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while adding forward address mapping for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to add a forward address mapping, is mangled or malformed. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FORWARD_REMOVE_ADDRS_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while removing a forward address mapping for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was removing a forward address mapping. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_FORWARD_REMOVE_ADDRS_BUILD_FAILURE

DNS Request ID %1: update message to remove a forward DNS Address entry could not be constructed for this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting a forward address (A or AAAA) removal. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue. */sar/*

DHCP_DDNS_FORWARD_REMOVE_ADDRS_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a forward mapping address removal for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a forward address remove. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FORWARD_REMOVE_ADDRS_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to remove the forward address mapping for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_FORWARD_REMOVE_ADDRS_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while removing forward address mapping for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to remove a forward address mapping, is mangled or malformed. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FORWARD_REMOVE_RRS_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while removing forward RRs for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was removing forward RRs. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_FORWARD_REMOVE_RRS_BUILD_FAILURE

DNS Request ID %1: update message to remove forward DNS RR entries could not be constructed for this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting forward RR (DHCID RR) removal. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue.

DHCP_DDNS_FORWARD_REMOVE_RRS_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a forward RR removal for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a forward RR remove. The application will retry against the same server.

DHCP_DDNS_FORWARD_REMOVE_RRS_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to remove forward RR entries for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_FORWARD_REMOVE_RRS_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while removing forward RRs for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to remove forward RRs mapping, is mangled or malformed. The application will retry against the same server or others as appropriate. */sar/*

DHCP_DDNS_FORWARD_REPLACE_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while replacing forward address mapping for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was replacing a forward address mapping. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_FORWARD_REPLACE_BUILD_FAILURE

DNS Request ID %1: update message to replace a forward DNS entry could not be constructed from this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting a forward address replacement. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue.

DHCP_DDNS_FORWARD_REPLACE_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a forward mapping replace for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a forward address update. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FORWARD_REPLACE_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to replace the address mapping for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_FORWARD_REPLACE_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while replacing forward address mapping for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to replace a forward address mapping, is mangled or malformed. The application will retry against the same server or others as appropriate.

DHCP_DDNS_FWD_REQUEST_IGNORED

Request ID %1: Forward updates are disabled, the forward portion of request will be ignored: %2

This is a debug message issued when forward DNS updates are disabled and DHCP_DDNS receives an update request containing a forward DNS update. The forward update will not performed.

DHCP_DDNS_INVALID_NCR

application received an invalid DNS update request: %1

This is an error message that indicates that an invalid request to update a DNS entry was received by the application. Either the format or the content of the request is incorrect. The request will be ignored.

DHCP_DDNS_INVALID_RESPONSE

received response to DNS Update message is malformed: %1

This is a debug message issued when the DHCP-DDNS application encountered an error while decoding a response to DNS Update message. Typically, this error will be encountered when a response message is malformed.

DHCP_DDNS_NCR_FLUSH_IO_ERROR

DHCP-DDNS Last send before stopping did not complete successfully: %1

This is an error message that indicates the DHCP-DDNS client was unable to complete the last send prior to exiting send mode. This is a programmatic error, highly unlikely to occur, and should not impair the application's ability to process requests.

DHCP_DDNS_NCR_LISTEN_CLOSE_ERROR

application encountered an error while closing the listener used to receive NameChangeRequests : %1

This is an error message that indicates the application was unable to close the listener connection used to receive NameChangeRequests. Closure may occur during the course of error recovery or during normal shutdown procedure. In either case the error is unlikely to impair the application's ability to process requests but it should be reported for analysis.

DHCP_DDNS_NCR_RECV_NEXT_ERROR

application could not initiate the next read following a request receive.

This is an error message indicating that NameChangeRequest listener could not start another read after receiving a request. While possible, this is highly unlikely and is probably a programmatic error. The application should recover on its own.

DHCP_DDNS_NCR_SEND_CLOSE_ERROR

DHCP-DDNS client encountered an error while closing the sender connection used to send NameChangeRequests: %1

This is an error message that indicates the DHCP-DDNS client was unable to close the connection used to send NameChangeRequests. Closure may occur during the course of error recovery or during normal shutdown procedure. In either case the error is unlikely to impair the client's ability to send requests but it should be reported for analysis.

DHCP_DDNS_NCR_SEND_NEXT_ERROR

DHCP-DDNS client could not initiate the next request send following send completion: %1

This is an error message indicating that NameChangeRequest sender could not start another send after completing the send of the previous request. While possible, this is highly unlikely and is probably a programmatic error. The application should recover on its own.

DHCP_DDNS_NCR_UDP_CLEAR_READY_ERROR

NCR UDP watch socket failed to clear: %1

This is an error message that indicates the application was unable to reset the UDP NCR sender ready status after completing a send. This is programmatic error that should be reported. The application may or may not continue to operate correctly.

DHCP_DDNS_NCR_UDP_RECV_CANCELED

UDP socket receive was canceled while listening for DNS Update requests

This is a debug message indicating that the listening on a UDP socket for DNS update requests has been canceled. This is a normal part of suspending listening operations.

DHCP_DDNS_NCR_UDP_RECV_ERROR

UDP socket receive error while listening for DNS Update requests: %1

This is an error message indicating that an I/O error occurred while listening over a UDP socket for DNS update requests. This could indicate a network connectivity or system resource issue.

DHCP_DDNS_NCR_UDP_SEND_CANCELED

UDP socket send was canceled while sending a DNS Update request to DHCP_DDNS: %1

This is an informational message indicating that sending requests via UDP socket to DHCP_DDNS has been interrupted. This is a normal part of suspending send operations.

DHCP_DDNS_NCR_UDP_SEND_ERROR

UDP socket send error while sending a DNS Update request: %1

This is an error message indicating that an IO error occurred while sending a DNS update request to DHCP_DDNS over a UDP socket. This could indicate a network connectivity or system resource issue.

DHCP_DDNS_NOT_ON_LOOPBACK

the DHCP-DDNS server has been configured to listen on %1 which is not the local loopback. This is an insecure configuration supported for testing purposes only

This is a warning message issued when the DHCP-DDNS server is configured to listen at an address other than the loopback address (127.0.0.1 or ::1). It is possible for a malicious attacker to send bogus NameChangeRequests to it and change entries in the DNS. For this reason, addresses other than the IPv4 or IPv6 loopback addresses should only be used for testing purposes. A future version of Kea will implement authentication to guard against such attacks.

DHCP_DDNS_NO_ELIGIBLE_JOBS

although there are queued requests, there are pending transactions for each, Queue count: %1 Transaction count: %2

This is a debug message issued when all of the queued requests represent clients for which there is an update already in progress. This may occur under normal operations but should be temporary situation.

DHCP_DDNS_NO_FWD_MATCH_ERROR

Request ID %1: the configured list of forward DDNS domains does not contain a match for: %2 The request has been discarded.

This is an error message that indicates that DHCP_DDNS received a request to update the forward DNS information for the given FQDN but for which there are no configured DDNS domains in the DHCP_DDNS configuration. Either the DHCP_DDNS configuration needs to be updated or the source of the FQDN itself should be investigated.

DHCP_DDNS_NO_MATCH

No DNS servers match FQDN %1

This is warning message issued when there are no domains in the configuration which match the cited fully qualified domain name (FQDN). The DNS Update request for the FQDN cannot be processed.

DHCP_DDNS_NO_REV_MATCH_ERROR

Request ID %1: the configured list of reverse DDNS domains does not contain a match for: %2 The request has been discarded.

This is an error message that indicates that DHCP_DDNS received a request to update the reverse DNS information for the given FQDN but for which there are no configured DDNS domains in the DHCP_DDNS configuration. Either the DHCP_DDNS configuration needs to be updated or the source of the FQDN itself should be investigated.

DHCP_DDNS_PROCESS_INIT

application init invoked

This is a debug message issued when the DHCP-DDNS application enters its initialization method.

DHCP_DDNS_QUEUE_MGR_QUEUE_FULL

application request queue has reached maximum number of entries %1

This an error message indicating that DHCP-DDNS is receiving DNS update requests faster than they can be processed. This may mean the maximum queue needs to be increased, the DHCP-DDNS clients are simply generating too many requests too quickly, or perhaps upstream DNS servers are experiencing load issues.

DHCP_DDNS_QUEUE_MGR_QUEUE_RECEIVE

Request ID %1: received and queued a request.

This is an informational message indicating that the NameChangeRequest listener used by DHCP-DDNS to receive a request has received a request and queued it for further processing.

DHCP_DDNS_QUEUE_MGR_RECONFIGURING

application is reconfiguring the queue manager

This is an informational message indicating that DHCP_DDNS is reconfiguring the queue manager as part of normal startup or in response to a new configuration.

DHCP_DDNS_QUEUE_MGR_RECOVERING

application is attempting to recover from a queue manager IO error

This is an informational message indicating that DHCP_DDNS is attempting to restart the queue manager after it suffered an IO error while receiving requests.

DHCP_DDNS_QUEUE_MGR_RECV_ERROR

application's queue manager was notified of a request receive error by its listener.

This is an error message indicating that the NameChangeRequest listener used by DHCP-DDNS to receive requests encountered an IO error. There should be corresponding log messages from the listener layer with more details. This may indicate a network connectivity or system resource issue.

DHCP_DDNS_QUEUE_MGR_RESUME_ERROR

application could not restart the queue manager, reason: %1

This is an error message indicating that DHCP_DDNS's Queue Manager could not be restarted after stopping due to a full receive queue. This means that the application cannot receive requests. This is most likely due to DHCP_DDNS configuration parameters referring to resources such as an IP address or port, that is no longer unavailable. DHCP_DDNS will attempt to restart the queue manager if given a new configuration.

DHCP_DDNS_QUEUE_MGR_RESUMING

application is resuming listening for requests now that the request queue size has reached %1 of a maximum %2 allowed

This is an informational message indicating that DHCP_DDNS, which had stopped accepting new requests, has processed enough entries from the receive queue to resume accepting requests.

DHCP_DDNS_QUEUE_MGR_STARTED

application's queue manager has begun listening for requests.

This is a debug message indicating that DHCP_DDNS's Queue Manager has successfully started and is now listening for NameChangeRequests.

DHCP_DDNS_QUEUE_MGR_START_ERROR

application could not start the queue manager, reason: %1

This is an error message indicating that DHCP_DDNS's Queue Manager could not be started. This means that the application cannot receive requests. This is most likely due to DHCP_DDNS configuration parameters referring to resources such as an IP address or port, that are unavailable. DHCP_DDNS will attempt to restart the queue manager if given a new configuration.

DHCP_DDNS_QUEUE_MGR_STOPPED

application's queue manager has stopped listening for requests.

This is a debug message indicating that DHCP_DDNS's Queue Manager has stopped listening for NameChangeRequests. This may be because of normal event such as reconfiguration or as a result of an error. There should be log messages preceding this one to indicate why it has stopped.

DHCP_DDNS_QUEUE_MGR_STOPPING

application is stopping the queue manager for %1

This is an informational message indicating that DHCP_DDNS is stopping the queue manager either to reconfigure it or as part of application shutdown.

DHCP_DDNS_QUEUE_MGR_STOP_ERROR

application encountered an error stopping the queue manager: %1

This is an error message indicating that DHCP_DDNS encountered an error while trying to stop the queue manager. This error is unlikely to occur or to impair the application's ability to function but it should be reported for analysis.

DHCP_DDNS_QUEUE_MGR_UNEXPECTED_HANDLER_ERROR

application's queue manager request receive handler experienced an unexpected exception %1:

This is an error message indicating that an unexpected error occurred within the DHCP_DDNS's Queue Manager request receive completion handler. This is most likely a programmatic issue that should be reported. The application may recover on its own.

DHCP_DDNS_QUEUE_MGR_UNEXPECTED_STOP

application's queue manager receive was

aborted unexpectedly while queue manager state is: %1 This is an error message indicating that DHCP_DDNS's Queue Manager request receive was unexpected interrupted. Normally, the read is receive is only interrupted as a normal part of stopping the queue manager. This is most likely a programmatic issue that should be reported.

DHCP_DDNS_REMOVE_FAILED

DHCP_DDNS Request ID %1: Transaction outcome: %2

This is an error message issued after DHCP_DDNS attempts to submit DNS mapping entry removals have failed. The precise reason for the failure should be documented in preceding log entries.

DHCP_DDNS_REMOVE_SUCCEEDED

DHCP_DDNS Request ID %1: successfully removed the DNS mapping addition for this request: %2

This is an informational message issued after DHCP_DDNS has submitted DNS mapping removals which were received and accepted by an appropriate DNS server.

DHCP_DDNS_REQUEST_DROPPED

Request ID %1: Request contains no enabled update requests and will be dropped: %2

This is a debug message issued when DHCP_DDNS receives a request which does not contain updates in a direction that is enabled. In other words, if only forward updates are enabled and request is received that asks only for reverse updates then the request is dropped.

DHCP_DDNS_REVERSE_REMOVE_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while removing reverse address mapping for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was removing a reverse address mapping. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_REVERSE_REMOVE_BUILD_FAILURE

DNS Request ID %1: update message to remove a reverse DNS entry could not be constructed from this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting a reverse PTR removal. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue.

DHCP_DDNS_REVERSE_REMOVE_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a reverse mapping remove for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a reverse address update. The application will retry against the same server or others as appropriate.

DHCP_DDNS_REVERSE_REMOVE_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to remove the reverse mapping for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_REVERSE_REMOVE_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while removing reverse address mapping for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to remove a reverse address, is mangled or malformed. The application will retry against the same server or others as appropriate.

DHCP_DDNS_REVERSE_REPLACE_BAD_DNSCLIENT_STATUS

DHCP_DDNS Request ID %1: received an unknown DNSClient status: %2, while replacing reverse address mapping for FQDN %3 to DNS server %4

This is an error message issued when DNSClient returns an unrecognized status while DHCP_DDNS was replacing a reverse address mapping. The request will be aborted. This is most likely a programmatic issue and should be reported.

DHCP_DDNS_REVERSE_REPLACE_BUILD_FAILURE

DNS Request ID %1: update message to replace a reverse DNS entry could not be constructed from this request: %2, reason: %3

This is an error message issued when an error occurs attempting to construct the server bound packet requesting a reverse PTR replacement. This is due to invalid data contained in the NameChangeRequest. The request will be aborted. This is most likely a configuration issue.

DHCP_DDNS_REVERSE_REPLACE_IO_ERROR

DHCP_DDNS Request ID %1: encountered an IO error sending a reverse mapping replacement for FQDN %2 to DNS server %3

This is an error message issued when a communication error occurs while DHCP_DDNS is carrying out a reverse address update. The application will retry against the same server or others as appropriate.

DHCP_DDNS_REVERSE_REPLACE_REJECTED

DNS Request ID %1: Server, %2, rejected a DNS update request to replace the reverse mapping for FQDN, %3, with an RCODE: %4

This is an error message issued when an update was rejected by the DNS server it was sent to for the reason given by the RCODE. The rcode values are defined in RFC 2136.

DHCP_DDNS_REVERSE_REPLACE_RESP_CORRUPT

DHCP_DDNS Request ID %1: received a corrupt response from the DNS server, %2, while replacing reverse address mapping for FQDN, %3

This is an error message issued when the response received by DHCP_DDNS, to a update request to replace a reverse address, is mangled or malformed. The application will retry against the same server or others as appropriate.

DHCP_DDNS_REV_REQUEST_IGNORED

Request ID %1: Reverse updates are disabled, the reverse portion of request will be ignored: %2

This is a debug message issued when reverse DNS updates are disabled and DHCP_DDNS receives an update request containing a reverse DNS update. The reverse update will not performed.

DHCP_DDNS_RUN_EXIT

application is exiting the event loop

This is a debug message issued when the DHCP-DDNS server exits its event lo

DHCP_DDNS_SHUTDOWN_COMMAND

application received shutdown command with args: %1

This is a debug message issued when the application has been instructed to shut down by the controller.

DHCP_DDNS_STARTED

Kea DHCP-DDNS server version %1 started

This informational message indicates that the DHCP-DDNS server has processed all configuration information and is ready to begin processing. The version is also printed.

DHCP_DDNS_STARTING_TRANSACTION

Request ID %1:

This is a debug message issued when DHCP-DDNS has begun a transaction for a given request.

DHCP_DDNS_STATE_MODEL_UNEXPECTED_ERROR

Request ID %1: application encountered an unexpected error while carrying out a NameChangeRequest: %2

This is error message issued when the application fails to process a NameChangeRequest correctly. Some or all of the DNS updates requested as part of this update did not succeed. This is a programmatic error and should be reported.

DHCP_DDNS_TRANS_SEND_ERROR

Request ID %1: application encountered an unexpected error while attempting to send a DNS update: %2

This is error message issued when the application is able to construct an update message but the attempt to send it suffered an unexpected error. This is most likely a programmatic error, rather than a communications issue. Some or all of the DNS updates requested as part of this request did not succeed.

DHCP_DDNS_UDP_SENDER_WATCH_SOCKET_CLOSE_ERROR

watch socket failed to close: %1

This is an error message that indicates the application was unable to close the inbound or outbound side of a NCR sender's watch socket. While technically possible the error is highly unlikely to occur and should not impair the application's ability to process requests.

DHCP_DDNS_UNCAUGHT_NCR_RECV_HANDLER_ERROR

unexpected exception thrown from the application receive completion handler: %1

This is an error message that indicates that an exception was thrown but not caught in the application's request receive completion handler. This is a programmatic error that needs to be reported. Dependent upon the nature of the error the application may or may not continue operating normally.

DHCP_DDNS_UPDATE_REQUEST_SENT

Request ID %1: %2 to server: %3

This is a debug message issued when DHCP_DDNS sends a DNS request to a DNS server.

CHAPTER 12

EVAL

EVAL_DEBUG_AND

Popping %1 and %2 pushing %3

This debug message indicates that two values are popped from the value stack. Then are then combined via logical and and the result is pushed onto the value stack.

EVAL_DEBUG_CONCAT

Popping %1 and %2 pushing %3

This debug message indicates that the two strings are being popped off of the stack. They are then concatenated and the resulting string is pushed onto the stack. The strings are displayed in hex.

EVAL_DEBUG_EQUAL

Popping %1 and %2 pushing result %3

This debug message indicates that the two strings are being popped off of the value stack and the result of comparing them is being pushed onto the value stack. The strings are displayed in hex.

EVAL_DEBUG_HEXSTRING

Pushing hex string %1

This debug message indicates that the given binary string is being pushed onto the value stack. The string is displayed in hex.

EVAL_DEBUG_IFELSE_FALSE

Popping %1 (false) and %2, leaving %3

This debug message indicates that the condition is false so the iftrue branch value is removed and the ifelse branch value is left on the value stack.

EVAL_DEBUG_IFELSE_TRUE

Popping %1 (true) and %2, leaving %3

This debug message indicates that the condition is true so the ifelse branch value is removed and the iftrue branch value is left on the value stack.

EVAL_DEBUG_INT16TOTEXT

Pushing Int16 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents a 16 bit integer.

EVAL_DEBUG_INT32TOTEXT

Pushing Int32 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents a 32 bit integer.

EVAL_DEBUG_INT8TOTEXT

Pushing Int8 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents an 8 bit integer.

EVAL_DEBUG_IPADDRESS

Pushing IPAddress %1

This debug message indicates that the given binary string is being pushed onto the value stack. This represents either an IPv4 or IPv6 address. The string is displayed in hex.

EVAL_DEBUG_IPADDRESSTOTEXT

Pushing IPAddress %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents either an IPv4 or IPv6 address.

EVAL_DEBUG_MEMBER

Checking membership of '%1', pushing result %2

This debug message indicates that the membership of the packet for the client class was checked.

EVAL_DEBUG_NOT

Popping %1 pushing %2

This debug message indicates that the first value is popped from the value stack, negated and then pushed onto the value stack. The string is displayed in text.

EVAL_DEBUG_OPTION

Pushing option %1 with value %2

This debug message indicates that the given string representing the value of the requested option is being pushed onto the value stack. The string may be the text or binary value of the string based on the representation type requested (.text or .hex) or "true" or "false" if the requested type is .exists. The option code may be for either an option or a sub-option as requested in the classification statement.

EVAL_DEBUG_OR

Popping %1 and %2 pushing %3

This debug message indicates that two values are popped from the value stack. Then are then combined via logical or and the result is pushed onto the value stack. The string is displayed in text.

EVAL_DEBUG_PKT

Pushing PKT meta data %1 with value %2

This debug message indicates that the given binary string representing the value of the requested meta data is being pushed onto the value stack. The string is displayed in hex at the exception of interface name.

EVAL_DEBUG_PKT4

Pushing PKT4 field %1 with value %2

This debug message indicates that the given binary string representing the value of the requested field is being pushed onto the value stack. The string is displayed in hex.

EVAL_DEBUG_PKT6

Pushing PKT6 field %1 with value %2

This debug message indicates that the given binary string representing the value of the requested field is being pushed onto the value stack. The string is displayed in hex.

EVAL_DEBUG_RELAY6

Pushing PKT6 relay field %1 nest %2 with value %3

This debug message indicates that the given binary string representing the value of the requested field is being pushed onto the value stack. The string is displayed in hex.

EVAL_DEBUG_RELAY6_RANGE

Pushing PKT6 relay field %1 nest %2 with value %3

This debug message is generated if the nest field is out of range. The empty string will always be the value pushed onto the stack.

EVAL_DEBUG_SPLIT

Popping field %1, delimiters %2, string %3, pushing result %4

This debug message indicates that three values are being popped from the stack and a result is being pushed onto the stack. The values being popped are the field, delimiter and string. The result is the extracted field which is pushed onto the stack. The strings are displayed in hex.

EVAL_DEBUG_SPLIT_DELIM_EMPTY

Popping field %1, delimiters %2, string %3, pushing result %4

This debug message indicates that the delimiter popped from the stack was empty and so the result will be the entire string. The field, delimiter and string are still popped from the stack and the result is still pushed.

EVAL_DEBUG_SPLIT_EMPTY

Popping field %1, delimiters %2, string %3, pushing result %4

This debug message indicates that the string popped from the stack was empty and so the result will also be empty. The field, delimiter and string are still popped from the stack and the result is still pushed.

EVAL_DEBUG_SPLIT_FIELD_OUT_OF_RANGE

Popping field %1, delimiters %2, string %3, pushing result %4

This debug message indicates that the field is either less than one or larger than the number of fields in the string popped from the stack. The result will be empty. The field, delimiter and string are still popped from the stack and the result is still pushed.

EVAL_DEBUG_STRING

Pushing text string %1

This debug message indicates that the given text string is being pushed onto the value stack. The string is displayed in text.

EVAL_DEBUG_SUBSTRING

Popping length %1, start %2, string %3 pushing result %4

This debug message indicates that three values are being popped from the value stack and a result is being pushed onto the value stack. The values being popped are the starting point and length of a substring to extract from the given string. The resulting string is pushed onto the stack. The strings are displayed in hex.

EVAL_DEBUG_SUBSTRING_EMPTY

Popping length %1, start %2, string %3 pushing result %4

This debug message indicates that the string popped from the stack was empty and so the result will also be empty. The start, length and string are still popped from the stack and the result is still pushed.

EVAL_DEBUG_SUBSTRING_RANGE

Popping length %1, start %2, string %3 pushing result %4

This debug message indicates that the value of start is outside of the string and an empty result will be pushed onto the stack. The start, length and string are still popped from the stack and the result is still pushed. The strings are displayed in hex.

EVAL_DEBUG_SUB_OPTION

Pushing option %1 sub-option %2 with value %3

This debug message indicates that the given string representing the value of the requested sub-option of the requested parent option is being pushed onto the value stack. The string may be the text or binary value of the string based on the representation type requested (.text or .hex) or "true" or "false" if the requested type is .exists. The codes are the parent option and the sub-option codes as requested in the classification statement.

EVAL_DEBUG_SUB_OPTION_NO_OPTION

Requested option %1 sub-option %2, but the parent option is not present, pushing result %3

This debug message indicates that the parent option was not found. The codes are the parent option and the sub-option codes as requested in the classification statement.

EVAL_DEBUG_TOHEXSTRING

Popping binary value %1 and separator %2, pushing result %3

This debug message indicates that two values are being popped from the value stack and a result is being pushed onto the value stack. The values being popped are the binary value to convert and the separator. The binary value is converted to its hexadecimal string representation and pushed onto the stack. The binary value is displayed in hex.

EVAL_DEBUG_UINT16TOTEXT

Pushing UInt16 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents a 16 bit unsigned integer.

EVAL_DEBUG_UINT32TOTEXT

Pushing UInt32 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents a 32 bit unsigned integer.

EVAL_DEBUG_UINT8TOTEXT

Pushing UInt8 %1

This debug message indicates that the given address string representation is being pushed onto the value stack. This represents an 8 bit unsigned integer.

EVAL_DEBUG_VENDOR_CLASS_DATA

Data %1 (out of %2 received) in vendor class found, pushing result '%3'

This debug message indicates that vendor class option was found and passed enterprise-id checks and has sufficient number of data chunks. The total number of chunks and value pushed are reported as debugging aid.

EVAL_DEBUG_VENDOR_CLASS_DATA_NOT_FOUND

Requested data index %1, but option with enterprise-id %2 has only %3 data tuple(s), pushing result '%4'

This debug message indicates that vendor class option was found and passed enterprise-id checks, but does not have sufficient number of data chunks. Note that the index starts at 0, so there has to be at least (index + 1) data chunks.

EVAL_DEBUG_VENDOR_CLASS_ENTERPRISE_ID

Pushing enterprise-id %1 as result 0x%2

This debug message indicates that the expression has been evaluated and vendor class option was found and its enterprise-id is being reported.

EVAL_DEBUG_VENDOR_CLASS_ENTERPRISE_ID_MISMATCH

Was looking for %1, option had %2, pushing result '%3'

This debug message indicates that the expression has been evaluated and vendor class option was found, but has different enterprise-id than specified in the expression.

EVAL_DEBUG_VENDOR_CLASS_EXISTS

Option with enterprise-id %1 found, pushing result '%2'

This debug message indicates that the expression has been evaluated and vendor class option was found.

EVAL_DEBUG_VENDOR_CLASS_NO_OPTION

Option with code %1 missing, pushing result '%2'

This debug message indicates that the expression has been evaluated and vendor class option was not found.

EVAL_DEBUG_VENDOR_ENTERPRISE_ID

Pushing enterprise-id %1 as result 0x%2

This debug message indicates that the expression has been evaluated and vendor option was found and its enterprise-id is being reported.

EVAL_DEBUG_VENDOR_ENTERPRISE_ID_MISMATCH

Was looking for %1, option had %2, pushing result '%3'

This debug message indicates that the expression has been evaluated and vendor option was found, but has different enterprise-id than specified in the expression.

EVAL_DEBUG_VENDOR_EXISTS

Option with enterprise-id %1 found, pushing result '%2'

This debug message indicates that the expression has been evaluated and vendor option was found.

EVAL_DEBUG_VENDOR_NO_OPTION

Option with code %1 missing, pushing result '%2'

This debug message indicates that the expression has been evaluated and vendor option was not found.

CHAPTER 13

FLEX

FLEX_OPTION_LOAD_ERROR

loading Flex Option hooks library failed: %1

This error message indicates an error during loading the Flex Option hooks library. The details of the error are provided as argument of the log message.

FLEX_OPTION_PROCESS_ADD

Added the option code %1 with value %2

This debug message is printed when an option was added into the response packet. The option code and the value (between quotes if printable, in hexadecimal if not) are provided.

FLEX_OPTION_PROCESS_CLIENT_CLASS

Skip processing of the option code %1 for class '%2'

This debug message is printed when the processing for an option is skipped because the query does not belongs to the client class. The option code and the client class name are provided.

FLEX_OPTION_PROCESS_ERROR

An error occurred processing query %1: %2

This error message indicates an error during processing of a query by the Flex Option hooks library. The client identification information from the query and the details of the error are provided as arguments of the log message.

FLEX_OPTION_PROCESS_REMOVE

Removed option code %1

This debug message is printed when an option was removed from the response packet. The option code is provided.

FLEX_OPTION_PROCESS_SUB_ADD

Added the sub-option code %1 in option code %2 with value %3

This debug message is printed when an sub-option was added into the response packet. The sub-option and container option codes, and the value (between quotes if printable, in hexadecimal if not) are provided.

FLEX_OPTION_PROCESS_SUB_CLIENT_CLASS

Skip processing of the sub-option code %1 in option code %2 for class '%3'

This debug message is printed when the processing for a sub-option is skipped because the query does not belongs to the client class. The sub-option and container option codes, and the client class name are provided.

FLEX_OPTION_PROCESS_SUB_REMOVE

Removed sub-option code %1 in option code %2

This debug message is printed when a sub-option was removed from the response packet. The sub-option and container option codes are provided.

FLEX_OPTION_PROCESS_SUB_SUPERSEDE

Supersedes the sub-option code %1 in option code %2 with value %3

This debug message is printed when a sub-option was superseded into the response packet. The sub-option and container option codes, and the value (between quotes if printable, in hexadecimal if not) are provided.

FLEX_OPTION_PROCESS_SUPERSEDE

Supersedes the option code %1 with value %2

This debug message is printed when an option was superseded into the response packet. The option code and the value (between quotes if printable, in hexadecimal if not) are provided.

FLEX_OPTION_PROCESS_VENDOR_ID_MISMATCH

Skip processing of vendor option code %1 with vendor id %2 not matching wanted %3

This debug message is printed when a sub-option of a vendor option is processed but vendor ids do not match. The code of the vendor option and the two vendor ids are provided.

CHAPTER 14

HA

HA_BUFFER4_RECEIVE_FAILED

buffer4_receive callout failed: %1

This error message is issued when the callout for the buffer4_receive hook point failed. This may occur as a result of an internal server error. The argument contains a reason for the error.

HA_BUFFER4_RECEIVE_NOT_FOR_US

%1: dropping query to be processed by another server

This debug message is issued when the received DHCPv4 query is dropped by this server because it should be served by another server. This is the case when the remote server was designated to process the packet as a result of load balancing or because it is a primary server in the hot standby configuration. The argument provides client identification information retrieved from the query.

HA_BUFFER4_RECEIVE_PACKET_OPTIONS_SKIPPED

an error unpacking an option, caused subsequent options to be skipped: %1

A debug message issued when an option failed to unpack correctly, making it impossible to unpack the remaining options in the DHCPv4 query. The server will still attempt to service the packet. The sole argument provides a reason for unpacking error.

HA_BUFFER4_RECEIVE_UNPACK_FAILED

failed to parse query from %1 to %2, received over interface %3, reason: %4

This debug message is issued when received DHCPv4 query is malformed and can't be parsed by the buffer4_receive callout. The query will be dropped by the server. The first three arguments specify source IP address, destination IP address and the interface. The last argument provides a reason for failure.

HA_BUFFER6_RECEIVE_FAILED

buffer6_receive callout failed: %1

This error message is issued when the callout for the buffer6_receive hook point failed. This may occur as a result of an internal server error. The argument contains a reason for the error.

HA_BUFFER6_RECEIVE_NOT_FOR_US

%1: dropping query to be processed by another server

This debug message is issued when the received DHCPv6 query is dropped by this server because it should be served by another server. This is the case when the remote server was designated to process the packet as a result of load balancing or because it is a primary server in the hot standby configuration. The argument provides client identification information retrieved from the query.

HA_BUFFER6_RECEIVE_PACKET_OPTIONS_SKIPPED

an error unpacking an option, caused subsequent options to be skipped: %1

A debug message issued when an option failed to unpack correctly, making it impossible to unpack the remaining options in the DHCPv6 query. The server will still attempt to service the packet. The sole argument provides a reason for unpacking error.

HA_BUFFER6_RECEIVE_UNPACK_FAILED

failed to parse query from %1 to %2, received over interface %3, reason: %4

This debug message is issued when received DHCPv6 query is malformed and can't be parsed by the buffer6_receive callout. The query will be dropped by the server. The first three arguments specify source IP address, destination IP address and the interface. The last argument provides a reason for failure.

HA_COMMAND_PROCESSED_FAILED

command_processed callout failed: %1

This error message is issued when the callout for the command_processed hook point failed. The argument contains a reason for the error.

HA_COMMUNICATION_INTERRUPTED

communication with %1 is interrupted

This warning message is issued by the server which discovered that the communication to the active partner has been interrupted for a time period longer than the configured heartbeat-delay time. At this stage the server starts the failover procedure by monitoring the DHCP traffic sent to the partner and checking whether the partner server responds to this traffic. If the max-unacked-clients value is set to 0 such verification is disabled in which case the server will transition to the partner-down state.

HA_COMMUNICATION_INTERRUPTED_CLIENT4

%1: new client attempting to get a lease from the partner

This informational message is issued when the surviving server observes a DHCP packet sent to the partner with which the communication is interrupted. The client whose packet is observed is not yet considered "unacked" because the secs field value does not exceed the configured threshold specified with max-ack-delay.

HA_COMMUNICATION_INTERRUPTED_CLIENT4_UNACKED

%1: partner server failed to respond, %2 clients unacked so far, %3 clients left before transitioning to the partner-down state

This informational message is issued when the surviving server determines that its partner failed to respond to the DHCP query and that this client is considered to not be served by the partner. The surviving server counts such clients and if the number of such clients exceeds the max-unacked-clients threshold, the server will transition to the partner-down state. The first argument contains client identification information. The second argument specifies the number of clients to which the server has failed to respond. The third argument specifies the number of additional clients which, if not provisioned, will cause the server to transition to the partner-down state.

HA_COMMUNICATION_INTERRUPTED_CLIENT6

%1: new client attempting to get a lease from the partner

This informational message is issued when the surviving server observes a DHCP packet sent to the partner with which the communication is interrupted. The client whose packet is observed is not yet considered "unacked" because the elapsed time option value does not exceed the configured threshold specified with max-ack-delay. The sole argument specifies client identification information.

HA_COMMUNICATION_INTERRUPTED_CLIENT6_UNACKED

%1: partner server failed to respond, %2 clients unacked so far, %3 clients left before transitioning to the partner-down state

This informational message is issued when the surviving server determines that its partner failed to respond to the DHCP query and that this client is considered to not be served by the partner. The surviving server counts such clients and if the number of such clients exceeds the max-unacked-clients threshold, the server will transition to the partner-down state. The first argument contains client identification information. The second argument specifies the number of clients to which the server has failed to respond. The third argument specifies the number of additional clients which, if not provisioned, will cause the server to transition to the partner-down state.

HA_CONFIGURATION_FAILED

failed to configure High Availability hooks library: %1

This error message is issued when there is an error configuring the HA hooks library. The argument provides the detailed error message.

HA_CONFIGURATION_SUCCESSFUL

HA hook library has been successfully configured

This informational message is issued when the HA hook library configuration parser successfully parses and validates the new configuration.

HA_CONFIG_AUTO_FAILOVER_DISABLED

auto-failover disabled for %1

This warning message is issued to indicate that the 'auto-failover' parameter was administratively disabled for the specified server. The server will not automatically start serving partner's scope when the partner failure is detected. The server administrator will need to enable this scope manually by sending appropriate ha-scopes command.

HA_CONFIG_DHCP_MT_DISABLED

HA multi-threading has been disabled, it cannot be enabled when Kea global multi-threading is disabled

This informational message is issued when HA configuration has enabled multi-threading while Kea global configuration has multi-threading disabled.

HA_CONFIG_LEASE_SYNCING_DISABLED

lease database synchronization between HA servers is disabled

This warning message is issued when the lease database synchronization is administratively disabled. This is valid configuration if the leases are replicated between lease databases via some other mechanism, e.g. SQL database replication.

HA_CONFIG_LEASE_SYNCING_DISABLED_REMINDER

bypassing SYNCING state because lease database synchronization is administratively disabled

This informational message is issued as a reminder that lease database synchronization is administratively disabled and therefore the server transitions directly from the "waiting" to "ready" state.

HA_CONFIG_LEASE_UPDATES_AND_SYNCING_DIFFER

unusual configuration where "send-lease-updates": %1 and "sync-leases": %2

This warning message is issued when the configuration values of the send-lease-updates and sync-leases parameters differ. This may be a valid configuration but is unusual. Normally, if the lease database with replication is in use, both values are set to false. If a lease database without replication is in use (e.g. memfile), both values are set to true. Providing different values for those parameters means that an administrator either wants the server to not synchronize leases upon startup but later send lease updates to the partner, or the lease database should be synchronized upon startup, but no lease updates are later sent as a result of leases allocation.

HA_CONFIG_LEASE_UPDATES_DISABLED

lease updates will not be generated

This warning message is issued when the lease updates are administratively disabled. This is valid configuration if the leases are replicated to the partner's database via some other mechanism, e.g. SQL database replication.

HA_CONFIG_LEASE_UPDATES_DISABLED_REMINDER

lease updates are administratively disabled and will not be generated while in %1 state

This informational message is issued as a reminder that the lease updates are administratively disabled and will not be issued in the HA state to which the server has transitioned. The sole argument specifies the state into which the server has transitioned.

HA_CONFIG_SYSTEM_MT_UNSUPPORTED

HA multi-threading has been disabled, auto-detection of thread support reports 0

This informational message is issued when HA multi-threading configuration has specified auto-detection for the number of threads to use and the system reports the number of concurrent threads as 0. If you know your system can support multiple threads, then you may override this condition by specifying explicit values for http-listener-threads and http-client-threads.

HA_CONTINUE_HANDLER_FAILED

ha-continue command failed: %1

This error message is issued to indicate that the ha-continue command handler failed while processing the command. The argument provides the reason for failure.

HA_DEINIT_OK

unloading High Availability hooks library successful

This informational message indicates that the High Availability hooks library has been unloaded successfully.

HA_DHCP4_START_SERVICE_FAILED

failed to start DHCPv4 HA service in dhcp4_srv_configured callout: %1

This error message is issued when an attempt to start High Availability service for the DHCPv4 server failed in the dhcp4_srv_configured callout. This is internal server error and a bug report should be created.

HA_DHCP6_START_SERVICE_FAILED

failed to start DHCPv4 HA service in dhcp6_srv_configured callout: %1

This error message is issued when an attempt to start High Availability service for the DHCPv4 server failed in the dhcp4_srv_configured callout. This is internal server error and a bug report should be created.

HA_DHCP_DISABLE_COMMUNICATIONS_FAILED

failed to send request to disable DHCP service of %1: %2

This warning message indicates that there was a problem in communication with a HA peer while sending the dhcp-disable command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_DHCP_DISABLE_FAILED

failed to disable DHCP service of %1: %2

This warning message indicates that a peer returned an error status code in response to a dhcp-disable command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_DHCP_ENABLE_COMMUNICATIONS_FAILED

failed to send request to enable DHCP service of %1: %2

This warning message indicates that there was a problem in communication with a HA peer while sending the dhcp-enable command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_DHCP_ENABLE_FAILED

failed to enable DHCP service of %1: %2

This warning message indicates that a peer returned an error status code in response to a dhcp-enable command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_HEARTBEAT_COMMUNICATIONS_FAILED

failed to send heartbeat to %1: %2

This warning message indicates that there was a problem in communication with a HA peer while sending a heartbeat. This is a first sign that the peer may be down. The server will keep trying to send heartbeats until it considers that communication is interrupted.

HA_HEARTBEAT_FAILED

heartbeat to %1 failed: %2

This warning message indicates that a peer returned an error status code in response to a heartbeat. This is the sign that the peer may not function properly. The server will keep trying to send heartbeats until it considers that communication is interrupted.

HA_HEARTBEAT_HANDLER_FAILED

heartbeat command failed: %1

This error message is issued to indicate that the heartbeat command handler failed while processing the command. The argument provides the reason for failure.

HA_HIGH_CLOCK_SKEW

%1, please synchronize clocks!

This warning message is issued when the clock skew between the active servers exceeds 30 seconds. The HA service continues to operate but may not function properly, especially for low lease lifetimes. The administrator should should synchronize the clocks, e.g. using NTP. If the clock skew exceeds 60 seconds, the HA service will terminate.

HA_HIGH_CLOCK_SKEW_CAUSES_TERMINATION

%1, causing HA service to terminate

This warning message is issued when the clock skew between the active servers exceeds 60 seconds. The HA service stops. The servers will continue to respond to the DHCP queries but won't exchange lease updates or send heartbeats. The administrator is required to synchronize the clocks and then restart the servers to resume the HA service.

HA_INIT_OK

loading High Availability hooks library successful

This informational message indicates that the High Availability hooks library has been loaded successfully.

HA_INVALID_PARTNER_STATE_COMMUNICATION_RECOVERY

partner is in the communication-recovery state unexpectedly

This warning message is issued when a partner is in the communication-recovery state, and this server is not running in the load balancing mode. The server may only transition to the communication-recovery state when it runs in the load balancing mode. The HA mode of both servers must be the same.

HA_INVALID_PARTNER_STATE_HOT_STANDBY

partner is in the hot-standby state unexpectedly

This warning message is issued when a partner is in the hot-standby state, and this server is not running in the hot standby mode. The server may only transition to the hot-standby state when it runs in the hot standby mode. The HA mode of both servers must be the same.

HA_INVALID_PARTNER_STATE_LOAD_BALANCING

partner is in the load-balancing state unexpectedly

This warning message is issued when a partner is in the load-balancing state, and this server is not running in the load balancing mode. The server may only transition to the load-balancing state when it runs in the load balancing mode. The HA mode of both servers must be the same.

HA_LEASES4_COMMITTED_FAILED

leases4_committed callout failed: %1

This error message is issued when the callout for the leases4_committed hook point failed. This includes unexpected errors like wrong arguments provided to the callout by the DHCP server (unlikely internal server error). The argument contains a reason for the error.

HA_LEASES4_COMMITTED_NOTHING_TO_UPDATE

%1: leases4_committed callout was invoked without any leases

This debug message is issued when the "leases4_committed" callout returns because there are neither new leases nor deleted leases for which updates should be sent. The sole argument specifies the details of the client which sent the packet.

HA_LEASES6_COMMITTED_FAILED

leases6_committed callout failed: %1

This error message is issued when the callout for the leases6_committed hook point failed. This includes unexpected errors like wrong arguments provided to the callout by the DHCP server (unlikely internal server error). The argument contains a reason for the error.

HA_LEASES6_COMMITTED_NOTHING_TO_UPDATE

%1: leases6_committed callout was invoked without any leases

This debug message is issued when the "leases6_committed" callout returns because there are neither new leases nor deleted leases for which updates should be sent. The sole argument specifies the details of the client which sent the packet.

HA_LEASES_BACKLOG_COMMUNICATIONS_FAILED

failed to communicate with %1 while sending lease updates backlog: %2

This error message is issued to indicate that there was a communication error with a partner server while sending outstanding lease updates after resuming connection. The second argument contains a reason for the error.

HA_LEASES_BACKLOG_FAILED

failed to send lease updates backlog to %1: %2

This error message is issued to indicate that sending lease updates backlog to a partner server failed. The lease updates backlog is sent to the partner after resuming temporarily broken communication with the partner. If this operation fails the server will transition to the waiting state to initiate full lease database synchronization.

HA_LEASES_BACKLOG_NOTHING_TO_SEND

no leases in backlog after communication recovery

This informational message is issued when there are no outstanding leases to be sent after communication recovery with a partner. This means that the communication interruption was short enough that no DHCP clients obtained any leases from the server while it was in the communication-recovery state. The server may now transition to the load-balancing state.

HA_LEASES_BACKLOG_START

starting to send %1 outstanding lease updates to %2

This informational message is issued when the server starts to send outstanding lease updates to the partner after resuming communications. The first argument specifies the number of lease updates to be sent. The name of the partner is specified with the second argument.

HA_LEASES_BACKLOG_SUCCESS

sending lease updates backlog to %1 successful in %2

This informational message is issued when server successfully completes sending lease updates backlog to the partner. The first argument specifies the name of the remote server. The second argument specifies the duration of this operation.

HA_LEASES_SYNC_COMMUNICATIONS_FAILED

failed to communicate with %1 while syncing leases: %2

This error message is issued to indicate that there was a communication error with a partner server while trying to fetch leases from its lease database. The argument contains a reason for the error.

HA_LEASES_SYNC_FAILED

failed to synchronize leases with %1: %2

This error message is issued to indicate that there was a problem while parsing a response from the server from which leases have been fetched for local database synchronization. The argument contains a reason for the error.

HA_LEASES_SYNC_LEASE_PAGE_RECEIVED

received %1 leases from %2

This informational message is issued during lease database synchronization to indicate that a bulk of leases have been received. The first argument holds the count of leases received. The second argument specifies the partner server name.

HA_LEASE_SYNC_FAILED

synchronization failed for lease: %1, reason: %2

This warning message is issued when creating or updating a lease in the local lease database fails. The lease information in the JSON format is provided as a first argument. The second argument provides a reason for the failure.

HA_LEASE_SYNC_STALE_LEASE4_SKIP

skipping stale lease %1 in subnet %2

This debug message is issued during lease database synchronization, when fetched IPv4 lease instance appears to be older than the instance in the local database. The newer instance is left in the database and the fetched lease is dropped. The remote server will still hold the older lease instance until it synchronizes its database with this server. The first argument specifies leased address. The second argument specifies a subnet to which the lease belongs.

HA_LEASE_SYNC_STALE_LEASE6_SKIP

skipping stale lease %1 in subnet %2

This debug message is issued during lease database synchronization, when fetched IPv6 lease instance appears to be older than the instance in the local database. The newer instance is left in the database and the fetched lease is dropped. The remote server will still hold the older lease instance until it synchronizes its database with this server. The first argument specifies leased address. The second argument specifies a subnet to which the lease belongs.

HA_LEASE_UPDATES_DISABLED

lease updates will not be sent to the partner while in %1 state

This informational message is issued to indicate that lease updates will not be sent to the partner while the server is in the current state. The argument specifies the server's current state name. The lease updates are still sent to the backup servers if they are configured but any possible errors in communication with the backup servers are ignored.

HA_LEASE_UPDATES_ENABLED

lease updates will be sent to the partner while in %1 state

This informational message is issued to indicate that lease updates will be sent to the partner while the server is in the current state. The argument specifies the server's current state name.

HA_LEASE_UPDATE_COMMUNICATIONS_FAILED

%1: failed to communicate with %2: %3

This warning message indicates that there was a problem in communication with a HA peer while processing a DHCP client query and sending lease update. The client's DHCP message will be dropped.

HA_LEASE_UPDATE_CREATE_UPDATE_FAILED_ON_PEER

%1: failed to create or update the lease having type %2 for address %3, reason: %4

This informational message is issued when one of the leases failed to be created or updated on the HA peer while processing the lease updates sent from this server. This may indicate an issue with communication between the peer and its lease database.

HA_LEASE_UPDATE_DELETE_FAILED_ON_PEER

%1: failed to delete the lease having type %2 for address %3, reason: %4

This informational message is issued when one of the leases failed to delete on the HA peer while processing lease updates sent from this server. Typically, the lease fails to delete when it doesn't exist in the peer's database.

HA_LEASE_UPDATE_FAILED

%1: lease update to %2 failed: %3

This warning message indicates that a peer returned an error status code in response to a lease update. The client's DHCP message will be dropped.

HA_LOAD_BALANCING_DUID_MISSING

load balancing failed for the DHCPv6 message (transaction id: %1) because DUID is missing

This debug message is issued when the HA hook library was unable to load balance an incoming DHCPv6 query because neither client identifier nor HW address was included in the query. The query will be dropped. The sole argument contains transaction id.

HA_LOAD_BALANCING_IDENTIFIER_MISSING

load balancing failed for the DHCPv4 message (transaction id: %1) because HW address and client identifier are missing

This debug message is issued when the HA hook library was unable to load balance an incoming DHCPv4 query because neither client identifier nor HW address was included in the query. The query will be dropped. The sole argument contains transaction id.

HA_LOCAL_DHCP_DISABLE

local DHCP service is disabled while the %1 is in the %2 state

This informational message is issued to indicate that the local DHCP service is disabled because the server remains in a state in which the server should not respond to DHCP clients, e.g. the server hasn't synchronized its lease database. The first argument specifies server name. The second argument specifies server's state.

HA_LOCAL_DHCP_ENABLE

local DHCP service is enabled while the %1 is in the %2 state

This informational message is issued to indicate that the local DHCP service is enabled because the server remains in a state in which it should respond to the DHCP clients. The first argument specifies server name. The second argument specifies server's state.

HA_MAINTENANCE_CANCEL_HANDLER_FAILED

ha-maintenance-cancel command failed: %1

This error message is issued to indicate that the ha-maintenance-cancel command handler failed while processing the command. The argument provides the reason for failure.

HA_MAINTENANCE_NOTIFY_CANCEL_COMMUNICATIONS_FAILED

failed to send ha-maintenance-notify to %1 in attempt to cancel its maintenance: %2

This warning message indicates that there was a problem in communication with a HA peer while sending the ha-maintenance-notify command with the cancel flag set to true. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_MAINTENANCE_NOTIFY_CANCEL_FAILED

error returned while processing ha-maintenance-notify by %1 in attempt to cancel its maintenance: %2

This warning message indicates that a peer returned an error status code in response to a ha-maintenance-notify command with the cancel flag set to true. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_MAINTENANCE_NOTIFY_COMMUNICATIONS_FAILED

failed to send ha-maintenance-notify to %1: %2

This warning message indicates that there was a problem in communication with a HA peer while sending the ha-maintenance-notify command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_MAINTENANCE_NOTIFY_FAILED

error returned while processing ha-maintenance-notify by %1: %2

This warning message indicates that a peer returned an error status code in response to a ha-maintenance-notify command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_MAINTENANCE_NOTIFY_HANDLER_FAILED

ha-maintenance-notify command failed: %1

This error message is issued to indicate that the ha-maintenance-notify command handler failed while processing the command. The argument provides the reason for failure.

HA_MAINTENANCE_SHUTDOWN_SAFE

the server can now be shutdown for maintenance as the partner has taken over the DHCP traffic

This informational message is displayed after the server transitions to the in-maintenance state. This server no longer responds to any DHCP queries and its partner - in partner-in-maintenance state - has taken over the DHCP traffic. When the server in-maintenance state is shut down, the partner moves to the partner-down state immediately.

HA_MAINTENANCE_STARTED

the server is now in the partner-in-maintenance state and the partner is in-maintenance state

This informational message is displayed when the server receiving the ha-maintenance-start command transitions to the partner-in-maintenance state. The server does it after sending the ha-maintenance-notify to its partner to put the partner in the in-maintenance state. From now on, the server in the partner-in-maintenance state will be responding to all queries and the partner will respond to no queries. The partner may be safely shut down for maintenance in which case this server will automatically transition from the partner-in-maintenance state to the partner-down state.

HA_MAINTENANCE_STARTED_IN_PARTNER_DOWN

the server is now in the partner-down mode as a result of requested maintenance

This informational message is displayed when the server receiving the ha-maintenance-start command transitions to the partner-down state because it was unable to communicate with the partner while receiving the command. It is assumed that in such situation the partner is already offline for the maintenance. Note that in this case the normal failover procedure does not take place. The server does not wait for a

heartbeat to fail several times, nor it monitors the DHCP traffic for not responded queries. In the maintenance case the server transitions to the partner-down state when it first encounters a communication problem with the partner.

HA_MAINTENANCE_START_HANDLER_FAILED

ha-maintenance-start command failed: %1

This error message is issued to indicate that the ha-maintenance-start command handler failed while processing the command. The argument provides the reason for failure.

HA_MISSING_CONFIGURATION

high-availability parameter not specified for High Availability hooks library

This error message is issued to indicate that the configuration for the High Availability hooks library hasn't been specified. The 'high-availability' parameter must be specified for the hooks library to load properly.

HA_PAUSE_CLIENT_LISTENER_FAILED

Pausing multi-threaded HTTP processing failed: %1

This error message is emitted when attempting to pause HA's HTTP client and listener threads. This error is highly unlikely and indicates a programmatic issue that should be reported as a defect.

HA_PAUSE_CLIENT_LISTENER_ILLEGAL

Pausing multi-threaded HTTP processing failed: %1

This error message is emitted when attempting to pause HA's HTTP client or listener thread pools from a worker thread. This error indicates that a command run on the listener threads is trying to use a critical section which would result in a dead-lock.

HA_RESET_COMMUNICATIONS_FAILED

failed to send ha-reset command to %1: %2

This warning message indicates a problem with communication with a HA peer while sending the ha-reset command. The first argument specifies a remote server name. The second argument specifies a reason for failure.

HA_RESET_FAILED

failed to reset HA state machine of %1: %2

This warning message indicates that a peer returned an error status code in response to the ha-reset command. The first argument specifies a remote server name. The second argument specifies a reason for failure.

HA_RESET_HANDLER_FAILED

ha-reset command failed: %1

This error message is issued to indicate that the ha-reset command handler failed while processing the command. The argument provides the reason for failure.

HA_RESUME_CLIENT_LISTENER_FAILED

Resuming multi-threaded HTTP processing failed: %1

This error message is emitted when attempting to resume HA's HTTP client and listener threads. This error is highly unlikely and indicates a programmatic issue that should be reported as a defect.

HA_SCOPES_HANDLER_FAILED

ha-scopes command failed: %1

This error message is issued to indicate that the ha-scopes command handler failed while processing the command. The argument provides reason for the failure.

HA_SERVICE_STARTED

started high availability service in %1 mode as %2 server

This informational message is issued when the HA service is started as a result of server startup or reconfiguration. The first argument provides the HA mode. The second argument specifies the role of this server instance in this configuration.

HA_STATE_MACHINE_CONTINUED

state machine is un-paused

This informational message is issued when the HA state machine is un-paused. This unlocks the server from the current state. It may transition to any other state if it needs to do so, e.g. 'partner-down' if its partner appears to be offline. The server may also remain in the current state if the HA setup state warrants such behavior.

HA_STATE_MACHINE_PAUSED

state machine paused in state %1

This informational message is issued when the HA state machine is paused. HA state machine may be paused in certain states specified in the HA hooks library configuration. When the state machine is paused, the server remains in the given state until it is explicitly unpaused (via the ha-continue command). If the state machine is paused, the server operates normally but cannot transition to any other state.

HA_STATE_TRANSITION

server transitions from %1 to %2 state, partner state is %3

This informational message is issued when the server transitions to a new state as a result of some interaction (or lack of thereof) with its partner. The arguments specify initial server state, new server state and the partner's state.

HA_STATE_TRANSITION_PASSIVE_BACKUP

server transitions from %1 to %2 state

This informational message is issued when the server in passive-backup mode transitions to a new state. The arguments specify initial server state and a new server state.

HA_SYNC_COMPLETE_NOTIFY_COMMUNICATIONS_FAILED

failed to send ha-sync-complete-notify to %1: %2

This warning message indicates that there was a problem in communication with an HA peer while sending the ha-sync-complete-notify command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_SYNC_COMPLETE_NOTIFY_FAILED

error processing ha-sync-complete-notify command on %1: %2

This warning message indicates that a peer returned an error status code in response to the ha-sync-complete-notify command. The first argument provides the remote server's name. The second argument provides a reason for failure.

HA_SYNC_COMPLETE_NOTIFY_HANDLER_FAILED

ha-sync-complete-notify command failed: %1

This error message is issued to indicate that the ha-sync-complete-notify command handler failed while processing the command. The argument provides the reason for failure.

HA_SYNC_FAILED

lease database synchronization with %1 failed: %2

This error message is issued to indicate that the lease database synchronization failed. The first argument provides the partner server's name. The second argument provides a reason for the failure.

HA_SYNC_HANDLER_FAILED

ha-sync command failed: %1

This error message is issued to indicate that the ha-sync command handler failed while processing the command. The argument provides the reason for failure.

HA_SYNC_START

starting lease database synchronization with %1

This informational message is issued when the server starts lease database synchronization with a partner. The name of the partner is specified with the sole argument.

HA_SYNC_SUCCESSFUL

lease database synchronization with %1 completed successfully in %2

This informational message is issued when the server successfully completed lease database synchronization with the partner. The first argument specifies the name of the partner server. The second argument specifies the duration of the synchronization.

HA_TERMINATED

HA service terminated due to an unrecoverable condition. Check previous error message(s), address the problem and restart!

This error message is issued to indicate that the HA service has been stopped due to an unacceptable condition (e.g. too large of a clock skew). The exact cause should appear in a previous error message. Address the condition reported then restart the servers to resume service.

CHAPTER 15

HOOKS

HOOKS_ALL_CALLOUTS_DEREGISTERED

hook library at index %1 removed all callouts on hook %2

A debug message issued when all callouts on the specified hook registered by the library with the given index were removed. This is similar to the HOOKS_CALLOUTS_REMOVED message (and the two are likely to be seen together), but is issued at a lower-level in the hook framework.

HOOKS_CALLOUTS_BEGIN

begin all callouts for hook %1

This debug message is issued when callout manager begins to invoke callouts for the hook. The argument specifies the hook name.

HOOKS_CALLOUTS_COMPLETE

completed callouts for hook %1 (total callouts duration: %2)

This debug message is issued when callout manager has completed execution of all callouts for the particular hook. The arguments specify the hook name and total execution time for all callouts in milliseconds.

HOOKS_CALLOUTS_REMOVED

callouts removed from hook %1 for library %2

This is a debug message issued during library unloading. It notes that one of more callouts registered by that library have been removed from the specified hook. This is similar to the HOOKS_DEREGISTER_ALL_CALLOUTS message (and the two are likely to be seen together), but is issued at a higher-level in the hook framework.

HOOKS_CALLOUT_CALLED

hooks library with index %1 has called a callout on hook %2 that has address %3 (callout duration: %4)

Only output at a high debugging level, this message indicates that a callout on the named hook registered by the library with the given index (in the list of loaded libraries) has been called and returned a success state. The address of the callout is given in the message. The message includes the callout execution time in milliseconds.

HOOKS_CALLOUT_DEREGISTERED

hook library at index %1 deregistered a callout on hook %2

A debug message issued when all instances of a particular callouts on the hook identified in the message that were registered by the library with the given index have been removed.

HOOKS_CALLOUT_ERROR

error returned by callout on hook %1 registered by library with index %2 (callout address %3) (callout duration %4)

If a callout returns an error status when called, this error message is issued. It identifies the hook to which the callout is attached, the index of the library (in the list of loaded libraries) that registered it and the address of the callout. The error is otherwise ignored. The error message includes the callout execution time in milliseconds.

HOOKS_CALLOUT_EXCEPTION

exception thrown by callout on hook %1 registered by library with index %2 (callout address %3): %4 (callout duration: %5)

If a callout throws an exception when called, this error message is issued. It identifies the hook to which the callout is attached, the index of the library (in the list of loaded libraries) that registered it and the address of the callout. The error is otherwise ignored. The error message includes the callout execution time in milliseconds.

HOOKS_CALLOUT_REGISTRATION

hooks library with index %1 registering callout for hook '%2'

This is a debug message, output when a library (whose index in the list of libraries (being) loaded is given) registers a callout.

HOOKS_CLOSE_ERROR

failed to close hook library %1: %2

Kea has failed to close the named hook library for the stated reason. Although this is an error, this should not affect the running system other than as a loss of resources. If this error persists, you should restart Kea.

HOOKS_HOOK_LIST_RESET

the list of hooks has been reset

This is a message indicating that the list of hooks has been reset. While this is usual when running the Kea test suite, it should not be seen when running Kea in a production environment. If this appears, please report a bug through the usual channels.

HOOKS_INCORRECT_VERSION

hook library %1 is at version %2, require version %3

Kea has detected that the named hook library has been built against a version of Kea that is incompatible with the version of Kea running on your system. It has not loaded the library. This is most likely due to the installation of a new version of Kea without rebuilding the hook library. A rebuild and re-install of the library should fix the problem in most cases.

HOOKS_LIBRARY_CLOSED

hooks library %1 successfully closed

This information message is issued when a user-supplied hooks library has been successfully closed.

HOOKS_LIBRARY_LOADED

hooks library %1 successfully loaded

This information message is issued when a user-supplied hooks library has been successfully loaded.

HOOKS_LIBRARY_LOADING

loading hooks library %1

This is a debug message output just before the specified library is loaded. If the action is successfully, it will be followed by the HOOKS_LIBRARY_LOADED informational message.

HOOKS_LIBRARY_MULTI_THREADING_COMPATIBLE

hooks library %1 reports its multi-threading compatibility as %2

A debug message issued when the "multi_threading_compatible" function was called. The returned value (0 means not compatible, others compatible) is displayed.

HOOKS_LIBRARY_MULTI_THREADING_NOT_COMPATIBLE

hooks library %1 is not compatible with multi-threading

When multi-threading is enabled and the library is not compatible (either because the "multi_threading_compatible" function returned 0 or was not implemented) this error message is issued. The library must be removed from the configuration or the multi-threading disabled.

HOOKS_LIBRARY_UNLOADED

hooks library %1 successfully unloaded

This information message is issued when a user-supplied hooks library has been successfully unloaded.

HOOKS_LIBRARY_UNLOADING

unloading library %1

This is a debug message called when the specified library is being unloaded. If all is successful, it will be followed by the HOOKS_LIBRARY_UNLOADED informational message.

HOOKS_LIBRARY_VERSION

hooks library %1 reports its version as %2

A debug message issued when the version check on the hooks library has succeeded.

HOOKS_LOAD_ERROR

'load' function in hook library %1 returned error %2

A "load" function was found in the library named in the message and was called. The function returned a non-zero status (also given in the message) which was interpreted as an error. The library has been unloaded and no callouts from it will be installed.

HOOKS_LOAD_EXCEPTION

'load' function in hook library %1 threw an exception

A "load" function was found in the library named in the message and was called. The function threw an exception (an error indication) during execution, which is an error condition. The library has been unloaded and no callouts from it will be installed.

HOOKS_LOAD_FRAMEWORK_EXCEPTION

'load' function in hook library %1 threw an exception: reason %2

A "load" function was found in the library named in the message and was called. Either the hooks framework or the function threw an exception (an error indication) during execution, which is an error condition; the cause of the exception is recorded in the message. The library has been unloaded and no callouts from it will be installed.

HOOKS_LOAD_SUCCESS

'load' function in hook library %1 returned success

This is a debug message issued when the "load" function has been found in a hook library and has been successfully called.

HOOKS_MULTI_THREADING_COMPATIBLE_EXCEPTION

'multi_threading_compatible' function in hook library %1 threw an exception

This error message is issued if the multi_threading_compatible() function in the specified hooks library was called and generated an exception. The library is considered unusable and will not be loaded.

HOOKS_NO_LOAD

no 'load' function found in hook library %1

This is a debug message saying that the specified library was loaded but no function called "load" was found in it. Providing the library contained some "standard" functions (i.e. functions with the names of the hooks for the given server), this is not an issue.

HOOKS_NO_UNLOAD

no 'unload' function found in hook library %1

This is a debug message issued when the library is being unloaded. It merely states that the library did not contain an "unload" function.

HOOKS_NO_VERSION

no 'version' function found in hook library %1

The shared library named in the message was found and successfully loaded, but Kea did not find a function named "version" in it. This function is required and should return the version of Kea against which the library was built. The value is used to check that the library was built against a compatible version of Kea. The library has not been loaded.

HOOKS_OPEN_ERROR

failed to open hook library %1: %2

Kea failed to open the specified hook library for the stated reason. The library has not been loaded. Kea will continue to function, but without the services offered by the library.

HOOKS_STD_CALLOUT_REGISTERED

hooks library %1 registered standard callout for hook %2 at address %3

This is a debug message, output when the library loading function has located a standard callout (a callout with the same name as a hook point) and registered it. The address of the callout is indicated.

HOOKS_UNLOAD_ERROR

'unload' function in hook library %1 returned error %2

During the unloading of a library, an "unload" function was found. It was called, but returned an error (non-zero) status, resulting in the issuing of this message. The unload process continued after this message and the library has been unloaded.

HOOKS_UNLOAD_EXCEPTION

'unload' function in hook library %1 threw an exception

During the unloading of a library, an "unload" function was found. It was called, but in the process generated an exception (an error indication). The unload process continued after this message and the library has been unloaded.

HOOKS_UNLOAD_FRAMEWORK_EXCEPTION

'unload' function in hook library %1 threw an exception, reason %2

During the unloading of a library, an "unload" function was found. It was called, but in the process either it or the hooks framework generated an exception (an error indication); the cause of the error is recorded in the message. The unload process continued after this message and the library has been unloaded.

HOOKS_UNLOAD_SUCCESS

'unload' function in hook library %1 returned success

This is a debug message issued when an "unload" function has been found in a hook library during the unload process, called, and returned success.

CHAPTER 16

HOSTS

HOSTS_BACKENDS_REGISTERED

the following host backend types are available: %1

This informational message lists all possible host backends that could be used in hosts-database[s].

HOSTS_BACKEND_DEREGISTER

deregistered host backend type: %1

This debug message is issued when a backend factory was deregistered. It is no longer possible to use host backend of this type.

HOSTS_BACKEND_REGISTER

registered host backend type: %1

This debug message is issued when a backend factory was successfully registered. It is now possible to use host backend of this type.

HOSTS_CFG_ADD_HOST

add the host for reservations: %1

This debug message is issued when new host (with reservations) is added to the server's configuration. The argument describes the host and its reservations in detail.

HOSTS_CFG_CACHE_HOST_DATA_SOURCE

get host cache data source: %1

This informational message is issued when a host cache data source is detected by the host manager.

HOSTS_CFG_CLOSE_HOST_DATA_SOURCE

Closing host data source: %1

This is a normal message being printed when the server closes host data source connection.

HOSTS_CFG_DEL_ALL_SUBNET4

deleted all %1 host(s) for subnet id %2

This debug message is issued when all IPv4 reservations are deleted for the specified subnet. The first argument specifies how many reservations have been deleted. The second argument is the subnet identifier.

HOSTS_CFG_DEL_ALL_SUBNET6

deleted all %1 host(s) having %2 IPv6 reservation(s) for subnet id %3

This debug message is issued when all IPv6 reservations are deleted for the specified subnet. The first argument specifies how many hosts have been deleted. The second argument specifies how many IPv6 (addresses and prefixes) have been deleted. The third argument is the subnet identifier.

HOSTS_CFG_GET_ALL

get all hosts with reservations

This debug message is issued when starting to retrieve all hosts.

HOSTS_CFG_GET_ALL_ADDRESS4

get all hosts with reservations for IPv4 address %1

This debug message is issued when starting to retrieve all hosts, holding the reservation for the specific IPv4 address, from the configuration. The argument specifies the IPv4 address used to search the hosts.

HOSTS_CFG_GET_ALL_ADDRESS4_COUNT

using address %1, found %2 host(s)

This debug message logs the number of hosts found using the specified IPv4 address. The arguments specify the IPv4 address used and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_ADDRESS4_HOST

using address %1 found host: %2

This debug message is issued when found host with the reservation for the specified IPv4 address. The arguments specify the IPv4 address and the detailed description of the host found.

HOSTS_CFG_GET_ALL_ADDRESS6

get all hosts with reservations for IPv6 address %1

This debug message is issued when starting to retrieve all hosts, holding the reservation for the specific IPv6 address, from the configuration. The argument specifies the IPv6 address used to search the hosts.

HOSTS_CFG_GET_ALL_ADDRESS6_COUNT

using address %1, found %2 host(s)

This debug message logs the number of hosts found using the specified IPv6 address. The arguments specify the IPv6 address used and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_ADDRESS6_HOST

using address %1 found host: %2

This debug message is issued when found host with the reservation for the specified IPv6 address. The arguments specify the IPv6 address and the detailed description of the host found.

HOSTS_CFG_GET_ALL_COUNT

found %1 host(s)

This debug message include the details of the host found. The argument specifies the number of hosts found.

HOSTS_CFG_GET_ALL_HOST

found host: %1

This debug message includes the details of the host found. The argument specifies found host details.

HOSTS_CFG_GET_ALL_HOSTNAME

get all hosts with reservations for hostname %1

This debug message is issued when starting to retrieve all hosts with the specific hostname. The argument specifies hostname.

HOSTS_CFG_GET_ALL_HOSTNAME_COUNT

using hostname %1, found %2 host(s)

This debug message include the details of the host found using the hostname. The arguments specify hostname and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_HOSTNAME_HOST

using hostname %1, found host: %2

This debug message includes the details of the host found using the hostname. The arguments specify hostname and found host details respectively.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID4

get all hosts with reservations for hostname %1 and IPv4 subnet %2

This debug message is issued when starting to retrieve all hosts with the specific hostname connected to the specific DHCPv4 subnet. The argument specifies hostname and subnet id.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID4_COUNT

using hostname %1 and IPv4 subnet %2, found %3 host(s)

This debug message include the details of the host found using the hostname and the DHCPv4 subnet id. The arguments specify hostname, subnet id and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID4_HOST

using hostname %1 and IPv4 subnet %2, found host: %3

This debug message includes the details of the host found using the hostname and the DHCPv4 subnet id. The arguments specify hostname, subnet id and found host details respectively.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID6

get all hosts with reservations for hostname %1 and IPv6 subnet %2

This debug message is issued when starting to retrieve all hosts with the specific hostname connected to the specific DHCPv6 subnet. The argument specifies hostname and subnet id.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID6_COUNT

using hostname %1 and IPv6 subnet %2, found %3 host(s)

This debug message include the details of the host found using the hostname and the DHCPv6 subnet id. The arguments specify hostname, subnet id and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_HOSTNAME_SUBNET_ID6_HOST

using hostname %1 and IPv6 subnet %2, found host: %3

This debug message includes the details of the host found using the hostname and the DHCPv6 subnet id. The arguments specify hostname, subnet id and found host details respectively.

HOSTS_CFG_GET_ALL_IDENTIFIER

get all hosts with reservations using identifier: %1

This debug message is issued when starting to retrieve reservations for all hosts identified by HW address or DUID. The argument holds both the identifier type and the value.

HOSTS_CFG_GET_ALL_IDENTIFIER_COUNT

using identifier %1, found %2 host(s)

This debug message logs the number of hosts found using the specified identifier. The arguments specify the identifier used and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_IDENTIFIER_HOST

using identifier: %1, found host: %2

This debug message is issued when found host identified by the specific identifier. The arguments specify the identifier and the detailed description of the host found.

HOSTS_CFG_GET_ALL_SUBNET_ID4

get all hosts with reservations for IPv4 subnet %1

This debug message is issued when starting to retrieve all hosts connected to the specific DHCPv4 subnet. The argument specifies subnet id.

HOSTS_CFG_GET_ALL_SUBNET_ID4_COUNT

using IPv4 subnet %1, found %2 host(s)

This debug message include the details of the host found using the DHCPv4 subnet id. The arguments specify subnet id and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID4_HOST

using IPv4 subnet %1, found host: %2

This debug message includes the details of the host found using the DHCPv4 subnet id. The arguments specify subnet id and found host details respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID6

get all hosts with reservations for IPv6 subnet %1

This debug message is issued when starting to retrieve all hosts connected to the specific DHCPv6 subnet. The argument specifies subnet id.

HOSTS_CFG_GET_ALL_SUBNET_ID6_COUNT

using IPv6 subnet %1, found %2 host(s)

This debug message include the details of the host found using the DHCPv6 subnet id. The arguments specify subnet id and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID6_HOST

using IPv6 subnet %1, found host: %2

This debug message includes the details of the host found using the DHCPv6 subnet id. The arguments specify subnet id and found host details respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS4

get all hosts with reservations for subnet id %1 and IPv4 address %2

This debug message is issued when starting to retrieve all hosts having the reservation for the given IPv4 address within the given subnet. The first argument specifies subnet identifier. The second argument specifies the IPv4 address for which the reservation is to be returned.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS4_COUNT

using IPv4 subnet %1 and IPv4 address %2, found %3 host(s)

This debug message logs the number of hosts found having the reservation for the specified IPv4 address within the specified subnet. The first argument specifies the subnet identifier. The second argument specifies the reserved IPv4 address. The third argument specifies the number of hosts found.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS4_HOST

using IPv4 subnet %1 and IPv4 address %2, found host: %3

This debug message is issued when found host having the reservation for the specified IPv4 address in the specified subnet. The first argument specifies the subnet identifier. The second argument specifies the reserved IPv4 address. The third argument specifies host details.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS6

get all hosts with reservations for subnet id %1 and IPv6 address %2

This debug message is issued when starting to retrieve all hosts connected to the specific subnet and having the specific IPv6 address reserved. The arguments specify subnet id and IPv6 address respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS6_COUNT

using subnet id %1 and address %2, found %3 host(s)

This debug message include the details of the host found using the subnet id and address. The arguments specify subnet id, address and the number of hosts found respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS6_HOST

using subnet id %1 and address %2, found host: %3

This debug message includes the details of the host found using the subnet id and address. The arguments specify subnet id, address and the number of hosts found respectively. found host details respectively.

HOSTS_CFG_GET_ONE_PREFIX

get one host with reservation for prefix %1/%2

This debug message is issued when starting to retrieve a host having a reservation for a specified prefix. The arguments specify a prefix and prefix length.

HOSTS_CFG_GET_ONE_PREFIX_HOST

using prefix %1/%2, found host: %3

This debug message includes the details of the host found using the specific prefix/prefix length. The arguments specify prefix, prefix length and host details respectively.

HOSTS_CFG_GET_ONE_PREFIX_NULL

host not found using prefix %1/%2

This debug message is issued when no host was found for a specified prefix and prefix length.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS4

get one host with reservation for subnet id %1 and IPv4 address %2

This debug message is issued when starting to retrieve a host connected to the specific subnet and having the specific IPv4 address reserved. The arguments specify subnet id and IPv4 address respectively.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS4_HOST

using subnet id %1 and address %2, found host: %3

This debug message logs the details of the host found using the subnet id and IPv4 address.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS4_NULL

host not found using subnet id %1 and address %2

This debug message is issued when no host was found for the specified subnet id and IPv4 address.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS6

get one host with reservation for subnet id %1 and having IPv6 address %2

This debug message is issued when starting to retrieve a host connected to the specific subnet and having the specific IPv6 address reserved. The arguments specify subnet id and IPv6 address respectively.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS6_HOST

using subnet id %1 and address %2, found host: %3

This debug message logs the details of the host found using the subnet id and IPv6 address.

HOSTS_CFG_GET_ONE_SUBNET_ID_ADDRESS6_NULL

host not found using subnet id %1 and address %2

This debug message is issued when no host was found using the specified subnet if and IPv6 address.

HOSTS_CFG_GET_ONE_SUBNET_ID_IDENTIFIER

get one host with %1 reservation for subnet id %2, identified by %3

This debug message is issued when starting to retrieve a host holding IPv4 or IPv6 reservations, which is connected to a specific subnet and is identified by a specific unique identifier. The first argument identifies if the IPv4 or IPv6 reservation is desired.

HOSTS_CFG_GET_ONE_SUBNET_ID_IDENTIFIER_HOST

using subnet id %1 and identifier %2, found host: %3

This debug message includes the details of a host found using a subnet id and specific host identifier.

HOSTS_CFG_GET_ONE_SUBNET_ID_IDENTIFIER_NULL

host not found using subnet id %1 and identifier %2

This debug message is issued when no host was found using the specified subnet id and host identifier.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_ADDRESS4

trying alternate sources for host using subnet id %1 and address %2

This debug message is issued when the Host Manager doesn't find the host connected to the specific subnet and having the reservation for the specific IPv4 address, and it is starting to search for this host in alternate host data sources.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_IDENTIFIER

get one host with IPv4 reservation for subnet id %1, identified by %2

This debug message is issued when starting to retrieve a host holding IPv4 reservation, which is connected to a specific subnet and is identified by a specific unique identifier.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_IDENTIFIER_HOST

using subnet id %1 and identifier %2, found in %3 host: %4

This debug message includes the details of a host returned by an alternate hosts data source using a subnet id and specific host identifier.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_IDENTIFIER_NULL

host not found using subnet id %1 and identifier %2

This debug message is issued when no host was found using the specified subnet id and host identifier.

HOSTS_MGR_ALTERNATE_GET6_PREFIX

trying alternate sources for host using prefix %1/%2

This debug message is issued when the Host Manager doesn't find the host connected to the specific subnet and having the reservation for the specified prefix, and it is starting to search for this host in alternate host data sources.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_ADDRESS6

trying alternate sources for host using subnet id %1 and IPv6 address %2

This debug message is issued when the Host Manager doesn't find the host connected to the specific subnet and having the reservation for the specified IPv6 address, and it is starting to search for this host in alternate host data sources.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_IDENTIFIER

get one host with IPv6 reservation for subnet id %1, identified by %2

This debug message is issued when starting to retrieve a host holding IPv4 reservation, which is connected to a specific subnet and is identified by a specific unique identifier.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_IDENTIFIER_HOST

using subnet id %1 and identifier %2, found in %3 host: %4

This debug message includes the details of a host returned by an alternate host data source using a subnet id and specific host identifier.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_IDENTIFIER_NULL

host not found using subnet id %1 and identifier %2

This debug message is issued when no host was found using the specified subnet id and host identifier.

HOSTS_MGR_ALTERNATE_GET_ALL_SUBNET_ID_ADDRESS4

trying alternate sources for hosts using subnet id %1 and address %2

This debug message is issued when the Host Manager is starting to search for hosts in alternate host data sources by subnet ID and IPv4 address.

HOSTS_MGR_ALTERNATE_GET_ALL_SUBNET_ID_ADDRESS6

trying alternate sources for hosts using subnet id %1 and address %2

This debug message is issued when the Host Manager is starting to search for hosts in alternate host data sources by subnet ID and IPv6 address.

CHAPTER 17

HTTPS

HTTPS_REQUEST_RECEIVE_START

start receiving request from %1

This debug message is issued when the server starts receiving new request over the established connection. The argument specifies the address of the remote endpoint.

CHAPTER 18

HTTP

HTTP_BAD_CLIENT_REQUEST_RECEIVED

bad request received from %1: %2

> This debug message is issued when an HTTP client sends malformed request to the server. This includes HTTP requests using unexpected content types, including malformed JSON etc. The first argument specifies an address of the remote endpoint which sent the request. The second argument provides a detailed error message.

HTTP_BAD_CLIENT_REQUEST_RECEIVED_DETAILS

detailed information about bad request received from %1:n%2

> This debug message is issued when an HTTP client sends malformed request to the server. It includes detailed information about the received request rejected by the server. The first argument specifies an address of the remote endpoint which sent the request. The second argument provides a request in the textual format. The request is truncated by the logger if it is too large to be printed.

HTTP_BAD_SERVER_RESPONSE_RECEIVED

bad response received when communicating with %1: %2

> This debug message is issued when an HTTP client fails to receive a response from the server or when this response is malformed. The first argument specifies the server URL. The second argument provides a detailed error message.

HTTP_BAD_SERVER_RESPONSE_RECEIVED_DETAILS

detailed information about bad response received from %1:n%2

> This debug message is issued when an HTTP client receives malformed response from the server. The first argument specifies an URL of the server. The second argument provides a response in the textual format. The request is truncated by the logger if it is too large to be printed.

HTTP_CLIENT_MT_STARTED

HttpClient has been started in multi-threaded mode running %1 threads

This debug message is issued when a multi-threaded HTTP client instance has been created. The argument specifies the maximum number of threads.

HTTP_CLIENT_QUEUE_SIZE_GROWING

queue for URL: %1, now has %2 entries and may be growing too quickly

This warning message is issued when the queue of pending requests for the given URL appears to be growing more quickly than the requests can be handled. It will be emitted periodically as long as the queue size continues to grow. This may occur with a surge of client traffic creating a momentary backlog which then subsides as the surge subsides. If it happens continually then it most likely indicates a deployment configuration that cannot sustain the client load.

HTTP_CLIENT_REQUEST_AUTHORIZED

received HTTP request authorized for '%1'

This information message is issued when the server receives with a matching authentication header. The argument provides the user id.

HTTP_CLIENT_REQUEST_BAD_AUTH_HEADER

received HTTP request with malformed authentication header: %1

This information message is issued when the server receives a request with a malformed authentication header. The argument explains the problem.

HTTP_CLIENT_REQUEST_NOT_AUTHORIZED

received HTTP request with not matching authentication header

This information message is issued when the server receives a request with authentication header carrying not recognized credential: the user provided incorrect user id and/or password.

HTTP_CLIENT_REQUEST_RECEIVED

received HTTP request from %1

This debug message is issued when the server finished receiving a HTTP request from the remote endpoint. The address of the remote endpoint is specified as an argument.

HTTP_CLIENT_REQUEST_RECEIVED_DETAILS

detailed information about well-formed request received from %1:n%2

This debug message is issued when the HTTP server receives a well-formed request. It includes detailed information about the received request. The first argument specifies an address of the remote endpoint which sent the request. The second argument provides the request in the textual format. The request is truncated by the logger if it is too large to be printed.

HTTP_CLIENT_REQUEST_SEND

sending HTTP request %1 to %2

This debug message is issued when the client is starting to send a HTTP request to a server. The first argument holds basic information about the request (HTTP version number and status code). The second argument specifies a URL of the server.

HTTP_CLIENT_REQUEST_SEND_DETAILS

detailed information about request sent to %1:n%2

This debug message is issued right before the client sends an HTTP request to the server. It includes detailed information about the request. The first argument specifies an URL of the server to which the request is being sent. The second argument provides the request in the textual form. The request is truncated by the logger if it is too large to be printed.

HTTP_CLIENT_REQUEST_TIMEOUT_OCCURRED

HTTP request timeout occurred when communicating with %1

This debug message is issued when the HTTP request timeout has occurred and the server is going to send a response with Http Request timeout status code.

HTTP_CONNECTION_CLOSE_CALLBACK_FAILED

Connection close callback threw an exception

This is an error message emitted when the close connection callback registered on the connection failed unexpectedly. This is a programmatic error that should be submitted as a bug.

HTTP_CONNECTION_HANDSHAKE_FAILED

TLS handshake with %1 failed with %2

This information message is issued when the TLS handshake failed at the server side. The client address and the error message are displayed.

HTTP_CONNECTION_HANDSHAKE_START

start TLS handshake with %1 with timeout %2

This debug message is issued when the server starts the TLS handshake with the remote endpoint. The first argument specifies the address of the remote endpoint. The second argument specifies request timeout in seconds.

HTTP_CONNECTION_SHUTDOWN

shutting down HTTP connection from %1

This debug message is issued when one of the HTTP connections is shut down. The connection can be stopped as a result of an error or after the successful message exchange with a client.

HTTP_CONNECTION_SHUTDOWN_FAILED

shutting down HTTP connection failed

This error message is issued when an error occurred during shutting down a HTTP connection with a client.

HTTP_CONNECTION_STOP

stopping HTTP connection from %1

This debug message is issued when one of the HTTP connections is stopped. The connection can be stopped as a result of an error or after the successful message exchange with a client.

HTTP_CONNECTION_STOP_FAILED

stopping HTTP connection failed

This error message is issued when an error occurred during closing a HTTP connection with a client.

HTTP_DATA_RECEIVED

received %1 bytes from %2

This debug message is issued when the server receives a chunk of data from the remote endpoint. This may include the whole request or only a part of the request. The first argument specifies the amount of received data. The second argument specifies an address of the remote endpoint which produced the data.

HTTP_IDLE_CONNECTION_TIMEOUT_OCCURRED

closing persistent connection with %1 as a result of a timeout

This debug message is issued when the persistent HTTP connection is being closed as a result of being idle.

HTTP_PREMATURE_CONNECTION_TIMEOUT_OCCURRED

premature connection timeout occurred: in transaction ? %1, transid: %2, current_transid: %3

This warning message is issued when unexpected timeout occurred during the transaction. This is proven to occur when the system clock is moved manually or as a result of synchronization with a time server. Any ongoing transactions will be interrupted. New transactions should be conducted normally.

HTTP_REQUEST_RECEIVE_START

start receiving request from %1 with timeout %2

This debug message is issued when the server starts receiving new request over the established connection. The first argument specifies the address of the remote endpoint. The second argument specifies request timeout in seconds.

HTTP_SERVER_RESPONSE_RECEIVED

received HTTP response from %1

This debug message is issued when the client finished receiving an HTTP response from the server. The URL of the server is specified as an argument.

HTTP_SERVER_RESPONSE_RECEIVED_DETAILS

detailed information about well-formed response received from %1:n%2

This debug message is issued when the HTTP client receives a well-formed response from the server. It includes detailed information about the received response. The first argument specifies a URL of the server which sent the response. The second argument provides the response in the textual format. The response is truncated by the logger if it is too large to be printed.

HTTP_SERVER_RESPONSE_SEND

sending HTTP response %1 to %2

This debug message is issued when the server is starting to send a HTTP response to a remote endpoint. The first argument holds basic information about the response (HTTP version number and status code). The second argument specifies an address of the remote endpoint.

CHAPTER 19

LEASE

LEASE_CMDS_ADD4

lease4-add command successful (parameters: %1)

The lease4-add command has been successful. Parameters of the host added are logged.

LEASE_CMDS_ADD4_FAILED

lease4-add command failed (parameters: %1, reason: %2)

The lease4-add command has failed. Both the reason as well as the parameters passed are logged.

LEASE_CMDS_ADD6

lease6-add command successful (parameters: %1)

The lease6-add command has been successful. Parameters of the host added are logged.

LEASE_CMDS_ADD6_FAILED

Lease6-add command failed (parameters: %1, reason: %2)

The lease6-add command has failed. Both the reason as well as the parameters passed are logged.

LEASE_CMDS_DEINIT_FAILED

unloading Lease Commands hooks library failed: %1

This error message indicates an error during unloading the Lease Commands hooks library. The details of the error are provided as argument of the log message.

LEASE_CMDS_DEINIT_OK

unloading Lease Commands hooks library successful

This info message indicates that the Lease Commands hooks library has been removed successfully.

LEASE_CMDS_DEL4

lease4-del command successful (parameters: %1)

The attempt to delete an IPv4 lease (lease4-del command) has been successful. Parameters of the host removed are logged.

LEASE_CMDS_DEL4_FAILED

lease4-del command failed (parameters: %1, reason: %2)

The attempt to delete an IPv4 lease (lease4-del command) has failed. Both the reason as well as the parameters passed are logged.

LEASE_CMDS_DEL6

lease4-del command successful (parameters: %1)

The attempt to delete an IPv4 lease (lease4-del command) has been successful. Parameters of the host removed are logged.

LEASE_CMDS_DEL6_FAILED

lease6-del command failed (parameters: %1, reason: %2)

The attempt to delete an IPv6 lease (lease4-del command) has failed. Both the reason as well as the parameters passed are logged.

LEASE_CMDS_INIT_FAILED

loading Lease Commands hooks library failed: %1

This error message indicates an error during loading the Lease Commands hooks library. The details of the error are provided as argument of the log message.

LEASE_CMDS_INIT_OK

loading Lease Commands hooks library successful

This info message indicates that the Lease Commands hooks library has been loaded successfully. Enjoy!

LEASE_CMDS_RESEND_DDNS4

lease4-resend-ddns command successful: %1

A request to update DNS for the requested IPv4 lease has been successfully queued for transmission to kea-dhcp-ddns.

LEASE_CMDS_RESEND_DDNS4_FAILED

lease4-resend-ddns command failed: %1

A request to update DNS for the requested IPv4 lease has failed. The reason for the failure is logged.

LEASE_CMDS_RESEND_DDNS6

lease6-resend-ddns command successful: %1

A request to update DNS for the requested IPv6 lease has been successfully queued for transmission to kea-dhcp-ddns.

CHAPTER 20

LFC

LFC_FAIL_PID_CREATE

: %1

This message is issued if LFC detected a failure when trying to create the PID file. It includes a more specific error string.

LFC_FAIL_PID_DEL

: %1

This message is issued if LFC detected a failure when trying to delete the PID file. It includes a more specific error string.

LFC_FAIL_PROCESS

: %1

This message is issued if LFC detected a failure when trying to process the files. It includes a more specific error string.

LFC_FAIL_ROTATE

: %1

This message is issued if LFC detected a failure when trying to rotate the files. It includes a more specific error string.

LFC_PROCESSING

Previous file: %1, copy file: %2

This message is issued just before LFC starts processing the lease files.

LFC_READ_STATS

Leases: %1, attempts: %2, errors: %3.

This message prints out the number of leases that were read, the number of attempts to read leases and the number of errors encountered while reading.

LFC_ROTATING

LFC rotating files

This message is issued just before LFC starts rotating the lease files - removing the old and replacing them with the new.

LFC_RUNNING

LFC instance already running

This message is issued if LFC detects that a previous copy of LFC may still be running via the PID check.

LFC_START

Starting lease file cleanup

This message is issued as the LFC process starts.

LFC_TERMINATE

LFC finished processing

This message is issued when the LFC process completes. It does not indicate that the process was successful only that it has finished.

CHAPTER 21

LOGIMPL

LOGIMPL_ABOVE_MAX_DEBUG

debug level of %1 is too high and will be set to the maximum of %2

A message from the interface to the underlying logger implementation reporting that the debug level (as set by an internally-created string DEBUGn, where n is an integer, e.g. DEBUG22) is above the maximum allowed value and has been reduced to that value. The appearance of this message may indicate a programming error - please submit a bug report.

LOGIMPL_BAD_DEBUG_STRING

debug string '%1' has invalid format

A message from the interface to the underlying logger implementation reporting that an internally-created string used to set the debug level is not of the correct format (it should be of the form DEBUGn, where n is an integer, e.g. DEBUG22). The appearance of this message indicates a programming error - please submit a bug report.

CHAPTER 22

LOG

LOG_BAD_DESTINATION

unrecognized log destination: %1

A logger destination value was given that was not recognized. The destination should be one of "console", "file", or "syslog".

LOG_BAD_SEVERITY

unrecognized log severity: %1

A logger severity value was given that was not recognized. The severity should be one of "DEBUG", "INFO", "WARN", "ERROR", "FATAL" or "NONE".

LOG_BAD_STREAM

bad log console output stream: %1

Logging has been configured so that output is written to the terminal (console) but the stream on which it is to be written is not recognized. Allowed values are "stdout" and "stderr".

LOG_DUPLICATE_MESSAGE_ID

duplicate message ID (%1) in compiled code

During start-up, Kea detected that the given message identification had been defined multiple times in the Kea code. This indicates a programming error; please submit a bug report.

LOG_DUPLICATE_NAMESPACE

line %1: duplicate $NAMESPACE directive found

When reading a message file, more than one $NAMESPACE directive was found. (This directive is used to set a C++ namespace when generating header files during software development.) Such a condition is regarded as an error and the read will be abandoned.

LOG_INPUT_OPEN_FAIL

unable to open message file %1 for input: %2

The program was not able to open the specified input message file for the reason given.

LOG_INVALID_MESSAGE_ID

line %1: invalid message identification '%2'

An invalid message identification (ID) has been found during the read of a message file. Message IDs should comprise only alphanumeric characters and the underscore, and should not start with a digit.

LOG_NAMESPACE_EXTRA_ARGS

line %1: $NAMESPACE directive has too many arguments

The $NAMESPACE directive in a message file takes a single argument, a namespace in which all the generated symbol names are placed. This error is generated when the compiler finds a $NAMESPACE directive with more than one argument.

LOG_NAMESPACE_INVALID_ARG

line %1: $NAMESPACE directive has an invalid argument ('%2')

The $NAMESPACE argument in a message file should be a valid C++ namespace. This message is output if the simple check on the syntax of the string carried out by the reader fails.

LOG_NAMESPACE_NO_ARGS

line %1: no arguments were given to the $NAMESPACE directive

The $NAMESPACE directive in a message file takes a single argument, a C++ namespace in which all the generated symbol names are placed. This error is generated when the compiler finds a $NAMESPACE directive with no arguments.

LOG_NO_MESSAGE_ID

line %1: message definition line found without a message ID

Within a message file, message are defined by lines starting with a "%". The rest of the line should comprise the message ID and text describing the message. This error indicates the message compiler found a line in the message file comprising just the "%" and nothing else.

LOG_NO_MESSAGE_TEXT

line %1: line found containing a message ID ('%2') and no text

Within a message file, message are defined by lines starting with a "%". The rest of the line should comprise the message ID and text describing the message. This error indicates the message compiler found a line in the message file comprising just the "%" and message identification, but no text.

LOG_NO_SUCH_MESSAGE

could not replace message text for '%1': no such message

During start-up a local message file was read. A line with the listed message identification was found in the file, but the identification is not one contained in the compiled-in message dictionary. This message may appear a number of times in the file, once for every such unknown message identification. There are several reasons why this message may appear: - The message ID has been misspelled in the local message file. - The program outputting the message may not use that particular message (e.g. it originates in a module not used by the program). - The local file was written for an earlier version of the Kea software and the later version no longer generates that message. Whatever the reason, there is no impact on the operation of Kea.

LOG_OPEN_OUTPUT_FAIL

unable to open %1 for output: %2

Originating within the logging code, the program was not able to open the specified output file for the reason given.

LOG_PREFIX_EXTRA_ARGS

line %1: $PREFIX directive has too many arguments

Within a message file, the $PREFIX directive takes a single argument, a prefix to be added to the symbol names when a C++ file is created. This error is generated when the compiler finds a $PREFIX directive with more than one argument. Note: the $PREFIX directive is deprecated and will be removed in a future version of Kea.

LOG_PREFIX_INVALID_ARG

line %1: $PREFIX directive has an invalid argument ('%2')

Within a message file, the $PREFIX directive takes a single argument, a prefix to be added to the symbol names when a C++ file is created. As such, it must adhere to restrictions on C++ symbol names (e.g. may only contain alphanumeric characters or underscores, and may nor start with a digit). A $PREFIX directive was found with an argument (given in the message) that violates those restrictions. Note: the $PREFIX directive is deprecated and will be removed in a future version of Kea.

LOG_READING_LOCAL_FILE

reading local message file %1

This is an informational message output by Kea when it starts to read a local message file. (A local message file may replace the text of one or more messages; the ID of the message will not be changed though.)

LOG_READ_ERROR

error reading from message file %1: %2

The specified error was encountered reading from the named message file.

LOG_UNRECOGNIZED_DIRECTIVE

line %1: unrecognized directive '%2'

Within a message file, a line starting with a dollar symbol was found (indicating the presence of a directive) but the first word on the line (shown in the message) was not recognized.

CHAPTER 23

MYSQL

MYSQL_CB_CREATE_UPDATE_BY_POOL_OPTION4

create or update option pool start: %1 pool end: %2

Debug message issued when triggered an action to create or update option by pool

MYSQL_CB_CREATE_UPDATE_BY_POOL_OPTION6

create or update option pool start: %1 pool end: %2

Debug message issued when triggered an action to create or update option by pool

MYSQL_CB_CREATE_UPDATE_BY_PREFIX_OPTION6

create or update option prefix: %1 prefix len: %2

Debug message issued when triggered an action to create or update option by prefix

MYSQL_CB_CREATE_UPDATE_BY_SUBNET_ID_OPTION4

create or update option by subnet id: %1

Debug message issued when triggered an action to create or update option by subnet id

MYSQL_CB_CREATE_UPDATE_BY_SUBNET_ID_OPTION6

create or update option by subnet id: %1

Debug message issued when triggered an action to create or update option by subnet id

MYSQL_CB_CREATE_UPDATE_CLIENT_CLASS4

create or update client class: %1

Debug message issued when triggered an action to create or update client class

MYSQL_CB_CREATE_UPDATE_CLIENT_CLASS6

create or update client class: %1

Debug message issued when triggered an action to create or update client class

MYSQL_CB_CREATE_UPDATE_GLOBAL_PARAMETER4

create or update global parameter: %1

Debug message issued when triggered an action to create or update global parameter

MYSQL_CB_CREATE_UPDATE_GLOBAL_PARAMETER6

create or update global parameter: %1

Debug message issued when triggered an action to create or update global parameter

MYSQL_CB_CREATE_UPDATE_OPTION4

create or update option

Debug message issued when triggered an action to create or update option

MYSQL_CB_CREATE_UPDATE_OPTION6

create or update option

Debug message issued when triggered an action to create or update option

MYSQL_CB_CREATE_UPDATE_OPTION_DEF4

create or update option definition: %1 code: %2

Debug message issued when triggered an action to create or update option definition

MYSQL_CB_CREATE_UPDATE_OPTION_DEF6

create or update option definition: %1 code: %2

Debug message issued when triggered an action to create or update option definition

MYSQL_CB_CREATE_UPDATE_SERVER4

create or update server: %1

Debug message issued when triggered an action to create or update a DHCPv4 server information.

MYSQL_CB_CREATE_UPDATE_SERVER6

create or update server: %1

Debug message issued when triggered an action to create or update a DHCPv6 server information.

MYSQL_CB_CREATE_UPDATE_SHARED_NETWORK4

create or update shared network: %1

Debug message issued when triggered an action to create or update shared network

MYSQL_CB_CREATE_UPDATE_SHARED_NETWORK6

create or update shared network: %1

Debug message issued when triggered an action to create or update shared network

MYSQL_CB_CREATE_UPDATE_SHARED_NETWORK_OPTION4

create or update shared network: %1 option

Debug message issued when triggered an action to create or update shared network option

MYSQL_CB_CREATE_UPDATE_SHARED_NETWORK_OPTION6

create or update shared network: %1 option

Debug message issued when triggered an action to create or update shared network option

MYSQL_CB_CREATE_UPDATE_SUBNET4

create or update subnet: %1

Debug message issued when triggered an action to create or update subnet

MYSQL_CB_CREATE_UPDATE_SUBNET6

create or update subnet: %1

Debug message issued when triggered an action to create or update subnet

MYSQL_CB_DEINIT_OK

unloading MYSQL CB hooks library successful

This informational message indicates that the MySQL Configuration Backend hooks library has been unloaded successfully.

MYSQL_CB_DELETE_ALL_CLIENT_CLASSES4

delete all client classes

Debug message issued when triggered an action to delete all client classes

MYSQL_CB_DELETE_ALL_CLIENT_CLASSES4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all client classes

MYSQL_CB_DELETE_ALL_CLIENT_CLASSES6

delete all client classes

Debug message issued when triggered an action to delete all client classes

MYSQL_CB_DELETE_ALL_CLIENT_CLASSES6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all client classes

MYSQL_CB_DELETE_ALL_GLOBAL_PARAMETERS4

delete all global parameters

Debug message issued when triggered an action to delete all global parameters

MYSQL_CB_DELETE_ALL_GLOBAL_PARAMETERS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all global parameters

MYSQL_CB_DELETE_ALL_GLOBAL_PARAMETERS6

delete all global parameters

Debug message issued when triggered an action to delete all global parameters

MYSQL_CB_DELETE_ALL_GLOBAL_PARAMETERS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all global parameters

MYSQL_CB_DELETE_ALL_OPTION_DEFS4

delete all option definitions

Debug message issued when triggered an action to delete all option definitions

MYSQL_CB_DELETE_ALL_OPTION_DEFS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all option definitions

MYSQL_CB_DELETE_ALL_OPTION_DEFS6

delete all option definitions

Debug message issued when triggered an action to delete all option definitions

MYSQL_CB_DELETE_ALL_OPTION_DEFS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all option definitions

MYSQL_CB_DELETE_ALL_SERVERS4

delete all DHCPv4 servers

Debug message issued when triggered an action to delete all servers.

MYSQL_CB_DELETE_ALL_SERVERS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all servers.

MYSQL_CB_DELETE_ALL_SERVERS6

delete all DHCPv6 servers

Debug message issued when triggered an action to delete all servers.

MYSQL_CB_DELETE_ALL_SERVERS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all servers.

MYSQL_CB_DELETE_ALL_SHARED_NETWORKS4

delete all shared networks

Debug message issued when triggered an action to delete all shared networks

MYSQL_CB_DELETE_ALL_SHARED_NETWORKS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all shared networks

MYSQL_CB_DELETE_ALL_SHARED_NETWORKS6

delete all shared networks

Debug message issued when triggered an action to delete all shared networks

MYSQL_CB_DELETE_ALL_SHARED_NETWORKS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all shared networks

MYSQL_CB_DELETE_ALL_SUBNETS4

delete all subnets

Debug message issued when triggered an action to delete all subnets

MYSQL_CB_DELETE_ALL_SUBNETS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all subnets

MYSQL_CB_DELETE_ALL_SUBNETS6

delete all subnets

Debug message issued when triggered an action to delete all subnets

MYSQL_CB_DELETE_ALL_SUBNETS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete all subnets

MYSQL_CB_DELETE_BY_POOL_OPTION4

delete pool start: %1 pool end: %2 option code: %3 space: %4

Debug message issued when triggered an action to delete option by pool

MYSQL_CB_DELETE_BY_POOL_OPTION4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option by pool

MYSQL_CB_DELETE_BY_POOL_OPTION6

delete pool start: %1 pool end: %2 option code: %3 space: %4

Debug message issued when triggered an action to delete option by pool

MYSQL_CB_DELETE_BY_POOL_OPTION6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option by pool

MYSQL_CB_DELETE_BY_POOL_PREFIX_OPTION6

delete prefix: %1 prefix len: %2 option code: %3 space: %4

Debug message issued when triggered an action to delete option by prefix

MYSQL_CB_DELETE_BY_POOL_PREFIX_OPTION6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option by prefix

MYSQL_CB_DELETE_BY_PREFIX_SUBNET4

delete subnet by prefix: %1

Debug message issued when triggered an action to delete subnet by prefix

MYSQL_CB_DELETE_BY_PREFIX_SUBNET4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete subnet by prefix

MYSQL_CB_DELETE_BY_PREFIX_SUBNET6

delete subnet by prefix: %1

Debug message issued when triggered an action to delete subnet by prefix

MYSQL_CB_DELETE_BY_PREFIX_SUBNET6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete subnet by prefix

MYSQL_CB_DELETE_BY_SUBNET_ID_OPTION4

delete by subnet id: %1 option code: %2 space: %3

Debug message issued when triggered an action to delete option by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_OPTION4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_OPTION6

delete by subnet id: %1 option code: %2 space: %3

Debug message issued when triggered an action to delete option by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_OPTION6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_SUBNET4

delete subnet by subnet id: %1

Debug message issued when triggered an action to delete subnet by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_SUBNET4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete subnet by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_SUBNET6

delete subnet by subnet id: %1

Debug message issued when triggered an action to delete subnet by subnet id

MYSQL_CB_DELETE_BY_SUBNET_ID_SUBNET6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete subnet by subnet id

MYSQL_CB_DELETE_CLIENT_CLASS4

delete client class: %1

Debug message issued when triggered an action to delete client class

MYSQL_CB_DELETE_CLIENT_CLASS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete client class

MYSQL_CB_DELETE_CLIENT_CLASS6

delete client class: %1

Debug message issued when triggered an action to delete client class

MYSQL_CB_DELETE_CLIENT_CLASS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete client class

MYSQL_CB_DELETE_GLOBAL_PARAMETER4

delete global parameter: %1

Debug message issued when triggered an action to delete global parameter

MYSQL_CB_DELETE_GLOBAL_PARAMETER4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete global parameter

MYSQL_CB_DELETE_GLOBAL_PARAMETER6

delete global parameter: %1

Debug message issued when triggered an action to delete global parameter

MYSQL_CB_DELETE_GLOBAL_PARAMETER6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete global parameter

MYSQL_CB_DELETE_OPTION4

delete option code: %1 space: %2

Debug message issued when triggered an action to delete option

MYSQL_CB_DELETE_OPTION4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option

MYSQL_CB_DELETE_OPTION6

delete option code: %1 space: %2

Debug message issued when triggered an action to delete option

MYSQL_CB_DELETE_OPTION6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option

MYSQL_CB_DELETE_OPTION_DEF4

delete option definition code: %1 space: %2

Debug message issued when triggered an action to delete option definition

MYSQL_CB_DELETE_OPTION_DEF4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option definition

MYSQL_CB_DELETE_OPTION_DEF6

delete option definition code: %1 space: %2

Debug message issued when triggered an action to delete option definition

MYSQL_CB_DELETE_OPTION_DEF6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete option definition

MYSQL_CB_DELETE_SERVER4

delete DHCPv4 server: %1

Debug message issued when triggered an action to delete a server.

MYSQL_CB_DELETE_SERVER4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete a server.

MYSQL_CB_DELETE_SERVER6

delete DHCPv6 server: %1

Debug message issued when triggered an action to delete a server.

MYSQL_CB_DELETE_SERVER6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete a server.

MYSQL_CB_DELETE_SHARED_NETWORK4

delete shared network: %1

Debug message issued when triggered an action to delete shared network

MYSQL_CB_DELETE_SHARED_NETWORK4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network

MYSQL_CB_DELETE_SHARED_NETWORK6

delete shared network: %1

Debug message issued when triggered an action to delete shared network

MYSQL_CB_DELETE_SHARED_NETWORK6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network

MYSQL_CB_DELETE_SHARED_NETWORK_OPTION4

delete shared network: %1 option code: %2 space: %3

Debug message issued when triggered an action to delete shared network option

MYSQL_CB_DELETE_SHARED_NETWORK_OPTION4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network option

MYSQL_CB_DELETE_SHARED_NETWORK_OPTION6

delete shared network: %1 option code: %2 space: %3

Debug message issued when triggered an action to delete shared network option

MYSQL_CB_DELETE_SHARED_NETWORK_OPTION6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network option

MYSQL_CB_DELETE_SHARED_NETWORK_SUBNETS4

delete shared network: %1 subnets

Debug message issued when triggered an action to delete shared network subnets

MYSQL_CB_DELETE_SHARED_NETWORK_SUBNETS4_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network subnets

MYSQL_CB_DELETE_SHARED_NETWORK_SUBNETS6

delete shared network: %1 subnets

Debug message issued when triggered an action to delete shared network subnets

MYSQL_CB_DELETE_SHARED_NETWORK_SUBNETS6_RESULT

deleted: %1 entries

Debug message indicating the result of an action to delete shared network subnets

MYSQL_CB_GET_ALL_CLIENT_CLASSES4

retrieving all client classes

Debug message issued when triggered an action to retrieve all client classes

MYSQL_CB_GET_ALL_CLIENT_CLASSES4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all client classes

MYSQL_CB_GET_ALL_CLIENT_CLASSES6

retrieving all client classes

Debug message issued when triggered an action to retrieve all client classes

MYSQL_CB_GET_ALL_CLIENT_CLASSES6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all client classes

MYSQL_CB_GET_ALL_GLOBAL_PARAMETERS4

retrieving all global parameters

Debug message issued when triggered an action to retrieve all global parameters

MYSQL_CB_GET_ALL_GLOBAL_PARAMETERS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all global parameters

MYSQL_CB_GET_ALL_GLOBAL_PARAMETERS6

retrieving all global parameters

Debug message issued when triggered an action to retrieve all global parameters

MYSQL_CB_GET_ALL_GLOBAL_PARAMETERS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all global parameters

MYSQL_CB_GET_ALL_OPTIONS4

retrieving all options

Debug message issued when triggered an action to retrieve all options

MYSQL_CB_GET_ALL_OPTIONS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all options

MYSQL_CB_GET_ALL_OPTIONS6

retrieving all options

Debug message issued when triggered an action to retrieve all options

MYSQL_CB_GET_ALL_OPTIONS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all options

MYSQL_CB_GET_ALL_OPTION_DEFS4

retrieving all option definitions

Debug message issued when triggered an action to retrieve all option definitions

MYSQL_CB_GET_ALL_OPTION_DEFS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all option definitions

MYSQL_CB_GET_ALL_OPTION_DEFS6

retrieving all option definitions

Debug message issued when triggered an action to retrieve all option definitions

MYSQL_CB_GET_ALL_OPTION_DEFS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all option definitions

MYSQL_CB_GET_ALL_SERVERS4

retrieving all servers

Debug message issued when triggered an action to retrieve all DHCPv4 servers

MYSQL_CB_GET_ALL_SERVERS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all DHCPv4 servers

MYSQL_CB_GET_ALL_SERVERS6

retrieving all DHCPv6 servers

Debug message issued when triggered an action to retrieve all DHCPv6 servers

MYSQL_CB_GET_ALL_SERVERS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all DHCPv6 servers

MYSQL_CB_GET_ALL_SHARED_NETWORKS4

retrieving all shared networks

Debug message issued when triggered an action to retrieve all shared networks

MYSQL_CB_GET_ALL_SHARED_NETWORKS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all shared networks

MYSQL_CB_GET_ALL_SHARED_NETWORKS6

retrieving all shared networks

Debug message issued when triggered an action to retrieve all shared networks

MYSQL_CB_GET_ALL_SHARED_NETWORKS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all shared networks

MYSQL_CB_GET_ALL_SUBNETS4

retrieving all subnets

Debug message issued when triggered an action to retrieve all subnets

MYSQL_CB_GET_ALL_SUBNETS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all subnets

MYSQL_CB_GET_ALL_SUBNETS6

retrieving all subnets

Debug message issued when triggered an action to retrieve all subnets

MYSQL_CB_GET_ALL_SUBNETS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve all subnets

MYSQL_CB_GET_CLIENT_CLASS4

retrieving client class: %1

Debug message issued when triggered an action to retrieve a client class

MYSQL_CB_GET_CLIENT_CLASS6

retrieving client class: %1

Debug message issued when triggered an action to retrieve a client class

MYSQL_CB_GET_GLOBAL_PARAMETER4

retrieving global parameter: %1

Debug message issued when triggered an action to retrieve global parameter

MYSQL_CB_GET_GLOBAL_PARAMETER6

retrieving global parameter: %1

Debug message issued when triggered an action to retrieve global parameter

MYSQL_CB_GET_HOST4

get host

Debug message issued when triggered an action to retrieve host

MYSQL_CB_GET_HOST6

get host

Debug message issued when triggered an action to retrieve host

MYSQL_CB_GET_MODIFIED_CLIENT_CLASSES4

retrieving modified client classes from: %1

Debug message issued when triggered an action to retrieve modified client classes from specified time

MYSQL_CB_GET_MODIFIED_CLIENT_CLASSES4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified client classes from specified time

MYSQL_CB_GET_MODIFIED_CLIENT_CLASSES6

retrieving modified client classes from: %1

Debug message issued when triggered an action to retrieve modified client classes from specified time

MYSQL_CB_GET_MODIFIED_CLIENT_CLASSES6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified client classes from specified time

MYSQL_CB_GET_MODIFIED_GLOBAL_PARAMETERS4

retrieving modified global parameters from: %1

Debug message issued when triggered an action to retrieve modified global parameters from specified time

MYSQL_CB_GET_MODIFIED_GLOBAL_PARAMETERS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified global parameters from specified time

MYSQL_CB_GET_MODIFIED_GLOBAL_PARAMETERS6

retrieving modified global parameters from: %1

Debug message issued when triggered an action to retrieve modified global parameters from specified time

MYSQL_CB_GET_MODIFIED_GLOBAL_PARAMETERS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified global parameters from specified time

MYSQL_CB_GET_MODIFIED_OPTIONS4

retrieving modified options from: %1

Debug message issued when triggered an action to retrieve modified options from specified time

MYSQL_CB_GET_MODIFIED_OPTIONS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified options from specified time

MYSQL_CB_GET_MODIFIED_OPTIONS6

retrieving modified options from: %1

Debug message issued when triggered an action to retrieve modified options from specified time

MYSQL_CB_GET_MODIFIED_OPTIONS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified options from specified time

MYSQL_CB_GET_MODIFIED_OPTION_DEFS4

retrieving modified option definitions from: %1

Debug message issued when triggered an action to retrieve modified option definitions from specified time

MYSQL_CB_GET_MODIFIED_OPTION_DEFS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified option definitions from specified time

MYSQL_CB_GET_MODIFIED_OPTION_DEFS6

retrieving modified option definitions from: %1

Debug message issued when triggered an action to retrieve modified option definitions from specified time

MYSQL_CB_GET_MODIFIED_OPTION_DEFS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified option definitions from specified time

MYSQL_CB_GET_MODIFIED_SHARED_NETWORKS4

retrieving modified shared networks from: %1

Debug message issued when triggered an action to retrieve modified shared networks from specified time

MYSQL_CB_GET_MODIFIED_SHARED_NETWORKS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified shared networks from specified time

MYSQL_CB_GET_MODIFIED_SHARED_NETWORKS6

retrieving modified shared networks from: %1

Debug message issued when triggered an action to retrieve modified shared networks from specified time

MYSQL_CB_GET_MODIFIED_SHARED_NETWORKS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified shared networks from specified time

MYSQL_CB_GET_MODIFIED_SUBNETS4

retrieving modified subnets from: %1

Debug message issued when triggered an action to retrieve modified subnets from specified time

MYSQL_CB_GET_MODIFIED_SUBNETS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified subnets from specified time

MYSQL_CB_GET_MODIFIED_SUBNETS6

retrieving modified subnets from: %1

Debug message issued when triggered an action to retrieve modified subnets from specified time

MYSQL_CB_GET_MODIFIED_SUBNETS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve modified subnets from specified time

MYSQL_CB_GET_OPTION4

retrieving option code: %1 space: %2

Debug message issued when triggered an action to retrieve option

MYSQL_CB_GET_OPTION6

retrieving option code: %1 space: %2

Debug message issued when triggered an action to retrieve option

MYSQL_CB_GET_OPTION_DEF4

retrieving option definition code: %1 space: %2

Debug message issued when triggered an action to retrieve option definition

MYSQL_CB_GET_OPTION_DEF6

retrieving option definition code: %1 space: %2

Debug message issued when triggered an action to retrieve option definition

MYSQL_CB_GET_PORT4

get port

Debug message issued when triggered an action to retrieve port

MYSQL_CB_GET_PORT6

get port

Debug message issued when triggered an action to retrieve port

MYSQL_CB_GET_RECENT_AUDIT_ENTRIES4

retrieving audit entries from: %1 %2

Debug message issued when triggered an action to retrieve audit entries from specified time and id.

MYSQL_CB_GET_RECENT_AUDIT_ENTRIES4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve audit entries from specified time

MYSQL_CB_GET_RECENT_AUDIT_ENTRIES6

retrieving audit entries from: %1 %2

Debug message issued when triggered an action to retrieve audit entries from specified time and id

MYSQL_CB_GET_RECENT_AUDIT_ENTRIES6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve audit entries from specified time

MYSQL_CB_GET_SERVER4

retrieving DHCPv4 server: %1

Debug message issued when triggered an action to retrieve a DHCPv4 server information.

MYSQL_CB_GET_SERVER6

retrieving DHCPv6 server: %1

Debug message issued when triggered an action to retrieve a DHCPv6 server information.

MYSQL_CB_GET_SHARED_NETWORK4

retrieving shared network: %1

Debug message issued when triggered an action to retrieve shared network

MYSQL_CB_GET_SHARED_NETWORK6

retrieving shared network: %1

Debug message issued when triggered an action to retrieve shared network

MYSQL_CB_GET_SHARED_NETWORK_SUBNETS4

retrieving shared network: %1 subnets

Debug message issued when triggered an action to retrieve shared network subnets

MYSQL_CB_GET_SHARED_NETWORK_SUBNETS4_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve shared network subnets

MYSQL_CB_GET_SHARED_NETWORK_SUBNETS6

retrieving shared network: %1 subnets

Debug message issued when triggered an action to retrieve shared network subnets

MYSQL_CB_GET_SHARED_NETWORK_SUBNETS6_RESULT

retrieving: %1 elements

Debug message indicating the result of an action to retrieve shared network subnets

MYSQL_CB_GET_SUBNET4_BY_PREFIX

retrieving subnet by prefix: %1

Debug message issued when triggered an action to retrieve subnet by prefix

MYSQL_CB_GET_SUBNET4_BY_SUBNET_ID

retrieving subnet by subnet id: %1

Debug message issued when triggered an action to retrieve subnet by subnet id

MYSQL_CB_GET_SUBNET6_BY_PREFIX

retrieving subnet by prefix: %1

Debug message issued when triggered an action to retrieve subnet by prefix

MYSQL_CB_GET_SUBNET6_BY_SUBNET_ID

retrieving subnet by subnet id: %1

Debug message issued when triggered an action to retrieve subnet by subnet id

MYSQL_CB_GET_TYPE4

get type

Debug message issued when triggered an action to retrieve type

MYSQL_CB_GET_TYPE6

get type

Debug message issued when triggered an action to retrieve type

MYSQL_CB_INIT_OK

loading MYSQL CB hooks library successful

This informational message indicates that the MySQL Configuration Backend hooks library has been loaded successfully.

MYSQL_CB_NO_TLS

TLS was required but is not used

This error message is issued when TLS for the connection was required but TLS is not used.

MYSQL_CB_RECONNECT_ATTEMPT_FAILED4

database reconnect failed: %1

Error message issued when an attempt to reconnect has failed.

MYSQL_CB_RECONNECT_ATTEMPT_FAILED6

database reconnect failed: %1

Error message issued when an attempt to reconnect has failed.

MYSQL_CB_RECONNECT_ATTEMPT_SCHEDULE4

scheduling attempt %1 of %2 in %3 milliseconds

Info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

MYSQL_CB_RECONNECT_ATTEMPT_SCHEDULE6

scheduling attempt %1 of %2 in %3 milliseconds

Info message issued when the server is scheduling the next attempt to reconnect to the database. This occurs when the server has lost database connectivity and is attempting to reconnect automatically.

MYSQL_CB_RECONNECT_FAILED4

maximum number of database reconnect attempts: %1, has been exhausted without success

Error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

MYSQL_CB_RECONNECT_FAILED6

maximum number of database reconnect attempts: %1, has been exhausted without success

Error message issued when the server failed to reconnect. Loss of connectivity is typically a network or database server issue.

MYSQL_CB_REGISTER_BACKEND_TYPE4

register backend

Debug message issued when triggered an action to register backend

MYSQL_CB_REGISTER_BACKEND_TYPE6

register backend

Debug message issued when triggered an action to register backend

MYSQL_CB_TLS_CIPHER

TLS cipher: %1

A debug message issued when a new MySQL connected is created with TLS. The TLS cipher name is logged.

MYSQL_CB_UNREGISTER_BACKEND_TYPE4

unregister backend

Debug message issued when triggered an action to unregister backend

CHAPTER 24

NETCONF

NETCONF_BOOT_UPDATE_COMPLETED

Boot-update configuration completed for server %1

This informational message is issued when the initial configuration was retrieved from Netconf and successfully applied to Kea server.

NETCONF_CONFIG_CHANGED_DETAIL

YANG configuration changed: %1

This debug message indicates a YANG configuration change. The format is the change operation (created, modified, deleted or moved) followed by xpaths and values of old and new nodes.

NETCONF_CONFIG_CHANGE_EVENT

Received YANG configuration change %1 event

This informational message is issued when Netconf receives a YANG configuration change event. The type of event is printed.

NETCONF_CONFIG_CHECK_FAIL

Netconf configuration check failed: %1

This error message indicates that Netconf had failed configuration check. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

NETCONF_CONFIG_FAIL

Netconf configuration failed: %1

This error message indicates that Netconf had failed configuration attempt. Details are provided. Additional details may be available in earlier log entries, possibly on lower levels.

NETCONF_CONFIG_SYNTAX_WARNING

Netconf configuration syntax warning: %1

This warning message indicates that the Netconf configuration had a minor syntax error. The error was displayed and the configuration parsing resumed.

NETCONF_FAILED

application experienced a fatal error: %1

This is a fatal error message issued when the Netconf application got an unrecoverable error from within the event loop.

NETCONF_GET_CONFIG

got configuration from %1 server: %2

This debug message indicates that Netconf got the configuration from a Kea server. The server name and the retrieved configuration are printed.

NETCONF_GET_CONFIG_FAILED

getting configuration from %1 server failed: %2

The error message indicates that Netconf got an error getting the configuration from a Kea server. Make sure that the server is up and running, has appropriate control socket defined and that the controls socket configuration on the server matches that of kea-netconf. The name of the server and the error are printed.

NETCONF_GET_CONFIG_STARTED

getting configuration from %1 server

This informational message indicates that Netconf is trying to get the configuration from a Kea server.

NETCONF_LOG_CHANGE_FAIL

Netconf configuration change logging failed: %1

The warning message indicates that the configuration change logging encountered an unexpected condition. Details of it will be logged.

NETCONF_MODULE_MISSING_ERR

Missing essential module %1 in sysrepo

This fatal error message indicates that a module required by Netconf configuration is not available in the sysrepo repository. The name of the module is printed.

NETCONF_MODULE_MISSING_WARN

Missing module %1 in sysrepo

This warning message indicates that a module used by Kea is not available in the sysrepo repository. The name of the module is printed.

NETCONF_MODULE_REVISION_ERR

Essential module %1 does NOT have the right revision: expected %2, got %3

This fatal error message indicates that a module required by Netconf configuration is not at the right revision in the sysrepo repository. The name, expected and available revisions of the module are printed.

NETCONF_MODULE_REVISION_WARN

Module %1 does NOT have the right revision: expected %2, got %3

This warning message indicates that a module used by Kea is not at the right revision in the sysrepo repository. The name, expected and available revisions of the module are printed.

NETCONF_NOTIFICATION_RECEIVED

Received notification of type %1 for module %1: %2

This informational message logs any YANG notification that has been signaled by the server, sent to kea-netconf which then was forwarded to subscribed clients. To achieve this, kea-netconf subscribes itself as a client to all notifications for the configured module.

NETCONF_RUN_EXIT

application is exiting the event loop

This is a debug message issued when the Netconf application exits its event loop. This is a normal step during kea-netconf shutdown.

NETCONF_SET_CONFIG

set configuration to %1 server: %2

This debug message indicates that Netconf set the configuration to a Kea server. The server name and the applied configuration are printed.

NETCONF_SET_CONFIG_FAILED

setting configuration to %1 server failed: %2

The error message indicates that Netconf got an error setting the configuration to a Kea server. Make sure that the server is up and running, has appropriate control socket defined and that the controls socket configuration on the server matches that of kea-netconf. The name of the server and the error are printed.

NETCONF_SET_CONFIG_STARTED

setting configuration to %1 server

This informational message indicates that Netconf is trying to set the configuration to a Kea server.

NETCONF_STARTED

Netconf (version %1) started

This informational message indicates that Netconf has processed all configuration information and is ready to begin processing. The version is also printed.

NETCONF_SUBSCRIBE_CONFIG

subscribing configuration changes for %1 server with %2 module

This information message indicates that Netconf is trying to subscribe configuration changes for a Kea server. The names of the server and the module are printed.

NETCONF_SUBSCRIBE_CONFIG_FAILED

subscribe configuration changes for %1 server with %2 module failed: %3

The error message indicates that Netconf got an error subscribing configuration changes for a Kea server. The names of the server and the module, and the error are printed.

NETCONF_SUBSCRIBE_NOTIFICATIONS

subscribing to notifications for %1 server with %2 module

This information message indicates that Netconf is trying to subscribe to notifications for a Kea server. The server name and module name are printed.

NETCONF_SUBSCRIBE_NOTIFICATIONS_FAILED

subscribing to notifications for %1 server with %2 module failed: %3

The error message indicates that Netconf got an error subscribing to notifications for a Kea server. The server name, module name and the error are printed.

NETCONF_UPDATE_CONFIG

updating configuration with %1 server: %2

This debug message indicates that Netconf update the configuration of a Kea server. The server name and the updated configuration are printed.

NETCONF_UPDATE_CONFIG_COMPLETED

completed updating configuration for %1 server

This informational message indicates that Netconf updated with success the configuration of a Kea server.

NETCONF_UPDATE_CONFIG_FAILED

updating configuration with %1 server: %2

The error message indicates that Netconf got an error updating the configuration of a Kea server. This includes a configuration rejected by a Kea server when it tried to apply it. The name of the server and the error are printed.

NETCONF_UPDATE_CONFIG_STARTED

started updating configuration for %1 server

This informational message indicates that Netconf is trying to update the configuration of a Kea server.

NETCONF_VALIDATE_CONFIG

validating configuration with %1 server: %2

This debug message indicates that Netconf is validating the configuration with a Kea server. The server name and the validated configuration are printed.

NETCONF_VALIDATE_CONFIG_COMPLETED

completed validating configuration for %1 server

This informational message indicates that Netconf validated with success the configuration with a Kea server.

NETCONF_VALIDATE_CONFIG_FAILED

validating configuration with %1 server got an error: %2

The error message indicates that Netconf got an error validating the configuration with a Kea server. This message is produced when exception is thrown during an attempt to validate received configuration. Additional explanation may be provided as a parameter. You may also take a look at earlier log messages. The name of the server and the error are printed.

NETCONF_VALIDATE_CONFIG_REJECTED

validating configuration with %1 server was rejected: %2

The warning message indicates that Netconf got an error validating the configuration with a Kea server. This message is printed when the configuration was rejected during normal processing. Additional explanation may be provided as a parameter. You may also take a look at earlier log messages. The name of the server and the error are printed.

CHAPTER 25

STAT

STAT_CMDS_DEINIT_FAILED

unloading Stat Commands hooks library failed: %1

This error message indicates an error during unloading the Lease Commands hooks library. The details of the error are provided as argument of the log message.

STAT_CMDS_DEINIT_OK

unloading Stat Commands hooks library successful

This info message indicates that the Stat Commands hooks library has been removed successfully.

STAT_CMDS_INIT_FAILED

loading Stat Commands hooks library failed: %1

This error message indicates an error during loading the Lease Commands hooks library. The details of the error are provided as argument of the log message.

STAT_CMDS_INIT_OK

loading Stat Commands hooks library successful

This info message indicates that the Stat Commands hooks library has been loaded successfully. Enjoy!

STAT_CMDS_LEASE4_FAILED

stat-lease4-get command failed: reason: %1

The stat-lease4-get command has failed. The reason for failure is logged.

STAT_CMDS_LEASE4_GET

stat-lease4-get command successful, parameters: %1 rows found: %2

The stat-lease4-get command has been successful. The log will contain the parameters supplied and the number of rows found.

STAT_CMDS_LEASE4_GET_FAILED

stat-lease4-get command failed: parameters: %1, reason: %2

The stat-lease4-get command has failed. Both the parameters supplied and the reason for failure are logged.

STAT_CMDS_LEASE4_GET_INVALID

stat-lease4-get command is malformed or invalid, reason: %1

The stat-lease4-get command was either malformed or contained invalid parameters. A detailed explanation should be logged.

STAT_CMDS_LEASE4_GET_NO_SUBNETS

stat-lease4-get, parameters: %1, %2"

The parameters submitted with stat-lease4-get were valid but excluded all known subnets. The parameters supplied along with an explanation should be logged.

STAT_CMDS_LEASE4_ORPHANED_STATS

stat-lease4-get command omitted statistics for one or more non-existent subnets

During processing the stat-lease4-get found statistics for subnet IDs for non-existent subnets. These values were omitted from the command response returned to the user. This may occur when subnets have been removed from the configuration in a manner that did not also remove the statistics. While the existence of such statistics is not harmful, steps should be considered to remove them. For memfile lease storage, the problem should disappear upon configuration reload or server restart. For database lease storage the issue is more complicated and as of Kea 2.0.0 we do not yet have a clean solution.

STAT_CMDS_LEASE6_FAILED

stat-lease6-get command failed: reason: %1

The stat-lease6-get command has failed. The reason for failure is logged.

STAT_CMDS_LEASE6_GET

stat-lease6-get command successful, parameters: %1 rows found: %2

The stat-lease6-get command has been successful. The log will contain the parameters supplied and the number of rows found.

STAT_CMDS_LEASE6_GET_FAILED

stat-lease6-get command failed: parameters: %1, reason: %2

The stat-lease6-get command has failed. Both the parameters supplied and the reason for failure are logged.

STAT_CMDS_LEASE6_GET_INVALID

stat-lease6-get command is malformed or invalid, reason: %1

The stat-lease6-get command was either malformed or contained invalid parameters. A detailed explanation should be logged.

STAT_CMDS_LEASE6_GET_NO_SUBNETS

stat-lease6-get, parameters: %1, %2"

The parameters submitted with stat-lease6-get were valid but excluded all known subnets. The parameters supplied along with an explanation should be logged.

CHAPTER 26

USER

USER_CHK_HOOK_LOAD_ERROR

DHCP UserCheckHook could not be loaded: %1

This is an error message issued when the DHCP UserCheckHook could not be loaded. The exact cause should be explained in the log message. User subnet selection will revert to default processing.

USER_CHK_HOOK_UNLOAD_ERROR

DHCP UserCheckHook an error occurred unloading the library: %1

This is an error message issued when an error occurs while unloading the UserCheckHook library. This is unlikely to occur and normal operations of the library will likely resume when it is next loaded.

USER_CHK_SUBNET4_SELECT_ERROR

DHCP UserCheckHook an unexpected error occurred in subnet4_select callout: %1

This is an error message issued when the DHCP UserCheckHook subnet4_select hook encounters an unexpected error. The message should contain a more detailed explanation.

USER_CHK_SUBNET4_SELECT_REGISTRY_NULL

DHCP UserCheckHook UserRegistry has not been created.

This is an error message issued when the DHCP UserCheckHook subnet4_select hook has been invoked but the UserRegistry has not been created. This is a programmatic error and should not occur.

USER_CHK_SUBNET6_SELECT_ERROR

DHCP UserCheckHook an unexpected error occurred in subnet6_select callout: %1

This is an error message issued when the DHCP UserCheckHook subnet6_select hook encounters an unexpected error. The message should contain a more detailed explanation.