Kea Messages Manual

Contents

Abstract

This is the messages manual for Kea version 0.9.2-P1. The most up-to-date version of this document, along with other documents for Kea, can be found at http://kea.isc.org/docs.

Chapter 1

Introduction

This document lists each message that can be logged by the programs in the Kea package. Each entry in this manual is of the form:

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IDENTIFICATION message-text
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... where "IDENTIFICATION" is the message identification included in each message logged and "message-text" is the accompanying message text. The "message-text" may include placeholders of the form "%1", "%2" etc.; these parameters are replaced by relevant values when the message is logged.

Each entry is also accompanied by a description giving more information about the circumstances that result in the message being logged.

For information on configuring and using Kea logging, refer to the Kea Guide.

Chapter 2

Kea Log Messages

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)
The DHCP allocation engine gave up trying to allocate an IPv4 address after the specified number of attempts. This probably means that the address pool from which the allocation is being attempted is either empty, or very nearly empty. As a result, the client will have been refused a lease. The first argument includes the client identification information.

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. In this way, addresses allocated to clients that are no longer active on the network will become available sooner.

ALLOC_ENGINE_V4_DISCOVER_ADDRESS_CONFLICT %1: conflicting reservation for address %2 with existing lease %

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_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_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 reservation, requested address out of the d

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 th

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 cliet 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 address after %2 attempt(s)
The DHCP allocation engine gave up trying to allocate an IPv6 address after the specified number of attempts. This probably means that the address pool from which the allocation is being attempted is either empty, or very nearly empty. As a result, the client will have been refused a lease. The first argument includes the client identification information.

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. In this way, addresses allocated to clients that are no longer active on the network will become available available sooner.

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 remaning 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 clie

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_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: %

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 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 was assigned to client %3
This informational message signals that the specified client was assigned the prefix reserved for it.

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 reseved 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.

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.

ASIODNS_UNKNOWN_RESULT unknown result (%1) when IOFetch::stop() was executed for I/O to %2(%3)
An internal error indicating that the termination method of the resolver's upstream fetch class was called with an unknown result code (which is given in the message). Please submit a bug report.

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_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_CONNECTION_CLOSED Closed socket %1 for existing command connection
This is an informational message 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_OPENED Opened socket %1 for incoming command connection on socket %2

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

COMMAND_SOCKET_FAIL_NONBLOCK Failed to set non-blocking mode for socket %1 created for incoming connection o

This error message indicates that the server failed to set non-blocking mode on just created socket. That socket was created for accepting specific incoming connection. Additional information may be provided as third parameter.

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_RESPONSE_TOOLARGE Server's response was larger (%1) than supported 64KB
This error message indicates that the server received a command and generated an answer for it, but that response was larger than supported 64KB. Server will attempt to send the first 64KB of the response. Depending on the nature of this response, this may indicate a software or configuration error. Future Kea versions are expected to have better support for large responses.

COMMAND_SOCKET_UNIX_CLOSE Command socket closed: UNIX, fd=%1, path=%2
This informational message indicates that the daemon closed a command processing socket. This was a UNIX socket. It was opened with the file descriptor and path specified.

COMMAND_SOCKET_UNIX_OPEN Command socket opened: UNIX, fd=%1, path=%2
This informational message indicates that the daemon opened a command processing socket. This is a UNIX socket. It was opened with the file descriptor and path specified.

COMMAND_SOCKET_WRITE Sent response of %1 bytes over command socket %2
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 %1 bytes to command socket %2
This error message indicates that an error was encountered while attempting to send a response to the command socket.

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_CCSESSION_STARTING %1 starting control channel session, specfile: %2
This debug message is issued just before the controller attempts to establish a session with the Kea control channel.

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_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_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_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_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_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_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.

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 waiting for next DHCPv4 packet with timeout %1 ms
This debug message is issued when the server enters the state when it waits for new packets. The argument specifies the timeout for the server to wait for the packet. When this time elapses the server will pass through its main loop to perform handling of any pending signals and timers. After that, it will enter the wait state again.

DHCP4_BUFFER_WAIT_INTERRUPTED interrupted wait for the next packet due to timeout, signal or external socket callba

This debug message is issued when the server intrrupts waiting for reception of the next DHCPv6 message due to timeout, signal or reception of the data over socket other than used for DHCPv4 message transmission. The server will now handle signals received and ready timers before waiting for next packets again. The argument specifies the timeout value in milliseconds.

DHCP4_BUFFER_WAIT_SIGNAL signal received while waiting for next packet, next waiting signal is %1
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. The argument specifies the next signal to be handled by the server.

DHCP4_CCSESSION_STARTED control channel session started on socket %1
A debug message issued during startup after the DHCPv4 server has successfully established a session with the Kea control channel.

DHCP4_CCSESSION_STARTING starting control channel session, specfile: %1
This debug message is issued just before the DHCPv4 server attempts to establish a session with the Kea control channel.

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_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. Note that the client identifier may be used for other operations than lease allocation, e.g. identifying host reservations for the client using client identifier. 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_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_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_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_UPDATE updated configuration received: %1
A debug message indicating that the DHCPv4 server has received an updated configuration from the Kea configuration system.

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_DHCID_COMPUTE_ERROR failed to compute the DHCID for lease: %1, reason: %2
This error message is logged when the attempt to compute DHCID for a specified lease has failed. The lease details and reason for failure is logged in the message.

DHCP4_DISCOVER_CLASS_PROCESSING_FAILED %1: client class specific processing failed for DHCPDISCOVER

This debug message means that the server processing that is unique for each client class has reported a failure. The response packet will not be sent. The argument holds the client and transaction identification information.

DHCP4_DYNAMIC_RECONFIGURATION initiate server reconfiguration using file: %1, after receiving SIGHUP signal

This is the info message logged when the DHCPv4 server starts reconfiguration as a result of receiving SIGHUP signal.

DHCP4_DYNAMIC_RECONFIGURATION_FAIL dynamic server reconfiguration failed with file: %1
This is an error message logged when the dynamic reconfiguration of the DHCP server failed.

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_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_SKIP received buffer from %1 to %2 over interface %3 was dropped because a callout set

This debug message is printed when a callout installed on buffer4_receive hook point set the skip 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_SEND_SKIP %1: prepared response is dropped because a callout set the skip flag.
This debug message is printed when a callout installed on buffer4_send hook point set the skip flag. For this particular hook point, the setting of the flag 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_LEASE4_RELEASE_SKIP %1: lease was not released because a callout set the skip flag.
This debug message is printed when a callout installed on lease4_release hook point set the skip flag. For this particular hook point, the setting of the flag by a callout instructs the server to not release a lease.

DHCP4_HOOK_PACKET_RCVD_SKIP %1: packet is dropped, because a callout set the skip flag.
This debug message is printed when a callout installed on the pkt4_receive hook point sets the skip flag. For this particular hook point, the setting of the flag instructs the server to drop the packet.

DHCP4_HOOK_PACKET_SEND_SKIP %1: prepared response is not sent, because a callout set skip flag.
This debug message is printed when a callout installed on the pkt4_send hook point sets the skip flag. For this particular hook point, the setting of the flag 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_SKIP %1: no subnet was selected, because a callout set skip flag.
This debug message is printed when a callout installed on the subnet4_select hook point sets the skip flag. 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_CLASS_PROCESSING_FAILED %1: client class specific processing failed for DHCPINFORM
This debug message means that the server processing that is unique for each client class has reported a failure. The response packet will not be sent. The argument specifies the client and the 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 debug 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 debug 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
This debug 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.

DHCP4_LEASE_DATABASE_TIMERS_EXEC_FAIL failed to execute timer-based functions for lease database: %1
A warning message executed when a server process is unable to execute the periodic actions for the lease database. An example of the periodic action is a Lease File Cleanup. One of the reasons for the failure is a misconfiguration of the lease database, whereby the lease database hasn't been selected.

DHCP4_NAME_GEN_UPDATE_FAIL %1: failed to update the lease after generating name %2 for a client: %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 IPv4 address. The message argument indicates the reason for the failure. The first argument includes the client and the transaction identification information. The second argument specifies the hostname. The third argument contains the error details.

DHCP4_NCR_CREATE %1: DDNS updates enabled, therefore sending name change requests
This debug message message is issued when the server is starting to send name change requests to the D2 module to update records for the client in the DNS. This includes removal of old records and addition of the new records as required. Details of the name change requests will be logged in additional log entries. The argument includes the client and the transaction identification information.

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_SOCKET opening 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_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 interace %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_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_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: %1
This error message indicates that an 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_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_CREATED created parser for configuration element %1
A debug message output during a configuration update of the DHCPv4 server, notifying that the parser for the specified configuration element has been successfully created.

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_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_QUEUE_NCR name change request to %1 DNS entry queued: %2
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 parameter of this log message indicates whether the DNS entry is to be added or removed. The second parameter carries the details of the NameChangeRequest.

DHCP4_RELEASE %1: address %2 was released properly.
This debug 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 occured: %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_NO_SUBNET %1: client is trying to release a lease %2 from a subnet which cannot be selected.

This warning message indicates that client tried to release an address from an improper location. The first argument contains the client and transaction identification information. The second argument contains the 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_REQUEST_CLASS_PROCESSING_FAILED %1: client class specific processing failed for DHCPREQUEST
This debug message means that the server processing that is unique for each client class has reported a failure. The response packet will not be sent. The argument contains the client and transaction identification information.

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_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 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, port: %2, verbose: %3
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_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.

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 waiting for next DHCPv6 packet with timeout %1 ms
This debug message is issued when the server enters the state when it waits for new packets. The argument specifies the timeout for the server to wait for the packet. When this time elapses the server will pass through its main loop to perform handling of any pending signals and timers. After that, it will enter the wait state again.

DHCP6_BUFFER_WAIT_INTERRUPTED interrupted wait for the next packet due to timeout, signal or external socket callba

This debug message is issued when the server interrupts waiting for reception of the next DHCPv6 message due to timeout, signal or reception of the data over socket other than used for DHCPv6 message transmission. The server will now handle signals received and ready timers before waiting for next packets again. The argument specifies the timeout value in milliseconds.

DHCP6_BUFFER_WAIT_SIGNAL signal received while waiting for next packet, next waiting signal is %1
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. The argument specifies the next signal to be handled by the server.

DHCP6_CCSESSION_STARTED control channel session started on socket %1
A debug message issued during startup after the IPv6 DHCP server has successfully established a session with the Kea control channel.

DHCP6_CCSESSION_STARTING starting control channel session, specfile: %1
This debug message is issued just before the IPv6 DHCP server attempts to establish a session with the Kea control channel.

DHCP6_CLASS_ASSIGNED client packet has been assigned to the following class(es): %1
This debug message informs that incoming packet has been assigned to specified class or classes.

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_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 subnet.

DHCP6_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 the particular subnet. Adding multiple options is uncommon for DHCPv6, but it is not prohibited.

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_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_DDNS_CREATE_ADD_NAME_CHANGE_REQUEST created name change request: %1
This debug message is logged when the new Name Change Request has been created to perform the DNS Update, which adds new RRs.

DHCP6_DDNS_CREATE_REMOVE_NAME_CHANGE_REQUEST %1: created name change request: %2
This debug message is logged when the new Name Change Request has been created to perform the DNS Update, which removes RRs from the DNS. The first argument includes the client and transaction identification information. The second argument specifies the details of the generated name change request.

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 FQD

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_LEASE_ASSIGN_FQDN_CHANGE FQDN %1: FQDN for the allocated lease: %2 has changed. New values:

This debug message is logged when FQDN mapping for a particular lease has been changed by the recent Request message. This mapping will be changed in DNS. 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_LEASE_RENEW_FQDN_CHANGE FQDN %1: FQDN for the renewed lease: %2 has changed. New values:

This debug message is logged when FQDN mapping for a particular lease has been changed by the recent Renew message. This mapping will be changed in DNS. 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_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_INVALID_HOSTNAME %1: invalid FQDN %2 for the lease: %3 when removing DNS bindings

This error message is issued when a lease being deleted contains an indication that the DNS Update has been performed for it, but the FQDN held in the lease database has invalid format and can't be transformed to the canonical on-wire format. The first argument includes the client and transaction identification information.

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_DDNS_SKIP_REMOVE_NAME_CHANGE_REQUEST %1: name change request creation skipped for lease: %2

This debug message is logged when the server determines that removal name change request should not be sent to the DNS, because the DNS updates are disabled on the DHCP server, or no DNS update has been performed for the processed lease. The first argument includes the client and the transaction identification information. The second argument provides the details of the lease.

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_DYNAMIC_RECONFIGURATION initiate server reconfiguration using file: %1, after receiving SIGHUP signal

This is the info message logged when the DHCPv6 server starts reconfiguration as a result of receiving SIGHUP signal.

DHCP6_DYNAMIC_RECONFIGURATION_FAIL dynamic server reconfiguration failed with file: %1
This is an error message logged when the dynamic reconfiguration of the DHCP server failed.

DHCP6_EXTEND_NA_UNKNOWN %1: received unknown IA_NA with iaid=%2 in subnet %3
This warning message is printed when client attempts to extend the lease for the address (in the IA_NA option) but no such lease is known by the server. It typically means that client has attempted to use its lease past its lifetime: causes of this include a adjustment of the client's date/time setting or poor support on the client for sleep/recovery. A properly implemented client will recover from such a situation by restarting the lease allocation process after receiving a negative reply from the server. The first argument includes the client and the transaction identification information. The second argument holds IAID. The third argument holds the subnet information.

An alternative cause could be that the server has lost its database recently and does not recognize its well-behaving clients. This is more probable if you see many such messages. Clients will recover from this, but they will most likely get a different IP addresses and experience a brief service interruption.

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

This debug message is printed when a callout installed on buffer6_receive hook point set the skip 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_SEND_SKIP %1: prepared DHCPv6 response was dropped because a callout set the skip flag

This debug message is printed when a callout installed on buffer6_send hook point set the skip flag. For this particular hook point, the setting of the flag 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. The argument includes the client and transaction identification information.

DHCP6_HOOK_LEASE6_RELEASE_NA_SKIP %1: DHCPv6 address lease was not released because a callout set the skip fla

This debug message is printed when a callout installed on the lease6_release hook point set the skip flag. For this particular hook point, the setting of the flag 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 skip flag
This debug message is printed when a callout installed on lease6_release hook point set the skip flag. For this particular hook point, the setting of the flag 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_PACKET_RCVD_SKIP %1: packet is dropped, because a callout set the skip flag.
This debug message is printed when a callout installed on the pkt6_receive hook point sets the skip flag. For this particular hook point, the setting of the flag instructs the server to drop the packet.

DHCP6_HOOK_PACKET_SEND_SKIP %1: prepared DHCPv6 response was not sent because a callout set the skip flag

This debug message is printed when a callout installed on the pkt6_send hook point set the skip flag. For this particular hook point, the setting of the flag 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_SUBNET6_SELECT_SKIP %1: no subnet was selected because a callout set the skip flag
This debug message is printed when a callout installed on the subnet6_select hook point set the skip flag. 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 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 debug 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
This debug message indicates that in response to a client's REQUEST message, the server successfully granted an 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_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_DATABASE_TIMERS_EXEC_FAIL failed to execute timer-based functions for lease database: %1
A warning message executed when a server process is unable to execute the periodic actions for the lease database. An example of the periodic action is a Lease File Cleanup. One of the reasons for the failure is a misconfiguration of the lease database, whereby the lease database hasn't been selected.

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_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 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_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_PARSE_FAIL 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.

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_PROCESS_EXCEPTION exception occurred during packet processing: %1
This error message indicates that an 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_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_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_CREATED created parser for configuration element %1
A debug message output during a configuration update of the IPv6 DHCP server, notifying that the parser for the specified configuration element has been successfully created.

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 debug 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
This debug message indicates that in response to a client's REQUEST message, the server successfully granted an 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 prefix, prefix length and and IAID.

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_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_RELEASE_NA %1: binding for address %2 and iaid=%3 was released properly
This debug 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 d

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,

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 debug 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

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

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_RESPONSE_DATA responding with packet type %1 data is %2
A debug message listing the data returned to the client.

DHCP6_SERVERID_GENERATED server-id %1 has been generated and will be stored in %2
This informational messages indicates that the server was not able to read its server identifier (DUID) and has generated a new one. This server-id will be stored in a file and will be read and used during next restart. It is normal behavior when the server is started for the first time. If this message is printed every start, please check that the server have sufficient permission to write its server-id file and that the file is not corrupt.

Changing the server identifier in a production environment is not recommended as existing clients will not recognize the server and may go through a rebind phase. However, they should be able to recover without losing their leases.

DHCP6_SERVERID_LOADED server-id %1 has been loaded from file %2
This debug message indicates that the server loaded its server identifier. That value is sent in all server responses and clients use it to discriminate between servers. This is a part of normal startup or reconfiguration procedure.

DHCP6_SERVERID_WRITE_FAIL server was not able to write its ID to file %1
This warning message indicates that server was not able to write its server identifier (DUID) to a file. This likely indicates lack of write permission to a given file or directory. This is not critical and the server will continue to operate, but server will generate different DUID during every start and clients will need to go through a rebind phase to recover.

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_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 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, port: %2, verbose: %3
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_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 %d) 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/assignme parameters.

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_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_SOCKET_RAW_UNSUPPORTED use of raw sockets is unsupported on this OS, UDP sockets will be u

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_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_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_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
A informational message issued when a communications with kea-dhcp-ddns has been successfully started.

DHCPSRV_DHCP_DDNS_SENDER_STOPPED NameChangeRequest sender has been stopped.
A informational message issued when a communications 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 breakdown.

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_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 n

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_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_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_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_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_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_CLIENTID_HWADDR_SUBID obtaining IPv4 lease for client ID %1, hardware address %2 an

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 client ID, hardware address and subnet ID.

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 lease 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 typ

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_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_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 will not take place.

DHCPSRV_MEMFILE_LFC_LEASE_FILE_REOPEN_FAIL failed to reopen lease file %1 after preparing input file for lease

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 will continue to operate but leases will not be persisted 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 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_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_MULTIPLE_RAW_SOCKETS_PER_IFACE current configuration will result in opening multiple brodcast capabl

A warning message issued when the current configuration indicates that multiple sockets, capable of receiving brodcast 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_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.

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_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_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_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 lease 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_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_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_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
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_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 PostgreSQL settings, the committal 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

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_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_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 lease 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

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_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_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_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
A debug message issued when the server is attempting to update IPv6 lease from the PostgreSQL database for the specified address.

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.

DHCPSRV_UNKNOWN_DB unknown database type: %1
The database access string specified a database type (given in the message) that is unknown to the software. This is a configuration error.

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 requ

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 co

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_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.

DHCP_DDNS_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.

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 update received: %1
This is a debug message issued when the DHCP-DDNS application configure method has been invoked.

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 DNSClie

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: udpate message to add a forward DNS entry could

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 ma

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 ad

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 DN

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 unk

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: udpate message to remove a forwar

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

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 reques

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 respons

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 unknov

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: udpate message to remove forward DN

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 f

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

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 fr

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 DN

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 en

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 forwar

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 repla

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 th

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 w

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 Na

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 a 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 us

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 compl

This is a 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_

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 loop

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 cou

This is a debug message issued when all of the queued requests represent clients for which there is a 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

This is an error message that indicates that DHCP_DDNS received a request to update a 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 m

This is an error message that indicates that DHCP_DDNS received a request to update a 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_PID_FILE_ERROR %1 could not create a PID file: %2
This is an error message that occurs when DHCP_DDNS 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 configure paramter but may be overridden by setting environment variable, KEA_PIDFILE_DIR. The first argument is the DHCP_DDNS process name.

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 liste

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

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 ex

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 t

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 recevied 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 DNS

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

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

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

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

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 DN

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 entr

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

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 replac

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 th

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

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 DHCP-DDNS has shut down
This is an informational message indicating that the DHCP-DDNS service has shut down.

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_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.

DHCP_DDNS_SIGNAL_ERROR signal handler for signal %1, threw an unexpected exception: %2
This is an error message indicating that the application encountered an unexpected error after receiving a signal. This is a programmatic error and should be reported. While The application will likely continue to operating, it may be unable to respond correctly to signals.

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 beging processing. The version is also printed.

DHCP_DDNS_STARTING DHCP-DDNS starting, pid: %1, version: %2
This is an informational message issued when controller for the service first starts. Version is also reported.

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 whil

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 sen

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_UNCAUGHT_NCR_RECV_HANDLER_ERROR unexpected exception thrown from the application receive co

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_UNCAUGHT_NCR_SEND_HANDLER_ERROR unexpected exception thrown from the DHCP-DDNS client se

This is an error message that indicates that an exception was thrown but not caught in the application's send completion handler. This is a programmatic error that needs to be reported. Dependent upon the nature of the error the client may or may not continue operating normally.

DHCP_DDNS_UNSUPPORTED_SIGNAL ignoring reception of unsupported signal: %1
This is a debug message indicating that the application received an unsupported signal. This is a programming error indicating that the application has registered to receive the signal but no associated processing logic has been added.

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.

DHCP_DDNS_UPDATE_RESPONSE_RECEIVED Request ID %1: to server: %2 status: %3
This is a debug message issued when DHCP_DDNS receives sends a DNS update response from a DNS server.

DHCP_DDNS_WATCH_SINK_CLOSE_ERROR Sink-side watch socket failed to close: %1
This is an error message that indicates the application was unable to close the inbound side of a NCR sender's watch socket. While technically possible this error is highly unlikely to occur and should not impair the application's ability to process requests.

DHCP_DDNS_WATCH_SOURCE_CLOSE_ERROR Source-side watch socket failed to close: %1
This is an error message that indicates the application was unable to close the outbound side of a NCR sender's watch socket. While technically possible this error is highly unlikely to occur and should not impair the application's ability to process requests.

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 dur

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)

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 addr

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_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_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_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.

HOOKS_VERSION_EXCEPTION 'version' function in hook library %1 threw an exception
This error message is issued if the version() function in the specified hooks library was called and generated an exception. The library is considered unusable and will not be loaded.

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_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 addres. 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_HWADDR_DUID get all hosts with reservations for HWADDR %1 and DUID %2
This debug message is issued when starting to retrieve reservations for all hosts using specific HW address or DUID. The arguments specify the HW address and DUID respectively. The argument specify the HW address and DUID 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_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 found host details respectively.

HOSTS_CFG_GET_ALL_SUBNET_ID_ADDRESS6_HOST using subnet id %1 and address %2, found host: %3
This debug message include the details of the host found using the subnet id and address. The arguments specify subnet id, address and found host details respectively.

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 including IPv6 addre

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_HWADDR_DUID get one host with %1 reservation for subnet id %2, HWADDR %3,

This debug message is issued when starting to retrieve the host holding IPv4 or IPv6 reservations, which is connected to the specific subnet and is identified by the specific HW address or DUID. The first argument identifies if the IPv4 or IPv6 reservation is desired.

HOSTS_CFG_GET_ONE_SUBNET_ID_HWADDR_DUID_HOST using subnet id %1, HWADDR %2 and DUID %3, found h

This debug message includes the details of the host found using the subnet id, HW address and/or DUID.

HOSTS_CFG_GET_ONE_SUBNET_ID_HWADDR_DUID_NULL host not found using subnet id %1, HW address %2 and DU

This debug message is issued when no host was found using the specified subnet id, HW address and DUID.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_ADDRESS4 trying alternate source for host using subnet id %1 and addre

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 the alternate host data source.

HOSTS_MGR_ALTERNATE_GET4_SUBNET_ID_HWADDR_DUID trying alternate source for host using subnet id %1, HW

This debug message is issued when the Host Manager doesn't find the host connected to the specific subnet and identified by the HW address or DUID, and it is starting to search for this host in the alternate host data source.

HOSTS_MGR_ALTERNATE_GET6_PREFIX trying alternate source 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 the alternate host data source.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_ADDRESS6 trying alternate source for host using subnet id %1 and IPv6

This debug message is issued when the Host Manager doesn't find the host connected to teh specific subnet and having the reservation for the specified IPv6 address, and it is starting to search for this host in the alternate host data source.

HOSTS_MGR_ALTERNATE_GET6_SUBNET_ID_DUID_HWADDR trying alternate source for host using subnet id %1, DU

This debug message is issued when the Host Manager doesn't find the host connected to the specific subnet and identified by the specified DUID or HW Address, and it is starting to search for this host in the alternate host data source.

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 specifc 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 specifc 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 specifc 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 specifc 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.

LFC_WRITE_STATS Leases: %1, attempts: %2, errors: %3.
This message prints out the number of leases that were written, the number of attempts to write leases and the number of errors encountered while writing.

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.

LOGIMPL_BELOW_MIN_DEBUG debug level of %1 is too low and will be set to the minimum 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 below the minimum allowed value and has been increased to that value. The appearance of this message may indicate a programming error - please submit a bug report.

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_LOCK_TEST_MESSAGE this is a test message.
This is a log message used in testing.

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 may be several reasons why this message may appear:

- The message ID has been mis-spelled 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.

LOG_WRITE_ERROR error writing to %1: %2
The specified error was encountered by the message compiler when writing to the named output file.

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: %

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: %

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.

USER_CHK_SUBNET6_SELECT_REGISTRY_NULL DHCP UserCheckHook UserRegistry has not been created.
This is an error message issued when the DHCP UserCheckHook subnet6_select hook has been invoked but the UserRegistry has not been created. This is a programmatic error and should not occur.