Using Oracle Talari Appliances as DHCP Relay Agents
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About This Document

This document describes how to leverage the DHCP Relay service on your Oracle Talari Appliance to use the Appliance as a DHCP Relay Agent.

Note: This document is intended for appliances running APN 5.1 or later software releases.

My Oracle Support

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Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select 2 for New Service Request.
2. Select 3 for Hardware, Networking, and Solaris Operating System Support.
3. Select one of the following options:
   - For technical issues such as creating a new Service Request (SR), select 1.
   - For non-technical issues such as registration or assistance with My Oracle Support, select 2.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.
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A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system’s ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

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Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, http://docs.oracle.com. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

2. Click Industries.

3. Click the Oracle Communications link. 
   Under the SD-WAN header, select a product.

   A list of the entire documentation set for the selected product and release appears.

5. To download a file to your location, right-click the PDF link, select Save target as (or similar command based on your browser), and save to a local folder.

References

The following documents are available:

- Talari Glossary
Configuring Your Oracle Talari Appliance as a DHCP Relay Agent

Network administrators can use the DHCP Relay service on the management port of Talari Appliances to relay requests and replies between local DHCP Clients and a remote DHCP Server. This allows local hosts to acquire dynamic IP addresses from the remote DHCP Server.

The DHCP Relay service listens on the Oracle Talari Appliance management port for DHCP request broadcast traffic from DHCP Clients located on the same layer 2 network segment as the management port. The DHCP Relay service then sends a layer 3 unicast request to the DHCP Server at the configured IP address. The next hop gateway to reach the DHCP Server must be the management port’s gateway. When using DNS to identify the DHCP Server, please make sure the DNS settings are configured on the Oracle Talari Appliance under Manage Appliance → Local Network Settings.

Talari Appliance Requirements

- Must be running Talari OS 4.5 or later
- Must be running Talari APN Software 5.1 or later
Recommended Deployments

Scenario 1

- The DHCP Server must be reachable from the Branch office Oracle Talari Appliance management port via Conduit or Intranet Service.
- The Oracle Talari Appliance’s management port is static.
- The trusted bypass pair is on the same layer 2 network segment as the management port.
- The MPLS WAN Link gateway is the default gateway for the Branch Office and for the management port.
- The request to the DHCP server is from the Oracle Talari Appliance’s management port and then flows through the appliance’s bypass pair where it is classified as Conduit or Intranet traffic and forwarded to its destination (The DHCP server).
• In the event of Oracle Talari Appliance failure, the Fail to Wire pair will be activated and host connectivity will remain.

**Note:** If the LAN-side and WAN-Side ports are bridged together (i.e. if they exist on the same layer 2 network segment) there must be no other device serving IP addresses on that layer 2 segment; otherwise, IP Address inconsistencies may occur.

**Scenario 2**

![Diagram](image)

**Figure 2: Talari Appliance as the Gateway with Untrusted WAN Links in Fail To Block Mode**

- The DHCP Server must be reachable from the Branch office Oracle Talari Appliance management port via Conduit.
- The Oracle Talari Appliance’s management port is static.
- The LAN-side port is on the same layer 2 network segment as the management port.
- The Virtual Interface VIP is in the same subnet as the management port.
• The Virtual Interface VIP is the default gateway for the Branch Office and for the management port.
• The request to the DHCP server is from the Oracle Talari Appliance’s management port and then flows through the appliance’s bypass pair where it is classified as Conduit traffic and forwarded to its destination (the DHCP server).
• In the event of Oracle Talari Appliance failure, all connectivity is lost.

**Configuring the DHCP Relay**

On your Oracle Talari Appliance, go to Manage Appliance ▶ Local Network Settings to configure the Management Interface DHCP Relay. Click the Enable DHCP Relay checkbox to enable the service. Enter the DHCP Server IP Address and click the Change Settings button to begin using your appliance as a DHCP Relay Agent.

![Management Interface DHCP Relay](image)

**Figure 3: Enable DHCP Relay**

**Troubleshooting**

1. Verify that the DHCP Relay process is running.
   a. Log into the Talari Appliance via SSH (e.g., sshjohndoe@10.2.1.10).
   b. At the prompt issue the following command: # ps aux | grep dhcrelay
c. The example output shows us that the service is running with process id 31499, its command options are to listen on interface (-i) tn-mtg0, and its dhcp-server is 10.1.0.5:

root 1783 0.0 0.0 7828 884 pts/2 S+ 01:52 0:00
grep dhcrelay

nobody 31499 0.0 0.0 12488 504 ? S 01:15 0:00
/usr/sbin/dhcrelay -q -I tn-mtg0 10.1.0.5

2. Check the packet captures in the DHCP Server logs to see where DHCP packets are sent and received via the management port.
1. Check the LAN port in the DHCP Server logs to determine where DHCP packets are sent and received.
2. Check the flows on the Conduit between the Talari Appliance and the DHCP Server at the data center or main office.