# 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.

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   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

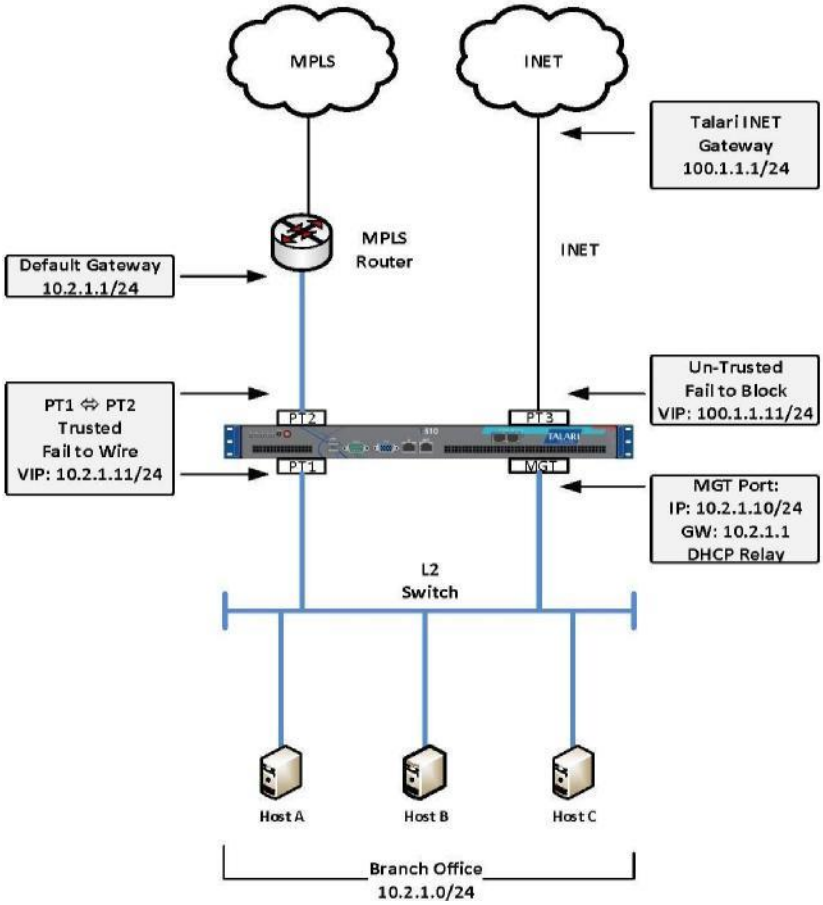


**Figure 1: MPLS WAN Link on a Trusted Bypass Pair in Fail to Wire Mode**

- 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

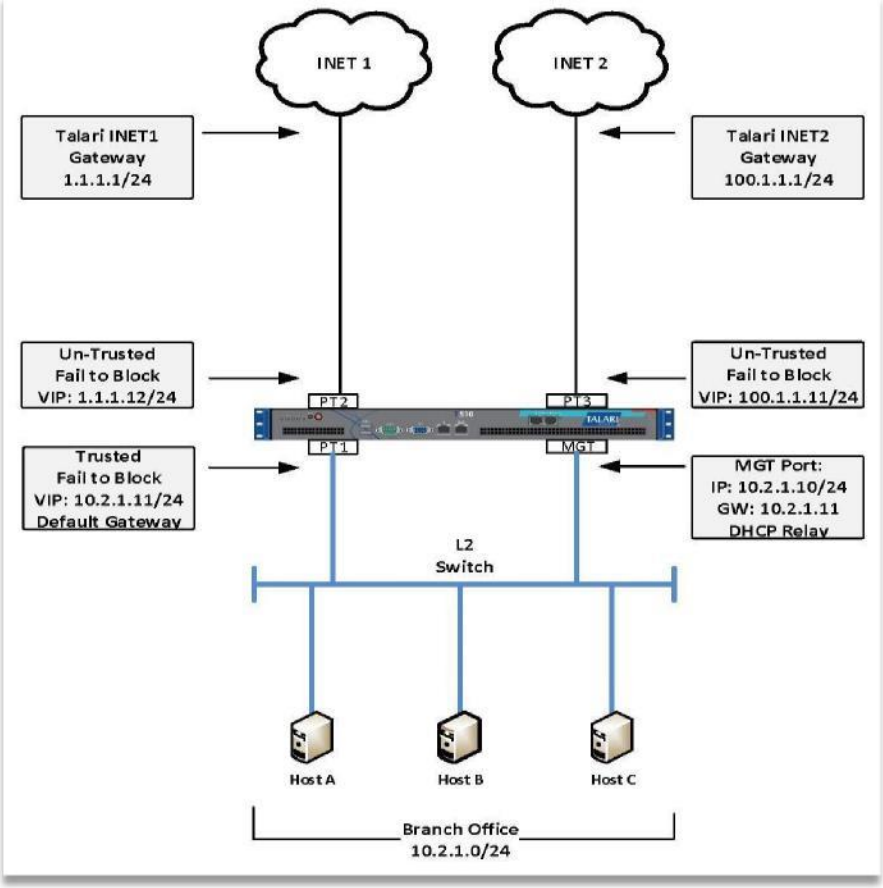


Figure 2: Talari Appliance as the Gateway with Untrusted WAN Links in Fail To Block Mode

- 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.

Note: If you plan to use DHCP Relay on a Talari Appliance configured for High Availability (HA), do not configure the service on both the Active and Standby appliance. Doing so will lead to duplicate IP Addresses on the defined management network.

*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 -l tn-mgt0 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.