Oracle® SD- WAN

How to Configure Multiple WAN Links Through a Single Gateway

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About This Document

This document provides instruction on how to configure multiple WAN Links through a single gateway.

My Oracle Support

My Oracle Support (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with My Oracle Support registration.

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.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (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. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

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.

Locate Product Documentation on the Oracle Help Center Site

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.

1. Access the Oracle Help Center site at http://docs.oracle.com.
2. Click Industries.
3. Click the Oracle Communications link.

   Under the SD-WAN header, select a product.
4. Select the Release Number.

   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*

Requirements for the Conduit Service

Figure 1 illustrates an Oracle Talari Appliance that is configured with two WAN Links (A and B), provided by two different Internet Service Providers (ISPs) that are both accessible via a single gateway. Each WAN Link has a defined Talari Virtual IP Address (VIP), Gateway IP Address, and Public IP Address. All Conduit traffic is encapsulated and sourced from either Talari VIP A (10.10.10.10) or Talari VIP B (10.10.10.11). For WAN Ingress Conduit paths, the Customer Edge Firewall (CE FW) needs one static NAT statement that translates VIP A to Public IP Address 1.1.1.1 and another static NAT statement that translates VIP B to Public IP Address 2.2.2.1. For WAN Egress Conduit paths, incoming UDP 2156 must be permitted.

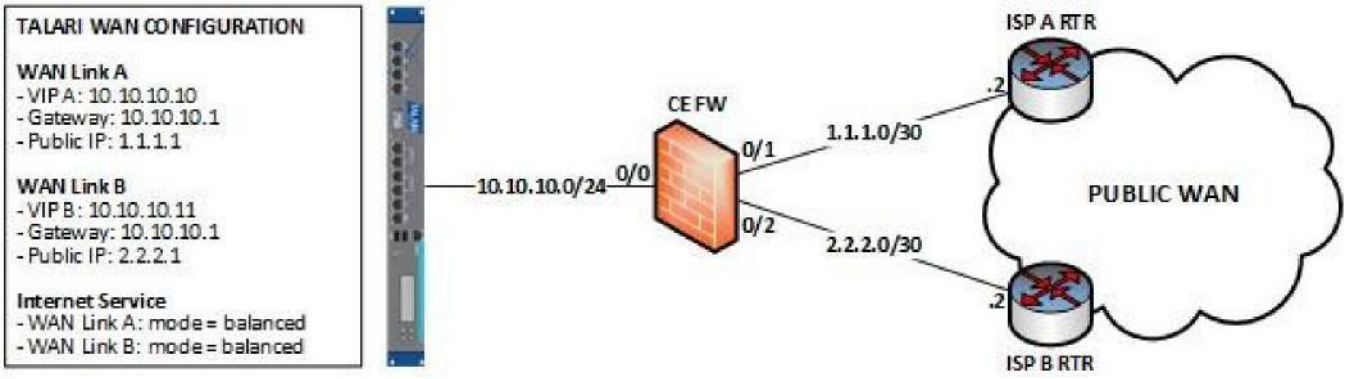

Figure 1: Dual WAN Single Gateway Configuration

Configuration Summary

Customer Edge Firewall:

Static NAT 10.10.10.10 UDP 2156 → 1.1.1.1 UDP 2156
Static NAT 10.10.10.11 UDP 2156 → 2.2.2.1 UDP 2156
Permit incoming UDP 2156

Requirements for the Internet Service

Internet Service traffic is not encapsulated, and the Oracle Talari Appliance performs Internet Load Balancing (ILB), choosing internally whether to send traffic to WAN Link A or WAN Link B. For Internet Service to function correctly, the infrastructure must not contradict the appliance's choice. Additionally, the Oracle Talari Appliance must be aware of the WAN Link on which WAN Egress flows arrive. Both tasks are accomplished with DSCP tagging and matching.

For WAN Ingress Internet flows, the Oracle Talari Appliance assigns a DSCP tag and the Firewall makes a NAT and routing decision based on the tag. For WAN Egress flows, the Firewall applies a DSCP tag, and the Oracle Talari Appliance matches the tag to provision bandwidth against the correct WAN Link.

Configuration Summary

Talari Appliance:

WAN Link A Internet Service	**WAN Link B Internet Service**
WAN Ingress Tagging – AF11	WAN Ingress Tagging – AF12
WAN Egress Matching – AF21	WAN Egress Matching – AF22

Firewall:

Match AF11, Source NAT to 1.1.1.1, next hop 1.1.1.2

Match ISP A RTR Interface Source MAC -OR- Ingress Interface 0/1 | Zone A, apply DSCP AF21

Match AF12, Source NAT to 2.2.2.1, next hop 2.2.2.2

Match ISP B RTR Interface Source MAC -OR- Ingress Interface 0/2 | Zone B, apply DSCP AF22

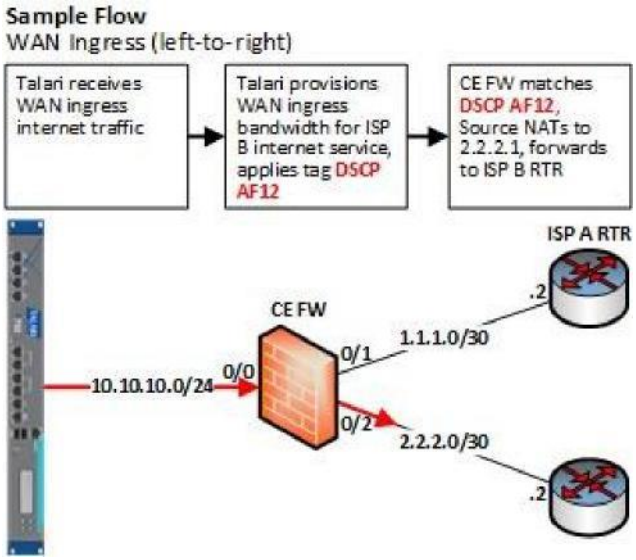

Figure 2: Sample Flows for WAN Ingress

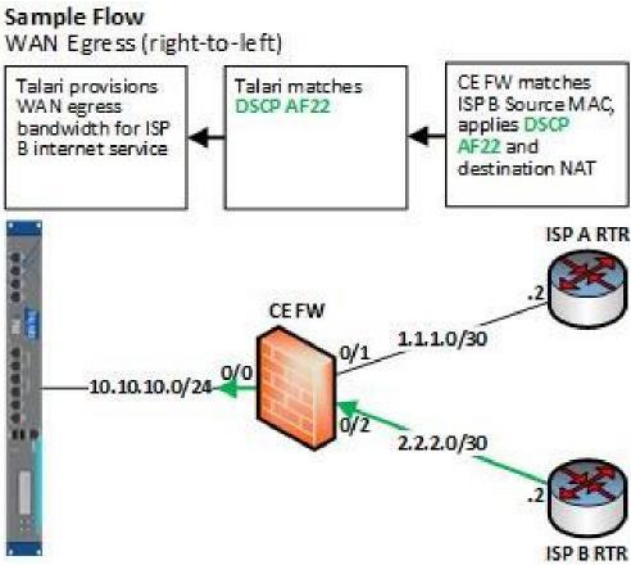

Figure 3: Sample Flow for WAN Egress