High Level Design Document

Underwater Corporation Software Defined Data Center

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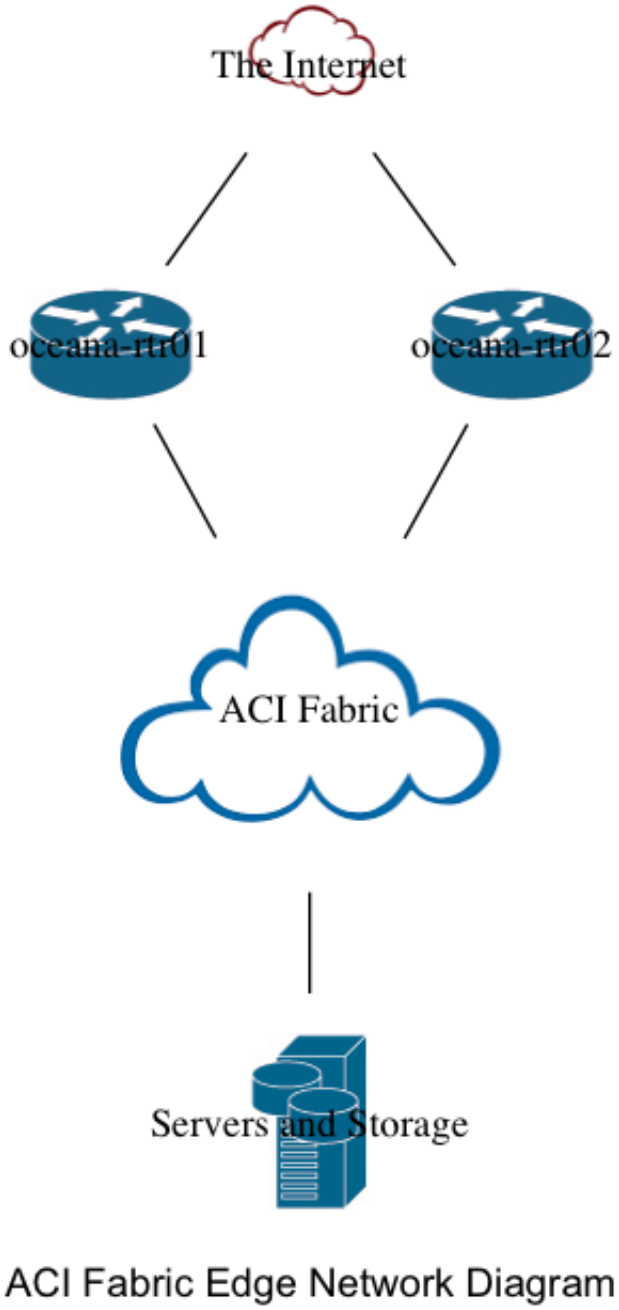
1. Introduction

This document will detail the high level design for the new Underwater Corporation Software Defined Data center located in Guadalajara, Mexico in the Marcatel Guadalajara CoLocation buidling at Av. Chapultepec No. 236 Col. Americana, Sector Ju 44160.

2. Design Overview

This is the overview text for the HLD document. This will introduce the HLD Diaagram



ACI Fabric Edge Network Diagram

3. Equipment Details

Equipment Details for Cisco device Cisco-IOS-XE-native:native

The primary WAN router, oceana-rtr01, will host the primary 10G circuit to the partner data center. It will also host the Primary 1G DIA Internet circuit.

General Information

Model: CSR1000V
Serial Number: 9YES7U3F0TA
Hostname: oceana-rtr01
Software Version: 16.9

uwaco.net
['8.8.8.8']

Interfaces

GigabitEthernet1
Description: IP Information: {'dhcp': {}}

GigabitEthernet2
Description: IP Information: {'primary': {'address': '1.1.1.1', 'mask': '255.255.255.0'}}

GigabitEthernet3
Description: IP Information: {'primary': {'address': '2.2.2.1', 'mask': '255.255.255.0'}}

Loopback0
Description: Source Loopback0 IP Information: {'primary': {'address': '192.0.2.1', 'mask': '255.255.255.255'}}

Equipment Details for Cisco device Cisco-IOS-XE-native:native

The secondary WAN router, oceana-rtr02, will host the secondary 10G circuit to the partner data center as well as the secondary DIA Internet circuit (also 1G).

General Information

Model: CSR1000V
Serial Number: 9YES7U3F0TA
Hostname: oceana-rtr02
Software Version: 16.9

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Interfaces

GigabitEthernet1
Description: IP Information: {'dhcp': {}}

GigabitEthernet2
Description: IP Information: {'primary': {'address': '2.2.2.1', 'mask': '255.255.255.0'}}

GigabitEthernet3
Description: IP Information: {'primary': {'address': '3.3.3.1', 'mask': '255.255.255.0'}}

Loopback0
Description: Source Loopback0 IP Information: {'primary': {'address': '192.0.2.1', 'mask': '255.255.255.255'}}

3. Details for InternetCloud

The new data center will support redundant 1G DIA Internet circuits.


The Internet

3. Details for ACICloud

The ACI Data Center Fabric will be built out with 4 spines, 12 leafs, and 3 APIC controllers.


ACI Fabric

3. Details for ServersStorage

Server and storage bare metal hosts will be connected directly to the ACI Leafs. ESX Hosts will utilize a combination of VPC and Trunk Uplinks depending on function. The NetApp storage applicances will utilize Etherchannel/vPC uplinks.


Servers and Storage

4. Conclusion

This concludes the High Level Design Document