Hewlett Packard Enterprise

HPE aruba networking

AOS-CX 10.13 Update: Aruba CoP – Central On Premises Dual Cluster

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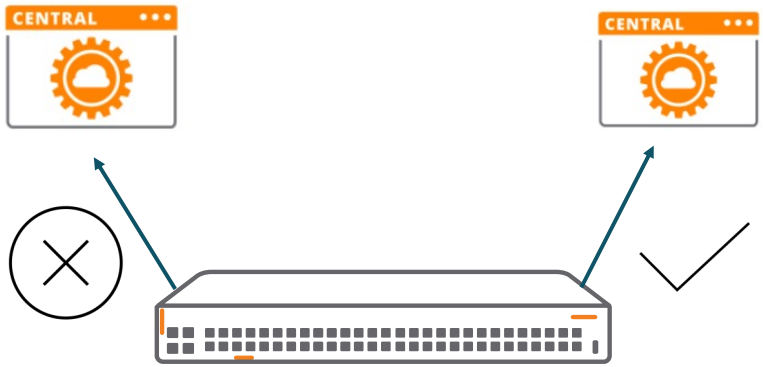
Overview – Feature Enhancement

Main – Central On-premises Location

Alternate Central On-premises location



There is precedence at Central Source (CLI or REST, DHCP)

1.Override configuration (CLI/REST).
2.DHCP options.

Aruba Central On-Premises Dual Cluster is a feature to provide redundancy at cluster level in Aruba Central On-Premises environments.

If the current CoP cluster has connectivity problems, the switch will try to establish a connection to an alternative CoP cluster

Overview – Why & What

Why is Aruba Dual Cluster CoP Important ?

- Ensures continuous connectivity in Aruba Central On-Premises environments.
- Mitigates disruptions caused by connectivity problems in the primary CoP cluster.

How is this done?

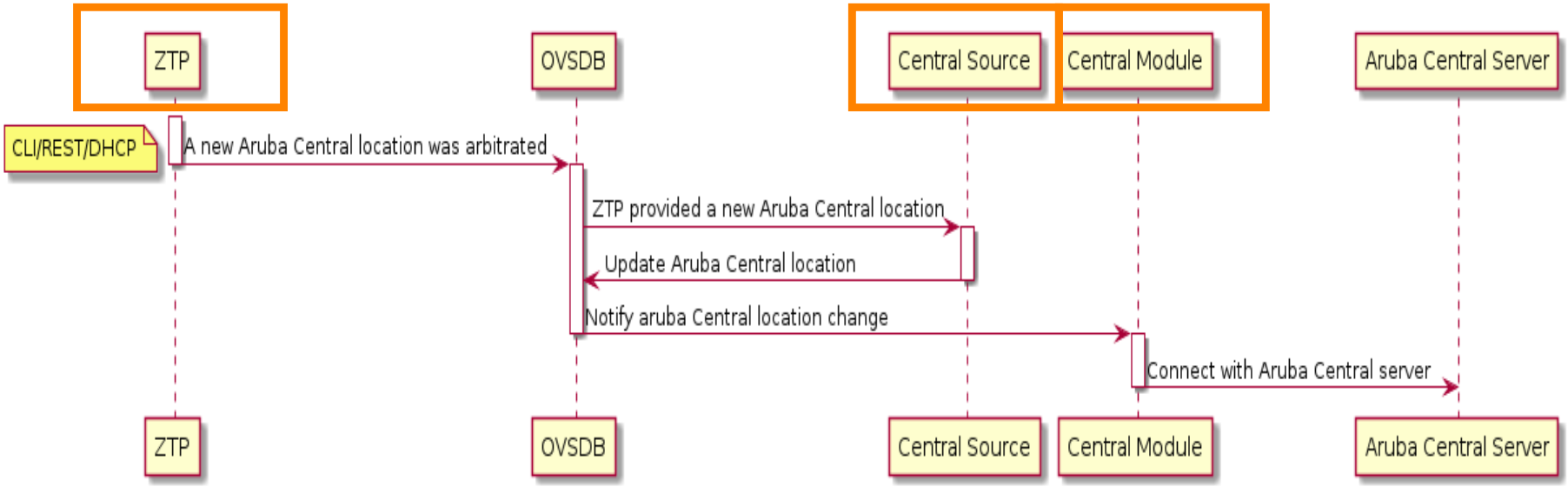
- CX switch connects to an alternative CoP cluster when connectivity issues are detected.
- Minimizes downtime, ensuring uninterrupted network operations.

How does the feature enhancement help?

- Dual Cluster configuration provides a robust and reliable infrastructure.
- Ideal for mission-critical applications where reliability is paramount.

Design & Workflow

The following sequence diagram describes the scenario with ZTP arbitration



Details - Design Choices

1. When both a main location and an alternative location are configured, the CX device will first try to connect to the main location, and in case of failure, it will try with the alternative location.
2. If an alternative location is configured without a main location, there will be no redundancy, and the switch will just try to connect to Aruba Central using the alternative location.
3. While using CLI or REST, there will be no restrictions regarding the configuration of the locations. The user can configure only the main location, only the alternative location or both locations at the same time.
4. While using DHCP options, the main location is mandatory due to the structure of the DHCP server configuration file.

Exponential Backoff

An exponential backoff with a maximum of six attempts will be used to try to establish connection to Aruba Central.

This happens sequentially, first trying the main location until the maximum number of retries is reached

and then trying the alternative location until the maximum number of retries is also reached.

If the maximum retries for both locations have been reached, a reprovisioning process will be generated.

Limitations: Only two Aruba Central On-premises Clusters will be supported – Main & alternative

Demo

Thank you

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