Oracle® Communications Configuration Management

Planning Guide

Release 7.3

E61120-01

July 2015

ORACLE®

Oracle Communications Configuration Management Planning Guide, Release 7.3

E61120-01

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Preface

This document describes the planning tasks associated with Oracle Communications Configuration Management. For more information about Configuration Management concepts, see *Configuration Management Installation and System Administration Guide*.

Audience

This document is intended for network operators and system engineers using a UNIX-based management station. Prior knowledge of the Configuration Management application is not required. This guide assumes that you:

- Have a working knowledge of the UNIX operating system.
- Understand your network configuration and the devices managed by Configuration Management.
- Have experience with windowing systems, browsers and graphical user interfaces (GUIs).

Downloading Oracle Communications Documentation

Configuration Management for Oracle Communications documentation, and additional Oracle documentation, is available from Oracle Help Center:

http://docs.oracle.com

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1

Deployment Scenarios

This chapter outlines the various deployment scenarios for Oracle Communications Configuration Management.

Standalone Single-server Deployment

A standalone deployment is only used in a small-scale scenario for 1,000 devices or less.

Small-scale Scenario

In a small-scale deployment scenario, all components are installed on the same server. In this case, the TFTP server is configured by the installer. This scenario is intended for deployments of 1,000 devices or less.

Distributed Deployments

In a distributed deployment scenario, every instance of the Network Processor must have a TFTP server configured. If a Network Processor instance is co-located with the Configuration Management engine, the associated TFTP server is configured by the installer. See *Configuration Management Installation and System Administration Guide* to configure any other TFTP servers.

A distributed deployment is used for medium-scale and large-scale scenarios.

Medium-scale Scenario

A medium-scale deployment scenario is one with 1,000 to 5,000 devices.

Large-scale Scenario

A large-scale deployment scenario is one with more than 5,000 devices.

2

Engineering Guidelines

This chapter outlines the engineering guidelines for Oracle Communications Configuration Management, including hardware, software and memory requirements, as well as setup recommendations.

Small-scale Deployment

This scenario is intended for small-scale deployments of 1,000 devices or less. To view the recommended deployment scenario, see "Small-scale Scenario".

The minimum requirements for a small-scale deployment are:

- Sun Solaris 10 server with Sun Fire V240, dual 1.28 GHz CPUs
- Memory: 4 GB
- Storage — assuming PE devices are backed up daily and CE devices are backed up weekly, the space required to hold three months of device archives is:
  - Per PE device: 820 MB
  - Per CE device: 1.2 MB

  If you schedule more than one PE archive per day, multiply the PE storage requirements by the daily frequency.

Medium-scale Deployment

A medium-scale deployment is one with 1,000 to 5,000 devices. To view the recommended deployment scenario, see "Medium-scale Scenario".

The minimum requirements for a medium-scale deployment are:

- Two Sun Solaris 10 servers with Sun Fire V240, dual 1.28 GHz CPUs
- Memory: 2 GB for the Configuration Management server and 4 GB for the Service Activator server
- Storage — assuming PE devices are backed up daily and CE devices are backed up weekly, the space required to hold three months of device archives is:
  - Per PE device: 820 MB
  - Per CE device: 1.2 MB

  If you schedule more than one PE archive per day, multiply the PE storage requirements by the daily frequency.

Large-scale Deployment

A large-scale deployment is one with more than 5,000 devices. To view the recommended deployment scenario, see "Large-scale Scenario".

The minimum requirements for a large-scale deployment are:

- Two Sun Solaris 10 servers with Sun Fire V240, dual 1.28 GHz CPUs
- Memory: 2 GB for the Configuration Management server and 2 GB for each Service Activator server
- Storage — assuming PE devices are backed up daily and CE devices are backed up weekly, the space required to hold three months of device archives is:
  - Per PE device: 820 MB
  - Per CE device: 1.2 MB

  If you schedule more than one PE archive per day, multiply the PE storage requirements by the daily frequency.

User Sessions

For single server deployments, a maximum of 10 simultaneous user sessions is recommended.

For distributed deployments, a maximum of 15 simultaneous user sessions is recommended.

3

Performance Considerations

This chapter provides performance data and considerations for capturing device configuration archives in Oracle Communications Configuration Management.

Device Configuration Archives

This section outlines the archiving rates for small, medium and large scale deployments.

Small-scale Deployment

In a small-scale deployment, the time it takes to perform scheduled archives is as follows:

- PE device — can be archived at a rate of one per minute
- CE device — can be archived at a rate of 50 per minute

Example

The following example shows the approximate time it takes to archive an average small-scale deployment:

- 10 PE devices = 10 minutes to archive
- 990 CE devices = 20 minutes to archive

  Total = 30 minute archive

Medium-scale Deployment

In a medium-scale deployment, the time it takes to perform scheduled archives is as follows:

- PE device — can be archived at a rate of two per minute
- CE device — can be archived at a rate of 300 per minute

Example

The following example shows the approximate time it takes to archive an average medium-scale deployment:

- 50 PE devices = 25 minutes to archive
- 4,950 CE devices = 17 minutes to archive

  Total = 42 minute archive

Large-scale Deployment

In a large-scale deployment, the time it takes to perform scheduled archives is as follows:

- PE device: can be archived at a rate of two per minute
- CE device: can be archived at a rate of 300 per minute

Example

The following example shows the approximate time it takes to archive an average large-scale deployment:

- 200 PE devices:
  - with two CPUs = 100 minutes to archive
  - with four CPUs = 50 minutes to archive
- 19,800 CE devices:
  - with two CPUs = 66 minutes to archive
  - with four CPUs = 33 minutes to archive

  Total
  - for devices with two CPUs = 166 minute archive (2 hours, 46 minutes)
  - for devices with four CPUs = 83 minute archive (1 hour, 23 minutes)

Tuning

To decrease the time it takes to archive device configurations, you can increase the number of threads in the Network Processor. This mainly applies to large-scale deployments.