Carrier VoIP

Call Agent Configuration Management

NN10109-511

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The information in this document is sourced in Canada, the United States of America, and the United Kingdom.

Call Agent Configuration Management

Configuration of the Call Agent and the rest of the components that compose the Communication Server 2000 - Compact (CS 2000-Compact) is completed by Nortel installation technology personnel.

Configuration of services and adding services is completed by operating company personnel.

For information about adding and configuring services for the CS 2000 - Compact, see *CS 2000 Configuration Management*.

New in this release

Feature changes

See the following section for information about feature changes.

Gigabit Ethernet interface for sparing for Compact Call Agent cards

This feature is applicable only to the CS2100 for the enterprise market.

In this release, feature A00012478 introduces the Gigabit Ethernet interface for sparing for MCPN905-based Compact Call Agent (CCA) cards. (MCPN765-based CCA cards continue to use fiber channel sparing.)

The introduction of Gigabit Ethernet sparing causes the following changes in this document:

- The following changes appear in the MAP interface, and are shown in the screen illustration in this document:.
  - — “Sparing link” or “SL” appears where “fiber channel” or “FC” formerly appeared.
  - — Under Compact Call Agent Maintenance (CCAMTC) in the MAP interface, there is a new command to query the sparing link. The command is “16 QuerySL”. You can use the command to find out whether the fiber channel interface or the Gigabit Ethernet interface is selected for sparing.

Other changes

There are no other changes.

IP addressing scheme

The Call Agent and the other call processing nodes in the Communications Server LAN (CS LAN) are provisioned in a private, call processing, subnet of the CS LAN. The other call processing nodes include STORM, Gateway Controllers, SAM21 Shelf Controllers, UAS, Media Server, USP or USP - Compact, and one Ethernet interface of the CS 2000 Core Manager or CBM. A second Ethernet interface, not connected to the call processing subnet, is required on the CS 2000 Core Manager or CBM to the OAM&P subnet that is typically connected to the telephone operating company LAN.

As part of the IP addressing guidelines, the addresses 172.16.0.0 to 172.31.255.255 have been set aside to address the CS-LAN call processing subnet. These IP addresses are Class B addresses. For a scalable network with multiple CS LANs, a 20 bit subnet mask is used. A 20 bit subnet mask allows 256 subnets with 4094 usable addresses.

The first 13 of these subnets are reserved as call processing subnets. These call processing subnets are 172.16.0.0/20, 172.16.16.0/20, 172.16.32.0/20 ... 172.16.192.0/20. Due to a limitation with call processing application running on the Call Agent, the 172.16.0.0/20 subnet cannot be used.

Nortel recommends using the 172.16.16.0/20 subnet for the first call processing subnet. Refer to Table "Call Agent IP addresses" (page 4) for an example.

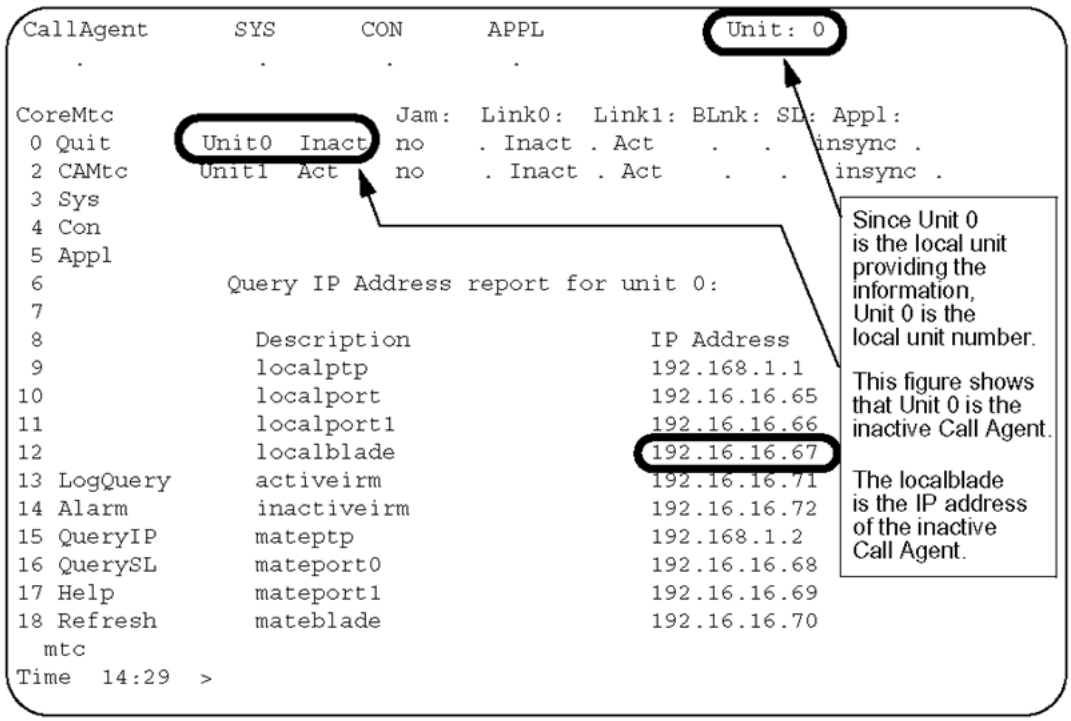
Use the following information for assistance with reconfiguring Call Agent IP addresses. Contact Nortel support personnel for assistance with reconfiguring IP addresses.

Call Agent IP addresses

Description	Offset	Example	Datafilled	Location
Unit 0, Link 0	-7	172.16.16.65	no	NET1 on rear transition module of Unit 0 SAM21 shelf.
Unit 0, Link 1	-6	172.16.16.66	no	NET2 on rear transition module of Unit 0 SAM21 shelf.
Unit 0	-5	172.16.16.67	at CS 2000 SAM21 Manager	This is the logical address of Unit 0.

Description	Offset	Example	Datafilled	Location
Unit 1, Link 0	-4	172.16.16.68	no	NET1 on rear transition module of Unit 1 SAM21 shelf.
Unit 1, Link 1	-3	172.16.16.69	no	NET2 on rear transition module of Unit 1 SAM21 shelf.
Unit 1	-2	172.16.16.70	at CS 2000 SAM21 Manager	This is the logical address of Unit 1.
IRM (inactive)	-1	172.16.16.71	no	This is the logical address of the inactive call processing application.
IRM (active)	last octet is divisible by 8	172.16.16.72	no	This is the logical address of the active call processing application.

The following figure shows and example of the **`QueryIP`** command and the IP addresses used by a Call Agent card.



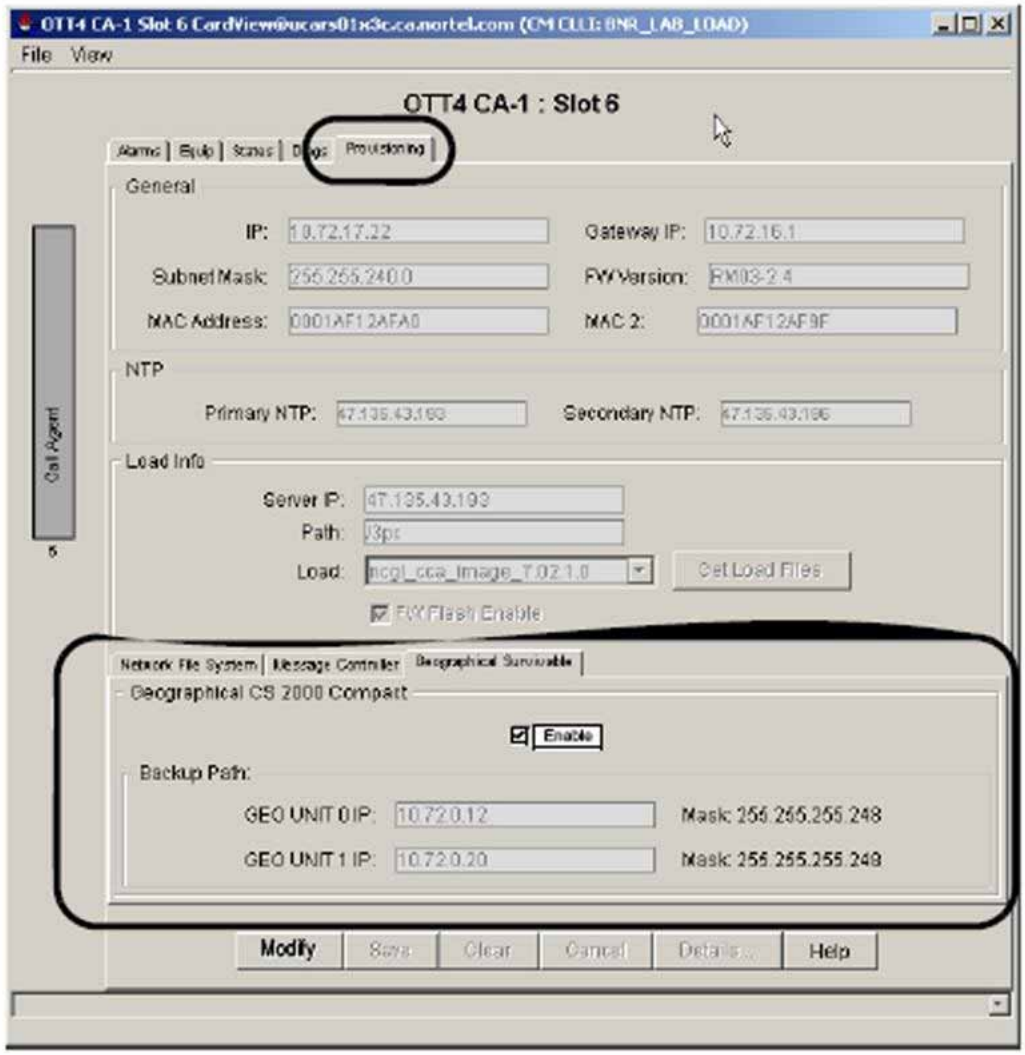
The Point To Point (PTP) links carry backup messaging between the two Call Agent cards. A private local area network (LAN) is established between the two cards and uses the 192.168.1.0/30 subnet. These links use a channel on the fiber channel connection between the faceplates of the Call Agent cards

WAN IP addresses for Geographic Survivability

The Geographic Survivability feature allows services to continue in the event of a natural or man-made disaster. To support the feature, a new sub-panel is added to the Call Agent Card View Provisioning panel (tab) for provisioning backup WAN IP addresses. The WAN IP addresses are configured at installation. The new sub-panel allows you to either enable or disable the feature.

The following figure shows an example Provisioning panel for the Call Agent Card View with Geographic Survivability enabled.

Call Agent Card View Provisioning panel: Geographic Survivability enabled



For more information about Geographic Survivability, refer to the following documents:

- *Call Agent Basics*, NN10023-111
- *Carrier VoIP Disaster Recovery Procedures*, NN10450-900

For offices configured with Message Controllers, refer to *Geographic Survivability Planning Guide*, 555-4031-901. Configurations with MCs are supported only in Enterprise (CS2100) solutions.

For more information about alarm and log changes and system behavior during fault scenarios for Geographic Survivability, refer to *Call Agent Fault Management*, NN10087-911.

Reconfiguring NTP service

Reconfiguration of the Network Time Protocol(NTP) for the Call Agent requires a reconfiguration of the NTP server at the CS 2000 SAM21 Manager client for all cards in the SAM21 shelf. For information about reprovisioning the NTP server at the CS 2000 SAM21 Manager client, see "Reconfigure NTP service" in *SAM21 Shelf Controller Configuration Management*, NN10111-511.

Once the NTP server address has been reconfigured at the CS 2000 SAM21 Manager, both Call Agents need to be rebooted to receive the new NTP configuration and start syncing to the new sources. To avoid a call processing service impact, perform the following procedure.

Step	Action
	At the active Call Agent Manager
1	Jam the inactive Call Agent from the CAMtc level. `> Jam` *The command completes when a minor JInact alarm is raised. If the command fails, ensure this is the active Call Agent unit.*
	At the CS 2000 SAM21 Manager client
2	Lock the inactive Call Agent and wait for the lock to complete.
3	Unlock the inactive Call Agent and monitor the Unlock from the States tab of the Card View window.
	At the active Call Agent Manager
4	Release the Jam on the inactive Call Agent. `> RelJam` *The command completes when the JInact alarm clears.*
5	Synchronize the call processing application from the Appl level. `> Sync` *The call processing application begins to synchronize and indicates completion when the Appl flag changes to "insync ."*
6	Drop synchronization of the call processing application. `> DpSync` *The command completes when the Appl flag changes to "nosync /."*
	At the MAP

7 Perform steps LIMITED_PRESWACT, NORESTARTSWACT, and POSTSWACT at the BCSUPDATE level. Help is available at the BCSUPDATE level with the **HELP** command.

Continue after completing all the commands and the Call Agent Manager indicates the call processing application is "insync ."

At the active Call Agent Manager (activity has changed)

8 Jam the newly inactive Call Agent.

At the CS 2000 SAM21 Manager

9 Lock and Unlock the newly inactive Call Agent.

10 This procedure is complete.

At the active Call Agent Manager

11 Release the Jam on the inactive Call Agent.

—End—

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