



# **Administering Communication Manager for Avaya one-X<sup>®</sup> Agent**

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# Chapter 1: Avaya one-X Agent overview

Avaya one-X<sup>®</sup> Agent is an integrated telephony softphone solution for agents in contact centers. Avaya one-X Agent provides seamless connectivity to at-home agents, remote agents, out-sourced agents, contact center agents, and agents interacting with clients with speech and hearing impairments.

Avaya one-X Agent 2.5 offers a number of enhancements in addition to the features available in Avaya one-X Agent 2.0.

Avaya one-X Agent 2.5 is compatible with Call Center Elite 6.0, Avaya one-X Agent Central Management 2.5, and Avaya Aura<sup>®</sup> Communication Manager 2.x and later. Avaya one-X Agent 2.5 also offers interoperability with other IM and presence clients, namely, Avaya one-X<sup>®</sup> Communicator 6.1 and Microsoft Office Communicator 2007. Avaya one-X Agent 2.5 supports Avaya Aura<sup>®</sup> Presence Services 6.1 with Avaya Aura<sup>®</sup> System Manager 6.1 SP1.1.

The availability of features depends on the Avaya one-X Agent user type you deploy. Avaya one-X Agent 2.5 retains all the enhancements with the same user interface so that the existing users of Avaya one-X Agent can adapt easily to the new features.

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## Communication Manager overview

Communication Manager organizes and routes voice, data, image, and video transmissions. In a contact center environment, Communication Manager provides advanced agent functions, including agent state control, call wrap-up control, and video features. Communication Manager also provides user and system management functionality, intelligent customer routing, application integration and extensibility, and enterprise communications networking.

For agents to use Avaya one-X Agent, an administrator must configure Communication Manager to support extension assignments, Internet Protocol (IP) connectivity, and telephone types.

This guide describes the procedures to configure Communication Manager. You can use the following versions of Communication Manager with Avaya one-X Agent:

- Communication Manager Release 2.x (Voice)
- Communication Manager Release 3.x with Service Pack 1 (Voice)
- Communication Manager Release 4.x with Service Pack 1 (Voice and video)
- Communication Manager Release 5.x with Service Pack 1 (Voice and video)
- Communication Manager Release 6.0 (Voice and video)



**Note:**

Although, Avaya one-X Agent 2.5 supports Communication Manager 2.x, 3.x, 4.x, 5.x, and 6.0, the application is exclusively tested with Communication Manager 5.x and 6.0.



**Important:**

Before attempting the procedures, you must have the working knowledge of administering Communication Manager. If you are not familiar with the fields or settings, see *Administering Avaya Aura Communication Manager* on the Avaya Support Site at <http://www.avaya.com/support>.



# Chapter 2: Communication Manager circuit packs

Communication Manager requires circuit packs to support the My Computer and Office Phone configurations with Avaya one-X Agent. With these circuit packs, remote agents can connect to Communication Manager with Avaya one-X Agent through TCP/IP.

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## C-LAN circuit pack

Classified Local Area Network (C-LAN) is a packet port circuit pack for Communication Manager. C-LAN provides TCP/IP connectivity to various accessories for applications. C-LAN has one 10BaseT or 100BaseT Ethernet connection and up to 16 DS0 physical interfaces for Point-to-Point Protocol (PPP) connections. You can integrate two modems to provide a remote PPP connectivity over an analog circuit. You can add multiple C-LAN circuit packs to a system to increase the TCP/IP capacity.

The C-LAN circuit pack provides data signaling over TCP/IP for Avaya one-X Agent. You can use the C-LAN circuit pack for My Computer, Office Phone, and Other Phone configurations, where the system connects the data to Communication Manager. The voice path does not use this circuit pack.

 **Note:**

Use C-LAN circuit packs that have the ability to handle the maximum number of active endpoints, for example, TN799C V4, TN799DP, or a later version. If you are using earlier versions of TN799C V4, TN799DP, it can cause issues to system if the C-LAN circuit pack reaches the maximum number of active endpoints.

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## IP Media Processor circuit pack

The IP Media Processor circuit pack supports transmission of voice data over an IP network. Thereby, the IP Media Processor circuit pack can support applications that comply with the H.323-v2 protocols. IP Media Processor offers a lower per-port cost and improved quality through use of dynamic jitter buffers. In addition, IP Media Processor circuit pack performs echo cancellation, silence suppression, Dual Tone Multi-Frequency (DTMF) detection, and conferencing.

The IP Media Processor circuit pack provides Voice over Internet Protocol (VoIP) for Avaya one-X Agent. You can use the IP Media Processor circuit pack for My Computer, Office Phone, and Other Phone configurations, where the system establishes a VoIP connection with Communication Manager.

 **Note:**

For installation procedures and configuration information on C-LAN and IP Media Processor circuit packs, see *Administering Network Connectivity on Avaya Aura Communication Manager* on the Avaya Support Site at <http://www.avaya.com/support>.

# Chapter 3: Validating Feature Access Codes

Use Feature Access Codes (FACs) to provide options for agents to change the work modes, log in, log out, adjust the method using which an agent receives the next call, and request supervisor assistance.

## Before you begin

- Assign the **fac** capability in the dial plan in the corresponding Communication Manager. You cannot enter FACs without the **fac** capability.
- Assign a valid user ID with the administrative permissions to change the settings in the corresponding Communication Manager.

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
2. On the administration screen, in the text input field, enter `display dialplan analysis` to gain access the dial plan form. Ensure that you assign the **fac** option in the dial plan.  
If you do not assign the **fac** option in the dial plan, your dial plan does not support FACs. For information on configuring your dial plan for FACs, see *Administering Avaya Aura Communication Manager* on the Avaya Support Site at <http://www.avaya.com/support>.
3. On the administration screen, in the text input field, enter `display feature-access-codes` to view the Feature Access Codes (FAC) form.
4. Navigate to the **call center** section of the FAC form.  
Communication Manager displays a subset of the access code fields.
5. Administer FACs for your agents. Select from the following FACs for agents and supervisors:
  - **Login** for agents
  - **Logout** for agents
  - **Service Observing Listen Only** for supervisors
  - **Service Observing Listen/Talk** for supervisors
  - **Remote Agent Logout** for supervisors

To find FACs, see *Administering Avaya Aura Communication Manager* and follow the steps on adding FACs. Download the document from the Avaya Support Site at <http://www.avaya.com/support>.

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# Chapter 4: Configuring the My Computer and Other Phone settings

To use Avaya one-X Agent, you must administer the My Computer and Other Phone settings on Communication Manager.

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## Checking compatibility for My Computer and Other Phone modes

### About this task



#### Important:

If the settings of your Communication Manager do not conform with the steps in this procedure, contact the Avaya customer support services to purchase the appropriate options or configuration for your Communication Manager before using Avaya one-X Agent.

### Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
2. On the administration screen, in the text input field, enter `display system-parameters customer-options`.
3. Navigate to page 2 of the customer-options form, and ensure that the **Maximum Concurrently Registered IP Stations** field is set to a number greater than zero.  
The number specified in the **Maximum Concurrently Registered IP Stations** field represents the total number of IP stations that you can connect to Communication Manager at a time. Each IP station can consist of Avaya one-X Agent, Avaya IP Softphone, or IP telephone sets or all.

4. Navigate to page 4 of the customer-options form, and ensure that the **IP Stations** field is set to  $y$ .
5. Navigate to page 10 of the customer-options form, and ensure that the **Limit** field of the **IP\_Agent** and **IP\_Supv** Product IDs match the number of licenses you purchased for Avaya one-X Agent.

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## Configuring the station settings for My Computer and Other Phone modes

### Before you begin

- Complete the procedures in [Ensuring compatibility](#) on page 13 to verify if Communication Manager supports Avaya one-X Agent and FACs.
- Ensure a valid user ID with administrative permissions to change settings on Communication Manager.
- Create the station using the **add station** command on Communication Manager.

### Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
2. On the administration screen, in the text input field, enter `change station XXXXX`, where XXXXX corresponds to the agent extension number to be used with Avaya one-X Agent.  
The system navigates to the specific station administration form based on the agent's station ID.
3. Navigate to page 1 of the **change station** form, and perform the following steps:
  - a. In the **Type** field, enter the type of telephone that Avaya one-X Agent emulates.  
In the Other Phone mode, Avaya one-X Agent can take over the administration and functionality of a physical Digital Communication Protocol (DCP) telephone. You must list the physical telephone in the “Computer and other hardware” requirements section *Installing and Configuring Avaya one-X Agent*. For DCP telephone, you cannot use the physical telephone while Avaya one-X Agent is registered with its extension. You can use the telephone again when Avaya one-X Agent disconnects from Communication Manager.
  - b. In the **Port** field, enter one of the following options:


- For IP telephone types (for example, 46xx, 96xx), if you have entered the station in the **Type** field, then the system assigns the value to the **Port** field automatically. However, for digital phone extension numbers (for example, 6402, 607A1), enter the IP address of the station to specify that station administration is performed without a hardware support.
  - Enter the port number of the actual telephone assigned to this extension. When a remote agent logs on to this extension using Avaya one-X Agent, the system disables the actual telephone you connected to Communication Manager. You cannot use this port as Communication Manager uses this port when a remote agent takes direct control of an actual extension that has a DCP connection to Communication Manager.
- c. In the **Security Code** field, enter a password. Both the system and an agent use this password to log on as an extension.  
If you do not enter the security code, an agent using this station cannot log on to Communication Manager.
  - d. Set the **IP Softphone** field to *y*.
  - e. Ensure that you have entered correct values in the **COR** and **COS** fields.
4. Navigate to page 2 of the **station administration** form, and perform the following steps:
- a. In the **Multimedia Mode** field, enter *enhanced*.
  - b. In the **Service Link Mode** field, select one of the following options:  
If the station has low call traffic or the system charges a toll for calls, choose the **as needed**.  
If the station has a high call traffic or the station is set as an auto-answer station, choose the **permanent** setting.
-  **Important:**  
In Communication Manager 4.0 or later, when you set the **Service Link Mode** for a station to **Permanent**, you must set **Direct IP-IP Audio Connections** to *N*. However, you cannot use Video in the My Computer mode.
- c. Ensure that you have set the **Emergency Location Ext** field to the appropriate setting for your contact center.
5. Navigate to page 4 of the **station administration** form. Assign functions to each button that you want the system to display in the Avaya one-X Agent Phone Features window. Ensure that the **call-appr** feature button is added in the **Button ASSIGNMENTS** section on page 4.  
When the system connects this station to Communication Manager, the assigned button functions appear in the Avaya one-X Agent Phone Features window. For

information on all available button functions, see *Administering Avaya Aura Communication Manager*.

6. Navigate to page 5 of the **station administration** form. Assign the necessary agent work mode buttons that an agent uses in the contact center.

<b>auto-in</b>	To make an agent available for new calls immediately after the agent finishes the current call. Set the <b>auto-in</b> function to put the agent in the Ready state automatically after the agent completes a call. Do not use this button if you administered the manual-in button for the station.
<b>manual-in</b>	To allow an agent to accept a call and then put the agent in the After Call Work (ACW) mode after finishing the call. Set the manual-in function to put the agent in the after call state after finishing the call. Do not use this button, if you administered the auto-in button.
<b>after-call</b>	To put an agent in the ACW mode. The after-call feature is a mandatory. You must assign this feature to agents.
<b>aux-work</b>	To put an agent in the Auxiliary Work (AUX) mode with different reason codes. The aux-work feature is a mandatory feature. You must assign this feature to agents. You can configure Communication Manager to prompt for reason codes when an agent enters the AUX state.
<b>release</b>	To terminate the current call and line appearance. The release feature is a mandatory feature. You must assign this feature to agents. Use the release feature if you enabled the Auto-Answer option on the station.
<b>callr-info</b>	To display information collected from the originator of the call. You can use the caller-info feature only with the Call Prompting feature. The Call Prompting feature obtains information from a caller through a collect-digits vector step on Communication Manager.



<b>vu-display</b>	To view statistics for the agent skill configured on the <b>vu-display</b> button.
<b>uui-info</b>	To view User-to-User Information (UUI) that you specify for this call. Computer Telephony Integration (CTI) usually sets the application to use screen pops that use UUI information.
<b>work-code</b>	To allow an agent to enter work codes for a call.
<b>normal</b>	To disable statistics from appearing in the Avaya one-X Agent client. If you do not administer the normal button, the Avaya one-X Agent client does not display the vu-stats feature.
<b>assist</b>	To enable supervisor assistance.
<b>drop</b>	To enable dropping a participant from a conference.   <b>Note:</b> If the drop button does not exist, Avaya one-X Agent cannot drop a participant from a call.
<b>serv-obsrv</b>	To enable supervisor service observing. This option is only applicable for supervisors.

The 4600, 6400, and 607A1 telephone types do not include a Drop button. Therefore, you must assign a drop function for each station to ensure that the Avaya one-X Agent Drop feature works correctly.

 **Note:**

The mandatory feature buttons are **manual-in**, **auto-in**, **after-call**, and **aux-work**. Without these buttons, an agent cannot log in.

For information on all available button functions, see *Administering Avaya Aura Communication Manager*.



# Chapter 5: Configuring the Desk Phone settings

You must administer the Desk Phone settings on Communication Manager to use Avaya one-X Agent in a contact center.

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## Checking compatibility for the Desk Phone mode

### About this task

Use the following steps to ensure that your Communication Manager supports the Desk Phone setting (IP Telephone or Avaya Telephone-IP Telephone) for use of Avaya one-X Agent in your contact center.


 **Note:**

If the settings of your Communication Manager do not conform with the steps in this procedure, contact the Avaya customer support services to purchase the appropriate options or configuration for your Communication Manager before using Avaya one-X Agent.

### Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
2. On the administration screen, in the text input field, enter `display system-parameters customer-options`.  
The system displays page 1 of the **system-parameters customer-options** form.
3. Navigate to page 2 of the **customer-options** form, and ensure that the **Maximum Concurrently Registered IP Stations** field is set to a number greater than zero.  
The number specified in the **Maximum Concurrently Registered IP Stations** field represents the total number of IP stations that you connect to Communication Manager at one time. Each IP station can consist of Avaya one-X Agent, Avaya IP Softphone, and IP telephone sets.

4. Navigate to page 4 of the **customer-options** form, and ensure that the **IP Stations** field is set to  $y$ .
5. Navigate to page 10 of the **customer-options** form, and check the following:

<p><b>For Avaya Telephone-IP configuration</b></p>	<p>Ensure that the Limit field for the <b>AgentSC</b> Product ID is set to the number of licenses you purchased for Avaya one-X Agent.</p> <p> <b>Note:</b> You can use <b>AgentSC</b> for the ACD feature in the Desk Phone mode only.</p>
<p><b>For IP Telephone configuration</b></p>	<p>Verify that the system sets the number of licenses for the <b>IP_AGENT</b> Product ID match the number of licenses you purchased for Avaya one-X Agent.</p>

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## Configuring the station settings for the Desk Phone mode

### Before you begin

- Complete the procedures in [Ensuring compatibility](#) on page 13 to verify if Communication Manager supports Avaya one-X Agent and FACs.
- Ensure a valid user ID with administrative permissions to change settings on Communication Manager.
- Create the station using the **add station** command on Communication Manager.
- If you are using an Avaya IP telephone with Avaya one-X Agent, the firmware version of the telephone is 1.7 or later.

### Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
2. On the administration screen, in the text input field, enter `change station xxxxx`, where `xxxxx` is the station ID corresponding to the agent extension number with Avaya one-X Agent.  
Communication Manager displays the change station form for the specified station.

3. Navigate to page 1 of the **station administration** form, and perform the following steps:
  - a. In the **Type** field, enter the type of telephone that Avaya one-X Agent must control.  
The station type must match the IP telephone.
  - b. Ensure that the **Port** field is set to `IP`.
  - c. In the **Security Code** field, enter a number that Communication Manager must use as a password for an agent during the extension login.  
If you do not enter the security code, an agent using this station cannot log on to Communication Manager.
  - d. Set the **IP Softphone** field to `y`.
4. Navigate to page 2 of the **station administration** form and perform the following steps:
  - a. Configure the **Multimedia Mode** field to `enhanced`.
  - b. Choose the **Service Link Mode** field to one of the following options:
    - If the station has low call traffic or a toll is charged for calls, choose the settings to **as needed**.
    - If the station has high call traffic or if it is set as an auto-answer station, choose the setting to **permanent**.

 **Important:**

In Communication Manager 4.0 or later, when you set the **Service Link Mode** for a station to **Permanent**, you must set **Direct IP-IP Audio Connections** to `N`. However, you cannot use Video in the My Computer mode.

- c. Ensure that you set the **Emergency Location Ext** field to the appropriate setting for your contact center.
5. Navigate to page 4 of the **station administration** form. Assign functions to each button that you want the system to display in the Avaya one-X Agent Phone Features window. Ensure that the **call-appr** feature button is added in the **Button ASSIGNMENTS** section on page 4.  
When the system connects this station to Communication Manager, the assigned button functions appear in the Avaya one-X Agent Phone Features window. You can find information on all available button functions in *Administering Avaya Aura Communication Manager*.
6. Navigate to page 5 of the **station administration** form, you must assign the necessary agent work mode buttons that are used in your contact center:

<b>auto-in</b>	To make an agent available for new calls immediately after the agent finishes the current call.
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	Set the <b>auto-in</b> function to put the agent in the Ready state automatically after the agent completes a call. Do not use this button if you administered the manual-in button for the station.
<b>manual-in</b>	To allow an agent to accept a call and then put the agent in the After Call Work (ACW) mode after finishing the call. Set the manual-in function to put the agent in the after call state after finishing the call. Do not use this button, if you administered the auto-in button.
<b>after-call</b>	To put an agent in the ACW mode. The after-call feature is a mandatory. You must assign this feature to agents.
<b>aux-work</b>	To put an agent in the Auxiliary Work (AUX) mode with different reason codes. The aux-work feature is a mandatory feature. You must assign this feature to agents. You can configure Communication Manager to prompt for reason codes when an agent enters the AUX state.
<b>release</b>	To terminate the current call and line appearance. The release feature is a mandatory feature. You must assign this feature to agents. Use the release feature if you enabled the Auto-Answer option on the station.
<b>callr-info</b>	To display information collected from the originator of the call. You can use the caller-info feature only with the Call Prompting feature. The Call Prompting feature obtains information from a caller through a collect-digits vector step on Communication Manager.
<b>vu-display</b>	To view statistics for the agent skill configured on the <b>vu-display</b> button.
<b>uui-info</b>	To view User-to-User Information (UUI) that you specify for this call. Computer Telephony Integration (CTI) usually sets the application to use screen pops that use UUI information.

You can find information on all available button functions in *Administering Avaya Aura Communication Manager*.

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# Chapter 6: Configuring the video settings

## Before you begin

- Complete the steps in [Ensuring compatibility](#) on page 13 to verify if your Communication Manager supports Avaya one-X Agent and FACs.
- Ensure a valid user ID with administrative permissions to change settings on Communication Manager.
- Creation of station using the **add station** command on Communication Manager.

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
  2. On the administration screen, in the text input field, enter `change station XXXXX`, where XXXXX corresponds to the agent extension number with Avaya one-X Agent.  
The system displays the change station form for the specified station.
  3. In the **IP Video Softphone** field, set the option to `y`.  
To enable the video function, ensure that the **Direct IP-IP Audio Connections** form is set to `y` on station configuration in page 2.
  4. In the text input field, enter `change ip-codec-set 1`.
  5. Navigate to page 2 of the **change ip-codec-set 1** form, and set the **Allow Direct-IP Multimedia** field to `y`.
  6. In the text input field, enter `change system-parameters customer-options`.
  7. Navigate to page 2 of the **change system-parameters customer-options** form, and specify a number in the **Maximum Video Capable IP Softphones** field.
-



# Chapter 7: Enabling the Auto Answer support for a station

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
  2. On the administration screen, in the text input field, enter `change station xxxxx`, where `xxxxx` corresponds to the agent extension number to be used with Avaya one-X Agent.  
The system displays the change station form for the specified station.
  3. Navigate to page 2 of the **change station** form.
  4. In the **Auto Answer** field, enter `ALL` or `ACD` on the station form.  
When an agent logs in to the Avaya one-X Agent application, the agent must log in with the corresponding station ID and enable the **CM Auto Answer Support Required** option on the log-in window.
-

Enabling the Auto Answer support for a station

# Chapter 8: Configuring reason codes

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
  2. On the administration screen, in the text input field, enter `change reason-code-names`.  
The system displays the change reason codes for **auxiliary** and **logout** in the form.
  3. Enter the appropriate codes to use with Avaya one-X Agent.
-



# Chapter 9: Administering Time-to-Service (TTS)

The TTS feature was originally introduced to reduce the time for IP H.323 endpoints to recover after network outages, for example, after Communication Manager level 2 reset. The TTS feature is mostly applicable to contact centers. TTS improves the time for IP soft phone endpoints to come in to service when a large number of endpoints try to register quickly. This occurs at the time of agent shift changes for Avaya one-X Agent users in contact centers

You can also use the TTS technology for recovering signaling sockets when Duplicated Processor Ethernet (DPE) systems undergo a processor swap. The TTS feature was introduced in Communication Manager 4.0. The TTS endpoint support was introduced to Avaya one-X Agent in R2.0 SP3. This is the only Soft Phone implementation for which TTS is available. TTS separates the registration process of endpoints from the H.323 signaling socket establishment with Communication Manager. The endpoint initiates the RAS process, but Communication Manager manages the subsequent signaling socket establishment process for all endpoints in a coordinated manner.

With non-TTS registration, the endpoint manages RAS and the H.323 socket establishment in a tightly coupled manner. Each C-LAN can handle up to five simultaneous socket establishment requests. Therefore, the system rejects the sixth connection request from an endpoint, and the endpoint must retry the connection or use another socket resource. Communication Manager in conjunction with TTS can handle these mass registration events efficiently. In addition, the TTS enables simplified firewall management, since the socket establishment is initiated from the C-LAN IP addresses that are on the trusted side of firewalls.

## Before you begin

The TTS feature is available in Communication Manager 4.0 and higher and in Avaya one-X Agent 2.0 SP3. In the Desk Phone mode, ensure that you have the following firmware:

- FW 2.8 or later on the 46xx H.323 IP telephones
- FW 1.2.1 or later on the 96xx H.323 IP telephones

## About this task

You can control and administer the TTS feature for extension registration in the Network Region to which the extension belongs. All extensions in a Network Region receive the same treatment.

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.

Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.

2. Navigate to **page 2** of the **ip-network-region** form.

The following fields corresponding to TTS appear on **page 2** of the **ip-network-region** form:

```
TCP SIGNALING LINK ESTABLISHMENT FOR AVAYA H.323 ENDPOINTS
Near End Establishes TCP Signaling Socket? y
Near End TCP Port Min: 61440
Near End TCP Port Max:61443
```

3. For TTS operation, ensure that the **Near End Establishes TCP Signaling Socket?** option is set to *y*.

The **Near End Establishes TCP Signaling Socket?** option allows you to enable or disable TTS on a per network region basis. By default, TTS is turned on in the system.

4. In the **Near End TCP Port Min** field, specify the minimum number of the TCP ports to be used during the TCP socket establishment.
5. In the **Near End TCP Port Max** field, specify the maximum number of the TCP ports to be used during the TCP socket establishment.

 **Note:**

Using the **Near End TCP Port Min** and **Near End TCP Port Max** fields, you can specify or limit you to specify/limit the TCP port range used during TCP socket establishment. The system defines the C-LAN resources to the IP network as on the trusted side of any firewall. The system allows the outbound socket establishment from trusted resources, and you need not change the firewall rules if you change the TCP port range.



# Chapter 10: Configuring TDD/TTY

## About this task

Use the following procedure to configure the Tele Type (TTY)/Telephone Device for the Deaf (TDD) mode on Communication Manager for use in Avaya one-X Agent:

## Procedure

1. Log on to Communication Manager to gain access to the Communication Manager administration interface.  
Alternatively, you can use Station Administration Terminal (SAT) to gain access to the Communication Manager administration interface.
  2. Run the command: `change ip-codec-set 1<codec set number of your network region>`, for example, `change ip-codec-set 1`.
  3. On the administration screen, in the **TDD/TTY** field, perform one of the followings steps:
    - To set TDD/TTY to run in the US (45.45 baud) format, select `US`.
    - To set TDD/TTY to run in the UK (50 baud) format, select `UK`.
-



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