SCCP Call Flows

This section describes basic call flows for the Cisco ATA:

Note The term *Cisco ATA* is used throughout this manual to refer to both the Cisco ATA 186 and the Cisco ATA 188, unless differences between the Cisco ATA 186 and Cisco ATA 188 are explicitly stated.

Supported SCCP Message Set

The SCCP message set includes three sections:

- Registration and management messages
  - StationRegister
  - StationReset
  - StationMediaPort
  - StationSpeedDialState
  - StationRegisterAck
  - StationRegister
  - StationIpPort
  - StationMediaPortList
  - StationForwardStatReq
  - StationSpeedDialStatReq
  - StationLineStatReq
  - StationConfigStatReq
  - StationTimeDateReq
  - StationButtonTemplateReq
  - StationVersionReq

  - StationCapabilitiesRes
  - StationServerReq
  - StationAlarm
- Call Control Messages
  - StationKeyPadButton
  - StationEnblocCall
  - StationStimulus
  - StationOffHook
  - StationOffHookwithCallingPartyNumber
  - StationOnHook
  - StationHookFlash
  - StationStartTone
  - StationStopTone
  - StationSetRinger
  - StationSetLamp
  - StationSetHkFDetect
  - StationSetSpeakerMode
  - StationSetMicroMode
  - StationCallInfo
  - StationDisplayText
  - StationClearDisplay
  - StationEnunciatorCommand
- Media Control Messages
  - StationStartMediaTransmission
  - StationStopMediaTransmission
  - StationStartSessionTransmission
  - StationStopSessionTransmission
  - StationMulticastMediaReception
  - StationMulticastMediaReceptionAck
  - StationStopMulticastMediaReception
  - StationStartMulticastTransmission
  - StationStopMulticastTransmission
  - StationOpenReceiveChannel
  - StationOpenReceiveChannelAck
  - StationCloseReceiveChannel

Call Flow Scenarios for Successful Calls

This section describes call flows for the following scenarios:

- Cisco ATA-to-Cisco CallManager, page D-3
- Cisco ATA-to-Cisco CallManager-to-Cisco ATA, page D-5

Each of the call flows includes a call diagram, an action descriptions table, and a sample log file.

Cisco ATA-to-Cisco CallManager

Figure D-1 Illustrates the Cisco ATA registering with Cisco CallManager:

Figure D-1 Cisco ATA-to-Cisco CallManager

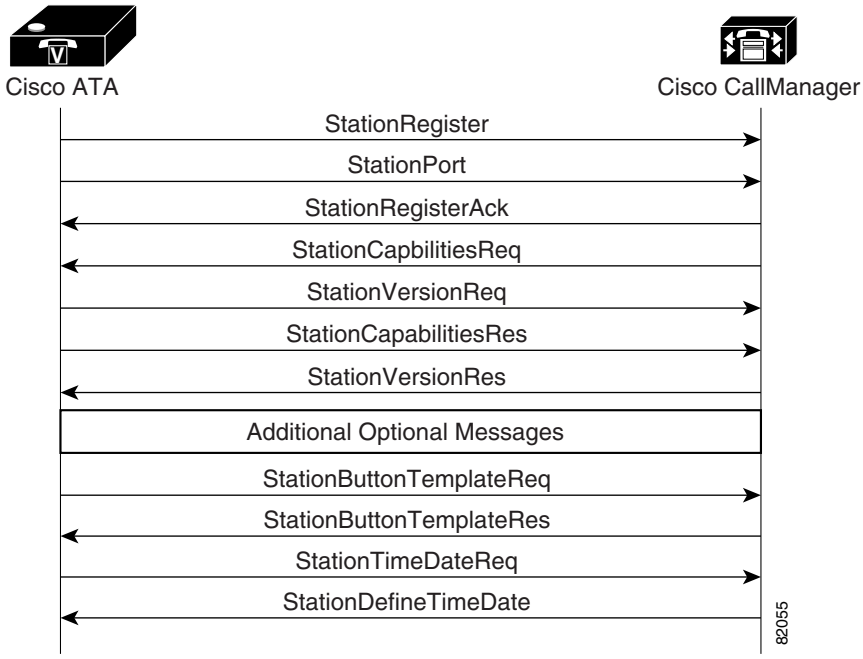

Table D-1 Action Descriptions for First Call Flow

Step	Action	Description
Step 1	StationRegister—Cisco ATA to Cisco CallManager	Cisco ATA sends a message to announce its existence to the Cisco CallManager.
Step 2	StationReset—Cisco CallManager to Cisco ATA	The Cisco CallManager commands the Cisco ATA to reset its processes.
Step 3	StationIpPort—Cisco ATA to Cisco CallManager	The Cisco ATA provides Cisco CallManager with the UDP port for the RTP stream.
Step 4	StationRegisterAck—Cisco CallManager to Cisco ATA	Cisco CallManager acknowledges the registration of the Cisco ATA.
Step 5	StationCapabilitiesReq—Cisco CallManager to Cisco ATA	Cisco CallManager requests the current capabilities of the Cisco ATA.
Step 6	StationVersionReq—Cisco ATA to Cisco CallManager	Cisco ATA requests the version number of the software.
Step 7	StationCapabilitiesRes—Cisco ATA to Cisco CallManager	Cisco ATA responds to the Station Capabilities Request message from the Cisco CallManager. These capabilities are cached in the Cisco CallManager and are used to negotiate terminal capabilities with an H.323-compliant terminal.
Step 8	StationVersionRes—Cisco CallManager to Cisco ATA	Cisco CallManager informs the Cisco ATA of the current software version number.
Step 9	StationButtonTemplateReq—Cisco ATA to Cisco CallManager	Cisco ATA requests the button template definition for that specific Cisco ATA.
Step 10	StationButtonTemplateRes—Cisco CallManager to Cisco ATA	Cisco CallManager updates the button template information contained in the Cisco CallManager.
Step 11	StationTimeDateReq—Cisco ATA to Cisco CallManager	Cisco ATA requests the current date and time for internal usage and for displaying a text string.
Step 12	StationDefineTimeDate—Cisco CallManager to Cisco ATA	Cisco CallManager provides the date and time information to the Cisco ATA.

Cisco ATA-to-Cisco CallManager-to-Cisco ATA

Figure D-2 illustrates the call flow between Cisco ATA 1 and Cisco ATA 2 through a Cisco CallManager. The call flow is as follows:

Figure D-2 Cisco ATA-to-Cisco CallManager-to-Cisco ATA

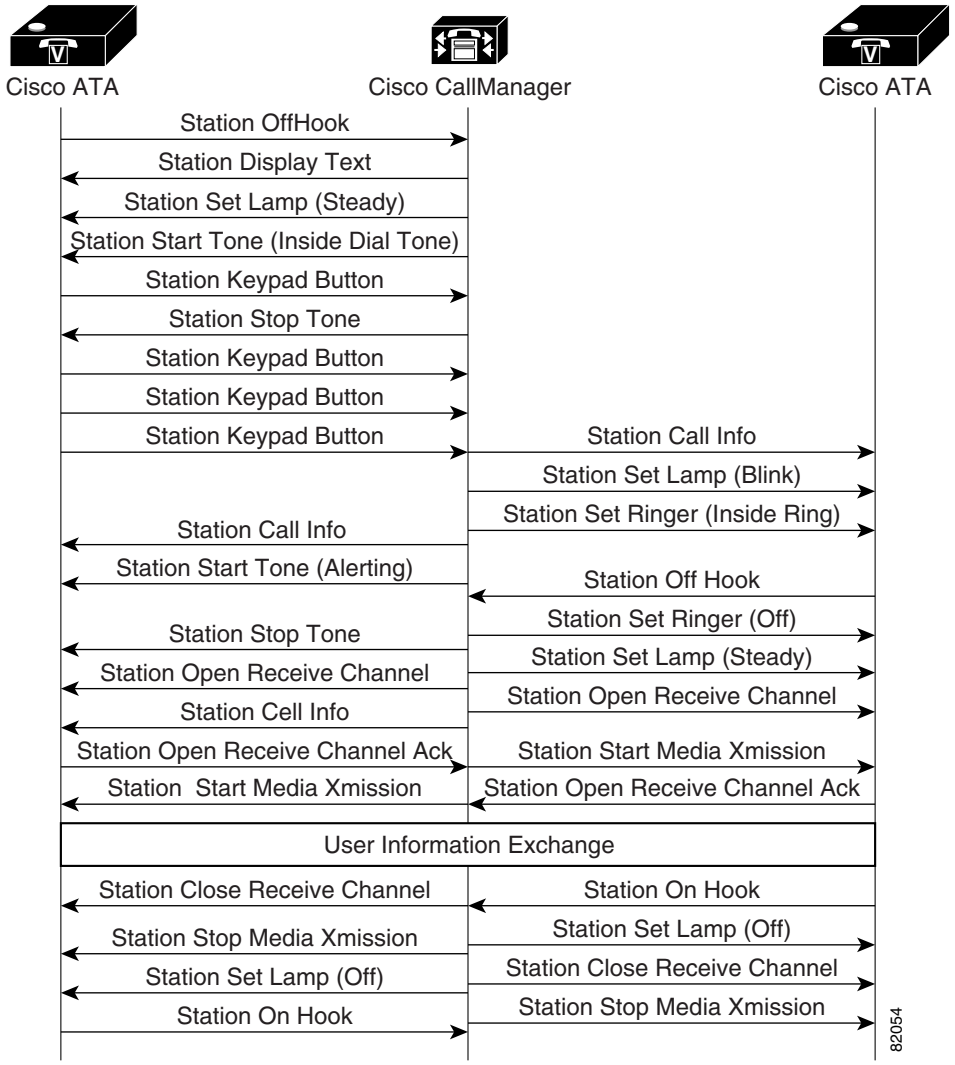

Table D-2 Action Descriptions for Second Call Flow

Step	Station Call Info	Description
Step 1	Station OffHook—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 informs the Cisco CallManager that Cisco ATA 1 is not in an OffHook condition, and simultaneously provides calling party number information to the Cisco CallManager.
Step 2	Station Set Lamp (Steady)—Cisco CallManager to Cisco ATA 1	When the Cisco ATA detects that one port is in an off-hook state, the Cisco ATA turns on the lamp, then turns off the lamp once both ports are in the on-hook state.

Step	Station Call Info	Description
Step 3	Station Start Tone (Inside Dial Tone)—Cisco CallManager to Cisco ATA 1	Cisco CallManager commands Cisco ATA 1 to play a specified tone. If the Cisco ATA is currently playing a tone, the indicated tone takes precedence. If the definition is continuous, the Cisco ATA plays it until receiving a StationStopTone message. If the tone definition contains a duration value, the Cisco ATA stops playing the tone at the expiration of the duration. See also Bellcore SR-TSV-002275.
Step 4	Station Keypad Button—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 informs the Cisco CallManager when a keypad digit is pressed.
Step 5	Station Stop Tone—Cisco CallManager to Cisco ATA 1	Cisco CallManager commands Cisco ATA1 to stop playing the current tone.
Step 6	Station Keypad Button—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 informs the Cisco CallManager when a keypad digit is pressed.
Step 7	Station Keypad Button—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 informs the Cisco CallManager when a keypad digit is pressed.
Step 8	Station Keypad Button—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 informs the Cisco CallManager when a keypad digit is pressed.
Step 9	Station Call Info—Cisco CallManager to Cisco ATA 2	Cisco CallManager informs Cisco ATA 2 of called and calling party identification information.
Step 10	Station Set Lamp (Blink)—Cisco CallManager to Cisco ATA 2	When the Cisco ATA detects that one port is in an off-hook state, the Cisco ATA turns on its Function button, then turns off the Function button once both ports are in the on-hook state.
Step 11	Station Set Ringer (Inside Ring)—Cisco CallManager to Cisco ATA 2	Cisco CallManager commands Cisco ATA 2 to set an audible inside ringing mode. Ring modes are derived from Bellcore SR-TSV-002275.
Step 12	Station Call Info—Cisco CallManager to Cisco ATA 1	Cisco CallManager informs Cisco ATA 1 of called and calling party identification information.
Step 13	Station Start Tone (alerting)—Cisco CallManager to Cisco ATA 1	Cisco CallManager commands Cisco ATA 1 to play an alert tone. If Cisco ATA 1 is currently playing a tone, the indicated tone takes precedence. If the definition is continuous, the Cisco ATA plays it until receiving a StationStopTone message. If the tone definition contains a duration value, the Cisco ATA stops playing the tone at the expiration of the duration. See also Bellcore SR-TSV-002275.
Step 14	Station OffHook—Cisco ATA 2 to Cisco CallManager	Cisco ATA 2 informs the Cisco CallManager that Cisco ATA 2 is not in an Off Hook condition, and simultaneously provides calling party number information to the Cisco CallManager.
Step 15	Station Set Ringer (Off)—Cisco CallManager to Cisco ATA 2	Cisco CallManager commands Cisco ATA 2 to set a specified audible ringing mode. Ring modes are derived from Bellcore SR-TSV-002275.
Step 16	Station Stop Tone—Cisco CallManager to Cisco ATA 1	Cisco CallManager commands Cisco ATA 1 to stop playing the current tone.
Step 17	Station Set Lamp (Steady)—Cisco CallManager to Cisco ATA 2	When the Cisco ATA detects that one port is in an off-hook state, the Cisco ATA turns on its function button, then turns off the Function button once both ports are in the on-hook state.

Step	Station Call Info	Description
Step 18	Station Open Receive Channel—Cisco CallManager to Cisco ATA 1	Cisco CallManager allows Cisco ATA 1 to begin receiving a unicast RTP stream.
Step 19	Station Open Receive Channel—Cisco CallManager to Cisco ATA 2	Cisco CallManager allows Cisco ATA 2 to begin receiving a unicast RTP stream.
Step 20	Station Call Info—Cisco CallManager to Cisco ATA 1	Cisco CallManager informs Cisco ATA 1 of called and calling party identification information.
Step 21	Station Open Receive Channel Ack—Cisco ATA 1 to Cisco CallManager	Cisco ATA 1 provides the following information to the Cisco CallManager: • Status of the open action • Receive-port address and number for transmission to the remote end.
Step 22	Station Start Media Transmission—Cisco CallManager to Cisco ATA 2	Cisco CallManager commands Cisco ATA 2 to become the source for the multicast address.
Step 23	Station Open Receive Channel Ack—Cisco ATA 2 to Cisco CallManager	Cisco ATA 2 provides the following information to the Cisco CallManager: • Status of the open action • Receive-port address and number for transmission to the remote end.
Step 24	Station Start Media Transmission—Cisco CallManager to Cisco ATA 1	Cisco CallManager commands Cisco ATA 1 to become the source for the multicast address.
Step 25	Station On Hook—Cisco ATA 2 to Cisco CallManager	Cisco ATA 2 informs the Cisco CallManager that the Cisco ATA is now in an On Hook condition.
Step 26	Station Close Receive channel—Cisco CallManager to Cisco ATA 1	Cisco CallManager terminates the reception of an RDT stream between Cisco ATA 1 and Cisco ATA 2.
Step 27	Station Set Lamp (Off)—Cisco CallManager to Cisco ATA 2	When the Cisco ATA detects that one port is in an off-hook state, the Cisco ATA turns on its Function button, then turns off the Function button once both ports are in the on-hook state.
Step 28	Station Stop Media transmission—Cisco CallManager to Cisco ATA 1—Cisco CallManager to Cisco ATA 2	Cisco CallManager stops Cisco ATA 1 from being the source of the RTP stream in a multicast conference.
Step 29	Station Close Receive Channel—Cisco CallManager to Cisco ATA 2	Cisco CallManager terminates the reception of an RDT stream between Cisco ATA 1 and Cisco ATA 2.
Step 30	Station Set Lamp (Off)—Cisco CallManager to Cisco ATA 1	When the Cisco ATA detects that one port is in an off-hook state, the Cisco ATA turns on its Function button, then turns off the Function button once both ports are in the on-hook state.
Step 31	Station Stop Media Transmission—Cisco CallManager to Cisco ATA 2	Cisco CallManager terminates the reception of an RDT stream between Cisco ATA 1 and Cisco ATA 2.
Step 32	Station On Hook—Cisco ATA 1 to Cisco CallManager	Cisco ATA informs the Cisco CallManager that Cisco ATA 1 is now in an On Hook condition.