



Supplementary Services Features Roadmap

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This roadmap lists the features covered in this document and provides links to specific configuration information. To reach links to specific feature documentation and to see a list of the releases in which each feature is supported, see the following tables:

- [Table 1](#) lists features by the Cisco IOS Release in which they were introduced.
- [Table 2](#) lists features alphabetically by feature name.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.



Note

[Table 1](#) lists only the Cisco IOS software releases that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 *Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Cisco IOS Release*

Releases	Feature Name	Feature Information	Where Documented
15.1(3)T	CallBack on No Answer for Analog Phones	Provides CallBack notification when a called phone becomes available. This feature is supported on analog SCCP endpoints in Cisco Unified CM only.	Configuring CallBack on No Answer for Analog Phones
15.1(3)T	cBarge for Shared Lines	Allows idle IP or analog phones that are connected to the same FXS ports on a Cisco VG2nn Analog Gateway to automatically join already active calls on the same shared lines by simply going offhook. This feature is supported in Cisco Unified CM only.	Configuring cBarge and Privacy for Shared Lines
15.1(3)T	Configurable AMWI and VMWI	Allows users to configure AMWI only, VMWI only, or both.	Configuring AMWI and VMWI
15.1(3)T	Configurable Call Waiting Tone Cadence	Allows the call waiting tone to continuously play when the called party has not switched to the new call and the new caller has not hung up.	Configuring Call Waiting Tone Cadence

Table 1 Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Cisco IOS Release (continued)

Releases	Feature Name	Feature Information	Where Documented
15.1(3)T	Enhanced Serviceability	Provides line measurement and connectivity check support for analog voice ports.	Implementing Enhanced Serviceability
15.1(3)T	Media Renegotiation	Enhances the STCAPP state machine to support any of the most possible sequences of the media setup messages.	Media Renegotiation
15.1(3)T	Privacy for Shared Line Phones	Disallows other users to cBarge into active calls on the same FXS ports on a Cisco VG2nn Analog Gateway. This feature is supported in Cisco Unified CM only.	Configuring cBarge and Privacy for Shared Lines
15.1(3)T	Secure SCCP Analog Endpoints over TLS with Cisco Unified Communications Manager	Enhances STCAPP FXS security analog endpoints through secure signaling and media encryption using TLS. This feature is supported for analog SCCP endpoints that are controlled by the Cisco Unified CM only.	Configuring Secure SCCP Analog Endpoints over TLS with Cisco Unified Communications Manager
15.1(3)T	Single Number Reach for Analog Phones	Enables incoming calls to analog phones connected to Cisco gateway FXS ports to be received on predefined alternate telephone numbers.	Configuring Single Number Reach for Analog Phones
15.1(1)T 15.0(1)XA	MLPP Support for Supplementary Services on SCCP Controlled Analog Endpoints	<p>Adds Multilevel Priority and Preemption (MLPP) support of supplementary services such as Call Hold, Call Forwarding, Call Transfer, Call Pickup, Conferencing, Call Waiting, and Cancel Call Waiting.</p> <p>MLPP service allows validated users to place priority calls and, if necessary, to preempt lower-priority calls.</p>	<p>See the documentation for your call-control system:</p> <ul style="list-style-type: none"> • Cisco Unified Communications Manager Maintain and Operate Guides • Cisco Unified CME System Administrator Guide
15.1(1)T 15.0(1)XA	Cancel Call Waiting	Adds FAC for Cancel Call Waiting feature.	Cancel Call Waiting
15.0(1)M	Flexible FACs in Feature Mode	Allows you to configure 1 to 4-character feature access codes (FACs) for accessing supplementary features that are supported in feature mode.	Configuring Feature Mode
12.4(20)YA	CallBack on Busy for Analog Phones	Provides callback notification when a busy called line becomes free. This feature is supported on analog SCCP endpoints in Cisco Unified Communications Manager only.	Configuring CallBack on Busy

Table 1 *Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Cisco IOS Release (continued)*

Releases	Feature Name	Feature Information	Where Documented
12.4(20)YA	Call Hold/Resume for Shared Lines for SCCP Analog Ports	Enables an analog phone on a shared line to use hookflash to hold and resume an active call. This feature is supported on analog SCCP endpoints in Cisco Unified Communications Manager only.	Configuring Call Hold/Resume for Shared Lines
	DC Voltage Based VMWI for SCCP Controlled Analog Ports	Notifies user on certain analog phones that support a DC voltage-controlled MWI lamp that there are messages waiting.	Configuring DC Voltage Based VMWI for SCCP Controlled Analog Ports
	Flexible Feature Access Codes	Allows you to configure 2 to 4-character feature codes for Feature Access Codes (FACs) and the speed-dial code for Redial so that phone users are not required to dial the prefix before dialing a feature code.	Flexible Feature Access Codes
	SCCP Meet-Me Conference	User on an analog SCCP phone can start or join a meet-me conference call.	SCCP Meet-Me Conference
	SIP Supplementary Features	Enables SIP supplementary features on analog FXS ports on a Cisco ISR or Cisco VG224 and under the control of Cisco Unified Communications Manager, including: <ul style="list-style-type: none"> • Call Hold/Resume • Three Way Calling • Call Transfer • Call Waiting. 	“Configuring SIP Support for Hookflash” module of the Cisco IOS SIP Configuration Guide, Release 12.4T
12.4(20)T 12.4(11)XW	Media Encryption (SRTP) on Cisco Unified CME	Provides secure voice call capabilities including secure Cisco VG224.	Configuring Secure Signaling and Media Encryption for the Cisco VG224

Table 1 *Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Cisco IOS Release (continued)*

Releases	Feature Name	Feature Information	Where Documented
12.4(11)T 12.4(6)XE	Feature Mode for SCCP FXS Ports in Cisco IOS	Enables feature mode call control on analog FXS ports on Cisco voice gateways and under the control of Cisco Unified Communications Manager or Cisco Unified CME.	Configuring Feature Mode
	DTMF Relay, Fax Relay, and Modem Relay for SCCP FXS Ports in Cisco IOS	Enhances the transmission of DTMF digits, faxes and modems between SCCP FXS ports on Cisco voice gateways. DTMF digit transmission is supported by using RFC 2833. Cisco Fax Relay, Cisco T.38 Fax Relay, and Cisco Modem Relay are supported using Names Signaling Events (NSE).	Configuring DTMF Relay, Fax Relay, and Modem Relay
	SCCP Gateway Dial Tone Generation After Remote Onhook	Provides PBX interoperability by enabling configurable automatic dial tone capability after remote call disconnect.	Configuring SCCP Gateway Dial Tone Generation After Remote Onhook
	Hookflash Duration	Enables modification of the upper limit of the hookflash duration range for an analog FXS port.	Hookflash Duration
	SCCP Gateway Ground Start FXS Ports	Converts loop-start FXS ports to ground start to support power denial-based supervisory disconnect capability.	Ground Start FXS Ports as SCCP Analog Endpoints
12.4(9)T	SCCP PLAR with DTMF Out-Pulse Digits for FXS Analog Phones	Adds private line automatic ring-down (PLAR) support and enhanced speed-dial capabilities for SCCP analog ports on a Cisco voice gateway.	PLAR with DTMF Out-Pulse Digits
	Supervisory Disconnect	Provides a disconnect indication to the remote party in a two-party call after one side disconnects and enables external applications connected to the Cisco voice gateway to promptly clear a call after receiving the disconnect indication.	Configuring Supplementary Features
12.4(6)T	Enhanced Speed Dial on SCCP Analog Phones	Allows you to define two-digit speed-dial codes for accessing up to 99 local speed-dial numbers configured on the call-control device.	Enhanced Speed Dial on SCCP Analog Phones
12.4(2)T	SCCP Controlled Analog (FXS) Ports with Supplementary Features in Cisco IOS Gateways	Enables supplementary features on SCCP-controlled analog FXS ports on a Cisco ISR or Cisco VG224.	Configuring Supplementary Features

Table 2 Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Feature Name

Feature Name	Releases	Feature Information	Where Documented
CallBack on Busy for Analog Phones	12.4(20)YA	Provides callback notification when a busy called line becomes free. This feature is supported on analog SCCP endpoints in Cisco Unified Communications Manager only.	Configuring CallBack on Busy
CallBack on No Answer for Analog Phones	15.1(3)T	Provides CallBack notification when a called phone becomes available. This feature is supported on analog SCCP endpoints in Cisco Unified CM only.	Configuring CallBack on No Answer for Analog Phones
Call Hold/Resume for Shared Lines for SCCP Analog Ports	12.4(20)YA	Enables an analog phone on a shared line to use hookflash to hold and resume an active call. This feature is supported on analog SCCP endpoints in Cisco Unified Communications Manager only.	Configuring Call Hold/Resume for Shared Lines
Cancel Call Waiting	15.1(1)T 15.0(1)XA	Adds FAC for Cancel Call Waiting feature.	Cancel Call Waiting
cBarge for Shared Lines	15.1(3)T	Allows idle IP or analog phones that are connected to the same FXS ports on a Cisco VG2nn Analog Gateway to automatically join already active calls on the same shared lines by simply going offhook. This feature is supported in Cisco Unified CM only.	Configuring cBarge and Privacy for Shared Lines
Configurable AMWI and VMWI	15.1(3)T	Allows users to configure AMWI only, VMWI only, or both.	Configuring AMWI and VMWI
Configurable Call Waiting Tone Cadence	15.1(3)T	Allows the call waiting tone to continuously play when the called party has not switched to the new call and the new caller has not hung up.	Configuring Call Waiting Tone Cadence
DC Voltage Based VMWI for SCCP Controlled Analog Ports	12.4(20)YA	Notifies user on certain analog phones that support a DC voltage-controlled MWI lamp that there are messages waiting.	Configuring DC Voltage Based VMWI for SCCP Controlled Analog Ports
DTMF Relay, Fax Relay, and Modem Relay for SCCP FXS Ports in Cisco IOS	12.4(11)T 12.4(6)XE	Enhances the transmission of DTMF digits, faxes and modems between SCCP FXS ports on Cisco voice gateways. DTMF digit transmission is supported by using RFC 2833. Cisco Fax Relay, Cisco T.38 Fax Relay, and Cisco Modem Relay are supported using Names Signaling Events (NSE).	Configuring DTMF Relay, Fax Relay, and Modem Relay
Enhanced Serviceability	15.1(3)T	Provides line measurement and connectivity check support for analog voice ports.	Implementing Enhanced Serviceability
Enhanced Speed Dial on SCCP Analog Phones	12.4(6)T	Allows you to define two-digit speed-dial codes for accessing up to 99 local speed-dial numbers configured on the call-control device.	Enhanced Speed Dial on SCCP Analog Phones
Feature Mode for SCCP FXS Ports in Cisco IOS	12.4(11)T 12.4(6)XE	Enables feature mode call control on analog FXS ports on Cisco voice gateways and under the control of Cisco Unified Communications Manager or Cisco Unified CME.	Configuring Feature Mode
Flexible FACs in Feature Mode	15.0(1)M	Allows you to configure 1 to 4-character feature access codes for accessing supplementary features that are supported in feature mode.	Configuring Feature Mode

Table 2 *Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Feature Name (continued)*

Feature Name	Releases	Feature Information	Where Documented
Flexible Feature Access Codes	12.4(20)YA	Allows you to configure 2 to 4-character feature codes for Feature Access Codes (FACs) and the speed-dial code for Redial so that phone users are not required to dial the prefix before dialing a feature code.	Flexible Feature Access Codes
Hookflash Duration	12.4(11)T 12.4(6)XE	Enables modification of the upper limit of the hookflash duration range for an analog FXS port.	Hookflash Duration
Media Encryption (SRTP) on Cisco Unified CME	12.4(20)T 12.4(11)XW	Provides secure voice call capabilities including secure Cisco VG224.	Configuring Secure Signaling and Media Encryption for the Cisco VG224
Media Renegotiation	15.1(3)T	Enhances the STCAPP state machine to support any of the most possible sequences of the media setup messages.	Media Renegotiation
MLPP Support for Supplementary Services on SCCP Controlled Analog Endpoints	15.1(1)T 15.0(1)XA	Adds Multilevel Priority and Preemption (MLPP) support of supplementary services such as Call Hold, Call Forwarding, Call Transfer, Call Pickup, Conferencing, Call Waiting, and Cancel Call Waiting. MLPP service allows validated users to place priority calls and, if necessary, to preempt lower-priority calls.	See the documentation for your call-control system: <ul style="list-style-type: none"> • Cisco Unified Communications Manager Maintain and Operate Guides • Cisco Unified CME System Administrator Guide
Privacy for Shared Line Phones	15.1(3)T	Disallows other users to cBarge into active calls on the same FXS ports on a Cisco VG2nn Analog Gateway. This feature is supported in Cisco Unified CM only.	Configuring cBarge and Privacy for Shared Lines
SCCP Gateway Dial Tone Generation After Remote Onhook	12.4(11)T 12.4(6)XE	Provides PBX interoperability by enabling configurable automatic dial tone capability after remote call disconnect.	Dial Tone Generation after Remote Onhook
SCCP Gateway Ground Start FXS Ports	12.4(11)T 12.4(6)XE	Converts loop-start FXS ports to ground start to support power denial-based supervisory disconnect capability.	Ground Start FXS Ports as SCCP Analog Endpoints
Secure SCCP Analog Endpoints over TLS with Cisco Unified Communications Manager	15.1(3)T	Enhances STCAPP FXS security analog endpoints through secure signaling and media encryption using TLS. This feature is supported for analog SCCP endpoints that are controlled by the Cisco Unified CM only.	Configuring Secure SCCP Analog Endpoints over TLS with Cisco Unified Communications Manager
Single Number Reach for Analog Phones	15.1(3)T	Enables incoming calls to analog phones connected to Cisco gateway FXS ports to be received on predefined alternate telephone numbers.	Configuring Single Number Reach for Analog Phones

Table 2 Feature Information for Supplementary Services Features for Analog FXS Ports on Cisco Voice Gateways, by Feature Name (continued)

Feature Name	Releases	Feature Information	Where Documented
SIP Supplementary Features	12.4(20)YA	Enables SIP supplementary features on analog FXS ports on a Cisco ISR or Cisco VG224 and under the control of Cisco Unified Communications Manager, including: <ul style="list-style-type: none"> • Call Hold/Resume • Three Way Calling • Call Transfer • Call Waiting. 	“Configuring SIP Support for Hookflash” chapter of the Cisco IOS SIP Configuration Guide, Release 12.4T
SCCP Meet-Me Conference	12.4(20)YA	User on an analog SCCP phone can start or join a meet-me conference call.	SCCP Meet-Me Conference
SCCP PLAR with DTMF Out-Pulse Digits for FXS Analog Phones	12.4(9)T	Adds private line automatic ring-down (PLAR) support and enhanced speed-dial capabilities for SCCP analog ports on a Cisco voice gateway.	PLAR with DTMF Out-Pulse Digits
Supervisory Disconnect	12.4(9)T	Provides a disconnect indication to the remote party in a two-party call after one side disconnects and enables external applications connected to the Cisco voice gateway to promptly clear a call after receiving the disconnect indication.	Configuring Supplementary Features

Additional References

The following sections provide references related to supplementary features for analog phones connected to FXS ports on a Cisco voice gateway.

Related Documents

Related Topic	Document Title
Cisco Unified Communications Manager	Cisco Unified Communications Manager
Cisco Unified Communications Manager Express	Cisco Unified Communications Manager Express
Cisco IOS debugging	Cisco IOS Debug Command Reference
Cisco IOS voice commands	Cisco IOS Voice Command Reference
Cisco IOS voice configuration	Cisco IOS Voice Configuration Library

Related Topic	Document Title
Cisco voice gateway	<ul style="list-style-type: none"> • <i>Cisco VG200 Series Gateways</i> • <i>Cisco 1800 Series Integrated Services Routers</i> • <i>Cisco 2800 Integrated Services Routers</i> • <i>Cisco 3800 Series Integrated Services Routers</i> • <i>Cisco Unified 500 Series for Small Business</i>
Conferencing and transcoding resources	<ul style="list-style-type: none"> • “Configuring Enhanced Conferencing and Transcoding for Voice Gateway Routers” chapter in the <i>Cisco Unified CallManager and Cisco IOS Interoperability Guide</i>. • <i>Cisco CallManager and IOS Gateway DSP Farm Configuration Example</i>

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/techsupport