



Overview of Supplementary Services Features for FXS Ports on Cisco Voice Gateways

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This guide contains information and tasks for configuring supplementary service feature capabilities for analog phones connected to Foreign Exchange Station (FXS) ports on Cisco Integrated Services Routers (ISRs) or Cisco VG224 Analog Phone Gateways, including call transfer and forward, conferencing, caller ID, speed dial and redial, and more.

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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.

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Information About Supplementary Services Features for FXS Ports on Cisco Voice Gateways

To enable supplementary services feature capabilities for analog phones connected to FXS ports on Cisco voice gateways, you should understand the following concepts:

- [Cisco Voice Gateway Interoperability with Cisco Unified Communications Manager or Cisco Unified CME](#), page 56
- [Supported Gateways, Modules, and Voice Interface Cards](#), page 57

Cisco Voice Gateway Interoperability with Cisco Unified Communications Manager or Cisco Unified CME

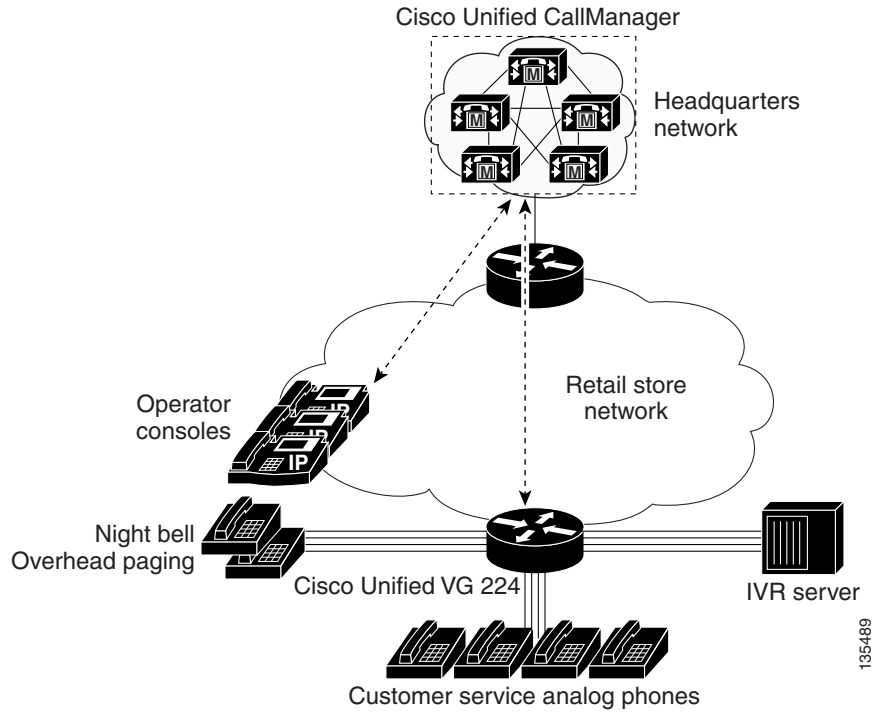
A standard telephone can be directly connected to a FXS port which supplies the ring feature, voltage, and the dial tone. Cisco IOS Release 12.4(2)T and later releases provide supplementary feature capabilities for analog phones connected to FXS ports on a Cisco ISR or Cisco VG224.

Calls through analog FXS ports are controlled by a Cisco call-control system, such as Cisco Unified Communications Manager or Cisco Unified CME. The SCCP telephony control (STC) application on the Cisco voice gateway functions as a proxy to translate call-control messages between the Cisco call-control system and the Cisco voice gateway.

The STC application identifies locally attached analog telephones as individual endpoints to the call-control system, which allows the analog phones to be controlled in the same way as IP phones. With this capability, organizations such as retailers are able to connect traditional analog telephones to a Cisco voice gateway and share the same telephony features that are available on IP phones directly connected to Cisco Unified Communications Manager or Cisco Unified CME.

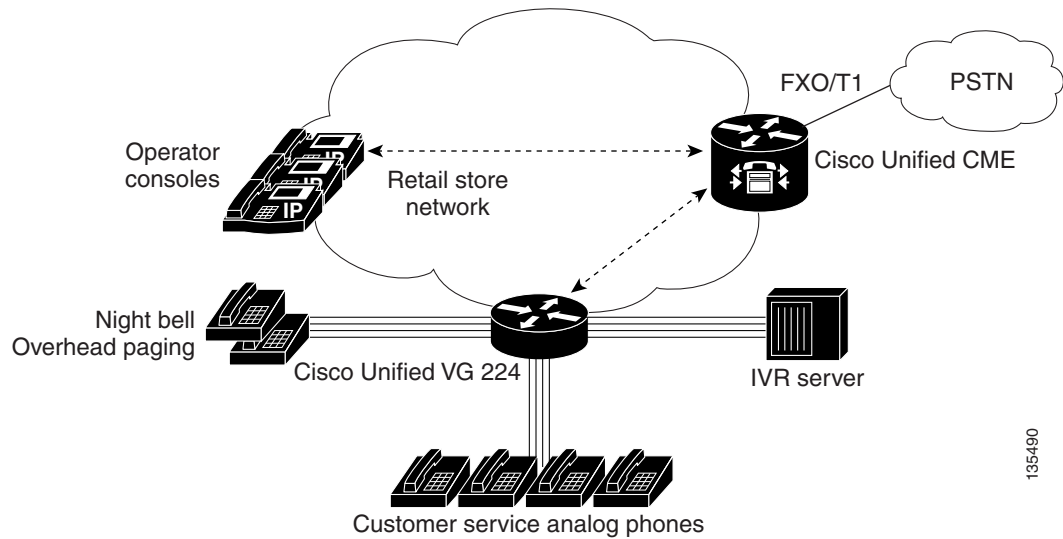
[Figure 1](#) shows analog phones connected through the Cisco voice gateway to a remote Cisco Unified Communications Manager system. [Figure 2](#) shows analog phones connected through the voice gateway to a local Cisco Unified CME router.

Figure 1 *Analog Endpoints Managed by Cisco Unified Communications Manager*



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Figure 2 *Analog Endpoints Managed by Cisco Unified CME*



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Supported Gateways, Modules, and Voice Interface Cards

Table 3 lists Cisco voice gateways, modules, and voice interface cards (VICs) on which supplementary services for FXS ports are supported.



Note

Not all supplementary feature capabilities for FXS ports are supported on all gateways, modules, and VICs. If a feature is not supported on a certain hardware configuration, it is specified in the module for that feature.

Table 3 Supported Gateways, Modules, and VICs

Supported Gateways	Supported Extension Modules	Supported Network Modules and Expansion Modules	Supported VICs
<ul style="list-style-type: none"> • Cisco 1861 	—	<ul style="list-style-type: none"> • HWIC-1T1/E1 	—
<ul style="list-style-type: none"> • Cisco 2801 • Cisco 2811 • Cisco 2821 • Cisco 2851 • Cisco 3825 • Cisco 3845 	—	<ul style="list-style-type: none"> • NM-HD-1V • NM-HD-2V • NM-HD-2VE 	<ul style="list-style-type: none"> • VIC2-2FXS • VIC-4FXS/DID • VIC2-2BRI-NT/TE
<ul style="list-style-type: none"> • Cisco 2801 • Cisco 2821 • Cisco 2851 • Cisco 3825 • Cisco 3845 	<ul style="list-style-type: none"> • EVM-HD 	<ul style="list-style-type: none"> • EVM-HD-8FXS/DID • EM-3FXS/4FXO • EM-HDA-8FXS • EM-4BRI-NT/TE 	—
<ul style="list-style-type: none"> • Cisco 2801 • Cisco 2811 • Cisco 2821 • Cisco 2851 • Cisco 3825 • Cisco 3845 	—	<ul style="list-style-type: none"> • NM-HDV2 • NM-HDV2-1T1/E1 • NM-HDV2-2T1/E1 	<ul style="list-style-type: none"> • VIC2-2FXS • VIC-4FXS/DID • VIC2-2BRI-NT/TE
<ul style="list-style-type: none"> • Cisco Unified 500 Series 	—	—	<ul style="list-style-type: none"> • VIC3-2FXS/DID* • VIC-4FXS/DID* • VIC3-4FXS/DID* • VIC2-2BRI-NT/TE*
<ul style="list-style-type: none"> • Cisco VG224 	—	—	—

* Factory option. Only one optional VIC can be factory-installed in a Cisco Unified 500 Series.

Additional References

The following sections provide references related to support for supplementary services on FXS ports on the 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
Cisco voice gateway	<ul style="list-style-type: none"> • Cisco VG200 Series Gateways • Cisco 1800 Series Integrated Services Routers • Cisco 2800 Integrated Services Routers • Cisco 3800 Series Integrated Services Routers • Cisco Unified 500 Series for Small Business
Conferencing and transcoding resources	<ul style="list-style-type: none"> • “Configuring Enhanced Conferencing and Transcoding for Voice Gateway Routers” chapter in the Cisco Unified CallManager and Cisco IOS Interoperability Guide. • Cisco CallManager and IOS Gateway DSP Farm Configuration Example

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

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.