Cisco IOS Tcl IVR and VoiceXML Feature Roadmap

This guide collects together in one place information about Cisco IOS voice features having to do with Cisco IOS Tcl IVR and VoiceXML. It is written for developers and network administrators who are installing, configuring, and maintaining a Tcl or VoiceXML application on a Cisco voice gateway. This guide describes the tasks related to the Cisco IOS software implementation of these applications. It contains the following:

Module	Description
Overview of Cisco IOS Tcl IVR and VoiceXML Applications	Overview of the features, summarizes supported platforms, standards, MIBs, and RFCs, lists related features and documentation, and contains restrictions and prerequisites.
Configuring Basic Functionality for Tcl IVR and VoiceXML Applications	Basic steps for configuring Tcl and VoiceXML applications on the Cisco gateway.
Configuring Audio File Properties for Tcl IVR and VoiceXML Applications	Steps for configuring language modules and location of dynamic prompts, streaming of audio files, and recording limits.
Configuring VoiceXML Voice Store and Forward	Steps for configuring the VoiceXML Voice Store and Forward feature.
Configuring ASR and TTS Properties	Steps for implementing speech recognition and speech synthesis for voice applications.
Configuring Fax Detection for VoiceXML	Steps for configuring the Fax Detection for VoiceXML feature.
Configuring Media Inactive Call Detection (Silent Call Detection)	Steps for configuring the Media Inactive Call Detection (Silent Call Detection) feature.
Configuring Telephony Call-Redirect Features	Steps for configuring call transfer, Release-to-Pivot (RTPvt), and ISDN Two B-Channel Transfer (TBCT).
Configuring Tcl IVR 2.0 Session Interaction	Steps for starting instances of Tcl IVR 2.0 applications.
Configuring SIP and TEL URL Support	Steps for enabling voice applications to match incoming calls and place outbound calls to a Session Initiation Protocol (SIP) or telephone (TEL) URL.

Monitoring and Troubleshooting Voice Applications	Steps for using event logs and statistics introduced in the Voice Application Monitoring and Troubleshooting Enhancements feature to enable detailed monitoring of voice application instances and call legs.
	Support for MGCP scripting.

This chapter describes how to access Cisco Feature Navigator. It also lists and describes, by Cisco IOS release, Cisco IOS Tcl IVR and VoiceXML features for that release.

Note   For information about the full set of Cisco IOS voice features, see the entire Cisco IOS Voice Configuration Library—including library preface, glossary, and other documents—at http://www.cisco.com/en/US/docs/ios/12_3/vvf_c/cisco_ios_voice_configuration_library_glossary/vcl.htm

Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at http://www.cisco.com/go/fn. You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click **Cancel** at the login dialog box and follow the instructions that appear.

Cisco IOS Tcl IVR and VoiceXML Feature List

Table 1-1 lists Cisco Tcl IVR and VoiceXML features by Cisco IOS release. Features that are introduced in a particular release are available in that and subsequent releases.

Note   For releases earlier than Cisco IOS Release 12.3(14)T, see the previous version of the *Cisco Tcl IVR and VoiceXML Application Guide* at: http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/products_administration_guide_book09186a00804436fd.html

Table 1-1   Cisco IOS Tcl IVR and VoiceXML Features by Cisco IOS Release

Release	Features Introduced in That Release[1]	Feature Description	Feature Documentation
15.4(1)T	Enhanced VoiceXML	Provides support to prevent call loops.	Configuring VoiceXML with the SIP Phone
12.1(3)T	Tcl IVR Version 2.0	Tcl IVR Version 2.0 was introduced.	Configuring Basic Functionality for Tcl IVR and VoiceXML Applications
12.2(2)T	Enhanced Multi-Language Feature	Provides support for multiple languages for Tcl IVR.	Configuring Audio File Properties for Tcl IVR and VoiceXML Applications

Table 1-1   Cisco IOS Tcl IVR and VoiceXML Features by Cisco IOS Release (continued)

Release	Features Introduced in That Release[1]	Feature Description	Feature Documentation
12.2(2)XB	VoiceXML for Cisco IOS	Provides support for VoiceXML documents on Cisco IOS platforms.	Configuring Basic Functionality for Tcl IVR and VoiceXML Applications
	Fax Detection for VoiceXML	Provides support for fax detection on the Cisco IOS VoiceXML gateway to determine which calls are voice or fax.	Configuring Fax Detection for VoiceXML
	VoiceXML Record Element	Provides support for the VoiceXML 1.0 <record> element for recording speech to a choice of four destinations, including local memory on the Cisco gateway.	Configuring Audio File Properties for Tcl IVR and VoiceXML Applications
12.2(11)T	VoiceXML Voice Store and Forward	Allows streaming-based voice recording and playback features for various media.	Configuring VoiceXML Voice Store and Forward
	Speech Recognition and Synthesis for Voice Applications	Provides support for automatic speech recognition (ASR) and text-to-speech (TTS) capabilities for VoiceXML and Tcl applications on Cisco voice gateways.	Configuring ASR and TTS Properties
	VoiceXML Media Volume and Rate Controls	Provides controls for the rate and volume of prompts during playback by using Cisco attributes in the VoiceXML document.	Configuring Audio File Properties for Tcl IVR and VoiceXML Applications
12.3(1)	Voice Application Call Control Enhancements	Provides RTPvt, TBCT, and GTD support.	Configuring Telephony Call-Redirect Features
12.3(4)T	Tcl IVR 2.0 Session Interaction	Allows different instances of Tcl IVR applications (sessions) to communicate with other sessions on the same gateway and for applications to dynamically bridge call legs between different sessions	Configuring Tcl IVR 2.0 Session Interaction
	SIP and TEL URL Support	Enables Cisco gateways to direct incoming calls to a voice application based on the URL and Tcl IVR 2.0 and VoiceXML applications to place outbound calls to a Session Initiation Protocol (SIP) or telephone (TEL) URL.	Configuring Tcl IVR 2.0 Session Interaction

Table 1-1   Cisco IOS Tcl IVR and VoiceXML Features by Cisco IOS Release (continued)

Release	Features Introduced in That Release[1]	Feature Description	Feature Documentation
12.3(8)T	Voice Application Monitoring and Troubleshooting Enhancements	Enables detailed monitoring of voice application instances and call legs.	Monitoring and Troubleshooting Voice Applications
	Voice Application HTTP Client Cookie Support	Implements HTTP cookie support for Cisco IOS VoiceXML applications.	Configuring Basic Functionality for Tcl IVR and VoiceXML Applications
	ETSI Call Transfer	Provides support for European Telecommunications Standards Institute (ETSI) explicit call transfer functionality on Cisco IOS gateways.	ETSI Call Transfer
12.3(14)T	New Cisco Voice Application Command-Line Interface Structure	Implements a new command-line interface structure for configuring Tcl and IVR applications.	Cisco IOS Release 12.3(14)T and Later Releases Voice Application CLI Structure Changes
	New Cisco Voice Application Command-Line Interface Structure	Implements a new command-line interface structure for configuring Tcl and IVR applications.	Cisco IOS Release 12.3(14)T and Later Releases Voice Application CLI Structure Changes
	HTTP Client API for Tcl IVR	Provides support for Tcl IVR applications to retrieve data from or post data to an HTTP server.	*Tcl IVR API Version 2.0 Programmer's Guide*
	Support for Additional Tcl 8.3.4 Commands	Provides support for additional Tcl 8.3.4 commands.	*Tcl IVR API Version 2.0 Programmer's Guide*
12.4(4)T	Media Inactive Call Detection (Silent Call Detection)	Enhances Cisco IOS behavior for detection and monitoring calls before disconnecting when an inactive condition is detected.	Cisco IOS Release 12.3(14)T and Later Releases Voice Application CLI Structure Changes
12.4(11)T	VoiceXML 2.0	Provides support for the *VoiceXML Version 2.0* W3C Recommendation (March 16, 2004) on Cisco IOS voice gateway VoiceXML browsers.	Configuring Basic Functionality for Tcl IVR and VoiceXML Applications
12.4(15)T	VoiceXML 2.1	Provides support for the *VoiceXML Version 2.1* W3C Candidate Recommendation (June 13, 2005) on Cisco IOS voice gateway VoiceXML browsers.	Configuring Basic Functionality for Tcl IVR and VoiceXML Applications

1. Features that are introduced in a particular release are available in that and subsequent releases.