GVP Deployment Guide

CTI Connector

5/13/2025

CTI Connector

The CTI Connector supports two modes of CTI deployments Genesys CTI and Cisco CTI integration. A single instance of CTI Connector can support either Genesys CTI or Cisco CTI integration, which can be selected by the user during installation.

In both the deployment, the CTI Connector offers functions, such as the ability to obtain call related information (for example, ANI, DNIS), read or attach call data, play treatments to the caller, and transfer the call to the agent.

For more information about the role of the CTI Connector in the VPS and functionality offered by Management Framework, see the Genesys Voice Platform Solution 8.1 Integration Guide.

This section provides an overview of:

- CTI Connector Role
- CTI Connector Functions

CTI Connector Role

The CTI Connector acts as a SIP B2B UA to provide a SIP interface to the GVP components and it communicates with CTI by using the following protocols and interfaces:

- XML over TCP/IP with Genesys IVR Server
- GED-125 interface over TCP/IP with Cisco ICM.

The CTI Connector acts as a border element within GVP, interfacing with the CTI network on one side, and through the Resource Manager, interacts with theMedia Control Platform on the other side.

Third-party components do not use the CTI Connector directly. The CTI Connector supports both NGI and GVPi when it is integrated with IVR Server, however, when CTI Connector is integrated with Cisco ICM, only NGI is supported.

CTI Connector Functions

This section describes the various CTI Connector functions when integrated with IVR Server and Cisco ICM.

Resource Selection

CTI sessions receive special handling from the Resource Manager. For example, requests from the Media Control Platform are sent to the same CTI Connector that was used to establish the call. In addition, when the CTI Connector attempts a transfer, the Resource Manager sends the request to the same gatewayfrom which the call originated. The behavior is described as follows:

- If an incoming call is received from a gateway, and the use-cti configuration option in the Gateway group is set to 1, the Resource Manager identifies the CTI Connector resource group (not an IVR Profile) to provide the service.
- If an incoming call is from a gateway and if `use-cti = 2`, then Resource Manager maps an IVR Profile, extracts the CTI service parameters that are configured in the profile and forwards these parameters in the INVITE message that is sent to the CTI Connector.
- If `use-cti = 0`, the Resource Manager does not treat the incoming call as a CTI call and proceeds with the DNIS-to-IVR Profile mapping.

SIP Back-to-Back User Agent

The CTI Connector acts as a SIP B2BUA. It remains in the call signaling path, and receives inbound calls through the Resource Manager or receive soutbound-call requests (transfers) from the Media Control Platform (through the Resource Manager). The CTI Connector intercepts SIP messages that are intended for itself, and acts as a pass-through for SIP messages that are intended for other SIP endpoints in the call.

Call Treatments

Call handling is determined by the interaction between the CTI Connector and the ICM framework. Treatments are used to start and control external applications. These applications then process calls that return the data that is used to route the call. For example, if the ICM framework specifies a particular treatment for a call, the CTI Connector can translate that treatment into a request for a specific Media Control Platform service.

IVR Server Integration

- The CTI Connector can also route calls to, and receive instructions from, Universal Routing Server (URS). The CTI Connector supports the following URS treatments for both the NGI and the GVPi:
  - Play Application
    - For NGI, the specific VXML application to be played can be mentioned in the main VXML application; it is then passed in the INVITE to RM/MCP as the APP_URL.
    - For GVPi, used to invoke specific branching from the IVR script.
  - Play Announcement Used to play an announcement for the caller.
  - Play Announce and Collect Digits Used to play an announcement for and collect digits from the caller.
  - Music Used to play a `.vox` or `.wav` file.

Cisco ICM Integration

- The CTI Connector supports the following treatment for NGI:
  - Script Execution Used to invoke specific branching from the IVR application, based on the script ID that is received.

Transfers for CTI Connector with IVR Server

The CTI Connector supports three types of transfers:

- Blind transfers through the GVP platform.
- Blind transfers through the CTI framework (using OneStepXfer)
- Bridge transfers through the GVP platform

> **Tip**
> CTI transfers are supported when the CTI Connector is deployed in behind-the-switch mode only.

Blind transfers can occur in one of two ways:

- **Through the CTI framework**—Used in VoIP and TDM environments, but blind transfers only and supported when IVR Server is in behind mode (behind-the-switch) only.
- **Through GVP**—The CTI Connector is acting as a SIP B2BUA. This transfer is supported when IVR Server is in any mode (in-front, behind, or network).

For information about how the CTI Connector can be configured to interact with IVR Server, see the Voice Platform Solution 8.1 Integration Guide.

Transfers for CTI Connector with Cisco ICM

GVP performs blind and bridge transfers, based on the mode of operation, as follows:

- In SCI mode, it performs a blind or bridge transfer, based on the IVR Profile parameter. The CTI Connector checks the IVR Profile scti.icm.enableBridgeXfer configuration option value, to identify the type of transfer. If this option is enabled, the CTI Connector uses the BRIDGE transfer; if not enabled the CTI Connector uses the BLIND transfer.
- In CRI mode, it performs a blind or bridge transfer, based on the VoiceXML application

> **Tip**
> GVP supports three types of transfers: blind, bridge, and consultation. However, CTI Connector supports the two: blind and bridge transfers only.

For more information about blind and bridge transfers, see Transfers.