Agent Interaction SDK Services Developer Guide

About Agent Interaction SDK Services

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About Agent Interaction SDK Services

The Agent Interaction Services Libraries product provides developers with the services of the Agent Interaction SDK, as well as developer essentials (such as documentation and code examples) to assist you in creating an agent application capable of handling interactions of all media types.
To run any agent applications developed with this SDK, you need to install the Genesys Integration Server (GIS), which exposes the Agent Interaction Services.

Overview

To develop successful client applications with the Agent Interaction SDK, you can:

- Use the microsoft .NET Framework SDK version 2.0, 3.5, 4.0 & 4.5 to create a C# based application.
- Use the Apache AXIS toolkit version 1.4 to create stubs for a Java-based application.
- Your applications might have some of the following purposes:
- A contact center agent desktop application to let agents interact with Genesys software and handle interactions processed by the contact center.
- An application that integrates third-party software with Genesys software.
- Other applications specific to your needs.

Components

The Agent Interaction Services Libraries product includes the following components.

- The Agent Interaction Service Proxy Library for .NET—provides the .NET proxy that includes the SOAP protocol to communicate with GIS.
- The Agent Interaction Service Proxy Library for Java—provides the Java proxy that includes the SOAP protocol to communicate with GIS.
- The *Agent Interaction SDK 7.6 Services API Reference for the .NET Proxy* in CHM format, covering the Agent Interaction Services .NET API.
- The *Agent Interaction SDK 7.6 Services API Reference for the Java Proxy* in HTML format, covering the Agent Interaction Services Java API.
- This online *Developer's Guide*.

This set of components supports an application that lets you manage agent and interaction features, as well as services such as voice, outbound campaigns, and callback.
The Agent Interaction Service API is designed to allow development of applications that have specific requirements for the custom manipulation of particular service features. The communication protocol used to interact with GIS depends on the library that you use for your development.

Platform Requirements

The platform requirements for developing your application are a little different from those needed to use your application.

Development Platform

For .NET development:

- Microsoft .NET Framework SDK, version 2.0, 3.5, 4.0, and 4.5, available at http://msdn.microsoft.com/netframework/
- Microsoft Visual Studio

For Java development:

- Apache AXIS toolkit, version 1.4, available at http://xml.apache.org/axis/index.html
- Java Development Kit (JDK), version 1.7.

Production Runtime Platform

For .NET development:

- Microsoft .NET Framework, version 2.0, 3.5, 4.0, and 4.5, available at http://msdn.microsoft.com/netframework/

For Java development:

- Apache AXIS toolkit, version 1.4, available at http://xml.apache.org/axis/index.html
- Java Runtime Environment (JRE), version 1.7.

Scope of Use

Typical usage scenarios include:

- Managing agent activity:
  - Implement login and logout functionality.
  - Implement ready, not-ready, and after-call-work features.
- Handling voice interactions (depending on your switch's available features):
  - Make an outgoing call.
  - Answer an incoming call.
  - Hold and retrieve a call.
  - Transfer a call.

    - Alternate calls.
    - Initiate, enter, and leave a conference.
- Handling the callback feature:
    - Accept, reject, or cancel a request.
    - Accept and dial a callback request.
    - Reschedule the record.
- Handling e-mail:
    - Create and send an e-mail.
    - Answer an e-mail.
    - Transfer an e-mail.
    - Pull an e-mail from a workbin.
- Handling outbound campaigns:
    - Add a new record to the campaign.
    - Request a record.
    - Cancel a record.
    - Reject a record.
- Using the Standard Response Library:
    - Get standard responses.
    - Get standard response information about categories.
    - Get standard responses by category.
    - Manage favorite standard responses.
- Managing contacts:
    - Add a contact.
    - Remove a contact.
    - Modify contact information.
    - Search a contact.
- Using contact history information.
- Using the workbin features to store interactions:
    - Get the workbin’s queues and views.
    - Put an interaction in the Workbin.
- Using the system features to get options about the application used in the Configuration Layer.

Architecture

On the Genesys Interface Server side, the exposed services deal with the Genesys Framework and perform the client-side services' requests.

Service-Oriented Architecture

The Service-Oriented Architecture (SOA) is a specific type of distributed system in which features are exposed through services. When you use the Agent Interaction Service Libraries, you are dealing with service interfaces that do not manage anything locally. Each service defines a specific feature of your distributed system. Data management and actions are performed by GIS, and you are concerned only with the interface descriptions.

Multithreaded

The Agent Interaction Service Libraries are thread-safe and therefore your application can run in multithreaded environments. In particular, parallel threads can make calls to the same services' methods at the same time without encountering issues.

Synchronization

Your application establish a link with GIS, exposing the service which performs your client-application requests. The communication with GIS is synchronous.

Connectivity

Connections to Genesys servers are maintained by GIS. Your client-side application can be notified of servers' statuses, namely any loss of a connection.
GIS can maintain connections to multiple T-Servers.
GIS is designed to work in a single-tenant environment. It is possible to create a multi-tenant application, but all configuration layer objects that your application uses must be specified in the `Tenants` tab of the application, and these names must be unique.
For further information, refer to the*Genesys Integration Server 7.6 Deployment Guide* .

Framework Compatibility

GIS connects to the following Genesys servers in the Genesys Framework:

- Configuration Server—Configuration Server (and the Configuration Layer generally) stores configuration information such as application parameters, or objects description such as DNs, places, or persons. The library core monitors the configuration server to update modifications. The library provides full integration with Genesys Configuration Layer objects such as Agent, Place, and DN.
- T-Server—Genesys T-Servers handle telephony requests and events by communicating with switches.

> For voice-only mode, your application should connect with a Configuration Server, at least one T-Server, and, optionally, a Contact Server (included with Multimedia).

Supported switches (and their corresponding T-Servers) include: Nortel Meridian 1, Nortel Symposium, Alcatel 4400, Lucent G 3, Siemens Hicom, Genesys IP Media Exchange, Aspect, DMS 100, MD 110, and NEC Apex.

Genesys Multimedia Compatibility

GIS connects to the Genesys Multimedia components, such as Interaction Server and Universal Contact Server, and provides full multimedia support for e-mail, chat, and open media interactions. Connectivity to handle these interactions involves the following Multimedia components:

- Interaction Server—This server manages e-mail, chat, and open media interaction information along with the Genesys Framework.
- Chat Server—This server manages chat interactions between agents and web visitors.
- Universal Contact Server (UCS)—This database server is used to retrieve e-mails, history, and contact information. It also allows manipulation of the contact history and the standard response library. This server is optional for an application designed to run in voice-only configuration.

For e-mail handling, GIS should connect with a Configuration Layer, a UCS, and an Interaction Server (the last two included with Multimedia).
For chat handling, GIS should connect with a Configuration Layer, a Chat Server, a UCS, and an Interaction Server (the last three being included with Multimedia).
For open media interaction handling, GIS should connect with a Configuration Layer, a UCS, and an Interaction Server (the last two included with Multimedia).

Outbound Campaign Support

GIS also connects to the Genesys Outbound Solution:

- Outbound Campaign Server—This server controls and organizes outbound campaigns.

For Outbound Campaign handling, GIS should connect with a Configuration Layer, an Outbound Campaign Server, and at least one T-Server.

Voice Callback Support

GIS connects to the Genesys Universal Callback Solution:

- Callback Server—This server controls and organizes callback records.

For Voice Callback handling, GIS should connect with a Configuration Layer, a Callback Server, and at least one T-Server.