Genesys Pulse Deployment Guide

Pulse Architecture and Components

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Pulse Architecture and Components

Pulse is a Genesys Administrator Extension (GAX) plug-in application that enables at-a-glance views of real-time contact center statistics within the GAX graphical user interface. Pulse uses widgets to display user-defined List, Donut, Key Performance Indicator (KPI), or Grid charts of statistics for objects.

Using Pulse you can:

- Create widgets from predefined and user-defined templates for a fast and easy text or graphical presentation of selected or user-defined object statistics.

- Monitor the current state and activity of contact center objects to help make decisions about staffing, scheduling and call routing strategies.

Architecture

Pulse Architecture

Major aspects of Pulse are shown in the following Pulse Architecture diagram:
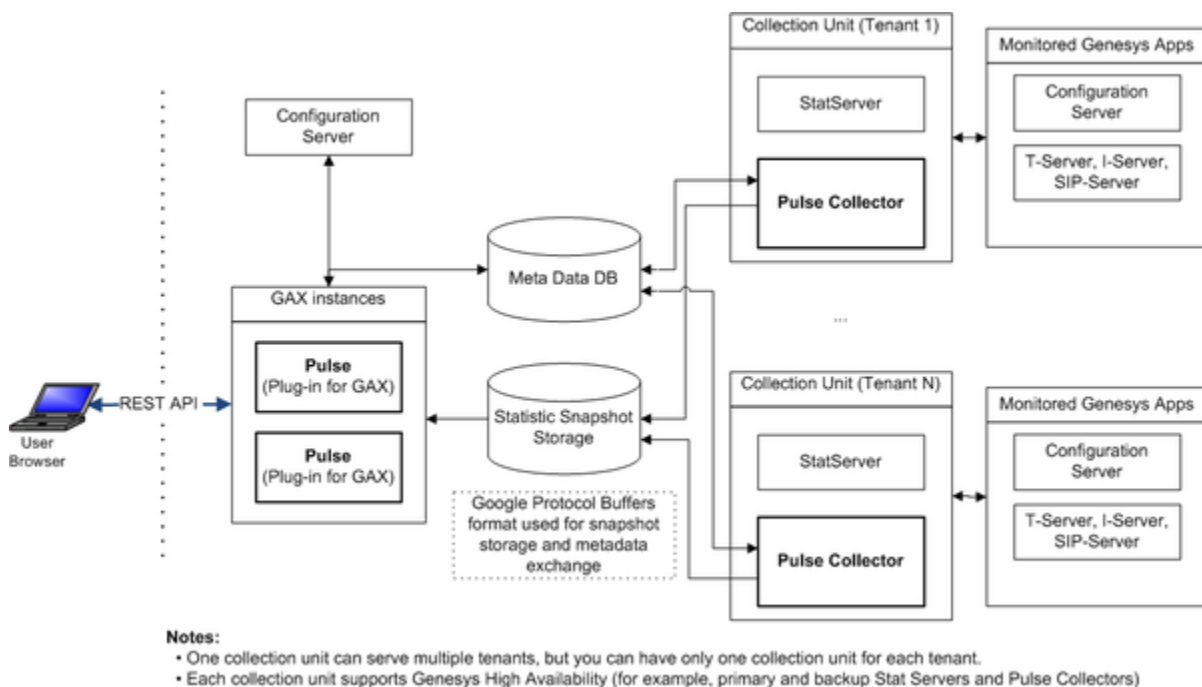
Pulse Collector

Pulse Collector is a background near-realtime statistical data collection and processing engine. It performs the following activities:

- Reads the metadata from the Pulse database upon startup and whenever changes are made to report definitions in Pulse.

- Uses the report definitions stored in the Pulse database to determine which statistics and objects to include.

- Creates snapshots with current data from Stat Server and formula-based statistics calculated by Pulse Collector, on the specified file system for reference by Pulse.

- Maintains a constant connection with Configuration Server to retrieve changes, additions, and deletions to configuration objects.

Pulse

Pulse is a GAX plug-in that performs the following activities:

- Handles user authentication and permissions validation.

- Filters and delivers report data according to the permissions and tenancy of the user who is requesting the data.

Displays report content in widgets, such as the listing and content of reports.

- Saves the report definitions to the Pulse Database, which it shares with Pulse Collector.

You can have only one Pulse application for each GAX instance. For configuration, Pulse requires a `[pulse]` section and is added to the options of the GAX Application object. Pulse must have its own database access point, but otherwise uses Management Framework and other connections from GAX.

Pulse uses the existing GAX client architecture, which is described in the Genesys Administrator Extension Deployment Guide.

See the Pulse User's Guide to learn how to operate this user interface. This is also accessible from within the software, when you click help.

Framework Components

Genesys Framework Components

Pulse interacts with several products within the Genesys Framework to provide real-time snapshots of contact center data.

Configuration Server

Configuration Server provides the following data to Pulse Collector:

- Information about the existence of contact center objects (for example, tenants, agents, places, calling lists, or campaigns)
- Statistical parameters (for example, time ranges, time profiles, filters, and statistical types)
- Information about changes to contact center objects (for example, a deleted agent, a renamed queue, or a new Agent Group).

Pulse Collector uses this data to provide content for Pulse.

Both Pulse and Pulse Collector connect to Configuration Server in order to retrieve their own configuration.

Stat Server

Stat Server tracks information about customer interaction networks consisting of one or more contact centers in conjunction with one or more computer networks. Stat Server receives information from one or more T-Server or SIP Server applications and converts the accumulated data for directory numbers, agents, agent groups, and so on, into statistical information.

As a client of Stat Server, Pulse Collector requests statistics for objects belonging to particular reports. Stat Server supplies both information about the interactions that the objects that handle as well as noninteraction-related data about the objects themselves (for example, agent status). Pulse Collector returns information for all `stattypes` that are configured in the options of all Stat Servers to which Collector is connected.

Refer to the Stat Server User's Guide and Stat Server Deployment Guide for information about Stat Server.

DB Server

DB Server is the Genesys component that handles database requests from multiple client processes. DB Server provides a single interface from the clients to a variety of database engines, including Microsoft SQL Server, Oracle and PostgreSQL. As a client of DB Server, Pulse Collector reads information about active widgets and updates the layout statuses, when layout status changes occur within the Pulse Collector.

Refer to the [Framework 8.1 DB Server User's Guide] for information about DB Server.