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# Genesys Web Services and Applications Private Edition Guide

Architecture

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Learn about Genesys Web Services and Applications architecture

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## Introduction

Genesys Web Services and Applications (GWS) is an application cluster composed of several microservices that run together.

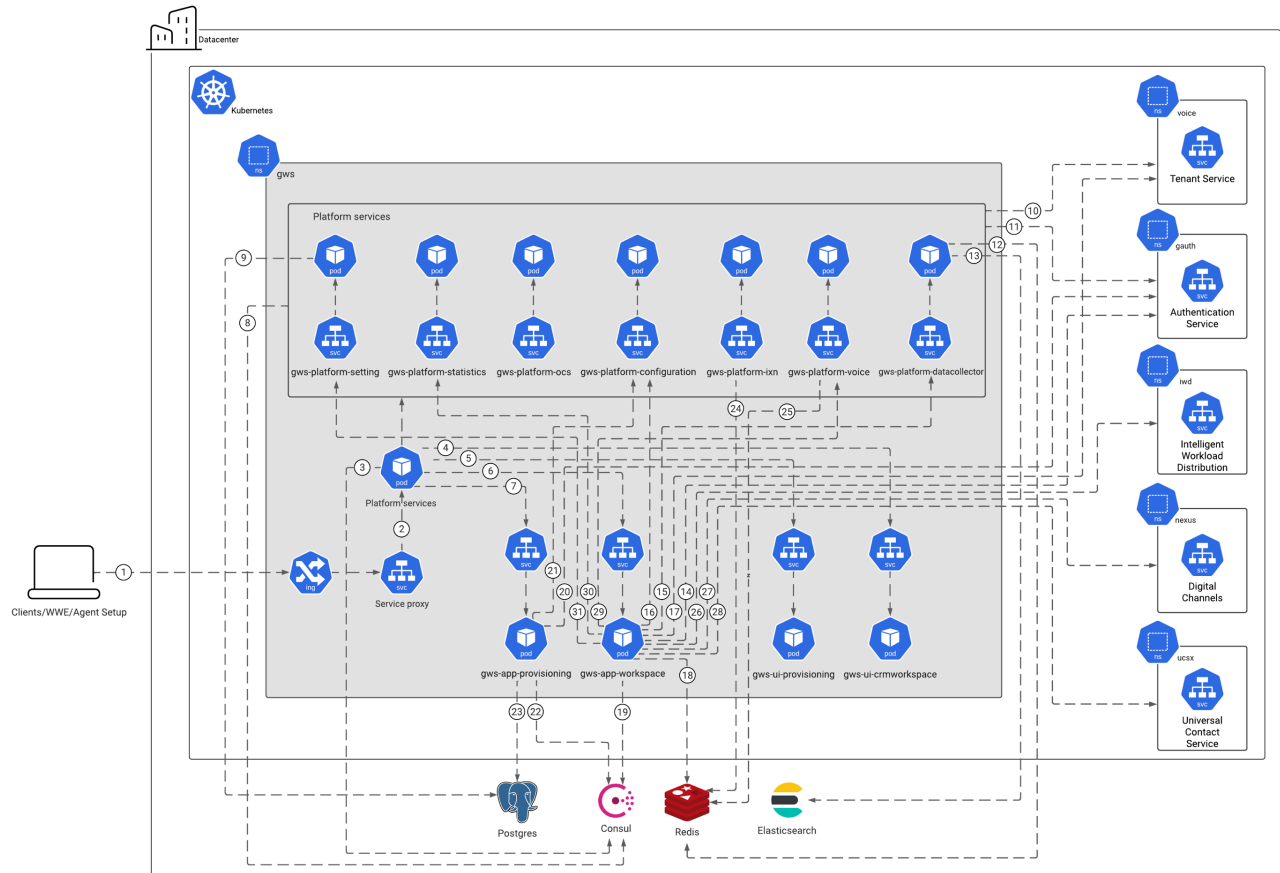
GWS runs on multiple containers as shown in the diagram below.

For information about the overall architecture of Genesys Multicloud CX private edition, see the [high-level Architecture](#) page.

See also [High availability and disaster recovery](#) for information about high availability/disaster recovery architecture.

## Architecture diagram — Connections

The numbers on the connection lines refer to the connection numbers in the table that follows the diagram. The direction of the arrows indicates where the connection is initiated (the source) and where an initiated connection connects to (the destination), from the point of view of Genesys Web Services and Applications as a service in the network.



## Connections table

The connection numbers refer to the numbers on the connection lines in the diagram. The **Source**, **Destination**, and **Connection Classification** columns in the table relate to the direction of the arrows in the Connections diagram above: The source is where the connection is initiated, and the destination is where an initiated connection connects to, from the point of view of Genesys Web Services and Applications as a service in the network. *Egress* means the Genesys Web Services and Applications service is the source, and *Ingress* means the Genesys Web Services and Applications service is the destination. *Intra-cluster* means the connection is between services in the cluster.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
1	Clients/WWE/Agent Setup	Service proxy	HTTPS	443	Ingress	REST API requests and responses, and UI static content.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
2	Service proxy	Platform services	HTTP	80	Intra-cluster	REST API requests and responses. You can configure the port number for each platform service with the <code>gwsServices.service.port</code> parameters. See .
3	Service proxy	Consul	HTTP	8500	Intra-cluster	Service discovery information.
4	Service proxy	Gplus Adapter for Salesforce			Intra-cluster	
5	Service proxy	Agent Setup		80	Intra-cluster	UI static content. The port number is the value set for . The default is 80.
6	Service proxy	GWS Workspace Service	HTTP	80	Intra-cluster	Workspace REST API requests and responses. The port number is the value set for . The default is 80.
7	Service proxy	GWS Provisioning Service	HTTP	80	Intra-cluster	Provisioning REST API requests and responses. The port number is the value set for . The default is 80.
8	Platform services	Consul	HTTP	8500	Intra-cluster	Service discovery information.
9	GWS Setting Service	PostgreSQL	TCP	5432	Intra-cluster	Tenant information.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						The port number depends on your PostgreSQL configuration.
10	Platform services	Tenant Service			Egress	Tenant configuration, voice events, multimedia interactions, and statistical information. The port depends on your .
11	Platform services	Authentication Service	HTTP		Egress	Authentication and authorization information. The port depends on your .
12	GWS Data Collector Service	Redis	TCP	6379	Intra-cluster	Session data cache.
13	GWS Data Collector Service	Elasticsearch	TCP	9200	Intra-cluster	Store monitored statistics for fast access.
14	GWS Workspace Service	Authentication Service	HTTP		Egress	Authentication and authorization information. The port depends on your .
15	GWS Workspace Service	GWS Data Collector Service	HTTP	80	Intra-cluster	Contacts search requests and contacts state information. The port number is the value set for . The default is 80.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
16	GWS Workspace Service	GWS Configuration Service	HTTP	80	Intra-cluster	Contact center configuration information. The port number is the value set for . The default is 80.
17	GWS Workspace Service	Voicemail	HTTP		Egress	Voice mailbox message count data. The port depends on your .
18	GWS Workspace Service	Redis	TCP	6379	Intra-cluster	Session data cache.
19	GWS Workspace Service	Consul	HTTP	8500	Intra-cluster	Service discovery information.
20	GWS Provisioning Service	Authentication Service	HTTP		Egress	Authentication and authorization information. The port depends on your .
21	GWS Provisioning Service	GWS Configuration Service	HTTP	80	Intra-cluster	Read and write requests for contact center configuration information. The port number is the value set for . The default is 80.
22	GWS Provisioning Service	Consul	HTTP	8500	Intra-cluster	Service discovery information.
23	GWS Provisioning Service	PostgreSQL	TCP	5432	Intra-cluster	Tenant information. The port number depends on

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						your PostgreSQL configuration.
24	GWS Interaction Service	Redis	TCP	6379	Intra-cluster	Session data cache.
25	GWS Voice Service	Redis	TCP	6379	Intra-cluster	Session data cache.
26	GWS Workspace Service	Intelligent Workload Distribution	HTTP		Egress	IWD API requests and responses. The port depends on your .
27	GWS Workspace Service	Digital Channels	HTTP		Egress	Chat API requests and responses, and CometD polling for chat events. The port depends on your .
28	GWS Workspace Service	Universal Contact Service	HTTP		Egress	UCS API requests and responses, and CometD polling for UCS asynchronous responses. The port depends on your .
29	GWS Workspace Service	GWS Voice Service	HTTP	80	Intra-cluster	Voice API requests and responses, CometD polling for voice related events. The port number is the value set for . The default is 80.
30	GWS Workspace Service	GWS Statistics Service	HTTP	80	Intra-cluster	Statistics API requests and responses. The port



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Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						number is the value set for . The default is 80.
31	GWS Workspace Service	GWS Setting Service	HTTP	80	Intra-cluster	Favorite and recent data for agents. The port number is the value set for . The default is 80.