Genesys Pulse Private Edition Guide

Architecture

6/13/2026

Contents

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Introduction

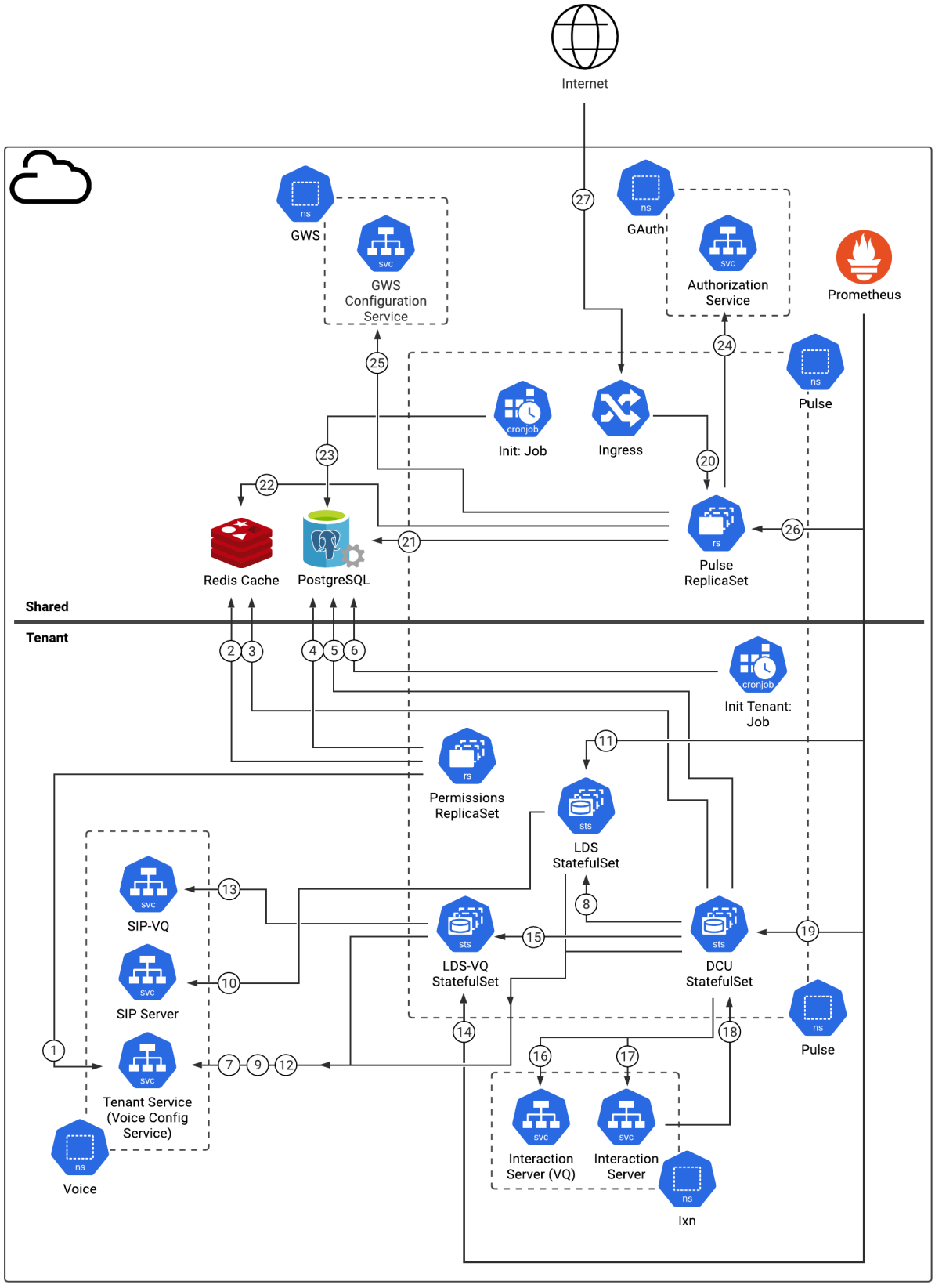
The Connections table, which follows the architecture diagram, provides information about the objects and connections shown in the diagram.

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 Pulse as a service in the network.


Internet
GWS
GWS Configuration Service
GAuth
Authorization Service
Prometheus
Pulse
Init: Job
Ingress
Redis Cache
PostgreSQL
Pulse ReplicaSet
Shared
Tenant
Init Tenant: Job
Permissions ReplicaSet
LDS StatefulSet
SIP-VQ
SIP Server
Tenant Service (Voice Config Service)
Voice
LDS-VQ StatefulSet
DCU StatefulSet
Pulse
Interaction Server (VQ)
Interaction Server
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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 Pulse as a service in the network. *Egress* means the Genesys Pulse service is the source, and *Ingress* means the Genesys Pulse 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	Permissions ReplicaSet	Tenant Service (Voice Config Service)	TCP	8888	Ingress	Permissions Service retrieves configuration data (such as Agents, Queues), in order to check user access permissions.
2	Permissions ReplicaSet	Redis	TCP	6380	Intra-cluster	Permissions Service stores information about user permissions to access configuration objects.
3	DCU StatefulSet	Redis	TCP	6380	Intra-cluster	Pulse Data Collection Unit (DCU) stores current and historical statistic values.
4	Permissions ReplicaSet	PostgreSQL	TCP	5432	Intra-cluster	Permissions Service reads Pulse metadata to check access permissions.
5	DCU StatefulSet	PostgreSQL	TCP	5432	Intra-cluster	Pulse DCU reads Pulse metadata required for

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						collecting statistic values.
6	DCU StatefulSet	PostgreSQL	TCP	5432	Intra-cluster	Init Tenant job uses this connection to initialize OOB Widget Templates.
7	DCU StatefulSet	Tenant Service (Voice Config Service)	TCP	8888	Intra-cluster	Pulse DCU retrieves configuration data.
8	DCU StatefulSet	LDS StatefulSet	TCP	8000	Intra-cluster	Pulse DCU subscribes for events from Voice SIP Service.
9	DCU StatefulSet	Tenant Service (Voice Config Service)	TCP	8888	Intra-cluster	Pulse Load Distribution Server (LDS) retrieves configuration data.
10	LDS StatefulSet	SIP Server	TCP	8000	Intra-cluster	Pulse LDS broadcasts events from Voice SIP Service to connected clients.
11	Prometheus	LDS StatefulSet	HTTP	9091	Intra-cluster	Metrics for monitoring and alerting with Prometheus.
12	LDS-VQ StatefulSet	Tenant Service (Voice Config Service)	TCP	8888	Intra-cluster	Pulse LDS VQ retrieves configuration data.
13	LDS-VQ StatefulSet	SIP-VQ	TCP	8000	Intra-cluster	Pulse LDS broadcasts events from Voice SIP VQ Service to connected clients.

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
14	Prometheus	LDS-VQ StatefulSet	HTTP	9091	Intra-cluster	Metrics for monitoring and alerting with Prometheus.
15	DCU StatefulSet	LDS-VQ StatefulSet	TCP	8000	Intra-cluster	Pulse DCU subscribes for events from Voice SIP VQ Service.
16	DCU StatefulSet	Interaction Server (VQ)	TCP	7122	Intra-cluster	Pulse DCU subscribes for events from the Interaction VQ Server.
17	DCU StatefulSet	Interaction Server	TCP	7120	Intra-cluster	Pulse DCU subscribes for events from the Interaction Server.
18	Interaction Server	DCU StatefulSet	TCP	2060	Intra-cluster	Interaction Server connection to Pulse DCU.
19	Prometheus	DCU StatefulSet	HTTP	9091	Intra-cluster	Metrics for monitoring and alerting with Prometheus.
20	Ingress controller	Pulse ReplicaSet	HTTP	8080	Intra-cluster	Application Gateway connection to Pulse.
21	Pulse ReplicaSet	PostgreSQL	TCP	5432	Intra-cluster	Pulse reads and writes metadata (Dashboards, Widgets, and Widget Templates).
22	Pulse ReplicaSet	Redis	TCP	6380	Intra-cluster	Pulse reads current and historical statistic values, and

Connection	Source	Destination	Protocol	Port	Classification	Data that travels on this connection
						reads information about user permissions to access configuration objects.
23	Init Job	PostgreSQL	TCP	5432	Intra-cluster	Init job uses this connection to initialize or update the database schema.
24	Pulse ReplicaSet	Authorization Service	HTTP	80	Intra-cluster	Pulse queries the Genesys Authentication Service to validate user identity and obtain privilege information for the authenticated user.
25	Pulse ReplicaSet	GWS Configuration Service	HTTP	80	Intra-cluster	Pulse queries the GWS Configuration Service to read configuration data (such as Agents, Queues).
26	Prometheus	Pulse ReplicaSet	HTTP	8090	Intra-cluster	Metrics for monitoring and alerting with Prometheus.
27	Public Internet	Ingress	HTTPS	443	Intra-cluster	Inbound web traffic.