Genesys Authentication Private Edition Guide

Configure Genesys Authentication

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Contents

Learn how to configure Genesys Authentication.

Related documentation:

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Complete the steps on this page to configure your Genesys Authentication deployment.

Add Java KeyStore support (optional)

Complete the steps in this section to set up a Java KeyStore (JKS) if you need to configure Genesys Authentication to use JSON Web Token authentication. This method of authentication is currently used for WebRTC.

Create a keystore file:

```
keytool -keystore jksStorage.jks -genkey -alias gws-auth-key -storepass  -keypass  -keyalg RSA
```

Get the Base64 encoded key:

```
cat ./jksStorage.jks | base64
```

The result looks like this:

```
/u3+7QAAAAIAAAABAAAAAQAMZ3dzLWF1dGgta2V5AAABeRmB2Y4AAAUBMIIE/
TAOBgorBgEEASoCEQEBBQAEggTpwQQ5aW5CUYAsf4/IheBuNrlPPyZhUA+NWh3SG52HV3sVjV+p18vKp2k/
q12I9NynoM6R/
DW5bFfEWU1zx3cfXH2kNirRUOIbNZpa43NOroyyF1GSdZFlwa8Kq8Xtp8ZBmiJdSb1n12ODaTKGKv1cb5tsfdzkWs99QeTBGJypHMCdnBvdFB0N
mMACTHk4R9yASsd7fljgNLSn0jhrz9FuxvYgpOVvExiq+sb5YrfbZjtTzZDzFVOu/
2kWzASfZBSiyyxMOr3IhUPkMpIrg+UYkI0tgn/
C3yR1wLr9HElpx8fCu61ORqp8hhp1yvL46K0c6eTa2JcRpO6fmysf2EG0JagG7zNEJHlvtNnt3JpQV06xos2iWsFAtHq+9w8LwvCVbDzx/
UHoCYenIdJ7SBv06mXgKisa3RDIi/y5x5/9T4brgCLUvwI4Z5Rf/oi2Zx5/lXjQXmBPlPAcUVHLr5PvNQUUx5NBr/
ooioD7qka4ADF1/
cx8I2bzqTi+U01fiFdMGRlNlCfcGDMI2h82JUeCswRYi4+dMDiSaGgC2MoL2susLxMYa5CTo9Vs0Y2k+6j8fhIO4h8h0JxdXZODU63OM0cDSUHX
4IhiV3k7W4OHYeXUeDvoNmfo/AriELZl+WgYETiXGsKzxmrsHrBKC0+aT098FwqdY9ACsM/
7WoF2+9eftc7fa2jruutrRjmk0A/
BaIqzboJLFiWaUUGV9gsexEmpGszikQsmOYSIRxY8BYF+SYldehcfcsRRxDnhTaGNV8y2ZnwA61FNPAFps3gaFXeaYsUzlxTSi9m70HJJrUp7JD
KFi9OrEuAdhMJa+iQ2lPBZ+iIwxb0y9xMReImoUtoqy6Epre3qMOS6MILLw2bVrxJYo38+hR5uzNdlbsUlpYOoorI1Hp8A/
VEYtG9PDHEhhoqUamdUYUzkFDi9QZfylIgi8Jc4G4PPrPKgMPqqE7sl6bJvoLavU58eHpdWo/Mb9UtdTx+l/
SlulCCE0Xce6M9YE1SyC2B3gd82zNQa81lx+QAY8IaSmX+C2nMz+UeXKngSEzguK6gXg9RwCs8pUavuLQ6uZGkJ+fhDBvDAFgD7hG1XdHs27XGS
DT/KHRB7AHN5/
vQpj6KOscxqmyPrgPY/+TseczEeaQLQ6MfjvXY+AAAAAQAFWC41MDkAAAN7MIIDdzCCAl+gAwIBAgIEYxhLHTANBgkqhkiG9w0BAQsFADBsMRAw
esYcJNEqu1btJLwLvhXb651OyZnsmeNGP2BrNCPXZS6CBReMMKJaZrlCwJQxiSrGPHB/
```

```
gpxKoAowLwl3V7wB2BHKDhrczQBPdvtsfBAzeqpN/
yRpdKZRAtu2LyGqRZKCglSrwYenJFqROdOeworbNmtIKXfQLiamE4KdhzQdPfnyBC7ZWtCIJUp9Va4LmCYD/
ISOmVyfQ9Xql1rRNQLcVaewCKRM2ffBAkx98d3n79XUZDljOzHh+79tCpheuuYfbMQqMCAwEAAaMhMB8wHQYDVR0OBBYEFNtM8mIEb67VYot5tj
Ta4y+B6JcdPjFtII6Pf5W0DDTOa3cHNMeukYn5lBnaMbIKqoxFT7nM7MD3DB+dISvMu8FtVWFwbPzXWhl+Aycuu9ETGlCoJqYfl+vmLyGjJVadc
YbN7be2QIJwmucIZzH7fkU90V+rmVZhl9Bo8ixuIJG/vZTxmEBaDqmhiP4w=
```

Make note of the following values - you need them to configure JKS support in the Helm chart:

- Keystore filename
- Keystore password
- Key alias
- Key password
- Base64 encoded key

Configure a secret to access JFrog

If you haven't done so already, create a secret for accessing the JFrog registry:

```
kubectl create secret docker-registry  --docker-server= --docker-username= --docker-password=
--docker-email=
```

Now map the secret to the default service account:

```
kubectl secrets link default  --for=pull
```

Override Helm chart values

You can specify parameters for the deployment by overriding Helm chart values in the **values.yaml** file. See the **Parameters** table for a full list of overridable values.

For more information about how to override Helm chart values, see Overriding Helm chart values in the Setting up Genesys Multicloud CX Private Edition guide.

Parameters

Parameter	Description	Valid values	Default
gws-core-auth	The gws-core-auth image version tag. For example, 100.0.003.3508.	A valid image version	""
gws-core-environment	The gws-core-environment image version tag. For example, 100.0.003.1866.	A valid image version	""
gws-ui-auth	The gws-ui-auth image version tag. For	A valid image version	""

Parameter	Description	Valid values	Default
	example, 100.0.003.1328.		
image.imagePullSecrets	The secret Kubernetes uses to get credentials to pull images from the registry.	A valid secret	[]
image.pullPolicy	Specifies when Kubernetes pulls images from the registry on start up.	IfNotPresent or Always	"IfNotPresent"
image.registry	Docker registry address	A valid registry URL	""
consul.discovery_register	Specifies whether services are registered in Consul.	true or false	false
consul.discovery_tenants	Enables tenant discovery through Consul.	true or false	true
consul.enabled	Enables a connection to Consul.	true or false	false
consul.host	The host of the local Consul agent.	A valid URL	"http://$(K8_HOST_IP)"
consul.port	The port of the local Consul agent.	A valid port	8500
consul.require_token	Specifies whether Genesys Authentication reads the API token from a Kubernetes secret.	true or false	false
consul.secret.create	Create or use an existing secret with the Consul API token.	true or false	false
consul.secret.name_override	The name of the Kubernetes secret for Consul.	A valid secret name	nil
consul.secret.token	The API token to access Consul.	A valid API token	nil
ingress.enabled	Enables external ingress for Genesys Authentication.	true or false	true
ingress.frontend	The host that is used by external ingress.	A valid host	"gauth.local"
ingress.annotations.	Annotations that are applied to external ingress. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	nginx.ingress.kubernetes.io/proxy-body-size: "0"
ingress.tls_enabled	Enables Transport Layer	true or false	true

Parameter	Description	Valid values	Default
	Security (TLS) on external ingress.		
ingress.tls	The name of the secret for Secure Sockets Layer (SSL) certificates.	A valid secret name	`- hosts:   - gauth.local   secretName: letsencrypt`
internal_ingress.enabled	Enables internal ingress for Genesys Authentication.	true or false	true
internal_ingress.frontend	The host that is used by internal ingress.	A valid host	"gauth-int.local"
internal_ingress.annotations	Annotations that are applied to internal ingress. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	nginx.ingress.kubernetes.io/proxy-body-size: "0"
internal_ingress.tls_enabled	Enables Transport Layer Security (TLS) on internal ingress.	true or false	true
internal_ingress.tls	The name of the secret for Secure Sockets Layer (SSL) certificates.	A valid secret name	`- hosts:   - gauth-int.local   secretName: letsencrypt`
monitoring.enabled	Specifies whether to deploy Custom Resource Definitions (CRD) for ServiceMonitors to determine which services should be monitored.	true or false	false
monitoring.interval	The interval at which Prometheus scrapes metrics.	A duration in seconds	"15s"
monitoring.alarms	Specifies whether to deploy CRD for PrometheusRules to define rules for alarms.	true or false	false
monitoring.alarmThresholds.redisKeys	The threshold to trigger an alarm on the total number of keys in Redis.	Number	5000000
monitoring.alarmThresholds.redisMaxMemoryPerentage	The threshold to trigger an alarm for used Redis memory.	Number	85
monitoring.dashboards	Specifies whether to deploy ConfigMaps with	true or false	false

Parameter	Description	Valid values	Default
	Grafana Dashboards.		
monitoring.pagerduty	Enables alarms with a severity of `CRITICAL`.	true or false	true

optional.affinity	Specifies the affinity and anti-affinity for Genesys Authentication pods. See the Kubernetes documentation for details.	Object	`podAntiAffinity:`
			`  preferredDuringSchedulingIgnoredDuringExecution:`
			`  - podAffinityTerm:`
			`  labelSelector:`
			`  matchLabels:`
			`  gauth: '{{ .gauth }}'`
			`  app.kubernetes.io/name: '{{ include "auth.name" . }}'`
			`  app.kubernetes.io/instance: '{{ .Release.Name }}'`
			`  topologyKey: failure-domain.beta.kubernetes.io/zone`
			`  weight: 100`

optional.dnsConfig	Specifies custom DNS settings for Genesys Authentication pods. See the Kubernetes documentation for details.	Object	`options:`
			`  - name: ndots`
			`  value: "3"`

optional.dnsPolicy	Specifies the DNS policy for Genesys Authentication pods. See the Kubernetes documentation for details.	"Default", "ClusterFirst", "ClusterFirstWithHostNet", or "None"	"ClusterFirst"
optional.nodeSelector	The labels Kubernetes uses to assign pods to nodes. See the Kubernetes documentation for details.	Object	{}
optional.priorityClassName	The class name Kubernetes uses to determine the priority of a pod relative to other pods. See the Kubernetes documentation for details.	A valid priority class name	""
optional.securityContext	Specifies the privilege and access control	Object	{}

Parameter	Description	Valid values	Default
	settings Genesys Authentication pods. See Configure security for details.		
optional.strategy	Specifies details for the rolling update strategy Genesys Authentication uses to upgrade it containers. See the Kubernetes documentation for details.	Object	`type: RollingUpdate rollingUpdate: maxSurge: 10 maxUnavailable: 0`
optional.tolerations	The tolerations Kubernetes uses for advanced pod scheduling. See the Kubernetes documentation for details.	Object	[]
podDisruptionBudget.create	Specifies whether to create a PodDisruptionBudget. See the Kubernetes documentation for details.	true or false	false
podDisruptionBudget.spec	Specifies the details of your PodDisruptionBudget. See the Kubernetes documentation for details.	A valid spec that defines a value for either minAvailable or maxUnavailable. Do not specify .spec.selector because it is calculated by Helm.	minAvailable: 2
pod_autoscaler.auth.enabled	Enables the Horizontal Pod Autoscaler for the Authentication Service. See the Kubernetes documentation for details.	true or false	false
pod_autoscaler.auth.maxReplicas	Specifies the maximum number of Authentication Service replicas the Horizontal Pod Autoscaler controller will scale.	Number	10
pod_autoscaler.auth.metrics	Specifies resource metrics the Horizontal Pod Autoscaler controller uses to scale Authentication Service pods up or down. See the Kubernetes documentation for	Object	`- type: Resource resource: name: cpu target: type: Utilization averageUtilizati`

Parameter	Description	Valid values	Default
	details.		`on: 350%`
pod_autoscaler.environment.enabled	Enables the Horizontal Pod Autoscaler for the Environment Service. See the Kubernetes documentation for details.	true or false	false
pod_autoscaler.environment.maxReplicas	Specifies the maximum number of Environment Service replicas the Horizontal Pod Autoscaler controller will scale.	Number	10
pod_autoscaler.environment.metrics	Specifies resource metrics the Horizontal Pod Autoscaler controller uses to scale Environment Service pods up or down. See the Kubernetes documentation for details.	Object	`- type: Resource resource: name: cpu target: type: Utilization averageUtilization: 350%`
postgres.deploy	Specifies whether to deploy PostgreSQL. Set this option for lab environments only.	true or false	false
postgres.image	Specifies the Docker image to use in the lab environment if `postgres.deploy=true`.	A Docker image	"postgres:11-alpine"
postgres.configmap.create	Specifies whether Genesys Authentication creates a ConfigMap with PostgreSQL connection parameters. If the value is false, you must create the ConfigMap manually.	true or false	false
postgres.configmap.name_override	The name of the ConfigMap.	A value name	nil
postgres.db	The name of the PostgreSQL database from Create a PostgreSQL database and user.	A valid database name	nil
postgres.host	The host of the PostgreSQL instance.	A valid host	nil
postgres.port	The port of the	A valid port	nil

Parameter	Description	Valid values	Default
	PostgreSQL instance.		
postgres.username	The username to access the PostgreSQL database from Create a PostgreSQL database and user.	A valid username	nil
postgres.password	The password to access the PostgreSQL database from Create a PostgreSQL database and user.	A valid password	nil
postgres.secret.create	Specifies whether to create a Kubernetes secret with user credentials for PostgreSQL. If this value is false, you must create the secret manually.	true or false	false
postgres.secret.name_override	The name of the PostgreSQL secret.	A valid name	nil
redis.cluster_nodes	The Redis nodes in your cluster. For example, "redis-cluster1:7000,redis-cluster2:7002".	A comma-separated list of "host:port" pairs	nil
redis.configmap.create	Specifies whether to create a ConfigMap with connection parameters for Redis. If this value is false, you must create the ConfigMap manually.	true or false	false
redis.configmap.name_override	The name of the Redis ConfigMap.	A valid name	nil
redis.deploy	Specifies whether to deploy a Redis cluster. Set this option for lab environments only.	true or false	false
redis.image	Specifies the Docker image to use in the lab environment if `redis.deploy=true`.	A Docker image	"redis:5-stretch"
redis.password	The Redis password.	A valid password	nil
redis.password_required	Specifies whether Genesys Authentication should read the Redis password from a Kubernetes secret.	true or false	false
redis.secret.create	Specifies whether to create a Kubernetes secret with Redis	true or false	false

Parameter	Description	Valid values	Default
	password. If this value is false, you must create the secret manually.		
redis.secret.name_override	The name of the Redis secret.	A valid name	nil
redis.use_tls	Enable or disable a TLS connection to the Redis cluster.	true or false	false
serviceAccount.create	Specifies whether to create a service account.	true or false	false
serviceAccount.name	The name of the service account to use.	A service account name	""
serviceAccount.annotations	Annotations to add to the service account. See the Kubernetes documentation for details.	A valid set of labels as "name: value"	{}
services.initContainers	Optional init containers to add to Genesys Authentication deployments.	Object	{}
services.location	Location of the deployment. For example, "/USW1".	A valid location.	"/"
services.replicas	The number of Genesys Authentication pod replicas to deploy.	Number	3
services.db.init	Enable automatic updates for the database schema.	true or false	true
services.db.poolCheckoutTimeout	The database pool timeout.	Number	3000
services.db.poolSize	The database pool size.	Number	3
services.auth.loglevel	Specifies the log level for the Authentication Service.	INFO, DEBUG, WARN	DEBUG
services.db.ssl	Enable or disable an SSL connection to PostgreSQL. See the PostgreSQL documentation for details about SSL modes.	disable, prefer, require, verify-ca, or verify-full	"disable"
services.auth.deploymentAnnotations	Annotations for Authentication Service deployment objects. See the Kubernetes documentation for	A valid set of annotations as "name: value"	{}

Parameter	Description	Valid values	Default
	details.		
services.auth.env.GWS_AUTH_SECURITY_HTTP_SCHEME_HEADER_NAME	The name of the header with protocol. This value can be used when HTTPS is terminated by the load balancer.	A valid header name	"X-Forwarded-Proto"
services.auth.env.GWS_AUTH_timeouts_requestTimeoutMs	The Authentication Service request timeout.	A value in milliseconds	30000
services.auth.env.JAVA_TOOL_OPTIONS	Specifies JVM arguments to set in the JAVA_TOOL_OPTIONS environment variable.	Valid JVM arguments	"-XX:+PrintFlagsFinal -XX:+UseG1GC -Dfile.encoding=UTF-8 -XX:+ExitOnOutOfMemoryError -XX:MaxRAMPercentage=80.0"
services.auth.env.GWS_AUTH_logging_level_com_genesys_gws_v3	Specifies the log level for the Authentication Service.	INFO, DEBUG, WARN	DEBUG
services.auth.env.GWS_AUTH_http_headers_frame_options	Specifies the value of the X-Frame-Options HTTP response header.	SAMEORIGIN, DENY, DISABLE, ALLOW	ALLOW
services.auth.jks.enabled	Specifies whether Genesys Authentication uses Java KeyStore. See Add JKS support for details. This value must be set to true for Security Assertion Markup Language single sign-on (SAML SSO) functionality.	true or false	false
services.auth.jks.keyAlias	The name of the key alias in the keystore used by the Authentication Service. This value comes from Add JKS support.	A valid key alias	nil
services.auth.jks.keyPassword	The keystore password from Add JKS support.	A valid keystore password	nil
services.auth.jks.keyStore	The name of the Java keystore file from Add JKS support.	A valid keystore name	"jksStorage.jks"
services.auth.jks.keyStorePassword	The keystore password from Add JKS support.	A valid keystore password	nil
services.auth.jks.secret.create	Specifies whether to create a new secret with the keystore file content and keystore credentials.	true or false	true

Parameter	Description	Valid values	Default
services.auth.jks.keyStoreFileData	The Base64 encoded key value from Add JKS support.	A valid key	nil
services.auth.jks.secret.name	A Kubernetes secret name with the keystore credentials and content.	A valid secret name	nil
services.auth.jks.sso.enabled	Specifies whether to enable SAML SSO functionality.	true or false	false

services.auth.livenessProbe	Specifies parameters for the livenessProbe. See the Kubernetes documentation for details.	Object	`livenessProbe:`
			`  httpGet:`
			`  path: /health`
			`  port: management`
			`  initialDelaySeconds: 120`
			`  periodSeconds: 10`
			`  successThreshold: 1`
			`  timeoutSeconds: 3`
			`  failureThreshold: 3`

services.auth.readinessProbe	Specifies parameters for the readinessProbe. See the Kubernetes documentation for details.	Object	`readinessProbe:`
			`  httpGet:`
			`  path: /health`
			`  port: management`
			`  initialDelaySeconds: 30`
			`  timeoutSeconds: 3`
			`  periodSeconds: 10`

services.auth.replicas	The number of Authentication Service pod replicas to deploy. This value overrides services.replicas.	Number	nil

services.auth.resources	The requests and limits for Authentication Service pod resources. See the Kubernetes documentation for details.	Object	`requests:`
			`  cpu: 500m`
			`  memory: 4Gi`
			`limits:`
			`  cpu: "4"`
			`  memory: 6Gi`

services.auth.serviceAnnotations	Annotations for Authentication Service service objects. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	{}
services.auth_ui.deploymentAnnotations	Annotations for Authentication UI deployment objects. See the Kubernetes documentation for	A valid set of annotations as "name: value"	{}

Parameter	Description	Valid values	Default
	details.		
services.auth_ui.env.GWS_NGINX_ENABLE_MAPPING	Use Consul to discover Auth Service		"false"
services.auth_ui.livenessProbe	Specifies parameters for the livenessProbe. See the Kubernetes documentation for details.	Object	{}
services.auth_ui.readinessProbe	Specifies parameters for the readinessProbe. See the Kubernetes documentation for details.	Object	{}
services.auth_ui.replicas	The number of Authentication UI pod replicas to deploy. This value overrides services.replicas.	Number	nil

services.auth_ui.resources	The requests and limits for Authentication UI pod resources. See the Kubernetes documentation for details.	Object	`requests:`
			`  cpu: 100m`
			`  memory: 500Mi`
			`limits:`
			`  cpu: 500m`
			`  memory: 1Gi`

services.auth_ui.serviceAnnotations	Annotations for Authentication UI service objects. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	{}
services.environment.loglevel	Specifies the log level for the Environment Service.	INFO, DEBUG, WARN	INFO
services.environment.deploymentAnnotations	Annotations for Environment Service deployment objects. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	{}
services.environment.env.JAVA_TOOL_OPTIONS	Specifies JVM arguments to set in the JAVA_TOOL_OPTIONS environment variable.	Valid JVM arguments	"-XX:+PrintFlagsFinal -XX:+UseG1GC -Dfile.encoding=UTF-8 -XX:+ExitOnOutOfMemoryError -XX:MaxRAMPercentage=80.0"
services.environment.env.GWS_ENVIRONMENT_logging_level_com_gene	Specifies the log level for the Environment Service.	INFO, DEBUG, WARN	INFO

Parameter	Description	Valid values	Default
sys_gws_v3			
services.environment.force_writable	Ignore the Data Center topology in a single-region deployment.	true or false	true
services.environment.livenessProbe	Specifies parameters for the livenessProbe. See the Kubernetes documentation for details.	Object	`livenessProbe:   httpGet:   path: /health   port: management   initialDelaySeconds : 120   periodSeconds: 10   successThreshold: 1   timeoutSeconds: 3   failureThreshold: 3`
services.environment.readinessProbe	Specifies parameters for the readinessProbe. See the Kubernetes documentation for details.	Object	`readinessProbe:   httpGet:   path: /health   port: management   initialDelaySeconds : 30   timeoutSeconds: 3   periodSeconds: 10`
services.environment.replicas	The number of Environment Service pod replicas. This value overrides services.replicas.	Number	nil
services.environment.resources	The requests and limits for Environment Service pod resources. See the Kubernetes documentation for details.	Object	`requests:   cpu: 500m   memory: 4Gi limits:   cpu: "4"   memory: 6Gi`
services.environment.serviceAnnotations	Annotations for Authentication Service service objects. See the Kubernetes documentation for details.	A valid set of annotations as "name: value"	{}
services.secret.admin_password	Encrypted password of the operational user. The password should be encrypted with bcrypt hashing with any number of rounds. You can generate an encrypted password on the following site: https://www.javainuse.c	A valid password	nil

Parameter	Description	Valid values	Default
	om/onlineBcrypt		
services.secret.admin_username	The username of an operational user.	Any valid username. For example, opsAdmin, clientAdmin, ops.	nil
services.secret.client_id	The ID of an encrypted client secret.	Any valid client ID. For example, external_api_client, nexus_client, authclient.	nil
services.secret.client_secret	The encrypted client secret. The client secret should be encrypted with bcrypt hashing with any number of rounds. You can generate an encrypted client secret on the following site:https://www.javainuse.com/onlineBcrypt	A valid client secret	nil
services.secret.create	Specifies whether to create the Kubernetes secret with the credentials of the operational user and client ID.	true or false	true
services.secret.name_override	The name of the secret.	A valid name	nil
services.secrets.secretProviderClassNames.admin_user	The name of the secretProviderClass with the operational user credentials.	A valid class name	"keyvault-gauth-admin-user"
services.secrets.secretProviderClassNames.client_credentials	The name of the secretProviderClass with the client credentials.	A valid class name	"keyvault-gauth-client-credentials"
services.secrets.secretProviderClassNames.consul_token	The name of the secretProviderClass with the Consul token.	A valid class name	"keyvault-consul-consul-gauth-token"
services.secrets.secretProviderClassNames.jks_credentials	The name of the secretProviderClass with the JKS credentials.	A valid class name	"keyvault-gauth-jks-credentials"
services.secrets.secretProviderClassNames.jks_keyvault	The name of the secretProviderClass with the JKS keystore.	A valid class name	"keyvault-gauth-jks-keyvault"
services.secrets.secretProviderClassNames.pg_user	The name of the secretProviderClass with PostgreSQL credentials.	A valid class name	"keyvault-gauth-pg-user"
services.secrets.secretProviderClassNames.redis_password	The name of the secretProviderClass with the Redis password.	A valid class name	"keyvault-gauth-redis-password"
services.secrets.useSecr	Specifies whether to	true or false	false

Parameter	Description	Valid values	Default
etProviderClass	read secrets from the secretProviderClass instead of Kubernetes secrets.		
topologySpreadConstraints	In Kubernetes, topology spread constraints are used to control how Pods are spread across the cluster among failure-domains such as regions, zones, nodes, and other user-defined topology domains. This helps to achieve high-availability as well as efficient resource utilization.	Valid topology spread constraints settings. See the Kubernetes documentation for details.	{}

Configure Kubernetes

The sections below provide more information about configuring Kubernetes.

ConfigMaps

Genesys Authentication includes separate ConfigMaps for PostgreSQL and Redis configuration.

PostgreSQL - configmap-pg.yaml

```
{{- if or .Values.postgres.configmap.create .Values.postgres.deploy }}
apiVersion: v1
kind: ConfigMap
metadata:
  name: {{ include "configmap.postgres" . }}
  namespace: {{ .Release.Namespace | quote }}
  labels:
    {{- include "gauth.labels" . | nindent 4 }}
    gauth: postgres
data:
  db: {{ required "Missing required parameter 'postgres.password'" .Values.postgres.db |
quote}}
  host: {{ default ( include "name.postgres" . ) .Values.postgres.host |quote}}
  port: {{ default ( include "port.postgres.service" . ) .Values.postgres.port |quote }}
  {{- end }}
```

Redis - configmap-redis.yaml

```
{{ if or .Values.redis.configmap.create .Values.redis.deploy }}
apiVersion: v1
kind: ConfigMap
metadata:
  name: {{ include "configmap.redis" . }}
  namespace: {{ .Release.Namespace | quote }}
  labels:
```

```
    {{- include "gauth.labels" . | nindent 4 }}
    gauth: redis
data:
  cluster_nodes: {{ default ( include "service.redis" . ) .Values.redis.cluster_nodes |
quote}}
  {{end}}
```

Secrets

The following Genesys Authentication services artifacts are stored as Kubernetes secrets:

- Administrator user credentials for the Authentication API and Environment API services.
- OAuth 20 client IDs and client secrets for the Authentication API and Environment API services.
- PostgreSQL database credentials for the Environment API service.
- PostgreSQL database credentials for the Authentication API service.
- Java keystore password for Authentication API service.
- Credentials for access to a password-protected Redis (Access Key) for the Authentication API service.

Configure security

To learn more about how security is configured for private edition, be sure to read the Permissions topic in the *Setting up Genesys Multicloud CX Private Edition* guide.

The security context settings define the privilege and access control settings for pods and containers.

By default, the user and group IDs are set in the **values.yaml** file as `500:500:500`, meaning the **genesys** user.

```
optional:
  securityContext:
    runAsUser: 500
    runAsGroup: 500
    fsGroup: 500
    runAsNonRoot: true
```