Framework Deployment Guide

Local VAG calculation on selected Configuration Server Proxies

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This feature enables Virtual Agent Group (VAG) processing on the Configuration Server proxy, connected to the master Configuration Server with VAG processing disabled.

Overview

Default behavior of configuration layer is to calculate VAGs by the master Configuration Server and other Configuration Server clients, including proxies, see VAGs as regular agent groups. VAG membership is calculated upon initial data load or runtime reload. Upon runtime, certain changes in the configuration cause Configuration Server to recalculate VAG membership and notify clients of the VAG changes the same way as it does for regular agent groups. With majority of Genesys applications not depending on VAG notifications made by configuration layer, it is possible to disable such calculation on the master Configuration Server to rely on local calculation. Having VAGs calculated by configuration layer creates additional load on the master Configuration Server and generates extra notifications, which could be unneeded by the clients, not interested in the VAG content or performing VAG calculations on their own.

Proxy-side VAG processing allows to optimize VAG processing by running master Configuration Server with VAG processing disabled. VAGs in this case can be processed on specially configured Configuration Server proxies instead. In such configurations, clients, which do rely on Configuration Server VAG calculations, can be connected to the configuration through such proxies, while the other clients may connect to the master or regular proxies.

VAGs in this case remain empty on the master and regular proxies. VAG-processing proxies do VAG calculations upon startup / data reload and recalculate VAGs at runtime, generating additional change notifications with the events related to the VAG changes. They use the same algorithm of VAG calculation as the regularly configured master.

Limitations

This feature is only intended to support Genesys historical reporting solution with required information about VAGs membership. VAG calculating prox(ies) shall only be deployed to support Interaction Concentrator(s) ability to store correct VAG history.

Interaction Concentrator may not be able to automatically receive all VAG changes and require manual synchronization for them to appear in its database, if it was down for an extended period of time, before reconnecting back to the Configuration Server proxy responsible for VAG calculations for ICON. To detect that you have to monitor respective Configuration Server proxy for events that indicate history log transactions cannot be replied to a newly connected client and, when detected, initiate resync on ICON side by using the **start-cfg-sync** option. See Interaction Concentrator documentation for more details.

Feature configuration

The **force-vag-calculation** option is set in the **csproxy** section in the csproxy application object. The configuration option **csproxy/force-vag-calculation** enables VAG calculations on a

Configuration Server proxy connected to the master Configuration Server with disabled VAG processing. Refer to Framework Configuration Options Reference Manual for information on **csproxy/ force-vag-calculation**.

HA considerations

Both primary and backup proxy instances, configured for proxy-side VAG processing, perform VAG processing in parallel. In case of switch-over of the proxies, the clients are expected to be able to successfully restore session to the backup after loosing connection to the primary. This is an ideal “all-synced” case.

Warning

Utilizing this feature requires special attention to the configuration.

1. Both primary and backup master Configuration Server should be configured with **[cs_main_section]\disable-vag-calculation**=`true` only in the **.conf/.cfg** file of the primary and backup master Configuration Server.
2. Regular proxies (both primary and backup), which are not supposed to calculate VAGs, should not have the **force-vag-calculation** option, or set it to `false`.
3. Special VAG-processing proxies, both primary and backup instances, should be configured with **[csproxy]\force-vag-calculation**=`true`.

If the above configuration changes, all affected instances of both master and proxies should undergo hard restart (not switchovers).

Steps to roll out the solution based on proxy-side VAG processing

Starting from traditional configuration with master-side vag handling.

1. The first and the most important step is to decide:
    1. which clients are to be connected directly to the master
    2. which go through regular proxies
    3. which will use the proxy(ies) configured for VAG processing. It should be clearly understood that after this reconfiguration clients, 1) and 2) will no longer receive VAG membership information. They will see VAGs as having no members, although VAG scripts and the rest on VAG object content will still be available to them. For these reasons, clients which are not interested in VAG membership or capable to perform VAG calculations on their own may remain connected to the master or through regular proxies. Clients which do rely on Configuration Server to calculate VAGs should be reconnected trough the VAG calculation proxies.
2. Proxies, which you plan to use for VAG calculation should be upgraded to the version that supports the feature. Upgrade of the master and other proxies is not mandatory.

3. Set **[cs_main_section]\disable-vag-calculation**=`true` for both primary and backup instances of the master Configuration Server in their **.conf/.cfg** files. Set **[csproxy]\force-vag-calculation**=`true` for both primary and backup instances of the proxies, you plan to use as VAG-processing, in their Application configuration objects. No changes in the configuration of the regular proxies are needed.
4. Perform had restart of both instances of the master Configuration Server. Switchover is not enough: both primary and backup should be stopped concurrently first, then started again. Restart of the proxies is not required. Proxies, configured with **force-vag-calculation**=`true`, once reconnected to restated master with **disable-vag-calculation**=`true`, will automatically enable VAG calculation on their side. The remaining proxies after reconnect and data reload will see the content of VAGs as empty.
5. Reconfigure the clients you planned to use with VAG-processing proxies, so they connect to these proxies. Then restart them to connect to these proxies. Whether hard restart of the client HA pairs is needed depends on specific client. However, hard restart is always the safe choice.
6. To double-check the configuration, connect GA or CM to both master and VAG-processing prox(ies) to verify that VAGs on the master have no members, while VAGs on the VAG-processing prox(ies) have their member lists calculated as expected according to the VAG scripts.