

# **GENESYS**

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## Workforce Management Administrator's Guide

**Data Synchronization** 

## Data Synchronization

Workforce Management (WFM) Server performs data synchronization automatically, bringing Configuration Database objects, such as agents, agent skills, and time zones into WFM. You can set the level of synchronization for full and real-time synchronization, and set the time period, in which you want WFM to perform full synchronization.

#### Tip

WFM Server can only update usernames and email addresses of existing users. New users are not imported during synchronization. New users are imported manually using WFM Web.

The WFM Server performs real-time synchronization after these tasks are completed:

- Adding new agents
- · Removing terminated agents
- · Updating an agent's information
- · Adding or deleting an agent's skills
- · Updating an agent's skill level
- · Adding or deleting skills
- Synchronizing time-zones (only if applicable)

In addition, WFM Server:

- Excludes from dynamic synchronization those agents who are manually terminated, but are still in the Configuration Server database.
- Dynamically synchronizes terminated agent who are reinstated only after it performs full synchronization. Only then, does WFM Server re-read these agents, which means in most environments (including Genesys Cloud), these agents are not synchronized until WFM Server restarts.

#### Tip

The scenario described above is common among customers that utilize the "reuse person objects" approach in the Configuration Server database whereas, they edit existing person objects rather than create new ones. As in WFM, these person objects are manually terminated and then manually reinstated (by checking or unchecking the Termination Date check box and entering a date in Web for Supervisors **Agent Properties**), but they are *not* dynamically synchronized until WFM Server is restarted or switchover occurs (if there is a backup WFM Server instance).

You configure this functionality in the **[ConfigService]** section of the WFM Server Application's **Options** tab. For more information, see the SynchronizationLevel and SynchronizationTimeout configuration options.

Before you configure these options, take note of the objects that WFM Server will synchronize when set to these levels 1 and 2:

SynchronizationLevel = 1	SynchronizationLevel = 2
Synchronizes only agents in sites that are explicitly assigned to this WFM Server in Web for Supervisors <b>Organization</b> > <b>Sites</b> . Skills are not fully synchronized, but they are imported if the agent to be synchronized has skills that are not yet imported. Time zones are not synchronized.	Full synchronization is on, including time zones and skill definitions. Agents of all sites and unassigned agents are synchronized, except those belonging to sites that are explicitly assigned to a different WFM Server in Web for Supervisors <b>Organization</b> > <b>Sites</b> .

Genesys recommends that only one WFM Server in the deployment have its SynchronizationLevel option set to 2. If the deployment consists of multiple WFM Servers, set this option value to 0 in all other WFM Servers, so only one WFM Server performs the synchronization. Set the option value to 1 only in special cases, such as when agent synchronization will be performed by multiple WFM Servers.

#### **Important**

To avoid errors during synchronization and further work, your configuration must not contain duplicate names for switches, time zones, or skills—not under different tenants, and not in different Genesys Administrator instances that access the same WFM database.

### Enabling WebSockets for cache synchronization

To prevent a stale cache when multiple servers are using cached database content, changes to the cached content and the database itself must be synchronized. WFM Server currently employs a synchronization method that is based on database timestamps. However, this method can add strain to the database, because it requires a lot of round-trip retrievals to obtain the timestamps of the current records .

To alleviate some of the load on the database, you can configure WFM to use an optional, complementary cache synchronization method, which is based on a fast peer-to-peer data exchange between servers over WebSockets, thereby reducing round-trip retrievals and improving performance. You can enable it by configuring the **[auth]** provider configuration option and enabling the use of WebSockets in WFM Server by setting the **[Server]** webevents option value to 1 in the WFM Server Application.

When configuring deployments with enabled WebSockets, ensure that all WFM Server making changes to the database are connected to each other. It doesn't matter whether the connection is direct, indirect, or even cyclic WebSocket messages received by one WFM Server will be relayed to all connected servers that haven't seen the message.

If a proxy server is used between WFM Servers, the proxy also must be configured to support WebSockets.