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iWD Deployment Guide

New Features in Release 9.0

4/9/2025

New Features in Release 9.0

> **Important**
> In release 9, you must upgrade all iWD components to the same release version (9.0.xxx must be the same for all components) to guarantee correct functioning.

9.0.019

- Starting with 9.0.019.06, Genesys recommends using Kafka instead of JMS in the iWD History Node setup because of a more straightforward configuration process and a more reliable delivery of events in the correct sequence when using multiple iWD History Nodes.
- Various third-party libraries are updated to the latest versions to improve security.

iWD Runtime Node

- The calculation logic for the **Accept Time** metric and all related database columns has been updated. Now if a task is accepted multiple times, this metric corresponds to the first assigned time instead of the last assigned time.
  The following iWD DataMart database fields now correspond to the first assigned time instead of the last assigned time:
  - TASK_FACT Tables
    - ASSIGNED_DATE_KEY
    - ASSIGNED_TIME_KEY
    - ASSIGNED_INTERVAL
    - ASSIGN_TIME_FROM_CREATED_SEC
  - TASK_CAPT_FACT Aggregate
    - CMPL_TASK_ASSIGN_TIME
    - CMPL_TASK_AVG_ASSIGN_TIME
  - TASK_CLASSIF_FACT Aggregate
    - CMPL_TASK_ASSIGN_TIME
    - CMPL_TASK_AVG_ASSIGN_TIME
  - TASK_QUEUE_FACT Aggregate
    - CMPL_TASK_ASSIGN_TIME
    - CMPL_TASK_AVG_ASSIGN_TIME

This change also impacts the following GCXI iWD Metrics and related reports:

- Accept Time
- Avg Accept Time

9.0.018

- Various third-party libraries are updated to the latest versions to improve security.

iWD Runtime Node

- Performance of the standard Aggregate Historical plugins is improved. Most of the aggregation is now performed on the database server side. As a result, the amount of data transferred from database to the application and the amount of memory consumed by the application are reduced by up to 80 percent.

9.0.017

- Various third-party libraries are updated to the latest versions to improve security.

iWD Runtime Node

- A new job, **Load GIM**, is introduced. The job uses the Genesys Info Mart (GIM) database to load agents' information into iWD Data Mart database. Once agents' information is loaded, the **Agent Name** column is shown (instead of **Employee ID**) in the following reports:
  - Resource Performance Report
  - Task Detail Report
  - Task Work Detail Report
  - Resource Performance Dashboard

Platform Changes

- Support for RedHat OpenJDK 11.

9.0.016

- **oAuth changes**
  - The parameter **[oauth/]redirect-uri** has been removed from iWD Manager Server application options.

- **SAML-related changes**
  - The SAML-related properties **logged_with_saml** and **slo_enabled** have been removed from the **/user_settings** endpoint. The **/api/security/saml_enabled** endpoint has also been removed. DETAILS

9.0.015

iWD Data Mart

- Support for new dimensions, such as multimedia type and interaction type, has been added.
  - The core fact tables (TASK_WORK_FACT, TASK_FACT) have been expanded. They now allow you to describe facts with media type and interaction type.
  - Aggregate tables have been extended with new attributes:
    - MEDIA_TYPE_KEY for Age, Agent, Capt, Classif aggregate plugins.
    - INTERACTION_TYPE_KEY for Agent aggregate plugins.

    Starting with this release, Genesys strongly recommends using native plugins provided with iWD. Kettle aggregation plugins do NOT support dimensions added in this version. Use of custom Kettle plugins is fully supported.

iWD Manager

- iWD Manager now supports OAuth user authentication with GWS Authentication Service. MORE INFORMATION.

9.0.014

iWD Data Mart

- The iWD Data Mart database schema has been changed. Please follow the detailed migration information in the migration section of the Deployment Guide.
  - Aggregate Intraday tables (**I_TASK_<SUBJ>_FACT_15MIN**) have been removed from the iWD Data Mart schema. From now on the Aggregate Intraday job directly populates **H_TASK_<SUBJ>_FACT_15MIN** tables. There is no need to move data from Aggregate Intraday to Aggregate Historical tables any more.
  - Aggregate Historical tables (**H_TASK_<SUBJ>_FACT_15MIN**) now contain the data for every aggregated 15-minute interval, which expedites data fetching for reporting purposes.
  - Population of **H_TASK_<SUBJ>_FACT_DAY** table is now triggered by the fact that the corresponding **H_TASK_<SUBJ>_FACT_15MIN** table contains a full set of 15-minute intervals for that particular day.
- Performance of CAPT, CLASSIF and QUEUE aggregation plugins has been improved by removing

unnecessary table joins that were previously used in the calculation of the "number of pending overdue tasks" column (TOTAL_OVERDUE_TASK_COUNT).

- CAPT and QUEUE aggregation plugin logic has been enhanced to make segmentation/aggregation using just one fifth of the BUSINESS_VALUE and PRIORITY dimensions' FK values without affecting current reports. This reduces both iWD Data Mart storage usage and ETL calculation time.

iWD History Node

- The behavior of configuration options stop-processing-delay and stop-processing-interval has been corrected, and documentation has been updated.

iWD REST API

- **REST API changes**—Logout via the GET method is no longer supported. From release 9.0.014, only the POST method is now supported. See the *iWD REST API Reference Guide* for details.

9.0.013

iWD Manager

- **iWD Query Language improvements**—You can now can save and edit iWD QL queries and make them public to share with other users. More information
- **Filter and View changes**:
  - iWD Manager now remembers the latest GTL view settings and restores them on returning from another page.
  - iWD Manager now loads lists of possible values for Disposition Codes and Agent Groups to be used in Filters, iWD Query Language (iWD QL) queries and the Custom Filter Query Wizard.
- **UI improvements**—Several UI improvements and fixes have been made, including:
  - The iWD QL autosuggest panel can now be hidden by pressing the Escape button on the keyboard.
  - When the mouse pointer is over the iWD QL status icon, a detailed status message is shown.
- **REST API changes**—Changes to the iWD Manager REST API are described in the following topics:
  - In the Fetch paginated list of tasks query the request format was changed from GET to POST.
- HTTP Status Code 302 Found is replaced with 307 Temporary Redirect.
- The Request Body format for the following queries has been changed:
  - Bulk operations.
  - Get common task attributes for modification.
  - Export selected tasks.

- **Standard Rules Template changes**—iWD Standard Rules Templates are now supplied in both the Eclipse project format and XML format for compatibility with GRAT 9.0.

iWD Runtime Node

- **Migration changes**—Improved and extended Data Migration from iWD 8.5.1 to iWD 9.0 by adding the ability to migrate data from the EventLog database to iWD Data Mart. More information

iWD History Node

- **Performance**—iWD History Node processing performance has been improved by up to more than two times in synthetic data scenarios. Event Logger DAP templates with the recommended settings for this improvement are now provided with the iWD History Node IP.
- **Migration**—Improved and extended Data Migration from iWD 8.5.1 to iWD 9.0:
  - Added ability to migrate data from the EventLog database to iWD Data Mart.
  - Re-worked the Migrating GTL History Events procedure.
  - Added a new option taskEventLimit to protect against tasks with a large amount of events.
  - The fetchSize option is deprecated.
  - More information
- **Event Logging**—Configuration option **event-logger-mode** is deprecated. Starting from this version:
  - History Node determines the Event Logger type automatically based on the DAP connection provided.
  - There must be one and only one Event Logger DAP connected to History Node.

9.0.012

- **Kafka Support**
  - iWD now fully supports the Interaction Server Kafka Capture Point.
  - iWD now fully supports the Kafka Binary Event Logger provided by Interaction Server. Please see the following documents for more details:
    - How to configure the Kafka Binary Event Logger
    - How to configure History Node

    Starting with this release, you no longer have to have JMS as transport between Interaction Server and History node—you can have Kafka-only deployments of iWD.

    You can still use JMS Capture Point and/or JMS as transport between Interaction Server and History Node.
- **iWD Manager**
  - iWD Manager now loads lists of possible values for Queue Type and Media Type to be used in Filters, iWD Query Language (iWD QL) queries and the Custom Filter Query Wizard.

- Significant improvements for iWD QL have been introduced:
  - iWD QL now suggests possible values of attribute names, attribute values and operators.
  - iWD QL now supports the IN <LIST> operator.

    Please see the documentation for details.
- iWD Query Language is now fully localized.

- **iWD Runtime Node**
  - In views that are based on the TASK_AGENT_FACT table, measures are now summed up from both intraday and historical facts.
- **Support for Genesys Rules System 9.0**
  - iWD now fully supports GRS 9.0.

Platform Changes

- Support for the following databases is implemented:
  - Oracle 19c RAC
  - Oracle 18c RAC
- Support for Red Hat Enterprise Linux 6 is discontinued.

9.0.011

- **iWD GAX Plug-In**
  - **Compatibility with GAX**
    iWD Plug-in for GAX is now fully compatible with Genesys Administrator Extension (GAX) core version 9.0.100.52.
- **iWD Manager**
  - **iWD Query Language**
    Support for query capabilities in iWD Manager enabling users to perform SQL-like queries on the Global Task List.
  - **ORS Business Process improvements**
    Error handling: fixed several cases where error messages were not provided.
- **iWD Data Mart**
  - **Performance and audit improvements**
    - Significantly increased performance of the Load Intraday job: up to 4 times in certain synthetic data cases (real-life performance improvement may be lower).
    - The ETL Audit table is expanded with the following new columns — `ETL_AUDIT_START_TIME`, `ETL_AUDIT_FINISH_TIME`, `DURATION`, `STATUS`. For more information, see the iWD Data Mart Reference Guide.

Platform Changes

- Support for CentOS Linux 7 is implemented.
- Support for Red Hat Enterprise Linux 8 is implemented.
- Support for Windows Server 2019 is implemented.
- Support for MSSQL Server 2019 is implemented.
- Support for PostgreSQL 10 is implemented.

9.0.010

- **iWD Manager**
  - **Support for custom attribute types**
    You can now configure custom attributes types in Genesys configuration layer. iWD Manager uses these types for validation in filter criteria and for proper display of task details. Configuration details are here. Please perform the migration as described here.
  - **ORS Business Process improvements**
    - The maximum number of retries to connect GRE/UCS is now restricted for the InvokeGRE and InvokeUCS strategies in order to prevent an infinite loop if GRE/UCS is down.
    - The iWD Business Process now properly handles ORS timeouts and GRE/UCS unavailability.
  - You can now create a bookmark for any page in the Global Task List (for example, for a custom filter). If you navigate to this bookmark after being logged out, you are routed to login and then redirected to the desired URL after authentication. In previous versions, bookmarked pages could be used only after logging in explicitly.
- **iWD Data Mart reporting enhancements**
  - **Default Values**
    iWD Data Mart now calculates and aggregates tasks which are not yet classified or prioritized at the moment of aggregation. The default value `Unclassified` is used to populate undefined values in the following dimensions:
    - DEPARTMENT
    - PROCESS
    - PRIORITY
    - BUSINESS VALUE

    Undefined values in other dimensions are now set as `Unknown`.
  - **New configuration option**
    A new configuration option—**aggregation-delay-interval**—is introduced. You can now specify a number of minutes (in 15-minute increments—15, 30, 45, and so on) to be waited before aggregation. Setting this parameter helps to avoid getting default values (`Unclassified`, `Unknown`) in reports. Set the value to a sufficient amount of time to ensure pre-routing activity is already completed and all tasks' properties are populated.
  - **Pending Metrics**

The calculation logic for some rare cases has been fixed. The following measures are affected:

- TOTAL_PENDING_TASK_COUNT
- TOTAL_OVERDUE_TASK_COUNT

These metrics belong to the aggregates:

- TASK_CAPT_FACT
- TASK_CLASSIF_FACT
- TASK_QUEUE_FACT

- **Real-time reporting**
  Real-time reporting metrics are now calculated over facts, not over aggregates. This means that real-time reporting will receive the latest processed data, even if an aggregation delay is set to more than `0` (zero) or if the aggregation process is delayed for some reason.

- Support for the following databases. See the IWD section in the *Supported Operating Environment Reference Guide* for more detailed information and a list of all supported databases.
  - Oracle 12c R2
  - Oracle 12c R2 RAC
  - Microsoft SQL Server 2017

9.0.009

- Support for OpenJDK 11.
- iWD Manager:
  - Provision of a default filter to be applied when users open the Global Task List.
  - New **Create Copy** button for copying filters.
  - A Queue selector for filter criteria now shows all iWD queues for the selected tenant.
  - A mandatory `tenantId` parameter has been added to the FetchFilterCriteriaTemplates method.
  - Improvements to display of non-English characters.
- iWD History Node:
  - Additional JMS parameter support.
  - Support for the IBM MQ JMS provider.
- iWD Data Mart:
  - Support for native plugins to improve performance.
  - Improvements to the KETTLE version of the AGE plugin.
- Improvements to the iWD Business Process for Composer/ORS.

9.0.008

- Support for Genesys CX Insights (GCXI) has been introduced.
- The Statistics Adapter job can now automatically create Virtual Queues for real-time reporting. MORE DETAILS
  New Pulse widgets are provided within the iWD Runtime Node IP. (IWD-8105) MORE DETAILS
- iWD Manager filters now support "is like" and "value in list" criteria. MORE DETAILS
- Logging configuration been unified for all iWD components. LMS files now contain full log messages, so Message Server alarms can be set up in the same way as other Genesys products. MORE DETAILS
- Support for OpenJDK 8 is introduced.

9.0.007

- **9.0.007.07**:
  - iWD Manager, iWD Plug-in for GAX, and iWD Web are now localized into the following languages: Chinese (Simplified), French (France), German (Germany), Portuguese (Brazilian), Russian, and Japanese.
  - The iWD Data Mart database schema has been changed. See migration information for more details.
- **9.0.007.05**:
  - iWD Manager and iWD Web are now localized into Spanish (International). iWD Plug-in for GAX is now localized into Spanish (Latin America) and Spanish (Mexico).
  - The Statistics Adapter job can now write settings into multiple Stat Server primary/backup pairs. Previously, it could only write to one such pair.
  - JDBC Driver Class, JDBC Driver JAR File and JDBC URL can be explicitly configured for iWD Stat Extensions, using iWD GAX Plug-in. These configuration options are optional. By default iWD Stat Server Extensions will use values from iWD Data Mart and default values. MORE DETAILS.

9.0.006

- iWD Manager and iWD Web now fully support Local Control Agent (LCA).

9.0.005

- **Changes to iWD History Node**
  - iWD History Node now fully supports Local Control Agent (LCA). iWD History Node's Application type has been changed from type `Third Party Server` to type `Genesys Generic Server` to support this change.

  - A new configuration option—**centralized-logging**—now enables configurable centralized logging to Message Server.
- **iWD Data Mart**—IWD Data Mart now supports centralized logging. A checkbox that enables logging has been added to the Data Mart logging settings in the GAX plugin.
- **Changes to Application types**—The Application types of iWD Manager Server, iWD History Node and iWD Web have been changed from type `Third Party Server` to type `Genesys Generic Server`, in order to support the implementation of Local Control Agent (LCA) functionality for iWD History Node.
- **Extension of TLS Support**—Connections from iWD Data Mart and iWD History Node to Message Server now support TLS. Please read this topic.

9.0.004

- Support for Transport Layer Security (TLS) 1.2 is implemented. Please refer to the new Configuring TLS for iWD guide.
- iWD Manager configuration—iWD Manager configuration has been moved from the **iwd.properties** file to the iWD Manager Application object in Configuration Server. Please refer to iWD manager configuration options.
- A **Pause** block with a configurable delay has been added to the InvokeGRE workflow of the IWD Business Process for Composer/ORS, in order to guarantee that interaction updates will be received. For more information, see IWDBP Strategies & Subroutines. (IWD-7465)

9.0.003

Platforms/Tools Changes

- Support for Microsoft SQL Server 2016 is implemented.
- Support for MS SQL 2016 Cluster & AlwaysOn is implemented.
- Support for Windows Server 2016 is implemented.
- Support for Jetty 9.4 is implemented.

> **Important**
> Please see the release note Known Issues topic.

9.0.002

iWD History Node

iWD History Node is an application that filters the flow of data from the Interaction Server, so that only iWD-relevant data is made available to iWD, thereby boosting performance.

Background

In iWD deployments with a large number of interactions, very high volumes of events can be stored in the Event Log database. The size of the Event Log database can affect performance for both iWD and Interaction Server. Besides using database tables used by iWD, Interaction Server can provide Event Log data via the Java Messaging Service (JMS) queue. The new iWD History Node application utilizes this mechanism to filter uninteresting records before they enter the database. It also splits the source data stream into separate tables, one for Data Mart and one for the Global Task List. Thus each table can be maintained separately, reducing the complexity of the Prune job.

History Nodes can also be configured in clusters.

New Process Summary

1. Interaction Server sends reporting events to the JMS queue instead of storing them in the Event Log Database.
2. History Node reads events from the JMS queue, filters them and extracts important information. The JMS queue remains almost empty the whole time.
3. Only events needed by iWD are processed and saved in History Node's database.
4. Only relevant information from the events is stored in History Node's database.
5. Events are stored in two tables in History Node's database, one for use by Data Mart, one for use by GTL.
6. Events can be queried by iWD Manager via the REST API.
7. GTL events are removed from History Node's database when the interaction is completed.
8. Events can be queried by iWD Data Mart via the REST API.
9. Data Mart events are removed from History Node's database immediately after they are processed by Data Mart.

More Information

- iWD Architecture diagram
- Installing History Node
- Configuring History Node
- History Node Configuration Options
- History Node Migration
- History Node Limitations

- iWD Reporting architecture

REST API for iWD Manager

- The REST API for iWD Manager is now available to customers who want to develop custom solutions.

iWD Manager Updates

- The user interface of iWD Manager has been updated to bring it into line with other Genesys applications and components. As part of this update, the Custom Interaction Properties functionality has been moved into the iWD Plug-in for GAX. iWD Manager Help and iWD Plug-in for GAX Help have also been updated accordingly.
- iWD Manager now runs as a standalone Java application without needing any external servers.

Removal of IWD Manager Configuration Database

- iWD Manager no longer has a separate database for configuration objects. Configuration of iWD Manager filters, icons and user settings has been moved to Configuration Server.

Support for Interaction Server Cluster via Proxy

Before release 9.0, iWD supported multi-Interaction-Server deployments with tasks segmented into logical entities called Solutions. In this architecture, each Solution is handled by a single Interaction Server (possibly in primary-backup configuration) and each Interaction Server can handle multiple Solutions. iWD 9.0 expands this capability with an architecture where a single Solution can be handled by multiple Interaction Servers via an Interaction Server Proxy.

More Information

- Installing Interaction Server
- Business Structure (GAX Plug-in Help)

Support for Automated Import of XLS/CSV Files in iWD Web

In release 9.0, you can configure automatic import of .XLS and .CSV files with column headings, based on a time interval of the customer's choosing. Source systems export tasks/work items to a safe location that iWD Web can access. iWD Web checks for the presence of a new file in this location, checks the file format, then imports the individual tasks to iWD / Interaction Server for insertion into the Global Task List. Automatically uploaded jobs can be viewed (alongside any manual uploads) in the **Jobs List** tab of iWD Web.

To use this feature, you must create and configure a special iWD Web capture point, similar to a File capture point.

> **Important**

> Please note that handling of New tasks only is supported in the initial release.

More Information

- Automated Upload Overview
- Creating an iWD Web Capture Point for Automatic Job Upload
- Defining Customized Mapping for iWD Web Capture Point

Platforms/Tools Changes

- Support for Java 8 (mandatory for iWD 9.0 components) is implemented.
- Support for the Safari 10 browser is implemented.
- Support for embedded Tomcat is implemented.
- Support for Redhat Linux 7 is implemented.

Discontinued Support

- Support for Java 7 and Java 6.
- Support for IBM WebSphere.
- Support for Microsoft Internet Explorer versions 8, 9 and 10.
- Support for Windows Server 2008.
- Support for MS SQL Server 2005.
- Support for the ACME samples tools and demonstration.
- The iWD Data Mart Reference Guide has been updated to reflect the fact that distribution points have been removed from iWD Data Mart.