

# webMethods Product Suite 9.6

## Release Notes

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Release 9.6 of the webMethods product suite is another significant step in combining cloud, mobile, and social technologies with automated business processes and the agility needed to fully power your digital enterprise.

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## Release Highlights

### Application Integration

The webMethods suite provides many application integration enhancements in cloud integration, template-based provisioning, B2B and file transfer capabilities, mobile support for enterprise applications, and advanced API management. Some highlights are as follows:

- Multiple instances of webMethods Integration Server can now be configured within the same installation, eliminating the need to install Integration Server multiple times.
- webMethods Command Central configuration and large-scale installation tasks are made easier through the use of templates that can be created from existing installations and applied to other installations.
- The Command Central Cloud Factory provides a unified way of launching and managing a mixture of public cloud and private cloud instances.
- The processing of transactions in webMethods Trading Networks has become faster through the use of asset caching.
- Most of an organization's JNDI assets and JMS assets, such as JMS queues and topics, can now seamlessly be moved from webMethods Broker to webMethods Universal Messaging using a new command line migration utility.
- A new feature of webMethods Enterprise Gateway, called webMethods Mobile Support, provides a mobile data synchronization framework for developers to create offline mobile applications that can access distributed data managed by backend ERP applications. Mobile Support provides built-in support for synchronization logic, thereby allowing developers to focus on developing the business logic.
- webMethods OneData includes several enhancements to improve the quality of data, including new engines that can be used in Cleanser and Matcher projects. In addition, OneData integrates webMethods Locate to provide an address verification and geocoding solution in Cleanser and Matcher projects.
- API key management functionalities in CentraSite ActiveSOA have been extended to provide consumers with direct and convenient access to API keys they own, from their user preferences in the CentraSite Business user interface.

## **Business Process Management**

The Business Process Management portfolio has been enhanced to improve productivity and cost savings. These enhancements provide better visibility of processes and tasks, enhanced escalation management via push notifications for violations of critical tasks, easy creation of BPM mobile applications, and full integration with backend systems. Mobilizing BPM processes provides the ability to generate higher business value and improves customer experience.

BPM highlights in this release include the following:

- Stage and milestone dashboards available in webMethods Optimize for Process will allow users to set goals and milestones for a process and track these via email alerts for SLA violations and process and stage exceptions.
- With the introduction of webMethods Mobile Task Integration, developers can quickly create applications based on existing business processes and tasks, with minimal code, and build most of their mobile task projects out of the box. Developers can then distribute and monitor their Mobile Task Inbox applications using the webMethods Mobile Administrator push notification API.
- Significant performance improvements have been made in webMethods Monitor query results through the use of caching techniques and retrieval of data for task charts.
- Several enhancements have been made to webMethods Business Rules that improve the development and management of rules. For example, Business Rules now provide the ability to manipulate rules with a set of predefined functions that perform simple or complex functionality for a decision table condition, a decision table assignment result, or an event rule assignment result with minimal effort.

## **Mobile Suite**

In this release, Software AG is pleased to introduce webMethods Mobile Development, a new mobile suite component. Mobile Development is a new Software AG Designer plug-in that provides tools and features that developers can use to develop mobile applications more quickly and reliably. Mobile Development also easily integrates with webMethods Mobile Administrator so that the corresponding Mobile Administrator instance can be used to build, test, and deploy projects.

## **Cross-Suite Enhancements**

webMethods product suite 9.6 provides several enhancements across the suite. Some highlights include the following:

- Enhancements were made to the upgrade process that improve the user experience and the overall effort involved in migrating from prior webMethods product releases. Almost all of the products in the suite have adopted this migration framework.
- The Software AG Installer now supports Windows 8.x operating systems.
- webMethods products now support Oracle Database 12c for webMethods database schemas.
- webMethods product suite 9.6 products are supported on Windows Server 2012 R2 and Windows 8.1.

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For important updates and a list of enhancements and issues that have been addressed since the previous release of each product, see the webMethods product readme files. You can access these documents, as well as all product documentation, from the webMethods area on the [Software AG Documentation website](#).

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## CentraSite ActiveSOA

### Role Management in the Business User Interface

The ability to manage roles has been added to the organization management screen in the Business user interface. Administrators can now create custom roles, add permissions to these roles, and assign the roles to users and groups.

### Reclaiming Disk Space in the CentraSite Database

A new command, “inoadmin reorganize,” is provided to defragment and reorganize the database files, thereby reducing the size of the database files when data is purged.

### Advanced API Key Management

API key management functionality has been extended. Consumers can now manage their API keys through their user preferences, as well as renew and revoke API keys. API providers can revoke API keys from the profiles of the API asset.

In addition, notifications can be configured to inform consumers about upcoming expirations of their API keys. Using the access token section in the user preferences, consumers can now simply renew an API key that has expired or is about to expire soon, without having to request an entirely new API key. This allows existing applications that rely on these keys to remain unchanged.

### API Virtualization in the Business User Interface

By way of the new Virtualize action, the Business user interface now offers the ability to virtualize APIs. This functionality contains all aspects of proxy API configuration and runtime policy action configuration that were previously available only in CentraSite Control. Virtualization rules configured in this release will be scoped to the proxy API on which the virtualization has been performed.

### OAuth2 Policy Enforcement

CentraSite now provides a configurable approval workflow for APIs that are to be protected by OAuth2. The API provider can configure whether approvals are required and which notification templates are to be used. Users consuming APIs that are protected by OAuth2 can manage their OAuth2 client credential information through their user preferences in the Business user interface.

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## Software AG Designer

### Mac OS Support

Software AG Designer's common plug-in and the webMethods Mobile Development plug-in are now supported on Mac OS.

### Improvements in Startup and Installation Time

Reduction of bundle conflicts and improved consistency in Eclipse 4.3 bundle usage have improved Designer's overall startup and installation time.

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## Software AG Installer

### Logging Levels Stored in Scripts

When a product is installed from a script, the logging level selected when the script was created is used by default.

### Support for Windows 8.x

The Software AG Installer now supports Windows 8.x operating systems.

### Support for Relative Paths in Installation Scripts

The Installer now uses a different self-extractor mode when launching, so relative paths can now be used in installation scripts for Windows when using the exe file.

### Java 7 Requirement

The Software AG Installer and Uninstaller are now compiled with Java 7.

- On Windows, the Oracle Java 7 JRE is bundled inside the exe file used to start the installer.
- On Mac OS X, the Oracle Java 7 JRE is bundled inside the DMG file.
- On UNIX, a Java 7 JRE or JDK must be installed to use the installer.

For more information, see *Using the Software AG Installer*.

### Software AG Software Download Center (SDC) Outage Notification

When the SDC is down for maintenance, the Software AG Installer now displays a message that indicates the outage when the installer tries to connect to the SDC.

## **Prevention of Unsupported Overinstalls**

The Installer now prevents users from installing older releases of Software AG products over newer releases. The installer also prevents users from overinstalling products that do not support overinstallation.

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## **Software AG MashZone**

### **Integration with the ARIS Product Line**

Integration with the ARIS product line was removed in the previous release of Software AG MashZone. In release 9.6, a new data source called "ARIS table" has been added to MashZone to facilitate consuming data from ARIS Business Server.

### **Continued Map Support in MashZone**

In previous versions of MashZone, there was a dependency on Google Maps to provide mapping capabilities. In response to reports that Google will be retiring this capability in 2014, a new mapping capability based on OpenStreetMap and Bing Maps has been added to MashZone. All customers using maps in their dashboards are advised to upgrade to this release to ensure ongoing availability of their maps.

### **Mobile Support**

iOS 7 is now supported for mobile use of MashZone.

### **Portuguese Language Support**

MashZone is now available in Portuguese.

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## **Software AG Process Performance Manager**

### **Improved Handling of Percentiles**

Percentiles can now be calculated at the instance level.

### **Improved Handling of Event Data**

Each type of Event data can now be configured individually in Software AG Process Performance Manager. In addition, the overall configuration process has been simplified.

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## **webMethods ActiveTransfer Gateway**

### **High Availability Support**

webMethods ActiveTransfer supports high availability of ActiveTransfer Servers serving as gateways and internal servers, both in the DMZ and behind the firewall. When an internal ActiveTransfer Server becomes unavailable, client requests are automatically redirected to another ActiveTransfer Server that is connected to the same ActiveTransfer Gateway, without interrupting the file transfer between the client and the ActiveTransfer Server.

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## **webMethods ActiveTransfer Server**

### **High Availability Support**

webMethods ActiveTransfer supports high availability of ActiveTransfer Server. When an ActiveTransfer Server becomes unavailable, client requests are automatically redirected to another ActiveTransfer Server that is connected to the same ActiveTransfer Gateway, without interrupting the file transfer between the client and the ActiveTransfer Server.

### **Improved Logging**

The ActiveTransfer Server log page has been enhanced for easy access to the log entries, thereby improving an administrator's experience when searching for information in the server logs. By default, the server log screen now presents a scrolling update (last 1,000 lines) of the server log, with options to edit the number of lines displayed. The log can also be enabled to scroll up when new information is appended to it. In addition, a flexible search option is provided to quickly get to a particular section within a log. The filter option can be used to display or hide the log entries that meet the filter criteria.

### **Conditional Execution of Post-processing and Scheduled Actions**

ActiveTransfer Server provides a new action called "Jump" to switch from a sequential execution of actions to a conditional execution. The Jump action enables post-processing and scheduled events to skip one or more actions and execute a designated action in the event. A Jump action can be executed conditionally based on a variety of file and transfer parameters, including file name, file size, transfer speed, and transfer time window. A Jump action can also be unconditional and can be applied on all files participating in the event.

### **Excluding Files from Certain Actions**

ActiveTransfer Server provides a new action called "Exclude" that, when configured prior to another action or set of actions, excludes files from those subsequent actions based on a source filter.

## Additional Transfer Settings for Outbound FTP(S) Transfers

ActiveTransfer Server, when acting as a client for outbound transfers, provides several settings to connect to external servers through FTP, FTPS, and FTPES protocols. The new configuration settings include ASCII/Binary mode, Active/Passive mode, Simple mode (used primarily for connections to AS/400 systems), and the Convert Line Endings option to change the line endings in the file for file transfer in ASCII mode.

## Usability Enhancements

ActiveTransfer Server includes the following enhancements to improve usability related to setup of virtual folders and configuration of events:

- Administrators can test connections with target remote servers and fine-tune any changes necessary in virtual folder definitions before the folders are made available for file transfers.
- Administrators can browse all virtual folders when using any of those folders in File operation tasks in post-processing and scheduled events. This avoids the need to toggle back and forth between the Virtual Folder Management and Event Management screens.

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# webMethods ApplinX

## Blocking Access to URLs in an ApplinX Web Application

A new security feature provides the ability to block access to each URL in an ApplinX web application. This is achieved with a property file that contains the URLs of the web application pages and the access permissions for each URL. The following access roles are available:

- **Unauthenticated.** This role identifies users who did not pass the authentication process and who have the minimal access permission.
- **User.** This role identifies users who have regular permissions.
- **Admin.** This role identifies users who have the highest permissions.

For more information, see *Blocking Access to URLs in an ApplinX Web Application* in *Appendix B: Security in ApplinX* in the *ApplinX User Guide*.

## Improved Natural Data Transfer (NDT) Functionality

The following improvements have been made to the Natural Data Transfer functionality:

- The old Visual Basic implementation has been replaced by a modern .NET implementation.
- Product usability has been enhanced by supporting more customer use cases in the context of NDT.



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## webMethods BPMS

### Process Architecture Improvements

Improvements were made to the webMethods Process Engine architecture, including process archiving, database partitioning, EDA enablement, and JMS adoption.

### Monitor Process Diagram and Query Enhancements

Process diagrams for version 9.6 are displayed with Google Web Toolkit (GWT). Process models from earlier versions are still displayed with Adobe Flash; these models can be upgraded to version 9.6, after which they are displayed with GWT.

In addition, the performance of webMethods Monitor query results has been improved through the use of caching techniques.

### Task Engine

Performance improvements were made in the retrieval of data for task charts.

### Mobile Task Integration

The following enhancements were made with respect to handling mobile tasks:

- **Mobile task integration.** webMethods Task Engine and Task Development now enable mobile task applications to be created from existing task applications that have been published to My webMethods Server/Task Engine. Users can access the task inboxes for these mobile task applications from their iOS or Android mobile device, and can view and interact with tasks assigned to them, search for tasks, and accept and complete tasks. Note that webMethods Mobile Task Integration is an add-on to the BPMS bundle and is licensed separately.
- **New Mobile Task Project Wizard.** The New Mobile Task Project Wizard provides the ability to create a Mobile Designer project from existing task types.
- **Support for multiple task types in one project.** This feature enables the creation of a separate mobile task application project for each task type or a single mobile task application project that can handle multiple task types.
- **Support for operation while disconnected.** If mobile device connectivity is interrupted by poor or intermittent signal strength after a user logs on, the user can still work on tasks while disconnected. When connectivity is restored, the tasks are synchronized with the server.

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## webMethods Broker

### Migration Utility

webMethods Broker offers a new command line utility to migrate JNDI assets and JMS assets, such as JMS queues and topics, from Broker to webMethods Universal Messaging. This migration utility provides the ability to move most of an organization's assets automatically.

## **Improvements for Default Settings**

The default values for settings such as cache, storage file size, parallel channels, and file settings have been adjusted to reflect customers' current common settings.

## **Monitor Authentication**

Broker Monitor now connects to Broker Server only after Broker Server authenticates the requesting Broker Monitor, thus providing additional security for Broker Server.

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# **webMethods Business Rules**

## **Rules Management Console Improvements**

The following improvements were made with respect to rule management:

- The Rules Management Console now supports the use of the My webMethods Server principal picker. Decision tables now support My webMethods Server users and groups, enabling easier use of business rules for task assignment scenarios.
- The Decision Table Editor in the Rules Management Console provides a filter control to limit the displayed decision table rows. Rows can be filtered for My webMethods Server users, groups, and roles as well as any string value.
- The Rules Management Console now supports locking of individual decision tables and event rules. Users can lock or unlock decision entities to prevent their changes from being overwritten by other Rules Management Console users.

## **webMethods Rules Development Improvements**

webMethods Rules Development now provides a set of predefined string and numeric functions that provide the ability to perform simple or complex functions for a decision table condition, a decision table assignment result, or an event rule assignment result. A function can require input parameters that can be manually entered or mapped to existing parameter elements.

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# **webMethods CloudStreams**

## **Usability Enhancements**

The following usability enhancements were added to this release of webMethods CloudStreams:

- The CloudStreams framework no longer displays prefilled input variables in cloud connector services by default. These variables can be viewed if desired by pressing a toggle switch.
- The CloudStreams framework now hides generated document type packages because users do not use these packages directly. Hiding these packages also helps reduce clutter in the Software AG Designer Service Development plug-in views.

- CloudStreams provides a new group view for listing connectors in the administration screens. This view groups all connectors for a particular provider in one place, even if the connectors were built by a different set of developers. For example, some connectors (for the same provider) could be provided by Software AG, whereas others could be custom-built by the end-user developer. This reduces clutter and enables the administrator to quickly find connectors.
- CloudStreams provides support for enhanced governance policies that can log messages to the local server log.
- The CloudStreams framework provides enhanced usability while accessing the query operation for a particular SaaS API (for example, a Salesforce partner SOAP API query operation). The framework automatically generates the query string based on the business object and fields that the user selects while defining the cloud connector service.

### **Out-of-the-Box Connectors**

CloudStreams now provides connectivity to ServiceNow and NetSuite.

### **Automatic OAuth Token Refresh Capability**

Expired OAuth access tokens in configured OAuth aliases can now be refreshed automatically. A refresh token and the refresh token URL, used in the automatic refresh process, can be specified as part of the OAuth alias configuration.

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## **webMethods Command Central**

### **Template-Based Provisioning User Interface**

webMethods Command Central provides capabilities for creating templates from existing installations and then applying the templates to other installations. Such templates help ease the execution of large-scale installation or configuration tasks. Templates can now be saved and applied directly from the Installations pages in the Command Central web user interface, making template use even easier.

### **Repository Management**

Repository management in Command Central allows the definition of one or more repositories that act as a source for installation files when installing webMethods products or fixes. A Master repository provides a connection to the Software AG software and fix download locations, whereas Image repositories allow central storage of image files created using Installer or Update Manager.

These repositories can be used as part of template-based provisioning.

## **Integration Server Configuration**

Command Central now allows the configuration of additional Integration Server settings through the command line tools, REST API, and web user interface. The following configurations are available:

- Ports
- License keys
- JNDI aliases
- JMS aliases
- webMethods Messaging aliases
- Extended settings
- JDBC pools and functional aliases
- Keystores
- Truststores
- Resources
- Email settings
- Log settings
- Global variables

## **Log File Viewing**

Command Central now provides central remote access to log files for various products. Log files can be viewed directly in the web browser, with the assistance of filtering and highlighting to help find specific text strings. Additionally, single or multiple log files can be downloaded as plain text or compressed ZIP files for faster download of large files.

## **License Report User Interface**

Command Central now provides a user interface for easy generation of and access to license reports. These reports show, at a glance, which license keys are used on which servers throughout the defined landscape. This information is helpful in managing an organization's compliance with its license agreement.

## **Instance Creation**

Command Central now provides the ability to create additional instances of select webMethods products using command line tools and the REST API. Each new instance has its own configuration and can be separately started, stopped, or monitored while sharing a common set of product files and fixes.

## **Cloud Factory API**

Command Central now provides command line and REST API functions for managing cloud-based virtual machine instances. Account configuration allows central setup of multiple accounts on VMware and/or Amazon EC2. Using a single API with those accounts, instances can be launched, started, stopped, and deleted across both platforms.

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## webMethods Composite Application Framework

### JavaServer Faces 2.2 Support

webMethods Composite Application Framework now contains introductory components for developing portlet and web applications in a JSF 2.x environment. Also included is a JSF 2.x tag library for CAF controls, with related documentation. For more information about working with the limited JSF 2.x functionality in this version of CAF, see *webMethods CAF Development Help* and the *CAF Tag Library Reference*.

### Hot Deployment of Jar Files to the Deploy Folder

To simplify development and deployment activities, My webMethods Server supports hot deployment of jar files directly to the *Software AG directory\MWS\server\instance\_name\deploy* folder. The jar files can also be installed using the My webMethods Server Install Administration portlet or deployed from Software AG Designer.

### Validation and Code Completion Assistance

XSD schemas are now provided for xmlImport files. The XML editor uses these schemas to provide validation and code completion assistance when developers are editing the files.

### JSR 303 Bean Validation

A developer can now annotate a Java model with validation constraints using standard JSR 303 JavaBean annotations instead of attaching validators to the controls that are bound to that model.

### Package Export Enhancements

When packages are exported from a WAR file or a Utility jar project, the generated Java package names are now made unique so they do not conflict with other components.

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## webMethods EDA Enablement

### EDA Enablement

MAPI events, historically used to push process data into webMethods Optimize, now also emit EDA events.

### Programmatic Creation of Event Types Outside of Software AG Designer

In previous releases, event types could only be created using functionality available in Software AG Designer. The Event Type Store API has been extended to allow clients such as webMethods Optimize and webMethods BPM to create event types on the fly and deploy those event types to their local Event Type Store.

## Guaranteed Delivery

Events are no longer lost following system failures.

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## webMethods Enterprise Gateway

### Support for Mobile Data Synchronization Framework

webMethods Enterprise Gateway now provides support for a mobile data synchronization framework by way of the new webMethods Mobile Support feature. With this feature, developers can quickly author offline mobile applications that retrieve data from a backend database when the mobile network is online, store that data on the device database, and enable mobile device users to work with the stored application data even when the network is offline. Later, when the mobile network is back online, mobile device users can upload the data changes back to the backend database and retrieve any changes made in the backend database while the device was offline.

Mobile Support provides the following the capabilities:

- Bidirectional synchronization of data between multiple mobile devices and backend databases
- Automatic conflict detection and resolution based on configuration in Mobile Support mobile sync components
- Incremental download and upload of data

### Mobile Data Synchronization Client Library

By way of the Mobile Support feature, Enterprise Gateway provides a mobile data synchronization client library. When used in conjunction with webMethods Mobile Designer, the Mobile Support Client library allows users to quickly create offline mobile applications by leveraging the mobile data synchronization framework.

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## webMethods EntireX

The main purpose of this release is to enhance webMethods EntireX support under z/VSE. This release also ensures compatibility with version 9.6 of the webMethods product suite and includes multiple fixes, changes, and enhancements. For more details about these enhancements, see *webMethods EntireX 9.6 Release Notes*.

### Enhanced z/VSE Support

EntireX support for z/VSE has been thoroughly reworked and is now at a level comparable to other EntireX platforms, such as z/OS. This also means that the Application Monitoring feature of webMethods Optimize for Infrastructure can now also be used with EntireX and Natural components running under z/VSE.

## **Improved Handling of Project Export/Import in EntireX Workbench**

Improvements have been made in the export and import of projects in the EntireX Workbench (also known as the EntireX Designer).

During the archival of an EntireX project, when either the export feature of Eclipse or the check-in feature of a revision control system such as Subversion or CVS are used, an external properties file can be used to store the properties of IDL files. These properties are restored from this external file when the project is imported or checked out.

## **CICS RPC Server with Enhanced Impersonation**

A value of YES is now supported for the IMPS configuration parameter. The CICS RPC Server then uses the RPC user ID and password supplied by the RPC client for authentication and impersonation of the client. This means that the RPC Server validates the password.

## **Improved Handling of Security Messages under z/OS**

The EntireX broker attribute PRODUCT provides the ability to specify the name of the installed security product (ACF2, RACF, or TOP-SECRET). This attribute is used to analyze security system-specific errors. This feature was available in earlier versions but was not documented.

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# **webMethods Integration Server**

## **Multi-instance Integration Server**

webMethods Integration Server now provides the ability to configure multiple instances within the same installation, which means that multiple Integration Servers can be run without having to install the product multiple times. Each instance can have its own set of custom packages and can be separately started, stopped, and configured.

## **Support for Ehcache Search API**

Integration Server provides a public search service for searching custom caches configured on the server. The public search service offers the ability to issue complex search queries against caches with pre-built indexes.

## **Improved Support for Handling Daylight Saving Time Changes**

The Integration Server scheduler has been enhanced to provide improved support for handling daylight saving time changes. With the new enhancements, the Integration Server scheduler will continue to do seamless executions of scheduled jobs across these time changes.

## **Flexible Access Control Mechanism for Manipulation of Files**

Integration Server file manipulation services (pub.file:\*) allow manipulation of files on disk. The built-in access control mechanism allows administrators to control which files and directories can be accessed using these services. This mechanism now allows the use of wildcards, thus providing more flexibility when defining file and directory naming schemes.

## **Authentication with Third-Party HTTP Server using Digest Password**

Integration Server is able to authenticate with third-party HTTP servers using a digest password for HTTP authentication.

## **Multiple Conditions and Joins for webMethods Messaging Triggers**

Integration Server triggers now support multiple conditions and joins when these triggers are used with webMethods Universal Messaging.

## **Client-Side Queue Support when Publishing to Universal Messaging**

When messages are published to Universal Messaging using the `pub.publish:publish` service, client-side queueing (CSQ) can now be used to provide extra resilience during failures or temporary outages of the Universal Messaging server or network.

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# **webMethods Mediator**

## **Transport-Level SSL Certificates for Consumer Identification**

webMethods Mediator now provides the ability to leverage pure transport-level certificates for identifying consumers.

## **Finer-Grained Analytics and EDA Enablement of Mediator**

Mediator has been enhanced to collect metrics and events with additional details, such as operations, resources, and endpoints. In addition, Mediator now leverages the EDA infrastructure to publish these events. A new log destination for EDA has been added to the run-time policies. A listener for events and metrics has been added to allow storage to a relational database configured in webMethods Integration Server.

## **OAuth2 Policy Enforcement**

Mediator can now enforce the use of OAuth2 for virtual services through run-time policies configured in CentraSite.

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# **webMethods Mobile Administrator**

## **Windows Phone 8 and Windows RT Enhancements**

The following enhancements were made to webMethods Mobile Administrator for Windows 8 and Windows RT support:

- The Mobile Administrator Build Node now supports building Windows Phone 8 and Windows RT applications using either webMethods Mobile Designer app projects or native Windows Phone 8/Windows RT SDK app projects.



- Mobile Administrator now provides an App Store for Windows Phone 8 applications through the mobile web site and a native App Store client application for Windows Phone 8.
- Mobile Administrator now collects and analyzes crash logs from Windows Phone 8 applications and makes them available to the app developer.

### **Mac Build Node Upgrade**

The Mobile Administrator Build Node for Mac OS X now supports running on Mac OS X 10.9 (Mavericks).

### **Android MDM Support**

Android Mobile Device Management (MDM) now supports basic commands to lock a device, wipe/erase a device, install an application, and remove an application.

### **Start Build Jobs Using Commit Triggers**

Mobile Administrator can be configured to automatically launch new build jobs from a build configuration once changes in the underlying source code repository have been detected.

### **Automated Testing Support**

Mobile Administrator now supports automated testing of mobile applications. The tests can be developed using the native test frameworks of the iOS, Android, and Windows Phone 8 SDKs and are executed as part of a Mobile Administrator build job.

### **Terms of Service Support**

The native App Store clients for iOS, Android, and Windows Phone 8 now support displaying and accepting a site's Terms of Service.

### **App Comments and Ratings**

Mobile Administrator now lets users add comments and star ratings to applications through the web interface or native App Store clients. Mobile Administrator also displays comments and ratings from other users.

### **Customizable App Version Stages**

Mobile Administrator now enables site managers to define custom app version stages, for example "Beta" or "Stable," and assign each app version to a stage.

### **Improved Build Job Dispatching**

In previous releases, Mobile Administrator offered the ability to dispatch build jobs depending on build nodes. This capability is now more reliable. In addition, users can now determine why a build job has been dispatched, or not dispatched, to a certain build node.

## **Smart Category Support**

Mobile Administrator now supports smart application categories, providing the ability to define filter strings to match application attributes.

## **Build/Test Developer Notifications**

Mobile Administrator lets developers configure email notifications for successful or failed build jobs.

## **LDAP Integration**

Mobile Administrator now supports linking to an LDAP service for user authentication and user/group management.

## **Push Notification API**

Mobile Administrator now provides an API to send push notifications to mobile applications on iOS and Android through Apple Push Notification Service (APNS) or Google Cloud Messaging (GCM).

## **Import/Export of Applications**

Mobile Administrator now supports importing and exporting single applications or groups of applications for backup and transfer purposes.

## **Site Configuration Assistant**

A site configuration assistant is available to help administrators perform necessary additional setup steps after creating a new or an additional Mobile Administrator domain.

## **Direct Installer and Virtual Installer**

Mobile Administrator can be installed on an existing Linux host using the direct installer script. Virtual installer supports the creation from scratch of a virtual machine running Mobile Administrator on any host operating system.

## **Application Binary Re-signing**

Mobile Administrator now supports re-signing of mobile application binaries for iOS .ipa binaries, Android .apk binaries, and Windows Phone 8 .xap binaries.

## **Activity Stream to View Platform Changes**

The Mobile Administrator web user interface contains a stream of significant user activities to make the discovery of new content easier for all users.

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## webMethods Mobile Designer

### Gesture Support

webMethods Mobile Designer now provides basic left/right gesture support to transition from one view to another.

### Push Notifications

Mobile Designer now includes support for push notifications for BlackBerry and Windows Phone platforms by way of the MIDP `javax.microedition.io.PushRegistry` class.

### NativeUI Demo Created Using webMethods Mobile Development

Mobile Designer provides a second version of the NativeUI demo, named `_NativeUIDemoX_`. This version of the sample was created using webMethods Mobile Development and illustrates the capabilities of Mobile Development.

The `_NativeUIDemoX_` sample project includes the information for the model, as well as business logic in the user space. Before this sample project can be used, the project must first be imported into Software AG Designer. Then, the Mobile Development “Generate Source Code” command must be issued to generate logic for the model and API. For more information about generating sources, see *webMethods Mobile Development Help*.

### iOS 64-bit Device Support

Mobile Designer now includes support for 64-bit iOS devices and simulators.

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## webMethods Mobile Development

webMethods Mobile Development is a new Software AG Designer plug-in. Mobile Development provides tools and features that developers can use to develop mobile applications. Mobile Development uses the principles of model view controller (MVC) architecture, which separates the user interface from the business logic and data.

### Mobile Development Perspective

Mobile Development provides a dedicated perspective for mobile application development. This perspective is integrated into the rest of Software AG Designer, providing a seamless IDE experience for a mobile developer.

### New Mobile Development Project Wizard

Mobile Development has a wizard that guides a developer through the process of creating a mobile project.

## Mobile Explorer View

The Mobile Development perspective includes the Mobile Explorer view, which contains a subset of the information in the Package Explorer. Mobile Explorer provides a more-focused display of the files and folders used in a mobile project.

## Outline Editor

The Outline Editor allows developers to visually develop their mobile applications. The editor displays a “tree” view (or outline) of the mobile application. The tree contains nodes for an application’s window, views, and dialogs. Child nodes of a view or dialog list the user interface elements, such as buttons or text entry fields, that a view or dialog contains. Using the Outline Editor, developers can do the following:

- Visually add user interface elements and drag and drop them to change their positioning on the tree.
- Set properties for user interface elements. For example, a font color property can be set for a button to indicate the color to use for the text on the button.
- Create multiple views for an application.
- Add event listener and event action nodes to the tree. For example, a listener can be added that “listens” for when a user presses a button, and an associated action can cause the application to transition to another view.

## XML to Java Code Generation

Mobile Development not only makes it easy for mobile developers to quickly and visually develop their mobile applications, but it also generates the Java code for the project from the visual model. This increases developer productivity by allowing the developer to focus on writing the core business logic that is required to power the application without having to write Java code for basic user interface controls.

## Mobile Administrator Integration

Mobile Development provides mechanisms to easily integrate with webMethods Mobile Administrator. The New Mobile Development Project Wizard provides panels that a developer uses to create a new mobile project and specify the corresponding Mobile Administrator instance to use to build, test, and deploy the project.

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# webMethods OneData

## SQL Server Support

As of version 9.0 SP1, SQL Server can be used as a webMethods OneData repository, with limitations as indicated in the *webMethods Product Suite Release Notes* for versions 9.0 SP1 and 9.5. Some limitations in previous versions have been addressed in OneData 9.6, as follows:

- The Network Recursive Hierarchy now permits data browsing and core data management functionality. This capability is available from the top menu for both the primary and secondary axis.
- It is now possible to create new projects.

- Model Configurator and Data Manager both now support LOB data types.

### **Internationalization**

The Data Steward functionality in the OneData user interface has been localized as of OneData 9.5 SP1. Users can choose their preferred language through the Preferences menu on the Menu toolbar.

### **Data Quality Improvements**

The following improvements have been made with respect to data quality:

- **Scheduling batch cleansing and matching jobs.** It is now possible to use the Job Center to schedule batch cleansing and batch matching jobs. New functions are also available in APIs to trigger cleansing and matching jobs from external systems.
- **Integration with webMethods Locate.** OneData supports an additional data quality engine, webMethods Locate, which can be used in Cleanser projects.
- **Built-in matching engine.** OneData now includes an internal data matching engine, which can be used in Matcher projects.

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## **webMethods Optimize for Infrastructure**

### **Universal Messaging Monitoring Enhancements**

webMethods Optimize for Infrastructure now monitors webMethods Universal Messaging clusters, threads, and connections.

### **Improved Optimize Upgrade Experience**

The Optimize for Infrastructure data migration framework has been automated in the following areas to simplify upgrade from versions 8.2.x, 9.0 SP1, and 9.5 SP1 to version 9.6:

- Support for Coherence clustering to reduce manual changes
- Support for SNMP agents to reduce manual changes

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## **webMethods Optimize for Process**

### **Universal Messaging Clustering**

webMethods Optimize for Process now fully supports Universal Messaging clustering.

### **Ability to Monitor Milestones**

Process tracking functionality in Optimize for Process has been extended to support the analysis of process stages and milestones. Optimize for Process now provides the following information in the form of both EDA events and REST services:

- Stage started
- Stage completed
- Stage breached

### Improved Visualization Using Software AG Presto

webMethods Optimize for Process includes new features that improve the visualization of processes. These features require a Software AG Presto license. The new features are as follows:

- **Process Overview Dashboard.** This dashboard provides a high-level view of any process, including intrinsic metrics, historical views, and normality comparisons. This view provides the ability to quickly find potential issues, obtain information about alarms and stage activity, and use email actions to share findings with others.
- **Process Instances Dashboard.** This dashboard provides a view of process activity and performance across a specified time range. A chart at the top of the dashboard displays historical information about process volume activity and cycle time performance. A table at the bottom shows individual process instances and offers the ability to send email notifications for individual process instances.
- **Stage Instances Dashboard.** This dashboard provides a view of stage activity and performance for a process across a specified time range. The top of the dashboard shows metrics about each stage, including information about activity, cycle time, and alarms. Selecting one or more rows in this table reveals information about individual stage instances and offers the ability to send email notifications for individual stage instances.

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## webMethods Service Development

### Local Service Development Certifications

Local service development has been certified to support the following Eclipse plug-ins:

- Subclipse 1.10.x
- Polarion Software Subversive SVN plug-in and connector 3.0.x
- Eclipse Git Team Provider 3.3.x

### Publishing Documents as JMS Messages

webMethods Service Development now includes support to create a launch configuration that publishes an instance of an IS document type to a JMS provider. By using a launch configuration to publish the JMS message, developers can test the document type in a JMS solution without needing to build a service that sends the document type as a JMS message.

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## webMethods Trading Networks

### Event Enablement

webMethods Trading Networks is now event enabled and can publish all events related to Trading Networks transactions and tasks to the event store. The run-time events are categorized into five groups: Transaction Events, Transaction Complete Events, Delivery Task Events, Service Execution Task Events, and User Initialized Task Events. Events of a particular group can be published by setting the corresponding property to True.

### Asset Caching

Trading Networks can cache partner profiles, document types, document attributes, and trading partner agreements using Ehcache. Caching accelerates the processing of Trading Networks transactions by avoiding database lookups before fetching assets at run time.

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## webMethods Universal Messaging

### Improved JNDI Usability

When JNDI connection factories are managed using webMethods Universal Messaging Enterprise Manager, the JMS URL can now be specified during connection factory creation. In addition, the URL of existing connection factories can now be viewed or changed.

### webMethods Suite Integration

Universal Messaging support in various webMethods products has been further extended. For details, see the release notes for the various products.

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## Documentation

Significant changes to product documentation sets or to individual documents are described in the readmes for each product.

### Cross-Product Documentation

A new PDF publication, *Working with the webMethods Product Suite and the Java Service Wrapper*, describes how various webMethods suite products that run on the Software AG Common Platform use the Java Service Wrapper, an application developed by Tanuki Software, Ltd.

## Documentation Installation Changes

The documentation for webMethods is now combined with the documentation for Intelligent Business Operations. The installation node on the Software AG Installer is called “webMethods and Intelligent Business Operations Documentation.” The default installation directory is now *SoftwareAG\_directory\documentation\webMethods\_and\_Intelligent\_Business\_Operations*.

### webMethods Command Central

The following documentation changes were made in this release for webMethods Command Central:

- *webMethods Command Central Help* now includes information about how to configure, manage, and administer Command Central and Platform Manager using the Command Central web user interface, command line tool, and REST API.
- *Getting Started with the Command Central REST API* is a new PDF publication that describes Command Central REST API services and resources.

### webMethods Composite Application Framework

A new HTML-based publication, the *CAF Tag Library Reference*, is available with version 9.6. This VDL documentation package provides information and attributes about all of the available CAF controls in the tag library.

### webMethods EntireX

Navigation within the *Common Integration Scenarios* section of the webMethods EntireX documentation has been significantly enhanced. High-level, illustrated scenario descriptions lead to more detailed sections below. New scenarios that cover integration with webMethods Integration Server have been added.

### webMethods Mobile Administrator

A new PDF publication, *webMethods Mobile Administrator Installation Supplement*, has been added to provide preparation, installation, and uninstallation instructions for webMethods Mobile Administrator.

### webMethods Mobile Support

The following new documents describe how to use webMethods Mobile Support and the Mobile Support Client to synchronize data between mobile devices and a backend database:

- *Developing Data Synchronization Solutions with webMethods Mobile Support* describes the Mobile Support components that make up the Mobile Support feature and explains how to configure Mobile Support. This PDF publication also explains how to develop mobile data synchronization solutions using Mobile Support’s services and APIs.
- *webMethods Mobile Support Client Java API Reference* contains details about the Mobile Support Client API library.



## webMethods Task Engine

webMethods Task Engine version 9.6 provides support for Mobile Task Integration (MTI), which enables a user to interact with MTI-enabled tasks running in the Task Engine from an iOS or Android mobile device. A separate PDF publication, *Software AG Designer Mobile Task Integration Supplemental Documentation*, is available from the documentation web site and with the documentation installation. This publication describes the procedures required to create a mobile task application in Software AG Designer, how to publish the application to Mobile Administrator, and how to connect to and interact with the mobile task application from a mobile device.

## webMethods Universal Messaging

The following PDF publications were added for webMethods Universal Messaging:

- *Migrating from webMethods Broker to webMethods Universal Messaging* describes how to migrate the JNDI and JMS assets from webMethods Broker to Universal Messaging, and to configure Universal Messaging instead of Broker for webMethods messaging.
- *webMethods Universal Messaging Clustering Guide* describes how to configure Universal Messaging in a high-availability clustered environment.

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# Upgrade

## Simplification of Side-by-Side Upgrades

Side-by-side upgrade has been greatly simplified by the replacement of many manual steps with automation via migration utilities. The migration utilities migrate configuration data and assets from the 8.2, 9.0, and 9.5 product releases to 9.6. Most migration utilities offer a migration that uses default settings, but a customized migration can be created and reused for multiple product installations. The migration utilities write detailed information to the command window and to a log file. The use of automated migration increases both the speed and accuracy of an upgrade.

## Products that Offer Migration Utilities

In an earlier release, Integration Server offered a migration utility. In the 9.5 and 9.6 releases, other products have created migration utilities using the same migration framework. As of the 9.6 release, products that offer migration utilities are as follows:

- Integration Server
- Products hosted by Integration Server: ActiveTransfer, Business Rules, Communicate, Deployer, Mediator, Monitor, Trading Networks, adapters, and eStandards Modules
- Command Central and Platform Manager
- Event Driven Architecture
- Infrastructure Data Collector
- My webMethods Server
- OneData
- Universal Messaging

## Products that Have Simplified Upgrade Using Other Methods

webMethods Broker and CentraSite have greatly simplified their upgrades. CentraSite provides export and import utilities that automatically migrate configuration data.

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