SeeBeyond ICAN Suite

eGate Integrator Release Notes

Release 5.0.4

SeeBeyond®

Contents

Introduction

This document summarizes new features and changes to the SeeBeyond Technology Corporation™ (SeeBeyond™) eGate Integrator (eGate) application.

Note: *eGate is one of the products of the SeeBeyond Integrated Composite Application Network (ICAN) Suite.*

1.1 SeeBeyond Web Site

The SeeBeyond Web site is your best source for up-to-the-minute product news, technical support information, and education services. Visit the site online at:

http://www.SeeBeyond.com

eGate Integrator

This chapter discusses features in eGate Integrator 5.0, compared to previous versions of e*Gate. For features added at 5.0.4, see **"What's New in This Release" on page 11**.

2.1 Overview of Architecture and Features

eGate is a J2EE-compliant integration platform supporting all other products in the 5.0.*x* ICAN suite. The framework GUIs—Enterprise Designer for design time and Enterprise Manager for Web-based installation, management, and monitoring—ensure a unified look and feel across all editors in the suite, with a single sign-on process for access to any product. See Figure 1.

Figure 1   eGate Integration Platform Providing Framework GUIs
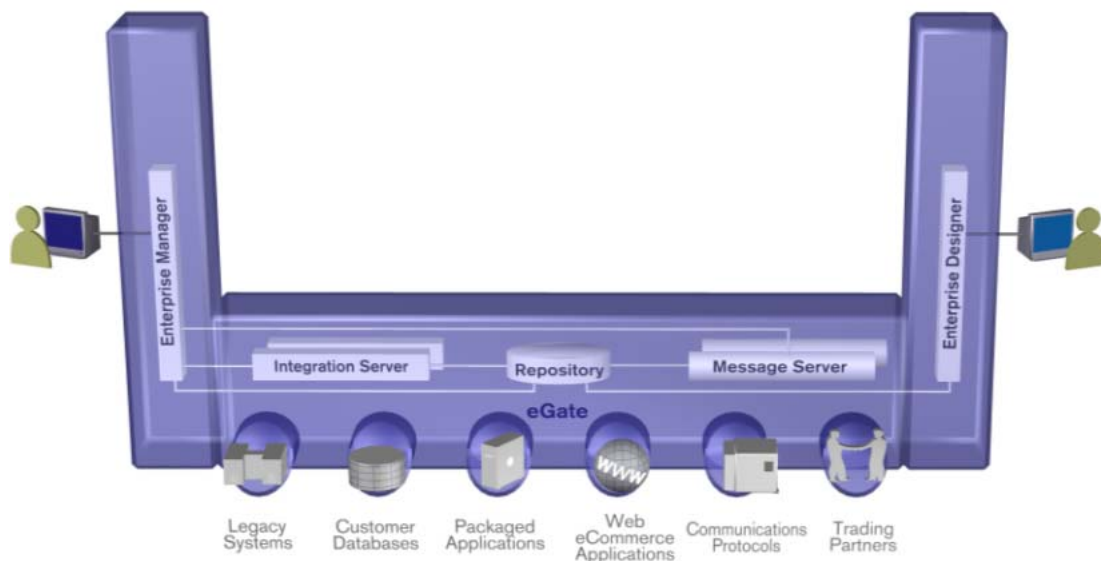
Processes for installation, updating, and documentation take maximum advantage of the Repository and the management framework. At design time, projects are made more maintainable by separating views of logical components from views of the physical environment—the Project Explorer view and the Environment Explorer view. Efficiency is improved by making Collaborations easier to scale up or down.

The management and monitoring facilities are now architectured as servlet plug-ins to a common framework, providing the capability of browser-based monitoring of all products in the suite. The base Monitor facility supplied with eGate itself allows you to view past, cumulative, or real-time activities from either a project viewpoint (logical business units) or an environment standpoint (physical run-time components).

The run-time environment, which is J2EE-compliant and certified, features high performance and dynamic scalability. The architecture uses EJB (Enterprise Java Beans) with JMS (Java Message Service) and JNDI (Java Naming and Directory Interface). Using JCA (Java Connector Architecture), configurations are deployable to J2EE-compliant implementations, such as WebLogic 8.1 and WebSphere 5.

2.2   Enterprise Designer GUI

The successor to 4.5's Enterprise Manager, Enterprise Designer is the graphical user interface (GUI) used to create and configure the logical components and physical resources of an eGate Project. The components in a Project are then used at run time to process, route, and transform data through eGate Integrator system.

The Enterprise Designer GUI window is composed of the main menu bar, main toolbar, Enterprise Explorer window (tree), and Project Editor window (canvas).

2.2.1   Enterprise Explorer (Tree)

The **Enterprise Explorer** includes tabs that provide different views of an eGate system. The **Projects** view organizes components into a tree similar to the Windows Explorer. The **Environments** view shows Logical Host, server, and external system information.

- **Projects** are collections of logical components working together to solve some or all of a business problem. Some of the types of logical components displayed in the tree in the **Project Explorer** include: the Repository; subprojects; Connectivity Maps; Deployment Profiles; project variables/constants, Collaboration Definitions; Object Type Definitions; and External Applications.

- **Environments** are collections of physical resources, such as Logical Hosts and External Systems, that are configured to host Project components. Configuration information about these components are stored in the Environment.

  - An **External System** is a representation of a real external system that exists in an Environment. Its configuration parameters provide information for locating/accessing that system.

  - A **Logical Host** is one instance of eGate installed on one computer. Each Logical Host is defined by a directory structure, software version, and ESR history, and typically host such resources as integration servers and message servers.

Documentation Resource

For more information about the Enterprise Designer, Projects, and Environments, see the *eGate Integrator User's Guide*. For information on individual External Systems, see the User's Guide for the corresponding eWay.

2.2.2 Project Editor (Canvas)

The **Project Editor** displays details about the item selected in the **Enterprise Explorer** pane. Empty at the start of a new Project, this pane displays editors that operate on the Project's components. Each editor has its own tool palette, and makes extensive use of graphical conventions such as drag-and-drop to use an instance from the tree., or to connect two components together.

The following editors display in the Project Editor:

- The **Connectivity Map** contains business logic components of a Project, organized into service invocations, external system representations, and eWays and topics/queues that connect them and contain configuration information. The graphical interface makes it easy to drag components from the tree, connect them into an appropriate topology, and display/configure their properties.

- The **OTD Editor** contains the source files that are used to create the Object Type Definitions (OTDs), the successor to 4.5's Event Type Definitions (ETDs).

- The **Collaboration Editors** allow you to edit the OTD-mediated routing and transformation using either XSLT (Extensible Stylesheet Language Transformations) or Java. Both editors are highly graphical; your simple drag-and-drop operations are translated into corresponding code. Three interaction modes (Standard, Advanced, and Source Code) are designed to accommodate varying styles of business rule designers. In addition, tools are provided to synchronize between graphical and nongraphical modes, as well to test and validate the business logic. Other features include: cut/copy/paste; auto-completion; syntax highlighting; and export/import.

- The **Deployment Editor** displays the logical components in the Project and candidate physical resources in an Environment to give you control over component mapping and deployment.

Documentation Resource

For more information about the various editors and canvases, see the *eGate Integrator User's Guide*.

2.3 Repository

Note: *The Repository in 5.0.x subsumes the functions of Registry in 4.5.x.*

The Repository is a storage unit serving all ICAN functionality: It stores and manages setup and configuration information, version information, software installations, authentication and authorization, and component information for eGate Projects. Authentication services can be provided either by the Repository or by an external directory service; ACLs are available for every component in the Repository, regardless of project.

Its two branches reflect the two branches displayed in the Environment Designer:

- **Projects** are managed as logical configurations designed to solve some or all of a business problem.

- **Environments** are managed in a directory structure reflecting each logical host (and the application servers and message servers it contains) and each external system (in terms of the information needed to communicate with the ICAN configuration).

This separation between logical configurations and physical resources facilitates change management and migration. The separation also makes it easy for the same component to be used in more than one Project, or to maintain multiple distinct eGate installations on the same physical machine.

The Repository includes a server for UDDI (Universal Description, Discovery, and Integration, an XML-based registry for Internet business listings and interoperability). UDDI uses HTTP and DNS (domain name system) protocols in conjunction with SOAP (Simple Object Access Protocol), to allow external applications to uniformly discover and register web services.

In addition, the Repository provides end-user features:

- **Version Control** provides check-out/check-in/ history information on every component accessible to the end user.

- **Impact Analysis** gives the user a way to test hypothetical situations— for example, to probe the ripple effect of deleting a component without doing any damage to the project. Reports on cross-project dependencies allow users to identify unused or unneeded components.

Documentation Resource

For more information, see the chapters "eGate Projects" and "Environments" in the *eGate Integrator User's Guide.*

2.4   Web-Based Installation, Management, and Monitoring

Product files and updates can be uploaded to the Repository via the Web browser and downloaded to design-time or run-time clients using the browser's FTP facility. End users can download documentation, or browse it online, with a few clicks on a Web page.

Through Web-based servlet plug-ins to the Monitor, ICAN 5.0.*x* has a uniform way to provide browser-based monitoring of all products in the suite, with views as broad as multiple projects on one monitor screen or as narrow as individual messages in mid-queue.

Documentation Resource

In the *eGate Integrator User's Guide*, see the following chapters: "Enterprise Manager" (which contains information the Schema Runtime Environment and SRE Monitor); and "Web Services."

2.5 J2EE Architecture

2.5.1 SeeBeyond Integration Server

The SeeBeyond Integration Server, a J2EE-compliant, component-based Java server platform, provides middleware services for security and state maintenance, data access and persistence, and transactions.

At run time, the SeeBeyond Integration Server is a container of business logic that offers the following:

- An execution environment with transaction services
- Distribution mechanisms
- Persistence management
- Load scaling
- Connectivity to externals

After the SeeBeyond Integration Server or other J2EE-compliant application server is installed on a Logical Host, it has the ability, through its connection to the Repository, to run any Project that has been activated by Enterprise Designer.

When running services for Collaboration tasks, the SeeBeyond Integration Server scales up or down automatically according to load. For example, it creates only a small number of Collaboration instances when message loads are light, and creates more instances (up to a user-configurable limit) if more messages put pressure on the queue.

Documentation Resource

For additional information, see the *eGate Integrator User's Guide*.

2.5.2 JMS IQ Manager and SeeBeyond Message Servers

The JMS IQ Manager, and SeeBeyond Message Servers in general, provide JMS-compliant services for queues and topics. They provide standard JMS (Java Message Service) features such as point-to-point messaging, or publish/subscribe messaging, guaranteed delivery, acknowledgments, and persistence. The **Server Selection** context menu includes several types of message servers that you can add to an Environment.

Documentation Resource

For additional information, see the *eGate Integrator JMS Reference Guide* and the *eGate API Kit Developer's Guide*.

2.6 Supported Operating Systems

eGate Integrator is available on the following operating systems:

- Windows 2000 SP3 and SP4, Windows XP SP1a, and Windows Server 2003

- HP NonStop Server, G06.22

- HP Tru64 V5.1A with required patches

- HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes

- IBM AIX 5.1L and 5.2 with required Maintenance level patches

- Red Hat Enterprise Linux AS 2.1 (Intel x86)

- Red Hat Linux 8 (Intel x86)

- Sun Solaris 8 and 9 with required patches

- SuSE Linux Enterprise Server 8 (Intel x86)

- Japanese Windows 2000 SP3 and SP4, Windows XP SP1a, and Windows Server 2003

- Japanese HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes

- Japanese IBM AIX 5.1L and 5.2 with required Maintenance level patches

- Japanese Sun Solaris 8 and 9 with required patches

- Korean Windows 2000 SP3 and SP4, Windows XP SP1a, and Windows Server 2003

- Korean HP-UX 11.0, 11i (PA-RISC), and 11i v2.0 (11.23) with required patches and parameter changes

- Korean IBM AIX 5.1L and 5.2 with required Maintenance level patches

- Korean Sun Solaris 8 and 9 with required patches

Note: *An ESR is required to support Japanese and Korean operating systems.*

For required service packs, patches, and parameter settings, see the Readme.txt file and the *SeeBeyond ICAN Suite Installation Guide.*

Documentation Resource

For a complete list of supported platforms, see the "System Requirements" section of the *SeeBeyond ICAN Suite Installation Guide.*

What's New in This Release

This chapter discusses eGate Integrator features that are new in eGate 5.0.4.

3.1 Architecture and Compatibility

- Several new operating systems and platforms are now supported, including:
  - HP NonStop Server
  - SuSE Linux
  - Japanese and Korean versions of Windows and certain UNIX systems

  For complete details, see **"Supported Operating Systems" on page 10**.

- In support of double-byte character set encodings:
  - User-defined OTDs now provide an **encoding** specification.
  - With the appropriate option enabled, the OTD Tester now supports additional encodings for XML data and the OTD Wizards for XSD and DTD now prompt for encoding.
  - There are byte array converters for Japanese and Korean mainframe encodings.
  - Project definitions can now use Japanese or Korean characters.

3.2 Repository

- A new user interface, the Repository Service Manager, provides the ability to start and stop the Repository server, to install or uninstall it as a service, and to display timestamps of status changes.

3.3 Enterprise Designer

- The import/export tool now supports importing and exporting of Environments, and provides the ability to selectively exclude selected Projects from importation (for example, if a same-named Project already exists in the target Repository).

- The JMS Object Type Definition (OTD) now supports request/reply.

- Version Control now allows prior versions of Java Collaborations to be retrieved.

- The Java Collaboration Editor provides several new features:

  - You can now cut or copy a Java Collaboration Definition from one Project and paste it into another.

  - When you select a Business Rule, it is now highlighted in all three views; for example, in the Source Editor, if you triple-click a line of code or double-click the line number, the corresponding Business Rule is selected.

  - The Business Rules toolbar now provides a **Comment** command, allowing you to add and edit multi-line comments in your rules. Comments that are created in the Java Source Code view—including source code that is /*** commented out ***/—are preserved and are editable in either the Business Rules view or the Java Source Code view.

  - A new Source Editor toolbar provides commands for Commit, Rollback, Find-Next/Find-Prev/Replace, and Undo/Redo.

  - In the Source Editor, the source completion pop-up menu shows classes and methods in OTDs and all available **.jar** files, including those imported from third parties.

  - The toolbar and context menus now provide commands for Expand/Collapse All Rules.

  - Autogenerated comments are no longer inserted into Java source code.

- XSLT Collaborations are now automatically validated upon project deployment.

- The Delimiter Editor for User-Defined OTDs provides new functionality and improved usability.

- The OTD Tester now allows byte data to be displayed in hexadecimal format, and allows data for repeating and optional nodes to be easily created and tested for marshalability.

- Subprojects can now be very deeply nested; this is because 255-character limit now applies to each project name, rather than to the concatenation of all project names.

3.4   Logical Host

- Logical Hosts are now more easily managed, providing the ability to decide when or whether a configuration change should be applied. This reduces the number of automatic restarts. This change affects the default behavior in two areas:

  - Previously, configuration changes were automatically applied any time an activated Deployment Profile was applied to a Logical Host, causing a restart. Now, this behavior is placed under user control: The **Apply** dialog box now provides a check box specifying whether or not to apply configuration changes.

  - Previously, the bootstrap process automatically connected to the Repository to download configuration changes and newly activated Deployment Profiles. Now, the default behavior on second and subsequent startups is to restart the Logical Host without requiring a new connection and download. The ability to force a new connection/download is now provided as an option, by means of a new command-line flag—**-f**—specified when invoking the bootstrap script.

- JMS IQ Managers now support LDAP for authentication.

3.5   Documentation

The documentation has been improved throughout, providing more examples, illustrations, samples, and scenarios.