

# New Features Guide

## Sybase® Data Integration Suite 1.1

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This chapter describes the new features in Sybase® Data Integration (DI) Suite 1.1.

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## Sybase ETL

DI Suite 1.1 includes Sybase ETL, which provides extract, transform, and load (ETL) capabilities to consolidate data or copies of data from multiple heterogeneous data sources into one or more data targets.

The ETL component:

- Enables extraction of data from heterogeneous data sources such as flat files, XML documents, Microsoft Excel, and heterogeneous databases such as Oracle, MS SQL, DB2, Sybase ASE, Sybase IQ, and MS Access.
- Supports a variety of transformation capabilities and enables you to convert, cleanse, merge, and split data streams, which you can then insert, update, or delete data in a data target. Data transformation capabilities are provided through customizable transformation components and extended JavaScript functions.
- Loads data to target databases or warehouses through native and ODBC connections. In addition, bulk loading capabilities are provided for enhanced performance.
- Provides a scalable grid architecture that enables parallel transformation processing across operating system boundaries and machines.

Sybase ETL includes these components:

- ETL Server – a scalable and distributed grid engine, which connects to data sources, and extracts and loads data to data targets using transformation flows designed using ETL Development.
- ETL Development – graphical user interface (GUI) tools for ETL development and deployment for use with ETL Server. These tools provide a complete simulation and debugging environment to speed the development of ETL transformation flows.

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**Note** ETL Development is available only on Windows, on a separate media.

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For more information about ETL, see:

- *Sybase Data Integration Suite 1.1 Overview Guide* – introduces DI Suite and provides information on how to use the various components for your data integration needs.
- *Sybase Data Integration Suite 1.1 Installation Guide* – provides instructions to install the ETL component.
- Sybase ETL product manuals on the SyBooks™ CD – explains how to use the Sybase ETL subcomponents for your ETL projects.

## DI Suite Standard Edition

DI Suite 1.1 is now available in a new edition, called Data Integration Suite Standard Edition, which includes all DI Suite components but is limited for use on a **single machine** with a **maximum of 2 CPUs**.

The functionality of the DI Suite components included in the Standard Edition is the same as those offered separately. However, it does not include the Sybase Search Content Adapter, which is an add-on option for use only with the Sybase Search component available outside the Standard Edition. For more information about Sybase Search Content Adapter, see “Changes to Sybase Search” on page 5.

This edition supports the SySAM unserved license model only. It is available on all DI Suite 1.1 supported platforms. For more information about platforms supported in DI Suite 1.1, see “Extended platform support” on page 4.

## SySAM license management support for DI Suite components

DI Suite uses Sybase Software Asset Management (SySAM) 2.0 to perform license administration and asset management tasks. SySAM support is available for these DI Suite components and subcomponents:

- Sybase Data Federation
- Sybase Search
- Sybase Real-Time Events
- Sybase ETL
- Sybase Replication
  - Replication Server™
  - Replication Agents

SySAM configuration is required. You must download and manually install licenses for every DI Suite component through Sybase Product Download Center (SPDC).

For SySAM overview and configuration, see:

- *Sybase User's Guide Sybase Software Asset Management 2.0* on the Getting Started CD, for more information on the use of SySAM.
- *Sybase Data Integration Suite 1.1 Installation Guide* for your platform on the Getting Started CD, for more information on availability of SySAM licenses for DI Suite components on SPDC and configuring SySAM for these components.

## Extended platform support

DI Suite is now available on these platforms and operating system configurations:

- Microsoft Windows (32-bit and 64-bit)
  - Windows XP Professional Service Pack 2
  - Windows 2003 Server
    - Enterprise Edition Service Pack 1
    - Standard Edition Service Pack 1
- Sun Solaris (SPARC 64-bit)
  - Solaris 9 – patch level 9 recommended
  - Solaris 10 – patch level 10 recommended
- AIX 5.3 on IBM pSeries (64-bit)
- Linux (32-bit and 64-bit)
  - Red Hat Enterprise Linux 4.0

- SuSE Enterprise Server 9 Service Pack 2

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**Note** ASE Active Messaging, the Real-Time Events subcomponent, is available only on Linux 32-bit.

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## Sybase Real-Time Events

The two components Real-Time Events and Real-Time Events ASE Messaging have been consolidated into a single Real-Time Events component.

To capture data changes and propagate these changes to standard messaging architectures, select one of:

- RepConnector – capture events nonintrusively from a database such as ASE or Oracle and deliver these events to any standard messaging infrastructure such as WebSphere MQ, BEA WebLogic JMS, and TIBCO EMS. Real-time messaging through RepConnector is achieved using the RepConnector™ Server, Replication Server, and Replication Agents subcomponents.
- ASE Active Messaging – capture events from Sybase Adaptive Server Enterprise (ASE) database and publish directly to any standard messaging infrastructure such as WebSphere MQ, TIBCO EMS, and Sybase EAServer JMS. ASE Active Messaging is easy to configure, and provides high performance and enhanced transactional messaging support for ASE databases.

For license and installation information, see the *Sybase Data Integration Suite 1.1 Installation Guide* for your platform.

## Changes to Sybase Search

Sybase Search functionality in DI Suite 1.1 has been divided into two separate features:

- Sybase Search – includes basic search functionality that performs simple searches across plain text files, HTML Web pages, and text content from databases. Install Sybase Search using the DI Suite installer.

- Sybase Search Content Adapter – an add-on option that includes a third-party Stellent document filter that performs searches across proprietary document formats such as Microsoft Word and Adobe Acrobat PDF documents. Install Sybase Search Content Adapter using a separate Content Adapter installer.

For more information about Sybase Search and Sybase Search Content Adapter, see:

- *Sybase Data Integration Suite 1.1 Installation Guide* for your platform for installation instructions.
- *Sybase Search 3.2 New Features Guide* for more details about Sybase Search Content Adapter.

## Changes to deployment and licensing options

The deployment and licensing options of DI Suite 1.1 components in a distributed environment have been changed to provide more flexibility for your deployment architecture.

Table 1 describes the deployment and license options for DI Suite components.

**Table 1: Deployment and licensing options for DI Suite components**

<b>DI Suite component</b>	<b>Subcomponent</b>	<b>Deployment and licensing options</b>
Sybase Replication	Replication Server	<ul style="list-style-type: none"> <li>• A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>• Installation is allowed on multiple machines in the distributed environment. This depends on the number of CPU licenses you have purchased.</li> <li>• The license of this subcomponent includes licenses for Replication Agents and DirectConnect.</li> </ul>
	Replication Agents	<ul style="list-style-type: none"> <li>• A Replication Server license is required to install this subcomponent.</li> <li>• Installation is allowed on multiple machines that contain the supported database in the distributed environment.</li> <li>• This subcomponent can be used only with the Replication Server that contains its license.</li> </ul>
	DirectConnect	<ul style="list-style-type: none"> <li>• A Replication Server license is required to install this subcomponent.</li> <li>• Installation is allowed on multiple machines in the distributed environment. However, for improved performance, Sybase recommends you to install DirectConnect on the same server as the database it supports.</li> <li>• This subcomponent can be used only with the Replication Server that contains its license.</li> </ul>
Sybase Search	Hub Container	<ul style="list-style-type: none"> <li>• A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>• Installation is allowed on multiple machines in the distributed environment. This depends on the number of CPU licenses you have purchased.</li> </ul>
	Satellite Container	
	Web Administration	
	Single Server	

DI Suite component	Subcomponent	Deployment and licensing options
Sybase Data Federation	Grid Server	<ul style="list-style-type: none"> <li>A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>Installation is allowed on multiple machines in the distributed environment. This depends on the number of CPU licenses you have purchased.</li> <li>The license of this subcomponent includes licenses for Data Grid Access Server, Share Server, Firewall Proxy Server, and Command-Line Client.</li> </ul>
	Data Grid Access Server	<ul style="list-style-type: none"> <li>A Grid Server license is required to install this subcomponent.</li> <li>Installation is allowed on multiple machines in the distributed environment.</li> <li>This component can be used only with the Grid Server that includes its license.</li> </ul>
	Share Server	
	Firewall Proxy Server	
	Command-Line Client	
Sybase Real-Time Events	RepConnector Server	<ul style="list-style-type: none"> <li>A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>Installation is allowed on multiple machines in the distributed environment. This depends on the number of CPU licenses you have purchased.</li> <li>A Real-Time Events license includes a license for Replication Server and ASE Active Messaging; a Replication Server license includes a license for Replication Agents.</li> </ul>
	Replication Server	
	Replication Agents	<ul style="list-style-type: none"> <li>A Replication Server license generated for the Real-Time Events component is required to install Replication Agents.</li> <li>Installation is allowed on multiple machines that contain the supported database in the distributed environment.</li> <li>This subcomponent can be used only with the Replication Server installed with the Real-Time Events component.</li> </ul>
	ASE Active Messaging	<ul style="list-style-type: none"> <li>A Real-Time Events license is required to install ASE Active Messaging.</li> <li>Installation is allowed on multiple machines that contain the Adaptive Server Enterprise (ASE) database in the distributed environment.</li> <li>An ASE Enterprise Edition license is required on the machine where this component is installed.</li> </ul>



DI Suite component	Subcomponent	Deployment and licensing options
Sybase ETL	ETL Server	<ul style="list-style-type: none"> <li>A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>Installation is allowed on multiple machines in the distributed environment. This depends on the number of CPU licenses you have purchased.</li> </ul>
	ETL Development	<ul style="list-style-type: none"> <li>A SySAM served or unserved license is required to unlock this subcomponent.</li> <li>Installation is allowed on multiple Windows machines in the distributed environment. This depends on the number of licenses you have purchased.</li> </ul>

## Deployment and licensing options for Standard Edition

The deployment and licensing mechanism described in Table 1 applies to the DI Suite components included in Standard Edition, except:

- You must install DI Suite components included in the Standard Edition on a **single machine** with a **maximum of 2 CPUs**.
- You must use the **unserved license model** for DI Suite components included in the Standard Edition.
- You can install the Replication Agent subcomponent on any machine in your distributed environment with no restriction on the number of CPUs. The product license for this subcomponent is included with the Sybase Replication or Sybase Real-Time Events installation. Copy this license to the machine on which you are installing Replication Agent.
- You can install the ASE Active Messaging subcomponent on a separate machine with a maximum of 2 CPUs and with a restricted number of ASE running engines. The product license for this subcomponent is included with the Sybase Real-Time Events installation. Copy this license to a machine that contains ASE to install ASE Active Messaging.

For more information about deploying DI Suite components and licensing, see the *Sybase Data Integration Suite 1.1 Installation Guide* for your platform.

## BEA WebLogic support

The RepConnector subcomponent, available with Sybase Real-Time Events, now supports the BEA WebLogic 8.1 J2EE application server as its container. This support is available as an option in the DI Suite installer, which silently installs and deploys the RepConnector runtime component in the WebLogic installation.

BEA WebLogic support is in addition to the Sybase EAServer application server that was supported in the earlier version.

## TIBCO EMS and Sybase EAServer JMS support

ASE Active Messaging, available with the Sybase Real-Time Events component, now supports TIBCO Enterprise Message System (EMS) version 4.3 and EAServer Java Message Service (JMS) version 5.x. This support is in addition to IBM WebSphere MQ version 5.3 that was supported in the earlier version.

ASE Active Messaging lets you capture transactions (data changes) in an ASE database and deliver them as events to external applications in real time. These data changes—or events—are delivered to applications through a Java Messaging Service message bus such as TIBCO EMS, IBM WebSphere MQ, or Sybase EAServer JMS.

## Mainframe options

Sybase Replication supports replication of transactional data from a mainframe-based DB2 server. This support is available as add-on options, which you can purchase separately. The various options are:

- Sybase Replication Agent for DB2 UDB for OS/390 – supports replication of transactional data from DB2 UDB running on a mainframe system to target databases.

- Mainframe Connect™ with DirectConnect for z/OS – supports replication of data to a mainframe system. This option enables client applications and Replication Server to access data stored in mainframe database management systems (DBMSs), file systems, and applications. In addition, Mainframe Connect allows you to create custom mainframe applications that provide access to data stored on mainframe-based DB2 server.

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**Note** Sybase Replication includes basic, simple-to-configure support for replicating to mainframe DB2 through DirectConnect. The Mainframe Connect option is an alternative that provides enhanced performance and functionality while replicating to mainframe DB2. You must purchase the Mainframe Connect option separately.

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## New features in DI Suite components

The new features of individual DI Suite components are described in the different documents listed in Table 2.

You can access these documents from either the:

- Sybase Product Manuals Web site at <http://www.sybase.com/support/manuals> or,
- The Getting Started CD or the DI Suite component-related SyBooks CD provided with the installation package.

**Table 2: New features in DI Suite components**

DI Suite component	Book title
Sybase Search	<i>Sybase Search 3.2 New Features Guide</i>
Sybase ETL	<i>Sybase ETL 4.2 Release Bulletin</i>
Sybase Data Federation	<i>Avaki EII 7.1 New Features Guide</i>
Sybase Replication	
• Replication Server	<i>What's New in Replication Server 15.0.1?</i>
• DirectConnect	<i>Cover letter for ECDA 12.6.1 ESD #2 on the Sybase Support Page at <a href="http://www.sybase.com/support">http://www.sybase.com/support</a>.</i>
• Replication Agent	<i>Replication Agent 15.0 New Features Guide</i>
Sybase Real-Time Events	
• RepConnector Server	<i>Sybase Real-Time Data Services 4.0 Installation and Release Bulletin</i>
• Replication Server	<i>What's New in Replication Server 15.0.1?</i>
• Replication Agent	<i>Replication Agent 15.0 New Features Guide</i>
• Sybase ASE Active Messaging	<i>Sybase Real-Time Data Services 4.0 Installation and Release Bulletin</i>

## Accessibility features

This document is available in an HTML version that is specialized for accessibility. You can navigate the HTML with an adaptive technology such as a screen reader, or view it with a screen enlarger.

Data Integration Suite documentation has been tested for compliance with U.S. government Section 508 Accessibility requirements. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

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**Note** You might need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

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For information about how Sybase supports accessibility, see Sybase Accessibility at <http://www.sybase.com/accessibility>. The Sybase Accessibility site includes links to information on Section 508 and W3C standards.