



New Features Summary

SAP Sybase RAP 5.0

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Contents

Platform Architecture Features

Platform enhancements and updates for SAP® Sybase® RAP 5.0 (RAP 5.0) include the introduction of support for SAP HANA as the preferred in-memory database for RAP; event processing capabilities; new versions of and options for Sybase® IQ and Adaptive Server® Enterprise; integrated management and monitoring through Sybase Control Center; new adapters, including a high speed adapter for SAP HANA (available with RAP through ESP 5.1 SP01); support for creating custom adapters in C/C++, Java, and .NET; and simplified packaging.

Note: While RAP 5.0 introduces support for SAP HANA, it is important to note that SAP HANA is not part of RAP.

In addition, RAP 5.0 introduces terminology updates. RAPCache is now used interchangeably with the term in-memory database while RAPStore is used interchangeably with the term historical database. These terminology changes are introduced to more accurately reflect these pieces of the RAP architecture.

Table 1. Platform Architecture Features

Feature	Description
Support for SAP HANA as the preferred in-memory database Note: SAP HANA is not included with RAP.	The introduction of the high-speed SAP HANA Output adapter in Sybase Event Stream Processor 5.1 SP01 lets you integrate RAP with SAP HANA as your in-memory database. SAP HANA is designed to handle large volumes of in-memory data and provides vast performance improvements over traditional database technologies.
Decoupled delivery of product components	The primary product components - Sybase Event Stream Processor, Sybase IQ, and Sybase Adaptive Server Enterprise, are now packaged, delivered, and installed separately.
Event processing	RAP includes built-in event processing through Sybase Event Stream Processor. RAP ships with sample projects that you can open, edit, and run in Event Stream Processor.
Updated releases of Sybase IQ and Adaptive Server Enterprise	Updated from Sybase IQ 15.2 to 15.4 and Adaptive Server 15.5 to 15.7. See the <i>Sybase IQ 15.4 New Features Summary</i> and <i>New Features Summary Adaptive Server Enterprise 15.7</i> for more information.

Feature	Description
New Sybase IQ and Adaptive Server Enterprise options available	<p>You can license the Sybase IQ unstructured data analytics option, as well as the Sybase IQ advanced security option for use with the historical database.</p> <p>Those users using ASE instead of SAP HANA can license the Adaptive Server Enterprise Security and Directory Services option.</p>
Out-of-the-box adapters	<p>Access to input and output adapters from a variety of data sources, including the SAP HANA Output, ASE Output, and Sybase IQ Output adapters. Base adapters, such as the SAP HANA, ASE, and Sybase IQ adapters are installed with Event Stream Processor, and others such as Reuters Marketfeed, Reuters OMM, NYSE MAMA, and FIX are licensed and purchased separately.</p>
Custom adapters	<p>You can create custom adapters in C/C++, Java, and .NET using the Sybase Event Stream Processor SDK.</p>

RAP Sample Projects

RAP ships with sample projects that you can run in Event Stream Processor.

The sample projects consist of input and output streams, input windows, and input and output adapters. Both sample projects use input adapters to read external data into the project, process the data, then use output adapters to output the data.

The RAP sample project for SAP HANA uses the SAP HANA and Sybase IQ Output adapters to output data to tables within the SAP HANA and Sybase IQ databases.

The RAP sample project for ASE uses the ASE and Sybase IQ Output adapters to output data to tables within the ASE and Sybase IQ databases.

See the *SAP Sybase RAP Users Guide* for more information on the sample projects. See the *Event Stream Processor Adapters Guide* for information on configuring and working with adapters. See the *Event Stream Processor Getting Started Guide* for more information about Event Stream Processor functionality.

Monitoring and Managing RAP

Use Sybase Control Center (SCC) to monitor and administer Sybase IQ, ASE, the RAP sample project, and the ASE and Sybase IQ output adapters. SCC replaces the Operations Console as the administrative user interface for RAP.

With Sybase Control Center, you can:

- Monitor ESP node activity, including projects and adapters on the node.
- Monitor ASE and Sybase IQ activity.
- View statistics for the SAP HANA (or ASE) and Sybase IQ output adapters.
- View the topology.
- Start and stop an ESP node, or an ASE or Sybase IQ server.
- Start and stop an adapter.
- View a file activity report for the Sybase IQ output adapter.
- View log files for Event Stream Processor, ASE, and Sybase IQ.

Behavior Change Summary

RAP 5.0 has simplified packaging and licensing, and other architectural changes.

Packaging and Licensing Changes

Sybase RAP 5.0 packaging and licensing have been simplified: there are no longer separate Standard and Enterprise Editions of RAP. RAP includes:

- Sybase Event Stream Processor 5.1
- Sybase IQ 15.4
- Adaptive Server Enterprise 15.7
- Support for up to two RAPStore servers in a multiplex at no additional fee, with the option to license additional RAPStore servers for a fee
- Support for Very Large Database Management (VLDB) features for databases of up to five (5) terabytes, with the option to license additional storage
- Support for UDFs on both reader and writer RAPStore nodes

If you licensed RAP prior to version 5.0, please be sure to carefully review the *Migration Information* section of the *Sybase RAP Release Bulletin* for details regarding access to RAP 5.0 software, as well as instructions for accessing legacy entitlements of your previous RAP products.

Architecture Changes

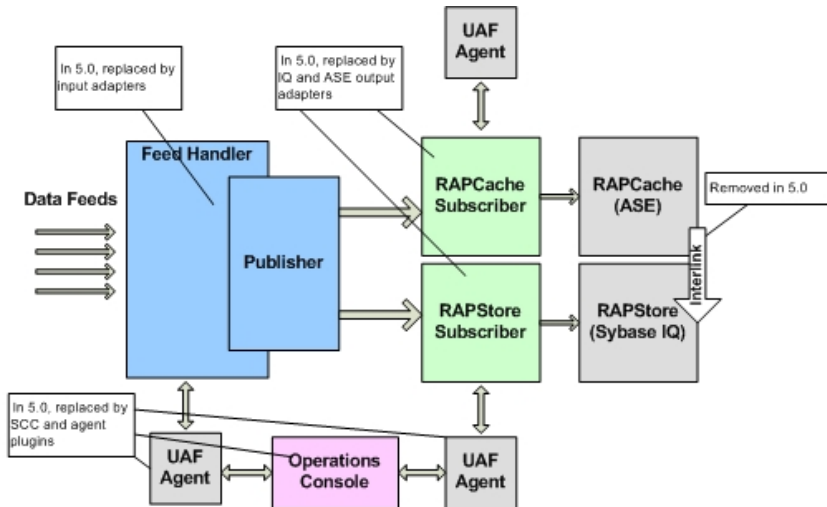
The following features have been removed in RAP 5.0:

Behavior Change Summary

- RAP Interlink
- IMSL Libraries for Time Series Forecasting and Analysis Functions
- RAP Pub/Sub architecture is replaced with Event Stream Processor input and output (ASE & Sybase IQ) adapters
- RAP APIs; Event Stream Processor is now the front end interface to RAP
- Operations Console and the UAF agents are replaced with SCC and the agent plug-ins

The diagrams below illustrate the changes in architecture from RAP R4.1 to RAP 5.0.

RAP R4.1 Architecture



RAP 5.0 Architecture

