**How to License Microsoft BizTalk Host Integration Technologies**

Microsoft BizTalk Host Integration technologies allow enterprise organizations to integrate existing program, messages and data with new Microsoft server applications.

Microsoft BizTalk Host Integration technologies can be installed on devices, client desktop, and server editions of Microsoft Windows operating systems. These technologies are available in two packages, licensed as supplemental software to Microsoft BizTalk Server 2009.

* Host Integration Server 2009 (HIS 2009).
	1. HIS 2009 Evaluation edition is available on the Microsoft Download Center, listed under Microsoft BizTalk Server 2009 Evaluation edition.
	2. HIS 2009 Server edition is included as supplemental software to Microsoft BizTalk Server 2009 Branch edition.
* BizTalk Adapter for Host Systems 2.0 (BAHS 2.0). This package is the same as HIS, with the addition of four adapters for BizTalk i.e. BizTalk Adapter for Host Applications; BizTalk Adapter for WebSphere MQ; BizTalk Adapter for DB2; and BizTalk Adapter for Host Files.
	1. BAHS 2.0 Evaluation edition is available on the Microsoft Download Center, listed under Microsoft BizTalk Server 2009 Evaluation edition.
	2. BAHS 2.0 Server edition is included as supplemental software to Microsoft BizTalk Server 2009 Standard and Enterprise editions. BAHS 2.0 Developer edition is included in Microsoft BizTalk Server 2009 Developer edition.

A processor license is required for each processor on which you install any server component of HIS 2009 and BAHS 2.0 (BizTalk Adapters, SNA Gateway, Data Providers, MQ Connectors, Session Integrator, Transaction Integrator, DLC Protocol, Enterprise Single Sign-On, and Design Tools). However, HIS 2009 and BAHS 2.0 client components (Emulators, Data Providers, Administration Tools, Single Sign-On Tools) and the Software Development Kit (SDK) may be installed on a separate device without acquiring a processor license, when using the client components with the server components directly or indirectly (for example, when connecting the client components to a host system through the server components, operating as an SNA Gateway).

Many customers that deploy BizTalk Host Integration technologies will utilize separate development, test, and production environments.

* For the BAHS 2.0 development and test environments, you need a user license for each developer and tester, which can be obtained through either BizTalk Server 2009 Developer edition or an MSDN Premium Subscription.
* For the BAHS 2.0 production environment, you need a valid processor license for BizTalk Server 2009 Enterprise or Standard editions, for each processor on which you install BAHS 2.0.
* For the HIS 2009 production environment, you need a valid processor license for BizTalk Server 2009 Branch edition, for each processor on which you install HIS 2009.

**Q. How are BizTalk Host Integration technologies licensed on computers that have more than one CPU?**

A. HIS 2009 and BAHS 2.0 will naturally use all of the CPUs in the server. The number of licenses that must be purchased is always the exact number of CPUs (not cores) in the server, except for processors that are made inaccessible to any operating system copy upon which HIS 2009 and BAHS 2.0 are set up to run (i.e., virtualization or through hardware partitioning solutions).

 **Q. What are the feature differences between the BizTalk Host Integration technology packages?**

A. HIS 2009 and BAHS 2.0 are identical in capabilities, with the following exceptions:

* BAHS 2.0 package includes additional 4 BizTalk adapters that work within the BizTalk development and runtime environment and let customers connect existing programs and data on IBM mainframe and midrange computers with other line-of-business, custom applications and databases using BizTalk.
* HIS 2009 used for branch-based deployments whereas BAHS 2.0 is used for standard and enterprise deployment scenarios.

**Q. What are branch-based deployments of HIS 2009?**

A. Branch-based deployments of HIS 2009 are where you run instances of the server components at the endpoint of your internal network (or edge of your organization). For example, you might deploy a single HIS 2009 server operating as an SNA gateway, to consolidate local branch connections to a remote IBM host data center, connecting the branch to the host system using High Performance Routing over IP.

**Q. What are standard deployments of BAHS 2.0?**

A. Standard deployments of BAHS 2.0 are where you run instances of the server components as part of a networked cluster. For example, you might deploy multiple BAHS 2.0 servers operating as SNA gateways, working together as part of a networked cluster called an “SNA subdomain”, for load balancing and fault tolerance.

**Q. What are enterprise deployments of BAHS 2.0?**

A. Enterprise deployments of BAHS 2.0 are where you run instances of the server components in a central location for enterprise-wide communications, enabling communications across divisions, business units or branch offices with full failover capabilities.

 **Q. What are the software requirements for HIS 2009 and BAHS 2.0?**

A. For more information about specific system requirements, see HIS 2009 and BAHS 2.0 System Requirements.

 **Q. Do I need licenses for each device on which I install server components?**

A. You are required to have a valid processor license for each processor on which you install any “server software” component. HIS 2009 Server software components include:

• SNA Service

• TN3270 Service

• Host Print Service

• Transaction Integrator

• Session Integrator

• MSMQ-MQSeries Bridge

• Enterprise Single Sign On (see exception below)

BAHS 2.0 Server software components include the above-listed items, plus BizTalk Adapters.

However, you may install “additional software” on any number of internal devices for use only with the server software directly or indirectly through other additional software. Additional software includes the following client components:

• SNA Client (base client-to-server network connectivity)

• 3270 Client (emulator supporting SNA and TN3270 connectivity to the Server software)

• 5250 Client (emulator supporting SNA and TN5250 connectivity to the Server software)

• Data providers for DB2 and host files (supporting SNA connectivity to the Server software)

Enterprise Single Sign-On Tools:

• Administration Tools (Configuration Tool, Data Access Tool, SNA Manager, SNA Trace Utility and Trace Viewer)

• Software development kit (SDK)

**Q. May I install the “Master Secret Server” SSO component on a separate server?**

A. In certain cases, the preferred or recommended architecture may require you to install the “Master Secret Server” Single Sign-On (SSO) component on a separate server for security purposes. For each BizTalk Server 2009 processor license you own, you may install a single instance of the Master Secret Server component on a separate server (in a 1:1 processor ratio). For example, you may acquire four processor licenses of BizTalk Server 2009, install the Master Secret Server on two, two-processor boxes (four processor BizTalk Server 2009 licenses equal four processor Master Secret Servers), and cluster the two Master Secret Server boxes for increased reliability.

 **Q. Do I have to acquire licenses for all devices on which I run client components such as the data providers for DB2 and host files?**

A. No. You may run or otherwise use the client components on any number of devices, when the use is with the server software directly. For example, you may use the OLE DB Provider for DB2 (data provider) on a desktop computer with a Microsoft Office productivity tool (such as Excel), when using an SNA network connection to the host mainframe computer through an upstream HIS 2009 or BAHS 2.0 server computer running the SNA gateway server software.

 **Q. May I run the data provider client components on a desktop and connect them directly to a host computer via a TCP/IP network connection?**

A. No. You may use the client components when the use is with the server software. When you connect the data providers directly to an IBM host server computer via a TCP/IP network connection, you are not utilizing the server software (such as the SNA gateway). You may use the data providers on a client computer only when they connect via an upstream HIS 2009 or BAHS 2.0 server computer using the client-server connection.

 **Q. Do the BAHS 2.0 require HIS 2009?**

A. No. BizTalk Adapters for Host Systems 2.0 package includes all of the features of HIS 2009. For example, you may install BAHS 2.0 on a server computer and utilize the SNA gateway in conjunction with multiple BAHS 2.0 servers working together in an “SNA subdomain” for load balancing and fault tolerance. Alternatively, you may install BAHS 2.0 server components, such as the BizTalk Adapter features, connecting these to the host system through High Performance Routing over IP, using the built-in SNA gateway feature.

 **Q. Can I install and use BAHS 2.0 without requiring BizTalk Server 2009 on the same computer?**

A. Yes. You may install and use BAHS 2.0 components without BizTalk Server 2009. For example, you can install and use BAHS 2.0 to publish an XML Web service to extend an IBM mainframe CICS program using the Transaction Integrator, as part of a Standard or Enterprise deployment.

 **Q. Can I license BizTalk Server 2009 Branch edition to use BAHS 2.0?**

A. No. BizTalk Server 2009 Branch edition includes a license to the HIS2009 package only. To install and use BAHS 2.0, you must acquire a license to BizTalk Server 2009 Enterprise or Standard edition.

 **Q. May I run the 3270 Client (emulator) or 5250 Client (emulator) client components on a desktop and connect them directly to a host computer via a TCP/IP network connection?**

A. No. You may use the client components when the use is with the server software directly. When you connect the 3270 Client (emulator) or 5250 Client (emulator) directly to a host computer via a TCP/IP network connection (TN3270 or TN5250), you are not utilizing the server software (such as the SNA gateway, TN3270 Service, or TN5250 Service). You may use the 3270 Client (emulator) or 5250 Client (emulator) on a client computer only when they connect via an upstream BAHS 2.0 or HIS 2009 server computer using the client-server connection to the SNA Gateway server features, TN3270 to the TN3270 service, or TN5250 to the HIS TN5250 Service.

**Q. Is there an HIS 2009 Developer edition?**

A. No. BAHS 2.0 Developer edition contains the same software as HIS 2009, plus four BizTalk adapters. Enterprise developers can utilize BAHS 2.0 Developer edition to design, develop, and test HIS 2009 solutions.