

hp NonStop server for JMS software

product description



The ability to communicate with one another on a single platform or across multiple platforms is becoming a critical requirement for enterprise applications. HP NonStop™ Server for Java Message Service (JMS) Release 1.0 software provides a standards-based method for Java™ applications or Enterprise JavaBeans (EJB) to communicate with one another on HP NonStop S-series servers. This product implements Sun Microsystems' Java Message Service (JMS) API, which allows applications to communicate in one of the following ways:

- Point-to-point mode, in which messages are sent to specific queues
- Publish/subscribe mode, in which messages are published to topics, which are subscribed to by other JMS clients

This communication among applications is becoming more and more important as users implement integrated enterprisewide application environments using Java technologies.

features at a glance

- NonStop server-based implementation of Sun Microsystems' Java Message Service
- Transaction-protected asynchronous messaging
- Reliability and scalability of NonStop SQL database
- High performance
- Administrative utility for queue management



i n v e n t

exploiting the power of the NonStop SQL database

NonStop Server for JMS software is implemented using the HP NonStop SQL database for queue management to provide JMS publish/subscribe capability. This brings the scalability, fault-tolerance, and performance of the underlying database management system (DBMS) to the NonStop Server for JMS product.

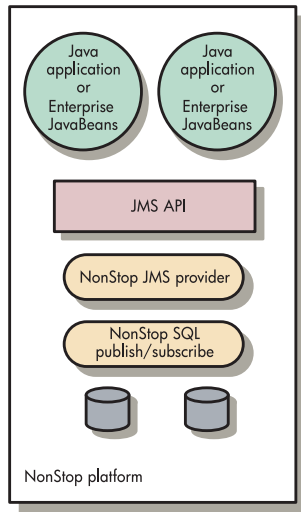


Figure 1. NonStop Server for JMS architecture.

While NonStop Server for JMS software supports both persistent delivery messaging mode (deliver once and only once) and nonpersistent messaging mode (deliver at most once), the product is optimized for persistent messaging mode where we can exploit the scalability and data integrity advantages offered by the NonStop SQL database.

NonStop Server for JMS software supports session transactions and external transactions. Session transactions allow you to send and receive multiple messages in a single transaction. External transactions are inherited transactions that start and end external to NonStop Server for JMS software and allow you to combine other database or server work with the same transaction that reads or sends messages. Transaction management in the NonStop Server for JMS product is provided by NonStop Transaction Management Facility (NonStop TMF) software.

intraplatform messaging

The initial release of the NonStop Server for JMS product is designed to be intraoperable in NonStop server environments only. Messages can be exchanged with Java applications or EJB components on a single NonStop server. Additionally, by using the transparent intrasystem messaging capability of the NonStop SQL database, messages can be sent to applications running on remote NonStop servers. The intrasystem messaging capability of the NonStop Kernel operating system offers high performance and ensures message integrity. Future releases of NonStop Server for JMS software will interact with popular messaging-oriented middleware products such as IBM's WebSphere MQ and others. Such interaction will extend NonStop Server for JMS messaging to a heterogeneous, multiplatform environment.

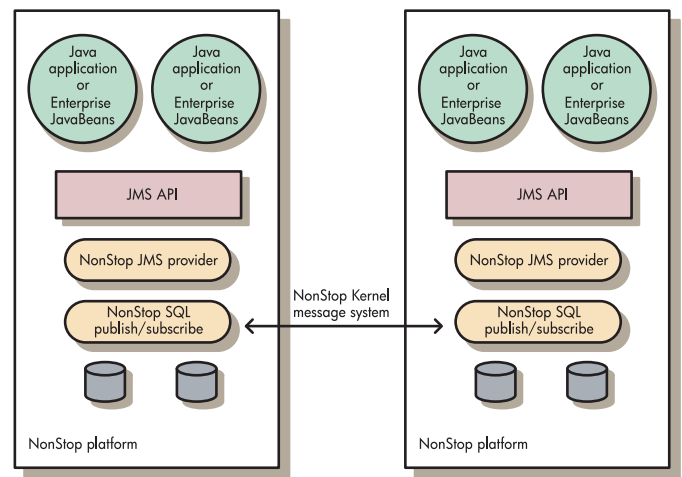


Figure 2. NonStop Server for JMS intraplatform messaging.

administrative utility

NonStop Server for JMS software includes a Java language-based administrative utility that allows users to administer the NonStop Server for JMS database. The utility can be invoked through a command-line interface for local use, or through an XML interface as a servlet using an XML-formatted request/reply paradigm for use in user-defined management applications.

compliance

NonStop Server for JMS software conforms to Sun Microsystems' published specification, Java Message Service, Version 1.0.2b, dated August 27, 2001, with the following exceptions:

- JMS Application Server Facilities (section 8 in the JMS specification) are designated as optional in the specification and are not supported in NonStop Server for JMS software.
- A JMS provider may provide Java transaction API (JTA)–aware connections and sessions by using the XAConnectionFactory, XAConnection, XASession, and so on. On the NonStop server, the transaction integration of NonStop Server for JMS software and other products is provided by the NonStop TMF product. These XA interfaces are not implemented in NonStop Server for JMS software. However, you may use JTA to start or commit transactions that will involve NonStop Server for JMS software.
- Priority does not affect message delivery order.

Note: The JMS specification is available on the Sun Microsystems Java Message Service (JMS) website (java.sun.com/products/jms/docs.html).

ordering information

product ID	description
SE53V1	NonStop Server for Java Message Service, 1 to 4 processors
SE54V1	NonStop Server for Java Message Service, 5 to 16 processors

system requirements

- | | |
|----------|---|
| Hardware | NonStop server: S700, S7000, S70000, S72000, S74000, or S76000 |
| Software | The following software must be installed and running on your NonStop S-series server prior to installing the NonStop Server for JMS product: <ul style="list-style-type: none">• NonStop Kernel operating system Release Version Update G06.14 or later• NonStop SQL database Version 1.5 or later (IPM AAB)• Open System Services (OSS)• NonStop Server for Java Version 2.0 or later (IPM AAK) |

If you use the Java Naming and Directory Interface (JNDI) to access NonStop Server for JMS connection factories and queue or topic objects, the following jar files are required:

- providerutil.jar
- fscontext.jar

The jar files can be downloaded from Sun Microsystems' JNDI website (java.sun.com/products/jndi/index.html).

If you use the NonStop Server for JMS Administrative Utility to manage the NonStop Server for JMS database, the following software must be installed and running on your NonStop S-series server prior to installing the NonStop Server for JMS Administrative Servlet:

- iTP Secure WebServer Release 5.0

And one of the following:

- Java Servlets Version 2.0
- NonStop Servlets for JavaServer Pages



For more information, go to www.hp.com/go/nonstop.

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Printed in the U.S.A. 02-0279 Order number 16XG-0702A-WWEN

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