

IBM WebSphere DataPower B2B Appliance

Increase the speed and reliability of extending your business beyond organizational walls



Highlights

- Centralize and consolidate B2B trading partner connectivity with a purpose-built, DMZ-ready B2B Gateway.
 - Access new customers and new routes to market with standards-based trading partner management.
 - Rapidly adjust product and service offerings to meet changing requirements with support for Web 2.0 technologies.
 - Unlock siloed information with drop-in B2B integration for heterogeneous environments.
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Today's dynamic business environments mean organizations must work smarter to remain competitive and respond to changing customer demands. Key to working smarter is business agility, ensuring all parts of your organization, internal and external, can quickly and easily capitalize on opportunities and respond to new situations. As such, many enterprises are looking to increase the speed and reliability with which they can extend core enterprise applications and services beyond their organizational walls to customers, suppliers and partners, with robust, secure partner transaction and process management.

The global economy, large outsourcing initiatives, and the virtual supply chain have blurred the boundaries of the enterprise. As a result, internal application integration and externally facing B2B technologies are converging, bringing a more urgent need to unlock siloed enterprise information, processes and systems. Many enterprises are seeking a single business integration platform to meet all of their internal and external integration needs, reduce infrastructure costs, eliminate duplication of effort and increase the speed of onboarding new partners.

Why an appliance for B2B connectivity?

How easy is it for your partners and customers to do business with you? Is your mission-critical information compartmentalized and difficult to share across internal or external boundaries? The WebSphere® DataPower® B2B Appliance XB6 2 (Figure 1) combines the drop-in convenience of standards-based B2B, with the DMZ-grade hardware security and extreme performance needed to securely extend your business to customers and partners. The XB6 2's centralized, consolidated, and secure B2B trading partner and transaction management results in fast, reliable onboarding of new partners and customers, at a lower cost to you.





Figure 1 – WebSphere DataPower B2B Appliance

WebSphere DataPower B2B Appliance XB62 is a 1U (1.75-inch) rack-mountable network device designed to fit into industry-standard racks. Attachment to the network is through Ethernet. The device is virtually tamper proof and cannot be taken apart and deployed within other servers. With many essential B2B, SOA and/or web services functions in a single, purpose-built device, the WebSphere DataPower B2B Appliance XB6 is a cornerstone of a resilient B2B/SOA infrastructure. It appeals to a variety of groups with stakes in successful B2B/SOA deployment, such as enterprise architects, systems integrators and web-services developers. The XB6 enables enterprises to rapidly achieve highly secure and extremely scalable B2B connectivity without having to change network or application software. As a result, proprietary schemas, coding or application programming interfaces (APIs) are not required to install or manage the device.

Access new customers with standards-based trading partner management

The XB6 is a unique B2B appliance, delivering core B2B functions, including support for AS1, AS2, AS3 and plain-text e-mail messaging, partner profile administration, routing of electronic data interchange (EDI), XML and binary payloads, auto archiving and purging of B2B transactions, and B2B transaction viewing capabilities. As more industries increasingly require AS2 for their partner communications, the XB6's Drummond AS2 certification ensures maximum interoperability for exchanging AS2 data. The XB6 is part of IBM's B2B portfolio that enables your entire business ecosystem (partners, internal organization, and suppliers) to work seamlessly and be ready for virtually any marketplace

situation in no time, all while reducing your IT costs. By integrating many core B2B, SOA, and web services functions into a single, purpose-built device, the XB62 enables you to access new customers and new routes to market by simplifying, standardizing, and securing the integration of partners, customers and suppliers with your enterprise.

Centralize and consolidate B2B trading partner connectivity

The heart of the XB6 is its B2B Gateway Service (see Figure 2.) This service is designed in such a way that positions the XB6 extremely well to centralize and consolidate B2B trading partner and transaction management. The B2B Gateway Service enables the XB6 to handle simple partner connections with data passing through directly to end applications for further processing. If more complex data flows are required, the application integration capabilities of the XB6 can be used to perform data validation, transformation, rules-based enforcement and content-based routing.

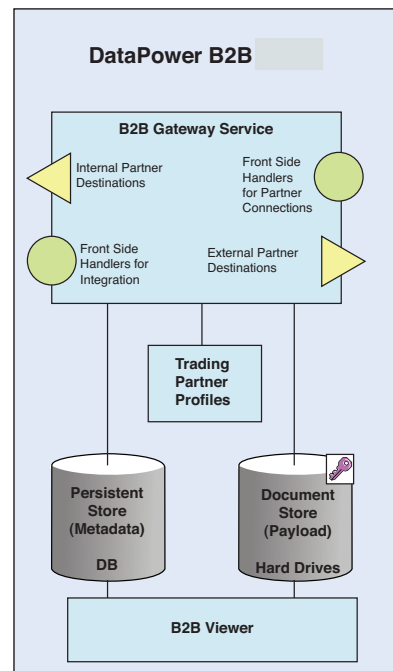


Figure 2 – B2B Gateway Service

The B2B Gateway Service is a configuration object that is responsible for processing and routing B2B data. Simple to use partner and hub configuration tools enable rapid configuration and management of B2B partners, easing access to new customers and increasing revenue opportunities with new routes to market for products and services. To facilitate reuse, profiles can support multiple destinations; the profiles can be associated with any number of B2B Gateway Services. The B2B Viewer enables partners to view all transactions that pass through the B2B Gateway Service, and resend failed transactions.

Rapidly adjust service offerings to meet changing customer requirements

Modern web applications are evolving from static pages and forms into interactions that rival native desktop programs like e-mail clients, street mapping software, and customer relationship management systems. Customers and partners across all industries demand the same level of interactivity and data access for their information as well. Unfortunately, critical business data are often locked away in legacy applications that weren't designed for this kind of usage. With its native support for JavaScript™ Object Notation (JSON) and REpresentational State Transfer (REST), the IBM WebSphere DataPower B2B Appliance XB6 can create new, low cost services by quickly unleashing legacy and non-XML real-time data for consumption by dynamic Web 2.0 applications. In addition to supporting a broad range of EDIINT protocols, the XB6 has the ability to connect to legacy data and to handle non-XML formats. And since the XB6 is a configuration-driven appliance, these integrations can be achieved with little to no modification of the underlying hosting applications.

Unlock siloed information with drop-in B2B integration

In addition to the array of B2B functions performed by the XB6, the device has the capability to transform data quickly between a wide variety of formats, including XML, industry standards and custom formats. The XB6's broader integration functions include routing, bridging, transformation and event handling, making the device a reliable, performance-oriented solution to many integration challenges. Because it is not limited to handling just XML, WebSphere DataPower B2B Appliance XB6 resonates with IT organizations that need to benefit from the connectivity of B2B and SOA deployments but must also deal with managing a combination of multiple proprietary, industry, company-specific and existing data formats. The device is a true drop-in B2B and SOA integration point for heterogeneous environments, extending applications across the enterprise, reducing the time and cost of B2B and SOA connectivity, and speeding the time to market for new services.

Middleware appliances from the middleware experts

IBM WebSphere DataPower SOA Appliances combine IBM's long-standing industry leadership and expertise in middleware with highly consumable, dedicated appliances that combine simplified integration, superior performance and hardened security for SOA implementations. Meticulously designed to augment all phases of the SOA life cycle and implementation, these highly specialized devices offer a host of essential functions in specialized appliances for easy consumption, deployment, management and service delivery.

IBM WebSphere DataPower B2B Appliance

XML:

- XPath
 - XSLT
 - XML Schema
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Optimization:

- Compression
 - Multistep flow processing and mediation
 - Wire-speed XML and XPath processing; XSLT
 - Quality of service (QoS) and service prioritization
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Enterprise messaging and integration:

- HTTP, Secure HTTP (HTTPS)
 - WebSphere MQ, Java™ Message Service (JMS), FTP(s)
 - Protocol bridging (for example, from WebSphere MQ to HTTP)
 - Routing (XPath, WS-Routing and XML)
 - Non-XML message transformation (such as binary, flat text, COBOL Copybook, ISO)
 - Message logging
 - Database integration
 - EDIINT AS1, AS2, AS3
 - Plain-text e-mail
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Data security:

- Data validation (XML Schema, Web Services Description Language [WSDL] and SOAP filtering)
 - XML encryption and digital signature
 - S/MIME encryption and digital signature
 - WS-Security
 - WS-SecureConversation
 - Field and message-level XML security
 - Internet Content Adaptation Protocol (ICAP) integration (anti-virus)
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Security policy enforcement for XML and web services:

- Authentication of web services messages using WS-Security and Security Assertion Markup Language (SAML), Version 1.0, 1.1 and 2.0
 - XACML
 - Authorization for XML messages
 - Support for Kerberos, RADIUS, Lightweight Directory Access Protocol (LDAP), Microsoft® Active Directory and SAML queries
 - Ability to process Liberty Alliance ID-FF, WS-Trust and WS-Federation messages when configured with Tivoli® Federated Identity Manager or a similar policy manager
 - SAF and RACF® integration with z/OS®
 - Federation of security tokens when configured with Tivoli Federated Identity Manager or a similar policy manager
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Web services:

- SOAP 1.1 and 1.2
 - WSDL
 - WS-SecurityPolicy
 - WS-Policy Framework
 - Registry integration (UDDI V2/V3, UDDI V3 subscription, WebSphere Service Registry and Repository)
 - WS-Trust
 - WS-ReliableMessaging
 - WS-I Basic Profile
 - WS-I Basic Security Profile
 - WSDM
 - WS-Management
 - Support for JavaScript Object Notation (JSON) and REpresentational State Transfer (REST) applications
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System and service security:

- Service virtualization
 - XML and SOAP firewall
 - XDoS protection
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Management:

- Web GUI
 - Command-line interface (CLI)
 - Simple Network Management Protocol (SNMP)
 - SOAP management interface
 - Integrated development environment (IDE) integration through Eclipse and Altova XML Spy
 - Service-level management (to configure, enforce and monitor qualities of service)
 - Logging, drill down and alerting (on-box, off-box or centralized)
 - Device partitioning and role-based management
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Transport layer security:

- SSL and HTTPS, hardware accelerated
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Public key infrastructures:

- XKMS, RSA, 3DES, DES, AES, SHA, X.509, PKCS, CRLs, OCSP
 - XML digital signature, time stamp and nonrepudiation
 - S/MIME digital signature, time stamp and nonrepudiation
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Reliability:

- Virtual Router Redundancy Protocol (VRRP)
 - Single firmware image
 - Mirrored RAID 1 Disk Drives
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Optional features:

- TIBCO EMS integration
 - Tivoli Access Manager integration
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For more information

To learn more about the IBM WebSphere DataPower SOA Appliances, please contact your IBM marketing representative or IBM Business Partner, or visit the following website:

ibm.com/software/integration/datapower/

To join the Global WebSphere Community, visit:

<http://www.websphere.org/>



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December 2009
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