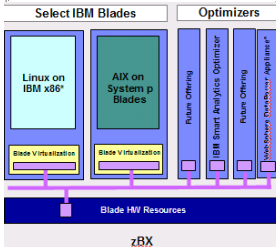
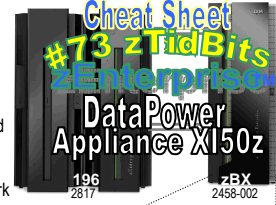


- The IBM WebSphere DataPower Integration Appliance XI50 for zEnterprise (DataPower XI50z), is integrated into the zEnterprise System, and is a high-performance hardware appliance that:
 - Provides fast and flexible integration with any-to-any transformation between disparate message formats with integrated message-level security and superior performance
 - Provides web services enablement for core System z® applications to enable web-based workloads
 - Enables SOA and XML applications with System z web services for seamless integration of distributed and System z platforms
 - Offers standards-based, centralized System z governance, and extreme reliability through integrated operational controls, *call home*, and integration with RACF® security through a secured private network
- DataPower XI50z is a multifunctional appliance that can help provide multiple levels of XML optimization, streamline and secure valuable service-oriented architecture (SOA) applications, and provide drop-in integration for heterogeneous environments by enabling core Enterprise Service Bus (ESB) functionality:
 - routing, bridging, transformation, and event handling.
 - It can help to simplify, govern, and enhance the network security for XML and web services.
- When the DataPower XI50z is installed within the zEnterprise environment, zManager will provide integrated management for the appliance to simplify control and operations including change management, energy monitoring, problem detection, problem reporting, and dispatching of an IBM System z Service Representative as needed.
- The DataPower XI50z appliance is a front-end server to help manage and optimize XML messages in a SOAP or HTTP format allowing:
 - Monitoring of messages as by response times, message rates, or message transaction type size.
 - Parsing of messages to allow specific routing based on Quality of Service requirements by user or transaction type.
 - The ability to take synchronous or asynchronous action based on the message, such as additional database calls to add to the message, or to modify the message content.
 - Optimization of message processing by managing protocol, encryption, and security fields. It then can forward to the System z just the message data content.
 - Management of the application firewall to provide security, XML-threat protection, or digital certification. It can validate messages by looking at the user, the fields being referenced, and the message format.
 - Conversion of XML to more efficient protocols than the SOAP or HTTP format, such as WebSphere MQ.

The zBX provides additional benefits to the DataPower appliance environment in the areas of:

- Blade hardware management**
 - Improved cooling and power management controls, includes cooling of the frame and energy monitoring and management of the DataPower blades.
 - Virtual network provisioning
 - Call-home for current and expected problems with automatic dispatch of IBM SSR
- Hardware Management Console integration**
 - Single view showing the System z environment together with the DataPower blades in an overall hardware operational perspective
 - Group GUI operations for functions supported on HMC such as activate or deactivate blades
- Improved availability**
 - Guided placement of blades to optimize built-in redundancy in all components at the rack, BladeCenter, and HMC levels, including top of rack switch, ESM switches, and physical network.
 - Detection and reporting by the HMC/SE on appliance failures. The HMC/SE can also be used to re-cycle the DataPower appliance.
- Networking**
 - Virtual network provisioning
 - Enforced isolation of network traffic via VLAN support
 - 10Gb end-to-end network infrastructure
 - Built-in network redundancy
 - Network protection via IE DN, possibly obviating any perceived need for encryption of flows between DataPower and the target back-end System z server
- Monitoring and reporting**
 - Monitoring and reporting of DataPower hardware health and degraded operation via HMC
 - Monitoring of all hardware, call-home, and auto-parts replacement
 - Consolidation and integration of DataPower hardware problem reporting with other problems reported in zBX
- System z value**
 - Simplified ordering of the DataPower appliance via System z allows the proper blade infrastructure to be transparently ordered.
 - Simplified upgrades keep MES history so the upgrades flow based on what is installed.
 - System z service on the zBX and DataPower blade with a single point of service provides 24x7 maintenance with IBM SSR support.
 - The DataPower appliance becomes part of the data center and comes under data center control.
- Although not specific to the zBX environment, **dynamic load balancing** to DataPower appliances is available using the z/OS® Communications Server Sysplex Distributor.
- The **2462 Model 4BX** is designed to work together with the **IBM 2458 Model 002 zBX**.
 - It is functionally equivalent to an IBM 4195-4BX with similar feature codes.
 - When you configure the IBM 2458 Model 002 with feature code 0611, it will provide a hardware order for the IBM 2462 Model 4BX and its hardware feature codes and a software and software maintenance order for the required software features.



Physical integration increases collaborative synergy across DataPower and zEnterprise environments.

- Summary of benefits are seen in the areas of:
- Configuration management: Broad integration with System z
 - Subsystem: Higher performance with multiple levels of XML optimization
 - Networking: Comprehensive load distribution and HA options
 - Security: Higher levels of security assurance certifications available with hardware
 - Management: Simplified deployment and ongoing management
 - Tooling: Consistent tooling across IBM product family
 - The DataPower XI50z uses the security and auditability features and functions of host hardware, host software, & application software
- NOTE1:** In general tar archive is not supported but gzip compress is, but it these are not common use cases for this appliance.

NOTE2: XI50z is fundamentally the same as that for the XI50 and XI50B (at the 3.1.8 firmware level)

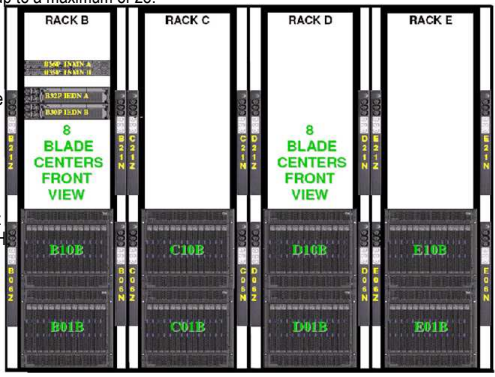
- DataPower XI50z blades can be obtained in any increments up to a maximum of 28.
- They are a double-wide blade which limits the number of

DataPower XI50z blades per BladeCenter H Chassis (BCH) per rack, 9 EIA BCH to 7.

- For DataPower XI50z blades, the BladeCenter H Chassis (BCH) can be shared with IBM Blades.

NOTE3: ISAOPT Blades cannot be mixed with any other zBX Blades in a BladeCenter Chassis. If a POWER7 or DataPower XI50z blade is plugged in a ISAOPT BCH the blade will not power on.

NOTE4: For a new zBX install containing DataPower XI50z blades, the blades will come preloaded in the BladeCenters. Thus, no blade plugging in is required.



Achieve Highest Cost-Optimization

- Less power usage - up to 35% more energy efficient than rack mount servers
- Lower maintenance and operational costs through shared chassis
- Security: Highest Crypto- XI50z increased processing of security request
- Centralized Manageability**
 - Hardware & network management and monitoring with zManager through the Hardware Maintenance Console
 - Single console management monitor for multiple blades
 - Datacenter consolidation reduces overall IT footprint and energy costs
- Integration with System z**
 - Reduced networking hops provides increased performance of Application
 - Integration with zBX provides reduced management of appliance with "call home" technology of System z
 - Direct connect to 10 gigabit ethernet that reduces network latency

The following options are available on the WebSphere® DataPower® Integration Blade XI50z which retains all functions of the XI50B :

- IBM® WebSphere DataPower Option for Tivoli® Access Manager
- IBM WebSphere DataPower Option for TIBCO
 - IBM WebSphere DataPower Option for Database Connectivity
 - IBM WebSphere DataPower Option for Application Optimization
- Option for Tivoli Access Manager** - Tivoli Access Manager enables the IBM WebSphere DataPower Integration Blade XI50B to leverage access control policies stored in Tivoli Access Manager.
- Option for TIBCO** - The TIBCO option lets you extend the IBM WebSphere DataPower Integration Blade XI50B so you can send and receive messages from TIBCO Enterprise Message Service (EMS).
- Option for Database Connectivity** - The Database Connectivity option lets you extend the WebSphere DataPower Integration Blade XI50B to read and write data from relational databases such as IBM DB2® and Oracle servers
- Option for Application Optimization** - This option allows for intelligent delivery of distributed applications by bridging the gap between the applications and the network.

Enhanced intelligent load distribution

- Integration with IBM z/OS Communications Server Sysplex Distributor, which can balance workload to DataPower appliances.

Enhanced interoperability

- Support for WS-Policy attachments authored within WebSphere Service Registry and Repository (WSRR)
- Enhanced WSRR subscriptions via support for saved queries
- Local mode support when integrating with Tivoli® Access Manager
- Full support for WS-Proxy validation of Message Transmission Optimization Mechanism (MTOM)-based SOAP
- Increased WS-Security interoperability with WebSphere Application Server
- Improved integration with WebSphere Transformation Extender

Enhanced connectivity

- Support for WebSphere MQ 7 software-based high availability
- Support for WebSphere MQ Channel exits for increased security
- Secure File Transfer Protocol (SFTP) client and polling support
- Improved transactional integrity with IMS™ Connect

Enhanced manageability

- Simplified back-up and restore process
- Java-based appliance management
- Any-to-any data transformation between a wide range of data formats, including: wire-speed XML transformation, text, binary, COBOL copybooks, industry standards and custom formats

- Sophisticated multistage pipeline processing and content-based message routing
- Optimized bridging between wire-line messaging protocols including MQ, WebSphere JMS, third-party JMS, FTP, and HTTP
- Data validation, field-level security, Web services management, and access control
- Direct-to-database access including DB2® and Oracle.

- Built into DB2 V9 and beyond:
 - > Insert XML text directly into the database
 - > Modify XML text stored in the database
 - > Query XML data using XQuery and SQL
 - > Retrieve XML data

Application Integration functions include:

- Virtually any-to-any data transformation between a wide range of data formats, including wire-speed XML transformation, text, binary, COBOL copybooks, industry custom formats
- Sophisticated multistage pipeline processing and content-based message routing
- Data validation, field-level security, Web services management, and access control
- Direct-to-database access with DB2
- Extensive Web services support (SOAP, WSDL, WS-Security, WS-Addressing, WSPolicy, and WS- Reliable Messaging)
- IMS integration using DP as a reverse proxy: value add to standard IMS connect usage patterns
- DataPower provides a standard Web Services façade to DB/2
- CICS Web Services security and management capability.

Manage zBX Blade Internal Code - HBUV5

Select	Identifier	Operating Level	Pending Level
<input type="checkbox"/>	B.1.01	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.02	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.03	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.04	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.05	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.06	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.07	BCDWB00---	BCDWB00.000
<input type="checkbox"/>	B.1.08	BCDWB00---	BCDWB00.000
Total: 14		Selected: 1	

Example: HMC/SE Manage zBX Blade Internal Code & Load

To load the zBX Blade with a new level of internal code, use the Manage zBX Blade Internal Code task and select one or more zBX Blades. Then select Actions.

Common Core Values

Management by System z Unified Resource Manager increases simplification of your infrastructure

Increased reliability for DataPower XI50z on zBX includes faster response for system critical applications

Enhances the Cloud Computing model by allowing a single hardware end-to-end infrastructure and integration of both distributed and System z application

Re-Use of z assets for SOA, without re-training System z resources

Enhancement of high scalability and mission critical design, System z and DataPower offer tremendous value for large enterprise customers

End to End SOA with integration of DataPower XI50z on zBX which simplifies the administrative monitoring of applications

DataPower's ease of configuration allows z-centric resources to become effective at using SOA concepts and technologies quickly