Extending Connectivity with the IBM WebSphere DataPower B2B Appliance XB62

WebSphere
DataPower B2B
Appliance

IBM

Smart SOA

Peter Brabec
DataPower Ambassador

WebSphere™ DataPower Product Family

Service Gateway XG45

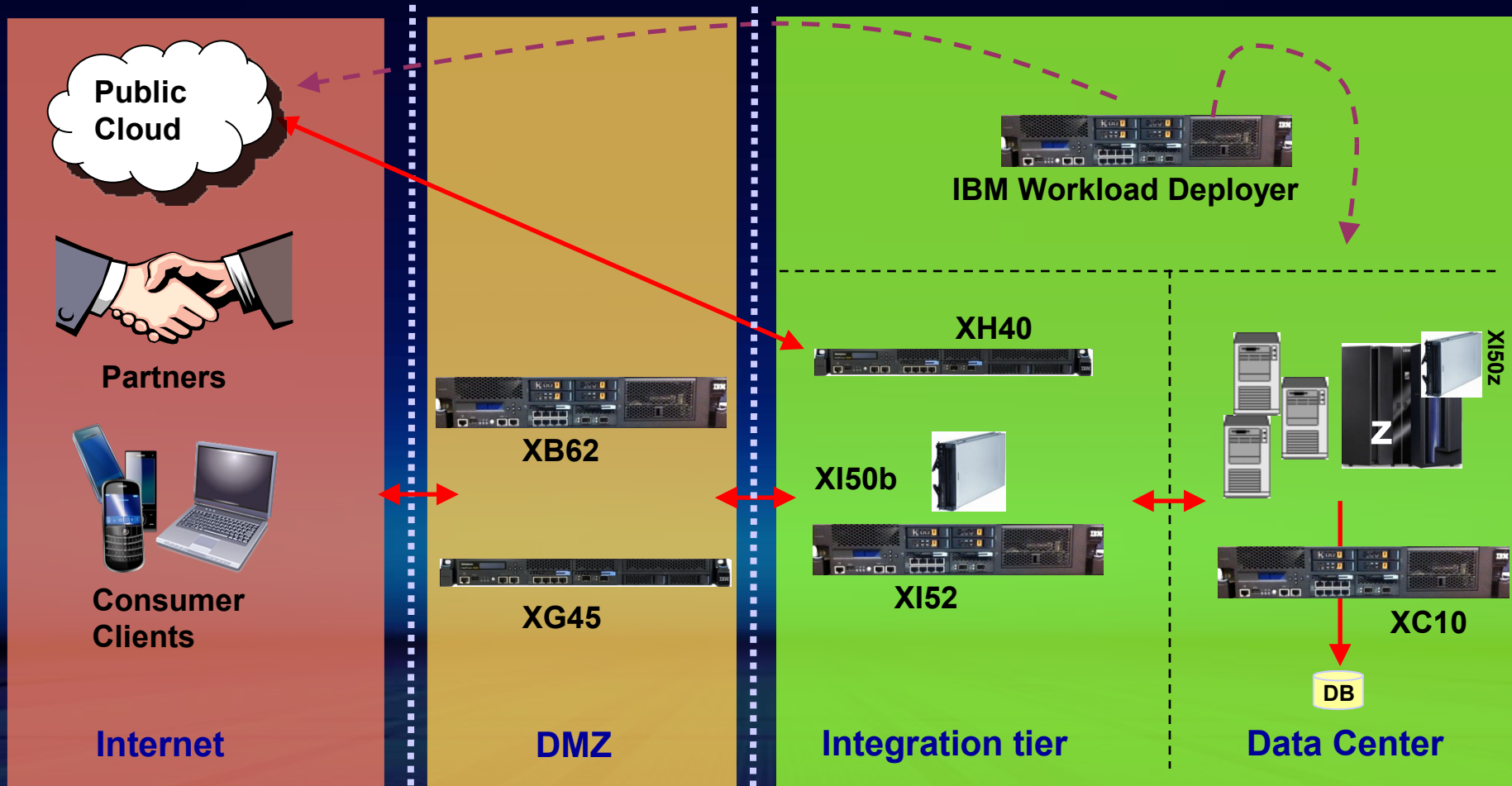**Cast Iron Appliance XH40**

Integration Appliance XI52

Caching Appliance XC10

B2B Appliance XB62

WebSphere™ Appliance Topology

DataPower DMZ Gateway Use Cases

- Web Service Gateway
  - Security gateway (AAA, XML threat)
  - Service level mgmt and monitoring
  - Intelligent load distribution & dynamic routing

XG45

- B2B Gateway
  - B2B Messaging (AS1/AS2/AS3/ebMS)
  - Trading Partner Profile Management
  - B2B Transaction Viewer

XB62

- Web Application Gateway
  - First-class integration with WAS
  - Web application security
  - Traffic management

XG45

DataPower Integration Use Cases

- **Integration ESB**
  - Consumable hardware ESB
  - "Any-to-Any" conversion at wire-speed
  - Bridges multiple transport protocols
  - Mainframe integration & enablement

XI52

- **Cloud Integration Gateway**
  - Cloud connectivity integration gateway
  - Out-of-the-box connectivity to SaaS applications

XH40

- **Data Caching Grid**
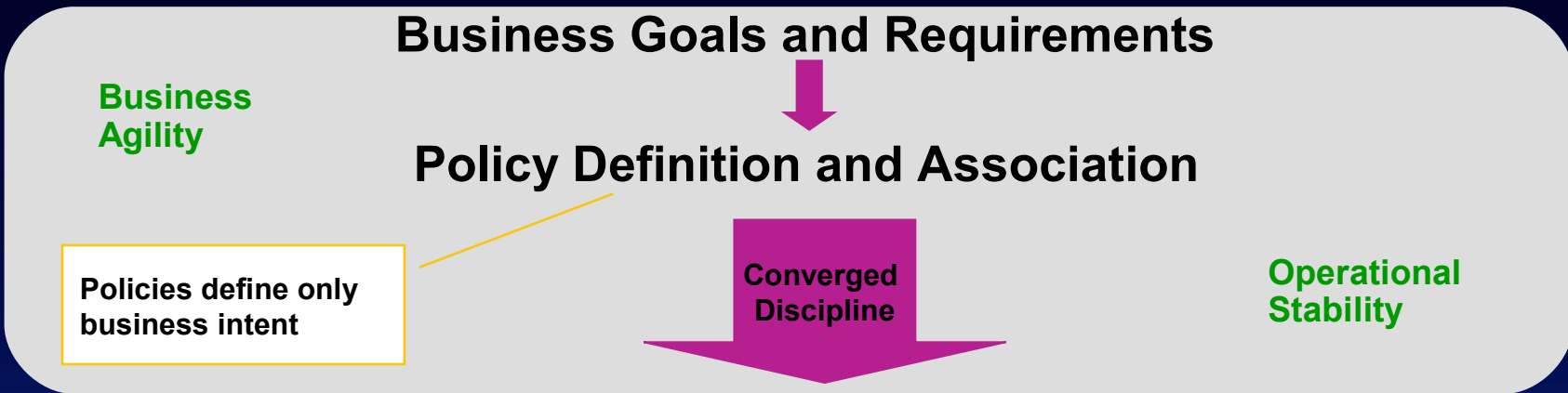 - Elastic caching grid enables HTTP session and response caching
  - 240 GB fast-response cache

XC10

DataPower Architecture

Business Goals and Requirements

Business Agility

Policy Definition and Association

Policies define only business intent

Converged Discipline

Operational Stability

Machine, Browser, Mobile

Fast Response

Low Cost of Ownership

Application tier

woL daoL

Transaction flows are optimized for better performance

Purpose built hardware and firmware for wirespeed secure deployments

Extensible and agile platform with purpose built compiler technology

Policies enforced in a converged appliance

What is the XB62?

WebSphere
DataPower B2B
Appliance

Business to Business (B2B) Appliance XB62

Purpose-built B2B hardware for simplified deployment, exceptional performance and hardened security

- Extend integration beyond the enterprise with B2B

- Hardened Security for DMZ deployments

- Easily manage and connect to trading partners using industry standards

- Simplified deployment and ongoing management

Trading Partner Management for B2B Governance; B2B protocol policy enforcement, access control, message filtering, and data security

Application Integration with B2B Gateway Service capabilities supporting B2B patterns for AS1, AS2, AS3, ebMS v2.0, FTP(S), SFTP, HTTP(S), SMTP/POP3, MQ, MQ FTE, JMS and more
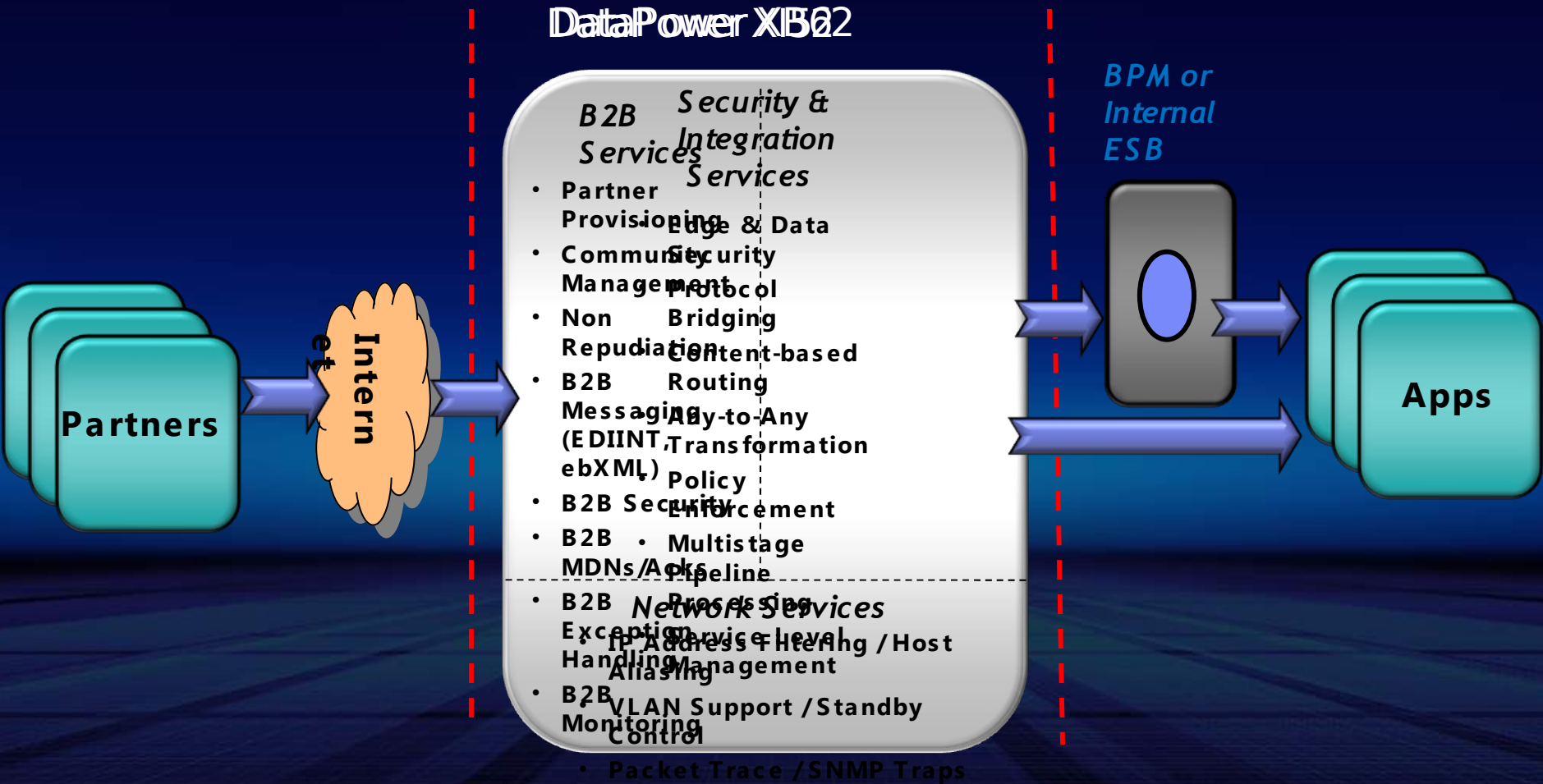
Full featured User Interface for B2B configuration and transaction viewing; correlate documents and acknowledgments displaying all associated events

Simplified deployment, configuration and management providing a quicker time to value by establishing rapid connectivity to trading partners
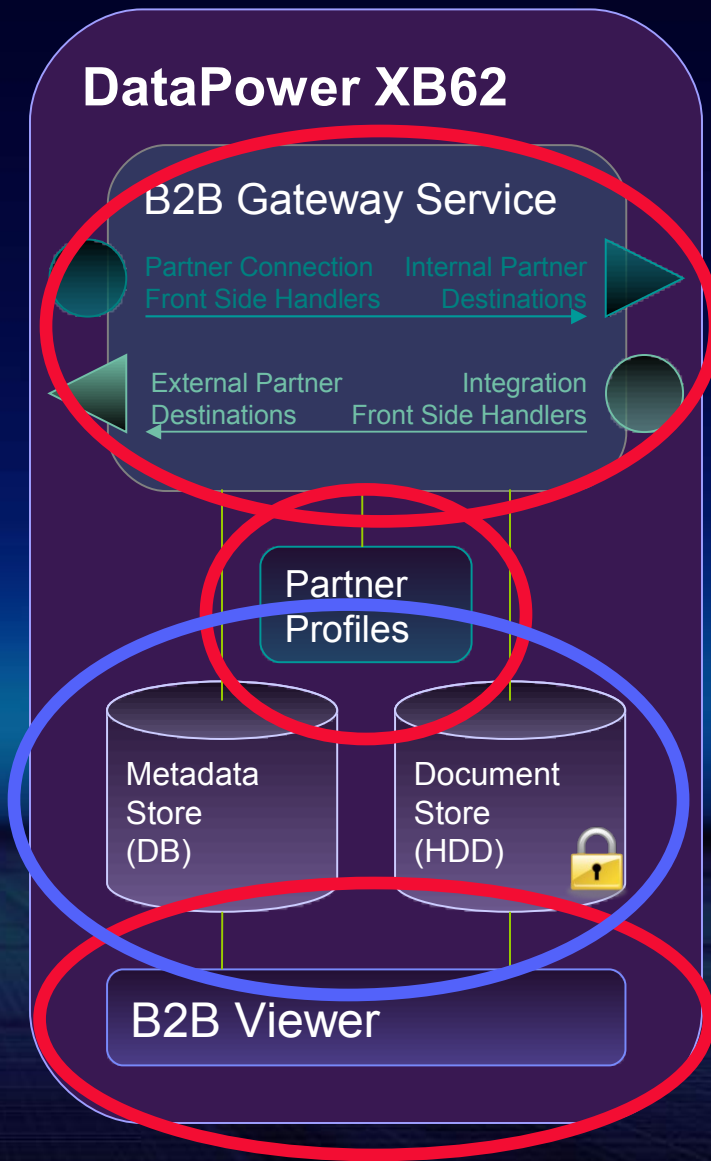
What is a B2B enabled ESB Appliance

Smart SOA

DataPower XI50 / XB60

Partners

Intern et

B2B Services
- Partner Provisioning
- Community Management
- Non Repudiation
- B2B Messaging (EDIINT, ebXML)
- B2B Security
- B2B MDNs/Acks
- B2B Exception Handling
- B2B Monitoring

Security & Integration Services
- Edge & Data Security
- Protocol Bridging
- Content-based Routing
- Any-to-Any Transformation
- Policy Enforcement
- Multistage Pipeline Processing

Network Services
- Service Level Management
- IP Address Filtering / Host Aliasing
- VLAN Support / Standby Control
- Packet Trace / SNMP Traps

BPM or Internal ESB

Apps

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DataPower B2B Appliance XB62 - B2B Components

The DataPower B2B Appliance extends your ESB beyond the enterprise by supporting the following B2B functionality:

- **B2B Gateway Service**
  - AS1, AS2, AS3 and ebMS v2.0
  - Plaintext email support
  - EDI, XML and Binary Payload routing
  - Front Side Protocol Handlers
  - Hard Drive Archive/Purge policy
  - Global Partner Profile Associations
  - MQ File Transfer Edition integration

- **Trading Partner Profiles**
  - Two Types – Internal and External
  - ebXML CPPA v2.0
  - Multiple Business IDs
  - Multiple Destinations (URL Opens)
  - Certificate Management (S/MIME Security)
  - Multi-step processing policy

- **B2B Viewer**
  - B2B transaction viewing
  - MQ FTE transaction viewing
  - Transaction resend capabilities
  - Transaction and Acknowledgement correlation
  - Role based access

- **Persistent Storage**
  - AES Encrypted B2B Document storage
  - Option for Off-Box Storage (NFS or iSCSI)

- **Transaction Store**
  - B2B metadata storage
  - B2B state management

EDIINT (AS1/2/3) ebXML (ebms & CPPA) Native Routing of EDI and XML SMTP and POP3 Archive & Purge B2B Data

DataPower XB62

B2B Gateway Service

Partner Connection Front Side Handlers — Internal Partner Destinations

External Partner Destinations — Integration Front Side Handlers

Partner Profiles

Metadata Store (DB)

Document Store (HDD)

B2B Viewer

Revisiting the Appliance formula

1) Take some characteristics from integration software stacks

- Programmability by developers
- Message level routing and security (including by partner for B2B)
- Integration with other SOA infrastructure & governance software such as Registry, Repository, etc…
- Conditional Processing (if, else, split, join)
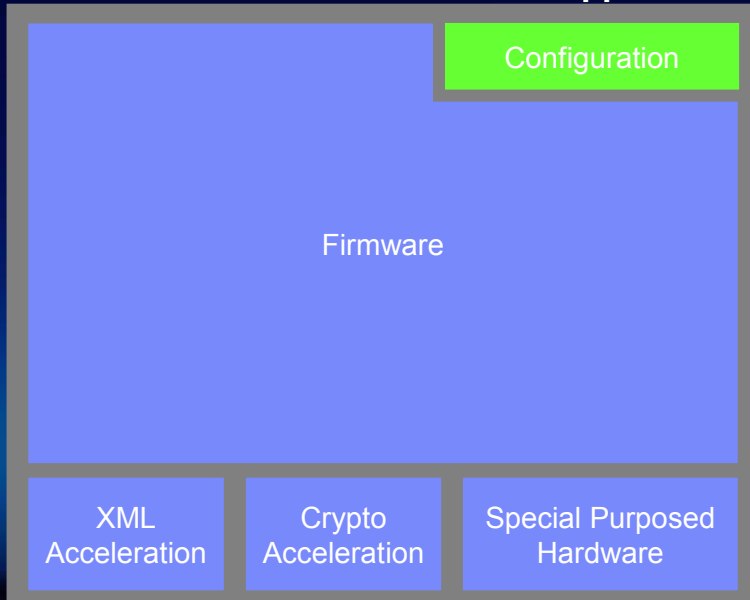- Transformation of any-2-any formats

WebSphere
DataPower B2B
Appliance
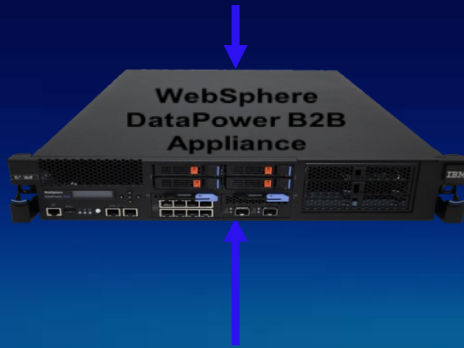
3) Combine them into a hardware device (aka hardware form factor) known as a B2B Appliance that has characteristics of both application stacks and networking gear. The appliances offer a more efficient method for performing B2B tasks that can be packaged into firmware (parsing, routing, transformation, logging, security)

2) Take some characteristics of networking & firewall devices

- High throughput
- Many concurrent connections
- IP level security and routing (can't see inside message but route by source and target)
- *Simplified Management and reduced maintenance* costs through firmware updates
- Reliability

DataPower vs. Typical Software-based Solution

DataPower's Hardware Network Appliance

Configuration

Firmware

| XML Acceleration | Crypto Acceleration | Special Purposed Hardware |

Server-based Software Appliance

| Config | Config | Config | Config |

| Proprietary Software | Web Server | Application Server | Database |

| XML Library | C Library | Dev Platform | Config |
| | | | Server Daemon |

Config

Operating system

| Floppy | CD Rom | USB Port | Disk | Hardware |
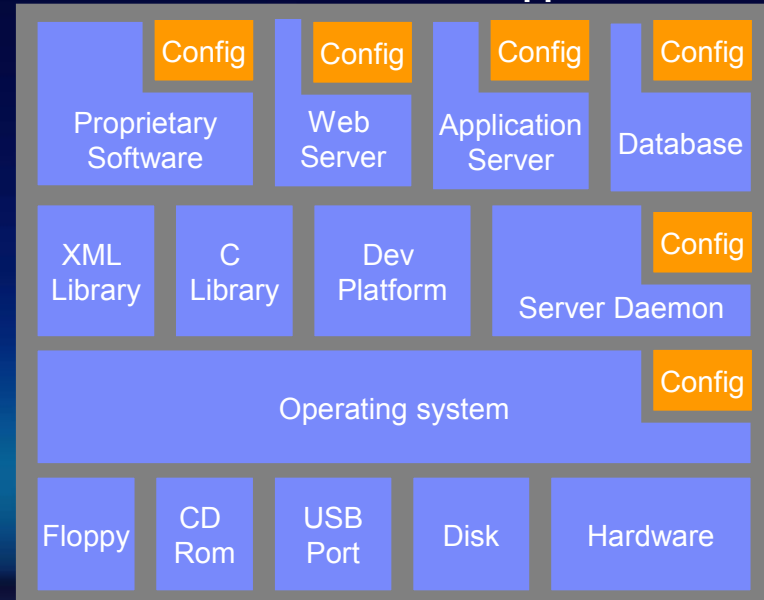
What Kind of Value Can You Expect from the DataPower Appliances?

WebSphere DataPower Appliances…

🔒 **SECURE** your SOA, Web 2.0, B2B, and Cloud environments

✈ **SIMPLIFY** your connectivity infrastructure

▌▌▌▌ **ACCELERATE** your time to value

✕ **GOVERN** your evolving IT architecture

WebSphere DataPower Appliances provide a low startup cost, helping companies increase their ROI and reduce their TCO with specialized, consumable, dedicated appliances that combine superior performance and hardened security

Why use an appliance for connectivity?

- Purpose-built, fine-tuned **consumable** hardware platform
- Provides high levels of certified **security** assurance
  - FIPS 140-2 Level 3
  - Common Criteria EAL4
- Achieves fast **performance** with multiple layers of specialized hardware acceleration
- Many functions incorporated in a **single devi**
  - Service level management
  - Dynamic routing and load distribution
  - Edge security
  - Policy enforcement
  - Transport and message transformation
- **Simplified** maintenance model
  - Drop-in appliance form-factor
  - Secures traffic in minutes
  - Push-button flash upgrade process
  - Integrates with existing operations

DataPower's core value proposition:

The SOA appliances simplify and centralize key functions

- High speed routing, transformation, and securing of messages to multiple applications without coding changes

- Reduced complexity resulting in lower hardware, software, maintenance and administration costs, improved productivity

- Increased flexibility that enables new functionality may be delivered to the business more quickly
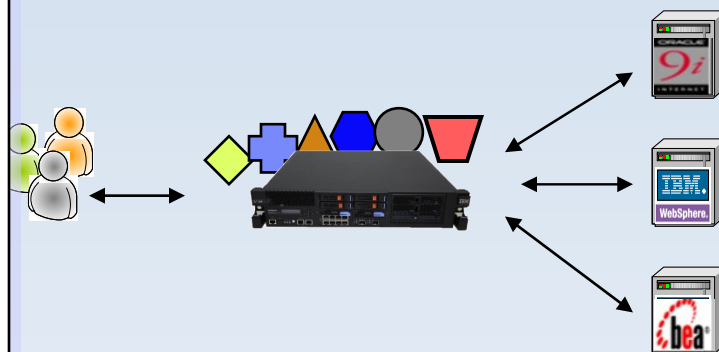
Before SOA Appliances

◆ Security Processing

● Routing

➕ Transformation

▲ New XML standard

⬡ Access control update

▽ Change purchase order schema
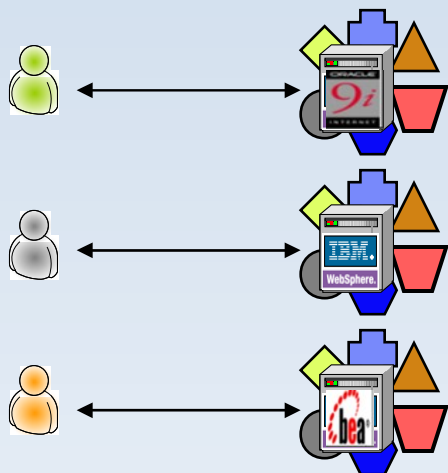
Higher cost: Application servers must be updated individually
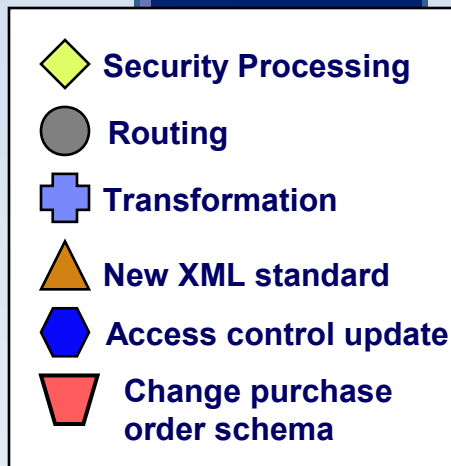
After SOA Appliances

Secure, route, transform all applications instantly

No changes to applications

Why WebSphere DataPower Appliances?

Why an Appliance?

- Tightly integrated hardware and firmware
- High performance
- Security without performance bottlenecks
- Simplicity

Hardened, high-performance hardware

Many functions integrated into a single device

- connectivity requires:
- service level management
- routing, policy, transformation

Enables run-time SOA governance and policy enforcement

- dynamically control
- service availability
- security
- performance
- endpoint selection

- enterprise architects
- network operations
- security operations
- identity management
- web services developers

Addresses divergent needs of different groups

- reduces need for in-house SOA skills & accelerates time to SOA benefits

Simplified deployment and ongoing management

- Example: Appliance performs XML and Web services security processing as much as 72x faster than server-based systems
- Impact: Same tasks accomplished with reduced system footprint and power consumption

"IBM ESBs [including DataPower] have the broadest set of supported runtime protocols, connectivity options, mediation capabilities, security, commercial data standards, and service monitoring and management — hands down."
- Forrester

Proven Green / IT Efficiency Value

Hardware superiority

Benefits of DataPower Hardware

- simplicity
- manageability
- serviceability

Dedicated, tightly optimized hardware and firmware

High reliability

- swappable redundant components
- whole-box VRRP-style failover
- careful design, RAID 1 for HDD options
- non-HDD options avail

High security assurance

- physical intrusion detection
- crypto acceleration
- signed firmware
- only Ethernet and serial ports
- XS40 and XI50
- locked-down structure (CC EAL4)
- HSM option (FIPS-140-2 Level 3)

High performance

- iSCSI acceleration
- XG4 additional acceleration available
- crypto acceleration
- Low latency and high throughput
- patented technology

- self-monitoring and self-healing
- rich remote monitoring and administrative capabilities

Monitoring and management

"The DataPower [XS40]... is the most hardened ... it looks and feels like a datacenter appliance, with no extra ports or buttons exposed… "
  - InfoWorld

"These boxes work," wrote one judge. "In fact they work so well that people sometimes think they sound too good to be true. They aren't. Security doesn't have to be a problem, thanks in large part to gateway appliances."
  -SearchSOA, 2007 Product of the Year for SOA Security Citation

Exceptional Security

- **Sign, verify, encrypt & decrypt**
  - **AS1, AS2 and AS3 Messaging Security (XB62 Only):**
    - **S/MIME Security**
    - **Digital Signatures**
    - **Payload Encryption**
  - **XML Encryption & XML Digital Signature:**
    - Message-level
    - Part-of-message or field-level
    - Headers, as building block of other security specs
    - ebMS Protocol Security **(XB62 Only)**

- **Trading Partner policy enforcement (XB62 only)**
- **Field-level security configurable from the WebGUI**
- **Verify-all option (data-driven verification of all signatures)**
- **DataPower's own implementation, listed in W3C Interop matrix:**
  - http://www.w3.org/Signature/2001/04/05-xmldsig-interop.html
  - http://www.w3.org/Encryption/2002/02-xenc-interop.html
  - Agility for interoperability or customization
- **Secure Attachment Processing:**
  - Supports the full SOAP with Attachments specification (MIME/DIME)
  - WS-Security
- **Last-mile Security for SOA**

Application Integration

- **Built on top of the IBM Hardware ESB (XI52)**
  - Sophisticated multistage pipeline processing and content-based message routing
- **Drop-in integration for heterogeneous environments**
  - Any-to-Any data transformation between a wide range of data formats (WTX tooling, XSLT, etc.)
  - Optimized bridging between wireline messaging protocols (HTTP, MQ, JMS, FTP, SMTP, etc.):
- **Security**
  - Data validation
  - Field-level security operations
  - Web services management and access control
  - Centralized Service Level Management, Service Virtualization, Policy Management
  - All security functions of XS40 included
- **Enablement of existing infrastructure for XML and Web services**
  - Communicate directly with remote Database instances
- **Policy driven approach to Web Services and SOA governance**
- **Direct to Database access**
- **Easy Configuration & Management:**
  - WebGUI, CLI, IDE and Eclipse configuration to address broad organizational needs (Architects, Developers, Network Operations, Security)
- **Simplicity, Robustness, Governance, Speed**

IBM® WebSphere® DataPower B2B Appliance XB62 extends your business to customers and partners with DMZ-grade security

- Make it easier for your partners and customers to do business with you. Reduce infrastructure costs and increase the speed of on-boarding new partners with a configuration-driven appliance that tackles today's B2B integration challenges.

- Centralize and consolidate B2B trading partner connectivity and transaction management with a DMZ-ready B2B gateway

- Quickly 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.

- Improve the performance and scalability of your B2B

DataPower reduces costs, improves productivity, accelerates deployment and time to value

- **IT cost reduction through**
  - Improved IT development productivity (example: replaces time spent hand coding and testing message-level security)
  - Reduced infrastructure costs including a reduction in the number of servers required
  - Improved application integration productivity
  - Improved IT security operations management productivity:
    - Policy management
    - Intrusion management
    - Repair and resolution
    - Forensics and counter measures
    - Reporting, analysis, audit
  - Reduced infrastructure management costs
  - Improved Service governance and reuse
  - Reduced IT backlog (less time spent hand coding, testing)

- **Improved business operation efficiencies**
  - Security Risk Avoidance including:
    - Reduction in denial of service
    - Intentional data destruction
    - Theft of proprietary information
    - Illegal system access
  - Improved Back-Office application availability
  - Reduced documentation and compliance costs

- Revenue advantages
  - Improved Front-Office application availability
  - Higher transaction volumes, faster transaction possessing

DataPower reduces costs, improves productivity, accelerates deployment and time to value

- **IT cost reduction through**
  - Improved IT development productivity (example: replaces time spent hand coding and testing me...
  - Reduced infras... reduction in the...
  - Improved app...
  - Improved IT ... productivity:
    - Policy mana...
    - Intrusion ma...
    - Repair and ...
    - Forensics a...
    - Reporting, ...
  - Reduced infra...
  - Improved Service governance and reuse
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    - ...al of service
    - ...estruction
    - ...y information
    - ...ess
    - ...e application
    - ...ation and
    - ...e application
    - Higher transaction volumes, faster transaction possessing

> **IBM's Business Value Assessment (BVA) captures and quantifies the potential business benefit of a robust, scalable, and flexible technical infrastructure.**
>
> **DataPower BVA examples:**
>
> - **Automotive industry customer: 7m€ saved over 5 years, breakeven in less than 6 months**
> - **Retail industry customer: 4m€ saved over 5 years, breakeven in less than 6 months**
> - **Retail banking industry customer: $5M saved over 3 years, breakeven in 11 months**

How is the XB62 Positioned with other IBM B2B Products?

View of B2B Solutions within IBM

Business Partners

DataPower
B2B Appliance XB62

Purpose-built B2B hardware for simplified deployment, exceptional performance and hardened security

Sterling B2B-I

Consolidated *B2B software based on the Sterling platform, for a broad range of requirements*

WebSphere TX

for Integration & Industry packs

Universal Transformation for complex industry standards with accelerated time to value and reduced cost

Applications & Systems

❖ Each product in the B2B portfolio delivers differentiated capability
❖ Use each product on its own or in combination to meet customer needs

IBM has the most comprehensive B2B solution overall (Cross-brand view)

IBM Comprehensive B2B

- IBM covers both traditional B2B document exchange as well as more advanced forms of B2B process-centric and real-time integration

- IBM offers comprehensive solutions as software or on-demand platform or as a completely outsourced solution

- IBM helps large hub organizations build out and optimize their dynamic business networks, with spoke solutions for small, medium, and large partners/customers

Process-oriented solutions	Real-time Web Services (Industry Standards-based or Custom), B2B Web Services Governance, XML threat protection and acceleration
B2B document and file exchange	Production-scale classic EDI, Industry XML Standards, B2B MFT, DMZ File proxying
B2B Community Management	Community Recruitment, Onboarding, Operations, Visibility, SMB Web Forms
Back-end Integration	ESB, Enterprise MFT, BPM, SOA Infrastructure

Solutions for:
- Very large complex organizations
- SMB Solutions
- Highly automated system-to-system B2B
- People-interactive B2B/MFT

Cloud-based B2B Integration

Outsourced B2B Integration

On-Premise B2B Software

B2B Appliances Solutions

Areas being explored	**Potential customer benefits**
Opportunities to consolidate the current DMZ portfolio, potentially one single DMZ solution encompassing SSP and DP functionality	• Single solution for all DMZ use cases • Simplified DMZ solution configuration and deployment management • Simplified integration with behind-the-firewall software systems
Enhanced integration between Datapower and IBM Sterling B2B Integrator	• Realize product synergies for enhanced B2B solutions (shared profiles, CD protocol, transaction visibility) • Evolve towards a seamless user experience when using both products
Support for an 'always on' B2B foundation and geo dispersed high availability	• Meets emerging customer requirements for a true 24x7 B2B infrastructure, to support modern event-driven global business

Common XB62 Patterns

WebSphere
DataPower B2B
Appliance

XB62 complements IBM's family of software B2B Solutions

Internet   **DMZ**   **Trusted Domain**

Partner → WebSphere DataPower XB62 →

- WebSphere MQ FTE
- WebSphere Transformation Extender
- WPS, WESB, WMB, DP XI52
- Sterling Integrator

→ Application
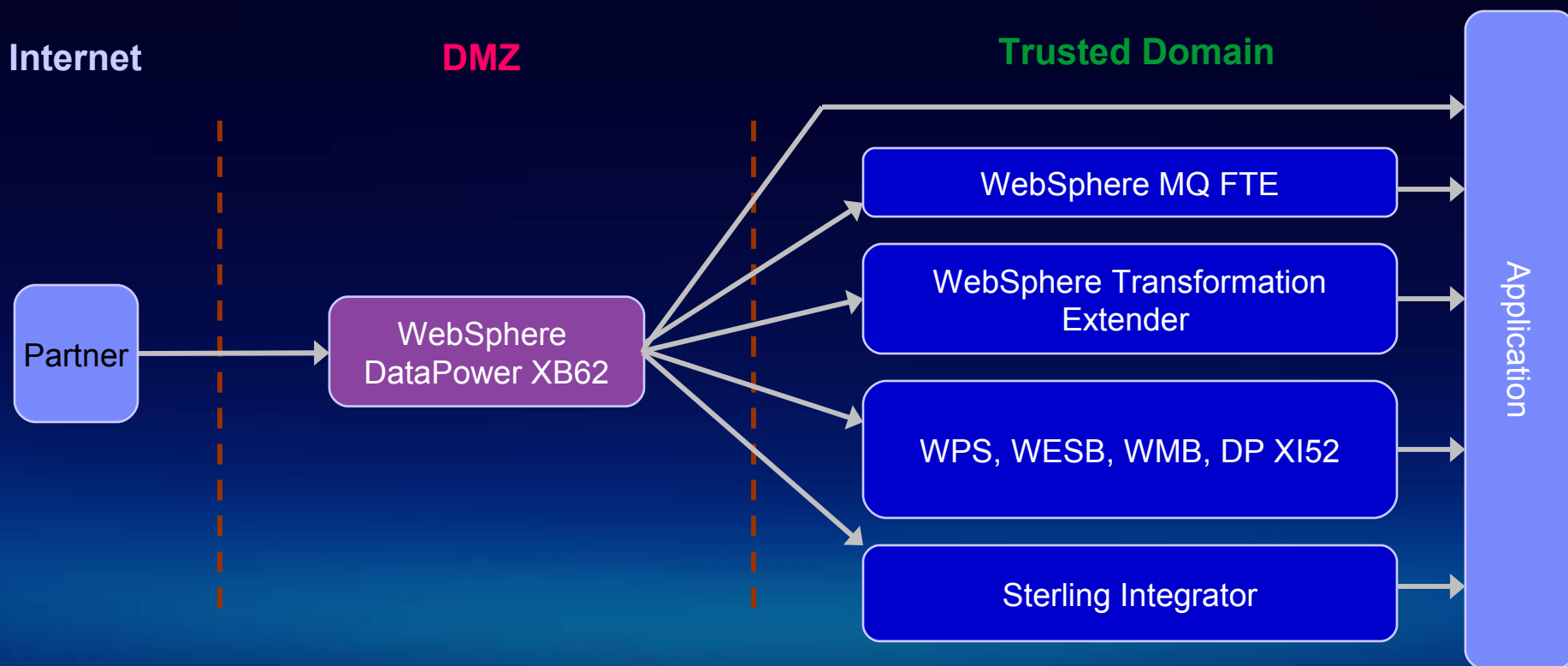
Standalone Consolidated Patterns

– Deploy standalone for purpose built B2B gateway functionality in the DMZ utilizing exceptional security and B2B transaction volumes for quickly connecting to trading partners

Enterprise B2B Integration Pattern

– Deploy with MQFTE for B2B enabled Managed File Transfer

– Deploy with WTX-TM for end-to-end EDI Processing

– Deploy as B2B entry point for BPM and ESB solutions

– Supplement Sterling Integrator by offloading partner connectivity, security functions and advanced web services

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EDIINT Flow: Simple AS2 transaction flow with Transform

Partner A

Partner B

B2B Hub

AS2 Process

EDI

Application

XB62

B2B Gateway Service

Data Store

Transaction Viewer

AS2 (EDI)

AS2 (MDN)

Internet

XML

Application

Browser
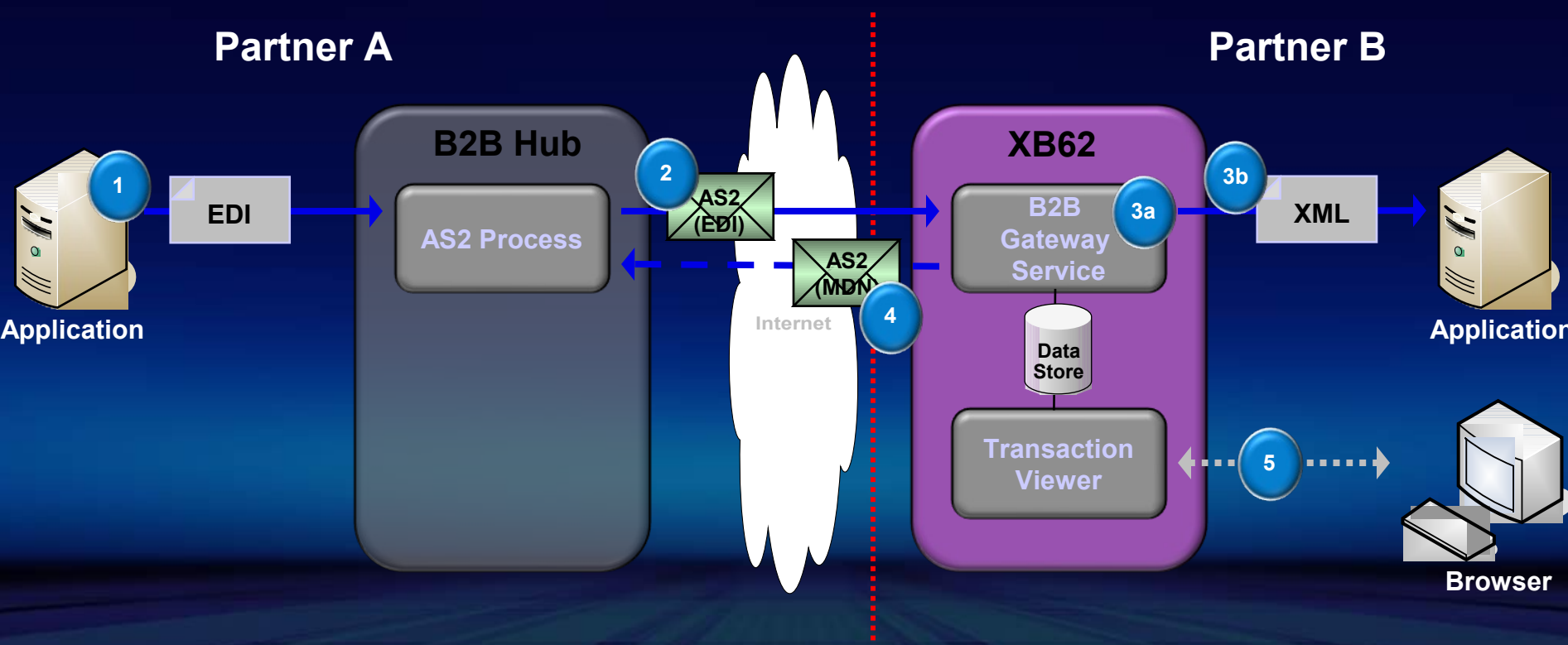
Note: This flow works the same for any AS protocol as well as for ebMS B2B messages.

Web Services bridged to AS2 File Transfer Pattern
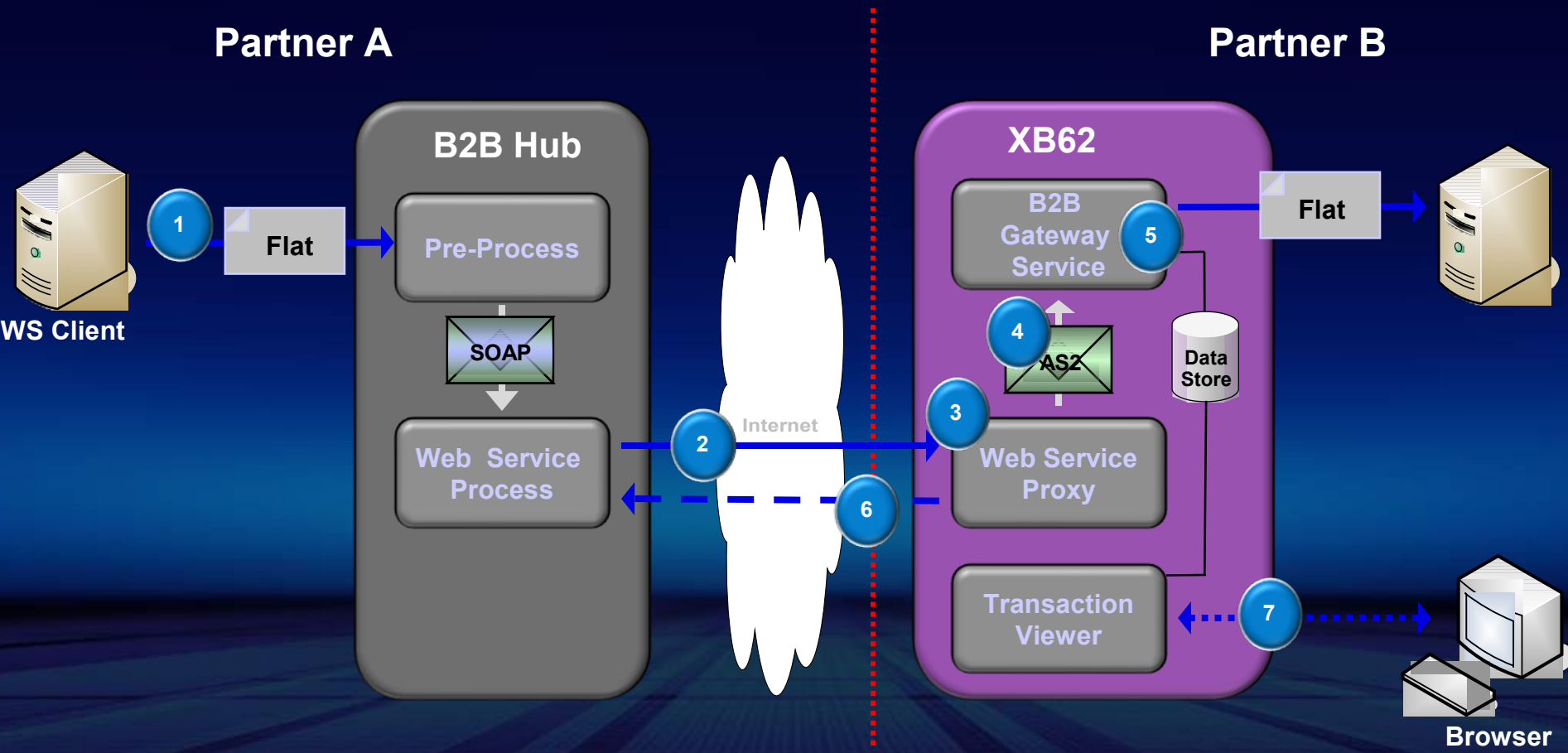
Note: A Multi-Protocol Gateway Service can also be used to support this flow as well as receiving and sending data over any of the 16 supported protocol handlers. When Services are tied together in front of or behind a B2B Gateway Service they are handled like pre and post processes.

MQ FTE Integration Pattern – Inbound File to Message
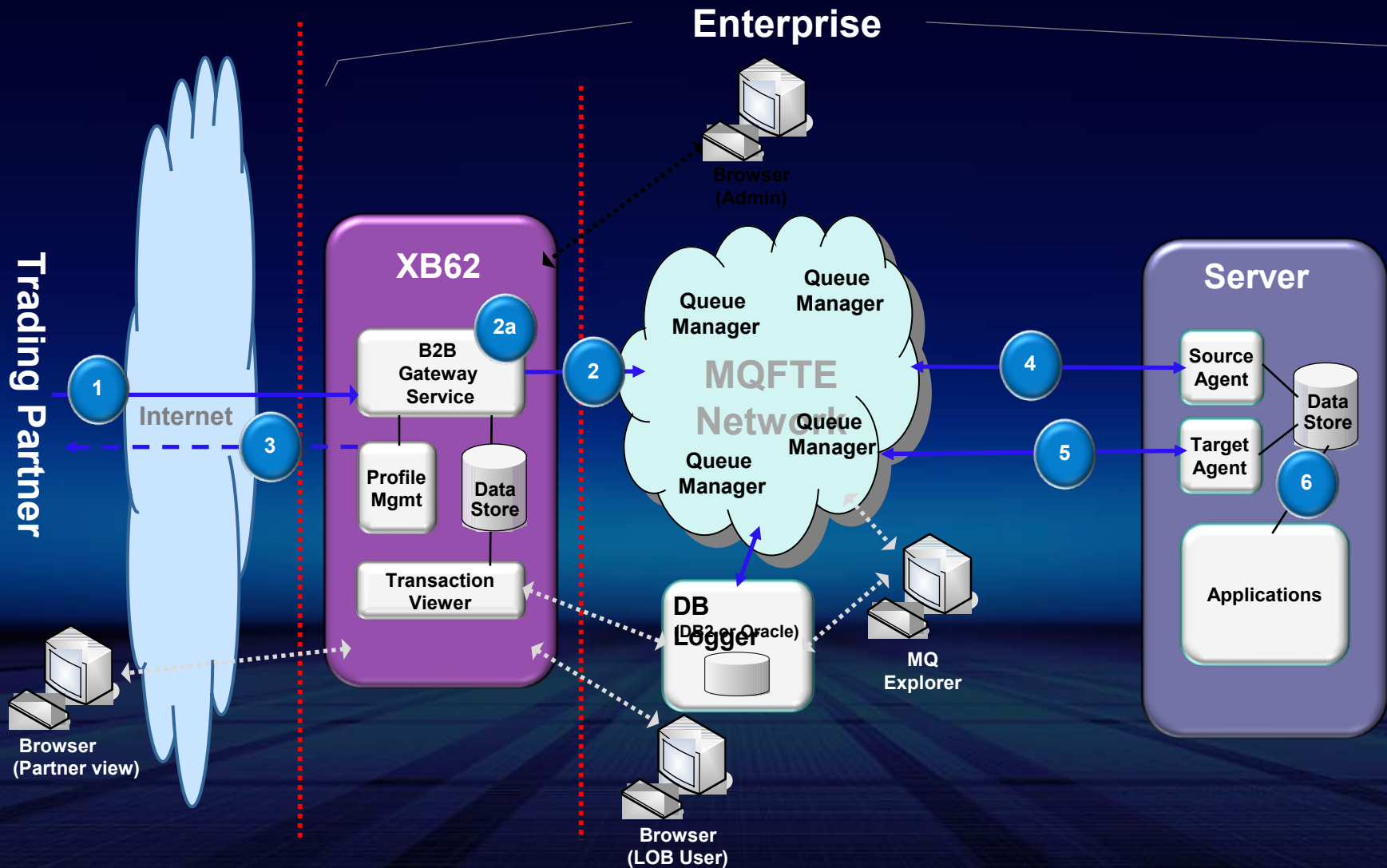
ebXML with CPPA Pattern
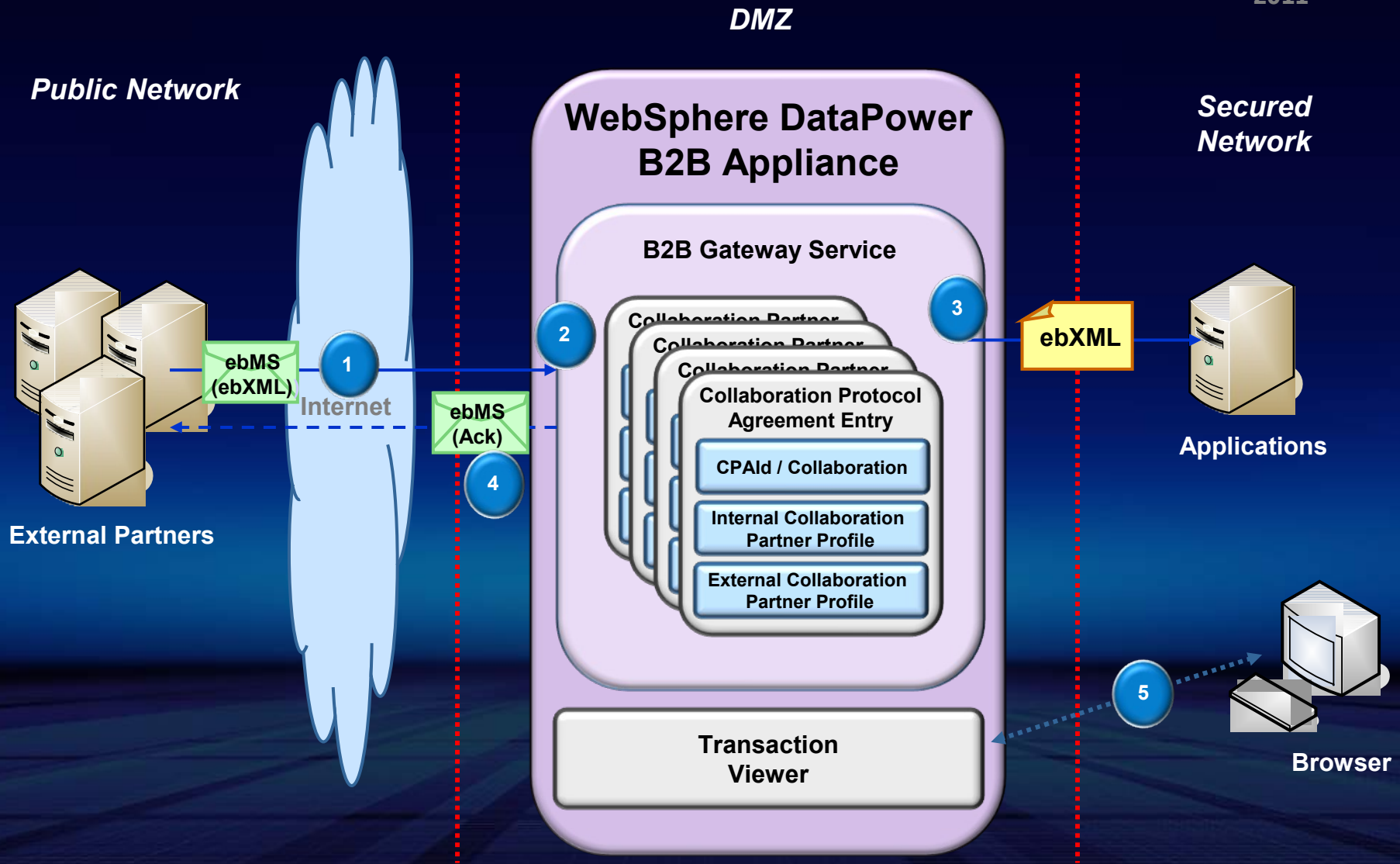
Health Level 7 Pattern with Transformation
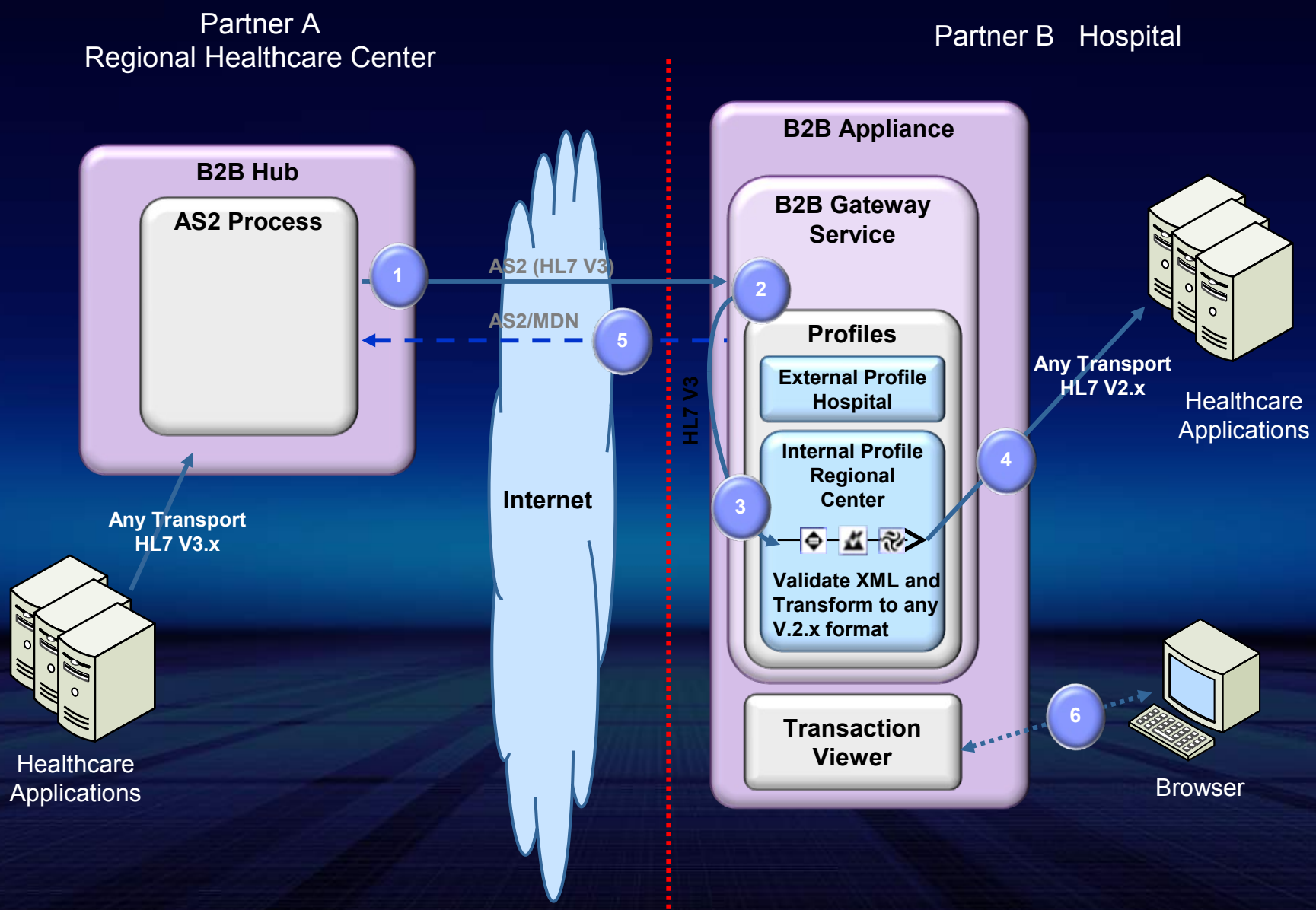
EDI VAN or Collaboration Network Pattern

Partner A

Partner B

Partner C

EDI

VAN thevan

zzpartner_c

zzpartner_b

zzpartner_c

Internet

AS2 (EDI)

AS2 (MDN)

Partner D

B2B Appliance

B2B Gateway Service

Ext. profile IDs
AS2 ID: thevan
zzpartner_a
zzpartner_b
zzpartner_c

Int. profile IDs
partner_d
zzpartner_d

Transaction Viewer

EDI

Application

Browser
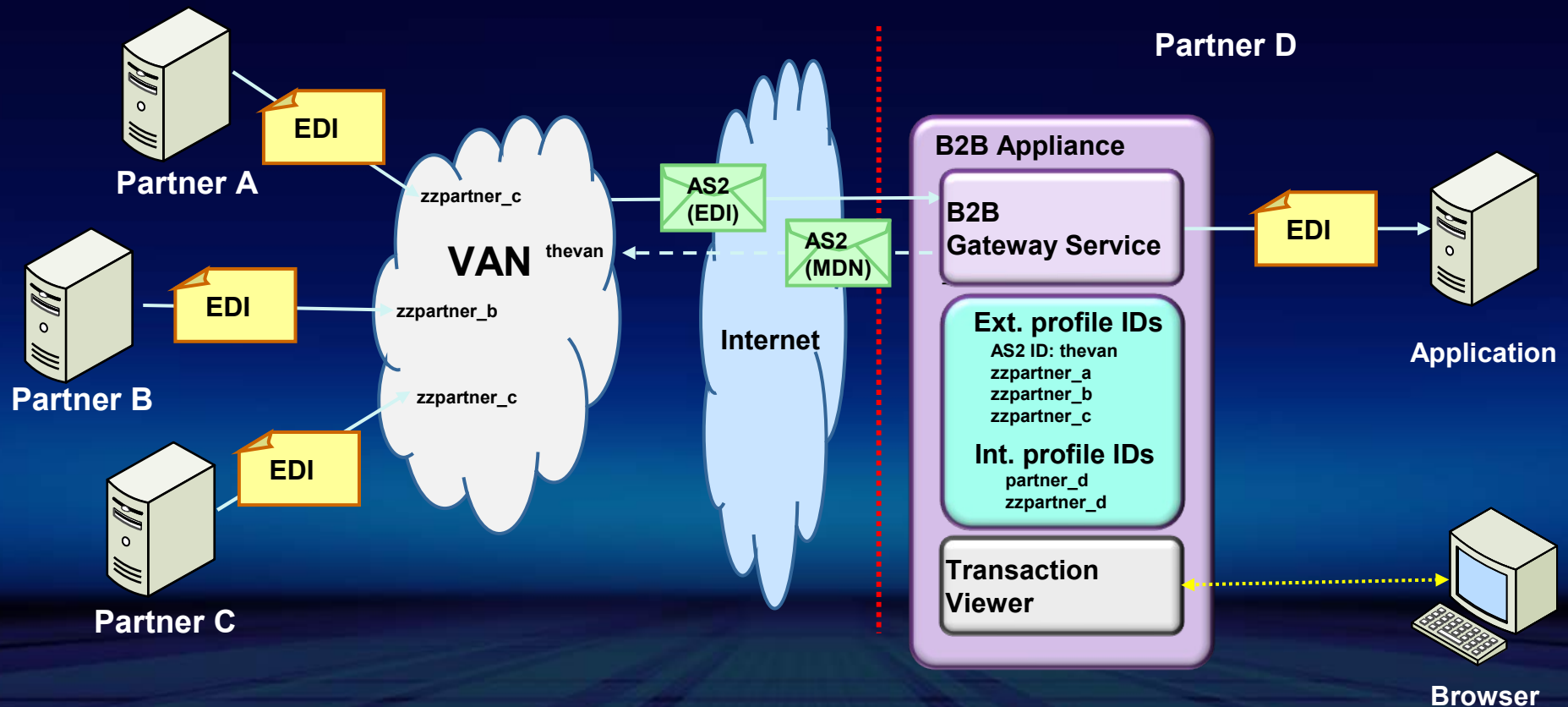
XB62 Active/Passive High Availability Deployment Pattern

Internet

DMZ

Trusted Domain

Partners

Shared Virtual IP Address

WebSphere DataPower XB62

Multi-Protocol Service (pollers)

B2B Gateway Service

B2B Metadata Storage

B2B Viewer

Primary System (Active)

Real-time Data Synchronization

Active/Passive Standby Control

WebSphere DataPower XB62

Multi-Protocol Service (pollers)

B2B Gateway Service

B2B Metadata Storage

B2B Viewer

Secondary System (Passive)

File Server (SAN)

B2B Payload Storage

Application Integration Middleware

Applications

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Customer Success Stories?

WebSphere
DataPower B2B
Appliance

National Broadband Network - Australia

WebSphere DataPower
B2B Appliance X150

NBNCo Limited **Broadbanding Australia**

Industry Pains:

- System complexity and high cost hinder partner on-boarding
- Need Low latency and high transaction throughput of ebXML data
- Need standard based and interoperable ebMS v2.0 support with profile management and CPA support

Smarter Business Outcomes:

- Allow fast and cost effective Access Seeker integration using open standards
- Drummond Interoperable ebMS v2.0 with CPPA v2.0
- Allow Access Seekers to control provisioning and assurance of network resources used by them in a way that is as close as practicable to being as if the resources were their own

Value of DataPower B2B Appliances for Extending Connectivity?

All interactions between NBN Co and access seekers – such as address searches, orders and service desk tickets – would pass between the B2B gateway and the ISP's message service handler (MSH).

German Automotive Manufacturer

WebSphere DataPower B2B Appliance X860

Industry Pains:

- STAR/XML payload processing
- Interoperability of AS2, ebMS and Web Services
- Integration to external identity managers for authentication, authorization and auditing (AAA)
- High throughput and low latency are typically cost prohibitive

Smarter Business Outcomes:

- Reduced IT complexity with rapid, simplified integration into existing infrastructure
- Lower total cost of ownership with a configuration approach and consolidation of edge servers
- Centralized profile management and reliable and secure data exchange with thousands of trading partners

Value of DataPower B2B Appliances for Automotive?

Drop-in appliance creates centralized, DMZ deployable and scalable B2B gateway with exceptional security and operational performance supporting a wide range of document and B2B standards utilized in the automotive industry

An European Energy and Gas Company

WebSphere DataPower B2B Appliance X860
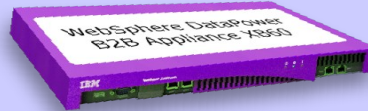
Industry Pains:
- EASEE-Gas Mandate for AS2/XML by Jan 2010
- Dependence on wide array of trading partners
- Information and data security concerns

Smarter Business Outcomes:
- Reduced IT complexity with rapid, simplified integration into existing infrastructure
- Reliable and secure data exchange with thousands of partners
- Centralized B2B management capabilities

Value of DataPower B2B Appliances for Extending Connectivity?

Drop-in appliance creates centralized, scalable AS2 gateway system, with exceptional security and operational performance

BlueCross BlueShield of North Carolina

WebSphere DataPower B2B Appliance X860

BlueCross BlueShield of North Carolina

Industry Pains:
- HIPAA Security requirements for transporting data over the Internet
- HL7 v3.0 XML threat protection
- Complexity of B2B for healthcare

Smarter Business Outcomes:
- Reliable and secure routing of customer sensitive data
- Easy to use and maintain; no additional skill needed
- XML Messages with attachments are authenticated, authorized, and virus scanned

Value of DataPower B2B Appliances for Extending Connectivity?

Secure appliance form factor providing secure connections to trading partners, advanced threat protection and reliable file delivery of confidential medical information

Non-US Postal Service

Industry Pains:

- Customers need to connect over a wide variety of protocols
- Many trading partners are moving to AS2 for secure, reliable messaging
- Connections need to be authenticated, authorized and audited

WebSphere DataPower B2B Appliance XB60

Smarter Business Outcomes:

- Extensive support for a wide variety of protocols and standards based communications
- Drummond Interoperable AS2 with exceptional transaction throughput
- Excellent integration with a variety of external sources for authentication, authorization and auditing (AAA)

Value of DataPower B2B Appliances for Extending Connectivity?

Drop-in appliance provides the ability to securely connect to more trading partners faster and easier, with assured delivery of data over a wide range of file transfer protocols

Summary – DataPower XB62: IBM Specialized Hardware for Extending Connectivity to Customers & Partners

- Hardened, specialized product for helping integrate, secure & accelerate B2B solutions

- Many functions integrated into a single device extending application integration beyond the enterprise with B2B messaging

- Exceptional EDIINT AS1/2/3 data throughput

- Broad integration with both **non-IBM and IBM** software

- Simplified deployment and ongoing management

http://www.ibm.com/software/integration/datapower/

B2B Appliances: Creating customer value through exceptional B2B messaging performance and security

- **Manage and securely connect to your trading partners quickly**
- **Support simple and complex B2B data flows**
- **Provide B2B governance in the DMZ**

Backup

WebSphere DataPower B2B Appliance XB62 Roadmap

Any forward looking functions are candidates for a given time frame and are not committed to a specific release.

- Additional Protocol support
- Drummond AS2 Certification
- Sterling SSP + Connect:Direct proxy
- Usability Improvements
- Performance Improvements

- Native MQ FTE Integration
- Drummond AS2 Certification
- ebXML CPPA v2.0 Support
- Usability Improvements
- Performance Improvements

- EDIINT AS1 Protocol
- B2B Payloads over plaintext email
- Drummond AS2 Certification
- Usability improvements
- Performance improvements

- ebMS v2.0 Protocol
- Active/Standby High Availability
- Drummond AS2 Certification
- EDI Transformation
- SFTP Client/Poller
- Usability improvements
- Performance improvements

Next + 2
(2Q13)

Next +1
(4Q12)

- Active/Active HA
- Application Optimization Option
- IPV6 Support
- Drummond AS2 Certification
- ebXML improvements
- Usability Improvements
- Performance Improvements

5.0.0
(2Q12)

- SFTP Server support
- B2B Viewer – trading partner visibility
- Drummond AS2 Conformance
- Customizable drive encryption
- Usability improvements
- Performance improvements

4.0.2
(3Q11)

4.0.1
(2Q11)

v3.8.2
(4Q10)

- EDI, EDIFACT WTX Pack support
- Drummond AS2 and ebMS Certification
- Metadata as a web service query
- EDI Parsing improvements
- B2B Viewer Resend improvements
- Usability Improvements
- Performance Improvements

v3.8.1
(2Q10)

- HSM Module Support
- ebXML Enhancements
- Drummond ebMS 2.0 Certification

- EDIINT AS2 & AS3 Protocols
- B2B Gateway Service
- Trading Partner Management
- B2B Transaction Viewer

v3.8.0
(4Q09)

v3.7.3
(2Q09)

v1.0
(4Q08)

- Drummond AS2 Certification
- WTX HL7 Industry Pack Support
- Enhanced FTP and NFS
- Usability Improvements
- Performance Improvements

** Fix Packs are typically released every 6 to 8 weeks.

Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

WebSphere DataPower – Established Resources

IBM DataPower Web Page (support, technotes, doc):

http://www-01.ibm.com/software/integration/datapower/

DeveloperWorks DataPower Discussion Area:

http://www.ibm.com/developerworks/forums/forum.jspa?forumID=1198

IBM Redbooks:

http://www.redbooks.ibm.com/cgi-bin/searchsite.cgi?query=datapower

External Publications:
http://www.amazon.com/gp/product/0137148194?ie=UTF8&tag=dph-20&link_code=as3&camp=211189&creative=373489&creativeASIN=0137148194

Vast library of published articles:
http://www.ibm.com/developerworks

www.ibm.com/software/integration/datapower

DataPower XB62 – Configuration

New B2B Service Objects
- **top-level service**
- **partner management**
- **transaction viewing**

DataPower XB62 – Partner Profile Configuration (Main)

Debug Logging (in default domain) is enabled, which impacts performance. Manage debug settings.

Configure B2B Partner Profile

Main   AS Settings   ebMS Settings   Destinations   Contacts

B2B Partner Profile: Partner [up]

[Apply] [Cancel] [Delete] [Undo]   Export | View Log | View Status | He

Administrative State	⊙ enabled ○ disabled
Comments	Partner's Internal Profile
Profile Type	⊙ External ○ Internal
Partner Business IDs	partner ✖ zzpartner ✖ [ ] [Add]
Partner Business IDs (DUNS)	(empty) [ ] [Add]
Partner Business IDs (DUNS+4)	(empty) [ ] [Add]
Processing Policy	(none) [▼] [+] [...]
Response Traffic Type	Non-XML [▼]
Partner E-mail Addresses	(empty) [ ] [Add]

B2B Partner Profile - Main

• Top-level container to configure external and internal partner profiles

• Profiles can have multiple types of Business IDs as well as any number of IDs

• Profiles can also be identified by an email address when using AS1 or a POP handler.

• Profiles can utilize processing policies to manipulate the payload during the transaction flow.

DataPower XB62 - Partner Profile Configuration (AS Settings)

Partner Profile - AS Security (Internal Profile)

- Configure inbound and outbound AS security requirements by supplying credentials for security enforcement

- Force AS ID for this partner overriding the payload ID

Partner Profile - AS Security (External Profile)

- Configure inbound AS security requirements by supplying credentials for security enforcement (outbound security is configured in the destination or in the processing policy)

- Force AS ID for this partner overriding the payload ID

DataPower XB62 - Partner Profile Configuration (ebMS Settings)

Debug Logging (in default domain) is enabled, which impacts performance. Manage debug settings.

Configure B2B Partner Profile

Main   AS Settings   **ebMS Settings**   Destinations   Contacts

B2B Partner Profile: Partner [up]

[Apply] [Cancel] [Delete] [Undo]   Export | View Log | View Stat

CPA Settings

Role   [   ]

Inbound Security

Require Signature   ☐

Require Encryption   ☐

Inbound Decryption Identification Credentials   [(none) ▾] [+] [...]

Outbound Security

Sign Outbound Messages   ☐

Signing Identification Credentials   [(none)

Debug Logging (in default domain) is enabled, which impacts performance. Manage debug settings.

Configure B2B Partner Profile

Main   AS Settings   **ebMS Settings**   Destinations   Contacts

B2B Partner Profile: **ExtPrtnr** (up)

[Apply] [Cancel] [Delete] [Undo]   Export | View Log | View Status | Help

CPA Settings

Role   [   ]

Default CPA ID   [   ]

Default Service   [   ]

Default Action   [   ]

Reliable Messaging

Persist Duration   [0]

Acknowledgment URL   [http://]

Error URL   [http://]

Inbound Security

Inbound Signature Validation Credentials   [(none)]

Acknowledgment/Error SSL Proxy Profile   [(none) ▾]

Partner Profile – ebMS Security (Internal Profile)

• Configure the expected CPA Role

• Configure inbound and outbound ebMS security requirements by supplying credentials for security enforcement

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Partner Profile - ebMS Security (External Profile)

• Configure the default CPA information to be set in outbound message (Only used if no CPA is provided in the Gateway)

• Configure Reliable Messaging for returning Async acknowledgements

• Configure inbound ebMS security requirements by supplying credentials for security enforcement (outbound security is configured in the destination processing policy or CPA)

DataPower XB62 - Partner Profile Configuration (Destinations)

Debug Logging (in default domain) is enabled, which impacts performance. Manage debug settings.

Configure B2B Partner Profile

| Main | AS Settings | ebMS Settings | **Destinations** | Contacts |

B2B Partner Profile: Partner [up]

Apply | Cancel | Delete | Undo

Export | View Log | View Status | Help

Destinations

Destination Name	Destination URL	Enabled Document Type		
backend_http (default)	http://127.0.0.1:30000	XML, X12, EDIFACT, Binary	⬆⬇	✏ ✖

Add

*

Remote
as1://
as2://
as2s://
as3://
dpims://
dpimsssl://
dpmq://
dpmqfte://
dpnfs://
dpsmtp://
dptibems://
dpwasjms://
ebms2://
ebms2s://
ftp://
http://
https://
mq://
mqfte://
sftp://
tibems://

Partner Profile - Destinations

•**Multiple destinations (Default destination can be chosen)**

•**Configure document types to allow over the specified destination**

•**Over twenty protocol variations, each with specific attributes to be set**

DataPower XB62 - Partner Profile Configuration (Contacts)

Debug Logging (in default domain) is enabled, which impacts performance. Manage debug settings.

Configure B2B Partner Profile

| Main | AS Settings | ebMS Settings | Destinations | **Contacts** |

B2B Partner Profile: Partner [up]

[Apply] [Cancel] [Delete] [Undo]   Export | View Log | View Status | Help

Contacts

Given Name	Family Name	Title	Phone	E-mail		
Rich	Kinard	Sr. Product Mgr.	480-586-0805	rkinard@us.ibm.com	⬆⬇	✏ ✖
						➕ Add

Partner Profile - Contacts

- Optionally supply contact information

- Multiple contacts can be entered

DataPower XB62 – B2B Gateway Configuration (Main)

B2B Gateway - Main

• Specify a document storage location (can optionally be off device)

• All payload data stored on the local drive is AES encrypted

• Add Protocol Handlers for inputting data into the B2B Gateway

• Attach Partner Profiles for sending data out of the B2B Gateway

• Use Profile Groups to group like profiles together (e.g. Multiple profiles for the same company)

• Turn on the Troubleshooting probe to diagnose processing policy used in the flow

DataPower XB62 – B2B Gateway Configuration (Archive)

B2B Gateway - Archive

- Manage file system space with archive and purge settings

- Purge mode available

- Archive Documents off of the device

- Choose which packaged payloads to include in the archive file

- Archive file is in XML format

DataPower XB62 – B2B Gateway Configuration (XML Formats)

XML Document Identity

- Identify XML documents for partners using XPath
- Xpath tool allows an easy way to find the correct XPaths

Identify partner IDs, Document IDs and timestamp, using XPath

DataPower XB62 – B2B Gateway Configuration (ebXML)

B2B Gateway - ebXML

•Use the CPA Import Wizard to import CPA's

•Manage ebXML Collaboration Protocol Agreements

•Fine tune/change the services as needed

DataPower XB62 – B2B Gateway Configuration (Advanced)

Configure B2B Gateway

Successfully modified B2B Gateway Partner_Hub
This configuration has been modified, but not yet saved.

Main   Archive   XML Formats   ebXML   **Advanced**

B2B Gateway: Partner_Hub [up]

Apply   Cancel   Delete   Undo

Export | View Log | View Status | Show Probe | Validate
Conformance | Help
Archive/purge transactions | Quiesce | Unquiesce

Service Priority	Normal
Default AS1 MDN Return E-mail	
AS1 MDN SMTP Server Connection	(none) + ...
Default AS2 MDN Return URL	http://
Default AS3 MDN Return URL	ftp://
Document Routing Preprocessor	store:/// b2b-routing.xsl Upload... Fetch...
SQL Data Source	(none) + ...

B2B Gateway - Advanced

• Set the Priority of the B2B Gateway

• Configure default values for AS Async MDN return paths

• Use the Document Routing Preprocessor to define sender and receiver IDs for binary files

• Configure the SQL Data Source for connecting to the MQ FTE DB Logger

DataPower XB62 – Transaction Viewer