

IBM DataPower Gateways Pre-Course Intro

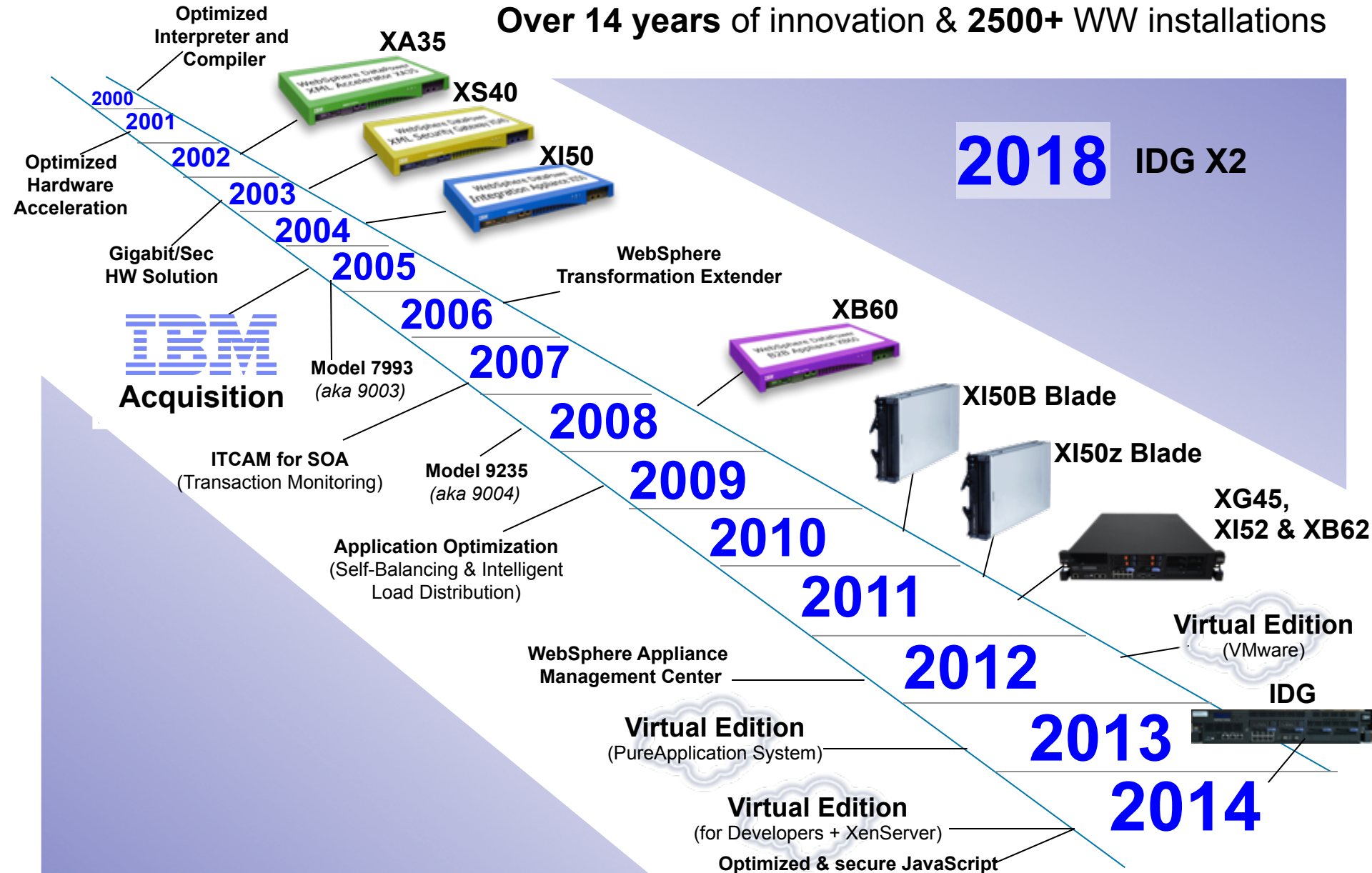
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IBM DataPower Gateway History

Over 14 years of innovation & 2500+ WW installations



DataPower Gateway: Supported standards & protocols

- **Data format & language**

- [JavaScript](#)
- JSON
- JSON Schema
- JSONiq
- REST
- SOAP 1.1, 1.2
- WSDL 1.1
- XML 1.0
- XML Schema 1.0
- XPath 1.0
- XPath 2.0 (XQuery only)
- XSLT 1.0
- XQuery 1.0

- **Security policy enforcement**

- [OAuth 2.0](#)
- [JWE/JWS/JWT/JWK](#)
- SAML 1.0, 1.1 and 2.0, SAML Token Profile, SAML queries
- XACML 2.0
- Kerberos (including [S4U2Self](#), S4U2Proxy)
- SPNEGO
- RADIUS
- RSA SecurID OTP using RADIUS
- LDAP versions 2 and 3
- Lightweight Third-Party Authentication
- Microsoft Active Directory
- FIPS 140-2 Level 3 (w/ optional HSM)
- FIPS 140-2 Level 1 (w/ certified crypto module)
- SAF & IBM RACF® integration with z/OS
- Internet Content Adaptation Protocol
- W3C XML Encryption
- W3C XML Signature
- S/MIME encryption and digital signature
- WS-Security 1.0, 1.1
- WS-I Basic Security Profile 1.0, 1.1
- WS-SecurityPolicy
- WS-SecureConversation 1.3

- **Transport & connectivity**

- HTTP, HTTPS, [WebSocket Proxy](#)
- FTP, FTPS, SFTP
- WebSphere MQ
- WebSphere MQ File Transfer Edition
- TIBCO EMS
- WebSphere Java Message Service
- IBM IMS Connect, & IMS Callout
- NFS
- AS1, AS2, AS3, ebMS 2.0, CPPA 2.0, POP, SMTP (XB62)
- DB2, Microsoft SQL Server, Oracle, Sybase, IMS

- **Transport Layer Security**

- TLS versions 1.0, 1.1, and 1.2
- SSL versions 2 and 3
- [SNI, PFS, ECC Ciphers](#)

- **Public key infrastructure (PKI)**

- RSA, 3DES, DES, AES, SHA, X.509, CRLs, OCSP
- PKCS#1, PKCS#5, PKCS#7, PKCS#8, PKCS#10, PKCS#12
- XKMS for integration with Tivoli Security Policy Manager (TSPM)

- **Management**

- Simple Network Management Protocol
- SYSLOG
- IPv4, IPv6

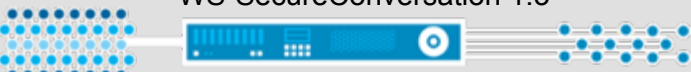
- **Open File Formats**

- Distributed Management Task Force (DMTF) Open Virtualization Format (OVF)
- Virtual Machine Disk Format (VMDK)
- Virtual Hard Disk (VHD)

- **Web services**

- WS-I Basic Profile 1.0, 1.1
- WS-I Simple SOAP Basic Profile
- WS-Policy Framework
- WS-Policy 1.2, 1.5
- WS-Trust 1.3
- WS-Addressing
- WS-Enumeration
- WS-Eventing
- WS-Notification
- Web Services Distributed Management
- WS-Management
- WS-I Attachments Profile
- SOAP Attachment Feature 1.2
- SOAP with Attachments (SwA)
- Direct Internet Message Encapsulation
- Multipurpose Internet Mail Extensions
- XML-binary Optimized Packaging (XOP)
- Message Transmission Optimization Mechanism (MTOM)
- WS-MediationPolicy (IBM standard)
- Universal Description, Discovery, and Integration (UDDI versions 2 and 3), UDDI version 3 subscription
- WebSphere Service Registry and Repository (WSRR)

[Link to Product Documentation](#)



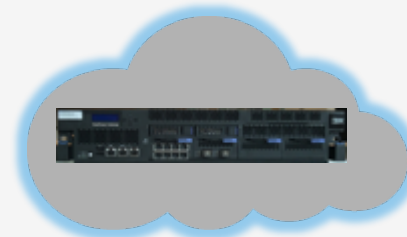
IBM DataPower Gateway – Physical and Virtual

Physical



- Secure the enterprise DMZ with purpose-built physical appliances
- High density 2U rack-mount design
- 8 x 1 and 2 x 10 GbE ports
- Cryptographic acceleration card
- Trusted platform module
- Customized intrusion detection
- Optional HSM (FIPS 140-2 Level 3 certified)

Virtual



- Support multiple hypervisors and cloud environments
 - VMware ESX/ESXi
 - Citrix XenServer
 - IBM PureApplication System W1500, W2500
 - IBM SoftLayer bare metal instances using supported hypervisors
 - Docker
- Used for development, testing and production
- Secure workload on the cloud with virtual appliances

Single, modular & extensible platform - 2017

Modules

B2B Module

- ❑ B2B DMZ gateway
- ❑ EDIINT AS1,AS2,AS3,ebXML
- ❑ Partner profile management
- ❑ B2B transaction viewer
- ❑ Any-to-Any message transformation
- ❑ Database connectivity

TIBCO EMS Module

- ❑ Integrate with TIBCO EMS messaging middleware
- ❑ Support for queues & topics
- ❑ Load balancing & fault-tolerance

ISAM Proxy Module

- ❑ User access control, session management, web SSO enforcement
- ❑ Advanced mobile security: mobile SSO, context-based access, one-time password, multi-factor authn
- ❑ Integration w/ ISAM4Mobile

Application Optimization Module

- ❑ Frontend self-balancing
- ❑ Backend intelligent load distribution
- ❑ Session affinity
- ❑ z Sysplex Distributor integration

Integration Module

- ❑ Any-to-Any message transformation
- ❑ Database connectivity
- ❑ Mainframe IMS connectivity

IBM DataPower Gateway (Base)

Secure

- Authentication, authorization
- Security token translation
- Service / API virtualization
- Threat protection
- Message validation
- Message filtering
- Message digital signature
- Message encryption
- AV scanning integration

Integrate

- Transport protocol bridging
- Message enrichment
- Message transformation & processing using JavaScript, JSONiq, XQuery, XSLT
- Mainframe integration & enablement
- Flexible pipeline message processing engine

Control & Manage

- Service level management
- Quota & rate enforcement
- Content-based routing
- Message accounting
- Integration w/ management & visibility platforms including IBM API Management & WSRR for policy enforcement

Optimize & Offload

- SSL / TLS offload
- Hardware accelerated crypto
- JSON, XML offload
- JavaScript, JSONiq, XSLT, XQuery acceleration
- Local response caching
- Distributed caching w/ XC10
- Backend load balancing

(2U Physical or Virtual Edition)

