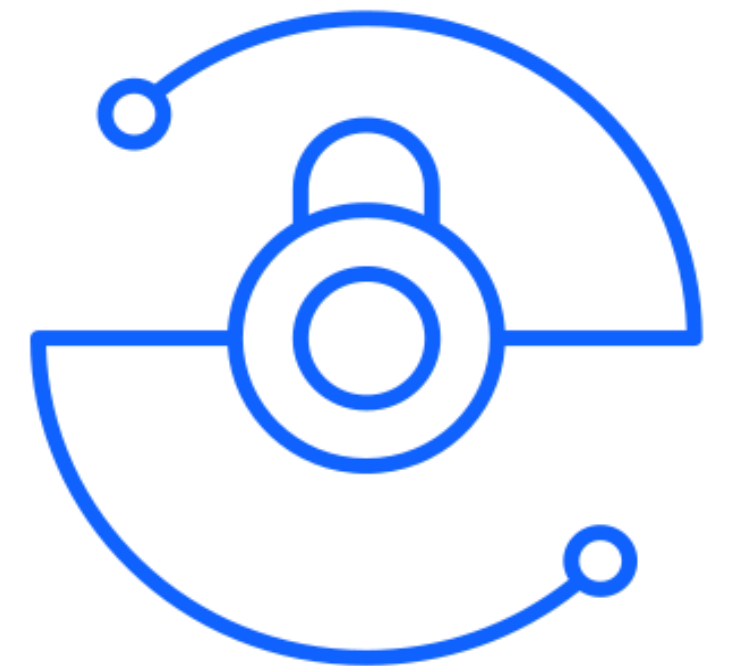


What's New in IBM DataPower V10

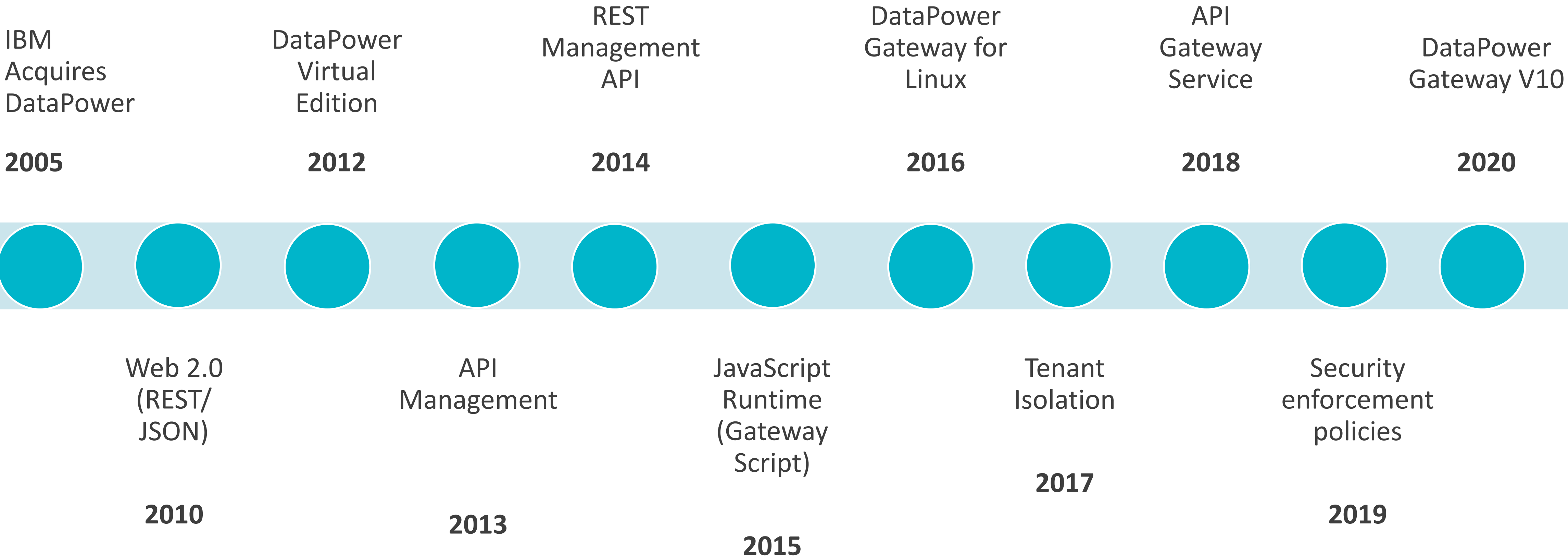
September 8, 2020

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History of DataPower Gateway Innovation



Core Features in IBM DataPower

Secure

Authenticate, authorize, audit
Security token translation
Threat protection
Schema validation
Message filtering & semantics validation
Message digital signature
Message encryption

Integrate

Any-to-any message transformation
Transport protocol bridging
Message enrichment
Database connectivity
Mainframe connectivity
B2B trading partner connectivity

Control

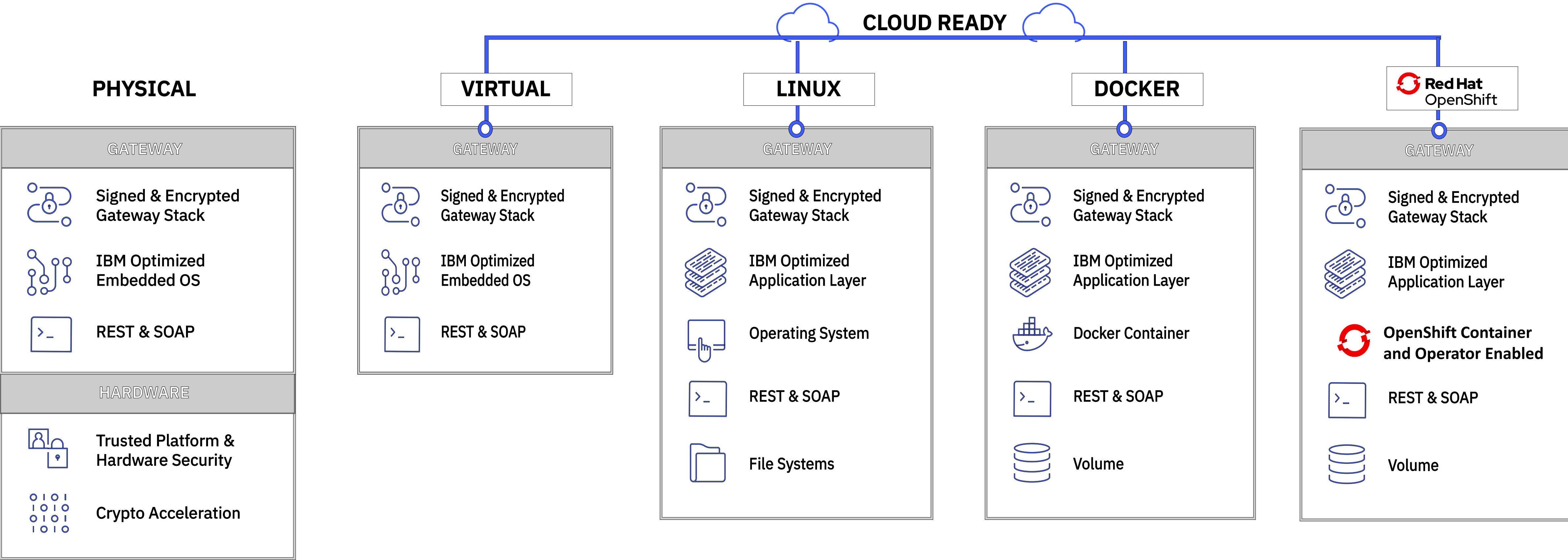
Service level management
Quota enforcement, rate limiting
Message accounting
Content-based routing
Failure re-routing
Integration with management & visibility platforms

Optimize

SSL / TLS offload
Hardware accelerated crypto operations
JSON, XML offload
JavaScript, JSONiq, XSLT, XQuery
Response caching
Intelligent load distribution

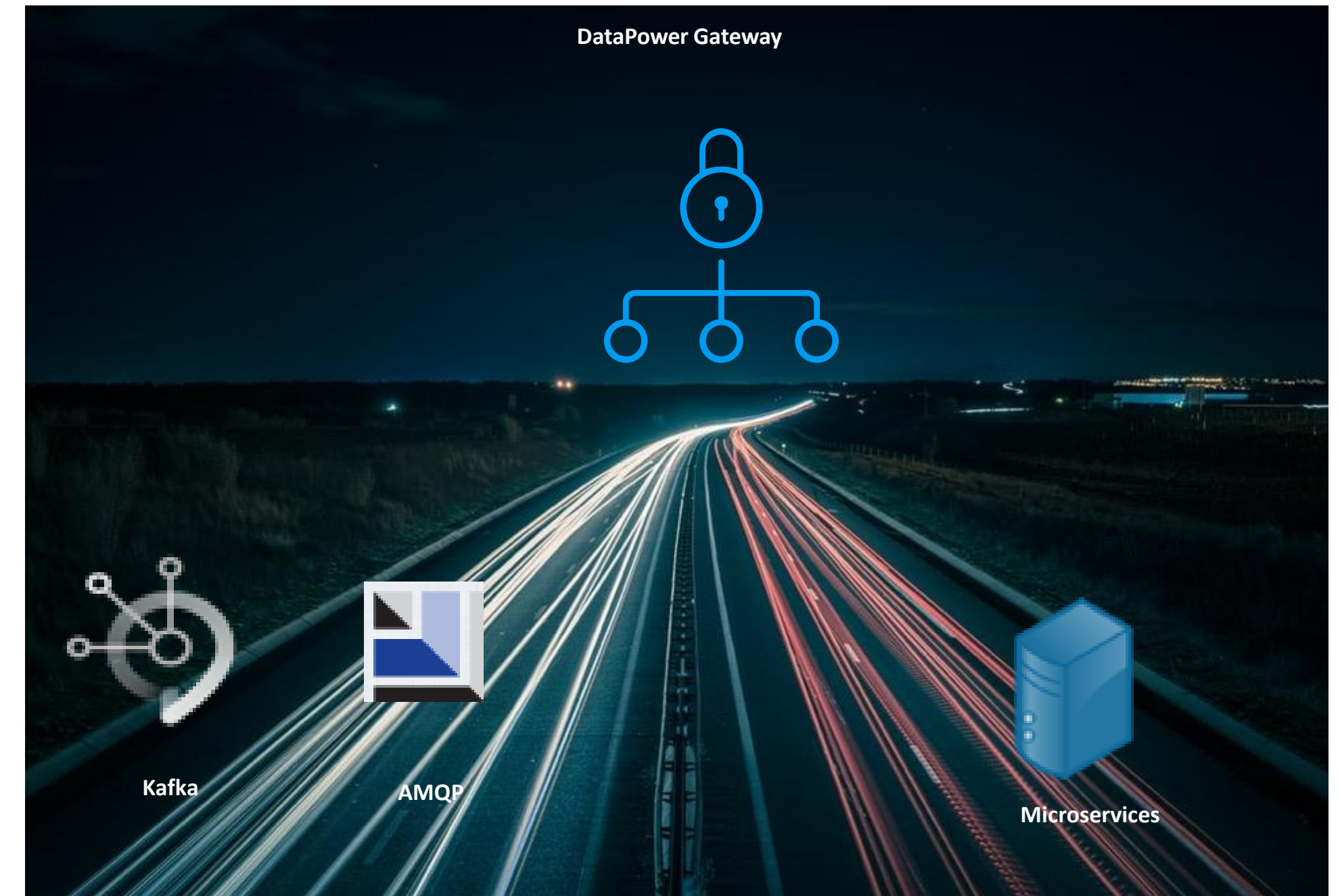
DataPower Gateways can deploy anywhere...

- **Physical appliances:** All-in-one (HW / SW), DMZ-ready with physical security including crypto acceleration and optional hardware security module (HSM)
- **Software:** *virtual* appliance, application (*Linux*) & containers provide flexible deployment options for both cloud and on-premise environments



Secure event-based applications with consistent policies

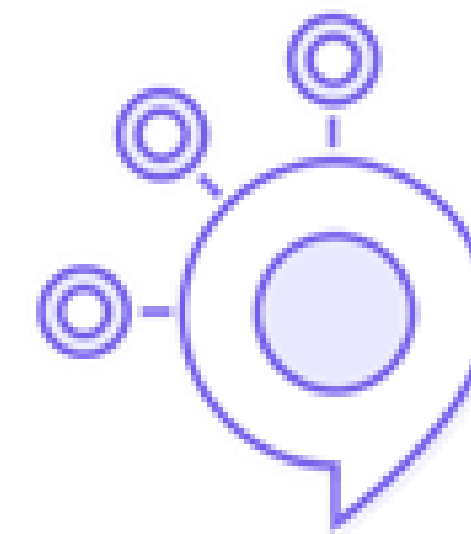
- **Single Gateway stack that natively** connects between Microservices and Event-based workloads without any special adapters
- **Enforce security consistently** across Microservices and Event-based workloads without external security solutions, minimizing overall cost of ownership and accelerating go-to-market.
- **One Gateway solution** avoids complex product integrations which reduces infrastructure complexity, operational, and people costs



Modern Messaging with Event Driven Architectures

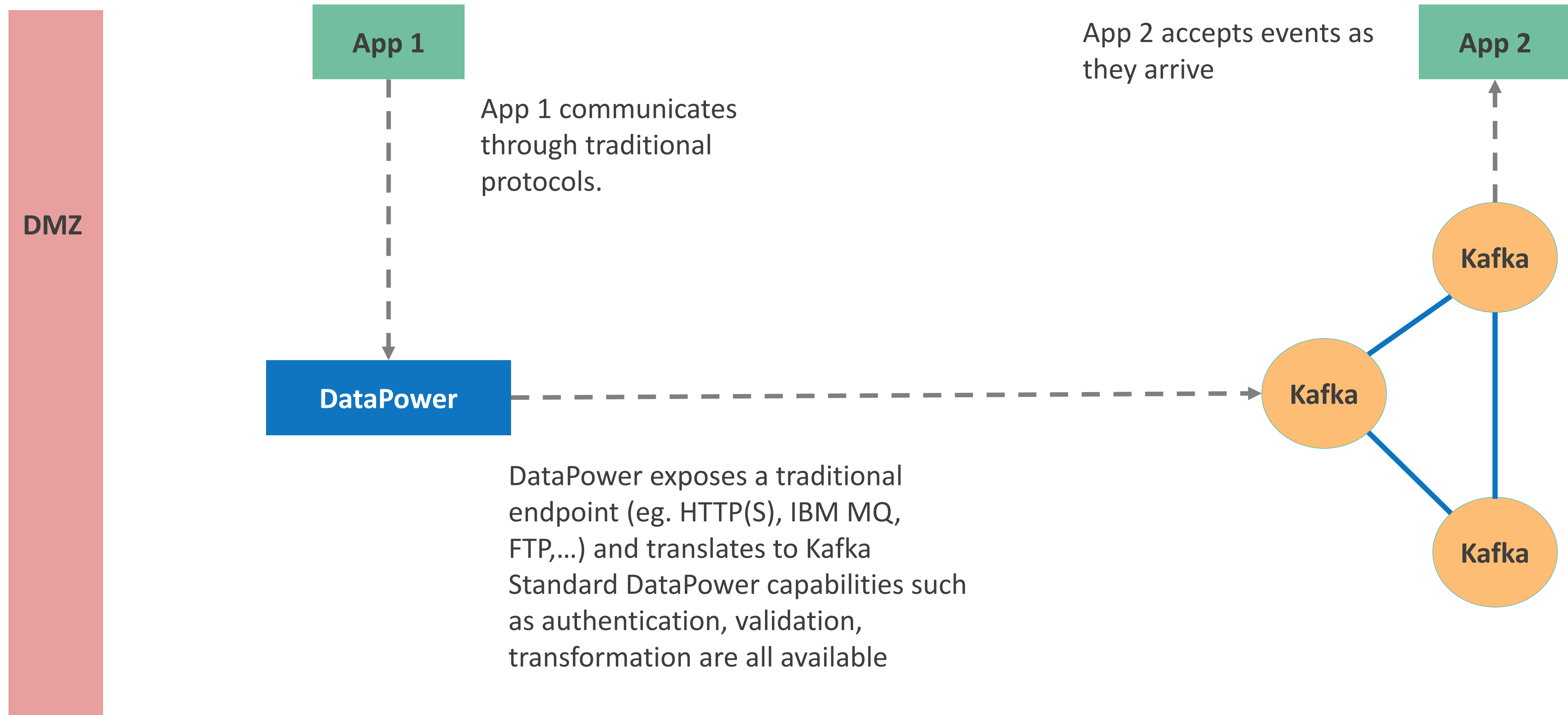
Mediate between synchronous and asynchronous protocols without worrying about the underlying protocol details

Increased message reliability using AMQP & MQ to provide confidence in delivery of mission critical analytics data

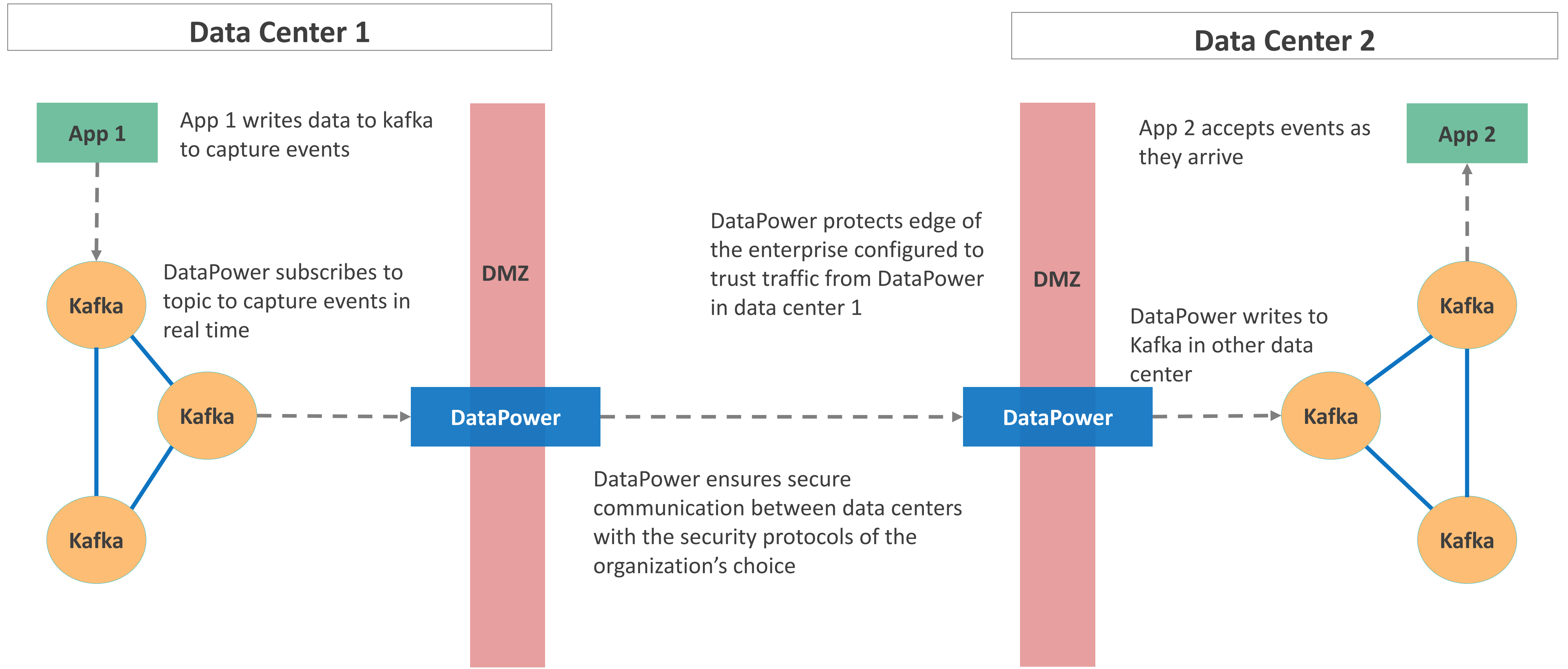


IBM Event Streams

Use Case - Protocol Translation to Kafka



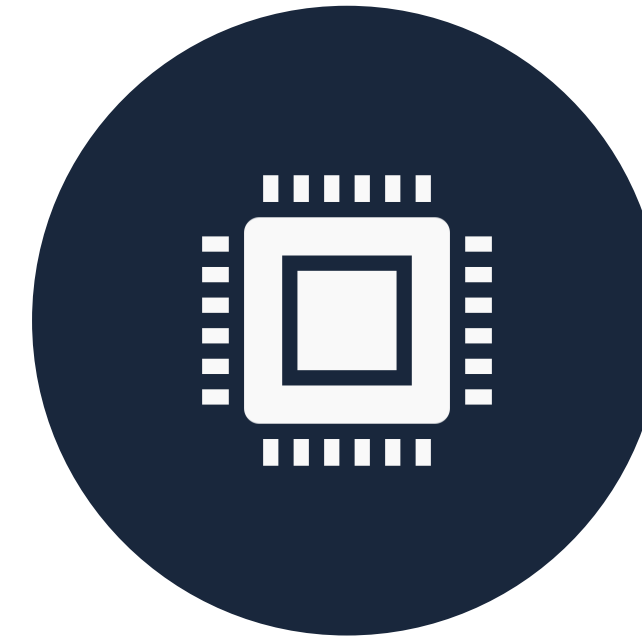
Use Case - Secure Kafka communication between Data Centers



Native AMQP Support



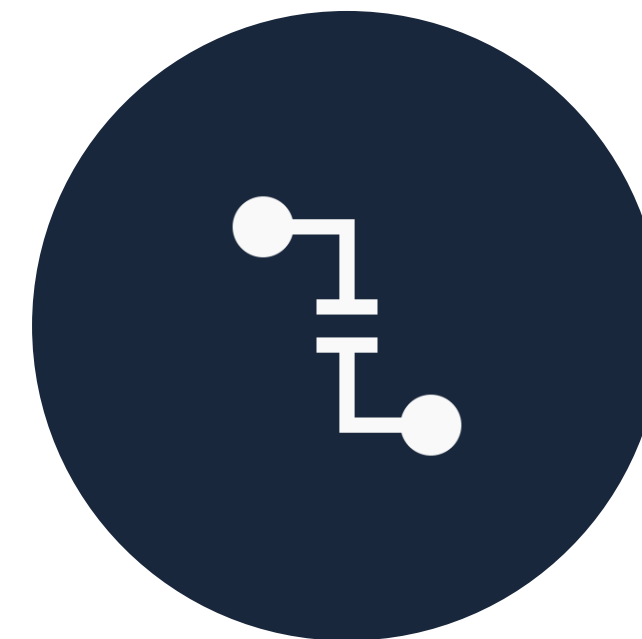
Supports IBM DataPower policies for ease of transformation, validation, encryption, authentication and other security policies



Bridge disparate transport protocols, such as HTTP, IBM MQ, SFTP and Tibco EMS with AMQP



Message reliability providing confidence in delivery of mission critical data



Safeguard for over utilization of resources and optimized workload delivery

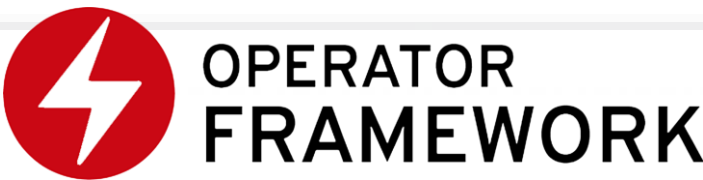
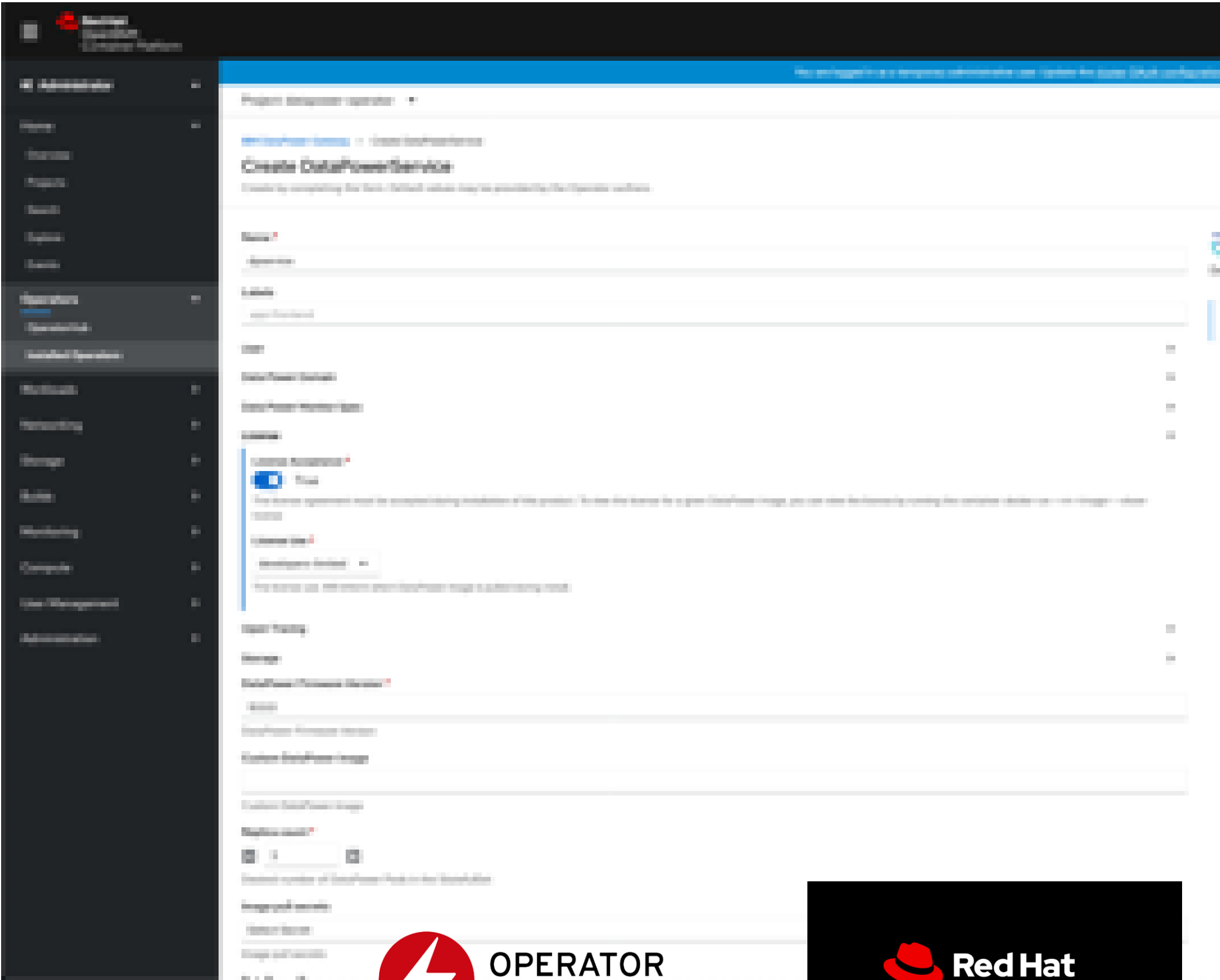
RedHat OpenShift Operators

DataPower extends the vision of containerized deployment with its support for RedHat OpenShift Operators. Operators ease deployment and management by combining a simplified administrative user experience with an automated deployment and monitoring system

Containerized DataPower Deployments

Simplified General Gateway Configuration

Streamlined DataPower Operations Management



Gateway Modernization

- **HTTP/2** support to provide enhanced transport connectivity
- **TLS 1.3** support to provide enhanced security and protect against security exposures
- **Red Hat Universal Base Image** support with SELinux for deployment into Red Hat OpenShift environments



Red Hat

IBM DataPower Gateway: Standards and Protocols

- **Security policy enforcement**
 - OAuth 2.0, OpenID Connect, Social Login
 - 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
 - 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 Layer Security**
 - TLS versions 1.0, 1.1, and 1.2, 1.3
 - 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)
- **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
- **Transport & connectivity**
 - HTTP, HTTPS, HTTP/2, WebSocket Proxy
 - FTP, FTPS, SFTP
 - WebSphere MQ
 - WebSphere MQ File Transfer Edition
 - Apache Kafka
 - AMQP
 - TIBCO EMS
 - WebSphere Java Message Service
 - IBM IMS Connect, & IMS Callout
 - NFS
 - AS1, AS2, AS3, AS4, ebMS 2.0, CPPA 2.0, POP, SMTP (B2B Module)
 - DB2, Microsoft SQL Server, Oracle, Sybase, IMS
- **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)

IBM DataPower Operations Dashboard

- Provides central self-service, profiling and troubleshooting capabilities across all IBM DataPower Gateways. With DPOD customers can investigate services and transactions processed by a DataPower array in near real-time, down to the single message.
- Gathers and reports on statistics, track down security violations, generates alerts on any malfunctions, and more
- Non-intrusive, asynchronous – can be used on existing production services with minimal impact

IBM DataPower Operations Dashboard

dp0adm1n

IBM

Raw MessagesTransactionsExtended TransactionsPayload Capture

Home > Transactions

Time

Device

Domain

Service

Status

Trans. ID

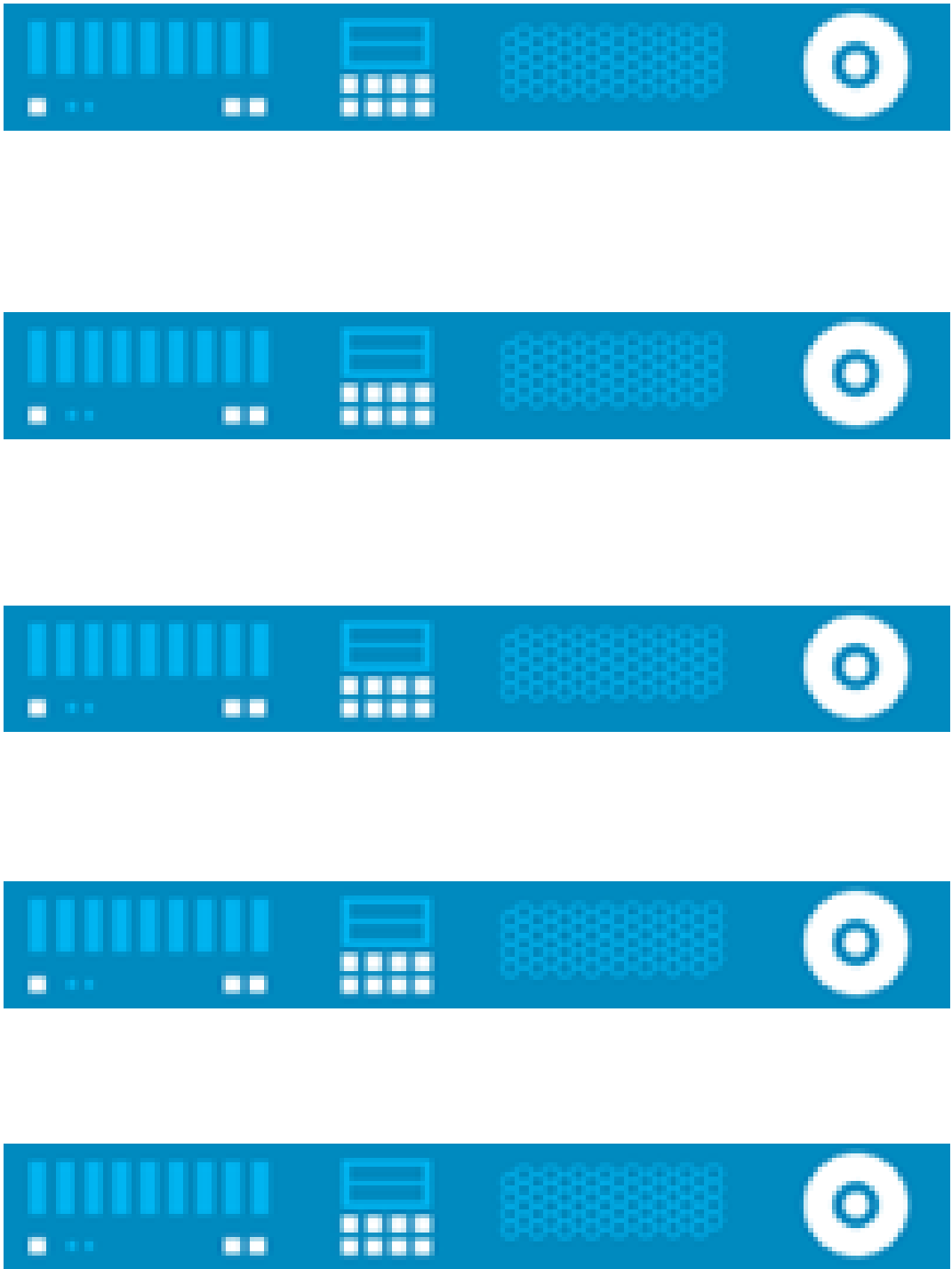
Client IP

Payload

Time [Last 24 Hours]

Reset Filters

Transactions										
1-100 of 187,970										
Service Name	Operation	Time	Device	Domain	Status	Trans. ID	Client IP	Gl. Trans. ID	Elapsed (ms)	Payload
webapi-internal	/ODCInfo/ODCInfo?c=...	05/29 17:35:38.000	wdp6	APIMgmt_8E1823E1C3	OK	219956529	127.35.225.195	219956529		
REST_error_FSH1_wsm_metadata_info_Domain5	/tutit/DataPowerRes...	05/29 17:35:36.000	wdp5	Domain5_info_rest_wsm_metadata	OK	298695057	172.17.100.102	298695057	24	
DataPowerPing-EXT.WSP	Ping	05/29 17:35:35.000	wdp5	WDPMON	OK	369377666	172.17.100.102	369377666	96	
WSP_valid_FSH1_no_wsm_info_Domain5	Ping	05/29 17:35:35.000	wdp5	Domain5_info_wsp_no_wsm	OK	369377650	172.17.100.102	369377650	12	
webapi-internal	/ODCInfo/ODCInfo?c=...	05/29 17:35:28.000	wdp6	APIMgmt_8E1823E1C3	OK	219955873	127.35.225.195	219955873		
DataPowerPing2.WSP	Ping	05/29 17:35:27.000	wdp6	WDPMON	▲ ERROR	219102515	172.17.100.150	318547120		
DataPowerPing-EXT2.WSP	Ping	05/29 17:35:27.000	wdp5	WDPMON	▲ ERROR	318547120	172.17.100.102	318547120		
DataPowerPing.WSP	Ping	05/29 17:35:26.000	wdp6	WDPMON	OK	251303760	172.17.100.150	318546832	8	
DataPowerPing-EXT.WSP	Ping	05/29 17:35:26.000	wdp5	WDPMON	OK	318546832	172.17.100.102	318546832	93	
DataPowerPing.WSP	Ping	05/29 17:35:20.000	wdp6	WDPMON	OK	219955281	172.17.100.150	298694289	6	
DataPowerPing-EXT.WSP	Ping	05/29 17:35:20.000	wdp5	WDPMON	OK	298694289	172.17.100.102	298694289	88	
webapi-internal	/x2020/v1/events/_bulk	05/29 17:35:19.000	wdp6	APIMgmt_8E1823E1C3	OK	251303744	127.35.225.195	251303744	12	



IBM DataPower Operation Dashboard Features



Dashboard

- View real-time service information



Reports

Generate automated reports



Transactions

View transactions list with detailed analysis



Configuration

View service configuration from

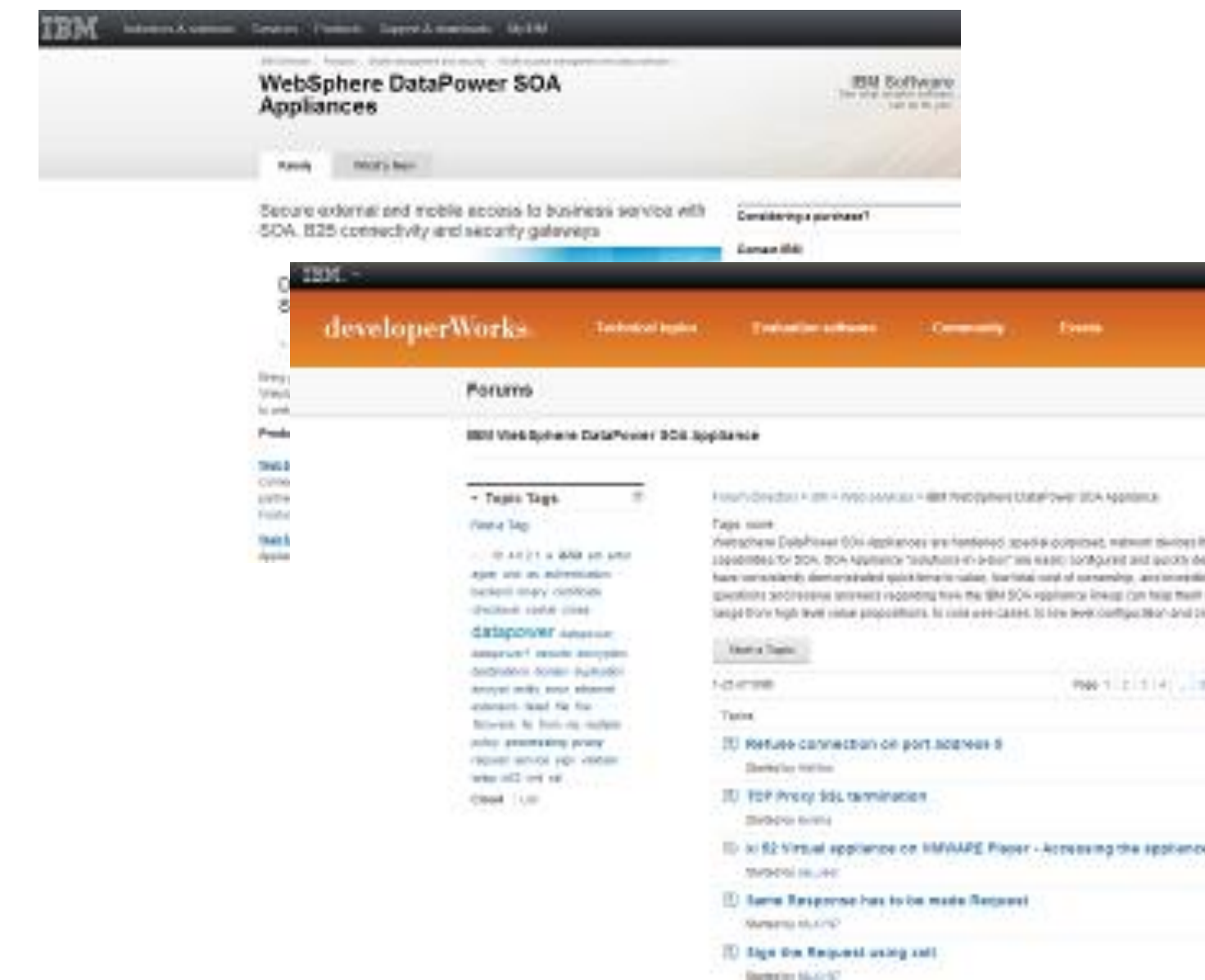


Manage

Setup DataPower Gateways, role-based management, and internal health

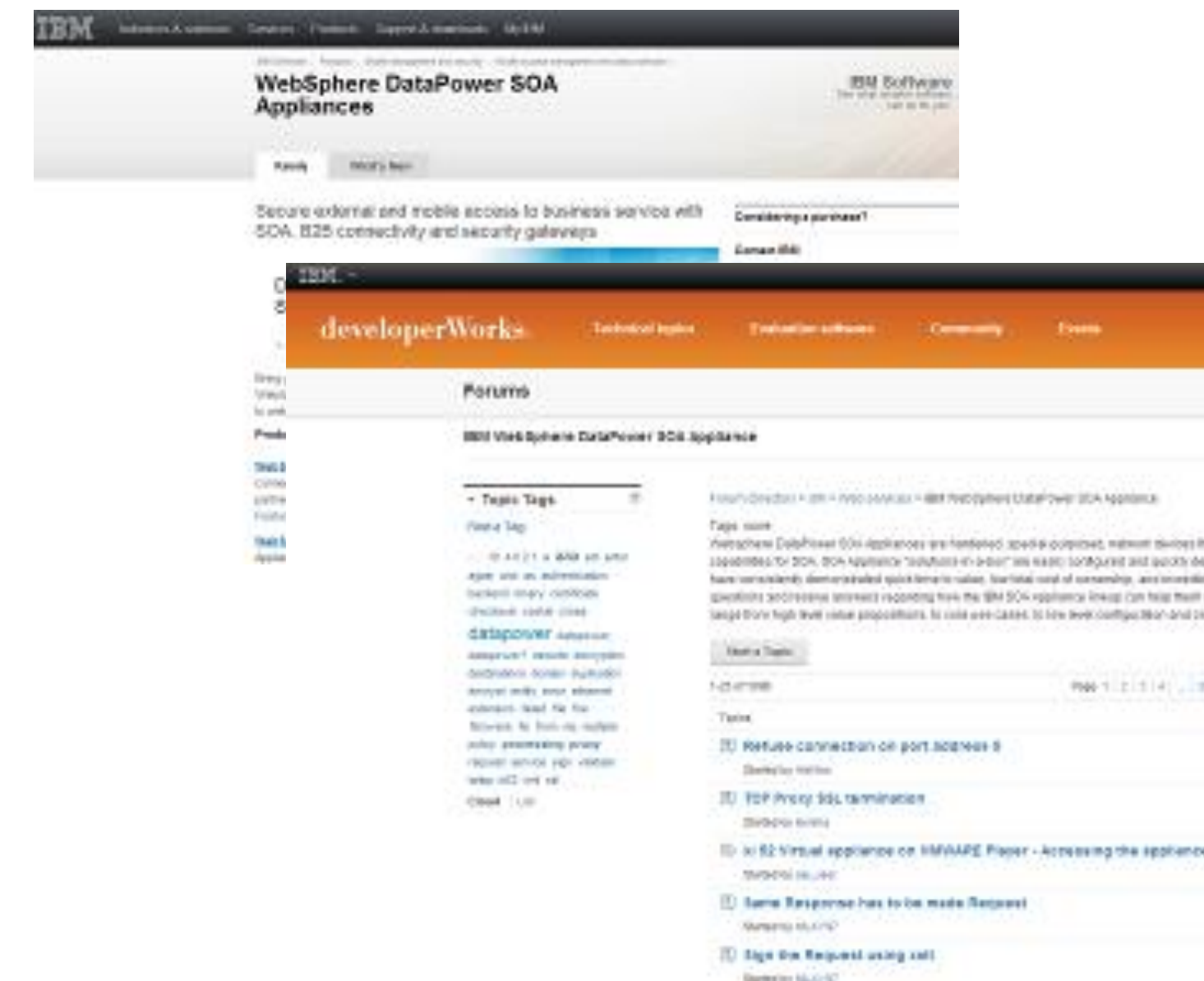
Where can I get more information?

- IBM DataPower Gateway [product page on ibm.com](#)
 - IBM DataPower Gateway [product documentation](#)
 - IBM DataPower Gateway user forums:
 - [External forum](#) (search on Datapower)
 - DeveloperWorks – DataPower [Demo's and Tutorials](#)
-
- API Connect [product page on ibm.com](#)
 - API Connect [product documentation](#)
 - IBM API [Blog site](#)



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 - [External forum](#)
- **DeveloperWorks – DataPower [Demo's and Tutorials](#)**
- API Connect [product page on ibm.com](#)
- IBM API [Blog site](#)



Thank You

