

IBM DataPower Gateways

May 2021

What is IBM DataPower?

- From the emergence of SOA and web services, the IBM® DataPower® Gateway has been the leading secure & integration *application* gateway for the industry – 70%+ market share
- DataPower gateways help Secure, Control, Integrate, and Optimize the delivery of full range of API, Cloud, Mobile, Web, SOA, and B2B applications and services
- IBM DataPower extends infrastructure services by providing a multitude of functions:
 - **IBM DataPower Gateway (IDG) X2** provides gateway functionality and is a security enforcement point. Also supports intelligent load distribution and dynamic routing. IDG X2 is used for service level management and monitoring, and is available in two form factors: 2U Rack mounted physical gateway and as a Virtual gateway running on multiple platforms
 - **IBM DataPower Gateway Integration Option** extends the IDG platform supporting a wide range of integration and message mediation and transformation protocols, including mainframe integration and enablement. The Integration Option is available for both physical and virtual form factors.
 - **IBM DataPower Gateway Tenant Isolation Option** allows the customer to partition the resources of the physical gateway. This allows for workload separation, simplifying the addition of new services, maintenance upgrades, or isolating specific workloads that have different services level objectives.

IBM DataPower Gateway X2



IBM DataPower Gateway: How does it work?



▪ What does it do?

- The IBM DataPower Gateway is a purpose-built appliance that resides in the DMZ or trusted zone
- It acts as an application firewall, detecting XML, JSON, REST, and SOAP borne threats and attacks such as denial of service, and identifying and protecting from incoming viruses.

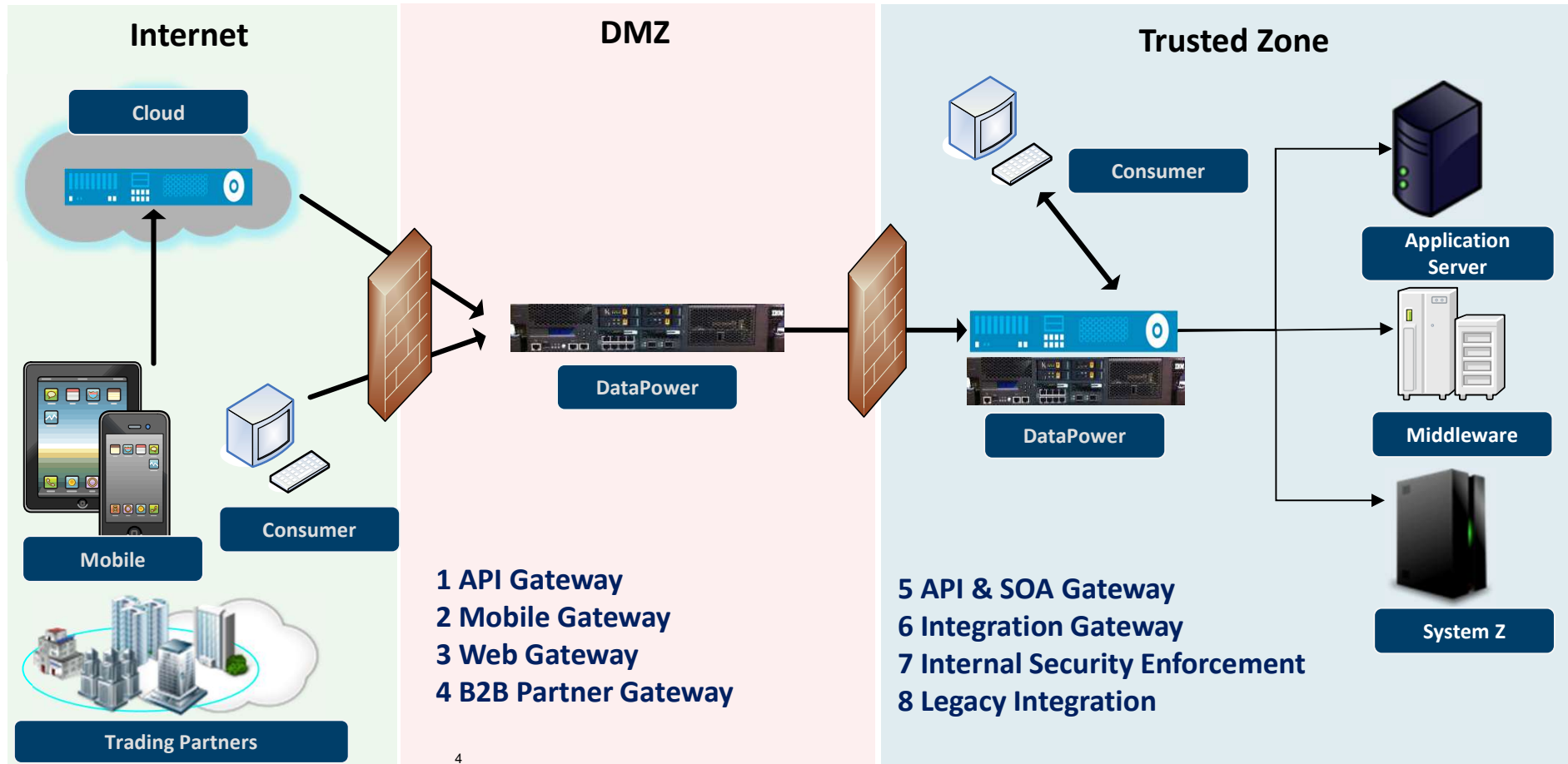
▪ What does the IBM DataPower Gateway offer?

- Robust, secure API, Mobile and web services gateway functionality service management facilities
- A comprehensive range of security features that are tightly integrated with related standards:
 - Identity management through integration with IBM Security and Access Manager (ISAM), similar third party identity managers, and federation of security tokens is also supported
 - Public Key Infrastructure (PKI) and FIPS 140-2 Level 3 Hardware Security Module (HSM)
- Hardware redundancy, clustering support, and operational mirrored disk drives for high availability (HA)
- Policy management and enforcement controlling access, security, quality of service, and mediation of service requests and data references
- Powerful performance optimization with the optional 'Applications Optimization' (AO) feature, enabling workloads to be intelligently balanced automatically across clusters. AO enables traffic to be throttled at the front-end to prevent system flooding, and dynamic and intelligent back-end load balancing and distribution.
- The IBM DataPower Gateway is also offered in a "virtual gateway" form-factor; a flexible, cost effective choice for production and non-production environments. This is a great production solution for customers moving to Cloud and Virtual operational environments. To optimize the developer experience, there is also a Developer's Edition of the virtual appliance which can run on laptop computers without the need for network connectivity.

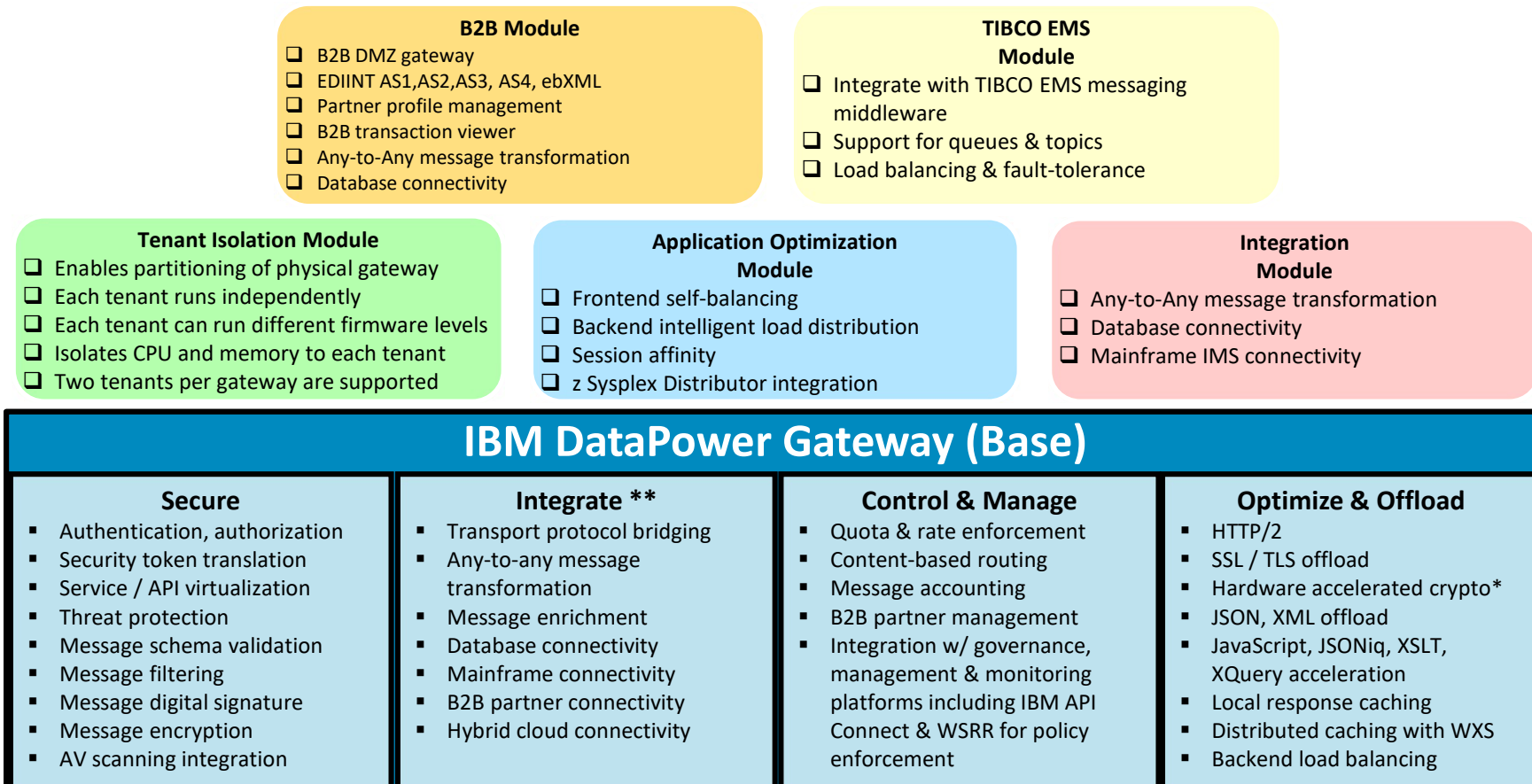
• What sets it apart from the competition?

- DataPower gateways were developed as purpose-built network component rather than being built as hardened versions of general software stacks, therefore DataPower customers achieve the absolute highest levels of security and tamper-proof robustness.
- DataPower's modular structure offers the most features providing the most cost effective solution in the marketplace
- Simplified maintenance procedures as product is a single self contained firmware image making updates quick and easy to install

Industry-leading security & integration gateway – Use Cases



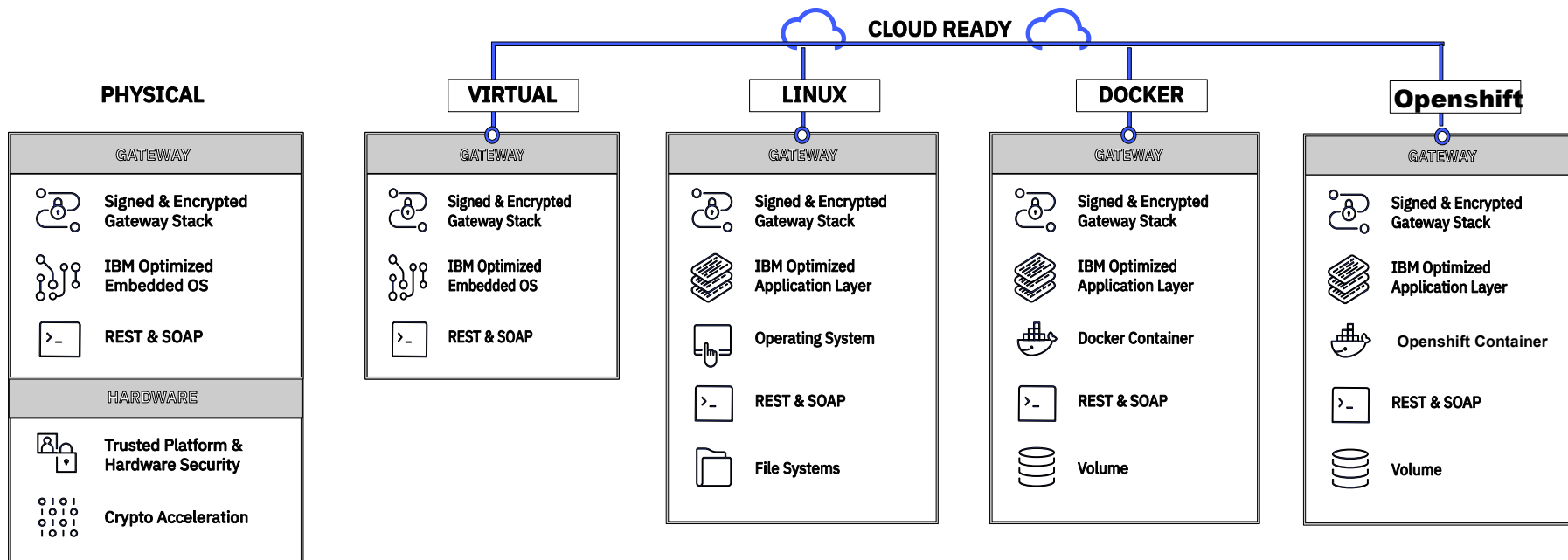
Single, modular & extensible Gateway platform



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)

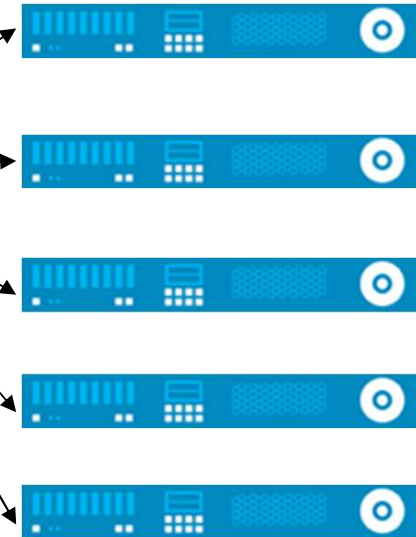
Software: *virtual appliance (VMWare), application (Red Hat and Ubuntu) & container (Docker and Openshift)* provide flexible deployment options for both cloud and on-premise environments



IBM DataPower Operations Dashboard (DPOD)

- 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

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_BE1823E1C3	OK	219956529	127.35.225.195	219956529		
REST_error_FSH1_wsm_metadata_info_Domain5	/utit/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_BE1823E1C3	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_BE1823E1C3	OK	251303744	127.35.225.195	251303744	12	



NOTE: DPOD is a separate priced offering licensed based on the number of monitored DataPower gateways

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

IBM DataPower Gateway X2 Value Proposition

- The latest generation of the IBM DataPower Gateway provides increased performance and lower latency for all workloads. With higher CPU core count than its predecessor (the IBM DataPower Gateway, IDG), as well as increased network capacity, IBM DataPower Gateway X2 will boost application responsiveness, remove I/O bottlenecks, respond better to failover, and improve load balancing support.
- In addition, the new HSM version provides much higher performance on cryptographic operations as well as improved support for security protocols such as IPSEC, SSL, TLS.
- Higher capacity flash drive and faster memory make the new IBM DataPower Gateway X2 the best and most performant security appliance in the market. IBM DataPower Gateway X2 continues to achieve the long standing goal of supporting all workloads while ensuring that resources are securely consumed.
- Finally, IBM DataPower Gateway X2 provides higher reliability and lower power consumption, and offers an exceptional foundation for further improvements around tenant isolation, memory, and cryptographic operations.

Summary

IBM DataPower Gateways provide benefits for security and integration needs across the enterprise:

- **Ease of Use:** Solves complex security and integration challenges in a secure, easy to consume and extremely low TCO network device. DataPower appliances are configuration driven not program driven which simplifies deployment
- **Performance:** DataPower is a network device that operates at wire speed. Greater processing power is realized with every new firmware release. This is even more critical with the expansion API and mobile solutions.
- **Flexibility:** Secure, integrate, bridge and version applications without application modification
- **Reduce Time to Market:** Dramatically decrease the “time to deploy” in your environment. Being a configuration-driven platform, most deployments are “uncrate, rack, configure and deploy”
- **Lower TCO:** Customers’ own data has shown that DataPower can be 7X-8X less expensive to operate in the data center than traditional alternatives.



Where can I get more information?

Cloud Pak for Integration on [Siesmic](#)

IBM DataPower Gateway [product page on ibm.com](#)

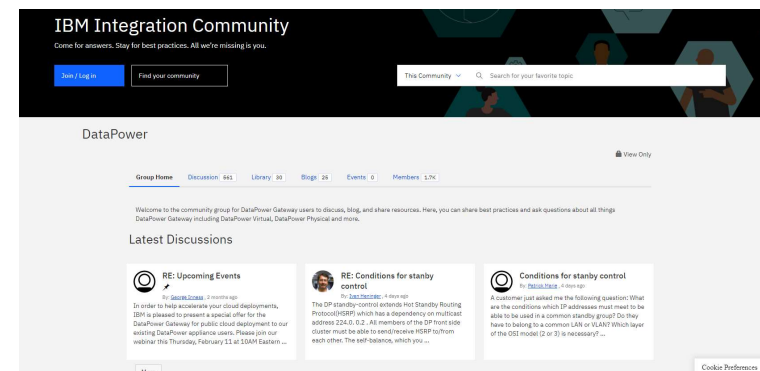
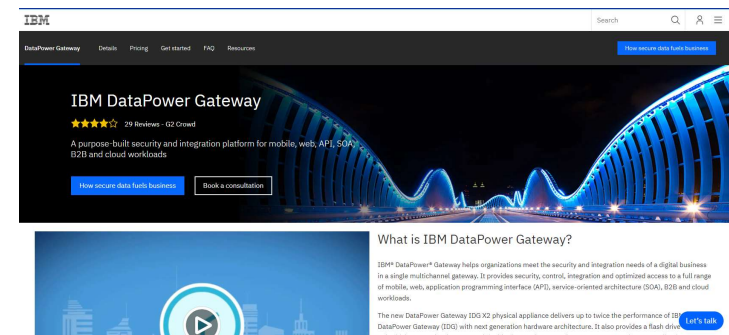
IBM DataPower Gateway [product documentation](#)

DataPower Community: [IBM DataPower Gateway](#)

API Connect on [Seismic](#)

API Connect [product page on ibm.com](#)

IBM API Comunity: [Blog site](#)



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