



HPE IMC Orchestrator and Analyzer

Key features

- Unified, closed-loop orchestration solution that includes network architecture design, simulation, deployment, and operations
- Automated, role-based deployment for underlay and overlay network fabric and automated service provisioning for VXLAN L2/L3 services
- Support for standard protocols, open interfaces, and extensible programmability for easy integration with third-party or cloud-based management platforms
- AI-enabled network health monitoring with telemetry and visual dashboards that allow accurate fault detection, risk prediction, and analysis for faster issue resolution
- Advanced data collection capabilities that offer visibility into application performance and user experience for near real-time network optimization helping ensure seamless end-user experience and uptime

Product overview

HPE IMC Orchestrator and Analyzer is an IMC solution that is designed to simplify network operations and management through orchestration, automation, and analytical capabilities. It is best suited for environments that are required to scale rapidly due to exponentially growing traffic from cloud, mobile, Big Data applications, and IoT.

The HPE IMC Orchestrator and Analyzer accelerates service delivery and enhances operational efficiency through its automated deployment capabilities for underlay and overlay network, service provisioning for VXLAN L2/L3 services, multitenant provisioning, and application performance insights with in-band telemetry. It also provides analytics and AI capabilities to offer a holistic view of network health for faster troubleshooting and issue resolution.

Features and benefits

Automated deployment and service provisioning

- HPE IMC Orchestrator and Analyzer provides a unified, closed-loop orchestration solution that encompasses network design, simulation, deployment, and operations to enhance operational efficiency.
- Supports automated, role-based deployment of underlay and overlay network fabric to enable rapid expansion of the network.
- Accelerated service delivery and increased scalability through automated service provisioning for VXLAN L2/L3 services. On new service deployment, the controller delivers abstracted logical network configuration to physical devices, improving service deployment efficiency.

- Multitenant provisioning and better resource management using multiple HPE IMC Orchestrator and Analyzer instances to deploy Ethernet Virtual Interconnect (EVI) across multiple data centers. EVI uses VXLAN in the data plane and MP-BGP EVPN in the control plane allowing unified resource management of virtual resource pools.

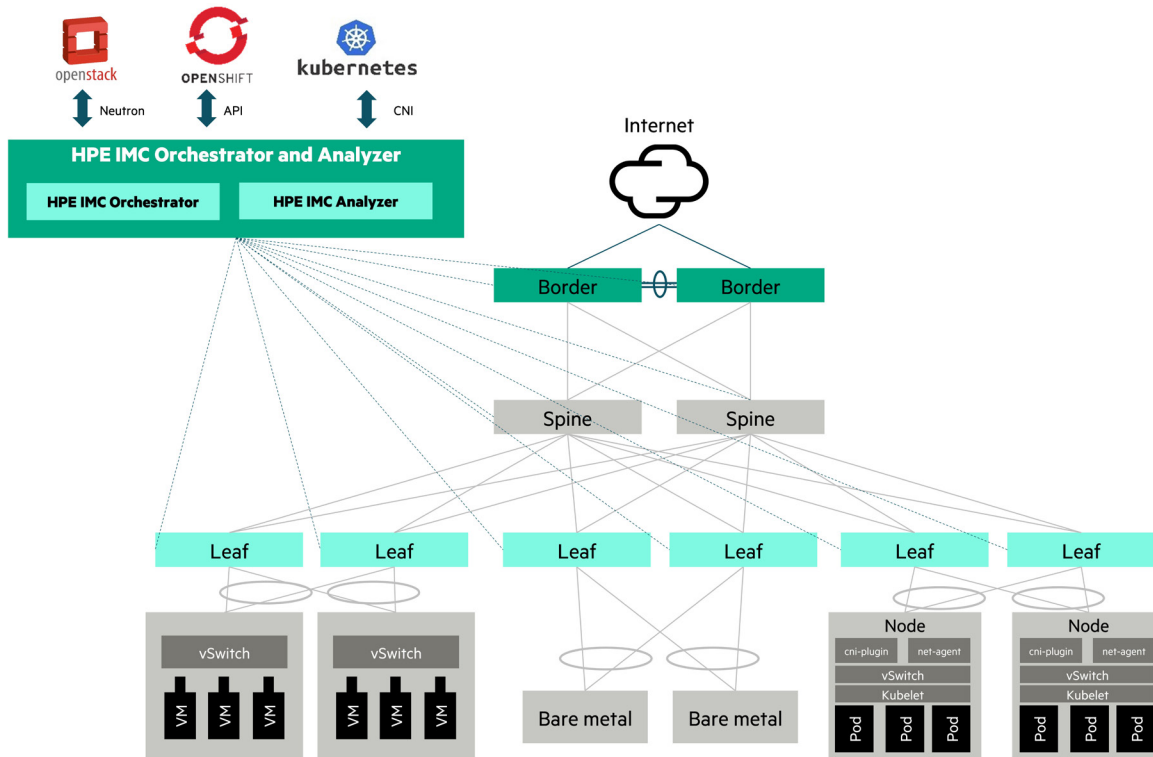


Figure 1. Automated deployment and provisioning with HPE IMC Orchestrator and Analyzer

Extensive programmability and flexibility

- HPE IMC Orchestrator and Analyzer supports an extensive set of standard protocols including EVPN, VXLAN, DRNI, OVSD, NETCONF, gRPC, and ERSPAN making it easy for customers to integrate with third-party network management and cloud platforms for unified management.
- Use of northbound RESTful APIs and standard southbound interfaces including OpenFlow, NETCONF, and OVSD helps ensure a high degree of programmability and flexibility. (see Figure 2).
- Supports automated provisioning of a variety of compute resources such as virtual, bare metal, and containers with the help of integrations such as OpenStack, Kubernetes, and VMware vCenter®. (see Figure 1)
- Offers a great degree of openness and control plane independence at the switch level that allows administrators the flexibility to customize network operations based on business requirements.
- Supports distributed deployment across multiple fabrics with 2+1 mode (standard deployment) and 2+1+1 mode (3-server cluster and one standby server) and active-standby egress between fabrics. These fabrics can also be managed independently.



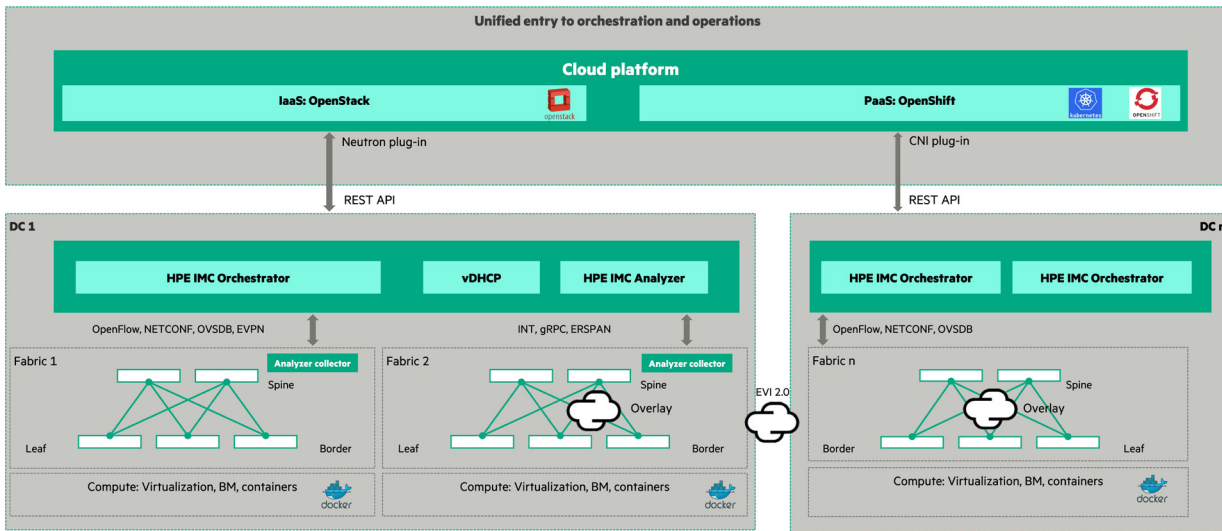


Figure 2. HPE IMC Orchestrator and Analyzer based on unified platform integrated with microservices architecture

AI-based network management

- HPE IMC Orchestrator and Analyzer supports application telemetry with technologies such as gRPC and ERSPAN for precise data capture to the frequency of milliseconds. Distributed computing engines help achieve online and offline data analysis.
- Leverages AI and machine-learning algorithms for near real-time fault detection, risk prediction, and trend analysis to significantly improve the troubleshooting experience and issue resolution time.
- Provides a visual network representation of underlay and overlay topologies with correlation to offer a holistic view to network administrators for faster issue identification. (see Figure 3)
- Delivers insights into application performance and provides application traffic visualization to monitor and optimize end-user experience and uptime.

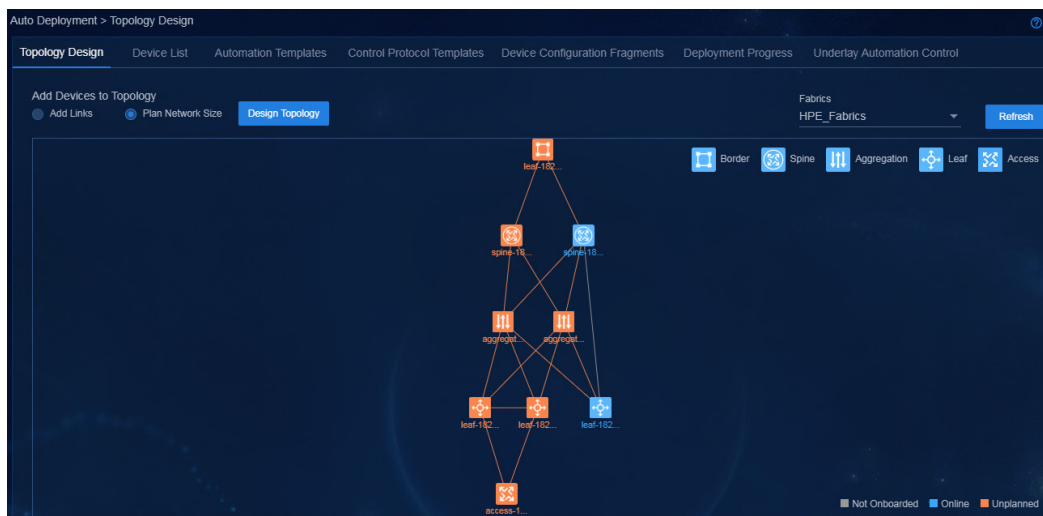


Figure 3. HPE IMC Orchestrator and Analyzer network topology view



Enhanced security

- HPE IMC Orchestrator and Analyzer provides on-demand security resource scheduling. Security policies can be dynamically established to meet business security requirements.
- Supports flexible service chaining for better utilization of network resources and enhanced security control.
- Provides microsegmentation support to create secure zones that isolate application workloads from one another.

Customer first, customer last support

[HPE Services](#) and [HPE Aruba Networking Global Services](#) work closely together to help ensure your products are optimized throughout their lifecycle. From design, through deployment and operation, and into refresh, our technology experts can help you achieve higher value from your HPE solution in the shortest amount of time. Discover the support service that best meets your needs:

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Hardware and software requirements

Processor	x86-64 (Intel® 64 / AMD64) 16 cores (minimum); 20 cores (recommended) 2.0 GHz or above (minimum); 2.2 GHz or above (recommended)
Memory	128 GB or above (recommended)
Drives	<ul style="list-style-type: none"> • Drive configuration option 1: <ul style="list-style-type: none"> – System drive: 4 x 960 GB SSDs or 8 x 480 GB SSDs configured in RAID 10 that provides a minimum total drive size of 1920 GB – ETCD drive: 2 x 480 GB SSDs configured in RAID 1 that provides a minimum total drive size of 50 GB • Drive configuration option 2: <ul style="list-style-type: none"> – System drive: 4 x 1200 GB or 8 x 600 GB 7.2K RPM or above HDDs configured in RAID 10 that provides a minimum total drive size of 1920 GB • ETCD drive: 2 x 600 GB 7.2K RPM or above HDDs configured in RAID 1 that provides a minimum total drive size of 50 GB • Storage controller: 1 GB cache <p>Note: To avoid unrecoverable system failures caused by unexpected power failures, use a RAID controller that supports power fail protection on the servers and helps ensure a supercapacitor is in place.</p>
NIC	Bonding mode: 2 x 10 Gbps Linux bonding interfaces
Browser supported	Google™ Chrome™ 55 or later
Technical notes	As a best practice, configure NTP for time synchronization and help ensure devices synchronize to the same clock source.

Support matrix

The HPE IMC Orchestrator and Analyzer currently supports the following switches:

Border/spine	HPE FlexFabric 12900E Switch Series
Border/spine/agg/leaf/access/ED	HPE FlexFabric 5945 Switch Series
Border/spine/agg/leaf/access/ED	HPE FlexFabric 5944 Switch Series
Leaf/spine/border/ED/ERSPAN/access	HPE 7500X Switch Series*
Leaf/border/spine	HPE FlexFabric 5720 Switch Series
Leaf/border	HPE FlexFabric 5960R Switch Series
Leaf/border	HPE FlexFabric 12904E/12908E Switch Series
Access	HPE 5520HI Switch Series*

* Requires HPE IMC Orchestrator 6.3 or later



Ordering information

HPE IMC Orchestrator Base E-LTU	JL849AAE
HPE IMC Orchestrator Analyzer Add-on E-LTU (optional)	JL850AAE
HPE IMC Orchestrator Network Node Add-on E-LTU	JL851AAE
HPE IMC Orchestrator Analyzer IP Host Add-on E-LTU (optional)	JL852AAE

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