IMaster NCE-Fabric-G

Datasheet

Product Overview

The IMaster NCE-Fabric-G is an automatic driving network management control system integrating management, control, analysis and AI intelligence functions for data center network scenarios. It provides network resource cloud, full life cycle network automation, and intelligent closed-loop capability driven by data analysis for data center network scenarios. Provides heterogeneous multi-vendor, multi-cloud and multi-DC unified management and control capabilities, and based on the network digital map, provides one-click service deployment, one-click operation and maintenance network visibility, large-scale model training and one-click tuning and other capabilities, comprehensively improve the data center network service release and operation and maintenance and tuning efficiency.

Product Highlights

One net management: Heterogeneous multi-cloud, multi-DC, multi-vendor unified control, cross-cloud minute-level service E2E deployment, multi-cloud simulation configuration "0" error; Services are flexibly arranged according to demand, network resources are automatically allocated, apis are seamlessly connected to enterprise IT systems, and network DevOps is self-serving.

One network Visibility: Network Devices > Servers > Virtual Networks >VM> Service Layer 5 view E2E is visible, and network quotas are displayed in a unified manner; Service - network one-click mutual vision, one-click path navigation, real-time anomaly detection, operation and maintenance efficiency increased by 30%.

One-click tuning: AI multi-rent business E2E automation, on-line efficiency increased by 10 times; NSLB intelligent algorithm, enabling the whole network throughput increased to 98%, AI training efficiency increased by 20%.

Specification List

Features	Feature Description
Network Element Control	· Supports NE FCAPS and basic network configuration.
Network Service Provisioning	· Support the connection with the industry's mainstream OpenStack cloud platform, Kubernetes container orchestration platform or third-party apps, by the cloud platform or third-party apps can be invoked through standard interfaces to complete network service provisioning; · Supports iMaster CNE-Fabric-G to independently provision IPv4/v6 network services in a single or batch manner to realize automatic network deployment; · Support automatic deployment of multicast Over VxLAN services.
Zero Touch Provisioning	· Support equipment zero configuration online, automatic replacement when failure; · Automatically identify and manage network devices.
Intent Understanding Simulation	· Support based on intelligent robots, automatic recognition of intention, intelligent recommendation logic network scheme, no business orchestration; · Support multi-cloud and multi-DC scenario logical network design state, and do not need to issue configuration to the device to conduct business orchestration and simulation evaluation; · Support online simulation before configuration change in multi-cloud and multi-DC scenarios: evaluate logical resource occupation and operation based on existing and new configurations of devices business connectivity.
Cyber Security	· Third-party firewalls and third-party load balancers are supported for traffic diversion; · Support differential segments; · Support for role-based access control; · Local/remote authentication (Radius, AD, LDAP).
Service Chain	· Service Chain (SFC) model that supports IETF standards.
Operations and Fault location	· Support logical resource statistics; · Support application/logical/physical Layer 3 network topology mutual view: can display application/logical/physical layer 3 network topology; · Support mapping relationship display from application to logic and logic to physical topology; · Network detection tools: path detection, loop intelligent detection, connectivity detection; · Operation and maintenance tools: north-south consistency reconciliation, emergency plan, intention verification, replacement/fault impact analysis, one-click whole network detection; · Support hybrid cloud network orchestration: MDC supports interconnection with AWS public cloud, provision of cross-DC IPsec VPN and public cloud and private cloud internal VPC services; · Support hybrid cloud network topology Mosaic presentation; · Support ACI coexistence and interworking orchestration with ACI network.
Network Serviceability	· Northbound support Service Designer (Runbook), which supports users to customize service flows through a graphical interface to complete complex network services live orchestration supports flexible setting of manual exchange nodes and service flow breakpoints to meet the requirements of automatic interaction in different scenarios; · The service designer (Runbook) can call the built-in network resource dictionary of the controller to automatically apply for network resources; · Supports service adaptation using CLI templates, real-time commissioning, and command line output; · After service flow verification is released, a network service catalog is generated, and northbound apis are automatically generated to seamlessly connect with existing systems on the customer's live network.
Network Digital Map	· Support network equipment, server, virtual network, virtual machine, business 5-layer view visibility, support business and network mapping; · Support one-click search function of unified data base, support search switch, server, VM and other devices, and locate the digital mapUp; · The actual deployment location of the branch service can be seen; Service mutual visits can be viewed; · Support service path navigation. Enter the IP addresses of two VMS and pass the traffic path between the two VMS · Supports key one-click mapping of network access paths based on service access.

Features	Feature Description
Network Digital Map	· Supports multi-DC, single-DC, and single-region three-level network topologies, displaying topology traffic conditions, and querying topology statistics. In addition, link information between devices can be restored using the topology restoration technology to complete the network topology; · Support for interconnecting with NSX-T and HCS, and present the VM and virtual network information inside the cloud host, including virtual network card and logical exchange machine,Uplink, pNic, TEP, and their connection relationships; · Unified modeling of network resources is supported, network resource dictionaries are generated, and network resource usage quotas are displayed; · The physical network topology in ACI is presented based on the network digital map; · Support the three-party operation and maintenance system to invoke the third-level network topology and service path navigation capabilities of digital map by calling SDK.
AI service Provisioning and Network Acceleration	· Support ZTP zero configuration deployment in AI scenarios, plug and play, and realize end-to-end automatic deployment; · Service provisioning in AI scenarios: Automatic provisioning of multi-tenant services enables secure isolation of AI multi-tenant services; · Supports AI network acceleration based on NSLB network-wide load balancing algorithm.
Reliability	· Support distributed cluster deployment; · Support active and standby cluster deployment to achieve highly reliable remote disaster recovery; · Supports service rollback, tenant rollback, and network rollback to quickly recover network services; · Support fault 1-3-5. For typical faults, intelligent recommendation and repair plan evaluation are supported. After the solution is selected, a repair solution is automatically delivered to complete the closed loop of fault repair.
Openness	· Southbound supports SNMP, Netconf, Openflow(1.3/1.4), OVSDB, JSON-RPC, sflow and other standard protocols; · Southbound supports Open Programmable Framework (AOC), and supports fast adaptation of three-party devices; · East-West support for interconnection with computing resource management systems, such as VMWare vCenter, to achieve network and computing resource collaboration; · Northbound support for Restful, Restconf, Webservice, Syslog and other interfaces.
Manage Capacity and Performance	· Typical configuration (3-node cluster); · Number of managed physical network devices: 1,800; · Number of managed physical servers: 9,000; · Number of managed VMS: 180,000; · Online VM rate: 200 VMS per second.

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