

EXTENSIBLE NETWORK SERVICE AUTOMATION WITH YANG MODELS

Network Service Automation Challenges

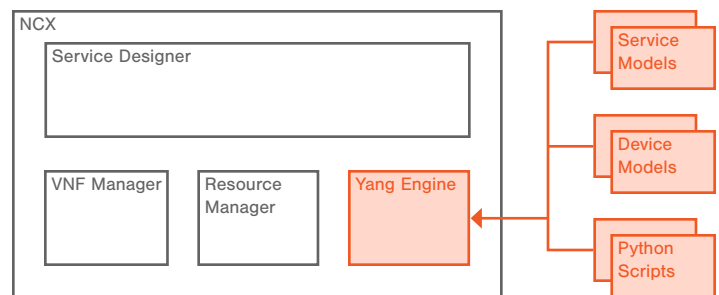
- Complex multi vendor network automation delays time to market.
- Lack of data model prevents standardization of network information and increases OPEX.
- Multiple disjointed automation tools miss critical service-level awareness.

NCX Solution

- NCX enables customers and partners to develop their own device, service and operational models to match their service delivery needs.
- NCX uses an extensible, IETF YANG based model-driven configuration and service management engine to manage multi-vendor devices.
- NCX's rich API enables thousands of concurrent CRUD operations of any configuration on hundreds of devices.

NCX Features

- IETF YANG based device & service models
- Vendor agnostic storage of network configuration parameters
- Auto-generated UI for service and device models
- Model driven graphical service designer
- Atomic transactions with commit/rollback
- Hybrid (PNF+VNF) service chaining
- Northbound integration using RESTCONF
- Southbound device communication using CLI, API, SNMP and NETCONF



NCX Benefits

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| Deploys network service configs to multiple vendor devices within minutes. | Automates day-0 config tasks and zero touch deployments. Includes configs as per best practices. |
| Comprehensive capacity and resource management including device inventory, configs, OIDs & MIBs. | RESTCONF compliant interface for NCX data model enables tight integration with other NMS. |

Service Models

MPLS L3VPN, L2VPN, Routing - OSPF, ISIS, BGP, BGP route and peering policies, Prefix-lists, Route policies, ACLs, Firewall Rules, Day-0 operations such as NTP, SNMP, DNS, DHCP, HSRP, VRRP, IPSec VPN, Interface config, IPAM...

Device Models

L2-L7 devices from major vendors including A10, Alcatel-Lucent, Arista, BlueCoat, Brocade, Checkpoint, Cisco, Citrix, Ericsson, F5, Fortinet, HP, Hitachi, Juniper, Palo Alto, Radware, Riverbed, VMWare etc..