

Anuta NCX Automates Tata IZO SD-WAN for Managed Branch Services

Background & Challenges

Tata Communications (TCL) IZO WAN achieves optimal balance between MPLS & internet to reduce WAN charges by 30%.

On-boarding a new tenant requires 400 complex CLIs across 4 different vendor platforms. The manual processes are cumbersome and error-prone.

TCL needed 60 minutes to configure a single CPE.

Anuta NCX Solution

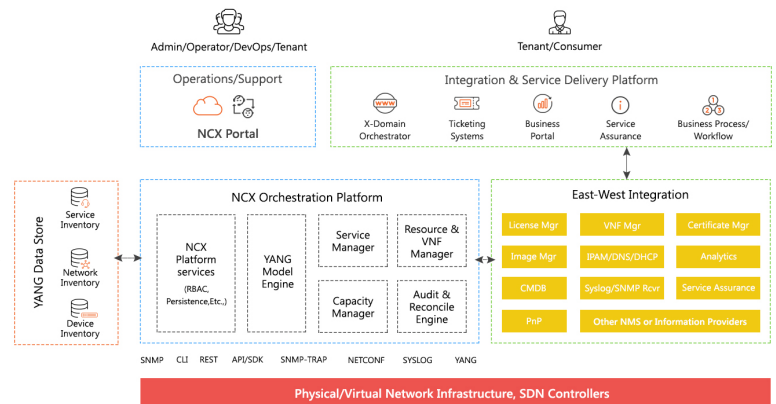
NCX delivers multi-vendor network service orchestration for greenfield & brownfield deployments.

NCX has YANG service models for multiple domains such as Branch/CPE, Data Center, Carrier Core and Cloud Interconnects. NCX includes device adapters for hundreds of platforms from 35 vendors.

NCX configured the CPEs within 5 minutes.

Key Success Criteria

- Enable Zero Touch Deployment
- Automate configuration audits and reconciliation to detect out-of-band changes and raise alarms.
- Enable System Level Features such as RBAC, Multi-tenant Infrastructure, Integration with other applications, Logging of changes and config backups.
- Set-up exception handling to ensure operation should NCX lose connectivity



Results

- Anuta NCX satisfied all the success criteria.
- Time to provision single CPE was reduced from 60 minutes to less than 5 minutes (91% reduction).
- Initial Ready-For-Service (RFS) was achieved in 37 business days.
- TCL plans to scale NCX across 80% of its managed network services within next two years.

Deployment Details

- 130 countries
- 2000 Cities
- 1000+ enterprise customers
- > 200K CPE Devices
- Device Mix: Cisco ISR, Juniper SRX, Riverbed WanOp, Versa Networks

Accelerated Tenant On-boarding

NCX automates the configuration of network services across L2-L7 multi-vendor physical, virtual and hybrid networks. NCX self-service delivery avoids handoffs between multiple operator teams resulting in lower overall OPEX and time to market.

NCX offers comprehensive RBAC and integrates with AD and LDAP to enforce authorization policies.

Extensible Platform with YANG Modeling

NCX uses an extensible, IETF YANG based model-driven configuration and service management engine for managing multivendor devices.

The rich YANG model enables NCX to integrate seamlessly with any platform, device or interface/protocol, delivering a truly open architecture.

Performance and Scale

NCX distributed architecture scales to several tens of thousands of devices in the network.

Both the NCX controller and agent are stateless resulting in a highly available solution. For large scale deployments, NCX supports external DB such as Oracle / Postgres SQL to store server state.

Resource and Capacity Management

NCX discovers network infrastructure including device type, role, capacity, and topology. Admin can organize the resources into multiple pods and resource pools for service provisioning.

NCX maintains a real-time inventory of physical and virtual network resources and computes capacity and availability for each service offering. NCX also generates threshold based alerts to inform the tenants.

Integration with Self-Service Portals

NCX integrates with multiple self-service portals, ticketing systems and charge back systems using a comprehensive REST API.

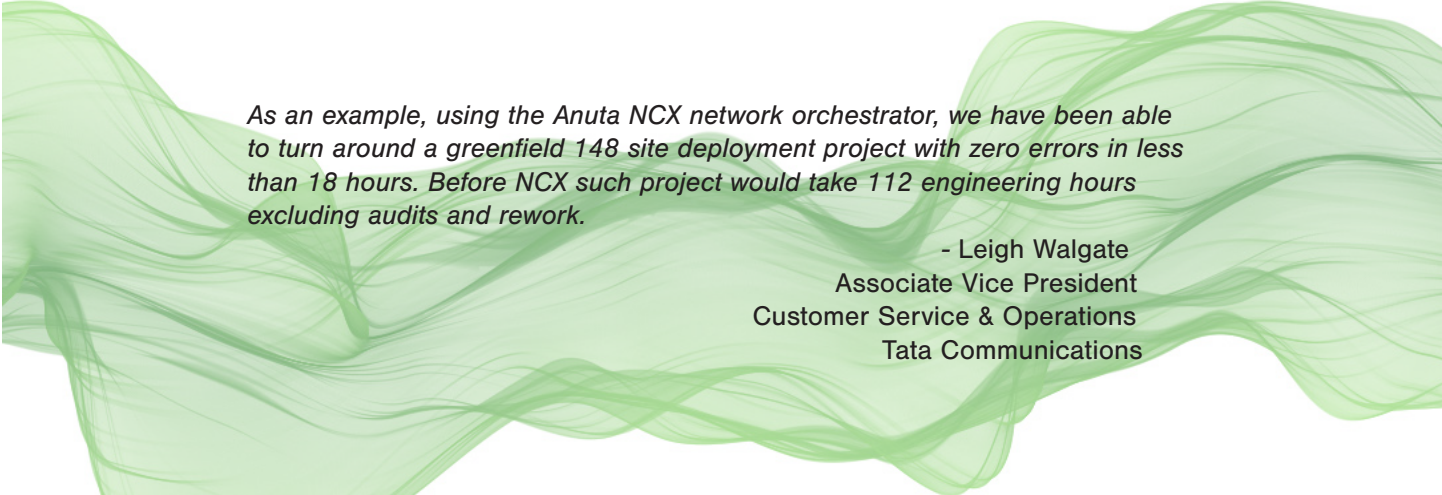
NCX is already integrated with OpenStack, Science Logic, VMware vRealize and many other customer's home-grown portal.

The entire NCX Admin portal is developed using the same REST API.

Orchestrated Service Assurance

NCX utilizes Key Performance Indicators (KPI) driven orchestration to ensure Service Monitoring and Service Assurance.

Administrators can define KPI based on one or more data points from multiple nodes and links.



As an example, using the Anuta NCX network orchestrator, we have been able to turn around a greenfield 148 site deployment project with zero errors in less than 18 hours. Before NCX such project would take 112 engineering hours excluding audits and rework.

- Leigh Walgate
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