IOS XE Device Lifecycle

On-prem and cloud VM automation scripts

Zero Touch Provisioning

DHCP Auto Install, iPXE

gNOI cert.proto

Provisionina Model Driven Automation **Programmability** Device Onboarding python Day 0 Device Configuration INTENT CONTEXT Day 1 Day N Device Optimization **Guest Shell Linux Container** Day 2 Software Image Model Driven Management **Telemetry** Device Monitoring

Network Configuration Protocols (NETCONF)

RESTCONF, gNMI

YANG Data Models, **OpenConfig**

gNMI Dial-In

gRPC Dial-Out + TLS On-Box Python API

Application Hosting with

Docker **NETCONF** Dial-In