

NITA Based Offers and Services

Jessica Garrison, @networkjessica, jgarrison@juniper.net

Global Architect, Professional Services Network Automation Team

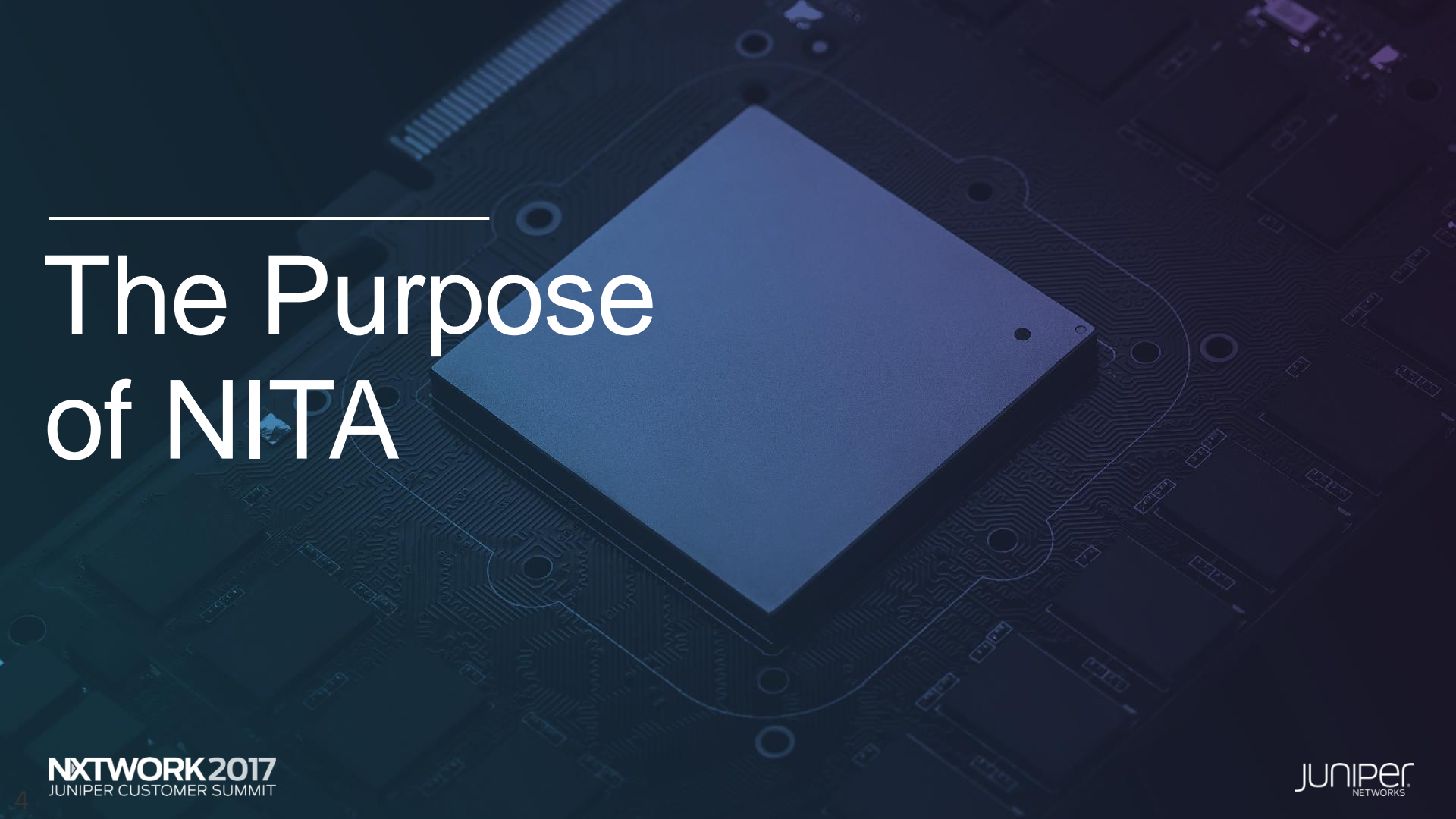
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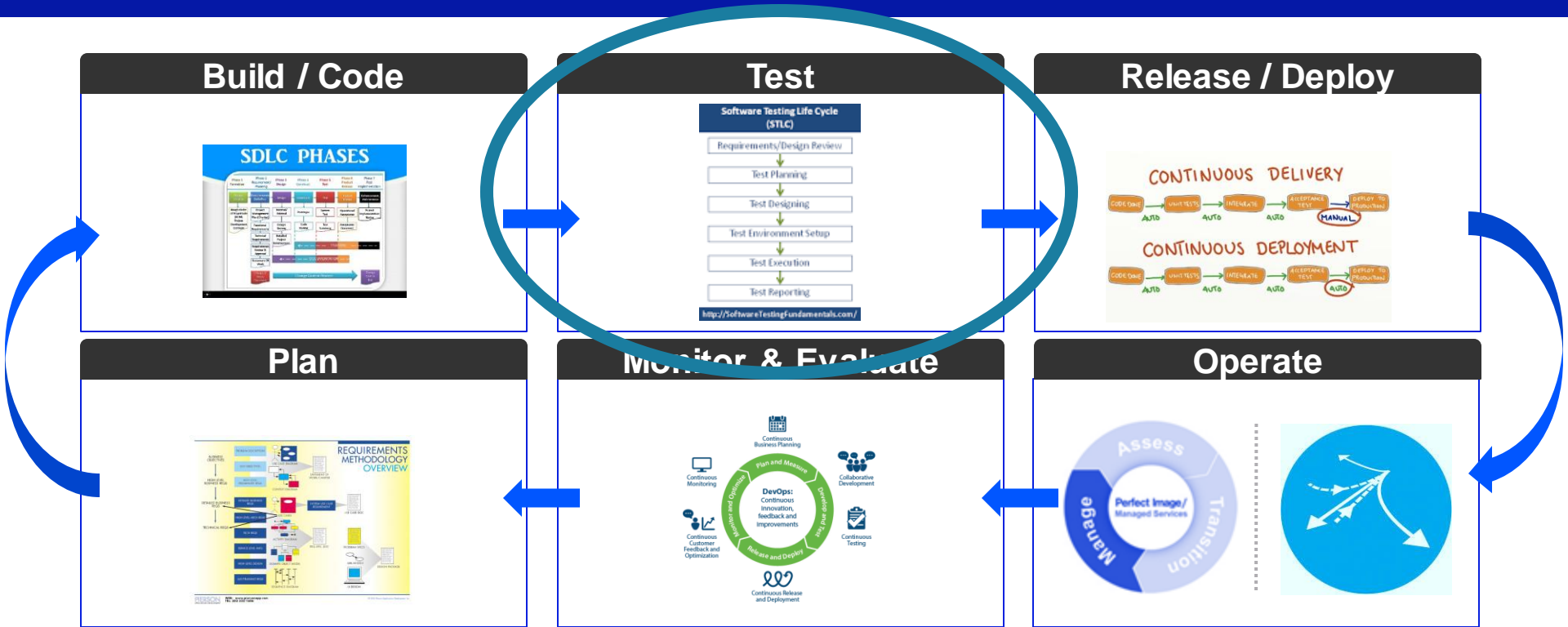
Agenda

1. Purpose of NITA
2. Problems it Addresses
3. How it Works
4. Automated Lab Testing, Automated Deployment
5. Case Studies
6. Architecture
7. How to Get NITA in your Network

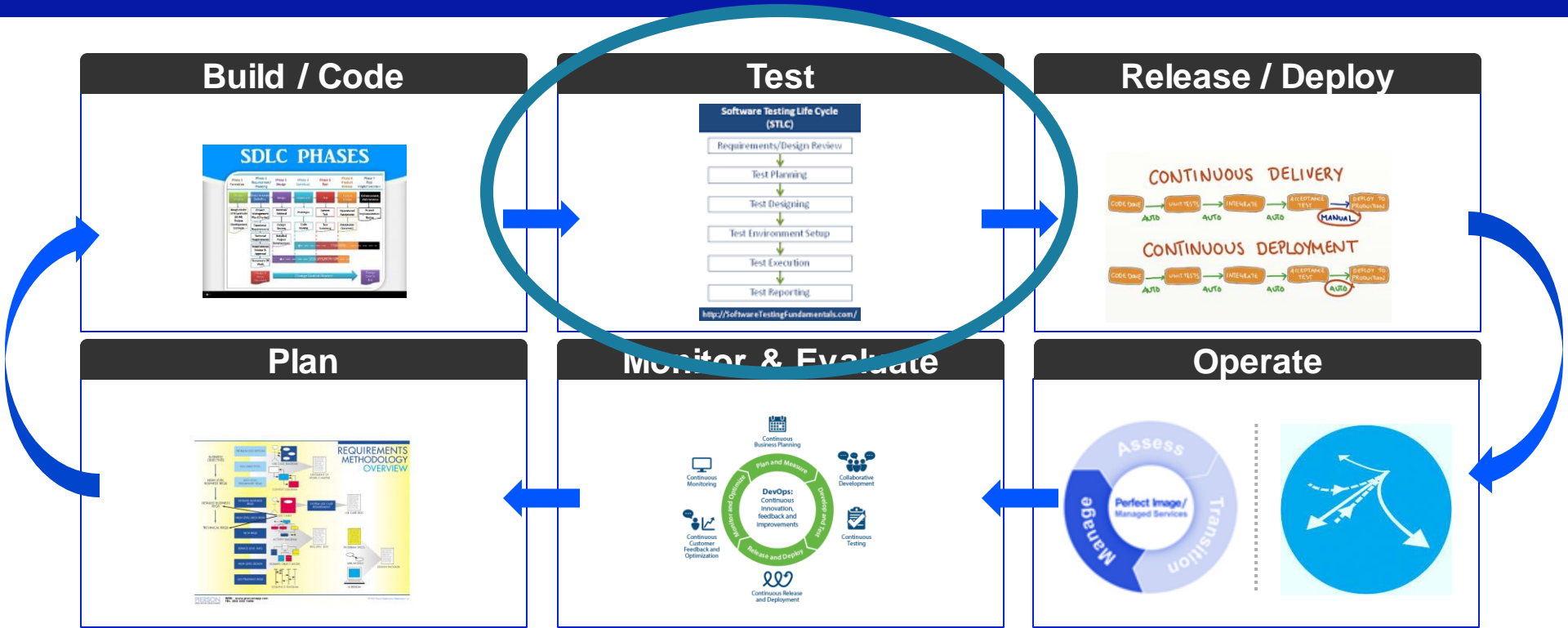


The Purpose of NITA

DevNetOps Cycle



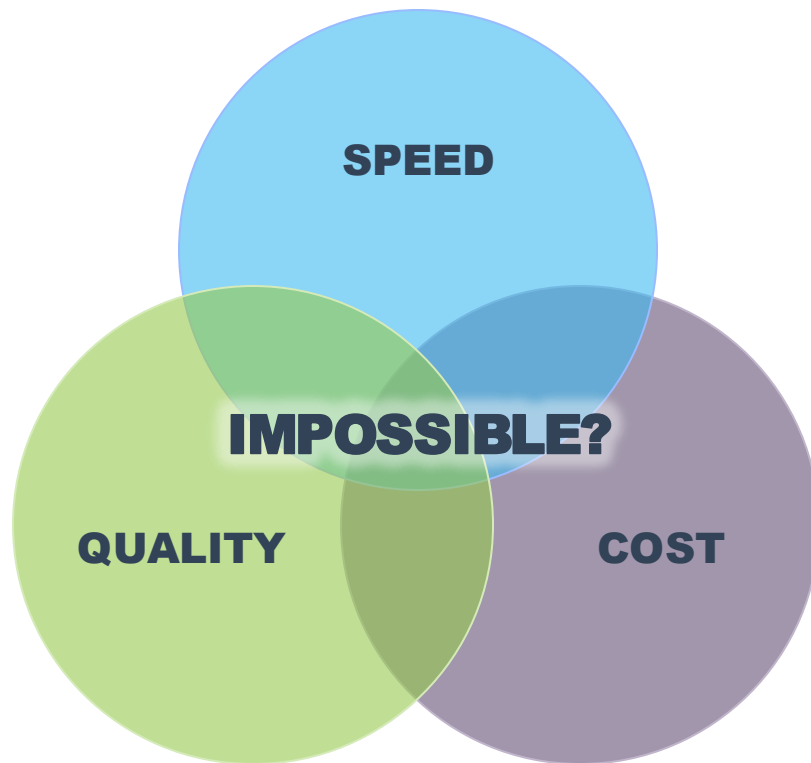
DevNetOps Cycle



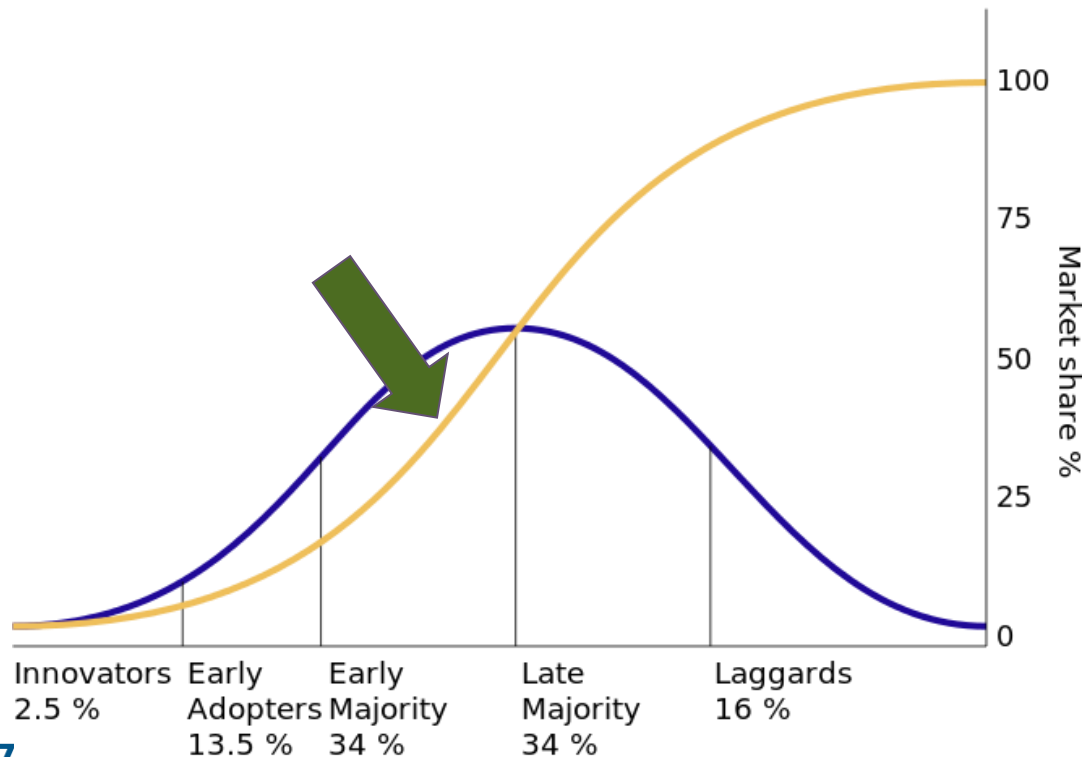


Market Problems We Are Addressing

Automation Eliminates Trade-offs



Get Automation in your Network NOW!

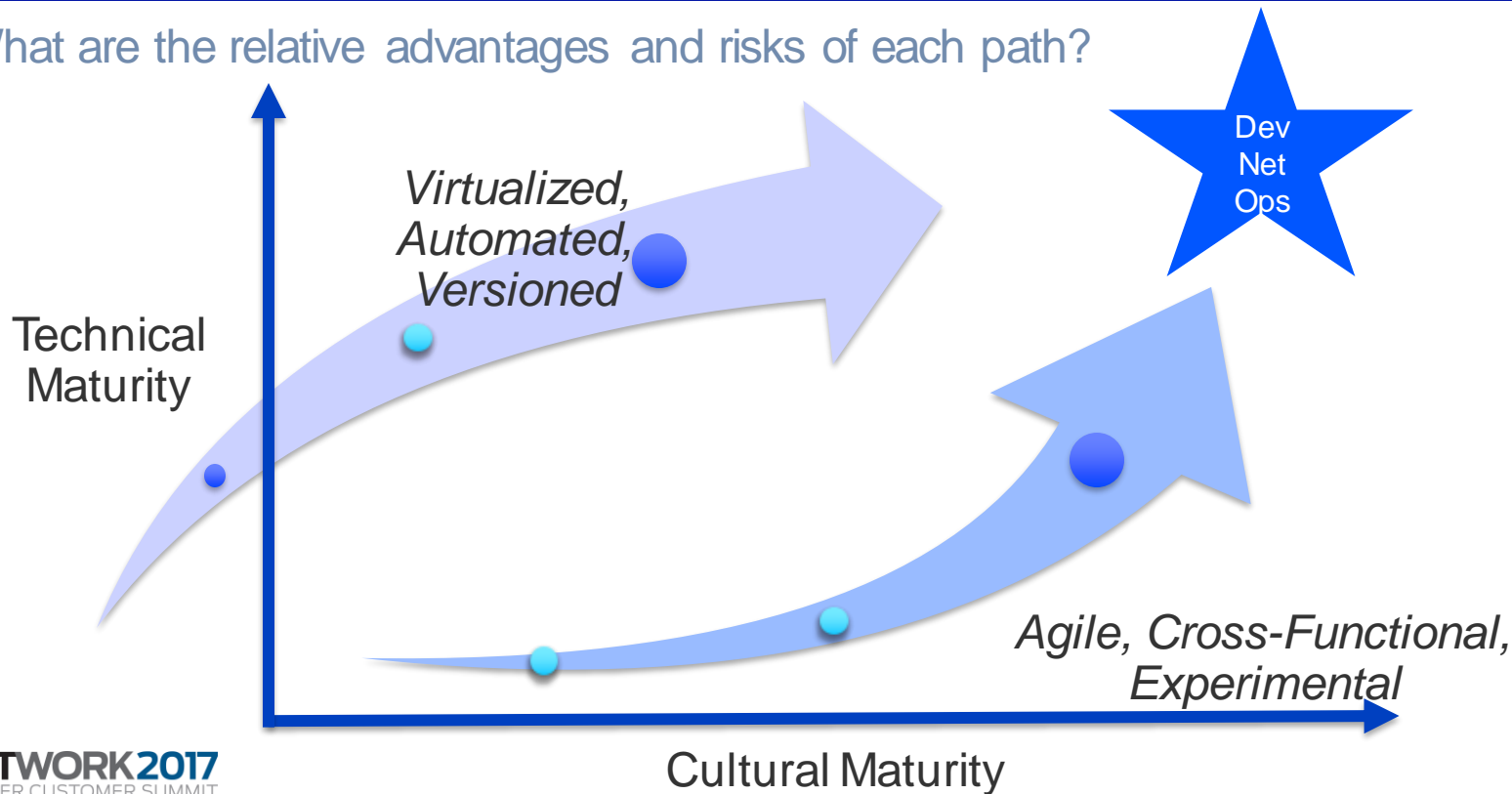


Metrics for IT Operational Expenses

Annual Averages & Estimates	Change Failure Rate	Downtime Cost per Change	Technical Staff Time Spent on Rework
High Performing Org	7.5%	\$37,500	21%
Medium Performing Org	38%	\$4,560,000	32%
Low Performing Org	23.5%	\$2,820,000	27%

Many Paths on the DevNetOps Journey

What are the relative advantages and risks of each path?





How Does NITA Work?

Enabling Rapid, Quality Outcomes

Audit/
Compliance



Testing for
Quality

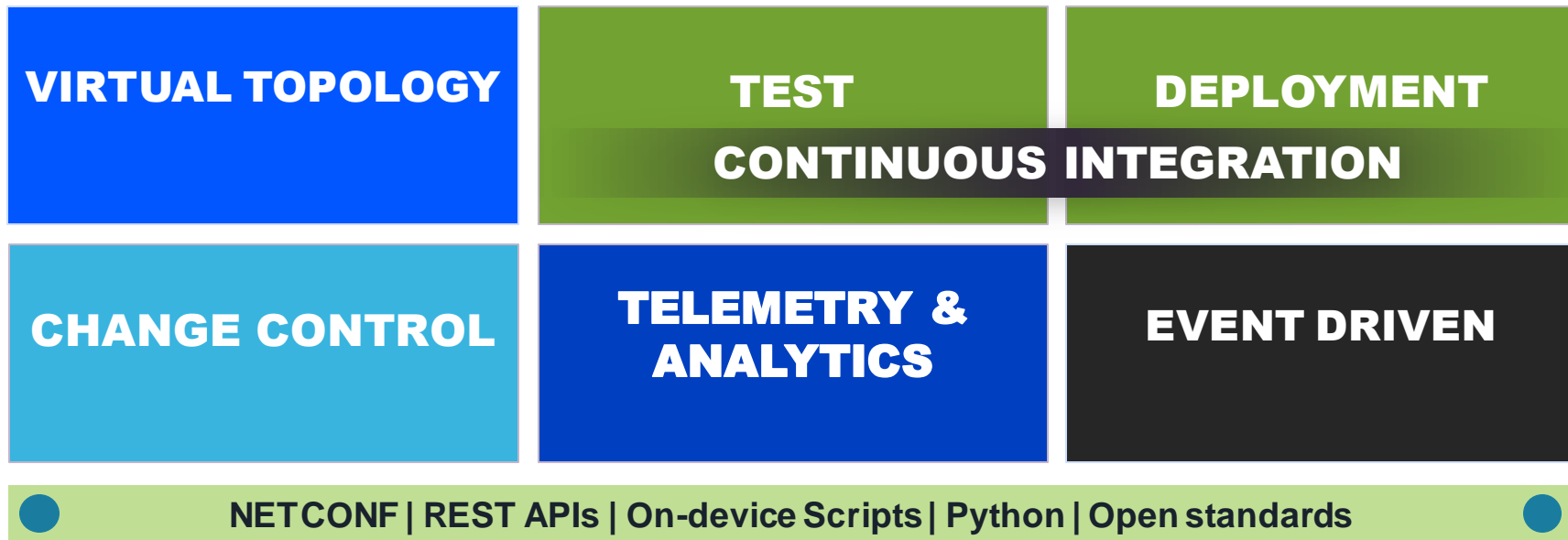


Continuous
Development



Configuration
Generation

Automated Lab Testing, Automated Deployment



A person wearing safety glasses and a lab coat is holding a small plant with tweezers. The background is a warm, orange-red gradient.

Automated Lab Testing

TESTING

Traditional

**Time
Consuming**

**Coverage
Incomplete**

**Resource
Intensive**

Lack of visibility

Automated Benefits

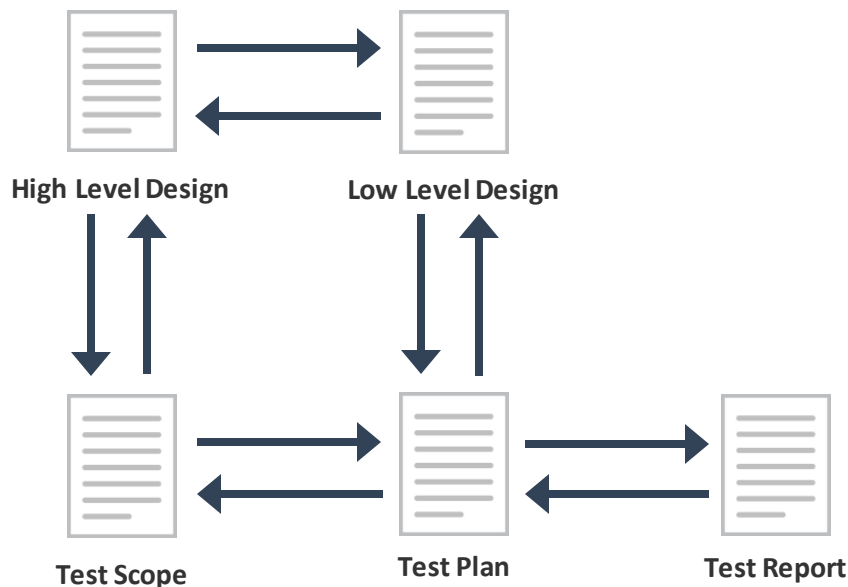
**Shorter validation and
delivery times**

**Faster time to market
without sacrificing quality**

**Quick lab setup and teardown
windows**

**Insight and awareness into
what is being tested**

What You Design is What You Test



The design is the source of all testing

HLD, Test Scope = What

LLD, Test Plan = How

Design it if you deploy it

Automated Lab Testing Video Demo

Automated Deployment

Deployments

Traditional

Slow

**Lack of
trust**

Convolutd

Complex

Automated Benefits

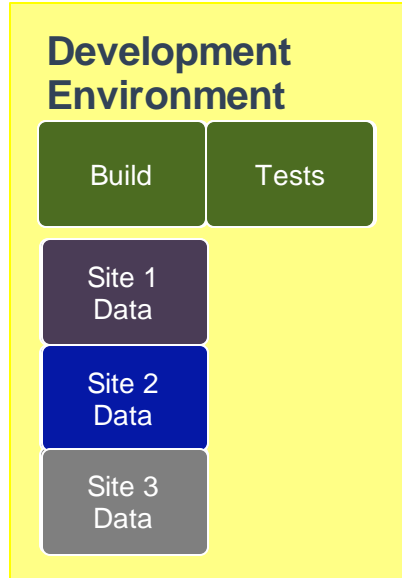
Faster validation windows

Shorter troubleshooting times

Easy reporting of progress

Consistent and steamlined

Automated Deployment Workflow



Automated Deployment Video Demo



Case Studies

Case Study #1

Use Case	Automated Lab Testing
Region	APAC
Customer Description	Telecommunications Operator
Test Cases	357
Examples	<ul style="list-style-type: none">• OS Upgrades on the EX-series• Migrations• Multi vendor interoperability• Physical and virtual MX topologies

Case Study #2

Use Case	Automated Lab Testing and Automated Deployment
Customer Description	American Oil and Gas Corporation
Project Description	Data Center Modernization
Deliverables	<ul style="list-style-type: none">▪ Test Driven Design and Low Level Design▪ Design Validation Testing▪ Automated Deployment Plan and Automated Testing Plan▪ Network Operations Document▪ Knowledge Transfer Workshops

Case Study #3

Use Case	Automated Lab Testing and Automated Deployment
Customer Description	European Financial Services
Project #1 Description	Remote Branch Office Deployment
Deliverables	<ul style="list-style-type: none">■ Two data centers...■ With 300 sites■ Deployed at 20 sites/week
Project #2 Description	Next Gen Campus Network
Test Cases	40



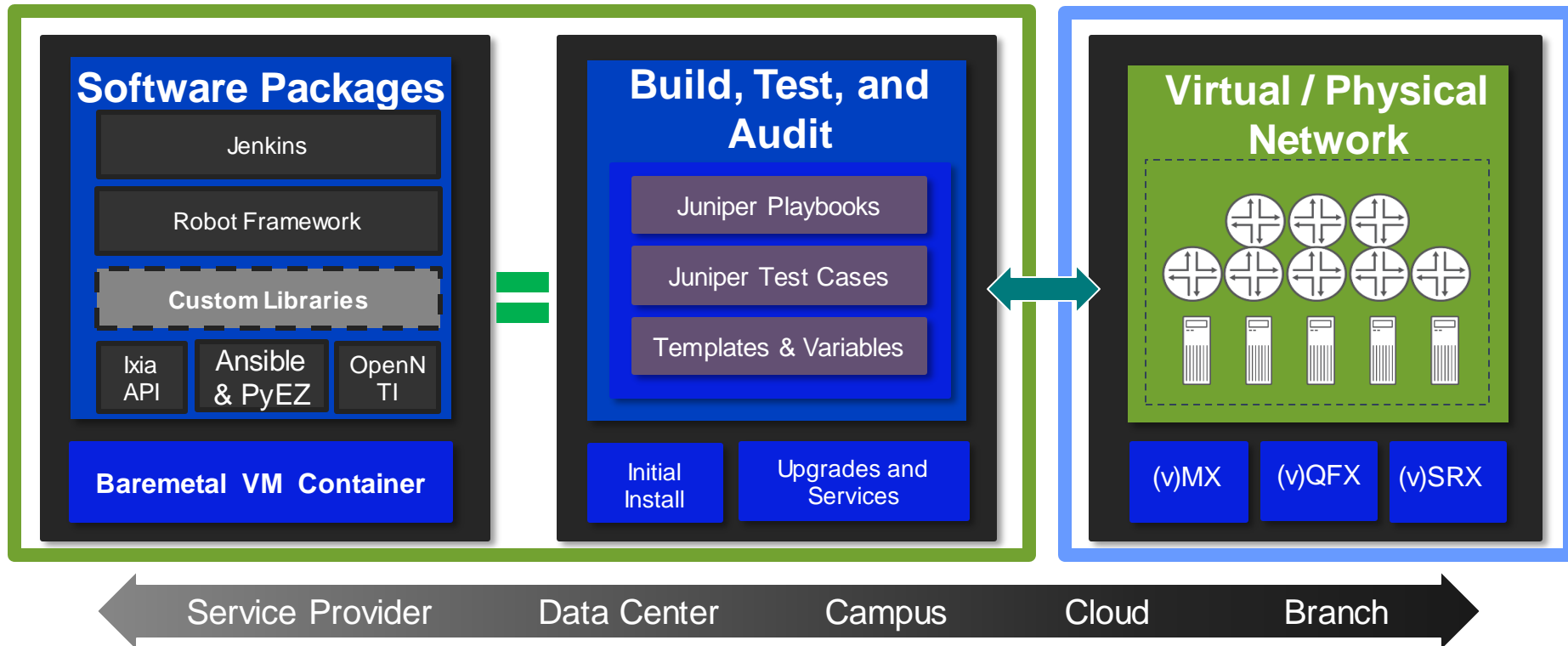
Architecture

Juniper Solution. NITA.



- Open Source, Vendor agnostic automation framework
- Playbooks
- Libraries of real-world test cases
- Automation scripts representing best-practices
- Supported
- Battle tested

NITA Reference Architecture



NITA Reference Architecture



JENKINS

- CI/CD
- Leading open source automation server
- Support version control



ROBOT FRAMEWORK

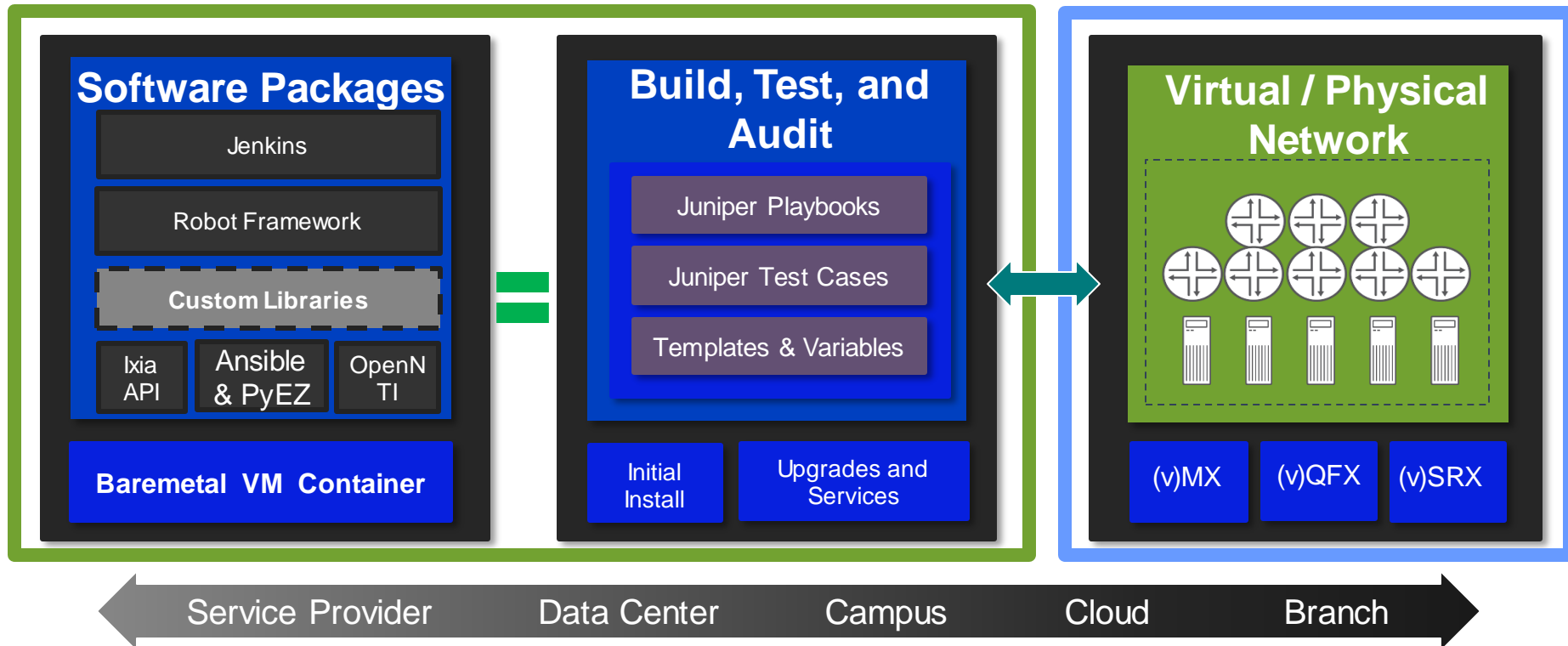
- Supports acceptance testing & acceptance test-driven dev



ANSIBLE

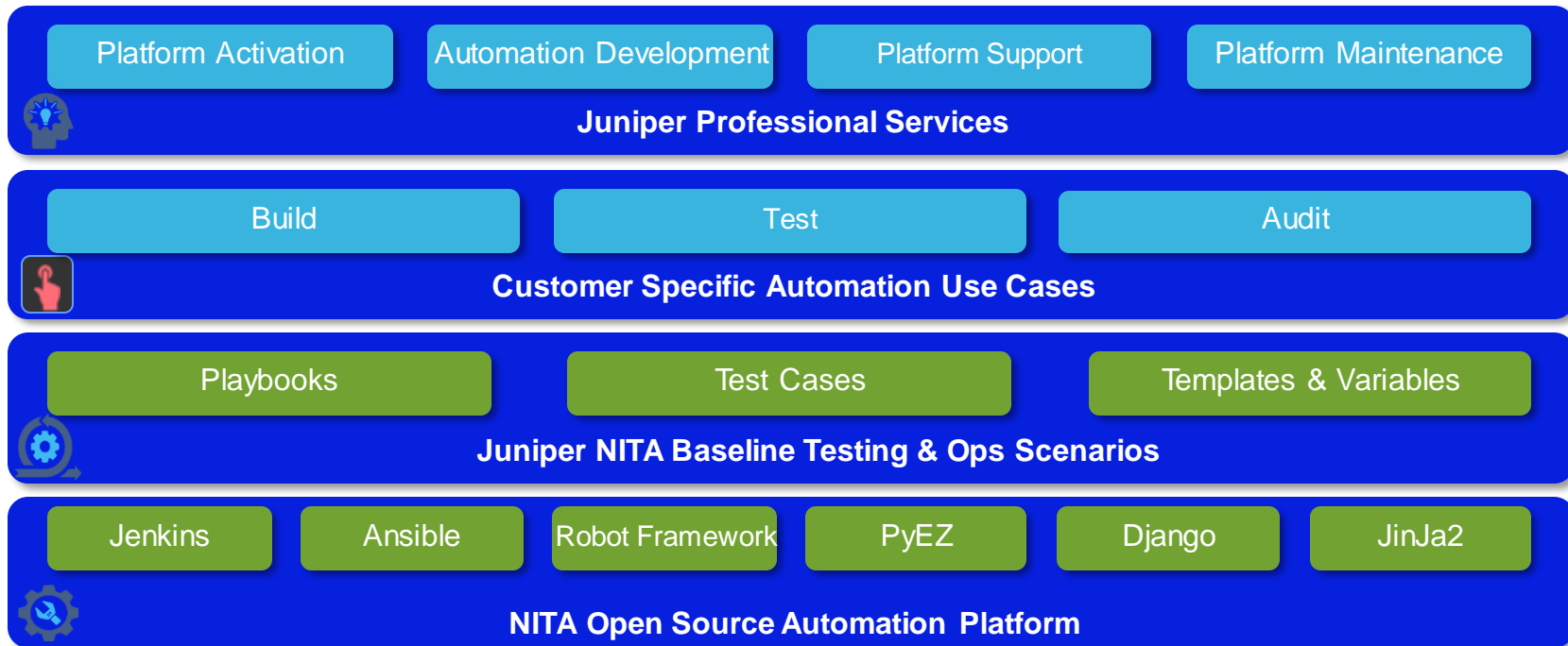
- Agentless
- Python based
- Multi-Device setup and configurations

NITA Reference Architecture



How to Get NITA in Your Network

NITA Automation Components

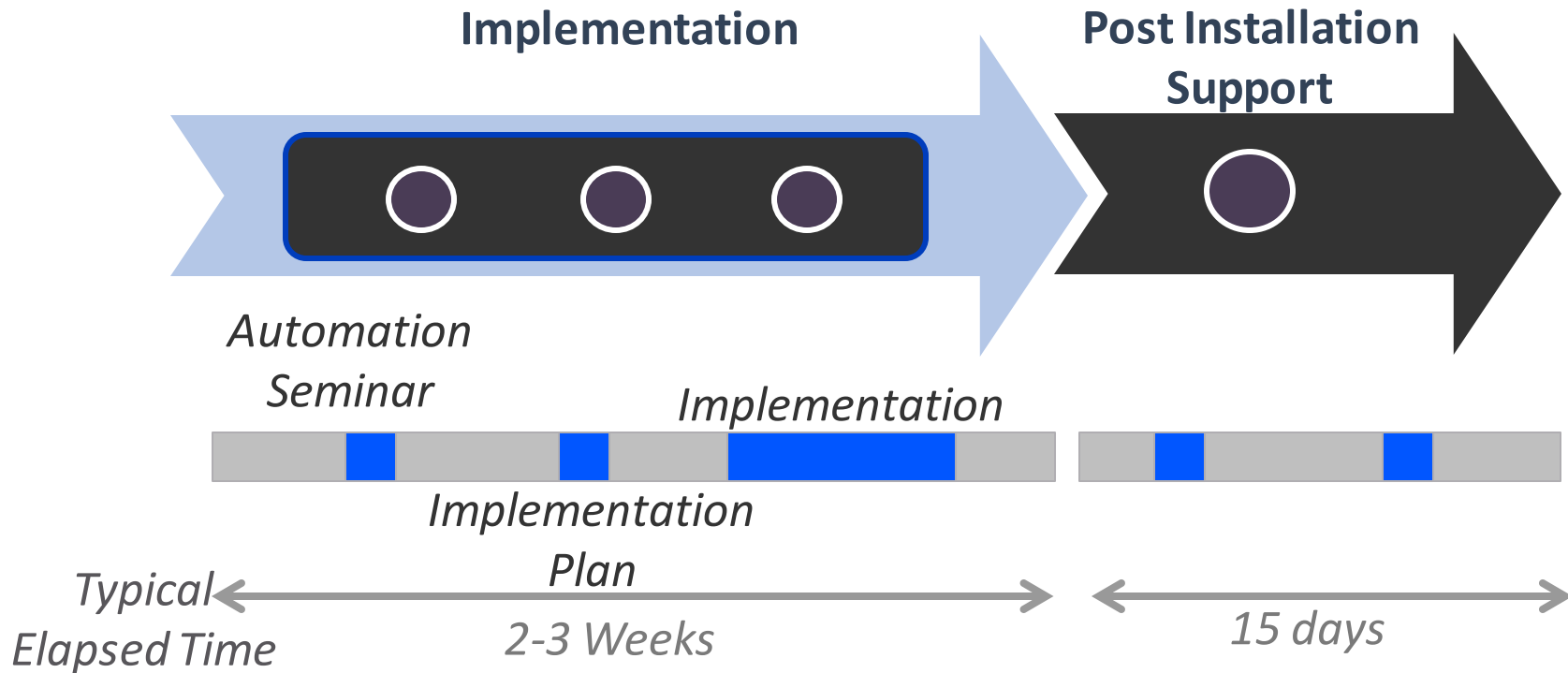




NITA

NETWORK IMPLEMENTATION TESTING AUTOMATION

JumpStart



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THANK YOU!

Jessica Garrison, @networkjessica, jgarrison@juniper.net