

Developer Days



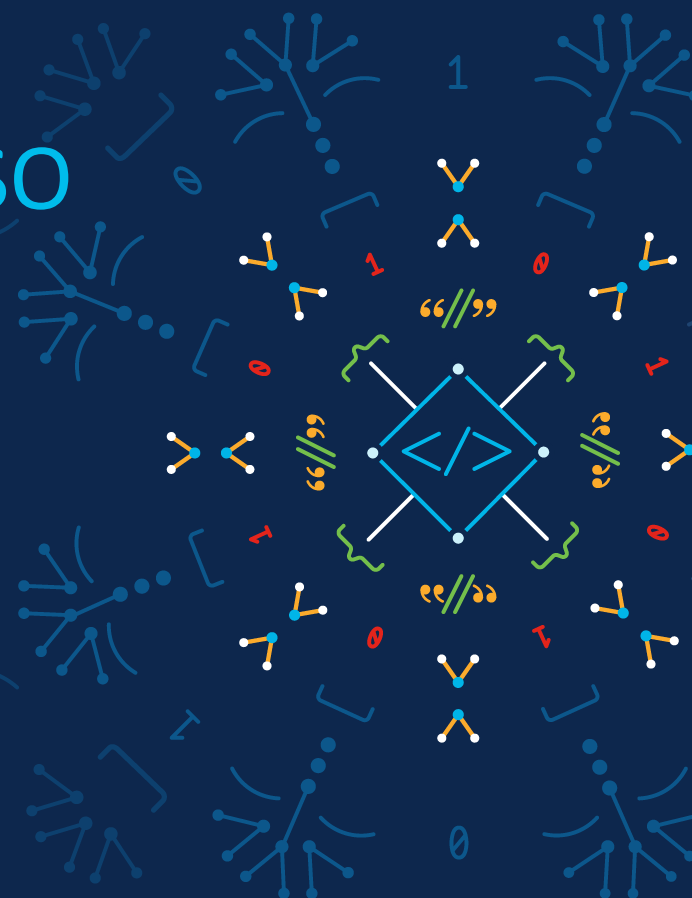
The bridge to possible

How Verizon Streamlined NSO Development with Continuous Integration (CI)

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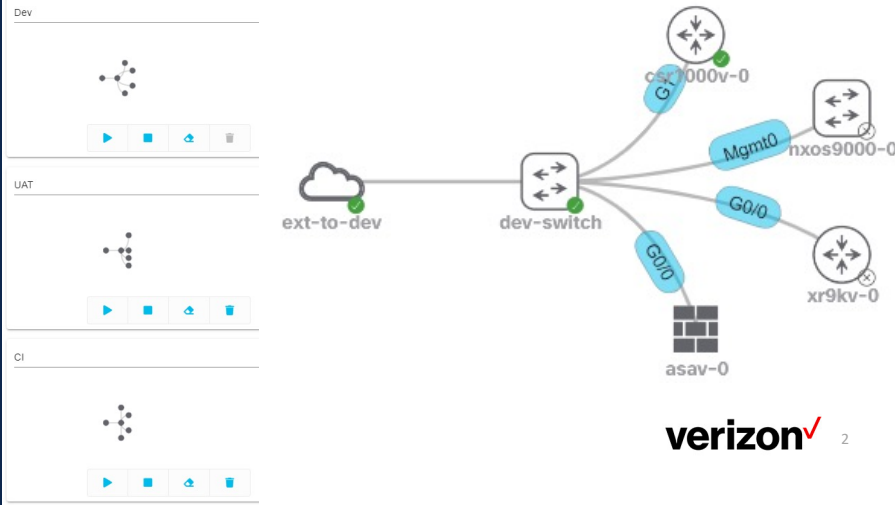
September 14th, 2021



Improving Development Efficiency & Code Quality with Continuous Integration (CI)

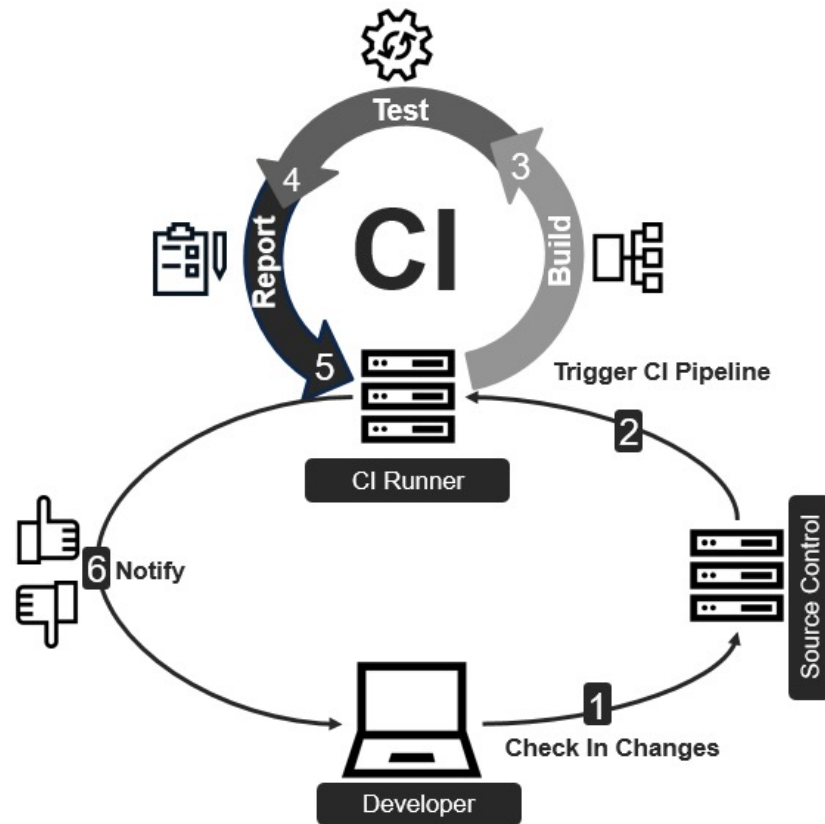
Build a Strong Development Environment

- Virtualized/Containerized where possible
- Simple, Multi-tenant, Repeatable
- Controlled and Stable Environment
- Multi-use for DEV, UAT, CI/CD, Sandbox & Training
- Develop with Testing in Mind
- Source Control with Automated Pipelines
- Cost Effective and Scalable



The CI Process

Trigger Happy



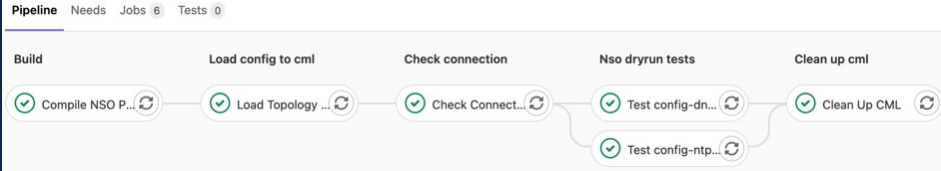
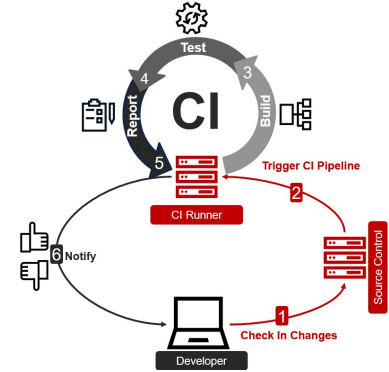
One Size Does Not Fit All!

Choose the tools that work best for your team

Demo: How we use Gitlab
+ CML + NSO to achieve CI

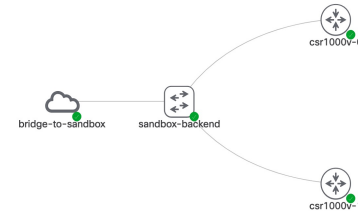
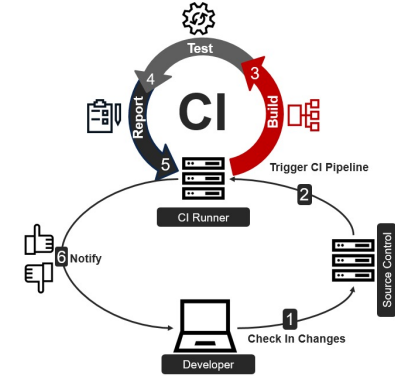
Source Control & Pipelines

- Collaborate
- Version Control
- Track Changes
- Scan for Code Quality & Security
- Streamline Testing and Delivery by Triggering Pipelines



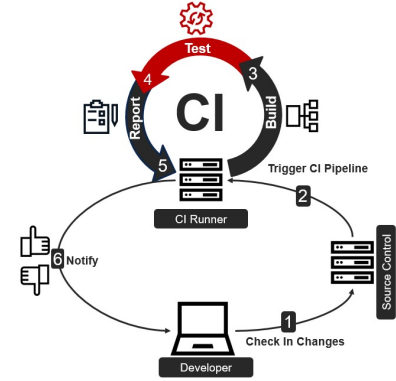
Build

- Starts Containerized NSO
- Loads start-up configs
- Builds launches any topology with Virtualized Hardware
- Controlled, Stable & Scalable Environment
- Ready For Testing!



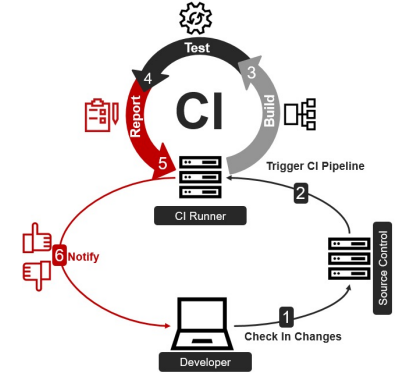
Test

- Build your Own Test
- Simple and Readable Syntax
- Runs Automated Tests
- Test results and Logs
- Scalable



Results

- Test Reports
- Logs
- Notifications
- Future: Trigger Continuous Delivery (CD) Pipeline



Status	Pipeline	Triggerer	Commit	Stages	Duration
passed	#1605079 latest detached		119 -> f293b978 (NMS): Add comments for t...	✓✓✓	3 hours ago

How This CI Helps Us

CI Pipeline can automate:

- Testing NSO and/or NED(s) Upgrades
- Testing of new and existing services
- Error detection

Benefits:

- Speeds up the development cycle
- Ensures production quality code
- Reduces administrative burden on Dev Team
- Builds trust in automation

Give It a Try

Go to DevNet: [devnet-gitlab-nso-cml-ci](https://devnet.cisco.com/guides/devnet-gitlab-nso-cml-ci)

