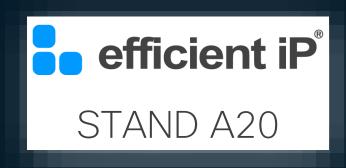


Best Practices to Easily Accelerate Network Automation with DDI Cisco Live - Amsterdam 2023

Chris Buijs - Chief Evangelist @ EfficientlP chris.buijs@efficientip.com





Cisco Webex App

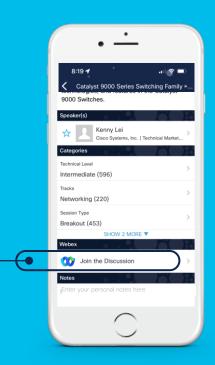
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Agenda

- Why Network Automation is needed
- What the common challenges are
- How to jump-start your Network Automation journey
- Valuable Automation Use Cases using DNS, DHCP and IPAM (DDI)*
- Key takeaways

★ DNS: Domain Name System DHCP: Dynamic Host Configuration Protocol IPAM: IP Address Management



Why Network Automation is needed



Uncertain economic outlook looming in coming times accelerates the need to



Find and adopt new strategies to achieve greater cost control

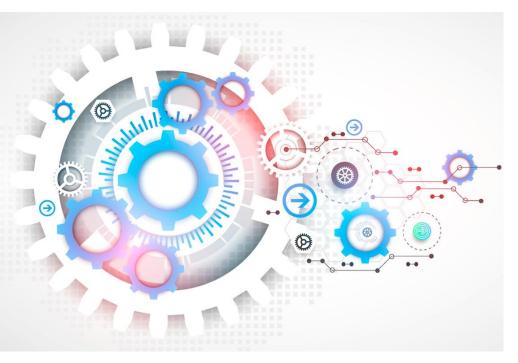


Improve operational efficiency



Accelerate key IT Decisions to drive increased agility and speed

What drives Network Automation in general?



- Digital transformation strategies
- Increased productivity and flexibility
- Lack of visibility on costs, assets and changes
- Maximize (and accelerate) Return on Investments (ROI)

"... by 2024, organizations will lower operational costs by 30% by combining automation technologies with redesigned operational processes ...

Gartner



What the Common Challenges are





"... Leaders must treat automation as a principle to be embraced, rather than as a project to be done and ought to be aware of common mistakes that can lead to failures ..."

Nicole Sturgill Gartner



Pain Points when enabling Network Automation

- Unsubstantiated fear of losing your job due to automation
- Unavailability of Skills or knowledgeable resources
- Do not know where to start or/and do not know what you have

- Missing Architecture Framework of the Automation Ecosystem
- No Accurate or current reference repository (Network Source of Truth)
- No Time, No Budget or No Focus

How to jumpstart your automation journey



Where to start?

Key Recommendations to kick-off your network automation journey

- 1. Leverage existing investments to accelerate in time and tooling
- 2. Start small and iterate
- 3. Automate activities not associated with change
 - Common Problems to solve
 - Common and Repetitive Tasks
- Baseline your network, document and build a Network Source of Truth (NSoT)



Why DDI is important to enable Network Automation?



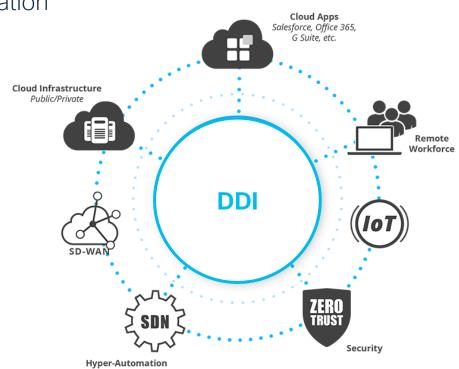
"... Network Automation without DDI makes no sense! ..."



How can DDI Data help Network Automation?

DDI is the foundation to Network Automation

- DDI as NSoT enables Network Automation and provides Actionable Data
- Provides Insight, Visibility and Observability
- Integrates with other platforms to Enrich Data, Usability
- Feed Automated Decision– Making processes



Valuable Automation Use Cases using DNS, DHCP and IPAM (DDI)

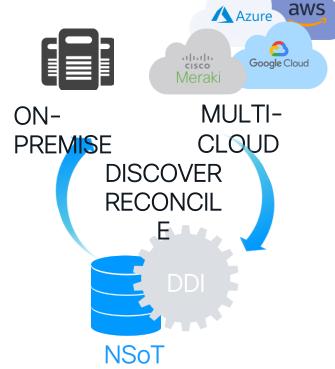


Use Case 1: Automatically discover any network and device for increased visibility

- Easily discover any network and device on-premise or in the cloud
- Harmonize and unify multi-cloud data
- Reconcile networking using open APIs to maintain Network Source of Truth (NSoT) always up-to-date and accurate

Benefits

- Improved visibility
- Cost control
- CloudOps increased efficiency



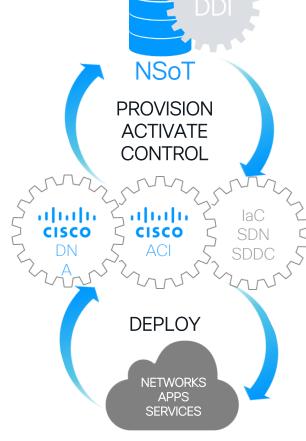
Use Case 2: Automate infrastructure, applications or services deployment

Open API-Driven Automation to

- 1. Provision and update IP addresses and subnets
- 2. Configure and activate DNS services
- Control and reconcile changes to maintain your NSoT

Benefits

- Processes streamlining gaining agility and time
- Cost saving
- NetOps increased efficiency



Use Case 3: Automate NetSecOps

- Accelerate deployment of security policies
- Ensure rules configurations are always up-to-date and accurate
- Simply start your Zero Trust journey and leverage DDI trusted data

Benefits

- Faster roll-out of security policies for better compliance
- Improved reliability thanks to error-free configurations
- NetOps and NetSecOps increased efficiency







Key Takeaways



Key Takeaways



- Network Automation without DDI makes no sense!
- Documented Networks and a Network Source of Truth (NSoT) are crucial for any Network Automation
- Including DDI makes full-stack or end-to-end automation possible, including zero-touch
- DDI enhances and enriches security, making your security posture stronger
- Behavioral, Intent and Experience information about any node, device or user is unlocked by DDI



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