





Network Automation Delivery Model

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“We understand that you know more than you share, please tell us what you think we should do!”

Smart guy during NSO Developer Days 2018

Customers ask for advice and guidance regarding **how** to implement NSO in their organization

The Cisco Network Automation Delivery Model (NADM) is a direct response to our customers' ask about **how** to implement NSO in their organization.

Who am I?

- Guy Nir
- Based in San Jose, CA within the NSO Business Unit
- Background; Business Development and Military
- My focus: Increase NSO implementations success rate!

Today's Agenda



Introduction to NADM



Two reflections/takeaways



Call to action



The Cisco Network Automation Delivery Model



We segment our customers into three major categories

Cisco implements an agreed number of use cases

Customer team together with Cisco implement the use cases

Customer gets NSO and starts implementing use cases on their own

To simplify, lets use an analogy – Cooking

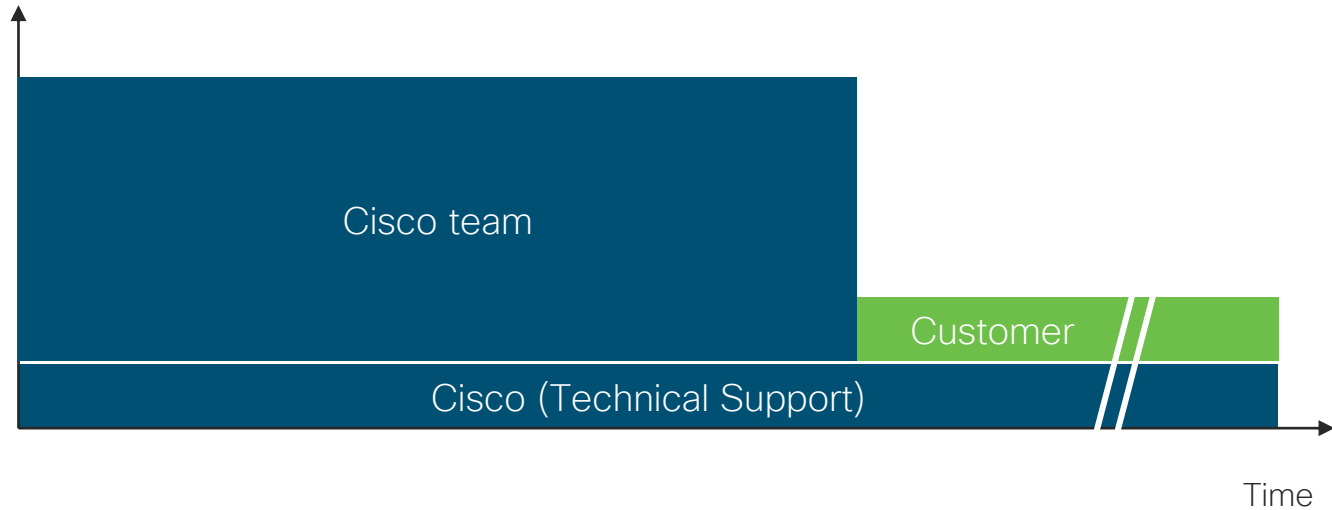
The Cisco restaurant

Cookalong with Cisco

Learn how to cook by yourself

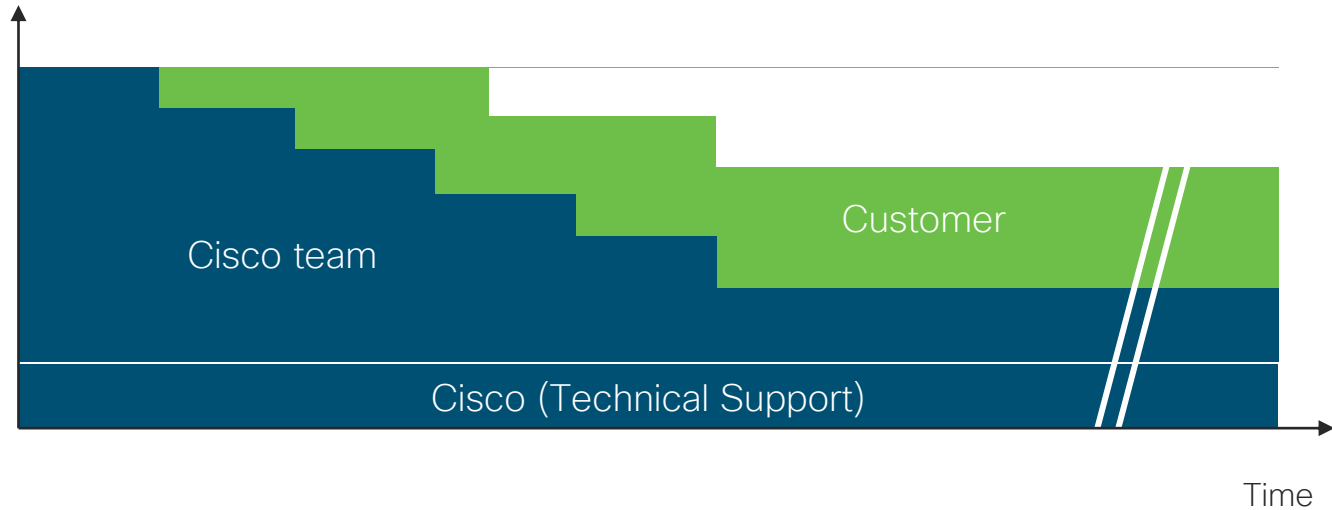
The Cisco restaurant

Engagement level



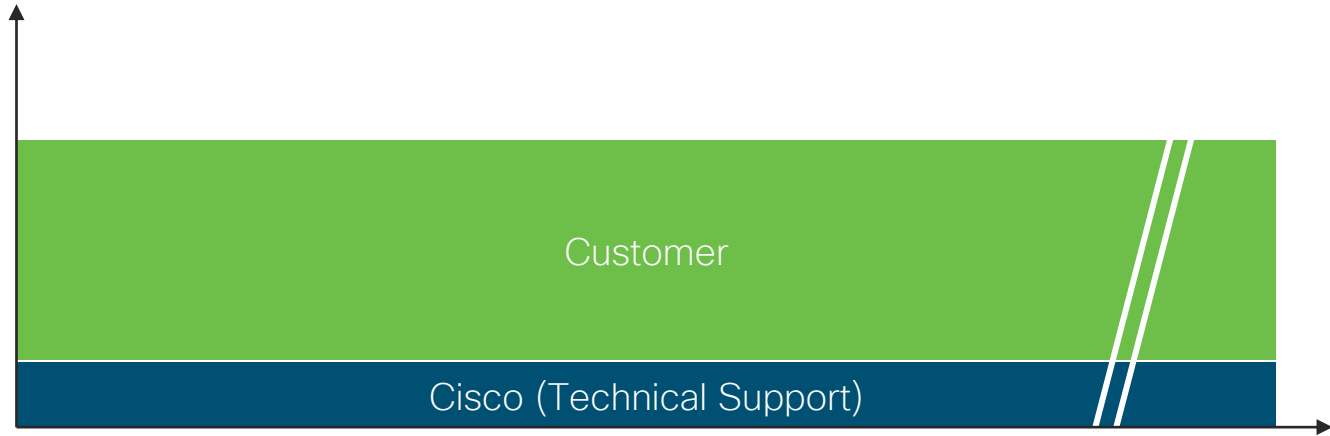
Cookalong

Engagement level



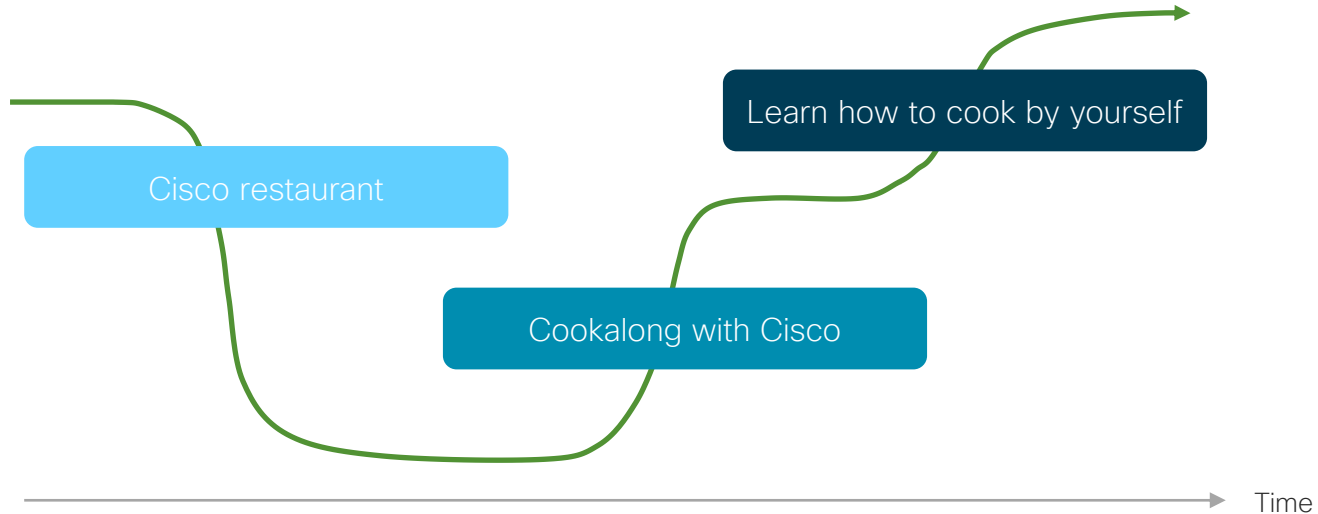
Learn how to cook by yourself

Engagement level



Time

Moving between approaches along the journey is of course a great option



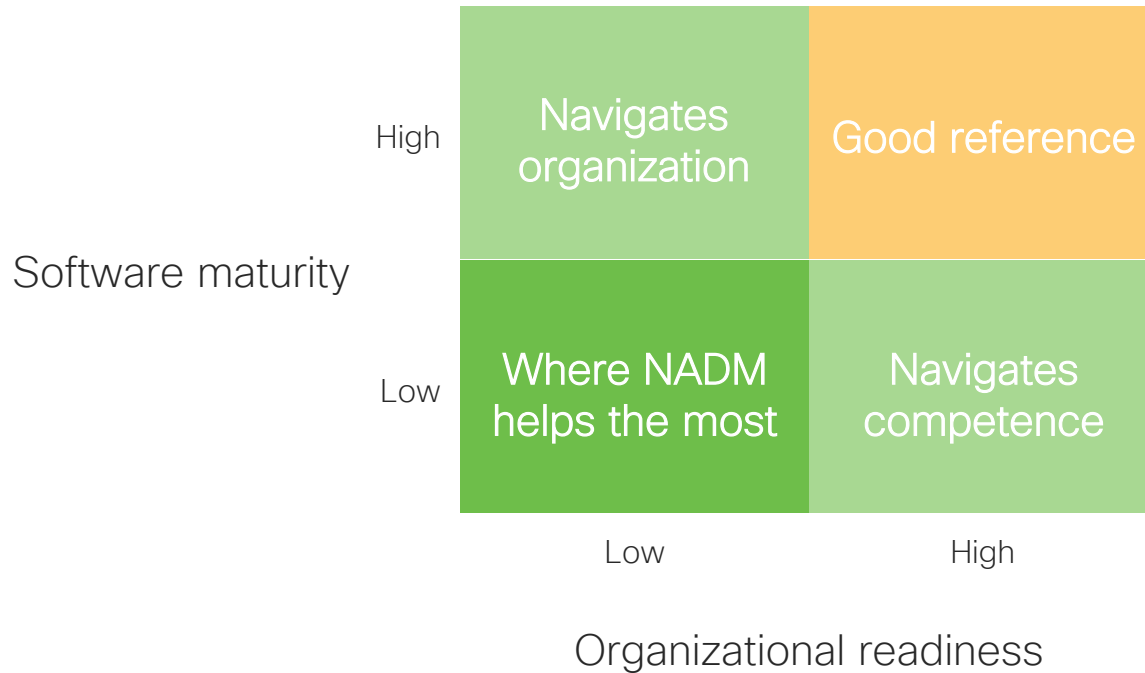
The Network Automation Delivery Model applies most to “Cookalong” and “Learn to cook your self”

Eat at the Cisco restaurant

Cookalong with Cisco

Learn how to cook by yourself

NADM in relation to software maturity and organizational readiness



NADM is developed for automation teams

Team

- A team that **is about to begin** their network automation journey
- A team that **already began** their network automation journey

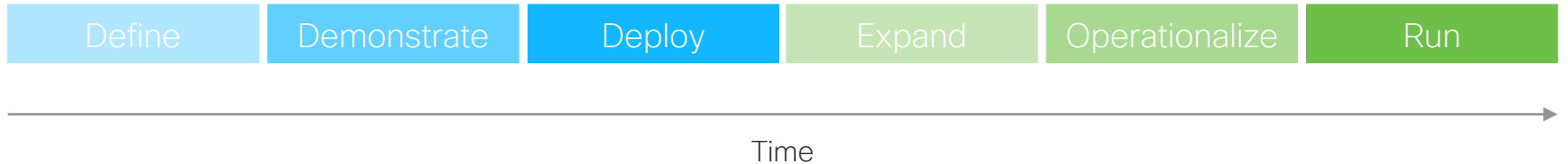
Roles

- Network engineer
- Software developer
- Automation director
- Program manager
- Project lead
- Technical lead

The Cisco Network Automation Delivery Model



The chronological perspective



The topic perspective

Roles

Vision, mission and culture statement

Objectives, strategy and plan

Key Performance Indicators

Development process

Build an organization

Stakeholder management

Define a use case

Deployment

Continuous integration & Continuous delivery

Testing

Demo

High level focus per phase

Start to build capability and learn from first deployment

Automation mindset part of organizational DNA

Define

Form an Automation Core Team and let them define and decide the initial scope

Expand

Take what you learned and expand it in a structured way

Demonstrate

Show how it works and what to expect – make sure stakeholders see the demo

Operationalize

Establish new processes and ways of working

Deploy

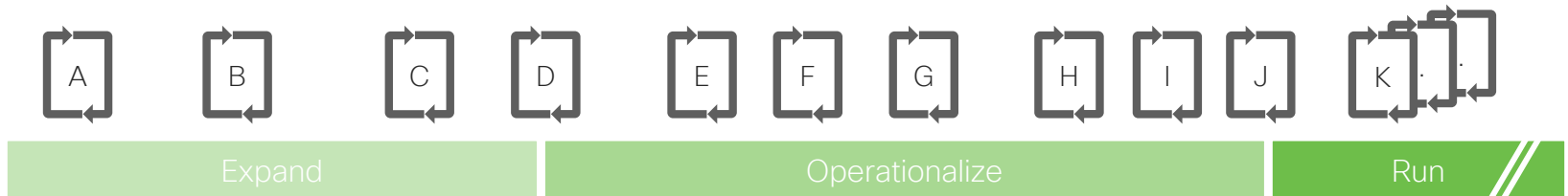
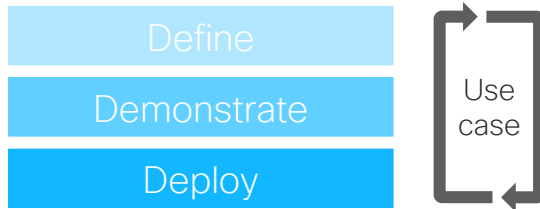
Focus on deploying one minimum and viable use case

Run

Integrate network automation into the organization

Learnings from the first use case come in hand when additional use cases get deployed

Getting started phase



Value proposition for Getting started-phase

Getting started

Define

General automation knowledge increased

Demonstrate

Stakeholder awareness created

Mindshift towards automation begun

Increased organizational readiness for automation

Deploy

Positive momentum built

First small MVP use case in production

Value proposition for Build automation practice-phase

Build automation practice

Expand

Decreased time to launch
new services

Increased capability for automating
more sophisticated MVPs

Operationalize

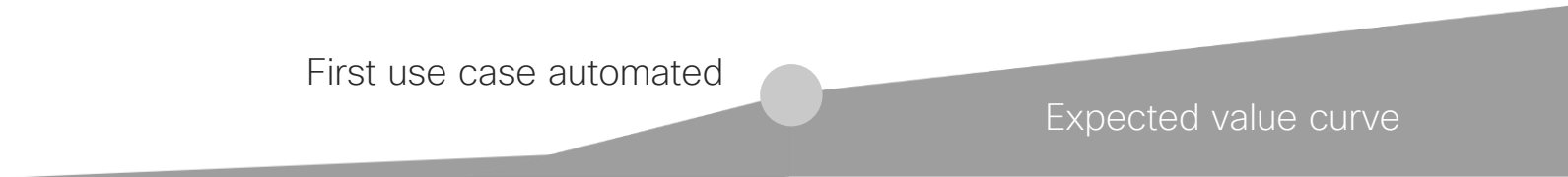
Predictable, repeated
success at scale

Automation mindset part of
organizational DNA

Run

Continuous return on the investment

The value curve correlates with the automation team's increased capability to automate



*Start small, and incrementally learn,
deliver value and grow*

Key Learning Objectives

1. NADM guides our customers in **how** to begin/continue their network automation journeys
2. NADM has a built-in pedagogical logic of “Start small, and incrementally learn, deliver value and grow”
3. NADM educates in both technical and non-technical domains

Today's Agenda



Introduction to NADM



Two reflections/takeaways



Call to action



1

The power of an early win



*Getting a small, minimum and
viable use case into production
quickly*

Why an early win is powerful

- Shows the rest of the organization that the technology works and that you are a capable team
- Creates a winning theme for the team – a can do attitude!
- The team will learn a lot from first use case and can reuse that knowledge for future use cases
- The team has created something that actually is in production – **value!**

Automation Core Team

Service architect

Responsible for the architecture of the network service automation system. Designs and implements the network automation system. Develops code and works on troubleshooting

Network architect

Design of network services. Prepares the design documents and makes decisions on how to utilize the network technology. Works on the network. Creates configuration templates, does troubleshooting

Product owner

Responsible for the product backlog and its prioritization. The product owner is also accountable for the entire development process

What struggling projects end up doing

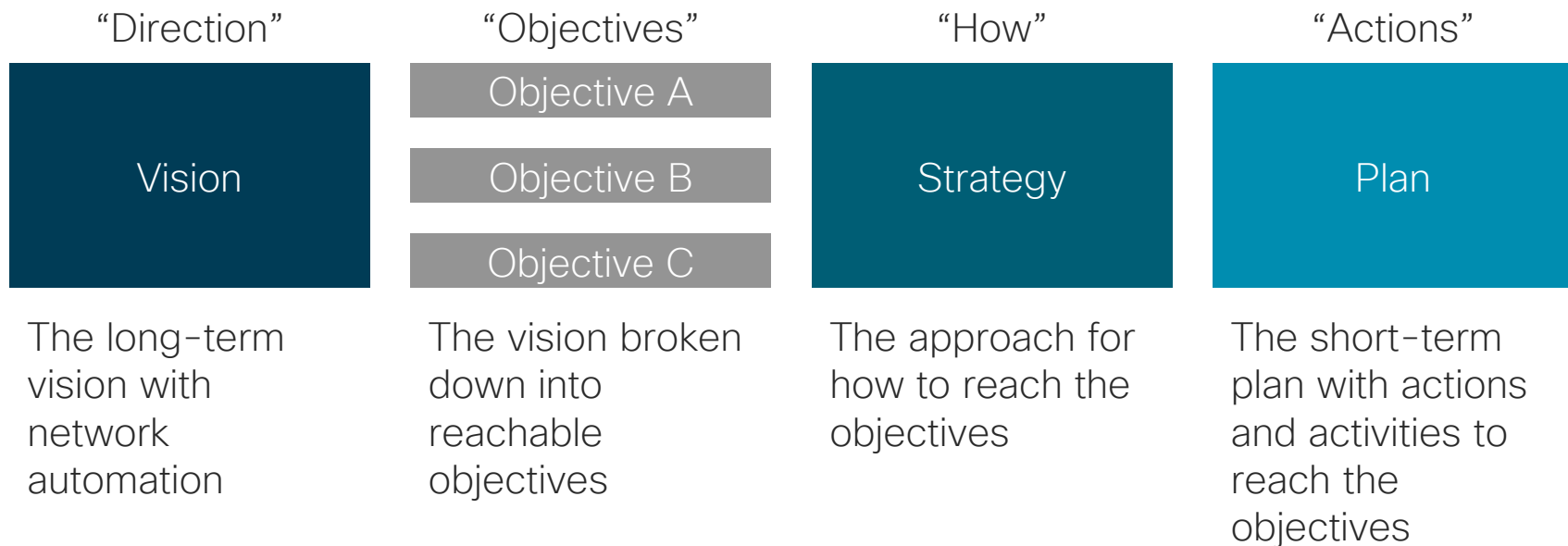
- Aim for a big and complex use case which often leads to:
 - limited to no value realized for a long time period
 - many (and unnecessary) stakeholders involved
 - internal resistance and trust issues – “does the technology really work?”
- Began network automation initiative without enough sponsorship
- Have not involved the right competence from start

2

Define
automation
objectives
and strategy



We need to understand what our customers aim for in the long run



Reason to why we need to understand our customers' vision and objectives

Without their vision and objectives – we risk to offer a delivery approach that will not rhyme with their long-term direction and aspiration

By knowing our customers' objectives, we can better guide and advice based on our knowledge from similar customer journeys

Without knowing their vision we risk to be isolated in the technology domain, which is a relatively small part of the long automation journey

Identified building blocks contributing to the network automation journey

Organizational transformation support

Executive sponsorship

Automation director

Vision, objectives, strategy and plan

System integration

Team with network and software competence

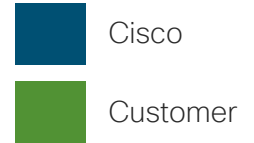
Automation expertise

Established processes supporting automation

Automation software

Infrastructure (lab, tools, servers, CI/CD, etc.)

Let us break up into responsibilities



Organizational transformation support

Executive sponsorship

Automation director

Vision, objectives, strategy and plan

System integration (CX)

Team with network and software competence

Automation expertise (CX)

Established processes supporting automation

Automation software (NSO)

Infrastructure (lab, tools, servers, CI/CD, etc.)

Key Learning Objectives

1. Let a small team with a mix of software and network competence choose a small, minimum and viable use case and get it into production quickly
2. Understand the bigger picture "The automation system" in order to be and stay relevant in customers' challenges
3. Get to know the customer's aspirations and align these with the applicable delivery approach

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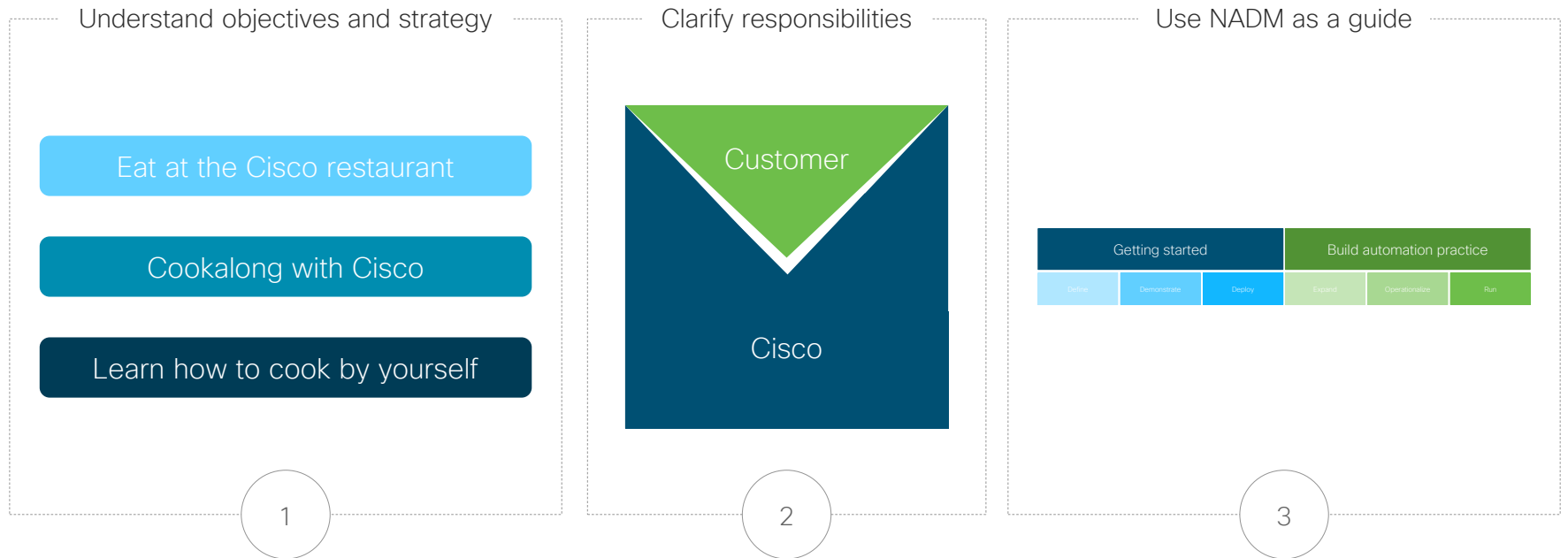
Two reflections/takeaways



Call to action

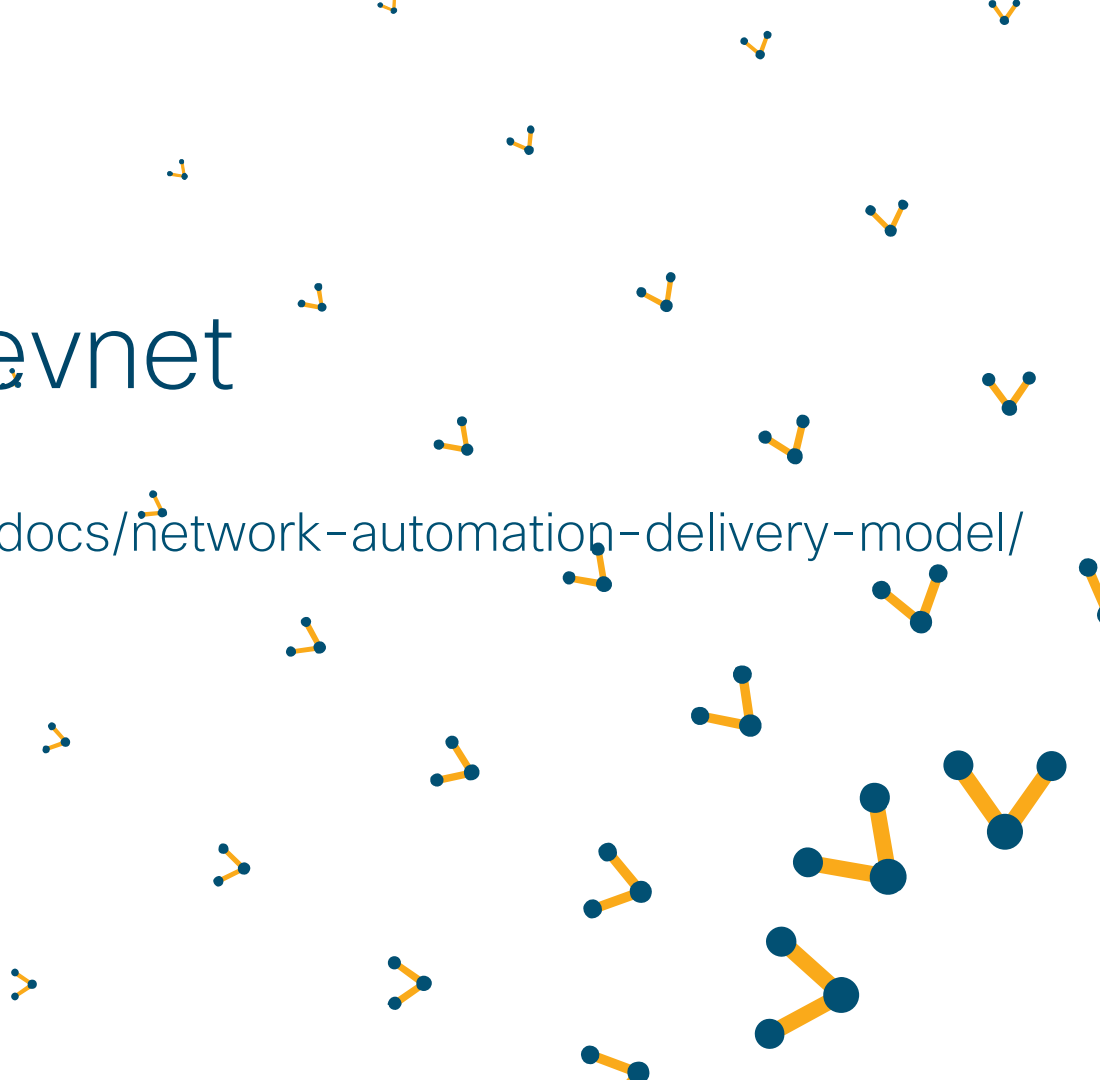


Use this three-step approach to increase chances for successful NSO implementations

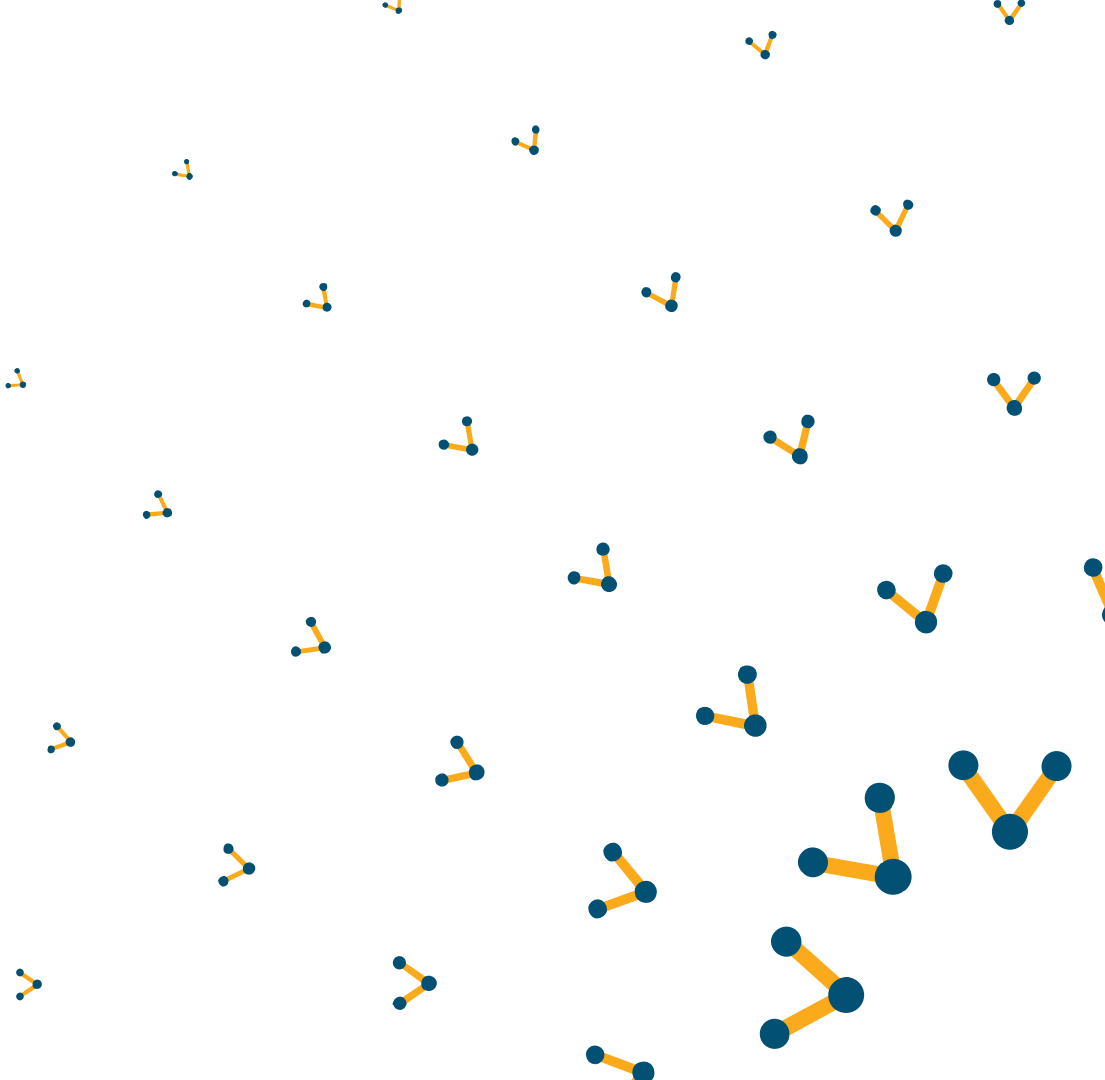


NADM is on Devnet

<https://developer.cisco.com/docs/network-automation-delivery-model/>



Questions,
feedback,
comments!?



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