



The Network Automation Delivery Model

Fredrik Swahn
NSO Customer Success Advocate
December, 2019

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

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

The Cisco Network Automation Delivery Model

Getting started

Build automation practice

Define

Demonstrate

Deploy

Expand

Operationalize

Run

Agenda

Introduction to NADM

Demo

Two reflections/takeaways

Recommendations

Agenda

Introduction to NADM

Demo

Two reflections/takeaways

Recommendations

There are three main types of delivery approaches

Cisco implements an agreed number of use cases

Customer team together with Cisco implements the use cases

Customer gets NSO and starts implementing use cases on their own

To simplify, lets use an analogy – Cooking

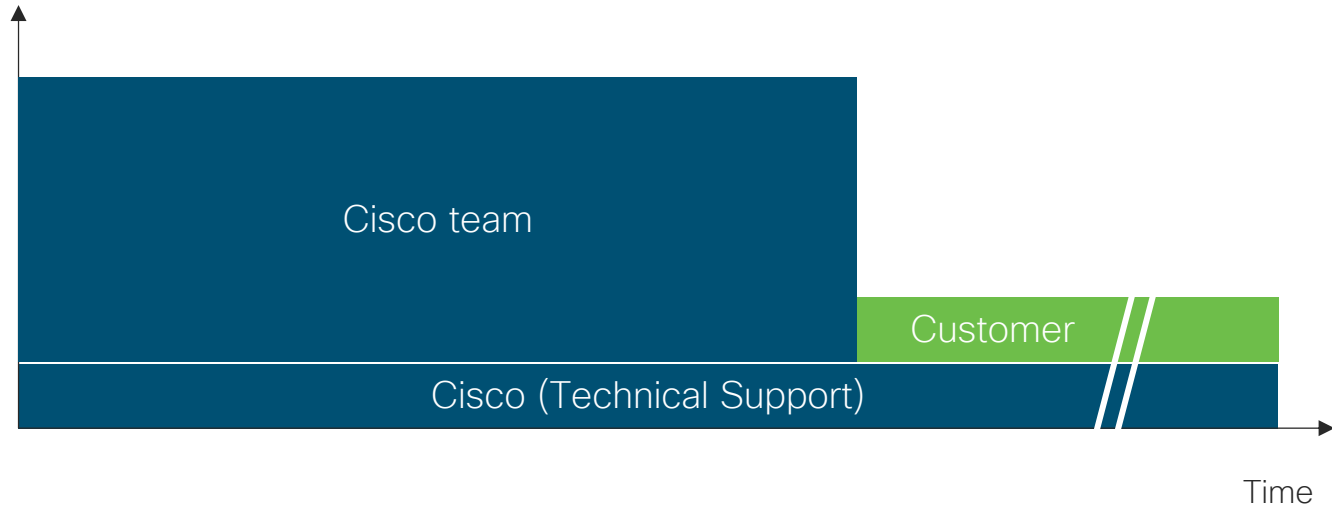
The Cisco restaurant

Cookalong with Cisco

Learn to cook by yourself

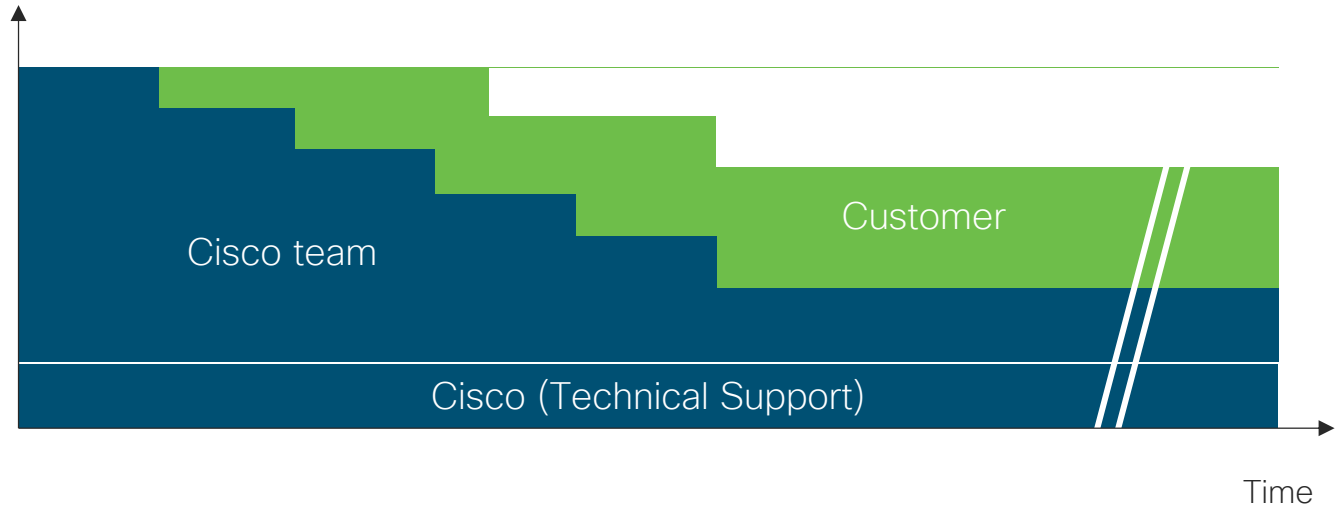
The Cisco restaurant

Engagement level



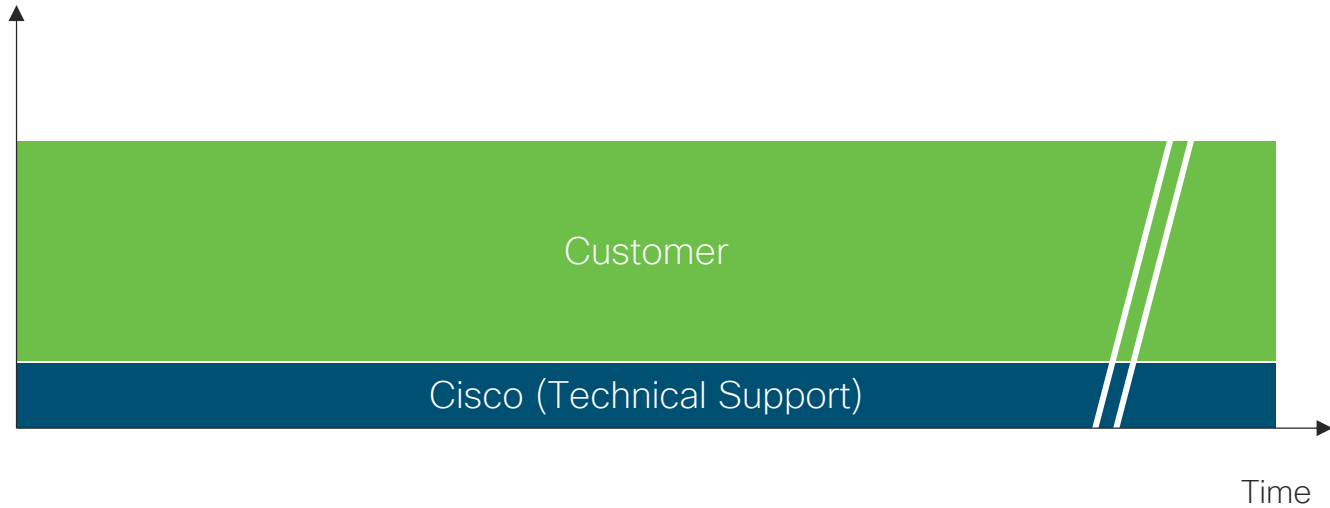
Cookalong

Engagement level

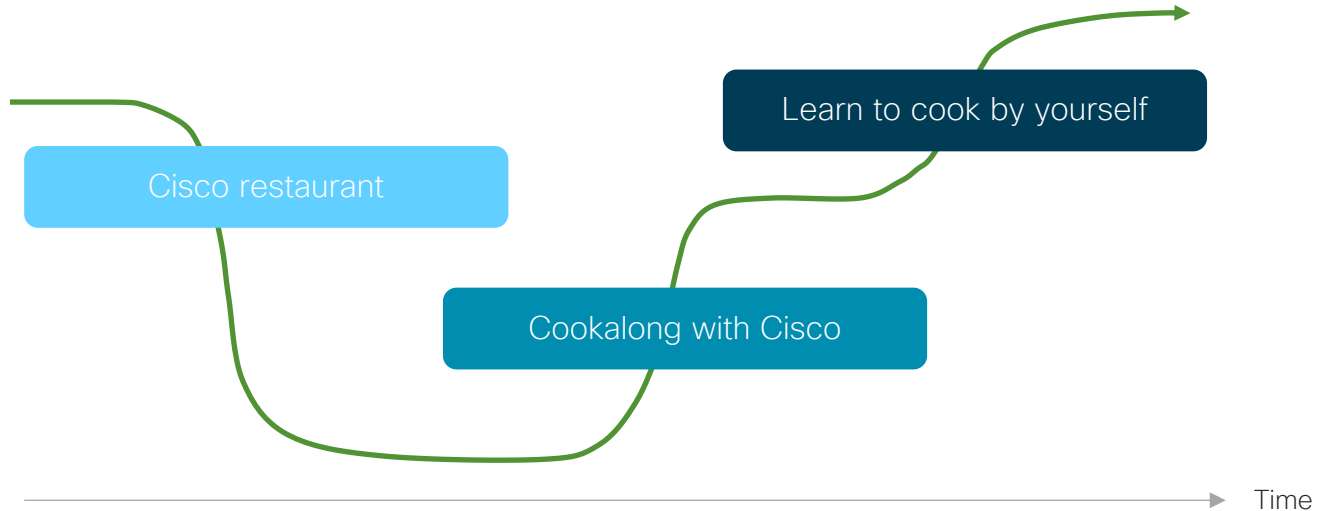


Learn to cook by yourself

Engagement level



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



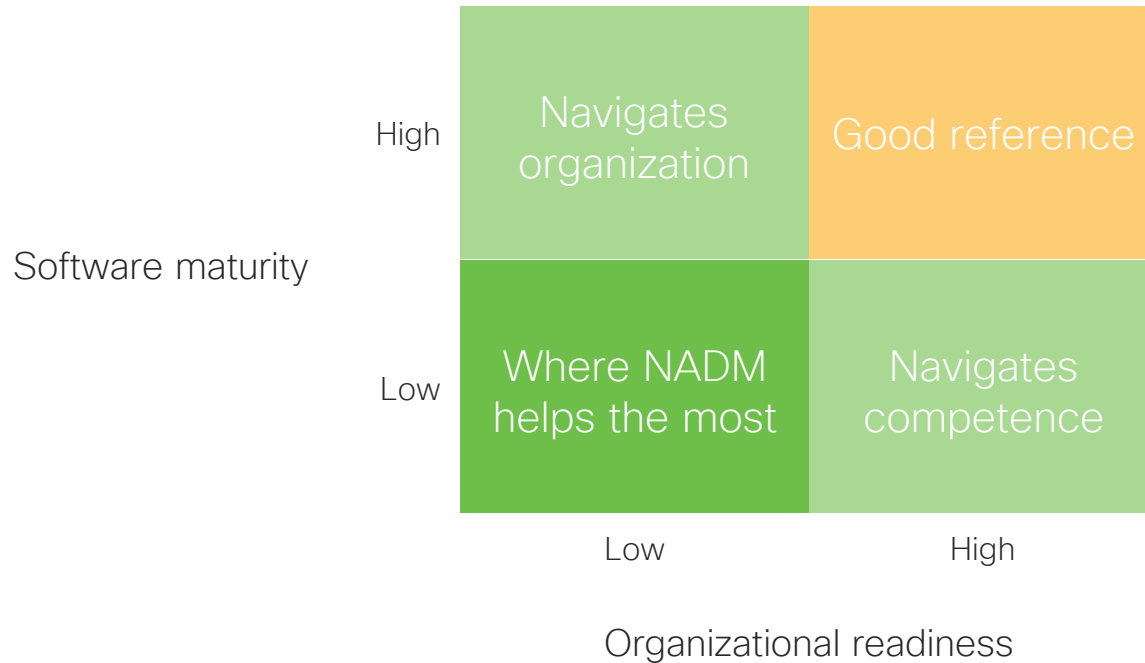
The Network Automation Delivery Model applies most to “Cookalong” and “Learn to cook yourself”

Eat at the Cisco restaurant

Cookalong with Cisco

Learn 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 has begun** their network automation journey

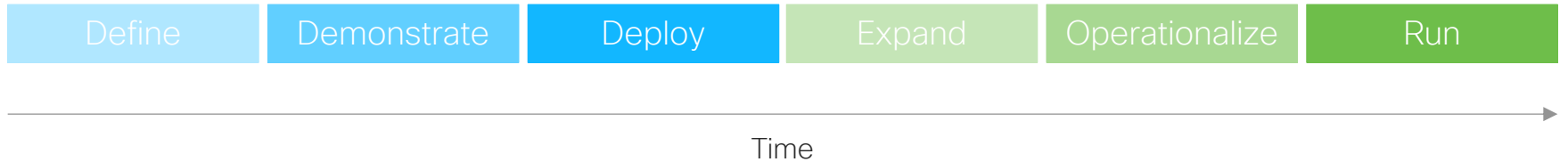
Roles

- 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

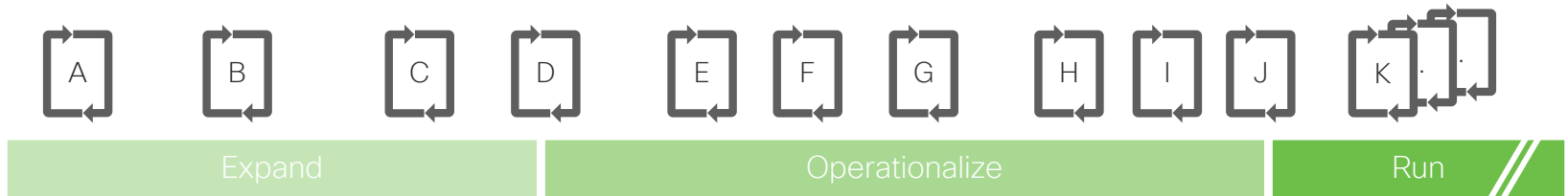
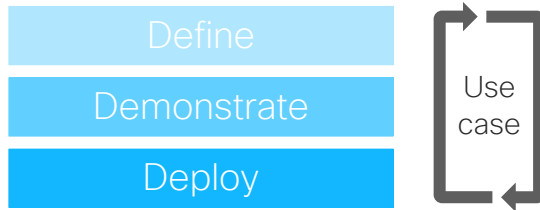
Focus on deploying one minimum and viable use case

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

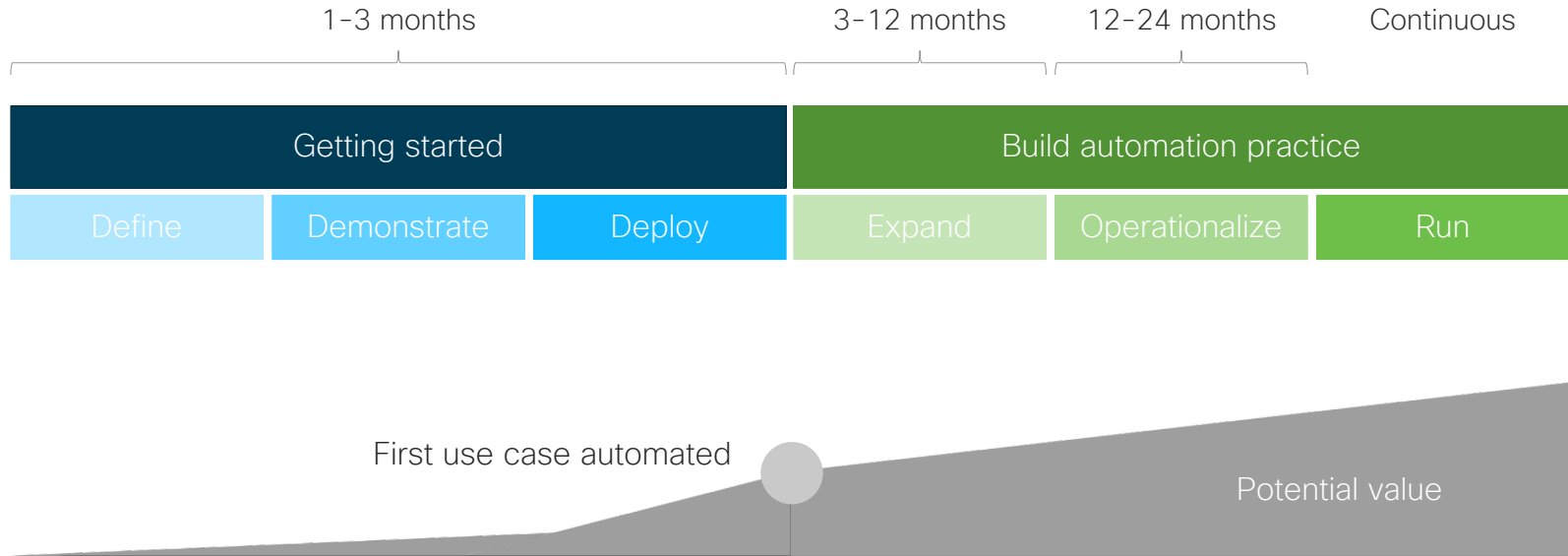
Predictable, repeated success at scale

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”

Summary

1. NADM guides in **how** to begin/continue your network automation journey
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

Agenda

Introduction to NADM

Demo

Two reflections/takeaways

Recommendations

NADM is on Devnet

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

Agenda

Introduction to NADM

Demo

Two reflections/takeaways

Recommendations

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

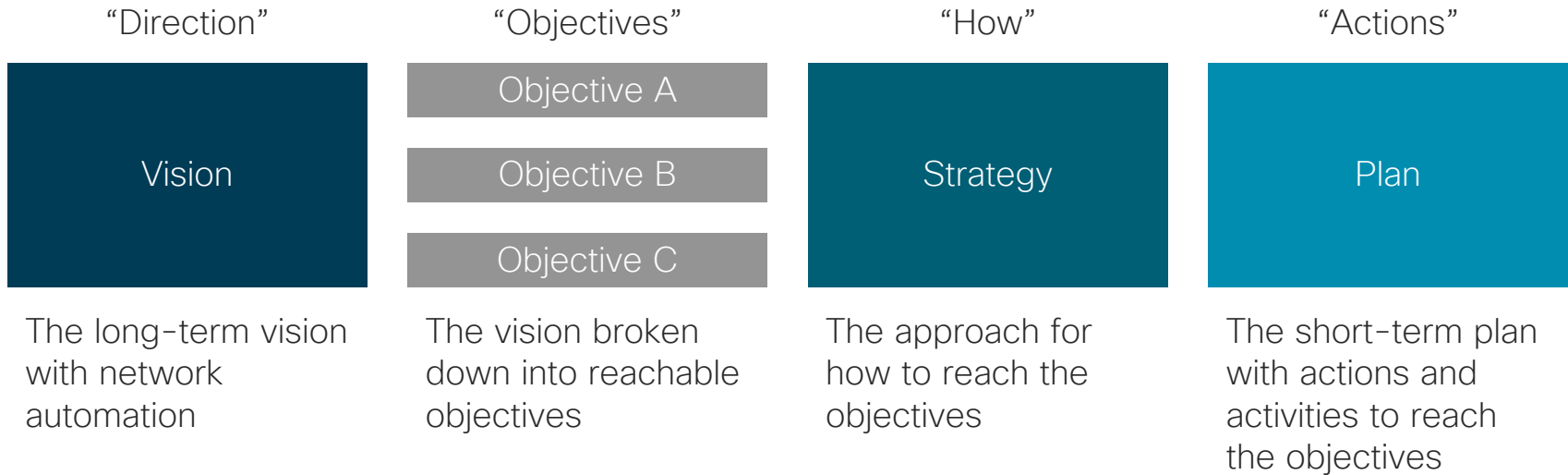
What struggling projects end up doing

- 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

Without a vision, it gets more difficult to get the team to work in the same direction



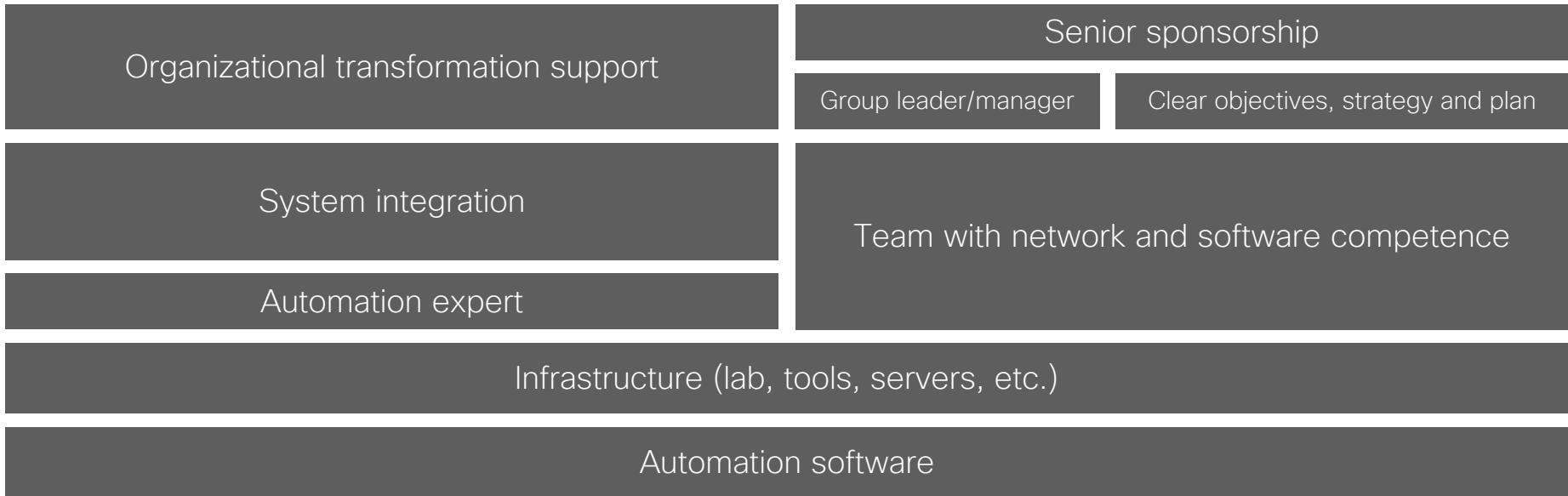
Reasons to why we recommend you should spend time on vision, objectives, strategy and plan

Without having a structured vision and objectives getting the team (and other stakeholders) to work in the same direction will get much harder

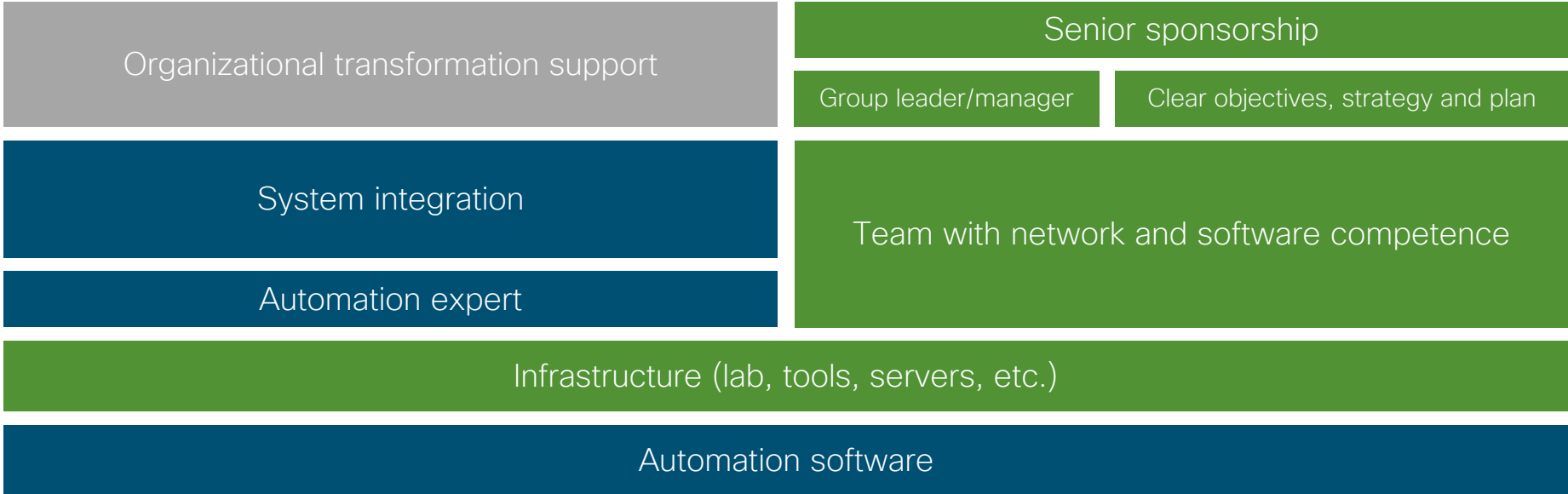
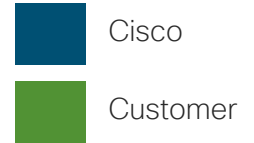
Without a clear view on where you want to be in the coming years – choosing the right strategy today will be difficult

With a clear vision and specified objectives, Cisco can better guide and advice based on knowledge from similar customer journeys

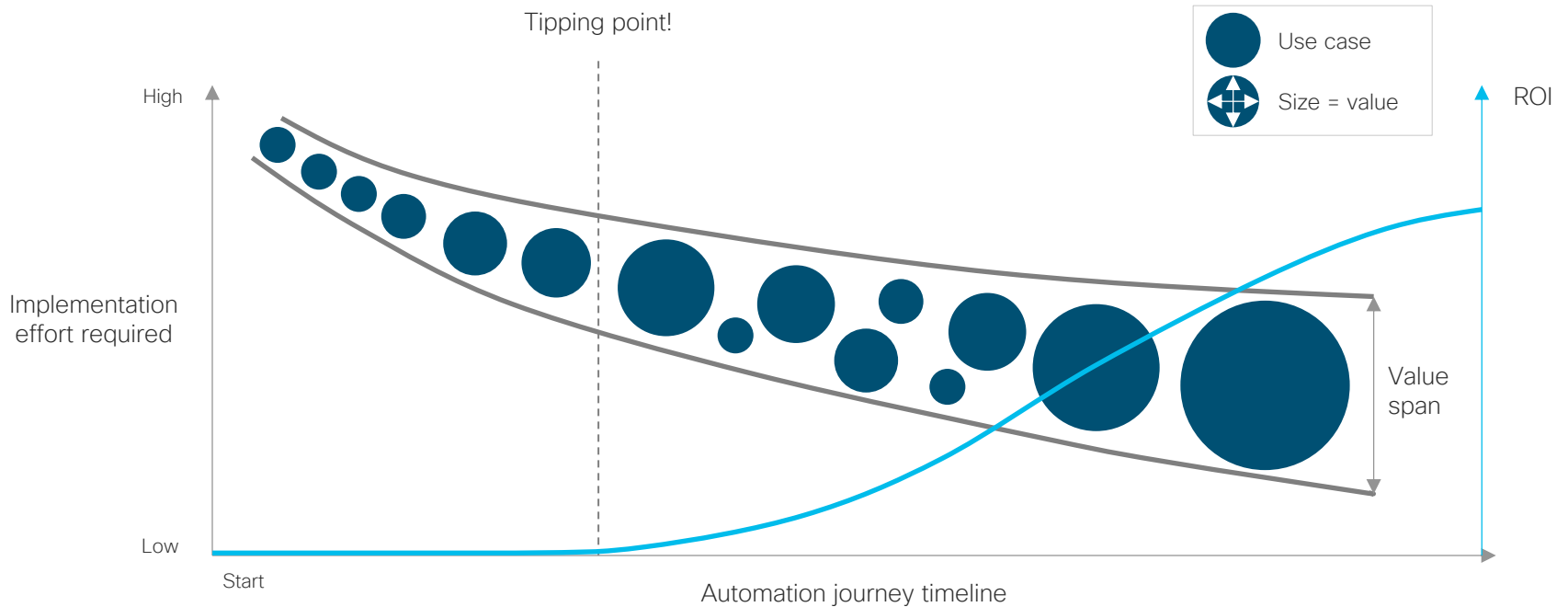
Network automation is a journey with a touch of smart powerful technology



Let us break up into responsibilities



Investing in your automation capability will enable less implementation effort for high value use cases



Summary

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 avoid missing out on vital building blocks
3. Define a clear vision and objectives
 - choose a strategy that best matches your long-term aspirations

Agenda

Introduction to NADM

Demo

Two reflections/takeaways

Recommendations

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

