The bridge to possible

Chasing operational simplicity

Cisco Knowledge Network

Omar Sultan (@omarsultan)
Director, Product Management - Orchestration
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Today's Presenters

John Malzahn

Senior Manager, Service Provider Solutions Marketing

CISCO

Omar Sultan

Director, Product Management, Crosswork Network Automation

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Agenda

- Picking goals

- A different POV

- Something new from us

Automation lifecycle

Planning

Doing

Markers for success

Raising responsiveness

Accelerating the building, deploying and updating of apps, services and infrastructure

Getting smarter

Evolving from rapid + reactive to predictive + proactive

Increasing simplicity
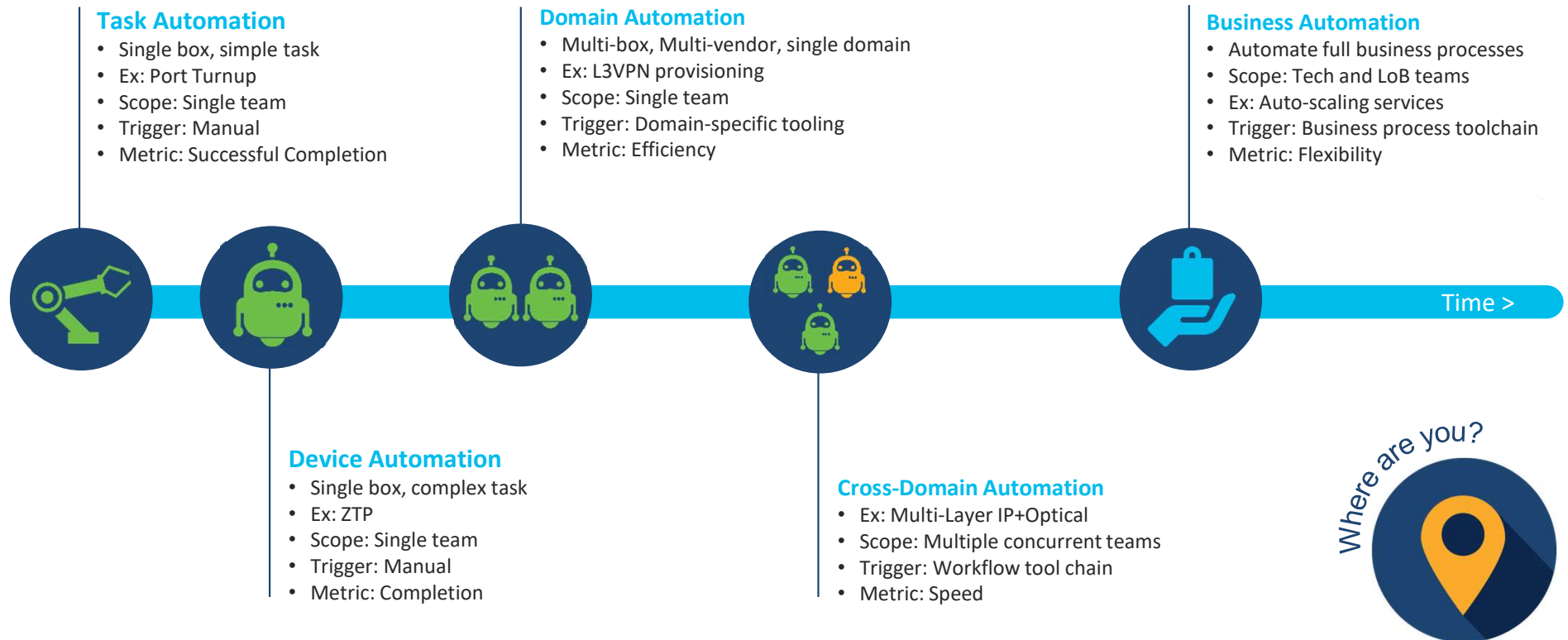
Easing both development and operations effort

Becoming trusted

Broad adoption depends on reliable tools using accurate data to yield predicable outcomes

From science project to indespensible

Business process orchestration

Business-level intent, dynamic optimization based on real-time state

Service orchestration

Model-driven configuration lifecycle, service CRUD automation in one place

Re-usble frameworks

Centrally managed frameworks, templates to accelerate delivery

Ad-hoc scripting

Engineers run off-off scripts and tools, device-by-device
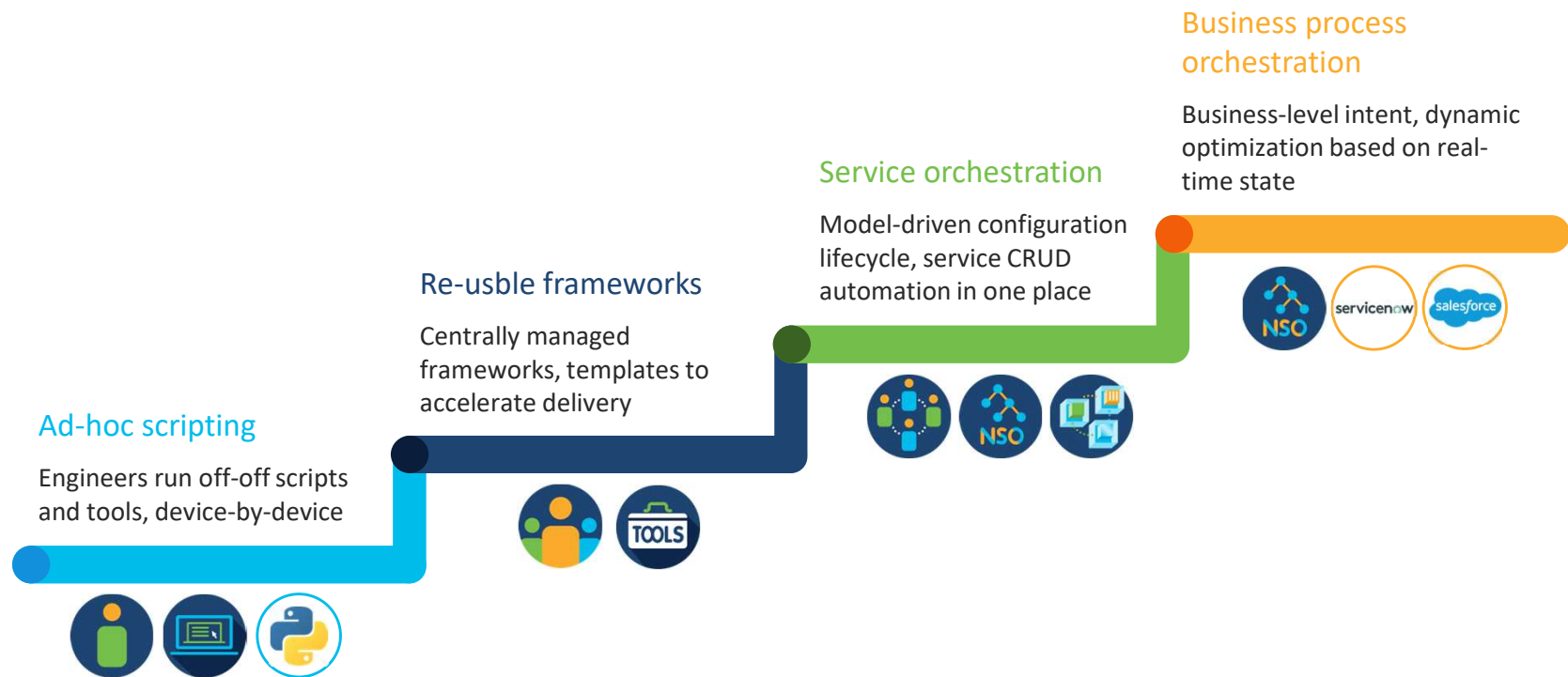
Value grows with scope...so does complexity

Task Automation
- Single box, simple task
- Ex: Port Turnup
- Scope: Single team
- Trigger: Manual
- Metric: Successful Completion

Domain Automation
- Multi-box, Multi-vendor, single domain
- Ex: L3VPN provisioning
- Scope: Single team
- Trigger: Domain-specific tooling
- Metric: Efficiency

Business Automation
- Automate full business processes
- Scope: Tech and LoB teams
- Ex: Auto-scaling services
- Trigger: Business process toolchain
- Metric: Flexibility

Time >

Device Automation
- Single box, complex task
- Ex: ZTP
- Scope: Single team
- Trigger: Manual
- Metric: Completion

Cross-Domain Automation
- Ex: Multi-Layer IP+Optical
- Scope: Multiple concurrent teams
- Trigger: Workflow tool chain
- Metric: Speed

Where are you?

Picking the path forward (Hint: there isn't just one)

Technology-led
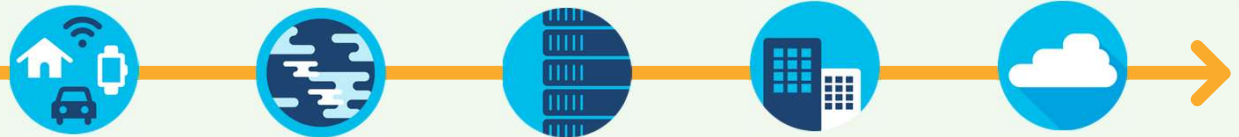Automate a technology domain then progress to another
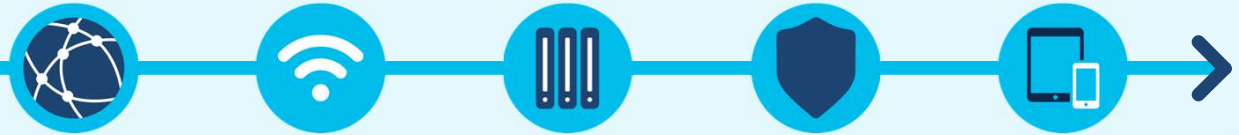
Process-led
Automate an end-to-end workflow then to another

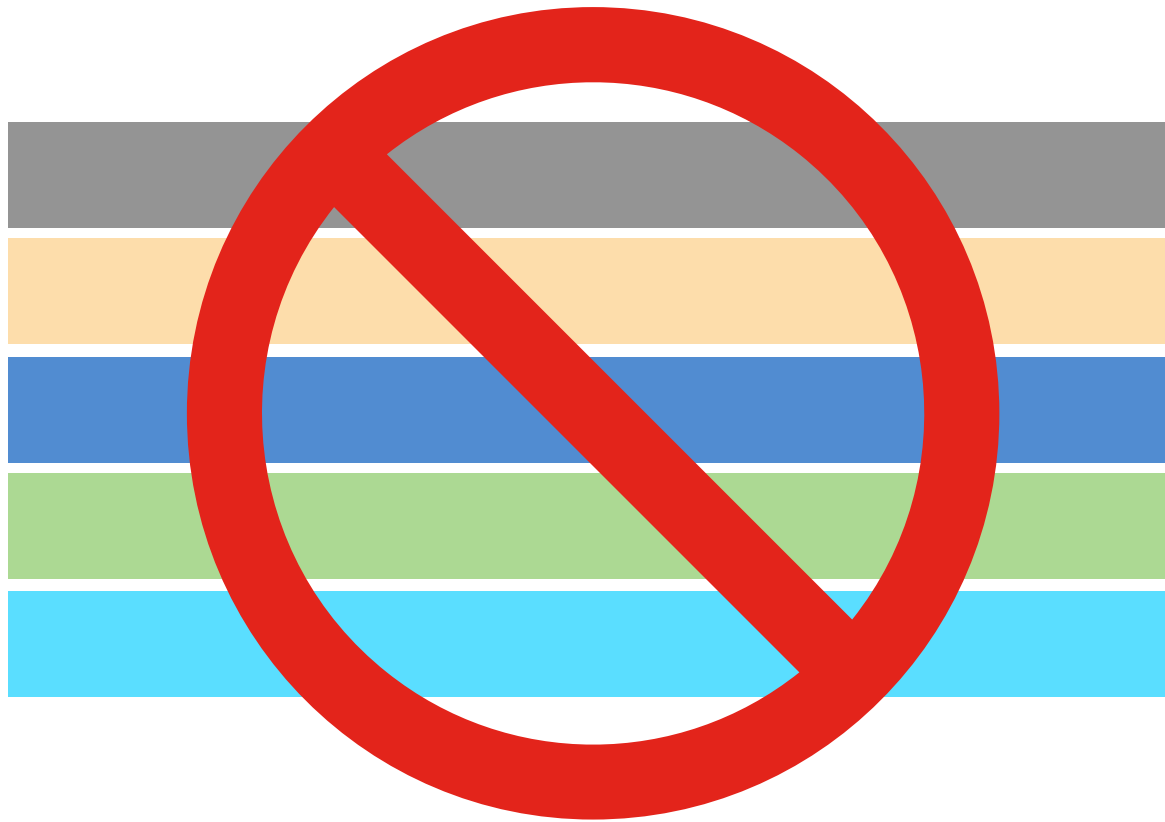**Location-led**
Automate based on geographic location

- Each approach has its benefits and drawbacks
- You will likely end up doing a bit of each
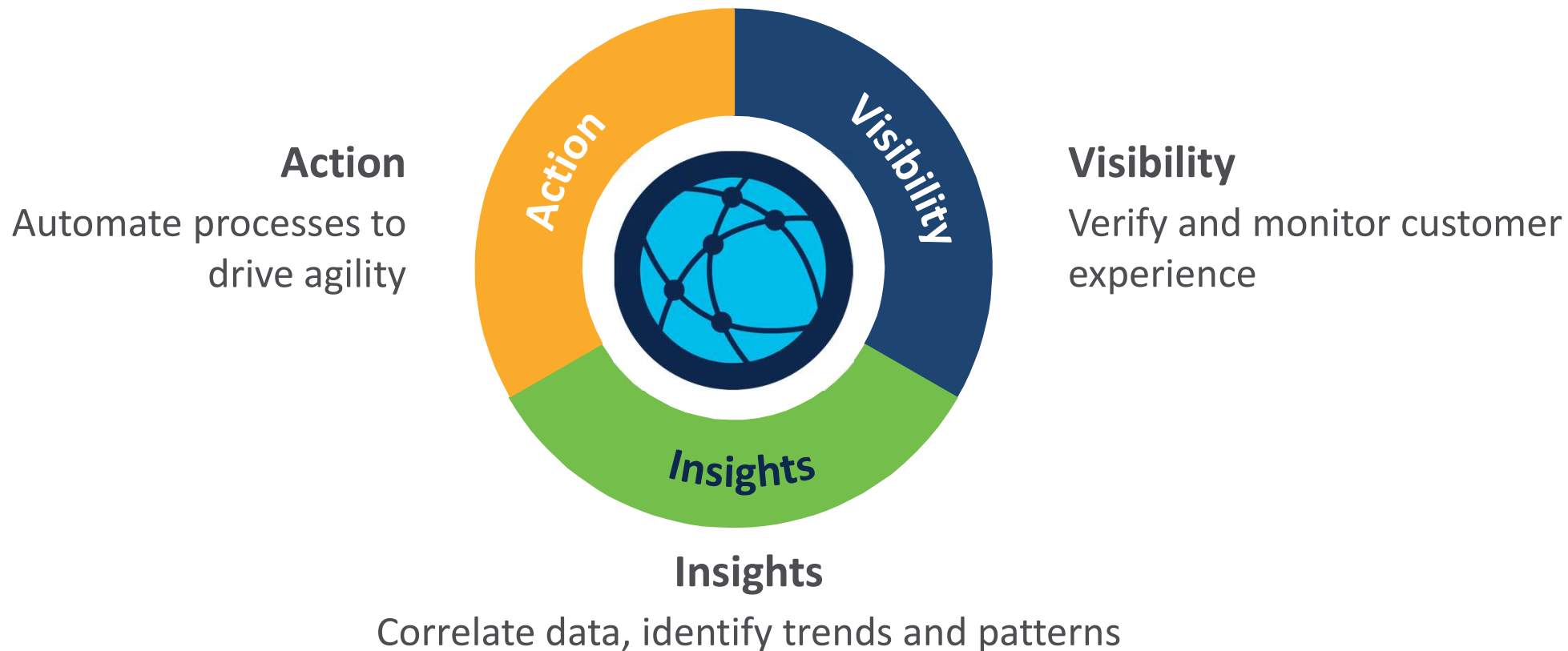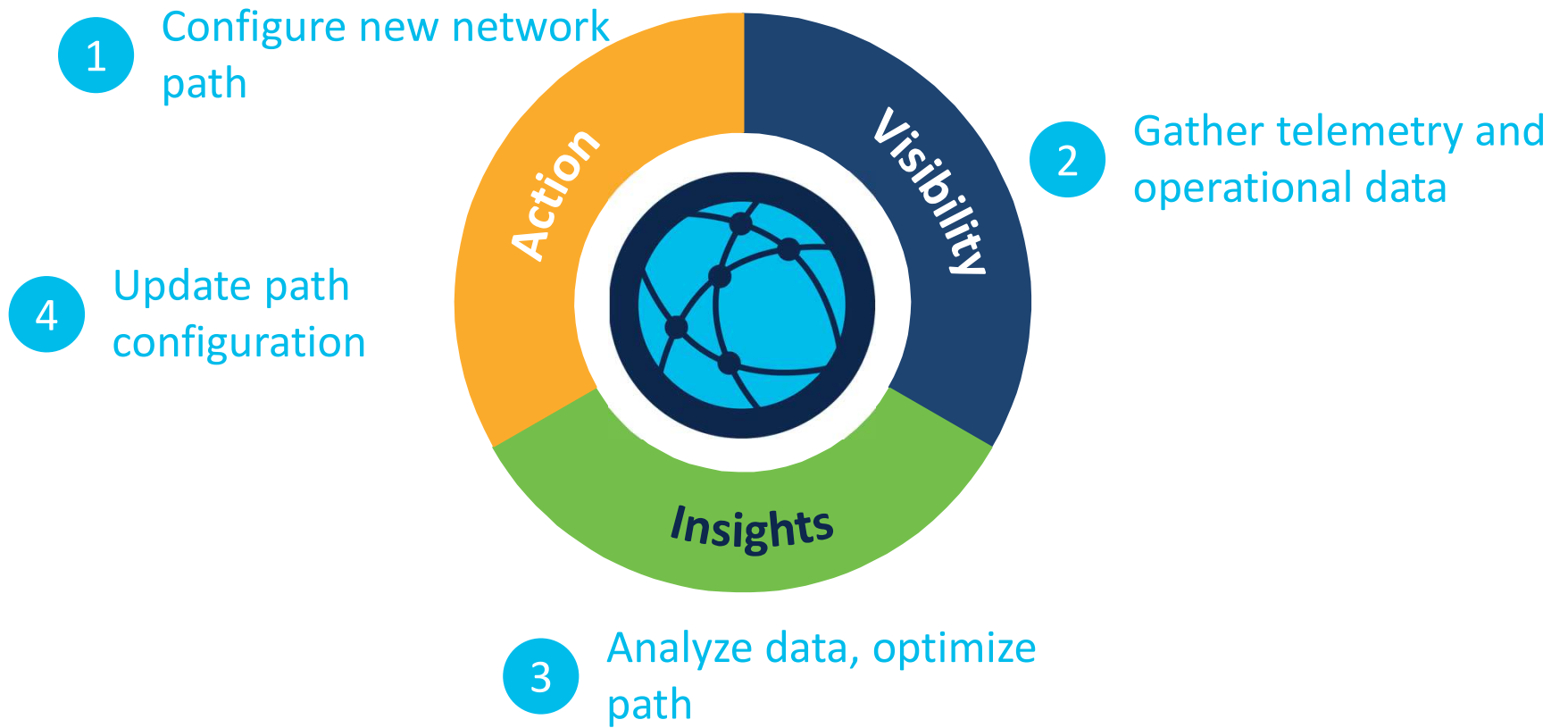- The paths eventually converge

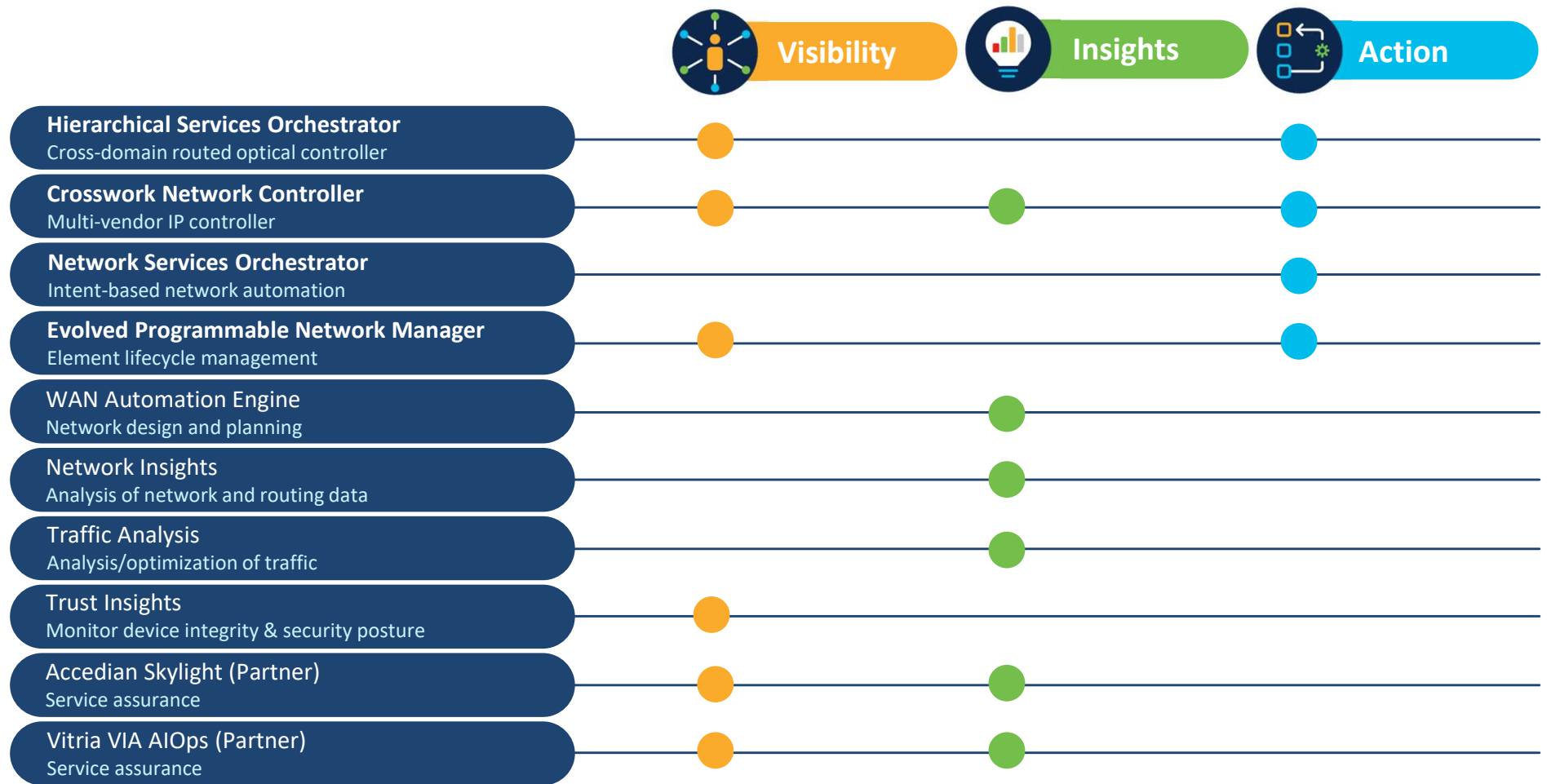# Automation is a team sport

The cake is a lie

A better operating model: focus on outcomes

Action
Automate processes to drive agility

Visibility
Verify and monitor customer experience

Insights
Correlate data, identify trends and patterns

1 Configure new network path

2 Gather telemetry and operational data

3 Analyze data, optimize path

4 Update path configuration

Action

Visibility

Insights

Cisco Crosswork™ automation portfolio

	Visibility	Insights	Action
Hierarchical Services Orchestrator Cross-domain routed optical controller	●		●
Crosswork Network Controller Multi-vendor IP controller	●	●	●
Network Services Orchestrator Intent-based network automation			●
Evolved Programmable Network Manager Element lifecycle management	●		●
WAN Automation Engine Network design and planning		●	
Network Insights Analysis of network and routing data		●	
Traffic Analysis Analysis/optimization of traffic		●	
Trust Insights Monitor device integrity & security posture	●		
Accedian Skylight (Partner) Service assurance	●	●	
Vitria VIA AIOps (Partner) Service assurance	●	●	

Crosswork, simplified

Visibility
Verify and monitor customer experience

Insights
Correlate data, identify trends and speed troubleshooting

Action
Automate processes to move with confidence and agility

Visibility · Action · Insights

Crosswork Essentials

Designed for network operations teams
Improves device lifecycle ease of operations

Network Service Orchestrator & Cisco NEDs | Evolved Programmable Network Manager (Essentials) | Cisco Data Gateway | Bundled use cases

Crosswork Advantage

Designed for automation teams
Improves speed, efficiency, decision-making

NSO CFPs & 3rd-party NEDs | Evolved Programmable Network Manager (Advantage) | WAN Automation Engine | Crosswork Network Controller | Crosswork Hierarchical Controller

Crosswork Automation Suites

Simple	3 components: right to use flat fee, small/large right to manage for devices, and 1, 3 or 5 year term
Comprehensive	Targeted bundles, everything you need
Cost-Effective	Volume discount on RTM, no RTM stacking, 40%+ savings over a la carte pricing on multiple products
Availability	Available now!

NADM

Network automation delivery model

developer.cisco.com/docs/network-automation-delivery-model

6 Run

5 Operationalize

4 Expand

Build automation practice
Automation mindset part of organizational DNA Predictable, repeated success at scale

3 Deploy

2 Demonstrate

1 Define

Getting started
Start to build capability and learn from first deployment. Increased organizational readiness for automation

For more information on Cisco's Crosswork Automation portfolio, please visit

cisco.com/go/crosswork

Questions?

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The bridge to possible