The bridge to possible

Transformation Through Innovation:

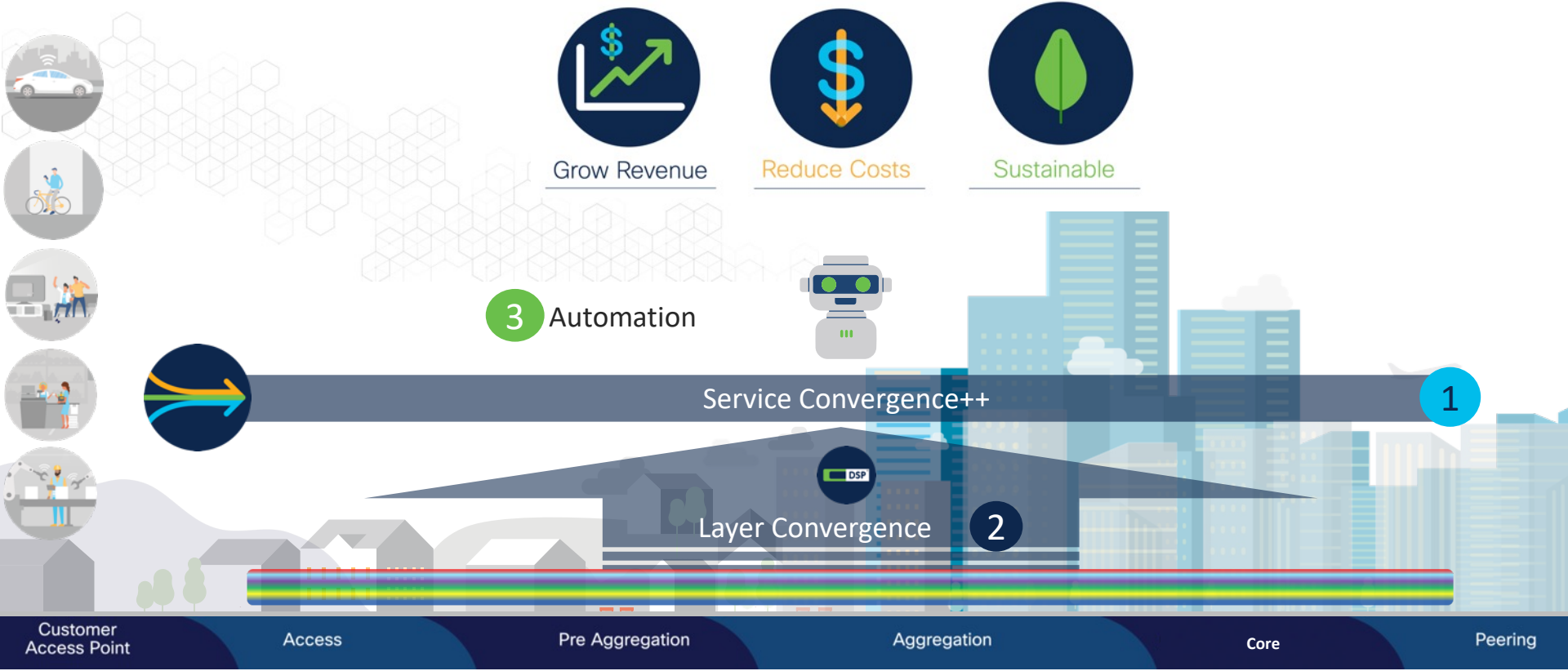
Building a Sustainable, Optimised Network Platform

Ben Colling

Director, SP Specialists, Cisco EMEAR

6th April 2022

3 Steps to Transformation



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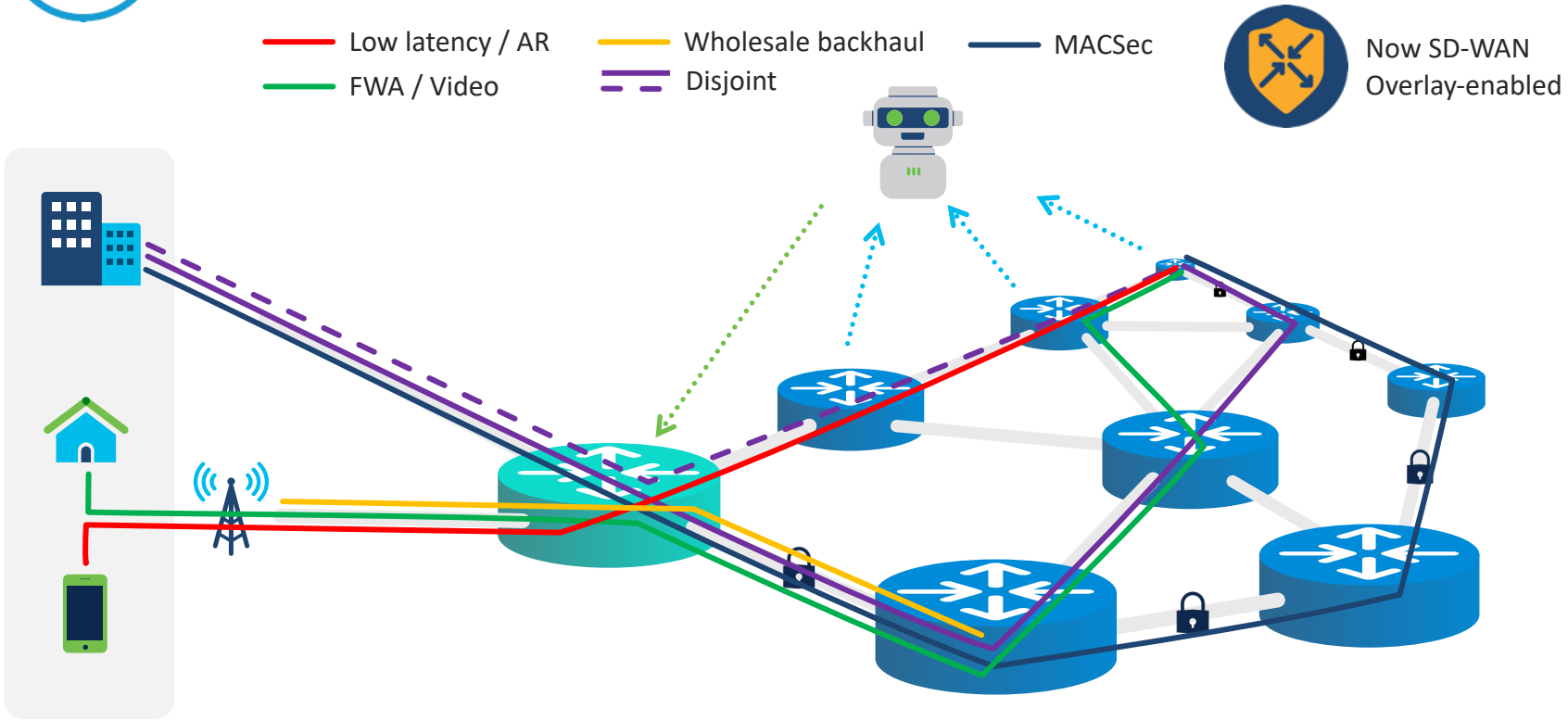
Service Convergence++

SR is the Service Convergence Enabler



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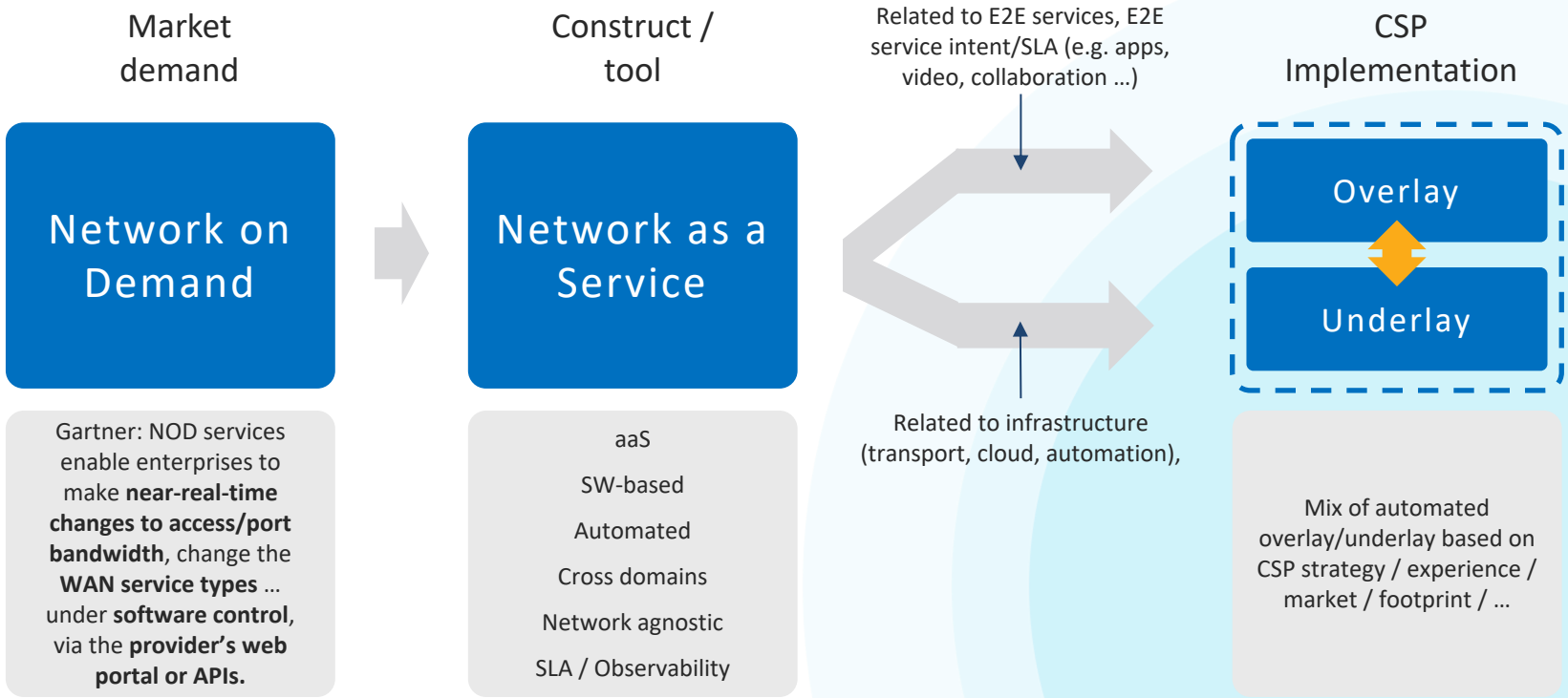
Network as a Service (NaaS)



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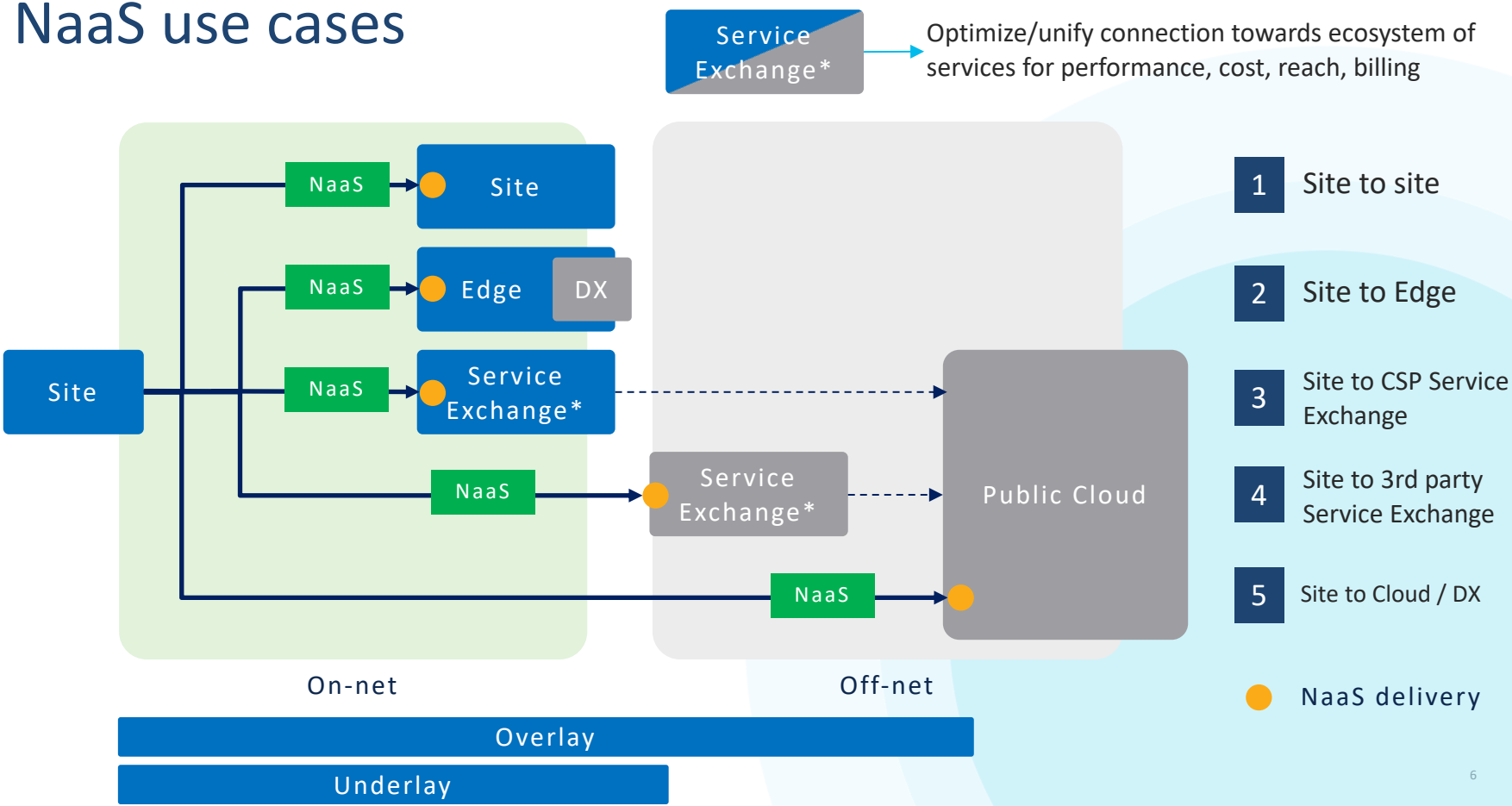
NaaS use cases



IOS-XR: The Leading SR Operating System

Simple

- Optimized to reduce memory, downloads, and boot times
- Streamlined protocols with SR/EVPN
- Secure zero-touch rollout

Modern

- Open APIs
- Customizable software images
- Cloud-enhanced

Trustworthy

- Assess hardware and software authenticity at boot and runtime
- Immutable record of all software and hardware changes
- Real-time visibility of trust posture

50% Less
Memory Footprint

50% Faster
Boot Times

40% Smaller
Image Sizes

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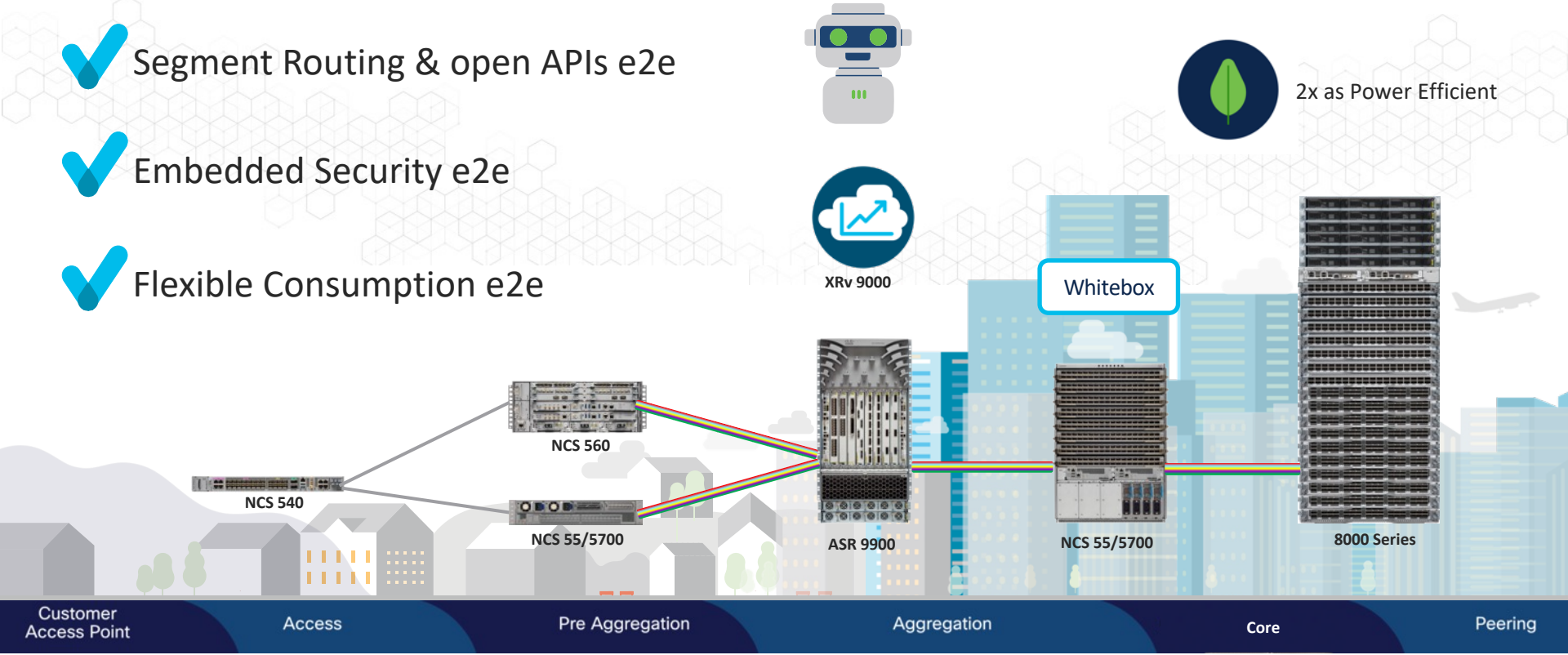
Flexible HW Portfolio, all IOS-XR

- Segment Routing & open APIs e2e
- Embedded Security e2e
- Flexible Consumption e2e



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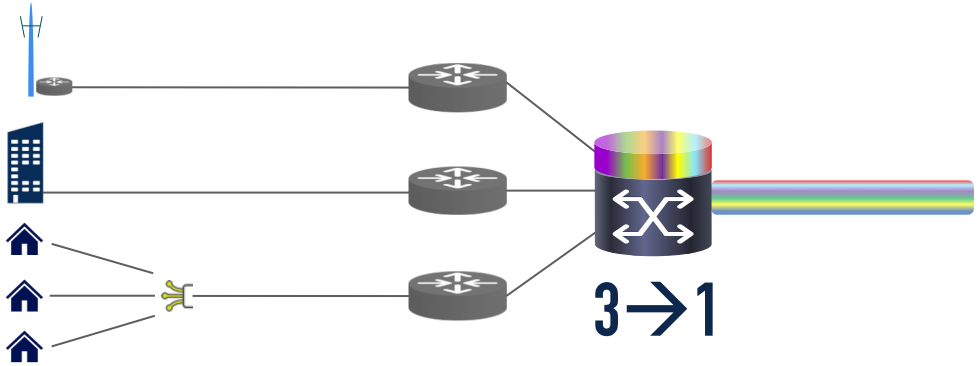
Layer Convergence

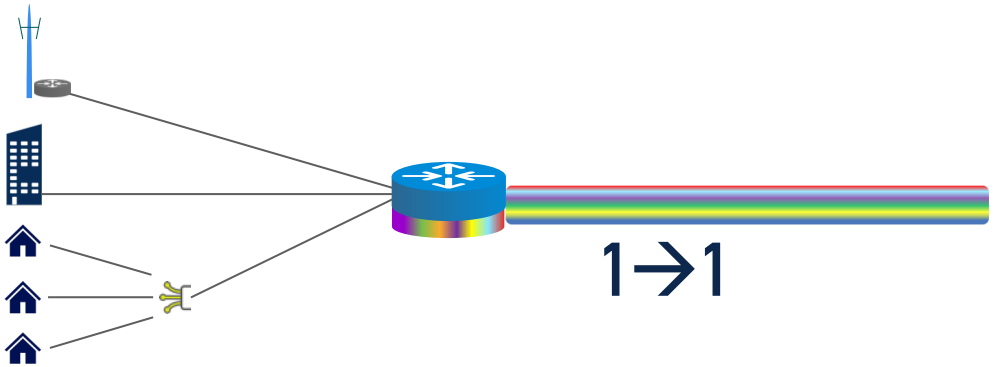
No longer A Multi-service Optical Layer



- Multi-service Economies of Scale
- n:1 Aggregation

PMO

FMO



- SR-driven Service Convergence
- 1:1 Aggregation

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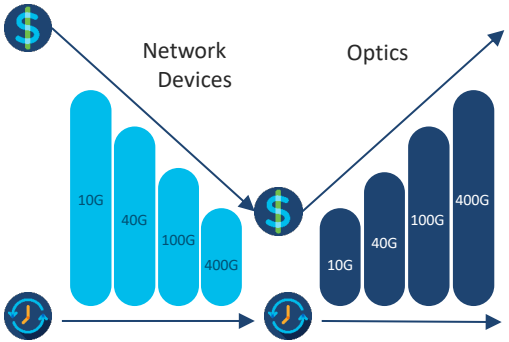
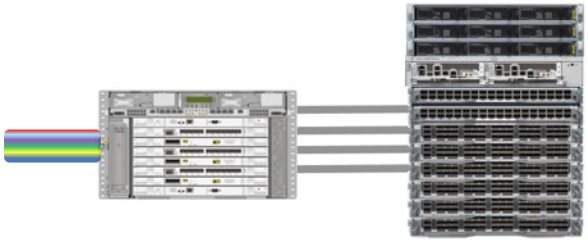
Why Converge Layers Now?



Optics Relative Cost



Many Optical Components

Technology Fragmentation

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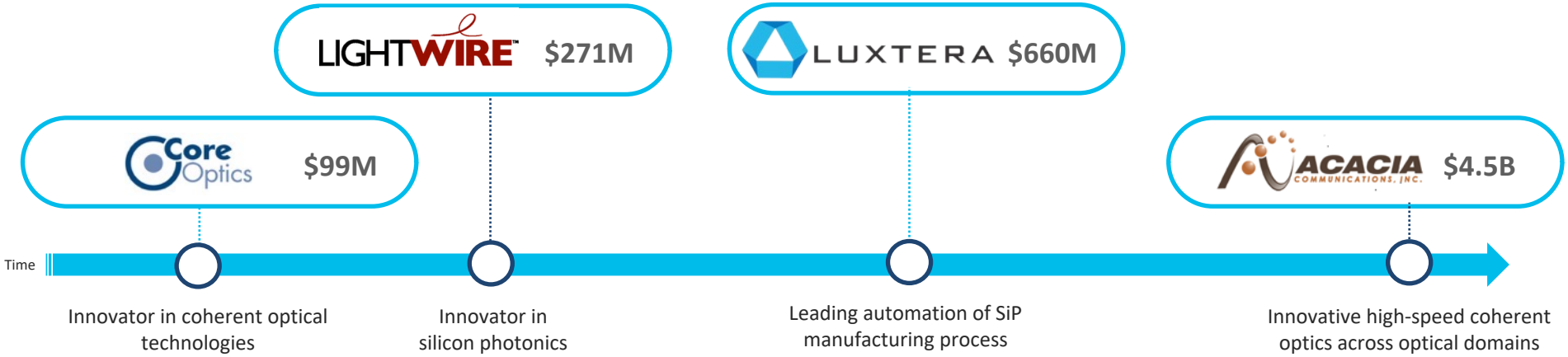
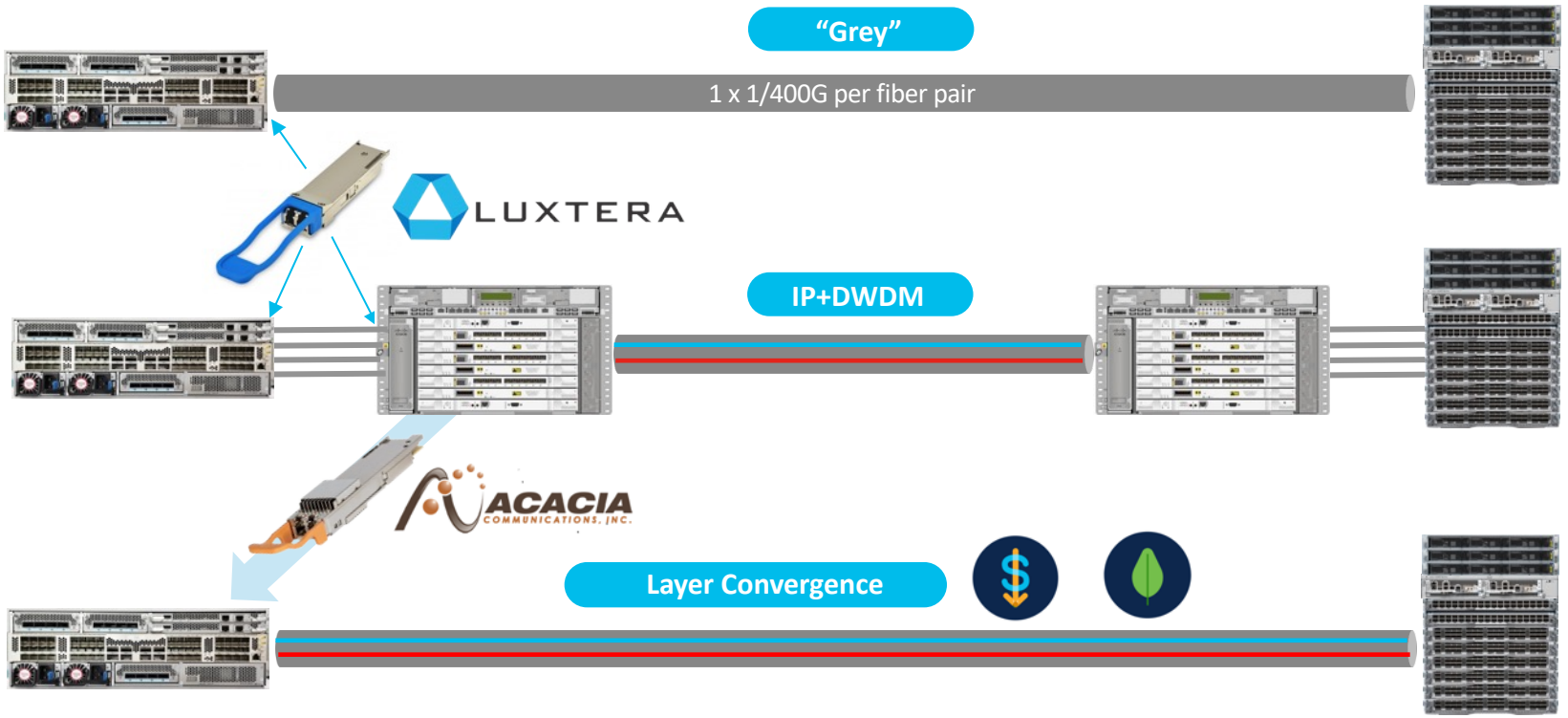
$5Bn+ Investments in Optics



Investment in Optics and Silicon continues

Optics Investment, Fit-to-Architecture



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The Gamechanger

400G Coherent ZR+ Pluggables

Silicon Photonics for Ultra Low Power, & Economies of Scale

Focus on Multivendor Interop & Standardisation

Universal Port on Router, no Density Trade-off* & Flexible Re-use

OIF 400ZR

OpenZR+ MULTI-SOURCE AGREEMENT

*Some platforms/linecards may have limitations

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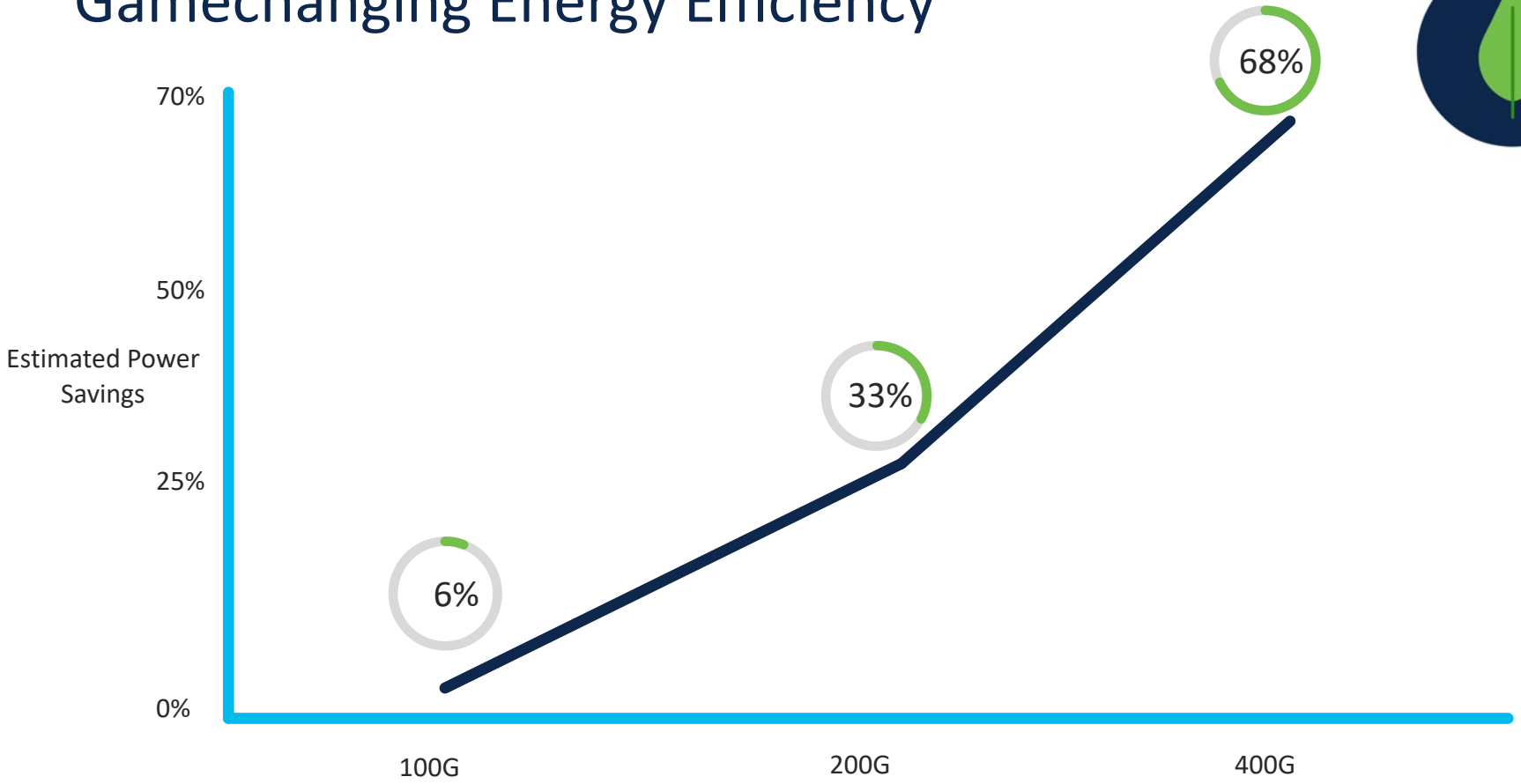
Gamechanging Energy Efficiency



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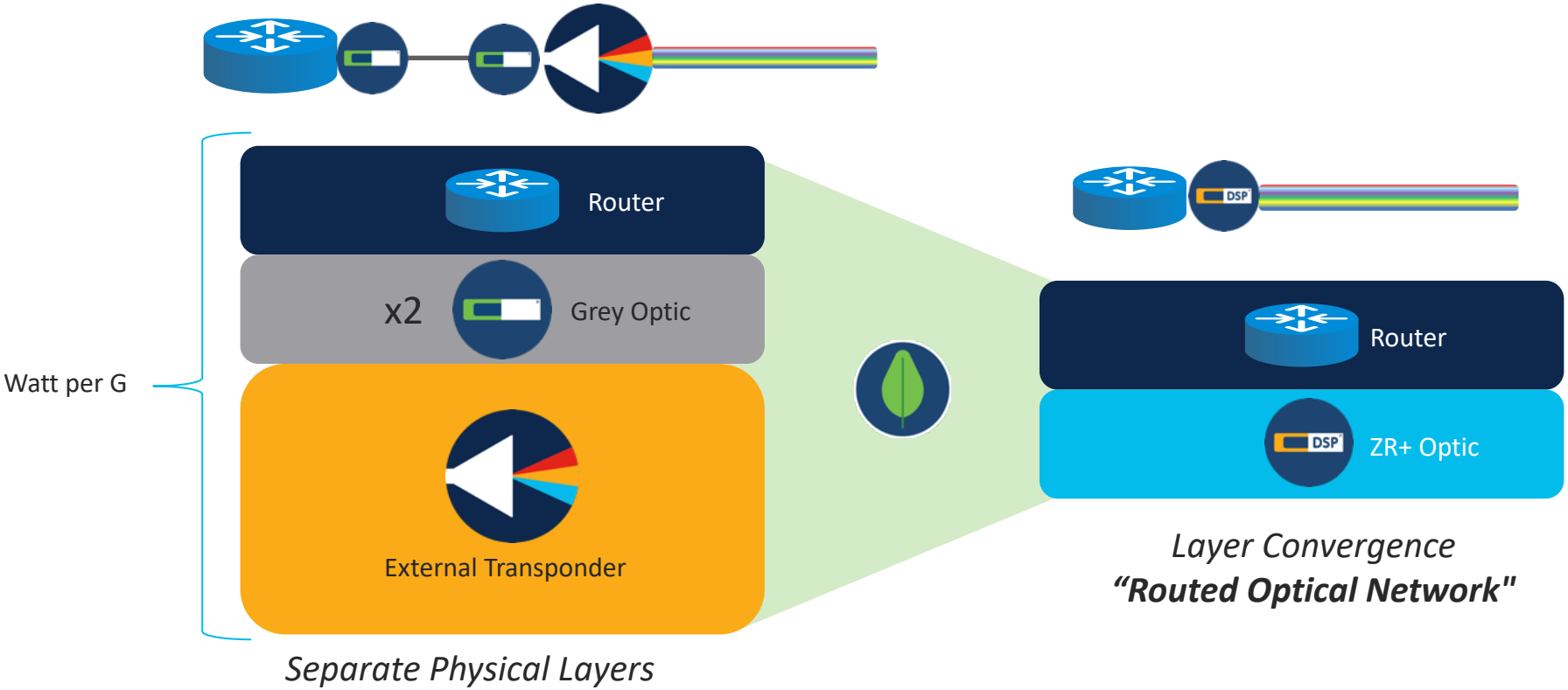
Massive Energy Savings: How are they achieved?



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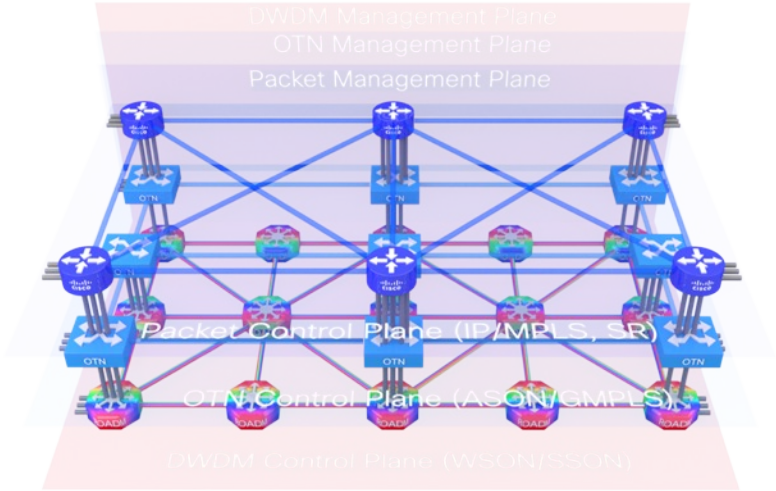
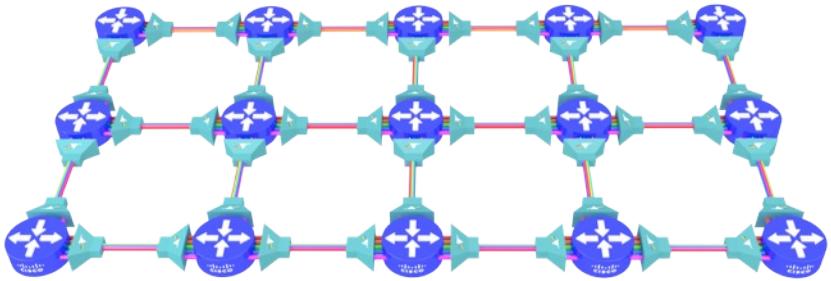
Does not consider Amplification

A Journey Towards Vast Operational Simpification

Today's Network



Routed Optical Network



Operational Simplicity & Automation

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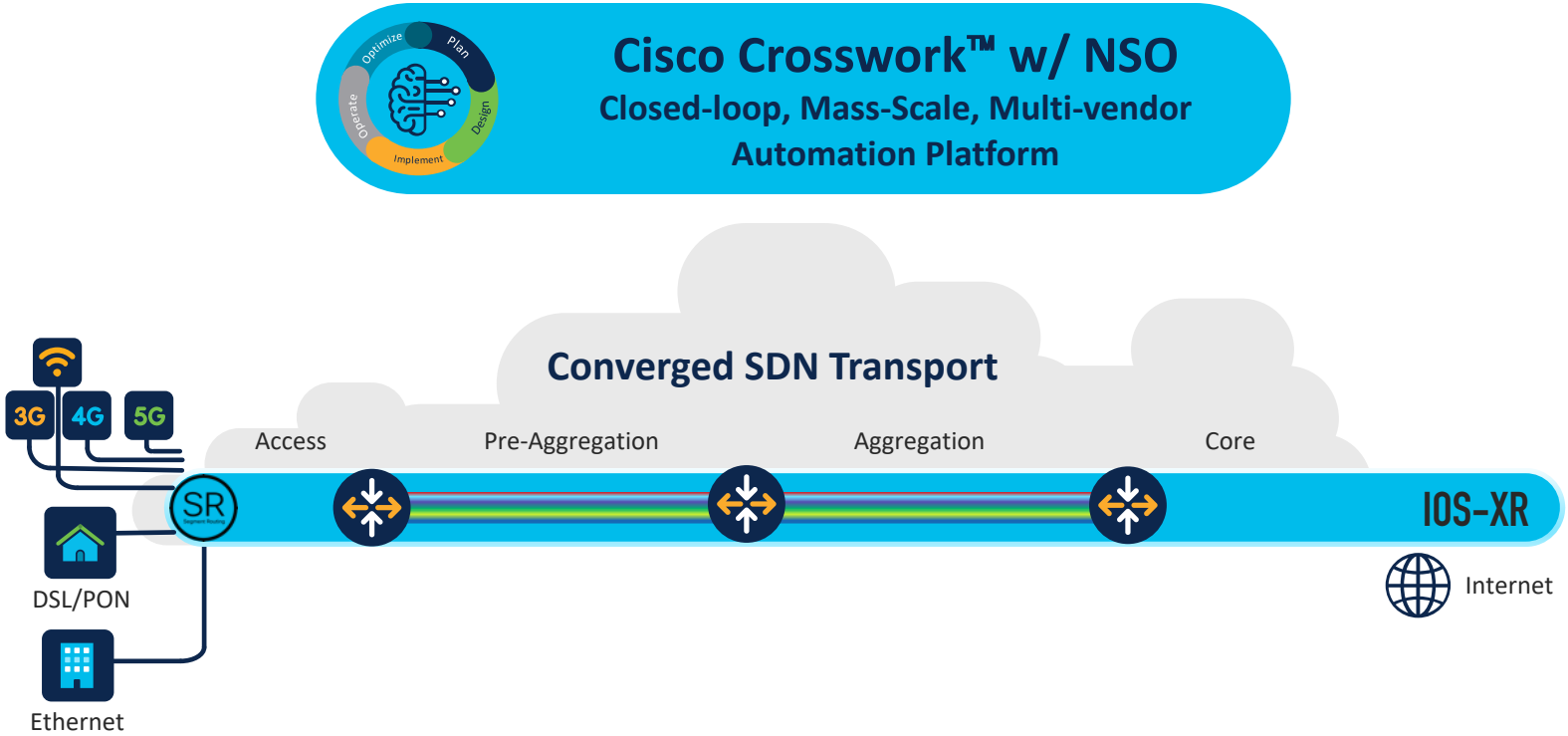
Automation

SDN Control w/ Cisco Crosswork

Automate Multi-dimentionally Converged Networks



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Time Saved with Automation

Mobile Service provisioning	15 min Before automation		5 min After automation
Mobile Service Migration	20 min Before automation		10 min After automation
ZTP	90 min Before automation		20 min After automation

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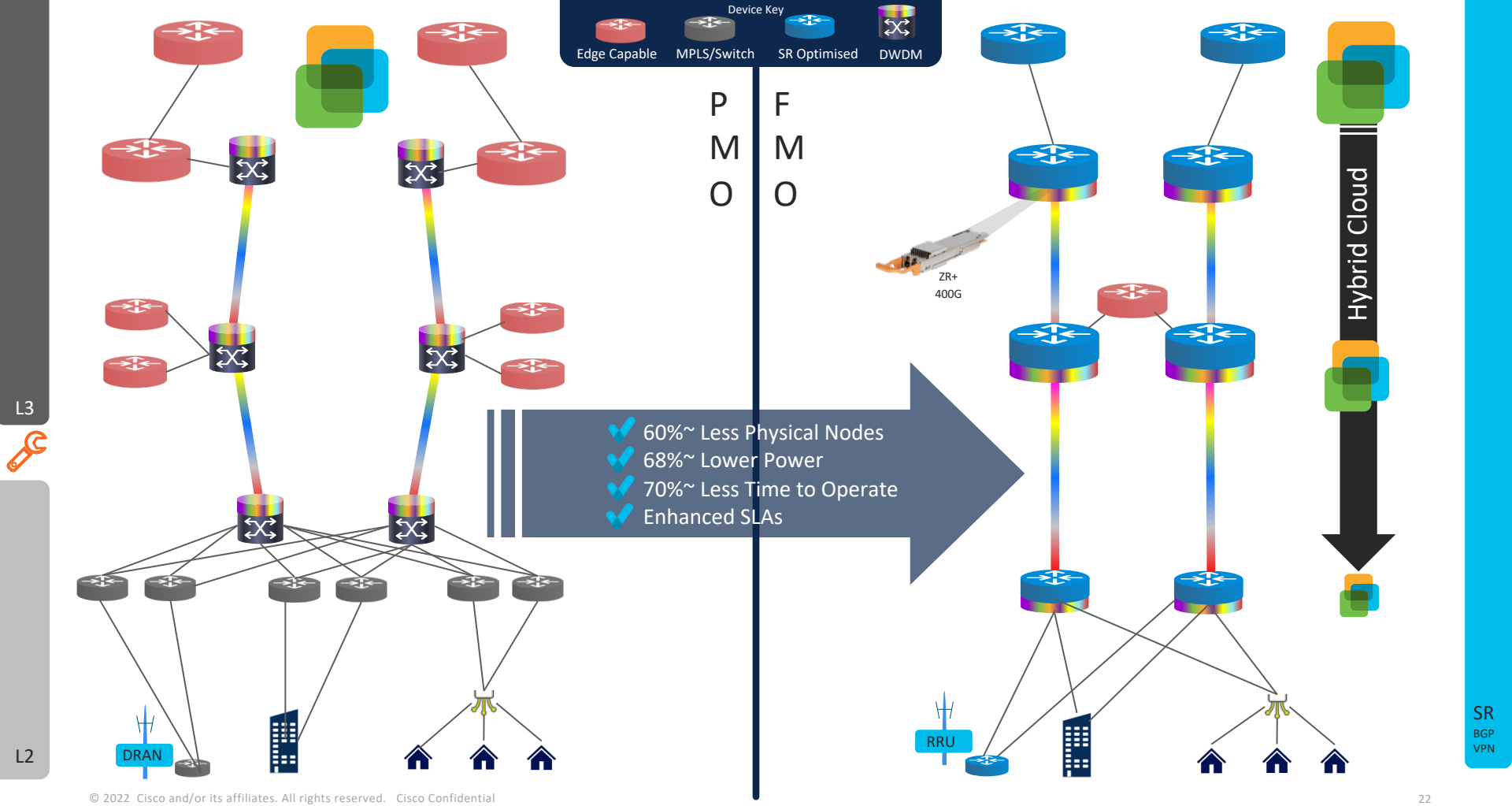
Source: Chief Executive Magazine, September 2020[2]; ZDNet Week, September 2020[3], ZDNet Week, September 2020[4]

Summary



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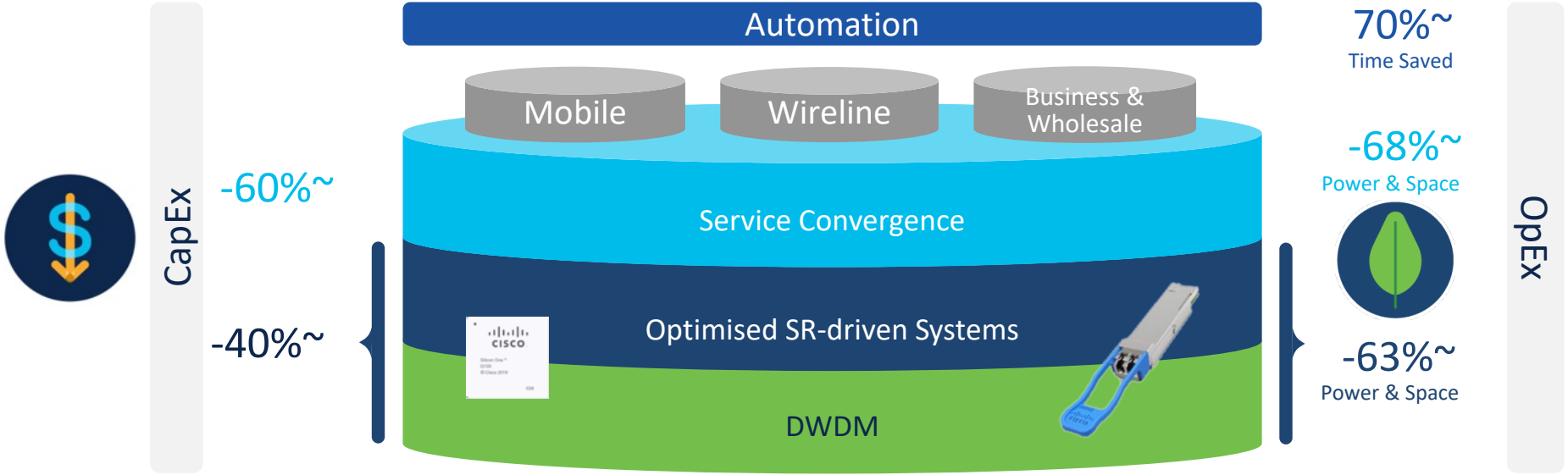
Does not consider Amplification and Mux/De-Mux

Benefits Summary

- Disjoint path SLA
- Lowest Latency SLA
- MACSec SLA
- Higher uptime / CSAT
- TTM / Capacity Upgrades On Demand
- Sustainability GTM



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