



Cisco 5G Now!

Product Announcements

February, 2018

Mobile Cloud Services

The world has gone mobile

Changing Customer Expectations
With AI, VR

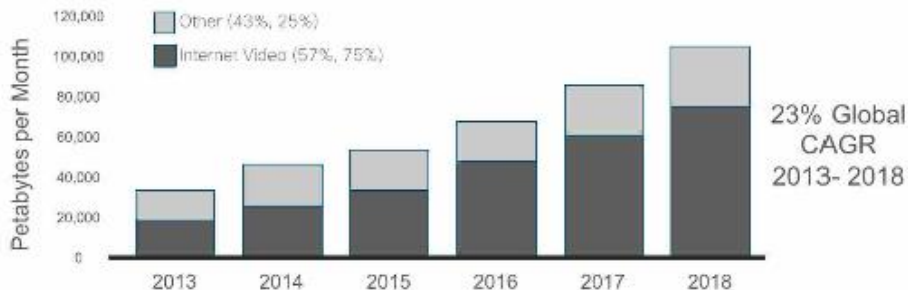


10X Mobile Traffic Growth
From 2013-2019



Ubiquitous Access
to Apps & Services

Traffic growth in Access, driven by video



Rise of cloud computing

Soon to Change SP Architectures/
Service Delivery



Changing Enterprise Business Models
Efficiency & Capacity

Digitization leading to IoT

Emergence of the Internet of Everything



People



Process



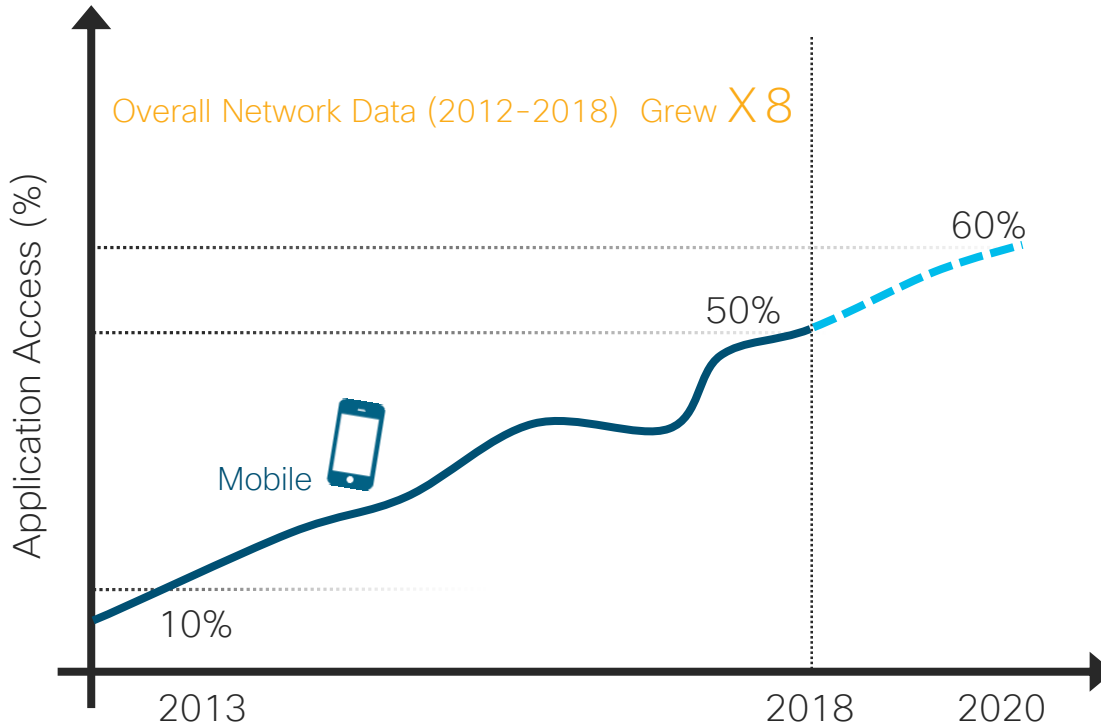
Data



Things

Displacing Legacy, Mobile has Gone Past The Tipping Point

Change The Rules. Redefine The Network.



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Paradigm Shifts



Efficiency



Integration

Facilitates



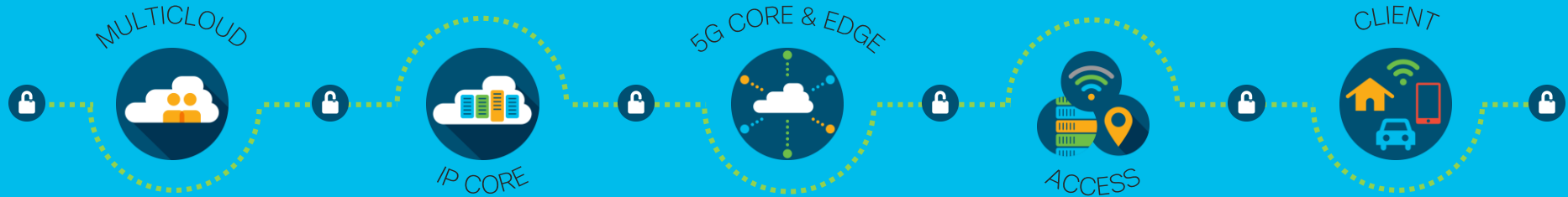
Cost



Revenue

Source: Akamai Internet Observatory Nov. 2017
Cisco VNI

Cisco 5G



Converged
Core



Network
Slicing



Service
Automation



Edge
Distribution



Virtual
Scaling



Security



Services

SECURE NETWORK ▪ SECURE CLOUD ▪ SECURE ENTERPRISE

Cisco 5G View

Created for **mobile-first**,
cloud-era applications and
connectivity

- **Sustainable.** Assisting value chains and ecosystems to thrive
- **Technology.** Create instant, dense, scalable, service chains
- **Assurance.** Inherent across the boundaries within the chain of trust

Delivering differentiated customer experiences, together

Cisco 5G : Redefining Your Network

- **Now:** Maximize the return on initial use-cases FWA and eMBB
- **Next:** Connect SP assets to the multi-cloud, unlocking desired use-cases
- **Focus:** Value-chain realignment using 5G technology delivery
- **Outcome:** Differentiated customer experience leads to sustainable value creation

Cisco 5G
Redefining
Your Network





Cisco Ultra Services Platform

Cisco Ultra Services Platform

- Next-Gen Core
- 5G NSA and SA
- Ultra-M Expansion – Easy NFV
- IoT Enhancements – 5G
- Video and TCP Optimization
- Distributed Arch / CUPS
- Network Slicing – 4G and 5G
- Automated – Simplified

Tangible Business Outcomes

- 10x Single User Data Rate Improvement
- 20x Latency reduction (E2E) with edge distribution
- 30-40% Increase in “Ookla Speedtest” with Integrated packet core optimization solution
- 25-30% Increased Cell Site capacity with integrated packet core optimization solutions
 - Recovered capacity at the same congestion levels



Cisco Ultra Services Platform

Cisco Policy Suite

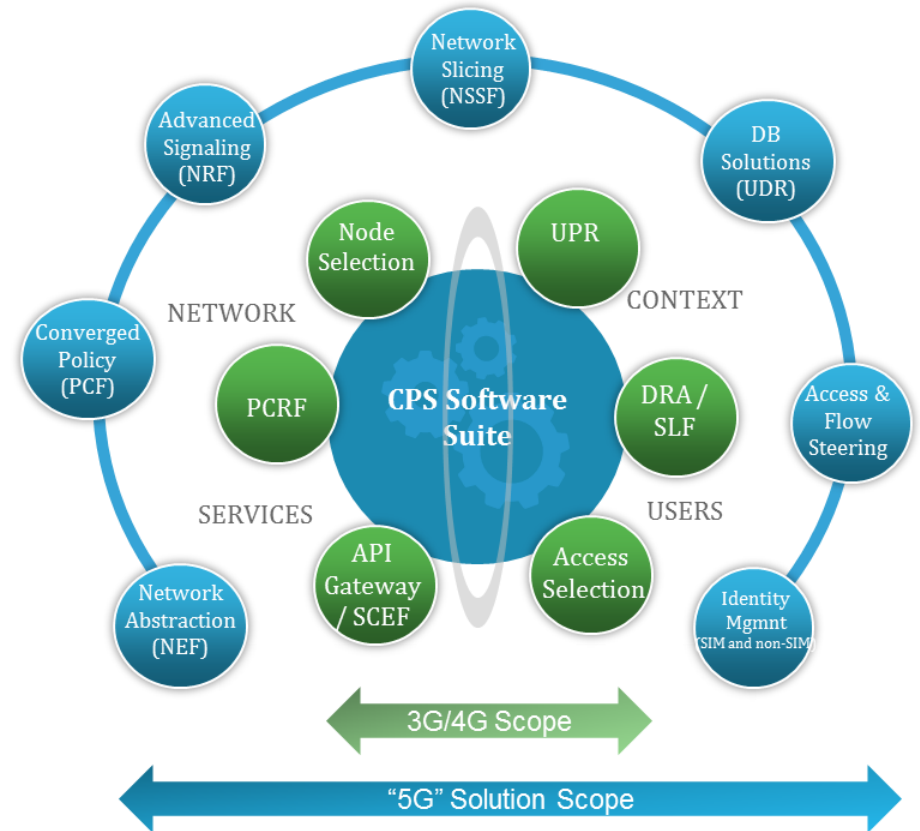
- Cloud-Native Platform
- 5G support for:
 - PCRF, vDRA
 - API Gateway
 - API GW – NB-IoT SCEF
 - Network Slicing (NSSF)
 - Network Resource Function
 - Policy Control (PCF)
 - Network Exposure (NEF)

Cisco 5G Policy Suite (CPS) Solutions

Best of Breed, NFV Docker
microservices-based control
plane framework

Delivering key suite of
Carrier core network
control points

Session personalization
and “Service brain” in
the network





SONFlex

SONFlex Studio

SONFlex

- Only SON to support 5G
- Customize SON APIs per service, per user, per slice

SONFlex Studio

- Drag-and-Drop ease
- Faster Integration and Deployment



NCS 500 Series Access Routers

NCS 500 Series

- Front-haul, Mid-haul, Back-haul
- Supports stringent 5G specs
- Single OS Domain end-to-end
- Greatest port density in 1RU form factor
- Leading throughput – 300 Gbps
- Low power consumption
- Zero-Touch Deployment



Security

Cisco Security

- Industry's most advanced and complete Security architecture
- Orchestrated security solutions
- Threat / Dark Threat Mitigation
- Unmatched visibility at scale
 - Including 3rd party apps, and services
- Virtualized - Distributed

Because you can't protect what you can't see.

Cisco Security



- New 5G Mobility Security architecture to be revealed at MWC
- Cisco is the world's largest cyber security company and the leading security provider to Service Providers
- Cisco's 5G security architecture consists of multi-layered protection with unparalleled visibility and threat mitigation
 - Enhanced visibility to see more inside of the EPC and to quickly identify threats and errors
 - Secures Network Slices – End-to-End
 - Segmentation to reduce the attack surface and the impact of an attack
 - Threat Protection to stop the breach across multiple points of the network
 - World-class threat intelligence from Cisco Talos



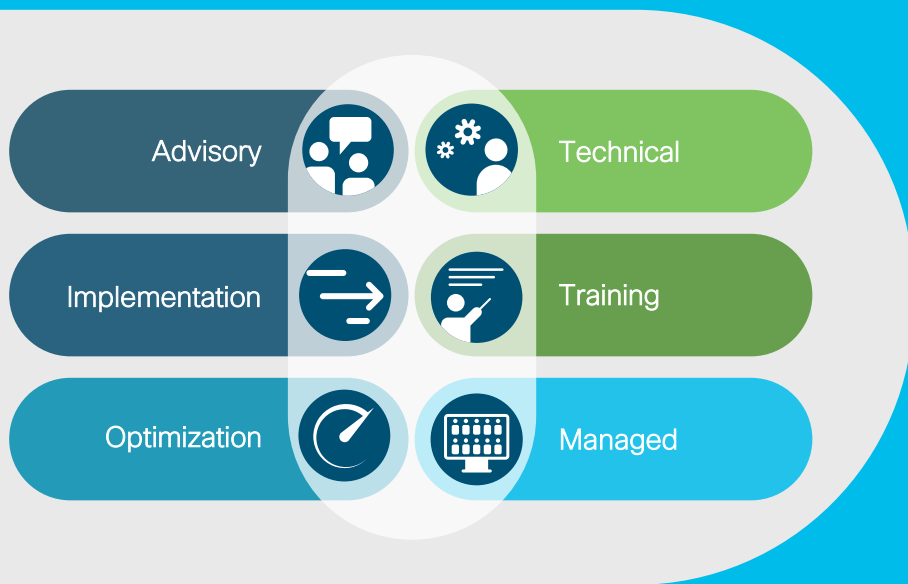
Services

3-Stage Program to realizing your 5G success

We can partner with you to ease the planning and implementation

1. Review and model your current state network and business
2. Model your future state network and business
3. Transform your network to meet your goals and priorities

Cisco Services for 5G



Cisco's 3-Stage Realization Program

A holistic approach to 5G transformation based on Cisco Services' Digital Transformation Framework

- **Stage 1: Assess, Model & Design (Advisory)**
 - Understand your priorities and objectives
 - Assess your operational capabilities and network maturity
 - Establish prioritized roadmaps to meet your objectives
- **Stage 2: Deploy & Integrate (Implementation)**
 - Leverage Cisco 5G Power for maximum agility by designing and deploying networks that set the stage for 5G
 - Integrate Seamless X-Access Convergence by combining technologies for max bandwidth and clean user experience
- **Stage 3: Enable and Deliver 5G Services (Operational Optimization)**
 - Provision, enable and monitor dedicated Network Slices
 - Launch network automation with advanced intelligence. Keep networks performing and customers happy with centrally-managed SDN and multi-access edge computing.



Accelerate Implementation and Adoption



Gain Insight & Improve productivity



Lower Operating Cost



Reduce Security Risk

Cisco 5G Delivering Value from Technology



Converged
Core



Network
Slicing



Service
Automation



Edge
Distribution



Virtual
Scaling



Security



Services

5G technology and value delivered from across Cisco today

- Connecting our network, cloud and enterprise portfolio together
- Using our ecosystem to enable 5G to develop its fullest potential
- Investments spanning multiple domains to deliver cloud-to-client solutions
- Dedicated SP focus for network connectivity

Redefine Your Network To Cloud-Scale Mobile Internet



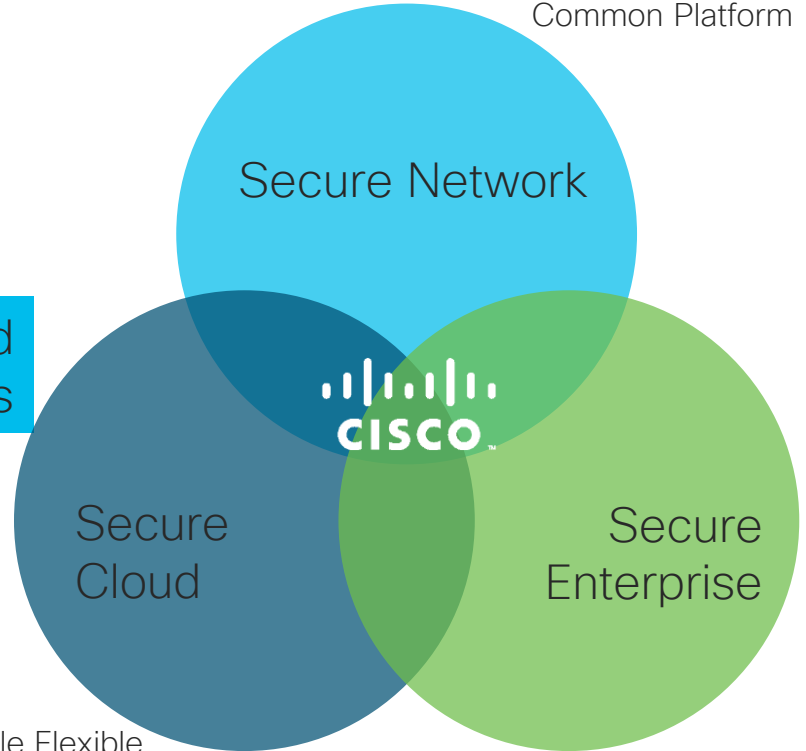
Networked
Platforms

Scaled for Subscriptions,
Devices and Locations



Connected
Experiences

Connect Everyone
and Everything on a
Common Platform



Enable Flexible
Business Models

Deliver Rapid
Time to Revenue

Cisco 5G Now!

Automated. Intelligent. Simple.

The Network Redefined. Opportunities Realized.

