# CISCO

# Cisco Unveils Plan for Building Internet for the Next Decade of Digital Innovation

2019-12-11

**Announces 'Internet for the Future' Strategy and the Industry's Most Ambitious Silicon Architecture**

SAN FRANCISCO, Dec. 11, 2019 /PRNewswire/ --

*News Summary:*

- *Cisco shares further details behind its 'Internet for the Future' technology strategy based on development investments in Silicon+Optics+Software*
- *Cisco Silicon One$^{TM}$, a first-ever single, unified silicon architecture that can serve anywhere in the network and be used in any form factor.*
- *New Cisco 8000 Series, the first platform built with Silicon One and new IOS XR7 operating system.*
- *Cisco 8000 Series set to reduce cost of building and operating mass scale networks to run digital applications and services such as 5G, video and cloud.*
- *New flexible business model options that enable customers to consume new innovation in new ways that best fit their business needs.*
- *AT&T, Century Link, Comcast, Facebook, Microsoft and The Walt Disney Studios share insights on joint innovation and the needs of the next Internet*

Cisco today unveiled further details behind its technology strategy for building a new internet — one designed to push digital innovation beyond the performance, economic and power consumption limitations of current infrastructure. A multi-year approach that is defining the Internet for decades to come, Cisco's strategy is already delivering technology breakthroughs to pave the way for the world's developers to create applications and services they have only begun to imagine.

Cisco introduced its latest innovation including Cisco Silicon One$^{TM}$, the industry's only networking silicon architecture of its kind; released the new Cisco 8000 Series, the world's most powerful carrier class routers built on the new silicon; and announced new purchasing options that enable customers

1

to consume the company's technology through disaggregated business models.

"Innovation requires focused investment, the right team and a culture that values imagination," said Chuck Robbins, chairman and CEO of Cisco. "We are dedicated to transforming the industry to build a new internet for the 5G era. Our latest solutions in silicon, optics and software represent the continued innovation we're driving that helps our customers stay ahead of the curve and create new, ground-breaking experiences for their customers and end users for decades to come."

**Building Blocks for the Internet for the Future**
Over the next decade, digital experiences will be created with advanced technologies — virtual and augmented reality, 16K streaming, AI, 5G, 10G, quantum computing, adaptive and predictive cybersecurity, intelligent IOT, and others not yet invented. These future generations of applications will drive complexity beyond the capabilities current internet infrastructure can viably support.

For the past five years, Cisco has driven a technology strategy that is building the internet our customers will need for the future success of their business in an advanced digital world. Aimed at solving the toughest problems that will emerge as digital transformation taxes current infrastructure to its breaking point, this strategy will lead to the next-generation of internet infrastructure that combines Cisco's new silicon architecture with its next-generation of optics. Cisco's strategy will change the economics behind how the internet will be built to support the demands of future, digital applications and will enable customers to operate their businesses with simpler, more cost-effective networks.

Cisco's strategy is based on development and investments in three key technology areas: silicon, optics and software.

"Pushing the boundaries of innovation to the next level — far beyond what we experience today — is critical for the future and we believe silicon, optics and software are the technology levers that will deliver this outcome," said David Goeckeler, executive vice president and general manager of the Networking and Security Business at Cisco. "Cisco's technology strategy is not about the next-generation of a single product area. We have spent the past several years investing in whole categories of independent technologies that we believe will converge in the future — and ultimately will allow us to solve the hardest problems on the verge of eroding the advancement of digital innovation. This strategy is delivering the most ambitious development project the company has ever achieved."

**Introducing Cisco Silicon One – Breakthrough Unified, Programmable Silicon Architecture**
The new Cisco Silicon One will be the foundation of Cisco's routing portfolio going forward, with expected near-term performance availability up to 25 Terabits per second (Tbps). This is the industry's first networking chip designed to be universally adaptable across service provider and web-scale markets. Designed for both fixed and modular platforms, it can manage the most challenging requirements in a way that's never been done before. The first Cisco Silicon One 'Q100' model surpasses the 10 Tbps routing milestone for network bandwidth without sacrificing programmability, buffering, power efficiency, scale or feature flexibility.

Traditionally, multiple types of silicon with different capabilities are used across a network and even within a single device. Developing new features and testing can be lengthy and expensive. Unified and programmable silicon will allow for network operators to greatly reduce costs of operations and reduce time-to-value for new services.

"We look forward to working with Cisco as it enters the high-end routing silicon space, collaborating to help meet the next generation of network demands for higher speeds and greater capacity," said Amin Vahdat, fellow and vice president of Systems Infrastructure, Google Cloud.

"Facebook has been a strong advocate for network disaggregation and open ecosystems, launching key industry initiatives such as the Open Compute Project and the Telecom Infrastructure Project to transform the networking industry," said Najam Ahmad, vice president, Network Engineering at Facebook. "Cisco's new Silicon One architecture is aligned with this vision, and we believe this model offers network operators diverse and flexible options through a disaggregated approach."

"Cisco is changing the economics of powering the Internet, innovating across hardware, software, optics and silicon to help its customers better manage the operational costs to function on a larger scale for the next phase of the Internet," said Ray Mota, CEO and principal analyst at ACG Research. "As we move to 2020, the timing of delivering operational efficiency will be vital."

**Introducing: Cisco 8000 Series Platform Powered by Cisco Silicon One– Industry Leading Performance**
The new Cisco 8000 series is the first platform built with Cisco Silicon One Q100. It is engineered to help service providers and web-scale companies reduce the costs of building and operating mass-scale networks for the 5G, AI and IOT era. Standout features include:

- Optimized for 400 Gbps and beyond, starting at 10.8 Tbps in just a single rack unit
- Powered by the new, cloud-enhanced Cisco IOS XR7 networking operating system software, designed to simplify operations and lower operational costs
- Offers enhanced cybersecurity with integrated trust technology for real-time insights into the trustworthiness of your critical infrastructure
- Service providers gain more bandwidth scale and programmability to deliver Tbps in even the most power and space constrained network locations

**Global Customer Deployments and Trials**
Cisco is working with a group of pioneering customers on deployments and trials of the Cisco 8000 Series. STC, the leading telecom services provider in the Middle East, Northern Africa region, marks the first customer deploying the new technology. Ongoing trials include Comcast and NTT Communications among others.

**Optics for 400G and Beyond**
Building a new internet that can support future digital innovation will depend on continued breakthroughs in silicon and optics technologies. Cisco is unique in the industry with advanced intellectual property in both areas.

As port rates increase from 100G to 400G and beyond, optics become an increasingly larger portion of the cost to build and operate internet infrastructure. Cisco is investing organically to assure our customers that as router and switch port rates continue to increase, optics will be designed to meet the industry's stringent reliability and quality standards.

Through the company's qualification program, Cisco will test its optics to comply with industry standards and operate in Cisco – and non-Cisco hosts. With this program, customers can utilize Cisco optics in applications where non-Cisco hosts have been deployed and have confidence that the optics will meet the reliability and quality standards that they have come to expect from Cisco.

In addition, as silicon and silicon photonics advance, functions that were traditionally delivered in separate chassis-based solutions will soon be available in pluggable form factors. This transition has significant potential benefits for network operators in terms of operational simplicity. Cisco is investing in silicon photonics technologies to effect architectural transitions in datacenter networks and service provider networks that will drive down cost, reduce power and space, and simplify network operations.

**Changing the Economics of the Internet with Flexible Business Models**
Cisco also announced plans to offer flexible consumption models first established with Cisco's Optics portfolio, followed by the disaggregation of the Cisco IOS-XR software, and now including Cisco Silicon One. This new model is highly adaptable and offers customers choice of components, white box, or integrated systems to build their networks. This approach matches the evolving nature of operators selecting discrete or aggregated technology elements for their buildout and creates new economics of the Internet to provide significant business value.

**Visit Cisco's Virtual Press Room for all supporting information:**
https://www.ciscodigitalnewsroom.com/

**View the event live broadcast here:** https://www.ciscofeedback.vovici.com/se/6A5348A77925123A

**About Cisco**
Cisco (NASDAQ: CSCO) is the worldwide technology leader that has been making the Internet work since 1984. Our people, products, and partners help society securely connect and seize tomorrow's digital opportunity today. Discover more at newsroom.cisco.com and follow us on Twitter at @Cisco.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks.

*Some of the offerings and features described above remain in varying stages of development and will be offered on a when-and-if-available basis.  Any such items are subject to change at the sole discretion of Cisco, and Cisco will have no liability for delay in the delivery or failure to deliver any of the offerings or features set forth in this document.*

View original content to download multimedia:http://www.prnewswire.com/news-releases/cisco-unveils-plan-for-building-internet-for-the-next-decade-of-digital-innovation-300972893.html

SOURCE Cisco