



NEWS RELEASE

The Network Gets Smarter, Simpler and More Secure with Artificial Intelligence and Machine Learning

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News Summary:

- Cisco helps IT teams better understand network behavior and predict issues with new artificial intelligence and machine learning capabilities.
- Since its introduction two years ago, Cisco's intent-based networking has reinvented how networks are built and managed. Cisco is furthering this effort through multidomain integrations designed to provide end-to-end security, segmentation and application experience.
- Cisco is delivering these new software advancements via software subscriptions, granting customers access to ongoing innovation.



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Cisco Live U.S. – Today, Cisco announces software innovations designed to make managing and securing networks easier. As today's businesses increasingly invest in digital technologies, IT teams are struggling under the amplified workload. To alleviate this burden and allow IT to focus on delivering innovation, Cisco is introducing new artificial intelligence and machine learning capabilities to allow IT teams to function at machine speed and scale through personalized network insights. As part of its broadened capabilities offering, Cisco is also unveiling innovations to more effectively manage users and applications across the entire enterprise network – from campus networks and wide-area networks, to data centers and the IoT edge.

IT teams currently face a daunting challenge. According to 451 Research, nearly two-thirds of organizations report that their IT teams are facing increased workloads; but increased IT headcount is in the cards for only about one-third of companies in the coming year. At the same time, it has never been more imperative for IT to deliver great digital experiences in this hyper-competitive landscape. Bridging the gap between the needs of a business and the resources available requires innovative network automation and analytics tools, powered by data and underpinned by artificial intelligence and machine learning.

Cisco, as a leader in networking and security, collects one of the most well-informed, context-rich telemetry data sets in the IT industry. Now, Cisco is leveraging new software capabilities designed to utilize deidentified and aggregated data, which when combined with Cisco's 35 years of institutional knowledge building the world's networks, results in more intelligent solutions that allow IT teams to operate more effectively.

These new capabilities will grant IT teams:

- **More Visibility:** No two networks are the same. Environments are always changing. Cisco continuously collects relevant data from local networks and correlates it against the aggregate deidentified data set to create highly individualized network baselines. These baselines constantly learn and adapt as the number of devices, users and applications evolves, and as environments change.
- **Greater Insights:** Network complexity has grown beyond the human scale of processing. Cisco uses machine learning to correlate the immense amount of data coming from the network against the individualized network baselines to uncover the issues that will have the greatest impact on the network. This improves issue relevancy, alerting IT of the issues that matter most. It also discovers trends and patterns, so IT can pre-emptively identify issues before they become a problem.
- **Guided Actions:** Cisco uses machine reasoning algorithms and automated workflows to perform the logical troubleshooting steps that an engineer would execute to resolve a problem. This helps IT detect issues and vulnerabilities, analyze the root cause and execute corrective actions faster than ever.

"As the pace of change and diversity of the environment continues to rapidly evolve, Cisco is committed to continually simplifying our solutions," said Scott Harrell, Senior Vice President and General Manager of Cisco's Enterprise Networking Business. "Artificial intelligence and machine learning can enable businesses to efficiently discern which issues to prioritize, becoming more nimble and proactive. This will have a profound effect on network operations and the IT teams that run them. At Cisco, we're future proofing our networks and the workforce through automation and intelligence."

Reducing Complexity with the Multidomain Network

To help customers simplify the unprecedented complexity of modern IT, Cisco is building an architecture that spans every domain of the [intent-based network](#) -- campus, branch, WAN, IoT, data center and cloud. Cisco has created solutions optimized to meet the unique needs of each of these networking domains. Today, Cisco is introducing new integrations, so users have a secure, consistent experience no matter where, when or how they connect. The new integrations allow for end-to-end:

- **Network segmentation:** The integration of [Cisco SD-Access](#) with [Cisco SD-WAN](#) and [Cisco Application Centric Infrastructure \(ACI\)](#) makes it easier for IT teams to consistently authorize, onboard and segment users and devices across campus, branch, data center and cloud networks, even when users and applications change. Because of this segmentation, IT is able to safeguard against unauthorized access to sensitive data and critical applications.
- **Application experience:** Cisco now automatically conveys application requirements between the data center and the WAN, allowing the network to select the best path and prioritize traffic even if applications move or change. This allows IT teams to dynamically elevate application performance across the enterprise and branch.
- **Pervasive security:** As an industry leader in cybersecurity, Cisco is leveraging its security innovations across all domains. By extending the ability to [detect threats in encrypted traffic](#) across public clouds, and by protecting the campus, branch and WAN against threats, Cisco is providing the end-to-end security customers need.

Cisco's Ecosystem Drives Innovation

As the network becomes increasingly programmable, Cisco's ecosystem of partners and developers has been crucial to drive innovation. To help organizations keep up with the relentless pace of change, Cisco DevNet, the company's developer program, has introduced community-backed efforts to make adopting networking technology easy and accessible. This includes [machine learning and artificial intelligence developer resources](#), which include use cases and resources to get started with new applications; the [Cisco DevNet Automation Exchange](#), which contains a curated repository of code for all levels of network automation use cases; and the [Cisco DNA Center Platform](#), which helps networking professionals and software developers alike to build new applications and integrations.

Availability, Licensing and Services

- Cisco AI Network Analytics will be a standard part of [Cisco DNA Assurance](#) and will be available in the next version of Cisco DNA Center, generally available summer of 2019. Cisco AI Network Analytics capabilities will be included in the Cisco DNA Advantage software licensing tier.
- The multidomain network integrations will be available with the next version of Cisco DNA Center, generally available summer of 2019. These integrations will be included in the Cisco DNA Advantage software licensing tier.
- Cisco Customer Experience for [Cisco DNA solutions](#) accelerates deployment of next-gen intent-based networking solutions while reducing risk and disruption. The Cisco Customer Experience portfolio of services delivers expert guidance, best practices and innovative tools to help customers transition with greater ease and confidence. This also allows them to innovate faster, stay competitive, extract more value and realize faster ROI.

Additional Resources

- Executive Blog: [Intelligent Next Step for Intent-Based Networking](#) (Scott Harrell)
- Executive Blog: [Cisco AI Network Analytics: Making Networks Smarter and Simpler to Manage](#) (Anand Oswald)
- Executive Blog: [3 Ways Intent-Based Networking Fulfills Business Intent with Multidomain Integration](#) (Prashanth Shenoy)
- [Cisco DNA Assurance Solution Overview](#)

- [Cisco Multidomain Integrations At-a-Glance](#)
- [Cisco AI Network Analytics wireless experience use-case video](#)

About Cisco:

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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.

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