

## White Paper

# Meet Business Challenges Head-On with a New Approach to Network Operations

Sponsored by: Cisco CX

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## IDC OPINION

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In today's fast-paced, data-intensive environment, insight and agility – including the ability to manage across devices, technologies, and locations – are increasingly becoming critical capabilities for network infrastructure and operations.

Businesses can no longer afford costly downtime from both an operational perspective and a reputational perspective, and the pressure is compounded by the requirements of constant uptime and new business demands. IT continues to struggle to expand its ability to develop new capabilities, drive innovation, reduce and control operating costs, and adopt new technologies seamlessly – all within an extremely demanding security environment.

Enterprise IT organizations are under constant pressure to deliver critical services to the business, continue to accelerate the adoption of digital strategies, and integrate and manage new and sometimes disruptive, yet transformative, technologies into the IT infrastructure. IT organizations require tools, insight, and best practices to help them navigate these challenges successfully and securely.

This IDC White Paper discusses networking industry dynamics and operational challenges and how network and IT managers can find support, guidance, tools, and best practices leveraging automation, analytics, and insight from Cisco CX Business Critical Services (BCS) specifically designed for network operations (NetOps).

## SITUATION OVERVIEW

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With the increased pace of technological innovation within IT organizations, networks act as a critical enabler of digital transformation initiatives. The advent of mainstream adoption of cloud computing, big data and analytics, and mobile-first enterprise network architectures has enabled great opportunities to increase operational excellence, engagement with customers, and exploration of new business models. However, these new business and technology initiatives have also placed tremendous strain on the network and are causing technology teams to struggle to come up with new operating models and solutions that often are barely able to meet the ever-changing needs of the business. IT managers will need to harness analytics, automation, and best practices to drive their companies' digital transformation. Digital transformation continues to have a big impact on organizations and especially on IT. IT plays a key role in the transition as companies move to deliver value and business outcomes

at an accelerating pace. Organizations that are still using traditional models or legacy networks are facing major challenges on performance and operational best practices. The explosion of new IT and networking paradigms, such as software-defined networking, big data, analytics, automation, self-healing, and intent-based networking, requires the formulation of an optimal operating model to cater to both the current and future needs of the business. The network must dynamically respond to the needs of new applications and growing business unit demands as organizations expand, diversify, and respond to the new challenges and workloads.

Enterprise network operations managers are continuously looking for new ways to manage their networks effectively, efficiently, and centrally with increased visibility and analytics across the wired and wireless environments while working to mitigate risk and reduce costly downtime. Compliance, remediation, resilience, redundancy, and simplicity continue to be key operational concerns as well as understanding and harnessing innovation that machine learning and artificial intelligence will have in helping operators optimize networks, improve user experience, and reduce security risks.

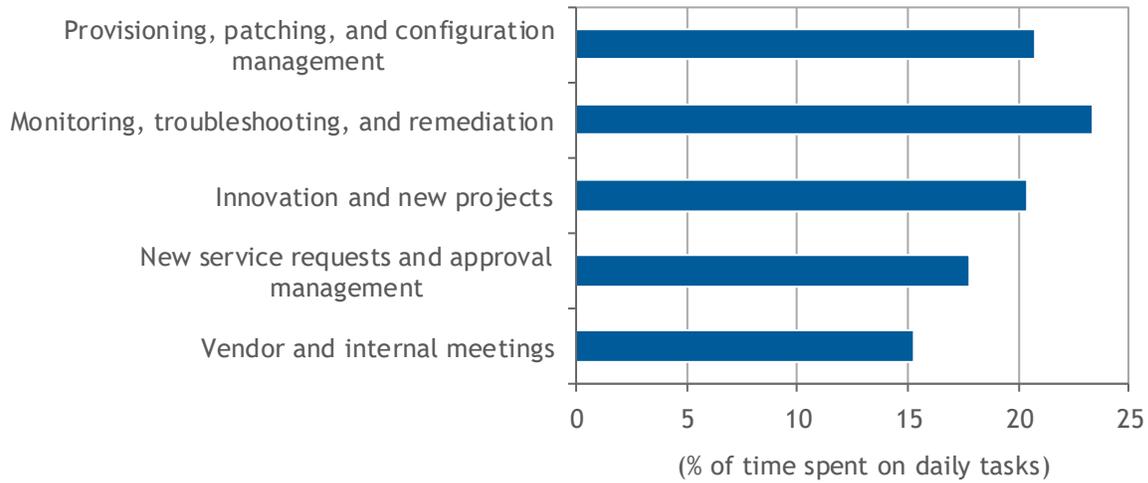
Even before an enterprise embarks on any IT transformation journey in support of its digital aspirations, an enterprise must take stock of the health and readiness of its IT and network assets. Taking an IT, network, and operations health assessment is critical in the success of any transformation. There must be alignment with the business and its key stakeholders, an understanding of goals and priorities, and a robust IT and network inventory and its operational processes. For many enterprises, this first step proves to be the most difficult, as many IT resources are busy "just keeping the lights on" and do not have the bandwidth to objectively and strategically think about the business and how it aligns to the network. Once this first step has been successfully completed, the enterprise IT organization can begin to move forward. IDC believes that each enterprise will enter this process differently, depending on its own maturity, resources, appetite for risk, budget, and competitive position. And as such, enterprises will progress at their own pace. IDC also believes that most enterprises have neither the resources nor the tools to progress efficiently and securely through this process and should leverage the expertise of a third-party services firm with defined methodologies and supporting assets.

According to a recent IDC study of enterprise IT and network managers, users state their challenges fall into three main categories: Delivering services to the business, which encompasses securing, modernizing, and automating the network and IT estate coupled with cost and skills constraints; digital business challenges, which include strategically aligning IT with the business, incorporating new technologies effectively, and meeting compliance requirements; and technology pressures, which include network transformation, device management, and challenges within the technology ecosystem.

IDC also found that network and IT managers spend approximately 80% of their time managing daily operations, thereby spending less time (20%) to innovate and meet increasing demands of the business. Figure 1 shows time spent by IT managers on operational tasks.

**FIGURE 1**

**Top Tasks to Be Managed by Network and IT Managers**



n = 301

Source: IDC's *IT Procurement Trends and Consumption Models Study*, October 2019

**FUTURE OUTLOOK**

Network and IT managers are challenged with time, resources, and skills to ensure a secure, highly efficient, and well-performing network. As previously discussed, new networking paradigms and the ever-increasing pace of change toward digital transformation are putting new pressures on managers to manage the network to new levels of performance and security, all the while increasing visibility and agility. Networking professionals will require new toolsets, skills, processes, and support to ensure they can meet the business' new expectations for success. That said, most networking teams are understaffed and underskilled and require the support of a third party to help them meet their technology, operational, and business objectives. Cisco CX has developed a suite of services to help networking professionals design, build, run, and optimize network infrastructures to meet today's business requirements.

Cisco CX is based on a philosophy that solutions across all business units within Cisco, including products, services, sales, and marketing in support of a customer's business, technology, and operational outcomes are critical to organizational success. The Cisco CX organization has developed a portfolio of role-based life-cycle services that are designed to help customers accelerate the value they receive from Cisco technology investments. Working collaboratively with customers' Cisco CX consultants and Cisco life-cycle services provide NetOps teams with the expertise, analytics, and insights they need to maintain a secure, always-on customer network.

To facilitate that collaboration and, ultimately, the desired business outcomes, Cisco CX has invested significantly in its services portfolio.

To enable transformation and innovation across the IT landscape, customers need to align their design, deployment, adoption, and implementation plans with their own business strategy, technology, and operational goals. The Cisco CX organization has refocused its Business Critical Services suite of services that align to the functional needs of specific IT roles. The new Business Critical Services

Lifecycle Portfolio aligns Cisco experts, analytics, and insights with team goals, ensuring each customer has access to the expertise it needs and when, where, and how customers need it to maximize the value of Cisco technology investments at every stage of their journey.

## Cisco CX Business Critical Services

Cisco CX Business Critical Services is a cross-architecture subscription service that helps customers ensure optimal performance of the network infrastructure through Cisco's expertise, analytics, and automation. The adoption of BCS not only allows customers to increase the value from their investments but also helps them reduce costly, redundant, and error-prone manual tasks through predictive and preventive analytics, which increases the efficiency of maintaining their environments.

Business Critical Services has developed an IT role-aligned approach, designed to more accurately address the needs of specific buyers/users to ensure that they are receiving the appropriate insight and analytics, training, expertise, and support necessary to meet their business, technology, and operations objectives so companies can build resilient, adaptive, and transformative IT.

The Business Critical Services framework will be offered across all of Cisco's architectures and will be available at three package levels – Essentials, Advantage, and Premier – with key offers for each role at each level. Two new add-on services are available as well to speed transitions and address skills gaps to create more adaptive IT environments. The value that underpins these tiers is the ability to either access Cisco's expert resources and intelligence through live interactions with subject matter experts or access a vast library of self-service learning tools and modules.

### *Guidance Throughout the Technology Life Cycle*

The Business Critical Services engagement model is high touch coupled with high value designed to help customers rapidly adopt new networking technologies with minimal risk or disruption to their networking processes or the business. Cisco's focused experts, which consist of a consulting engineer, a project manager, customer success specialists, and targeted, specialized teams, provide advice focused on accelerating their customer's life-cycle journey from design through onboarding and implementation to adoption and optimization for new technology transformations. At the outset of the relationship, Cisco experts meet with clients to establish priorities and mutually agreed-upon success metrics that include meeting at least every 90 days to ensure alignment of goals and to make necessary adjustments to the working plan. Cisco experts provide tailored guidance, best practices, and proven methodologies based on industrywide solutions to guide customers through every stage of their technology journey.

Cisco experts share their value through various modalities for knowledge transfer including interactive technical webinars, 1:1 coaching sessions, dedicated account managers, expert leader workshops, and expert reviews and recommendations. These Cisco resources employ use case best practice sharing and 1:1 personalized coaching engagements to optimally support clients along the life-cycle journey. In addition, Cisco's expert teams help customers predict operational risk and engage in knowledge transfer coaching to improve the teams' skill sets for reducing the time it takes to deploy, detect, and remediate network challenges.

To enable continuous engagement along the technology life cycle, customers meet with their Business Critical consulting engineers up to 24 times per year, depending upon the tier selected and deliverable requested, to assess the state of their Cisco technology. Couple this with the other expert resources, and customers can have over 40+ engagements per year. As part of their interaction, customers can

leverage Cisco experts' use of innovative technologies, such as machine learning, artificial intelligence, and diagnostic tools, derived from over 35 years of technology leadership. Cisco experts combine these data-driven insights with their knowledge of the client environment coupled with an understanding of the business objectives to maximize the time to value customers derive from their technology investments.

## *Value for Each IT Role*

According to Cisco, CIOs report 77% of technology performance falls short and 80% of transformations fail. IT roles in a customer's organization are empowered with continuous access to Cisco experts, along with analytics, insights, and automation to change that equation, helping customers achieve higher performance, speed adoption, and accelerate network transformation.

Further:

- **Network operations (NetOps)** teams can maintain a secure, always-on customer network using predictive analytics, industry standards, and best practices. The service provides network and IT managers efficiency and the ability to predict and resolve issues and increase performance, driven by analytics and automation. According to Cisco, the BCS for NetOps Life-Cycle package offers operational gains and can reduce downtime by up to 74%.
- **Architecture** teams can quickly build a strategy to implement innovative technology that aligns IT strategy with business intent. Architects will benefit from gaining the ability and insight they require for successful transformation while lowering risk to transform. According to Cisco, BCS for architects can deliver transformations 50% more successfully and create new revenue streams more securely.
- **Engineering** teams can de-risk technology transition and design and accelerate deployment of new IT solutions to increase business agility. Cisco offers design and deployment services for ever-changing business requirements. According to Cisco, these services for engineers can offer 70% faster software upgrades, 35% less in deployment costs, and 47% reduction in testing time.
- **Security operations (SecOps)** teams can improve the organization's security posture to proactively protect and defend against cybersecurity events across the enterprise. Business Critical Services consultative support can provide customers with an improved security posture to proactively protect and defend from known and unknown threats. According to Cisco, SecOps services can help reduce monetary impacts from cyberattacks by 99%.

## *NetOps Unique Requirements*

IT and network operations professionals have their own unique requirements and operational mandates for not only "keeping the lights on" but, just as importantly, delivering the agility and performance that the business requires. Disruption, downtime, and degradation are not acceptable. As such, BCS provides service offers specifically designed to help network and IT professionals "maintain a secure, always-on customer network using predictive analytics and best practices." Each offer builds upon the other adding incremental value through insight, tools, and expert resources.

The BCS framework is available in three tiers of subscription levels, which are discussed in the sections that follow.

## **Essentials**

The Essentials tier provides holistic visibility into an organization's environment to identify potential risks and offers an array of capabilities to build a comprehensive network and security strategy. Ask

the Expert provides customers with a catalog of scheduled open enrollment or recorded webinar sessions aligned to Cisco's Customer Success Lifecycle model. These sessions give customers access to Cisco experts who share insights and recommend best practices to help onboard, implement, use, adopt, and optimize Cisco solutions.

Essentials provides IT teams with direct access to expertise, analytics, and best practices, across architectures, to help them mitigate risks and speed adoption. Teams can optimize IT operational performance through continuous engagements with Cisco experts – leveraging deep analytics and predictive insights – to instill best practices to prevent future issues. With remote access to Cisco experts who can act as an extension of a customer's existing operations staff, a customer's staff can prioritize actions that need to be taken to meet business objectives. These services also provide operational insight into and analysis of an organization's infrastructure and applications environment as well as recommendations on potential risks and vulnerabilities that need to be addressed. The Essentials tier includes:

- Operational insights
- Change window support
- Expert review workshops
- Ask the Expert

## Advantage

The Advantage tier includes all the Essentials capabilities plus additional new services. The Advantage package provides a richer set of high-touch advisory services, delivered onsite and remotely, to help increase technology adoption and accelerate transformation. By offering a "high touch" set of advisory services, the Advantage tier helps an organization develop a life-cycle approach to security management. In addition, the Advantage package addresses the lack of skilled expertise that many organizations face by augmenting the customer's team with transformation guidance from Cisco experts. Accelerators guide successful technology adoption by letting customers choose relevant technical sessions from a catalog of Cisco expert 1:1 technical sessions that are aligned to Cisco's Customer Success Lifecycle model.

Advantage provides the services necessary to accelerate technology adoption and transformation. By continuously engaging with Cisco experts, IT teams can create the right architectural strategy, design, implementation, adoption, and testing plans. Teams can also engage more often and in new ways with expert-led group workshops, 1:1 coaching sessions, and interactive engagements aligned to use cases throughout the technology life cycle. The Advantage package includes services from Essentials plus the following two new ones:

- Expert incident review
- Accelerators

## Premier

Premier offers more flexible access to insights to create successful multidomain solutions. With BCS Premier, key IT roles get the insights they need to move with the speed of the business with less risk and faster time to value. Through ongoing access to Cisco experts, analytics, insights, and automation, Premier enables large enterprise customers and service providers to successfully transition to and optimize core Cisco architectures by dynamically adjusting guidance to the most strategic initiatives.

In addition, to speed transitions and address skills gaps, Cisco developed two new add-ons – Specialized Teams and Expert as a Service.

### *Specialized Teams*

These resources can be added to the customer's contract, providing an annual retainer that enables Cisco and the customer to identify highly specified needs and quickly assemble the right experts to deliver a rapid, focused engagement. Teams can be sized and spun up based on the most urgent needs, enabling customers to quickly pivot to address issues as they arise.

### *Expert as a Service*

Customers that want to augment their teams with a dedicated expert, like a solution architect, consulting engineer, or project manager, to cover long-term projects and special projects can use this service.

### *How NetOps and SecOps Can Use Cisco Business Critical Services*

Figure 2 illustrates an example of how an IT organization's network operations and security operations teams can consume the Cisco Business Critical Services resources for the adoption of a new Cisco technology or architecture.

FIGURE 2

Sample Scenario: How NetOps and SecOps Might Consume Business Critical Services Over a Year



Source: IDC and Cisco, 2020

## CHALLENGES/OPPORTUNITIES

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Digital transformation will remain a critical industry imperative, and technologies such as cloud, mobile, and social will continue to strain network resources. This will require that network must transform in support of these services. But with transformation comes new operating processes and policies as well as exposing the network to increased risk when moving from the "as is" environment to the new "to be" environment. Transformation will require adopting new operating models and supporting technologies to increase levels of visibility, automation, and assurance, which will be required in the new digital world.

Taking on this type of transformation for some organizations with limited resources may prove too unwieldy, and understanding when and how to start a transformation will be a critical first step. Coordination across the organization will be required to help define the business requirement as well as technology goals. IDC recommends leveraging the best practices, tools, and processes from a trusted partner with defined methodologies, supporting infrastructure, and the investment in insight and analytics to help accelerate and de-risk any network transformation. This partner must also have the capability to work holistically across all silos, stakeholders, and business owners for consistency and alignment.

## CONCLUSION

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Digital transformation will continue to have a dramatic impact on organizations' IT and networking infrastructures and the new ways they will be required to operate and organize themselves for agility and efficiency. This will require a rethink not only of how the networks will be designed and deployed but, just as importantly or, as IDC believes, even more importantly, of the development of new operating models and processes in support of digital transformation and optimization of the entire IT infrastructure.

For some organizations, this transformation of operating best practices will be too unwieldy to manage alone, and IDC believes that these organizations must leverage best practices, defined methodologies, new toolsets, skills enhancement, and insights to accelerate their digital ambitions from a trusted third party. These services can be delivered by network manufacturers as they have developed the technologies and the best practices to accompany those innovations, or one of their certified partners, to ensure successful and complete adoption of features and functionality, minimized risk to the business and infrastructure, and maximum extraction of value.

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