The Smart Approach to Networking for Enhanced Agility

In today's digital age, businesses are realizing the strategic potential of the network, and are vocal about using the network to help drive revenue-enabling innovation.

Historically, networking has been focused on speeds and feeds, and purchasing decisions were based on which product boasted the best specifications for a given budget.

Comparisons were easy and straightforward – as methodology, this seemed qualitative – and explaining decisions to senior management was quite plausible. However, in reality, this approach was merely quantitative, and experience has shown that bigger is not always better; often it simply means more complicated.

The Business Imperative

Things have changed. Today, the goals of technology executives are tightly aligned with those of business leaders and corporate executives. For business leaders, a top priority is to increase business agility – that is, to become an organization that can respond to new opportunities or competitive threats as quickly and effectively as possible. Those organizations that are able to implement agile business processes will leapfrog their rivals. Companies that are slow to capture market shifts or to respond to the competition can, very quickly, become irrelevant.

If the IT organization is to truly service the business, its perspective and approach must change. Business owners are no longer asking for data sheets and comparative matrices. They are now asking questions like, "when can I roll out this new business application?", "why can't we roll-out those new security cameras?", or "what's the delay with extending the Wi-Fi network?".

Too often the network has been blamed for being unable to accommodate – in a timely manner – the evolution necessary to allow business to grow and compete effectively. We have all, in the broadest sense, grown accustomed to lengthy change cycles and drawn-out implementations.

For IT, the way that they can positively contribute to business agility is by delivering an agile IT environment. The focus on improving IT agility is one reason that businesses have spent billions of dollars over the decade on technologies such as server virtualization, cloud computing, and new application delivery platforms. Somewhat understandably, the focus has centered mostly on the application and compute tiers of IT, not the

network. However, much like the chain and weakest link analogy, businesses will only be as agile as their least agile component. For most organizations, the network is now the single biggest inhibitor to achieving business agility.

To better quantify where networks are today in relation to business speed expectations, Extreme Networks commissioned the independent research firm, Dynamic Markets to undertake detailed research[1]. This research aimed to measure the impact and significance of the age-old network-versus-business conundrum: how to make network adjustments, improvements and corrections without disrupting the business. The results were enlightening: for example, when network changes requiring a maintenance window have been made, there's a delay of almost a month before these changes can be applied to the corporate network. One company had to wait 9 months for such a maintenance opportunity to arrive.

The consequences of perpetuating a conventional approach are multiple:

• Organizations are forced into network changes that involve wholesale impact

• IT has to wait too long for maintenance opportunities

• Businesses experience operational delays because of network maintenance

• Most are negatively affected by the complexities of their network

• Many have downtime caused by network change errors

• Most suffered as a result of change errors

• 1 in 5 sacked IT staff as a direct result of outages

• Many companies lost revenue as a result of downtime

The report, entitled Network Agility Research: Global Synopsis 2014, also observed the following:

- On average, organizations made **10 changes** to the corporate network in a 12-month period that required a maintenance window that impacted availability.

- Networking professionals had to wait, on average, **27 days** for such maintenance windows.

- **99%** - almost all companies – experienced delays to changes and improvements to business technology systems due to delays related to maintenance windows.

- **90%** are negatively affected by the complexities of their network, limiting what can be deployed and when; employee productivity (45%) and business analysis (42%) applications top the list.

- **82%** had at least some network downtime caused by change errors to the core of the network; on average, a fifth of all network downtime was caused by change errors.

- **94%** suffered consequences as a result of these change errors; employee productivity (49%), disruption and delays to other IT projects and activity (40%) and supply chain disruption (30%) top the list – 1 in 5 companies sacked IT staff as a direct result of these outages.

- 80% of companies lost revenue as a result of downtime from core network change errors.

The Extreme Networks Smart Solution

With an Extreme Networks Fabric Connect foundation, IT can dramatically revolutionize their ability to deliver agile services. By fundamentally changing the way that the network is built and operated, businesses can shift their focus from mundane, time-consuming maintenance to value-adding initiatives; re-directing precious skills to enhance the business's operational efficiency and competitive capability. The Extreme Networks Fabric Connect technology provides companies with the opportunity to run the network at business speed.

Extreme Networks has created a new way of deploying and running networks, one that fundamentally transitions from traditional "cost center" perception to that of "business enabler", increasing agility and enhance returns.

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[1]Dr Cherry Taylor, Network Agility Research, Dynamic Markets, 2014. This report was commissioned by Extreme Networks and details quantitative and qualitative research with IT professionals on how network adjustments, improvements and corrections disrupt the business.

Recently, Extreme Networks commissioned Market Dynamics to independently research what customers of Fabric Connect were experiencing after implementing solutions based on this technology[2]. The results are genuinely eye-catching, and provide a dramatic contrast with the negative consequences of conventional networking, so emphatically highlighted by the earlier Network Agility Report.

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Zeus Kerravela
ZK Research

Extreme Networks Fabric Connect provides – on average – 11x faster time-to-implement. This is a direct outcome of the capability that Fabric Connect uniquely delivers; Edge-only provisioning, implemented in real-time. This can empower radical improvements to service agility. With no requirement for maintenance windows, the time that a business waits to make a significant change in the network can be dramatically reduced. Instead of an average of about one month, changes can now typically be made the same day. Once the decision to make a change is taken, IT can simply get on and deliver service to the Business.

The wait time required before changes can be attempted is improved by 66%, and Fabric Connect can also enable an 7x improvement (or 85% reduction) in both configuration and troubleshooting times. Crucially, outages caused by human errors were eliminated.

Fabric Connect operates in a fundamentally unique way:

- *With no seismic changes of the network, uptime is maximized*

- *Ability to make daily network updates significantly improves agility*

- *Being automation-ready, the network is positioned to reap the benefits of provisioning orchestration and software-defined networking*

- *Delivers vastly superior time-to-implement, change wait time, configuration and troubleshooting times*

- *Human error outage is a thing of the past*

The Technical Benefits

The Extreme Networks Fabric Connect technology offers the following benefits:

- **No seismic change to the network.** These major changes are caused when significant reconfiguration of a substantial number of network devices is involved in the change process. With Fabric Connect, these disruptive high-risk changes are avoided, as the core of the network does not need to be touched.

- **Ability to make daily network updates.** Fabric Connect enables real-time changes to be made because provisioning is executed only at the edge. Leveraging this, the IT department can respond to business requests immediately instead of being constrained by the lengthy delays, waiting for a change management window.

[2]Dr Cherry Taylor, Fabric Connect Customer Experience Research Report, Dynamic Markets, 2015. This report was commissioned by Extreme Networks and details quantitative and qualitative research with IT professionals in companies that have implemented Extreme Networks this technology.

- **Automation-ready.** In a software-defined network (SDN), changes to the network will be coordinated and automated through orchestration tools. Fabric Connect can be deployed today and serve as the foundation for a future SDN deployment. IT operational teams can realize the benefits of simplified provisioning and then automate network changes when SDN is deployed.

Fabric Connect can deliver such a radical shift in networking because it simplifies the network through the use of a single, unified protocol that integrates all aspects of topology, reachability, and service provisioning. The ability to never have to configure the core as a function of routine maintenance means changes can be made instantly, delivering a significant reduction in administrative burden and risk.

The Extreme Networks Approach

With Extreme Networks, there can be simplicity everywhere in your business network. Extreme delivers end-to-end simplicity, from the Data Center all the way through to the Network Edge. Embedding automation and integration delivers a more agile network. Applications, devices, and users view the network as a simple connectivity utility, one that automatically reconfigures itself when changes occur.

Extreme Fabric Connect makes it possible for the network to handle once-manual functions automatically, reducing the potential for error, and accelerating time-to-service. An automated core takes advantage of a single, network-wide Ethernet Fabric to remove the need for manual configuration at each network hop. This empowers the network to quickly respond to changing business requirements with precision and flexibility.

Learn More

To learn more and to obtain additional information please contact your Extreme Networks Account Manager or Authorized Partner or visit us at www.extremenetworks.com.

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