ESG Economic Value Validation

Quantifying the Value of Extreme Networks

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Executive Summary

ESG was engaged by Extreme Networks to conduct a detailed Economic Value Validation (EVV) and develop a quantitative model examining how an investment in Extreme Networks can benefit an organization over a three-year period. The analysis is designed to help IT organizations determine the fully burdened costs and benefits of deploying Extreme Networks compared with a "present mode of operation" (PMO) that reflects alternative network vendors. This analysis built upon ESG's evaluation of Extreme Networks solutions, in-depth interviews with Extreme Networks customers and technical stakeholders, end-user case studies, ESG qualitative and quantitative market research with IT decision makers, and ESG's general familiarity with IT and networking equipment. This analysis is designed to provide prospective customers with a comprehensive picture of the potential direct and indirect cost and benefit drivers they should bear in mind when considering an investment in Extreme Networks.

Highlights of ESG Economic Value Validation Modeled Scenario for Extreme Networks

ESG analysis found:

- **26% Lower CapEx**
- **33% Lower Support and Maintenance**
- **35% Lower OpEx**

As discussed in the following pages, Extreme Networks offers the opportunity for organizations to significantly lower both capital and operational expenses with an end-to-end solution and superior support capabilities. ESG's analysis of a modeled use case leveraging an Extreme Networks deployment resulted in an impressive 387% ROI. Many of these benefits are easier to quantify (such as the CapEx and OpEx savings), while others may require more discussion around your specific environment (such as expected productivity savings and revenue increases). In any case, ESG's thorough analysis shows that for those organizations looking to deploy comprehensive end-to-end network solutions, Extreme Networks provides very compelling solutions and differentiated support offerings.

Challenges

IT is under constant pressure to respond to the needs of the business and a highly dynamic global economy. Organizations are responding by implementing digital transformation initiatives, adopting cloud computing models, and leveraging IoT to gain an advantage. As a result, the network will become far more relevant, from collecting IoT data, through ensuring mission-critical application performance remains optimized in the cloud, to ensuring the appropriate levels of access and security to workers, guests, and machines. The network will also need to be far more agile in order to provide the appropriate business outcomes.

Ensuring a successful transition will take more than purchasing equipment from a vendor and deploying it. In highly dynamic and complex network environments that span the data center through the edge to remote offices and the cloud, and that connect office workers, mobile workers, and remote sensors and devices, organization are going to need a true network partner, one that will help them achieve the desired initial outcome, and continuously work with them to enable a highly performant and available network moving forward.

While almost anything is possible with an unlimited budget, most organizations are not that lucky. Most businesses need to deliver these outcomes within a fixed budget. In fact, in a recent ESG research survey, 36% of respondents reported that meeting budget constraints was one of their networking team's biggest challenges, making it the top-cited response (see Figure 1). This adds another layer of complexity, as organizations also need to keep total cost of ownership in mind as they evaluate solutions.

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Other important areas that challenge networking organizations relate to security, performance, time to provision, and a lack of skills related to recruiting employees or implementing new technologies.[1] Given these challenges, it makes even more sense to work with a knowledgeable and strategic network partner to provide comprehensive solutions.

Figure 1. Biggest Challenges Facing the Networking Team

Source: Enterprise Strategy Group

[1] Source: ESG Master Survey Results, *Trends in Network Modernization*, November 2017.

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The New Extreme Networks

Over the last year or so, Extreme Networks has been steadily executing on its vision to provide end-to-end network solutions for enterprise customers. Its latest acquisition, Brocade, provides enterprise-class data center switching, routing, and network analytics. Extreme is now a billion dollar plus network company.

Key Product Benefits Summary

Simple: Edge Automation leveraging ExtremeControl, Fabric Attach, and Fabric Connect

Secure: Hyper Segmentation mitigates risk, APIs extend capabilities to third-party solutions

Intelligent: Complete 360-degree view of network, users, devices, and applications

In addition to Brocade, Extreme has also brought on board Avaya networking and Zebra WLAN businesses (see complete product portfolio in Figure 2). These acquisitions bolster Extreme's customer base but also create greater breadth and depth of networking skills and knowledge. The acquired companies enthusiastically embrace the change as they are now part of a company whose sole focus is designing and building software-driven end-to-end network solutions to enable better business outcomes.

The new Extreme is focused on delivering simple, secure, and intelligent offerings that cover the Data Center, the Campus Core (or Aggregation), and the Access (or Edge). All of these solutions are supported by Extreme management software and industry-leading support and services. In addition to the comprehensive product line, Extreme's networking expertise and singular focus on networking enable its support engineers to deliver much higher levels of support. ESG has spoken with Extreme customers who are very enthusiastic about Extreme support and its ability to resolve a problem on the first call. In fact, Extreme has achieved a call close rate of 94% (the percent of support calls that are resolved in under an hour by the person who answered the call).

Figure 2. Extreme Product Portfolio

Source: Extreme Networks

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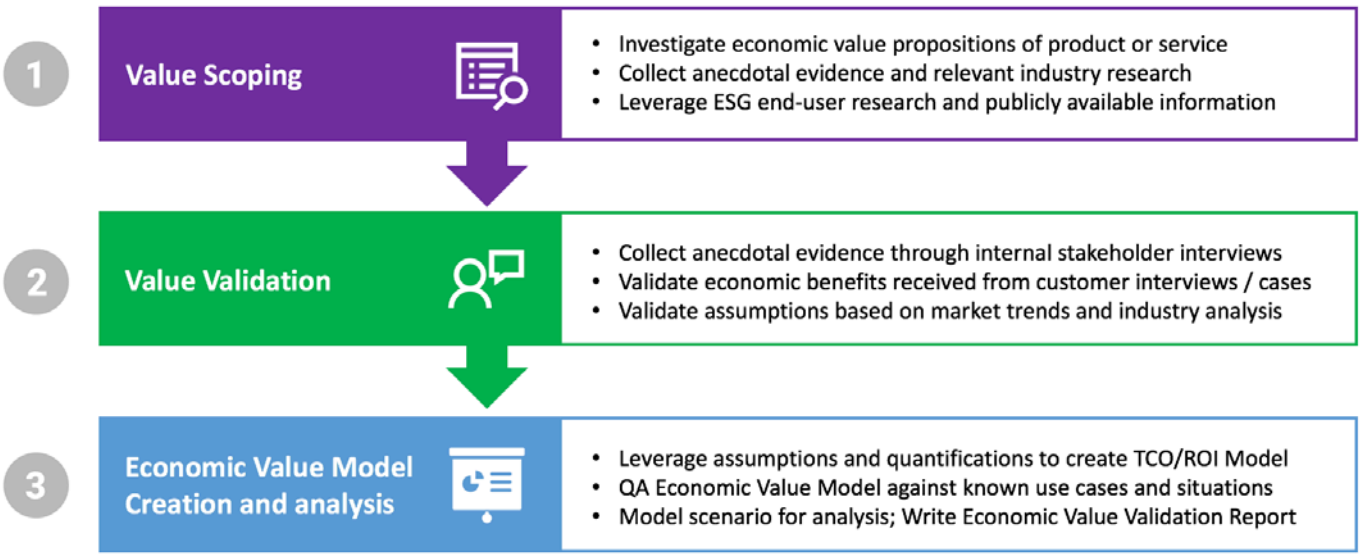
Economic Value Validation (EVV) Process

ESG's Economic Value Validation process is a proven method for understanding, validating, quantifying, and modeling the economic value propositions of a product or solution. The process leverages ESG's core competencies in market and industry analysis, forward-looking research, and technical/economic validation. The EVV process consists of four main phases: value scoping, validation, quantification, and model development.

In the value scoping phase, ESG works with a vendor's internal stakeholders to discuss the ways in which the product or solution can impact potential customers. These economic benefits may be in the form of costs savings (e.g., lower CapEx or OpEx), cost avoidance (e.g., reducing compliance risk or eliminating the need for professional services), increased revenue (e.g., faster task completion or the ability to handle more desktops), and other soft benefits (e.g., increased user productivity or higher customer satisfaction). In the value validation phase, ESG conducts in-depth interviews with end-users to better understand and quantify how these potential value propositions have impacted their organizations, particularly in comparison with previously deployed and/or experienced solutions.

In the final stages, ESG blends the quantified values revealed through the stakeholder and customer interviews with known industry values and additional research, resulting in a validated set of assumptions on which to build a scalable and dynamic TCO/ROI model. This Economic Value Model (EVM) accepts as inputs the answers to typical qualifying questions regarding a potential customer's IT environment and business needs. The model then returns a detailed report of expected savings, TCO, and ROI over a given time period, as compared with a relevant, defined present mode of operation. An overview of the ESG Economic Value Validation process is shown in Figure 3.

Figure 3. ESG EVV Methodology



Source: Enterprise Strategy Group

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Economic Value Overview

Extreme Networks considers the resources available to its entire organization as part of the solutions it sells to the customer. ESG's Economic Value Audit process revealed that Extreme Networks can provide significant cost savings and economic benefit opportunities when compared with solutions delivered from alternative networking vendors. ESG found that Extreme's customers have enjoyed significant economic and operational savings when compared with alternative solutions that are provided by one or more network vendors. These benefits fall into three categories.

- *Traditional network infrastructure savings*: Customers whom ESG interviewed felt that the solution capital costs from Extreme Networks were generally about 10% lower than other vendors' offerings that they considered. In addition, customers saw that purchasing from Extreme Networks simplified many aspects of planning, purchasing, deploying, and maintaining a network, as the company provides core-to-edge networking solutions and supports integration with other vendors' products. Customers noted that their experience with other networking vendors required replacing existing network layers to ensure interoperability; they said it felt as if they were working with "multiple vendors" when purchasing solutions when, in fact, the vendors were different business units of the same vendor.

"Extreme Networks convinced us that for a reasonable price you can get a technologically advanced and reliable solution that can be managed through a unified management console."

"The Extreme solution was able to provide greater coverage and performance with far fewer access points because they invested resources to solve the problem differently than the other vendors – and they came in at half the cost of the highest bidder."

- *Operational and administrative savings*: Extreme Networks greatly simplifies network operations through automation, orchestration, and unified centralized management. The EXOS operating system that ties together both Extreme's wired and wireless solutions, along with the end-to-end visibility offered by its management system, greatly reduce the amount of time and effort that organizations spend deploying, scaling, configuring, managing, monitoring, and tuning their networks and applications.

  Many customers agreed that their networks require far fewer resources to manage and operate. Consequently, end-users have stated that they have enjoyed a higher quality experience since deploying Extreme Networks technology. For new deployments, customers can hire fewer network administrators to manage the infrastructure. Existing network administrators can thus spend more time on proactive projects that focus on increasing business value.

  Extreme Networks can lower operational expenses via other company resources and solution features. The company provides APIs that allow customers to seamlessly interact with third-party tools and extract greater insight from firewalls, security, and analytics software. Change management is much easier by allowing admins to compare device profiles side by side while highlighting the differences and helping to identify potential configuration issues. With these operational advantages, it was no surprise to learn that some Extreme deployments have as few as two administrators managing up to 80 sites.

"I don't have to do anything after configuration; I simply set it and forget it. There is no babysitting that I have to do, I can go to a site, set it up and move onto the next one. I don't have to worry about that site anymore. It just works."

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- *Improved support and problem resolution*: Extreme Networks has built a world-class support team dedicated to solving customers' needs. Support personnel typically have worked for Extreme for an average of eight years. An individual support engineer assumes immediate ownership of the problem and is resolute in solving the problem quickly, minimizing the number of call redirects. The company also co-locates support with engineering, allowing for close collaboration for resolution of large problems. Support can leverage engineering to replicate customer environments in which the problem occurred. Extreme resolves over 94% of support calls in under an hour by the person who answered the call.

ESG customer interviews validated the absolute and honest commitment that Extreme has made toward delivering world-class support and services. Extreme continuously tracks its effectiveness in solving problems quickly. It measures the level of support it delivers to customers. The open issues and metrics are displayed in real time in the center of Extreme's headquarters for all to see. Extreme surveys its customers after every case, as well as periodically after the fact, to see if customers remain satisfied. Survey responses are overwhelmingly positive. Customers view their relationship as a true partnership with Extreme.

"It was refreshing to call support and get an engineer on the phone, on the first call, who knew more than I did. With all other support lines I've called into, I usually get a first-tier employee who asks me to do everything I've already done many times and there is usually a frustration point to get to the right person."

Economic Modeling

Economic Value Model of Extreme Networks

To analyze the economic benefits of Extreme Networks when compared with solutions from other leading network vendors, ESG created requirements for modeled organizations that are representative of a large organization looking to deploy a new campus. Given the variety of specialized products offered by vendors, ESG normalized hardware specifications for Extreme Networks and the competing vendors to be as unbiased as possible (e.g., number of ports, performance level achieved).

ESG modeled and compared the costs that the large organization could expect to pay over a three-year period to plan, purchase, deploy, operate, administer, and maintain its campus network solution. Assumptions and costs used in the scenarios were based on the results of detailed interviews with current customers of Extreme Networks. Many of these customers have had experience with competing solutions and helped to quantify the costs and relative differences between competing deployments.

ESG leveraged its knowledge of markets, the industry, and vendor solutions, as well as detailed interviews with Extreme and its customers to model and predict the costs to deploy, administer, manage, maintain, and operate each of the solutions. These costs were generally based on the number of employees and/or contracted services that were required for differently sized deployments, as well as for the individual solutions. Wherever possible, direct comparisons between the solutions were used to gauge relative differences in man-hour requirements.

To illustrate expected savings, ESG considered a brownfield deployment in a large organization of 6,600 employees in one campus. This organization wants to augment its network infrastructure to handle new growth. We assumed that this organization had previously deployed networking technologies from a leading vendor and wanted to expand with technologies from Extreme Networks or a third leading networking vendor.

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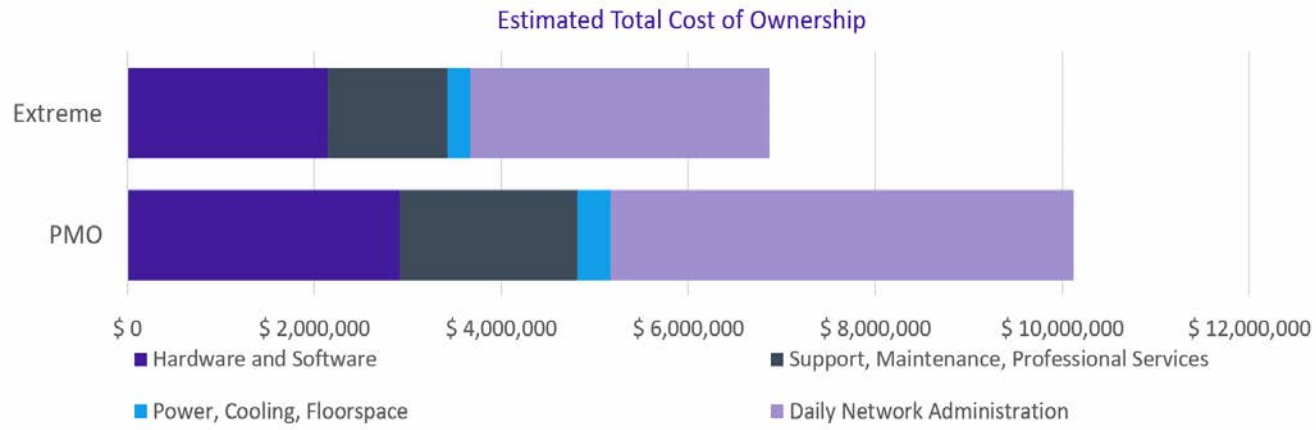
Based on ESG's analysis, we must note that Extreme's ability to integrate with and provide visibility into wired and wireless technologies from other vendors can provide significant economic savings. Other vendors do not suggest nor support deploying their technologies with solutions from competitors. Instead, they require the organization to replace existing gear to function with new hardware or software capabilities. For many organizations that do not have the budget to completely update the entire infrastructure at once, this becomes an important factor in the purchasing decision. ESG factored this into the modeled scenario for estimating costs and savings.

Extreme's ability to interoperate with alternative vendors' products can help customers achieve significant economic savings. No "rip and replace" is necessary when choosing Extreme Networks' solutions.

To illustrate overall cost savings, ESG assumed that this large organization was replacing and augmenting all parts of its network—access points, core, edge and aggregation switches, and software (network management, network access, analytics). Overall, the organization is replacing 40-50% of network hardware with Extreme Networks' products, both on the wired and wireless side. Also, we assumed that each employee has two devices that IT will manage. We compared this with an alternative scenario, called a present mode of operation (PMO). In the PMO, the organization refreshes older equipment and grows its network with equipment from a third-party vendor. Figure 4 shows the estimated TCO that can be achieved over a three-year period when using Extreme Networks' solutions as opposed to using a third-party vendor.

Figure 4. Three-year Total Cost of Solution for Brownfield Modeled Scenario (Expand Existing Network)



Source: Enterprise Strategy Group

ESG's analysis revealed that the three-year TCO of deploying Extreme Networks in a 6,600-employee organization is $6.8 million. Compared with the TCO of $10.2 million for deploying an alternative vendor's solutions, the organization will gain $3.4 million of savings. The savings come from four areas—hardware and software, data center infrastructure, support and maintenance, and network administration. While ESG found that overall equipment costs were lower, the real savings came from the other areas that organizations must consider when investing in newer technologies, specifically in support and maintenance as well as the time spent in administering the network. The ability of Extreme Networks' customers to view its network from end to end, seeing both wired and wireless components, with a unified GUI greatly simplifies overall management. Also, Extreme has built more efficient workflows into its management software that result in IT administrators spending less time in monitoring the network from end to end. The company has developed SDN capabilities into its software, allowing for end-to-end deployment and operation of services

26% lower cost for hardware and software purchases

30% lower cost for support / maintenance / professional services

31% lower cost for power, cooling, floorspace

35% lower cost for daily network administration

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across both wired and wireless networks. Also, the organization can provision and scale up network resources quickly to support any application, user, or device. IT administrators can accomplish this regardless of how the network is segmented or secured (e.g., by VLAN ID, ACL, SSID).

ESG estimated that the modeled organization can also realize an additional $160K in economic benefits when deploying Extreme Networks' solutions. We can examine the relative size of specific benefits in the graph shown in Figure 5.

Figure 5. Three-year Total Cost of Solution for Brownfield Modeled Scenario (Expand Existing Network)

Source: Enterprise Strategy Group

In our modeled 6,600-employee organization, deploying Extreme Networks' solutions decreases the time and resources required for problem resolution. We can attribute these benefits mainly to Extreme's software integration and automation. The software that facilitates interoperability across Extreme's product lines allows IT administrators to manage the end-to-end network, regardless of whether they have to manage wired or wireless equipment. With other vendors, an organization would need to learn potentially multiple operating systems and/or leverage multiple software interfaces to manage different solutions. Coordinating end-to-end network management becomes difficult and cumbersome. The single network view, across both Extreme product lines and third-party gear, allows IT administrators to identify problems more efficiently. Built-in real-time analytics also aids IT in identifying existing and potential network-impacting issues, thus decreasing time spent by IT administrators in resolution. Extreme software automation also lowers the time for patching and upgrading software as opposed to updating individual software platforms associated with individual products.

43% less time for support issues to be resolved

54% less time to identify potential network-impacting issues

67% less time to patch and update software

24% less time for planning and deploying

Extreme's post-sales support also provides quantifiable benefits. As stated earlier, Extreme prides itself on its customer focus in solving customer issues. From ensuring a single point of contact throughout the resolution period to the close

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collaboration between support and engineering, Extreme Networks works on providing great customer experiences. This enables Extreme Networks to decrease a customer's network downtime.

What the Numbers Mean

Networking technology aside, it is to the advantage of any business to do business with partners that are experts at what they do, have the customer's best interests in mind, and are not simply looking to increase the quantity of sold goods or product margins. These partners are certainly difficult to find and the long-term value of doing business with them is not always apparent by simply comparing price tags.

ESG validated through customer interviews and product demonstrations that an Extreme Networks solution can provide significant savings to your organization through simplified administration, automated operation, increased visibility, and superior support services. ESG's modeled scenarios show that Extreme Networks can provide a 33% lower expected TCO over a three-year period in a brownfield deployment for a 6,600-employee organization, saving hundreds of thousands of dollars, while minimizing possible downtime and lowering risk—potentially saving your business hundreds of thousands more.

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The Bigger Truth

The network needs to be an enabler for a company to grow, not an anchor holding it back. Organizations need to partner with network vendors who will help them overcome their biggest challenges, like a limited budget, a secure network, a wide range of users, and performance requirements, especially at scale. The new Extreme has been working diligently to build a comprehensive portfolio of solutions, including a single software suite to manage a complete end-to-end network environment to better address these challenges.

To validate Extreme's ability to help organizations overcome these challenges, ESG looked at three core areas: traditional network infrastructure savings, operational and administrative savings, and improved support and problem resolution. Based on the model ESG created from interviewing customers, Extreme solutions can deliver up to 33% savings in total cost of ownership as compared with alternative solutions. Much of this saving was derived from the operational efficiencies and reduced downtime from expedited support.

The network is becoming more relevant to growing your business, and enabling key initiatives like digital transformation, IoT, and cloud computing. Organizations need to carefully evaluate who they will partner with to ensure success. The new Extreme Networks was built to bring simple, secure, and intelligent network solutions to deliver positive business outcomes at a lower total cost of ownership. The new Extreme is a viable alternative as a strategic network partner and should be on the evaluation list. Ask Extreme to create a TCO analysis for your specific environment to better understand the value Extreme Networks solutions can bring your organization.

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