2017 EMA INNOVATOR:
EXTRAHOP

ADVANCED ANALYTICS

EMA™

An Enterprise Management Associates
Research Report

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Table of Contents

EMA Innovator Awards: Networking, First Half 2017 1

Current Networking Trends Demand Innovation 1

ExtraHop Addy: Machine Learning for Network Operations 3

- Product Category: Network Analytics 3
- EMA Perspective 3
- EMA Recommendations 3

Key Takeaways 4

Introduction: Advancing the IT Industry

EMA Innovator Awards: Networking, First Half 2017

The EMA Innovator Awards recognize products and services that demonstrate true innovation in the IT industry. On a rolling basis, EMA analysts present these awards to vendors that have advanced their respective industries and solved pressing problems for their customers.

This report recognizes ExtraHop Addy, an award-winning machine learning service that provides users of the ExtraHop platform with analytical insights into network and security operations. The following pages explore how this service helps address the network operations challenges of today's enterprises.

Current Networking Trends Demand Innovation

Before we discuss the award, we want to take a moment to review some of the business and technical trends that are driving the need for increased innovation in the networking world.

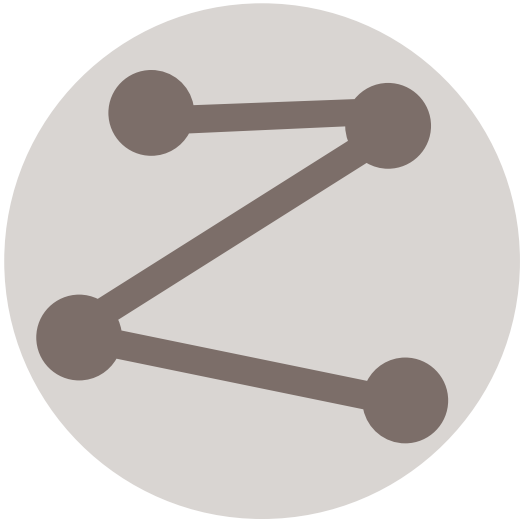
These conditions place extreme pressure on under-resourced network teams. They need to build flexible and agile networks that can bring connectivity to new applications and new devices. And they need tools that can validate and secure that connectivity. As vendors deliver new and updated products and services to the market, EMA analysts will evaluate them from this perspective. The following EMA Innovator award winners are vendors helping network teams survive this disruption.

Managing in the Dark

The number one challenge to successful network operations is a "lack of end-to-end network visibility." Network managers lack the tools they need to fully understand network health and performance. By extension, they also lack visibility into how the network is supporting the business.

Trying to Do More With Less

Network teams are understaffed and underbudgeted. The number two challenge to successful network operations is a "lack of resources (people and budget)." Network managers lack the skilled personnel and the budget to adequately operate their networks.



Constant Firefighting

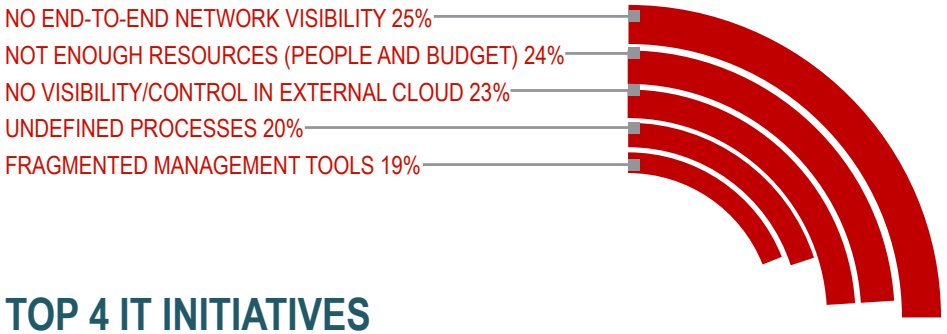
Network managers spend 71% of their typical workday troubleshooting problems. That troubleshooting is split almost evenly between reactive firefighting (36%) and proactive problem prevention (35%). This situation leaves little time for projects that deliver real value to a business.

Transform the Business

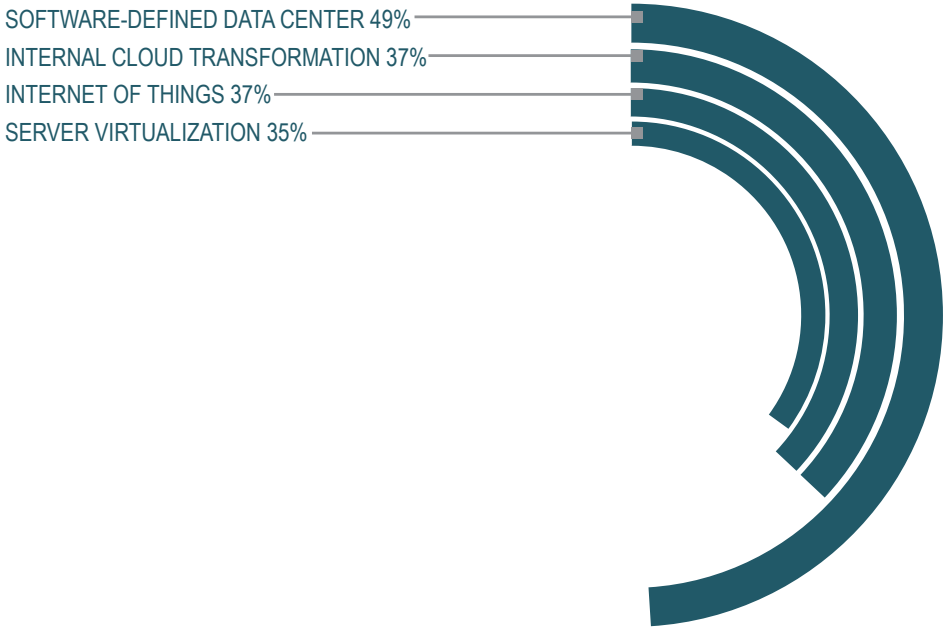
Enterprises are not easing up on their demands of the network. A wide variety of transformational IT initiatives are directly impacting the network team's decision-making. Internal cloud transformation initiatives, the Internet of Things (IoT), and software-defined data center architectures are all top of mind for network teams today. In fact, 87% of network teams are already providing connectivity to IoT.

Introduction: Advancing the IT Industry

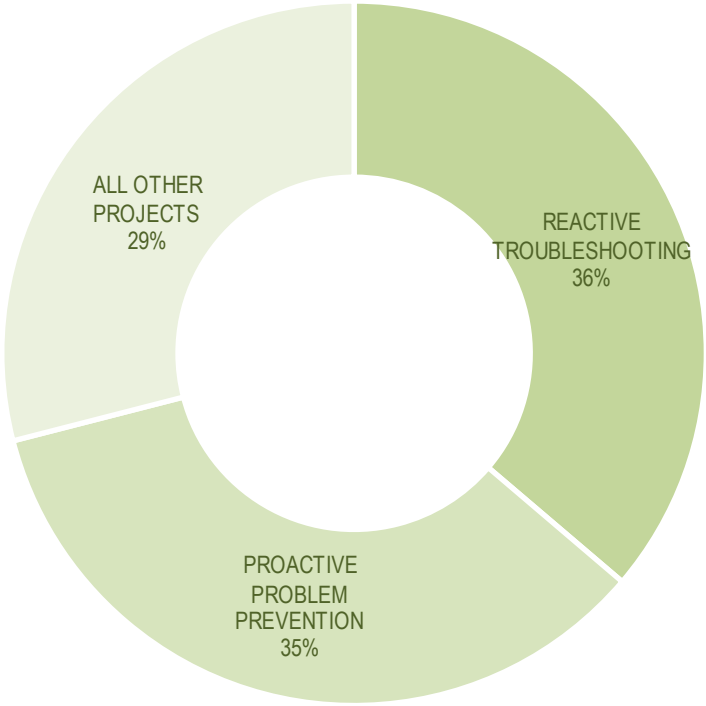
TOP 5 CHALLENGES
TO SUCCESSFUL NETWORK OPERATIONS



TOP 4 IT INITIATIVES
DRIVING NETWORK MANAGEMENT DECISION-MAKING



PERCENTAGE OF TOTAL WORK TIME
THE NETWORK TEAM SPENDS ON THE FOLLOWING ACTIVITIES EACH WEEK



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ExtraHop Addy: Machine Learning for Network Operations

Product Category: Network Analytics

Wire data analytics innovator ExtraHop introduced Addy, a machine learning service for network operations. Addy uses the scalability of the cloud to apply machine learning heuristics to the real-time wire data analysis performed by ExtraHop's core platform.

ExtraHop's core platform processes raw packet flows in real time to create transaction records of network traffic. Then it turns those transaction records into wire data that gives network operations teams instant visibility into overall network and application activity. While ExtraHop excels at giving network operations visibility into the network, it's often up to users to identify patterns that may be indicative of a problem.

Addy is an always-on service that learns normal device, network, and application behavior by analyzing all the wire data generated by an ExtraHop installation. ExtraHop then offers services on top of this platform based on what Addy observes about the network.

The first Addy service ExtraHop has introduced is anomaly detection. Addy classifies normal network activity via its baselining abilities and then alerts users to aberrations. Users can teach Addy how to refine its understanding of the network. For instance, if an enterprise adds a new maintenance window on its network, Addy will quickly learn and adapt. Additional services that Addy can support include threat detection and industry benchmarking.

EMA Perspective

Today's IT organization is constantly being asked to do more with less. EMA research has determined that network management teams suffer from a lack of sufficient technical personnel. This situation is especially unfortunate given that network engineers and administrators often function as human middleware for their network monitoring tools.

Many network monitoring tools excel at revealing network health and performance, but they often fail to answer deeper questions. Network managers spend much of their time trying to identify which events are truly indicative of a problem. Then they dive into the root causes of those problems. This is not an efficient use of precious talent.

ExtraHop Addy is a service that learns everything about how an individual network behaves and correlates this behavior with events. Network managers can think of it as an intelligent co-pilot for the network, with the potential for it to evolve into an autopilot.

EMA Recommendations

- **Evaluate Addy.** ExtraHop customers should evaluate Addy to determine whether it can enhance IT operations and security operations. Bear in mind that the Addy service is applicable only to ExtraHop environments. It does not leverage third-party data.
- **Research machine learning technologies.** Network managers should be researching machine learning technologies in general. Many experts have rightly pointed out that there are many challenges to applying machine learning algorithms to network data. However, ExtraHop and many other companies are investing heavily in this area. It has the potential to greatly enhance and automate network operations and security.

Conclusion

Key Takeaways

The innovation highlighted in this report addresses many of the challenges that enterprise network managers are facing today. EMA has observed growing interest in network analytics and network automation technologies to improve visibility and accelerate incident response.

Network analytics is essential to next-generation networking. It empowers human network operators. Yesterday's network management tools excelled at presenting network data in context, but it was up to network managers to analyze that data for actionable insights. Today, network managers need tools can go a step further and present actionable insights on their own. ExtraHop's Addy service delivers those actionable insights. Furthermore, as Addy matures, it could form the foundation of a closed-loop network operations system that can automatically identify and respond to events. This potential combination of analytics and automation will be invaluable to network operations.

* A note on research: All data cited in this research was originally published by EMA in "Network Management Megatrends 2016: Managing Networks in the Era of the Internet of Things, Hybrid Cloud, and Advanced Network Analytics," April 2016.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals, and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on Twitter, Facebook, or LinkedIn.

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