MindPoint Group and Trend Micro Help Secure NASA’s Successful Journey to the AWS Cloud

OVERVIEW
Formed in 2009, MindPoint Group is an innovative cyber security firm providing an array of cloud security solutions that assist organizations in modernizing their legacy IT infrastructure(s) and transferring it securely to a virtualized, elastic, and efficient cloud infrastructure built on Amazon Web Services (AWS). The company applies its breadth and depth in cyber security to supporting clients like NASA, helping one of the first and largest cloud brokers in the federal government deploy a secure hosting solution to migrate the largest federal web presence to the cloud. Their groundbreaking cloud security solutions have resulted in multiple NASA awards.

As a Third Party Assessment Organization (3PAO) partner, MindPoint Group guides organizations through FedRAMP compliance and provides thought leadership and insight into the security posture of a client’s cloud services.

CHALLENGES
When NASA decided to move to the Amazon Web Services (AWS) cloud environment, the agency faced significant security challenges. In addition to providing a single, secure cloud platform for more than 200,000 pages of content and more than 100 applications, they needed to secure shared services for various departments and team members. Simultaneously, the solution needed to comply with federal regulations, including FedRAMP, FISMA, NIST, as well as NASA Policy. “NASA wanted to take a bold, but secure leap to the cloud to gain benefits across the entire organization,” said Mariam Es-Haq, Co-Founder and Vice President of the MindPoint Group.

With NASA’s 1,500 public-facing websites, 2,000 diverse intranets and extranets, and live streams of rocket launches and other major events, they needed a solution to provide protection in a scalable, public environment. “NASA has a very elastic environment, with both traffic and application surges. To ensure the AWS environment was always protected, they needed a security solution that provided visibility into threats across their IT landscape,” said Daniel Shepherd, Director, Engineering and Innovation at MindPoint Group.

WHY TREND MICRO
MindPoint Group evaluated the broad set of capabilities in the Trend Micro™ Deep Security™ solution, which offers significant protection against diverse types of attacks at scale. “Trend Micro has a greater integration of threat detection modules than other applications in the cloud. An additional strength is that Trend Micro security tools seamlessly integrates and scales with cloud native workloads,” said Keith Rhea, Cloud Security Engineer at MindPoint Group.
What mattered most to MindPoint Group was that Deep Security™ provided multiple security tools in a single console, enabling NASA to manage their entire security suite in one place. Based on a successful evaluation, MindPoint Group selected the solution to protect NASA’s applications and data.

SOLUTION
MindPoint Group deployed Trend Micro™ Deep Security™ to protect NASA’s AWS cloud environment. The solution’s malware prevention agents protect physical, virtual, and cloud servers, while seamless integration with AWS extends NASA’s data center security policies to cloud-based workloads and shared services. “Trend Micro’s support helped to deliver a smooth implementation experience in a complex and sensitive environment,” said Shepherd. Deep Security™ helps NASA achieve compliance by closing gaps in protection efficiently and economically across cloud environments. As a result, the solution simplifies compliance with FedRAMP, FISMA, NIST, and NASA Policy. Deep Security also provides complete visibility of network traffic, and centralized management enables continuous monitoring and vulnerability shielding to ensure the elastic, public environment is always protected. “Deep Security provides visibility across our environment, and control over applications accessing our network,” said Rhea.

The solution also protects NASA’s cloud environment against zero-day malware and network-based attacks while minimizing operational impact from resource inefficiencies and emergency patching. The intrusion prevention system (IPS) capability secures NASA’s numerous web applications and Deep Security automates and simplifies the agency’s cloud operations across AWS. “Being able to build standard machine images and environments in AWS with integrated Trend Micro agents, allows us to rapidly scale with the demand of our applications,” said Rhea.

RESULTS
NASA significantly reduced monthly operations and maintenance costs with Trend Micro™ Deep Security™ by utilizing a single suite for all required security tools. The secure, cloud platform eliminated silos to enhance safety, insights, and data security. Consolidated metrics improved reporting for operations engineers, managers, and executives. “Trend Micro engineers helped with this pathbreaking transformation and made sure it worked with GovCloud. Trend Micro Deep Security reduced the infrastructure footprint, streamlined deployment, cut overhead, and improved analyst focus,” said Rhea.

In recognition of this successful cloud migration, MindPoint Group won many awards including:

- 2014 NASA Web Services Team Honor Award for the NASA cloud transformation. It recognized a successful, secure transition from traditional data centers to the cloud while delivering significant cost and security improvements.
- 2014 NASA Shared Service Center (NSSC) Subcontractor of the Year Award to MindPoint Group for delivering significant value and support of cloud security solutions.
- 2015 Honor Award for Team Members for enabling a secure cloud platform that addresses security and compliance controls and enabled the development of an innovative and impactful application that integrated multiple siloed data sources.

These awards reflect MindPoint Group’s delivery of innovative solutions for NASA. “Our work with early adopters helps us create innovative approaches and gain greater experience, placing MindPoint Group ahead of the curve as more government and commercial entities adopt cloud transformations,” said Es-Haq.

WHAT’S NEXT?
With Trend Micro™ Deep Security™ deployed, MindPoint Group can securely expand NASA applications. The upcoming availability of Deep Security™ in the AWS GovCloud Marketplace will help MindPoint Group streamline its operations. MindPoint Group is also developing its managed security services solution for cloud customers which includes log monitoring, SIEM, endpoint agents, and more for a pre-integrated, cost effective, and efficient services solution for security monitoring.

MORE INFORMATION
For more information on Deep Security, please go to www.trendmicro.com/aws