

Increased Visibility Helps Schools Evolve Cloud Computing

Trend Micro™ Deep Security provides in-depth understanding of activity on physical and virtualized servers.

“With the phasing in of Deep Security capabilities, we have confidence that we are staying ahead of the evolving threats and maintaining a proactive posture for security in our physical, virtual, and cloud environments.”

— Noe Arzate, Director of Technology, Mount Pleasant Independent School District

EXECUTIVE SUMMARY

Customer Name: Mount Pleasant Independent School District

Industry: K12 Education

Location: Mount Pleasant, Texas

Web site: www.mpsisd.net

Number of Employees: 1,000 (serving 5,500 students)

CHALLENGE:

- Cost-effectively evolve the school district's computer resources and data center
- Increase visibility within virtualized and cloud environments, to effectively identify threats
- Gain more understanding about typical and atypical user behaviors as the groundwork for evolving security policies

SOLUTION:

- Take advantage of Trend Micro Deep Security monitoring and auditing capabilities, which can be applied across physical and virtualized server environments

BUSINESS RESULTS:

- Easy phasing in of new solution, with ability to increase protection after gaining understanding of user requirements
- Fine-grained logging and monitoring capabilities, without disrupting user activities
- Broad range of security features, which can be selectively enabled when needed
- Ease of deployment and management, for affordable operating costs
- Ability to extend monitoring and protection consistently over physical, virtual, and cloud environments

Challenge

Over the last four years, Mount Pleasant Independent School District (ISD) has taken advantage of advanced technologies to creatively get more done with less. Virtualization, for example, has helped them consolidate and better utilize their servers.

After they introduced virtualization, they went a step further and deployed an internal cloud within their virtualized data center. “Using smart phones or devices, our teachers and students can access their files and data from anywhere,” explained Noe Arzate, the director of technology for Mount Pleasant ISD. “They connect to our gateway—an external proxy—and then connect to our internal cloud. They have access, but not to our internal network. This design effectively extends the classroom resources, and lets students use their smart phones or tablets to continue their work where they left off, from home or when they are traveling.”

The district's technology-forward stance has improved collaboration between students and teachers, and fostered creative learning. For the technology team, it has introduced some new challenges. “The first thing we wanted to do was to have a better understanding of our user behavior,” said Arzate. “We want to be able to see who is logging in, for how long, and be able to audit system activity.”

Solution

The desire to gain more understanding about the computer activity in their data center and network stems from two requirements. First, the technology team must be able to plan for future system requirements. And second, they need to be able to spot unusual activity, in order to identify threats and mitigate risks.

“If there is anything out of the ordinary, we want to be able to see that and we also need the tools to take the logical next steps, to investigate and spot any activity that represents a threat,” said Arzate.

Fortunately, Mount Pleasant ISD had previously licensed Trend Micro Deep Security. The solution was originally used to monitor activity on other servers, but recently became a valued tool within the district's data center that includes physical and virtualized servers as well as the district's externally facing cloud resources.

Trend Micro Deep Security leverages the threat intelligence of the Trend Micro™ Smart Protection Network™ infrastructure. This next-generation innovation combines sophisticated cloud-based reputation technology, feedback loops, and the expertise of TrendLabsSM researchers to deliver real-time protection from emerging threats.

“This year, with Deep Security, we have a better picture of activity on our systems,” said Arzate. “Basically, we have become more proactive and introduced some best practices that will help us better protect students and the district.

“This is just our first phase, with Deep Security. The solution will let us do a lot more in the future. Right now, we are auditing activity and learning a lot about our environment. Next we will take advantage of Deep Security’s intrusion protection and firewall capabilities.”

Within the district’s VMware environment, the technology team was able to quickly and easily introduce Deep Security. “The fact that Trend Micro Deep Security is VMware-ready definitely helps with the integration of security into our virtualized environment,” said Arzate. “As technology advances, we have to deal with more complexity in our networks and data center—Trend Micro and VMware integration has been a big plus, in terms of minimizing complexity.”

Results

Virtualization and cloud computing have helped the district minimize expenditures on physical servers, and subsequently reduce related operating expenses including utility costs. The ability to gradually phase in Deep Security features has allowed the district to gain immediate visibility and auditing capabilities. This flexibility also enables them to schedule the introduction of other threat blocking capabilities after they have an in-depth picture of user activity. Security policies will ultimately be tailored to increase protection while being sensitive to the needs of the students and teachers.

“Deep Security can do a lot more than just monitor and audit activity, and we plan to use it to its full potential. There are so many things it can do to improve visibility and raise protection, especially when dealing with virtualized environments and the associated levels of complexity in today’s infrastructures and networks. Deep Security can help us meet our objectives as we gradually evolve our infrastructure.”

“Our VMware deployment has gone well, and the resulting cost savings from server consolidation have been especially important during recent years,” said Arzate. “Deep Security has had minimal performance impact on our virtual servers, allowing us to maintain anticipated consolidation ratios. We have been able to achieve the visibility and protection we need, while still realizing the ROI we expected from server consolidation.”

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— Noe Arzate, Director of Technology,
Mount Pleasant Independent School District

DEPLOYMENT ENVIRONMENT

- 7 schools, 2 centers, plus administrative offices
- 1 central data center
- Trend Micro Deep Security

Company Profile

Mount Pleasant Independent School District embraces its mission to provide an education that allows students to make college and career choices with confidence. The district builds relationships with all students, and enables each to develop individual potential through engaging and varied learning experiences in school. Mount Pleasant ISD’s vision is for every student to leave with the skills necessary to assume a place as a productive citizen.

Trend Micro Security

- **Trend Micro Deep Security**
<http://us.trendmicro.com/us/solutions/enterprise/security-solutions/virtualization/deep-security/index.html>

Trend Micro Enabling Technology

- **Trend Micro Smart Protection Network**
<http://us.trendmicro.com/us/trendwatch/core-technologies/smart-protection-network/>
- **Trend Micro Cloud Security**
<http://www.cloudjourney.com>



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