Stop Threats Faster by Turning Your Entire District Network into a Firewall

TX CTO Clinic, Thursday, June 22, 2017 2:00 – 2:30 PM

Gavin Lee, K-12 Education Practice Leader
Juniper Networks, gavinl@juniper.net
Agenda

Digital Transformation Network Challenges

School District Network Security Today

Stopping Threats Faster With Juniper Networks
Software-Defined Secure Networks (SDSN)

Summary
Digital Transformation Driving Technology Infrastructure Readiness

Reliable, high speed broadband connections

Wi-Fi in every classroom

Data Privacy, Threat Protection

Cloud
Threat Landscape
Feels like “Treading Water”

<table>
<thead>
<tr>
<th>2017 IT Priorities</th>
<th>High Risk Top Security Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mobile Learning</td>
<td>• Phishing</td>
</tr>
<tr>
<td>• Broadband &amp; Network Capacity</td>
<td>• Denial of Service</td>
</tr>
<tr>
<td>• Cyber Security</td>
<td>• Ransomware</td>
</tr>
</tbody>
</table>

Source: CoSN IT Leadership Survey

Source: CoSN Infrastructure Survey
CoSN Infrastructure Survey

- Nearly ½ spend less than 4%
- 19% spend less than 1%

“Investing more money in security without feeling any more secure”

Source: CoSN Infrastructure Survey
Threats are Everywhere
It’s a Zero Trust World

- Cyber criminals are always finding new vulnerabilities
- Attacks are more diverse and variable
- Threats are already inside and are likely unknown
- Hackers quickly change malware code to avoid detection
In 93% of data breaches, compromised occurred in minutes or less

In 83% of data breaches, discovery occurred in weeks

Source: Verizon 2016 Data Breach Investigation Report
Network Security Today

Today’s network security is inadequate to effectively detect and stop evolving threats.
Traditional infrastructure and network security today follows a UNTRUST / TRUST Model.
Traditional infrastructure and network security today follows a UNTRUST / TRUST Model.
To Stop Threats Faster
Comprehensive Security – Zero Trust Model

Realize threats are already inside.
Perimeter security is no longer enough!
Enable detection and enforcement anywhere
Acknowledge horizontal and vertical vulnerabilities
Software-Defined Secure Network (SDSN)
Policy, Detection & Enforcement

Leverage entire network and ecosystem for threat intelligence and detection

Utilize any element of the network as an enforcement point

Dynamically execute policy across all network elements including third party devices
Software-Defined Secure Networks (SDSN)

Building Blocks

School District Network

Internet

Perimeter NGFW

Aggregation Switches

Access Switches

SkyATP

C&C

GeoIP

3rd Party

Policy Enforcer

Security Director

Feed Collector

In-house Threat Feeds

Network as a single enforcement domain - Every element is a policy enforcement point
Software-Defined Secure Network in Action

End-to-end visibility districts need to secure the entire network

- Instant threat intelligence and detection
- Dynamically adapting policy, deployed in real-time
- Enforce security everywhere

Secure Network strategy for UNTRUST/UNTRUST Model
Software-Defined Secure Networks

- Assures digital learning experience, business continuity, reduces risk profile: Adaptive, immediate protection
- Best utilization of scarce security personnel: Contextual, actionable alerts
- Reduced OpEx: Automated, unified management and visibility
- Deployment flexibility: On premises, virtual, cloud or blended with open, robust architecture
- Maximize investment while speeding and enhancing threat protection: Leverage investment of entire network, Network as a Firewall
Your Juniper Contacts

Jack Borchgrevink
Juniper Networks
Senior Account Manager, Texas
jackb@juniper.net
713-303-1816

Thai Tran
Juniper Networks
Account Manager, Texas
thaitran@juniper.net
214-729-4939
To learn more:
Software-Defined Secure Networks www.juniper.net/sdsn
Juniper K-12 Solutions www.juniper.net/us/en/solutions/education/k-12-education/
Juniper E-Rate Resource Center www.juniper.net/e-rate

Thank you