



Thank you for Coming!

Gold Sponsors:



Silver Sponsor:



# Upcoming Events

DATE	MEETING TYPE	TOPIC	LOCATION
Thursday, Dec 17	Chapter Meeting & Holiday Social	Privileged Account Management Presented by: CyberArk	XPO Logistics & McMenamins Pool & Tavern
Thursday, Jan 21	ISSA Chapter Symposium	Cloud Security	Nike
Thursday, Jan 28	Conference	Data Connectors: Portland Tech-Security Conference	Marriott Downtown Waterfront
Fri-Sat, Jan 29-30	InfoSec Training	CISSP Review Course Presented by ISACA	UTASC Tanasbourne

# Other Announcements

Oregon Center for Cyber-Security OCC-SEC) at



MT. HOOD  
COMMUNITY COLLEGE

- 2 Year Associates Degrees:
  - CyberSecurity and Networking: Database Development
  - CyberSecurity and Networking
- CCCC Certificate Programs:
  - Business Cyber Vulnerability Analyst
  - Network and Firewall Security Technician
  - Secure Network Technician
- Palo Alto Networks Academy
- CompTIA Certification
- Digital Forensics – ACE Certified Examiner Certificates

Contact:

Wayne Machuca, PhD

[Wayne.machuca@mhcc.edu](mailto:Wayne.machuca@mhcc.edu)

503-491-7631

# Today's Presentation: Vulnerability Management Programs & Lessons Learned

---

What goes on in the real world with Vulnerability Management programs and how you can construct a program that focuses on threat management, security intelligence, risk awareness and patch auditing.

**Presented by: Bill Olson, Product Manager**



# What is a Vulnerability?

## System and Applications not patched for known security flaws

- Hardware
- Operating System
- Application
- Database
- Network Equipment

<i>Client Tier</i>	<i>Desktop - Web Browser</i>
<i>Internet/Intranet Tier</i>	<i>Network</i>
<i>Web Server Tier</i>	<i>Apache IIS, etc</i>
<i>Application Server Tier</i>	<i>PHP, Java/J2EE, Ruby, Wordpress, etc</i>
<i>Database Tier</i>	<i>MySQL, Oracle, DB2</i>

## Browser and Plugins

- Not up to date
- Not patched for known security flaw

## Applications and OSs not Configured to Secure Standards

- Never configured
- Configuration Change

## Web Applications and Web Services

- With known security issues
- Incorrectly Code
- Not patched for known security flaws

# Why Should Anyone Care?

What is the difference  
between

Vulnerability Assessment  
&  
Vulnerability Management?

# Vulnerability Assessment

- Often simply only a scanning program
- Hard to measure success long-term
  - Is it checking patch levels?
  - Is it lowering risk overall?
  - What processes are working?
  - Where is it not working in the organization?
  - Are you compliant?
- Generally **too** much data as it lacks **context**
- Point in time only

# Vulnerability Management

- Accountability
- Not just about vulnerability scanning
  - A process to find, rate, remediate, track, progress
  - Should be about context, context and more context
- Need to build a program that allows for the following
  - Meeting compliance or regulator goals
  - Defined success factors
  - Measurable
  - Repeatable
  - Involved with other programs, patch management, ticketing, asset management, configuration management



# Lesson #0

## Vulnerability Management

What is the **goal** of your VM program?

- Risk Management
- Threat Management
- Security Intelligence
- Security Patch Auditing

All of the above?

# Lesson #1

## What Makes VM Programs Fail

### Bad Data

- (False Positives, etc)

### Data Without Relevancy or Context

- What does the data mean to the organization
- What does the data mean to the people reading the data (more on this later)

### Data that is not timely

- Scanning more frequently is a good idea
- Reporting with periodicity

# Lesson #2

## Why Patching Doesn't Happen

Can not find the owner

- Who owns the asset
- Who owns the OS
- Who owns the application

Can not be patched

- It will break something
- Out of support
- Can not afford the downtime

Some is broken

- People
- Process
- Technology

# Lesson #3

## What makes Programs Work

- People
- Process
- Security
- Politics

# Vulnerability Management People

## What do they do?

- Ops
- Security
- Admins

## What is important to them?

- Uptime
- Looking good in their group
- Looking good in the organization

## Their Place in the organization

- Management / Team lead
- Director
- CIO
- CISO
- Board of Directors

# Vulnerability Management Process

How often do you scan?

- Daily
- Weekly
- Monthly

How often do you report?

- Daily
- Weekly
- Monthly

What is being measured?

- Open Vulnerabilities
- Closed Vulnerabilities
- Overdue Vulnerabilities

How do you prioritize patches?

- High Risk
- High Severity
- Asset Criticality

When do you patch?

- By OS
- By Server
- By Workstation

How do you classify assets?

- By business Application
- By Business Unit

# Vulnerability Management

## Security

Are ALL vulnerabilities treated equally?

How many vulnerabilities do you have?

What is the context of each vulnerability?

- How do you classify assets?
- Do you manually rank vulnerability?\*\*

How do you measure the Security in the organization?

- SLAs
- Open
- Closed
- Risk

Is your Security Audited?

- PCI
- SOX
- HIPAA
- ISM
- ISO
- COBIT
- etc

# Vulnerability Management Politics

## You are not alone

- Find a partner within IT Operations
- Audit
- Management

## Respect People

- Empathy
- This should not be punitive
- It is about helping people
- It is about improving process

## Reporting

- If you write it down it must be true
- Get your counts as perfect as possible
- Know people will have hurt feelings
- Create reports that tell a story



# Lesson #4

## Think Different

Many clients are focused on the wrong things

- Trying to fix all the vulnerabilities they have
- Focusing only vulnerabilities without context
- Looking to match patching tools
- Measuring the wrong things (how many open)
- Not integrating into other systems

## Change the paradigm

- Admit you can not fix them all
- Look for areas of weakness
- Perform Root Cause Analysis each of these lessons

## Lesson #5

Think **even more** Different

What is the goal of your program?

Some of the best programs are working  
towards one common goal

Focusing only on the

**Exceptions**



## Discussion / Q & A

THANK YOU:  
Bill Olson  
[bolson@tenable.com](mailto:bolson@tenable.com)

Gold Sponsors:



Silver Sponsor:

