

Vulnerability Management

Main Misunderstandings

Oleksandr Kazymyrov
15.06.22



Agenda



Introduction



Common misunderstandings

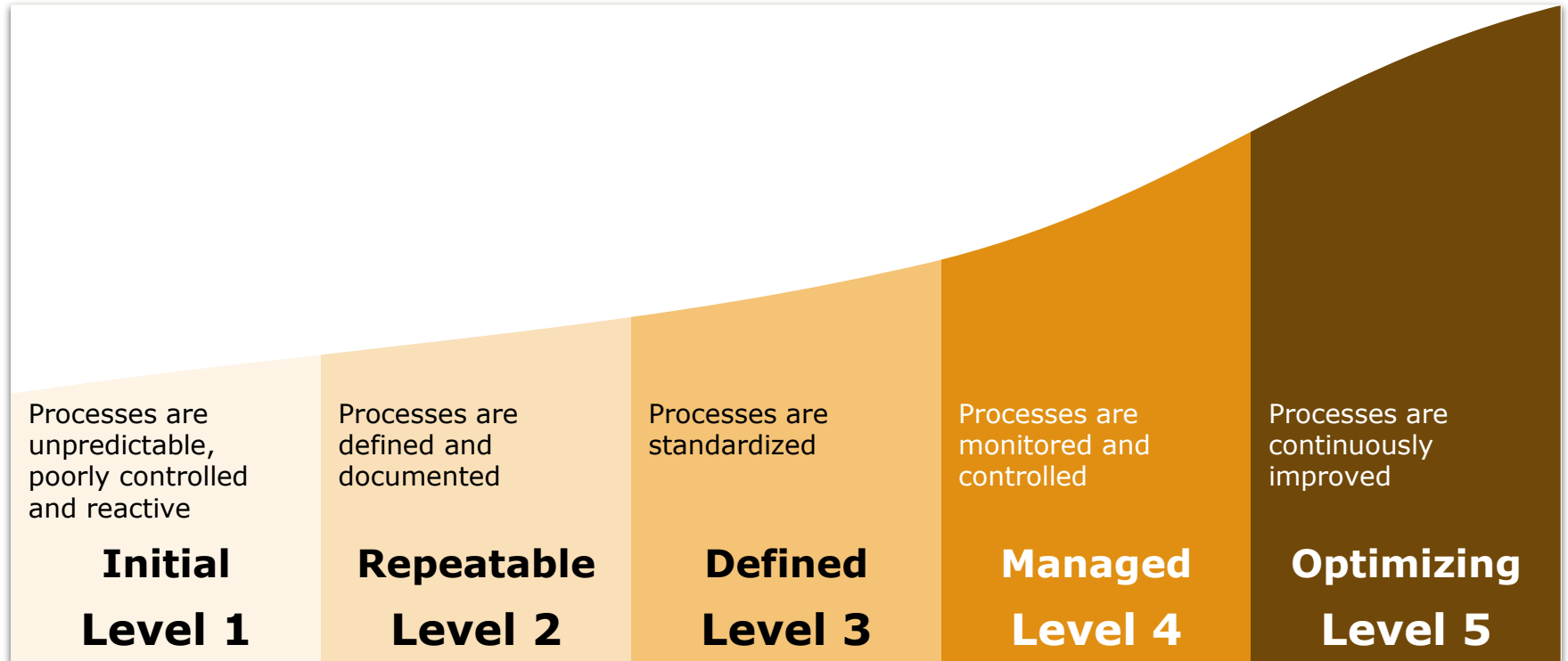


Challenges

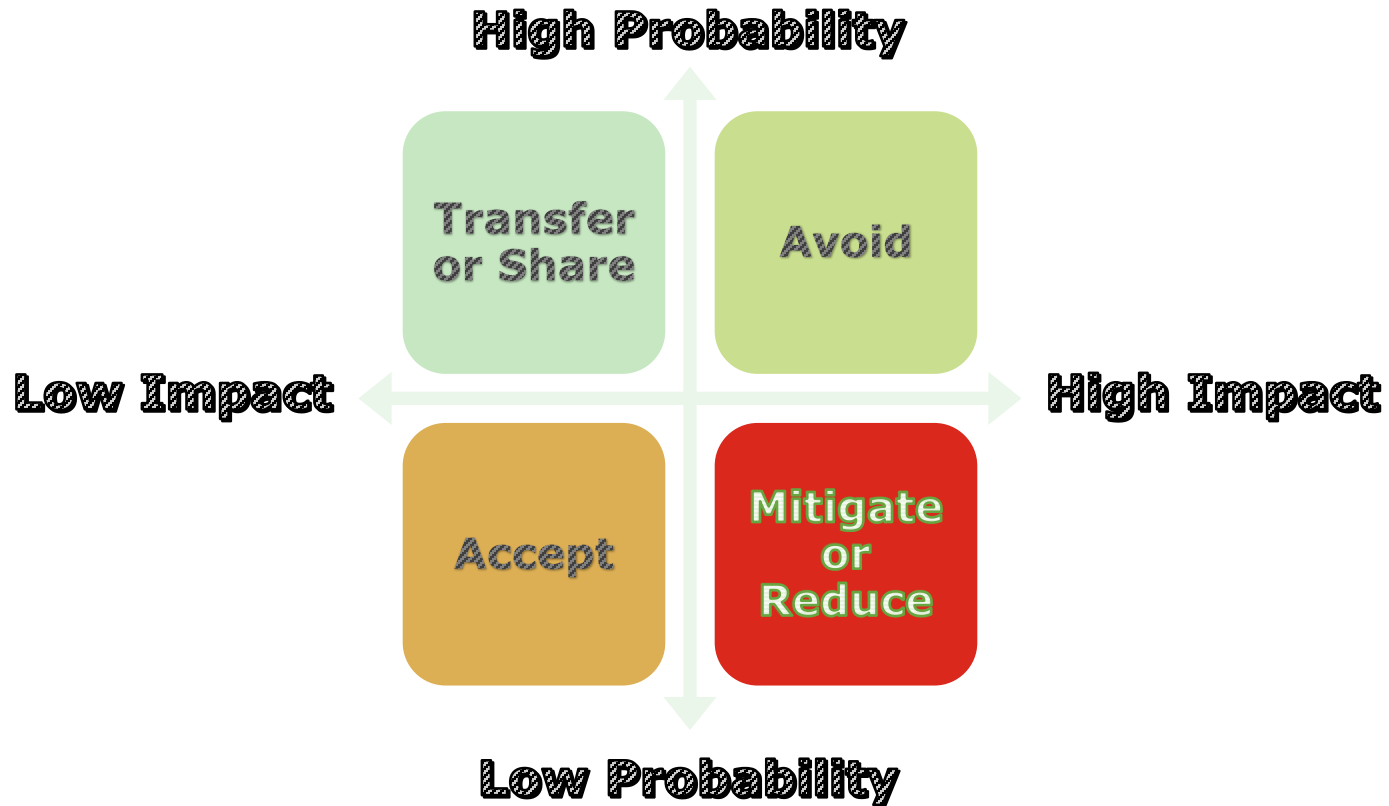


Summary

(Capability) maturity level



Types of risk treatment





”

Reports from our patch management solution show that vulnerabilities are patched

Frequency: Often



”

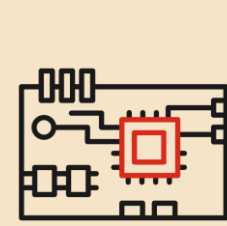
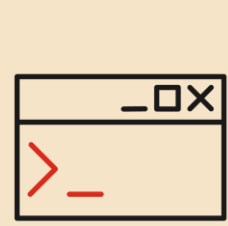
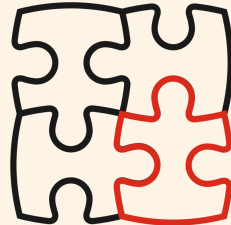
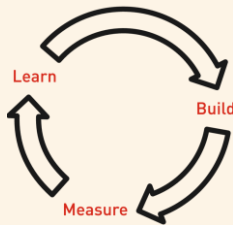
Vulnerability scanning
is vulnerability
management

Frequency: Often

Technology

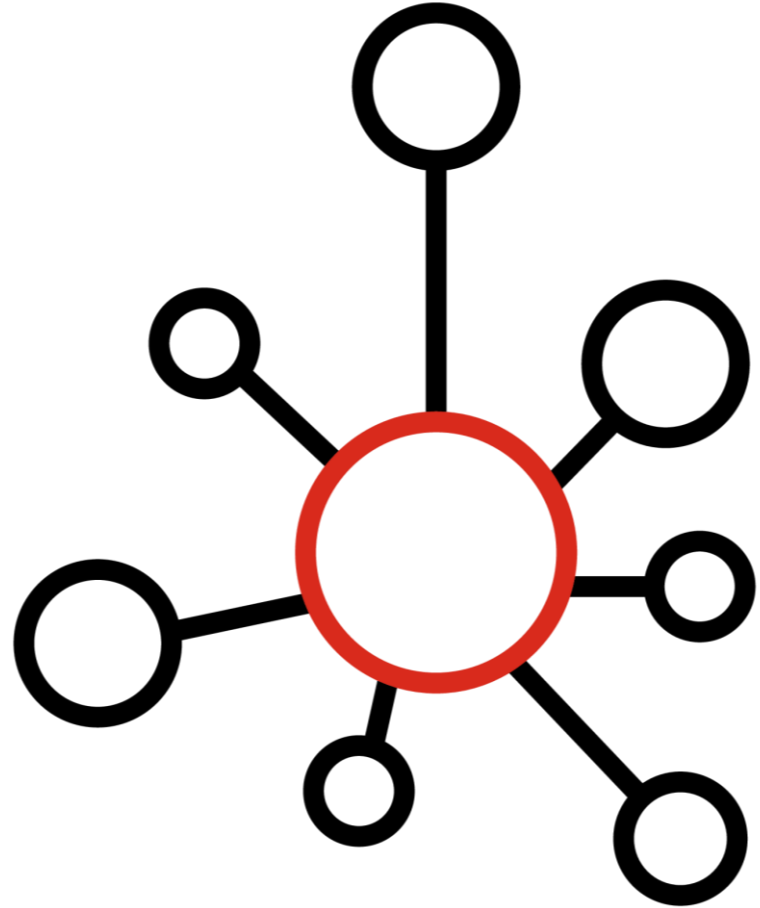
Process

People



Servers are not infrastructure

- Clients/workstations
- Network devices
- Databases
- Containers
- IoT
- Hypervisors
- Web Applications
- ...



”

Vulnerability
management is a
one-time project

Frequency: Common



Network scanning vs agent-based scanning



Vulnerability scanning infrastructure

Support of vulnerability scanning
infrastructure is a dedicated
process



Extended vulnerability management



Integration with patch management system



Mobile device management

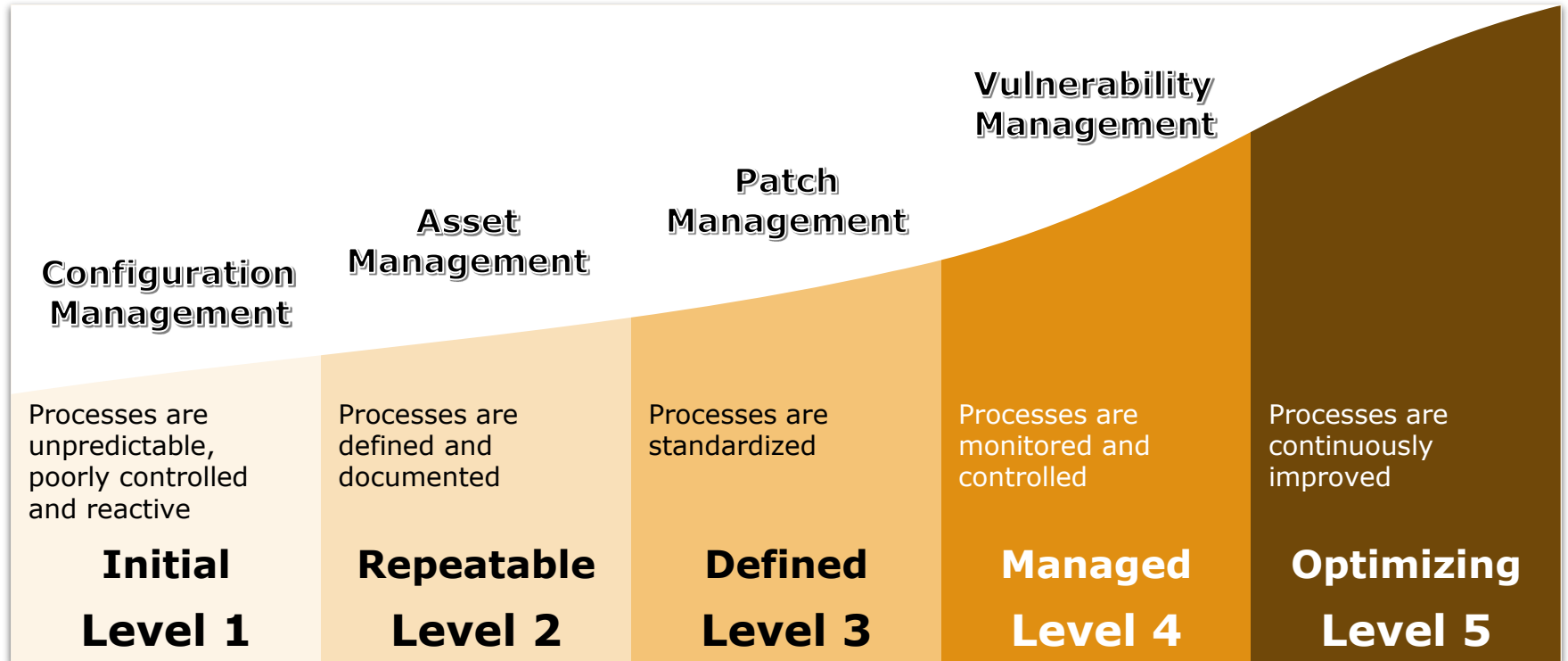


Cloud infrastructure audit



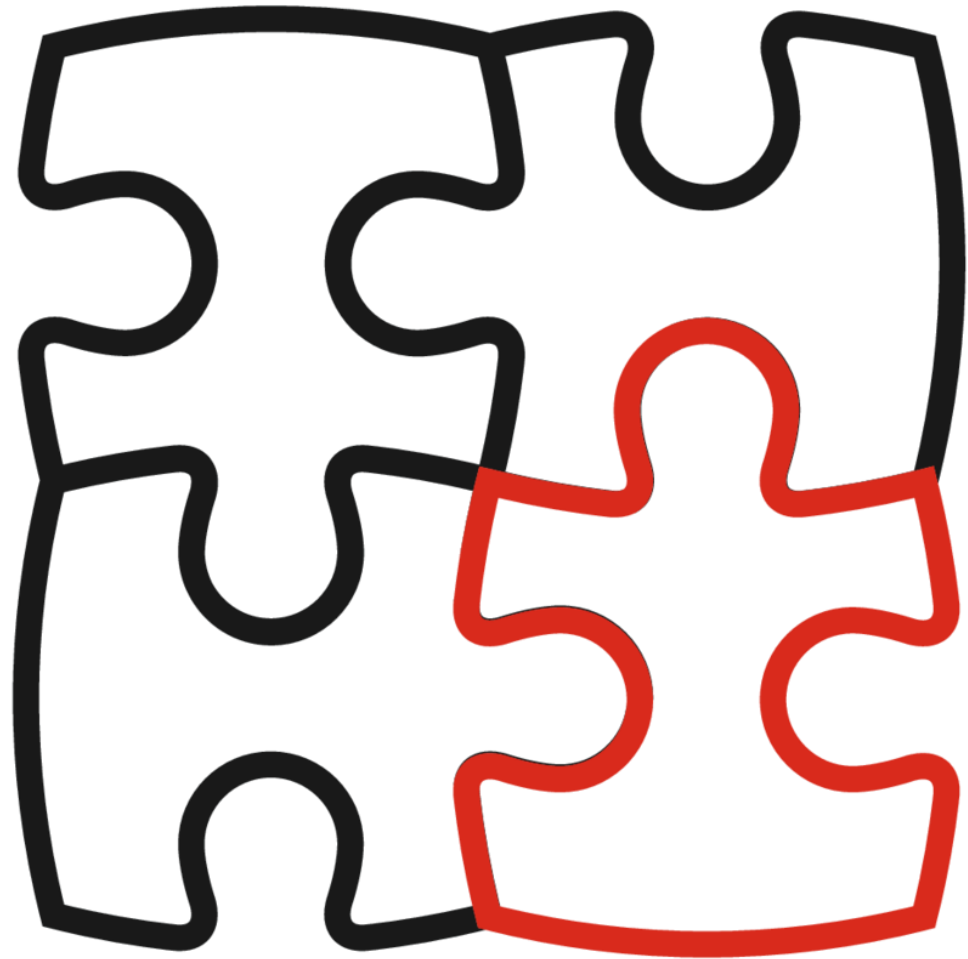
SCAP and OVAL Auditing

(Capability) maturity level

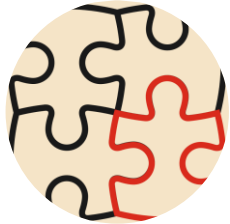


Vulnerability management relies on other processes

It does not make sense to
establish vulnerability
management if asset, patch, and
configuration management have
lower maturity levels



Takeout



Dependency

Improve asset, patch, and configuration management before establishing vulnerability management



What is not VM?

Vulnerability management is not a report from a patch management solution



Maintenance

Support of vulnerability scanning infrastructure is a dedicated process



Expansion

Vulnerability scanners are more than vulnerability collectors



Resources

Plan resources far in advance



Existing tools

Most EDR has vulnerability overview

Vulnerability management policy

External

[untrusted networks (e.g., the Internet or service providers)]

Motto: zero tolerance

1. Exploitable vulnerabilities are incidents with P1
2. Vulnerabilities of severity medium and above must be eliminated (risk is avoided)
3. Active protection controls have informational status
4. Continuous asset reconnaissance
5. Vulnerability scanning from independent environments with minimal period between scans

Internal

[can impose (security) requirements]

Motto: zero trust

1. Exploitable vulnerabilities must be mitigated first (risk is avoided)
2. Other legacy best practices
3. Active protection controls must be implemented when possible
4. Hybrid vulnerability scanning
5. Accepted risks must have a re-evaluate date