### **SIG-ISM** Vulnerability Assessment



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- ★ GN4-3 WP8 Vulnerability Assessment as a Service
- ★ Discussion and feedback from SIG-ISM

#### Agenda:

Present a bit of our work
Inform of variants options
Get feedback on service structure



### Vulnerability Assessment as a service How could and should a service be made?

What is your current status on the area?

Menti and open dialogue



# Do you have a service, how/what? What requirements are important?

No we do not have a service

[SURF] We used to, but it was discontinued a few years ago. It's on the roadmap for the SURFsoc as a recurring service though.

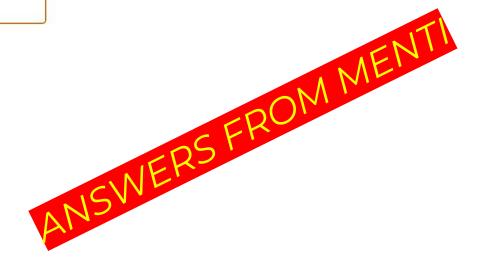
In Germany was a check (by the universtiy for the military) and a training how to continue these checks locally

In Norway Unit (Directorate) have a kind of assessment in a high level..

We do it internally and we have a penetration testing company who does it for specific services /CSC

It is quite ad hoc now, no structured recurring test

I run the EGI Software Vulnerability Group - where we handle vulnerabilities reported which may be relevant to the EGI infrastructure - plus stuff on vulnerability prevention



#### VAaaS - Vulnerability Assessment as a Service (goals)



Evaluate products together within NRENs/Organisations Wiki / Spread knowledge on findings



Cloud offering? Service? Definitions?



- Integrate with SSO/SAML and API testing
   Cookbook and integrations with SOC-tools



#### Different security assessments

- ★ Vulnerability scanning (often automated, "predefined outcome")
- ★ Penetration testing (often manual, can be physical/social, can change direction)
- ★ System audit (combined auto/manual)
- ★ Security assessment (group or individual report and extends more than technical)
- Risk assessment (group work and helps prioritise changes/mitigation)



#### Vulnerability assessment - just a step in the middle

- 0. Patch management, hardening and secure coding
- 1. Asset inventory
- 2. Information classification
- 3. Threat assessment
- 4. Vulnerability assessment
- 5. Risk evaluation
- 6. Risk management/mitigation
- 7. Verification / pentesting / redteaming
- 8. Goto 0



#### **Cookbook and integrations with SOC-tools**

Getting discovery scans and asset inventory Creating scanning profiles

Setting what you are allowed to scan (resources and auth)



#### Agent local scanning?

For desktop computer and servers

Create local agent, for scanning local software and versions.

Credentials handling



#### **Workshops and community**

MOU with Holm Security to get their commercial feed for usage within the Academic sector (work in progress)

Make a webinar and collaboration on Open Source tools

Find talent and get them "new friends" and share information



#### **Development and interaction**

**REST API** 

Initiate scan (ip, profile, resultreceiver)

Update asset list for scanning profile



#### Examples: open source/free tools you could use

- Scanning/testing: Nmap, OpenVAS, w3af, burp suite
- Forensics: Caine Linux distro, Yara, Volatility
- Intrusion detection: Surricata
- Information sharing: MISP
- Vulnerability database: vuldb.com
- Checking things: virustotal.com, app.any.run, URLscan, cyberchef, hybrid-analysis.com, capesandbox.com



#### Products, status and placement our service is using now

Greenbone - one appliance

OpenVAS - everyone

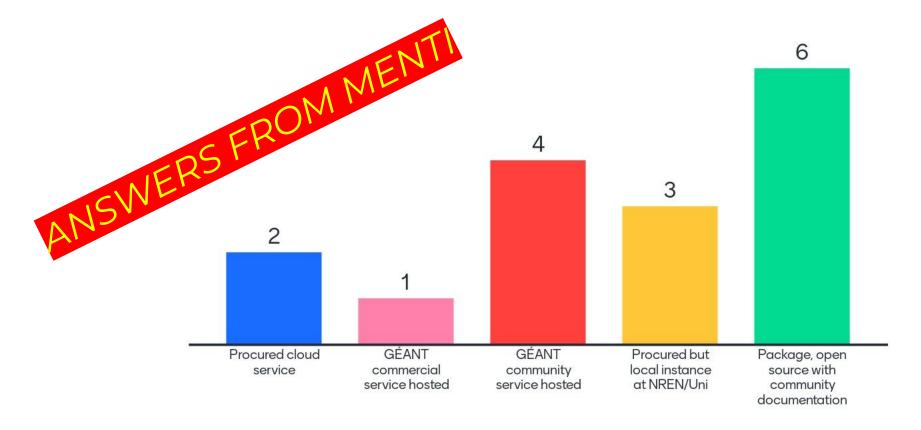
NMAP - everyone, make a guide/cheatsheet

Procurement? Establish a service? Cookbook? Container?

Menti and open dialogue



## What Vulnerability services are interesting for GÉANT to work on?





#### Feedback on work?

Post-Summary: There is interest in packaging and maintaining an opensource version for Vulnerability Assessment and also perhaps extend scope for authenticated scans and code review automation.

Please get in touch to either Alf Moens or David Heed

