Security & Visma SMB

Practical implementation of a Security Program for a manufacturer and consumer of Cloud Services

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Topics

Purpose of this presentation is to share our experience from Visma Software SMB in improving the security of our cloud services.

Topics:

- Why security is important to Visma
- Visma Security Program for Service Development and delivery
  - Overview
  - Selected parts
- Results so far
- Demo of Manual Security Testing
- OSAMM
- Agile vs Waterfall, experiences from our deployment
- Threat Modelling

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Why?

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Visma Software SMB

ERP for entry-level to mid-size companies for SE, FI, NL, DK and NO

8	Cloud ERP
19	On-prem ERP
10	Payroll/HRM
25	Addons

Strategic Goals

- Cloud benefits to all small businesses
- Increase productivity of all employees by access to ERP processes
- APP-ification of ERPs
- Data analytics

3.400
MNOK Revenue

41%
Cloud CMRR

600k
Customer contracts

Why-story

10K

350K

1.000K

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Security Program

Selected assumptions for the Security Program:

- Someone has motivation to do harm or take advantage of the systems/services provided by Visma
- All networks are **hostile** (traffic can be monitored and altered by an attacker)
- An attacker will not restrict him/herself to a standard browser
- Humans make mistakes
- Environments that the systems reside in are **constantly changing** with **limited control**
- Architects and developers do not have all information to design systems perfectly
- New attack techniques and vulnerabilities are **constantly evolving**
- Disclosing a user password removes the **accountability** of that user's actions in the system
- *A Shared secret is not a secret*

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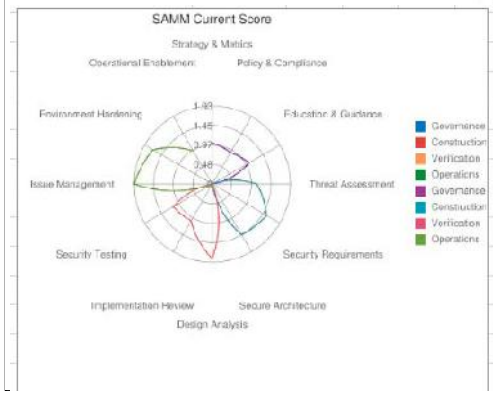
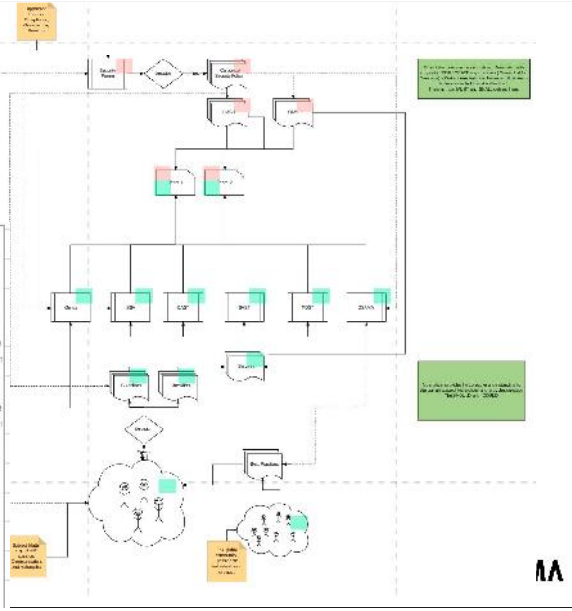
Security Program

- **Governance model**
- **Competency building**





Governance model

50+ application tean
20+ cities

Security Champions
Security as a service
Central services for
Security Engineers i
Transparency on all

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Competency building

5 levels of training:

1. Top Level Management : Capability to manage Security.
2. Mid Level Management : Capability to manage Security.
3. Developers / Architects / QA/Testers : Inspire and enable to build secure solutions.
4. Security Engineers : Inspire and enable to build & deliver secure solutions.
5. Central Security Team: Be the available experts for the teams.

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Security Testing

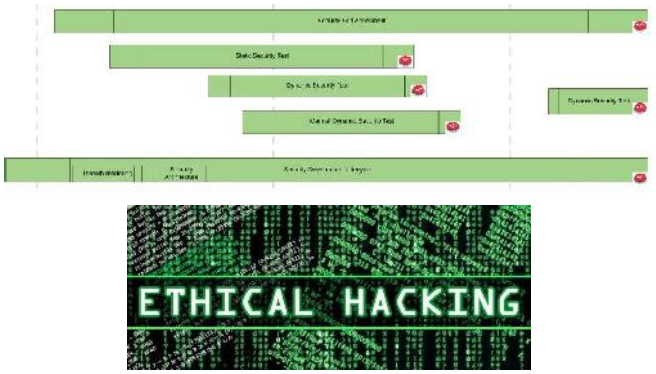
Static Application Sec Test

Dynamic Application Sec Test

Manual Security Tests

Penetration Testing

Bug Bounty



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Deployment

build
IaaS
Microsoft

deploy
PaaS
VISMA

buy
SaaS
Customers of Visma

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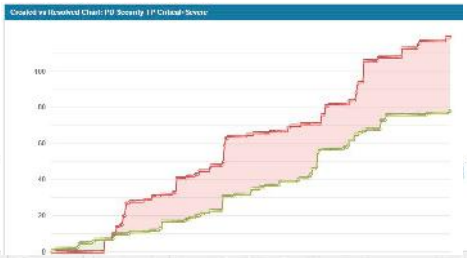
Information handling

Problem to solve: 1000+ sales and support people + about 300 partners and their employees + about 500.000 customers + 50 teams / 700 internal people.

Our solution: Transparency and common model for communication



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Results so far

Transparency:

Acknowledgement:

Internal awareness:

Increased customer value:

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1

Secure systems is an opportunity for competitive advantage

2

Visma is focusing on core business and relying on partners in other areas

3

Key success factor for delivering secure systems is culture, competency & hard work

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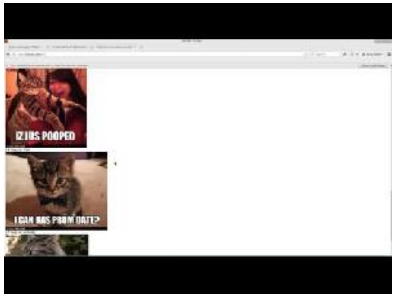
A short deep dive into MDST

Aurelijus, Short Demo of one of the OWASP top 10 vulns. - XSS



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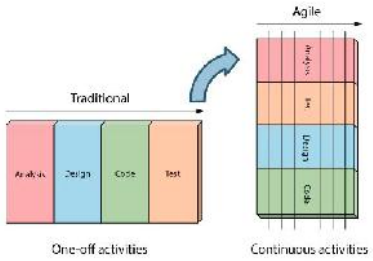
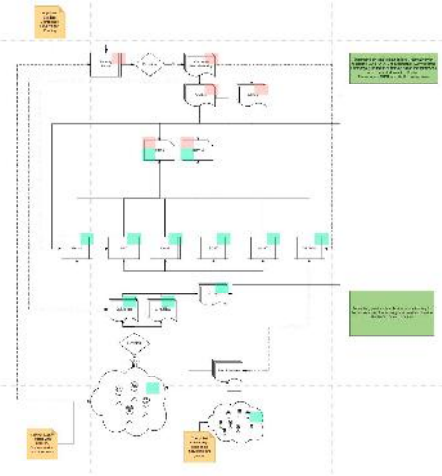
Agile meets Waterfall

Self organisation vs management driven?
Iterative vs Extensive Specification?
http://www.agilenutshell.com/agile_vs_waterfall





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OSAMM deeper dive

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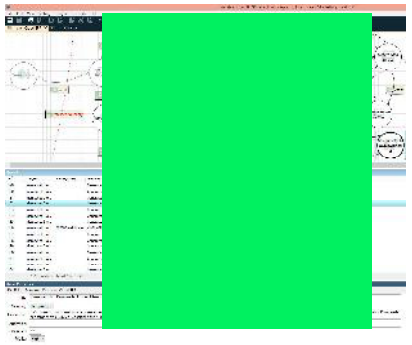
Threat Modelling

Demo:



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Q&A and more information

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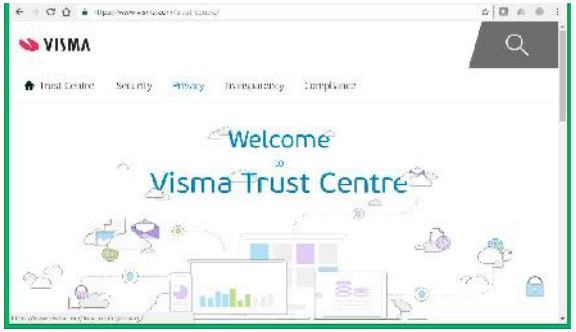
Learn more



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WS`s and discussion topics

Security Program: Selected elements

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Security As a Service
Competency building / Training / Culture Building
Distributed decision model (SSA, DAST, SAST)

Security Program: Selected elements

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Manage risk in a Cloud Environment

Security Program: Selected elements

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Security As a Service
Competency building
Distributed decision model (SSA, DAST, SAST)

Threat Intelligence

Automated Security Reporting

Challenge :
Our systems are very complex organisms and have 100-1000 dependencies each. (Libraries, Components, Operating Systems, Virtualization Layers, Network, etc). Each of these have a person with a responsibility.

Security Vulnerabilities in these are discovered and disclosed several times a day in multiple open and closed communities all over the world.

To maintain strong security and provide a strong message of TRUST to our clients and prospects we need to handle this complexity every minute of every day. 24/365.

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Process

Schematic:

1. Gather Threat Intelligence.
2. Analyse intelligence.
3. Create Actions that is possible to implement.
4. Dispatch Actionable intelligence to the right person.
   a. Make note of 4 and enter into follow up system.
   b. Follow up trough competency sharing and training as well as transparent metrics.
   c. Repeat loop 1-4 for X days. if ROOT cause not fixed in X days, GOTO 5
5. Update Divisional Risk management report, consider replacing “right person” with “updated” person. -> HRM procedure MAY be utilized.

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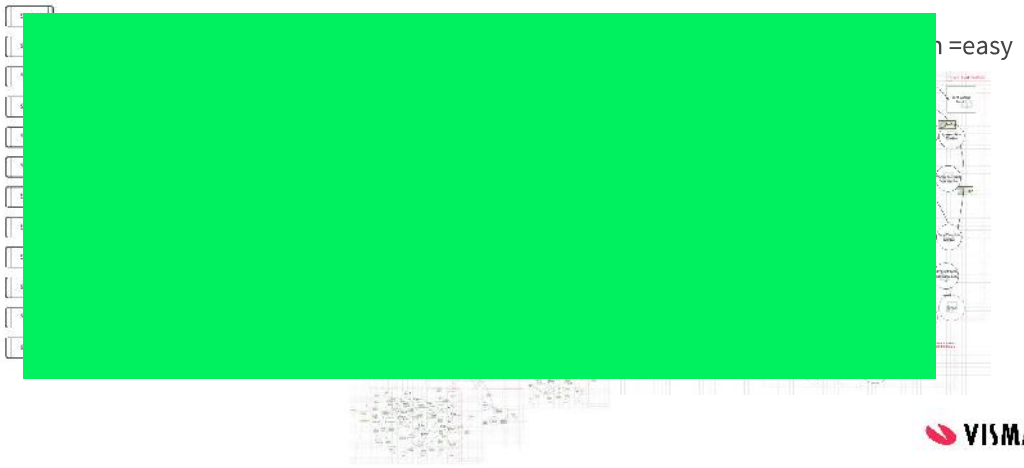
Illustration of the system



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Search Save as Share Export

project = COV AND component = "Infrastructure Vulnerability Scanner" AND resolution = Unresolved Basic

Order by

Coverity / COV-41 1 of 1

Microsoft Windows SMBv1 Remote Code Execution - Shadow Brokers (ETERNALCHAMPION, ETERNALSYSTEM) - Zero Day [redacted]

Edit Comment Assign More Start specifications Ready for Dev Workflow

Details

Type: Bug
Priority: Critical
Component/s: [redacted]
Labels: None

Status: OPEN (View Workflow)
Resolution: Unresolved
Security Level: Standard (Anyone can log work on this issue.)

Main Support Processing Documentation Time Tracking

Level Status: In Work
Changes in this version:
Final release note:

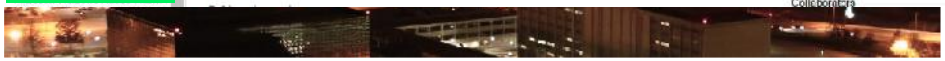
People

Assignee: Unassigned
Assign to me
Reporter: [redacted]
Votes: Vote for this issue
Watchers: Start watching this issue

Dates

Created: Monday 12:13 PM
Updated: Monday 12:13 PM

Collaborators



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