Actions Leave Traces
know what to look for

Andrea Klaes | Chief Information Security Officer | October, 2016
Agenda

- About Sulzer
- About Sulzer IT and Sulzer Information Security
- Monitoring Strategy
- Use cases
Sulzer creates reliable and sustainable solutions for its markets oil and gas, power, water, and the general industry.

Engineering and application expertise in:

- **Pumps Equipment**
  Pump technology and solutions

- **Rotating Equipment Services**
  Service solutions for rotating equipment

- **Chemtech**
  Separation technology and services, mixing and dispensing systems
Founded in 1834
Headquarters in Winterthur, Switzerland
Global Network with over 170 production and service sites

Key markets:
- Oil and gas
- Power
- Water
- General industry

Sales
(in millions of CHF)
2 971.0

Employees (FTE)
as of Dec 31, 2015
14 253
Anticipating Trends for More Than 180 Years

Innovative industry solutions—a strong future commitment

Industrial pioneer in engineering, such as:

- One of the first Swiss steam central heatings in 1841
- First Diesel engine in 1898
- First shuttleless weaving machine in 1952

Leading equipment and service provider with global presence:

- Pumps business since 1857
- Chemtech since 1946
- Service business (pumps and turbines) since the beginning, service division for rotating equipment since 2000

Today, acting as an industry reference by:

- Anticipating future trends
- Offering state-of-the-art business solutions
- Known for reliable and responsible business partnerships
About Sulzer IT / Information Security

3+ years ago

??
server rooms

??
clients

??
servers

- **divisional**
  - organized IT organizations

- **missing**
  - standards

- **fragmented**
  - application portfolio

- **Information security**
  - not officially existing, performed in an ad-hoc manner

now

180
server rooms

13200
clients

1930
servers

- **one**
  - global IT organization

- **defined**
  - standards

- **harmonized**
  - application portfolio

- **Information security**
  - handled within a 3.5 FTE team and well established organization
Why focus on Security Monitoring?

Cyber Security, Conclusions:

- As we all know: It’s just a question of time – preventing security incidents is not possible
- Effective, preventive security measures are often too expensive in a grown IT landscape

Be able to identify how an attack / incident happened to learn / improve for the future

Security Controls

- Logs can be used to check the status and effectiveness of implemented security controls
- Monitoring systems can be used to inform about (in-)compliance with security regulations
Monitoring Strategy

- **Aims**
  - Traceability in case of issues, security incidents, compliance cases
  - Store logs tamper proof for a defined time period
  - Recognizing trends and anomalies deviating from baselines

- **Approach**
  - collect log files centrally
  - store them
  - define «useful» data for dashboards and reports
  - alert specific events
Why not start directly with a SIEM?

- A lot of effort to manage, clean false positives, adjust default rules to reflect own environment, etc.
- “many red alerts”: overwhelming, important alerts might be overlooked
- You need to know your environment – a SIEM does not solve operational issues
Monitoring Strategy

- We decided to use the “Bottom Up” approach instead of going for a full SIEM
  - Define use cases
    - What do we want to know / identify
  - Identify necessary systems to collect logs from
  - Create alerts, reports, dashboards, etc.

Pro’s
- Manageable also for small security teams
- Growing your maturity over time (learning curve)
- Don’t create hundreds of alerts which nobody can handle
  - Focus on relevant areas

Con’s
- You don’t know what you don’t know
  - Expectation management: monitoring will never be complete
## Use Cases

<table>
<thead>
<tr>
<th>What to Collect</th>
<th>Potential Use Cases</th>
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| Active Directory (Windows Event logs from domain controllers) | Changes on users, groups, group policies, etc.  
  - user added to the enterprise admins  
  - failed logins  
  - locked user accounts |
| Web Traffic |  
  - Detect downloads of “unwanted” software  
  - Monitor uploads of data to cloud storage  
  - Usage of “non standard” gateways |
| Client Computers |  
  - Users with Admin Privileges  
  - Clients where software distribution is not working  
  - Outdated or unauthorized software installed |
Statistics, graphs

Slide with statistics shown during presentation
Not included in download version
Actions leave Traces, know what to look for

Thank you for your attention!!

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Swiss IT Security
since 1996