

# How will we obsolete sectool?

(Script Check Engine for XCCDF)

Martin Preisler, Peter Vrabec

**What is sectool?**

Security Tool

File View Help

Start level Stop Save... Show info Show hints Quit

All Network (3)

Test	1	2	3	4	5
integrity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
bootloader	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
disc_usage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
group	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
passwd	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
shadow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
home_dirs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
home_files	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
filesystem	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
path	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
firewall	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
netser	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
openssh	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
openvpn	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
removedlibs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
xinetd	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
suid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
logfiles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
permissions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
exec-shield	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
selinux	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Overview Test Results

Test	Result
shadow	PASSED
home_dirs	WARNING
home_files	ERROR
filesystem	WARNING
path	PASSED
firewall	PASSED
netser	PASSED
openssh	PASSED
openvpn	PASSED
removedlibs	testing...

**Summary**

Messages: 7  
 Errors: 0  
 Warnings: 1  
 Hints: 1  
 Info messages: 5

Time the test was running: 0m 0s

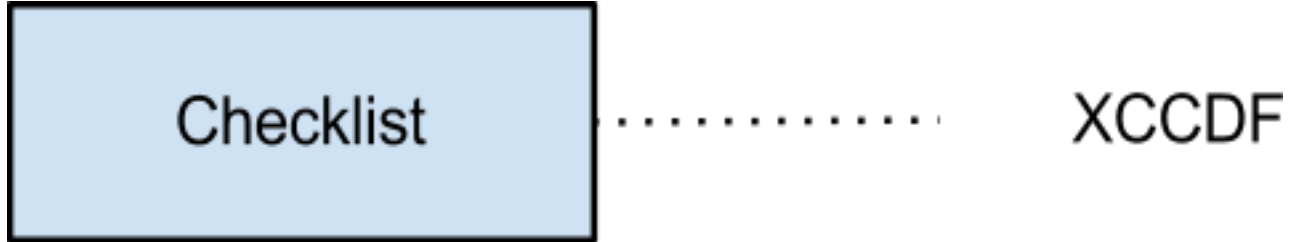
Msg	Severity	Test	Description
	Warning	home_dirs	Directory /home/mbarabas doesn't have matching user in /etc/pa

Please wait, executing test 'removedlibs'

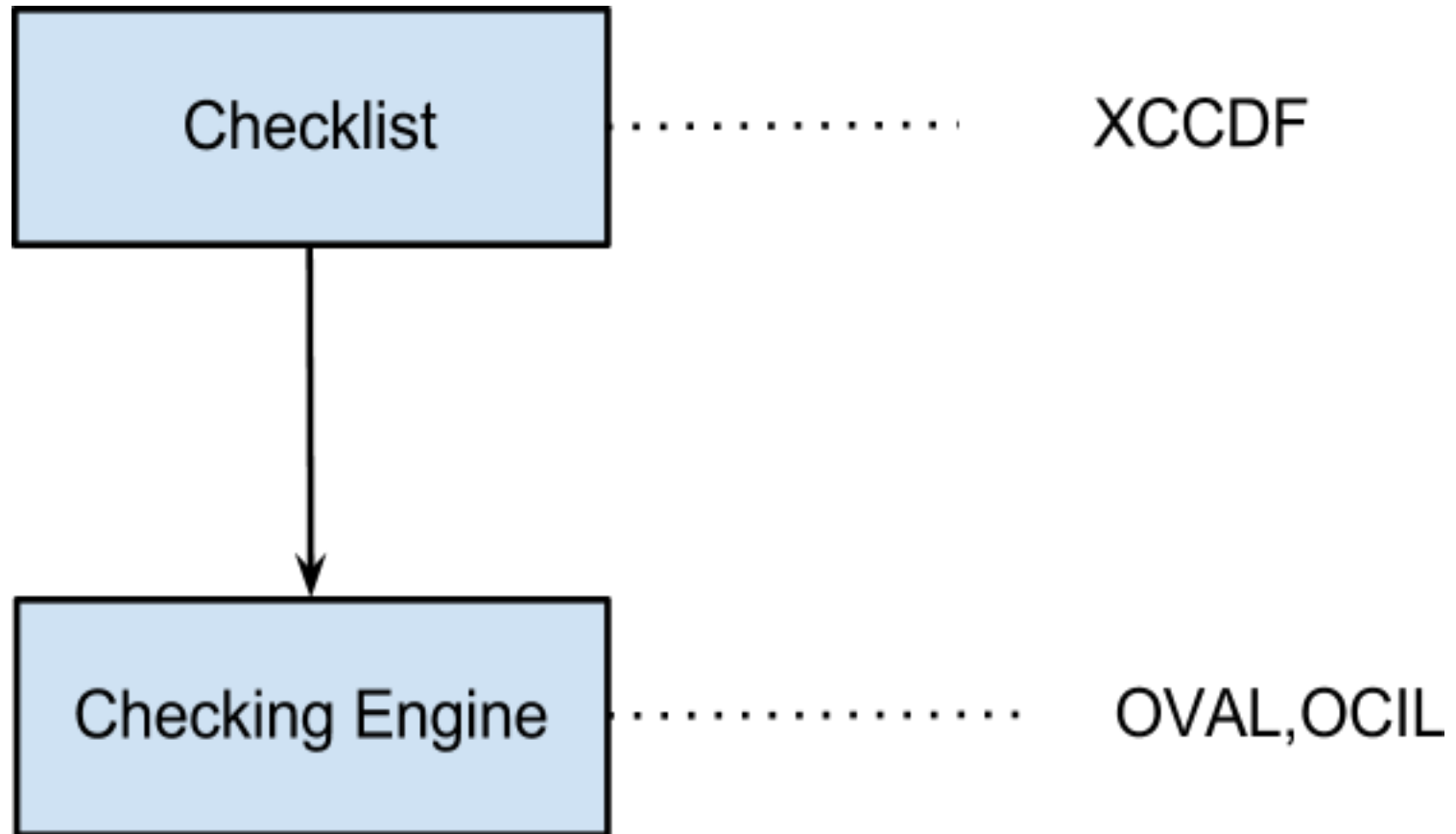
# Why NOT sectool?

- Time
- Technology
- Idea

# SCAP



# SCAP



# SCAP

- Pros
  - interoperability
  - avoids vendor lock-in
  - security
- Cons
  - authoring
  - maintenance
  - lack of experts
  - linux unfriendly

# SCAP

- Pros

- interoperability
- avoids vendor lock-in
- security

- Cons

- authoring
- maintenance
- lack of experts
- linux unfriendly



# SCAP

- Pros

- interoperability
- avoids vendor lock-in
- security

- Cons

- authoring
- maintenance
- lack of experts
- linux unfriendly

# SCAP

- Pros
  - interoperability
  - avoids vendor lock-in
  - security
- Cons
  - authoring
  - maintainance
  - lack of experts
  - linux unfriendly

# SCAP

- Pros
  - interoperability
  - avoids vendor lock-in
  - security
- Cons
  - authoring
  - maintenance
  - lack of experts
  - linux unfriendly

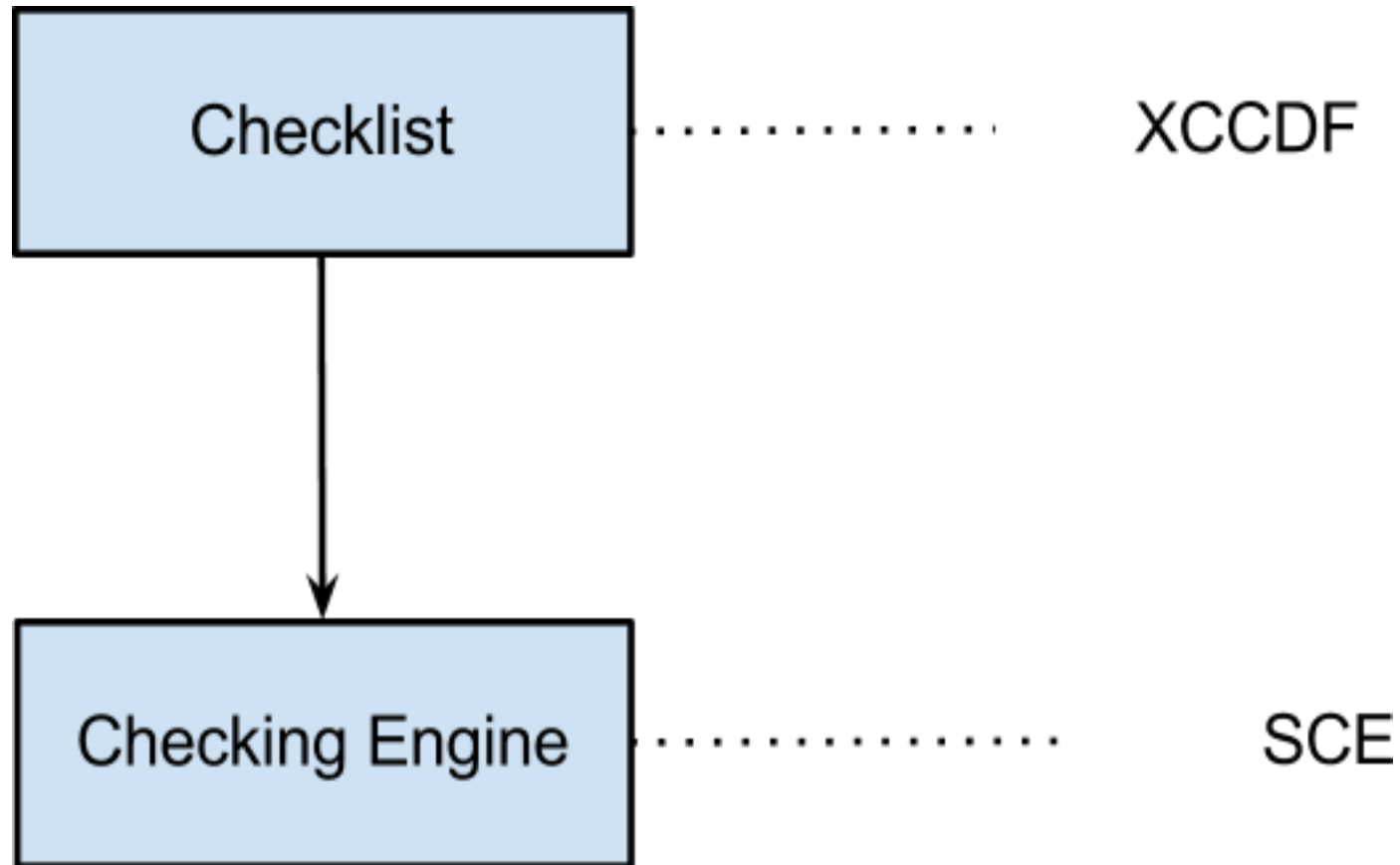
# SCAP

- Pros
  - interoperability
  - avoids vendor lock-in
  - security
- Cons
  - authoring
  - maintenance
  - lack of experts
  - linux unfriendly

# SCAP

- Pros
  - interoperability
  - avoids vendor lock-in
  - security
- Cons
  - authoring
  - maintenance
  - lack of experts
  - linux unfriendly

# Script Check Engine



# SCE - Overview

- works with everything executable
- exit code -> XCCDF result
- reasons via stdout/stderr
- XCCDF variables via environment variables

# SCE - Overview

- works with everything executable
- exit code -> XCCDF result
- reasons via stdout/stderr
- XCCDF variables via environment variables



# SCE - Overview

- works with everything executable
- exit code -> XCCDF result
- reasons via stdout/stderr
- XCCDF variables via environment variables

# SCE - Overview

- works with everything executable
- exit code -> XCCDF result
- reasons via stdout/stderr
- XCCDF variables via environment variables

# oscap demo

Data - ported sectool checks

Evaluate and export both XCCDF results and SCE results:

```
$ oscap xccdf eval --results res.xml --sce-results  
/usr/share/openscap/sectool-sce/sectool-xccdf.xml
```

Generate XHTML report from previously exported data

```
$ oscap xccdf generate report --sce-template %.result.xml res.xml
```

# scap-workbench demo

```
$ scap-workbench
```

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization



# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE

- pros

- content
- flexibility
- reuse skills
- provides policy

- cons

- security
- interoperability
- comparison against previous results
- visualization

# SCE - Future

- **restrict scripts**
- structured stdout
- use in QA?

# SCE - Future

- restrict scripts
- structured stdout
- use in QA?

# SCE - Future

- restrict scripts
- structured stdout
- use in QA?

# Summary

- end of the line - sectool
- OpenSCAP improvements
- call for Security Checklists



# Summary

- end of the line - sectool
- OpenSCAP improvements
- call for Security Checklists

# Summary

- end of the line - sectool
- OpenSCAP improvements
- call for Security Checklists

Questions?

# URL

- <http://www.open-scap.org/page/SCE>
- <https://fedorahosted.org/scap-workbench/>
- <http://scap.nist.gov/>