Improving SEAndroid policies: SELint

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Android OEMs make mistakes when writing SEAndroid policies

Tools needed to help spot errors, misconfigurations

SELint makes suggestions to improve a source policy

SELint can simplify and speed up analyst workflow


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http://www.theregister.co.uk/2015/10/26/oems_still_the_achilles_heel_of_android_security_say_boffins/

OEM SEAndroid policies

- significantly modify default AOSP policy
- include results from automatic tools (e.g. *audit2allow)*

This results in several mistakes:

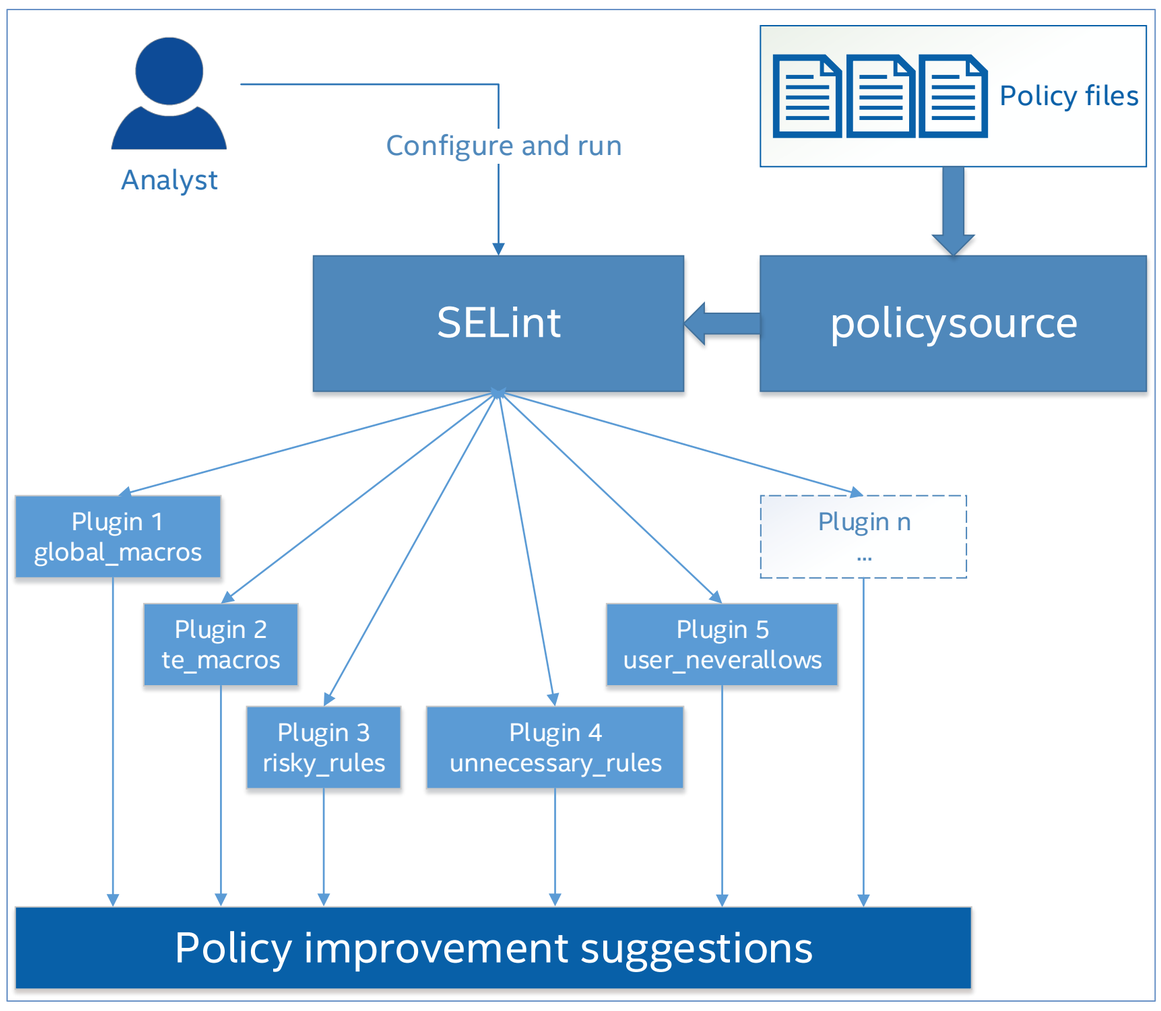
- Unnecessary/leftover rules
- Potentially dangerous rules
- Overuse of default domains/types

Also due to lack of relevant tools that

- work on source policy
- incorporate knowledge of common flaws
- do not require expert knowledge

Goal: A tool to help OEMs develop better SEAndroid policies

- **SELint**



SELint: source policy improvement suggestions

Our idea: develop semi-automated tool to simplify and speed up analyst workflow.

- Realize plugin architecture to support custom 3rd-party analysis requirements
- Develop "core" set of plugins to provide generally useful functionality
- Enable community contribution of new plugins and extended knowledge base

SELint performs checks on a source policy by loading analysis plugins:

- Suggest using M4 macros where applicable
- Report potentially dangerous rules
- Report unnecessary or ineffective rules
- Assert custom neverallow rules
- ...

https://ssg.aalto.fi/projects/selint/

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