

The SecCloud project: Security in the Cloud

The SecCloud partners
Mario Südholt

CominLabs week

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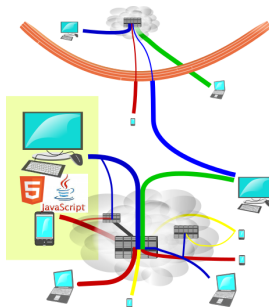
Secure software

- Client and server applications
- Cloud infrastructures

Data privacy

- Data ownership
- Trust, accountability

Client-side security



Main language for client-side Web programming

- Complex execution environment
 - HTML embedding
 - Language interpreter
 - Web browser environment
 - OS

Client-side software security

- Many real-world client-side security issues

Comprehensive approach to Javascript security

- From semantics to the enforcement of security policies
- Consider full Javascript environment
 - From the language, via the browser, to the OS

Formal semantics

- Coq-based semantics of full JavaScript
- Information flow monitors for web tracking applications

Uniform framework for security policies

- General framework for the definition dynamic analyses
- Implementation of policy analyses and enforcement

Full-stack information flow security

- Dynamic policy detection
- Modification of the Chromium and Firefox engines