

Task # 4 und Macaroons

Projektstudium: Softwareentwicklung am Beispiel eines internationalen “Big-Data”-Projekts
Sarah Schulte (551906)

Task # 4: “git-based archaeology”

Info: dCache version 2.6 mit neuer Berkeley-DB und Migrationsskript

Aufgabe: alte Berkeley-DB und Skript entfernen

Ausgangspunkt: git log

Task # 4: “git-based archaeology”

commit 605f7f76959be39d6607c51df4fe53e157994092

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Date: Sun Mar 17 12:02:28 2013 +0000

pool: Upgrade to Berkeley DB version 5.0.58

The new versions is said to contain many bug fixes and performance improvements.

The file format changed. Pools using the berkeley db backend will be upgraded to the new format during the first startup. Automatic downgrade is not possible.

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Macaroons - besser als Cookies?

Macaroons

Paper “Macaroons: Cookies with Contextual Caveats for Decentralized Authorization in the Cloud” (2014)

Autorisierung

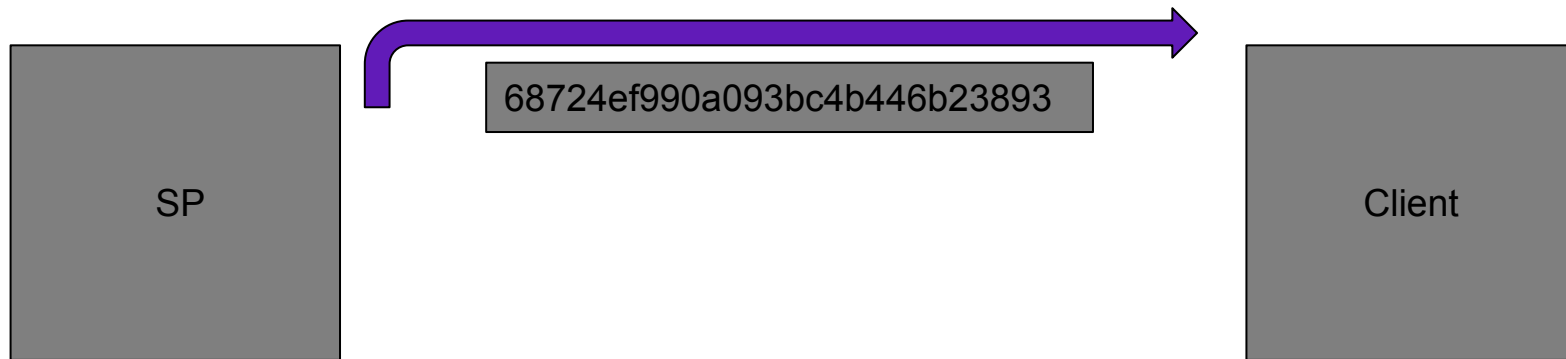
- ❖ ähnlich wie Cookies
- ❖ in verteilten Systemen
- ❖ mit anpassbaren Zugangsbeschränkungen

Macaroons

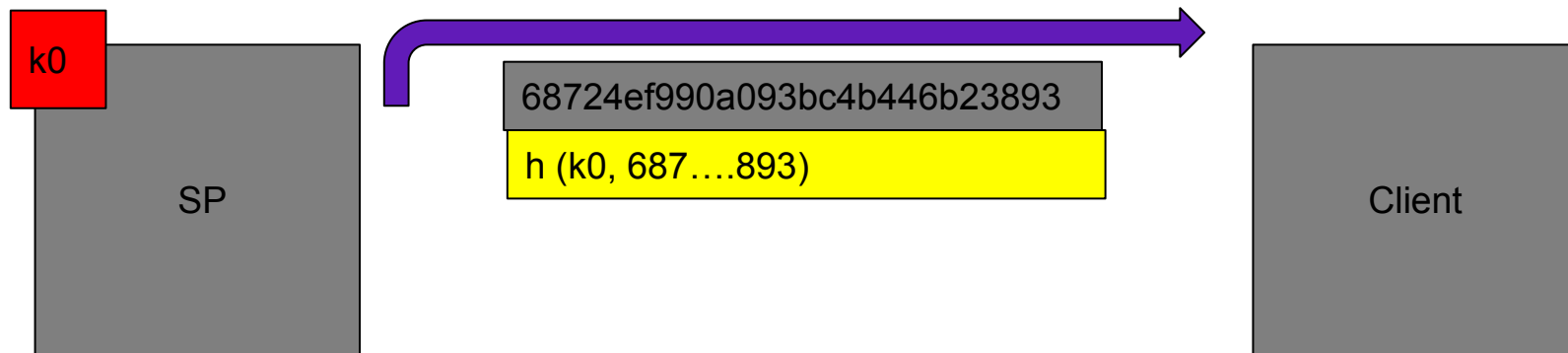
- ❖ Delegation
- ❖ Attenuation
- ❖ Third-Party Caveats

From Cookie to Macaroon

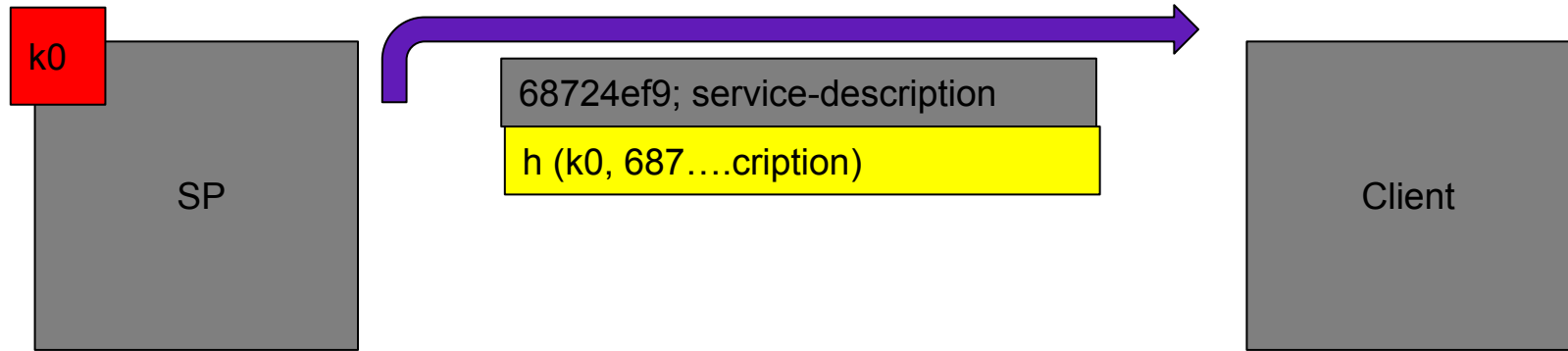
in Anlehnung an Erlingsson (2014)



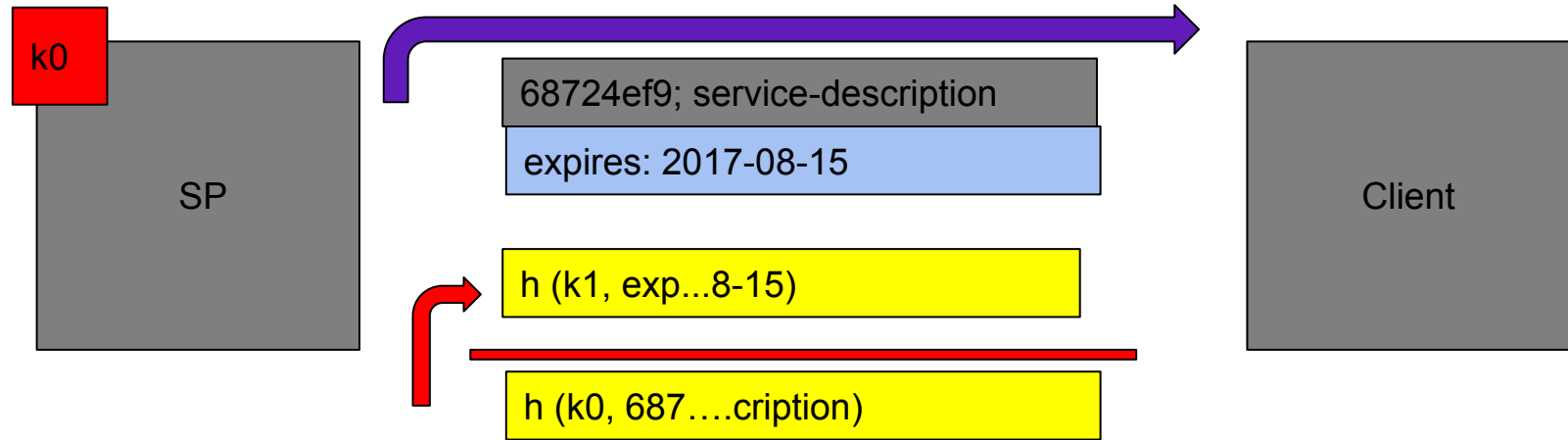
From Cookie to Macaroon



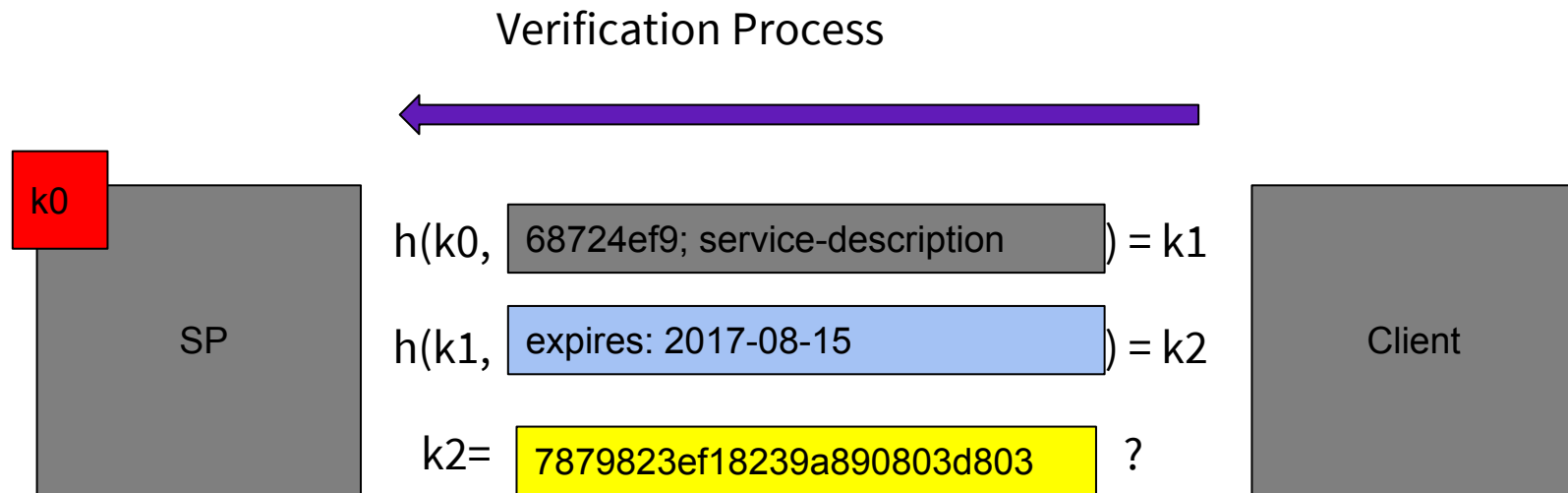
From Cookie to Macaroon



From Cookie to Macaroon



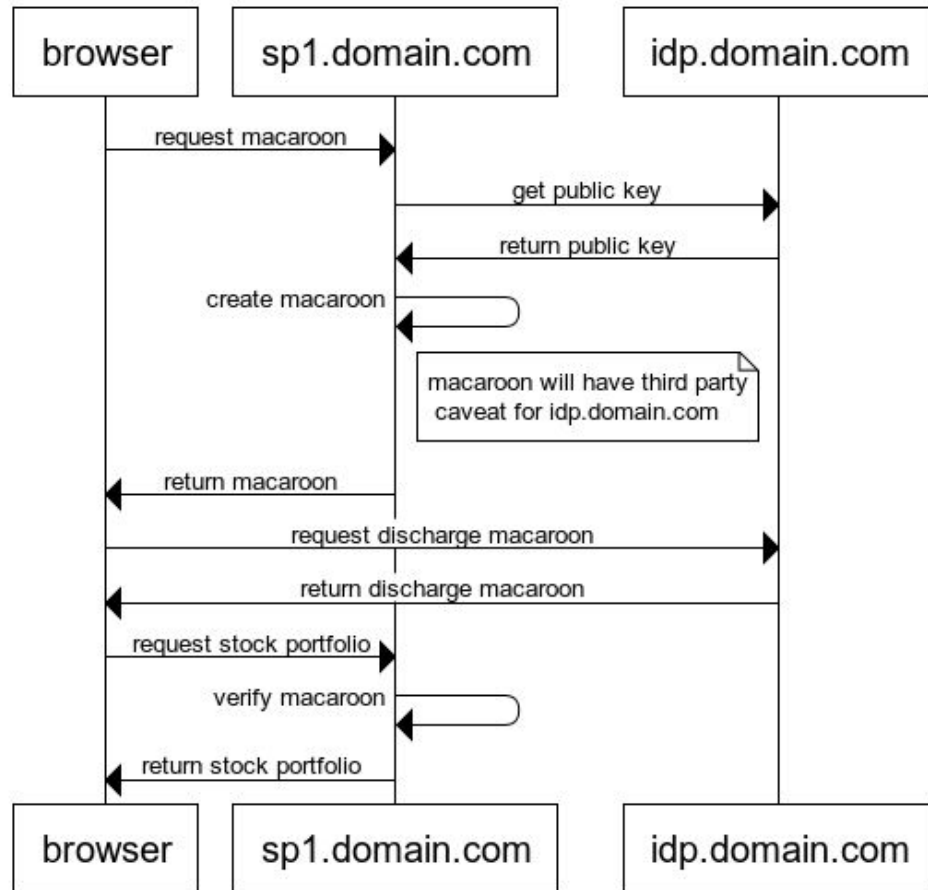
From Cookie to Macaroon



Third-Party Caveats

= Beschränkungen, die nur von einer Drittpartei verifiziert werden können

Macaroon Authentication Sequence



Macaroons: Besser als Cookies!

- ❖ Leichtgewichtig und schnell
- ❖ Per Request
- ❖ Flexibel

Quellen:

Birgisson, Arnar et al. (2014): Macaroons: Cookies with Centextual Caveats for Decentralized Authorization in the Cloud.

<https://static.googleusercontent.com/media/research.google.com/de//pubs/archive/41892.pdf>

Erlingsson, Ulfar (2014): Macaroons: Cookies with Centextual Caveats for Decentralized Authorization in the Cloud. Talk at air mozilla

<https://air.mozilla.org/macaroons-cookies-with-contextual-caveats-for-decentralized-authorization-in-the-cloud/>

Nacionales, Jonathan (2015): Scalable Cross-Domain “Cookie” Authentication/Authorization: An Example with macaroon.js

<https://iamalivingcontradiction.wordpress.com/2015/11/09/scalable-cross-domain-cookie-authenticationauthorization-an-example-with-macaroon-js/>

Weiterführend / Zum Ausprobieren:

- ❖ <https://github.com/rescrv/libmacaroons>
- ❖ <http://macaroons.io/> - macaroons playground