



Secauth Use case

Cross-domain authentication & authorization using SDN Architecture

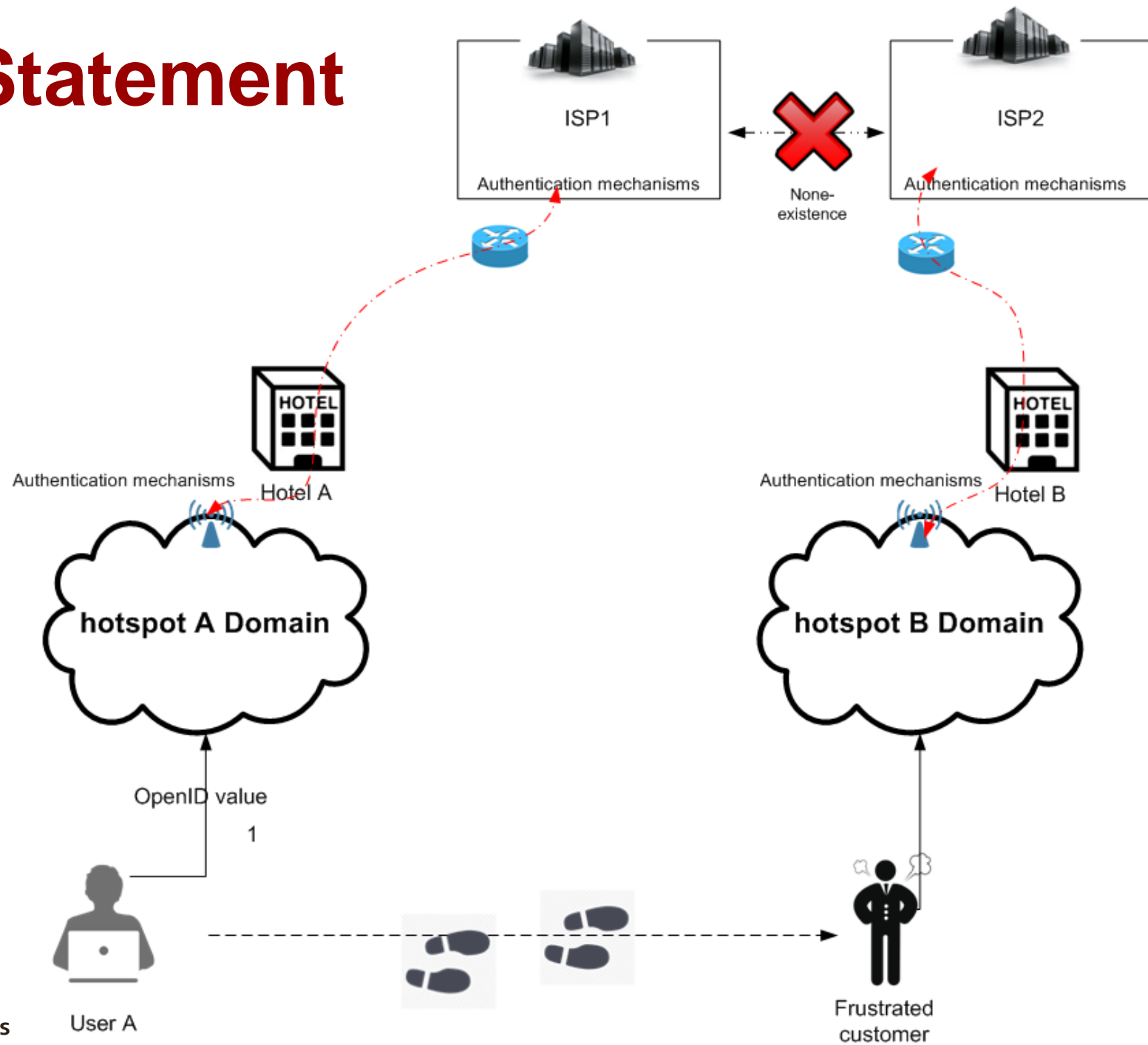
Hosnieh Rafiee ietf at rozanak.com

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Agenda

- **Problem Statement**
- **Introduction to Small Scale Projects Running in Real World**
- **Why the use of SDN in solution space?**
- **Cross-domain SDN based Architecture**

Problem Statement




Problem Statement - 2

- **Use case:**

User A moves from hotspot A (operated by Telekom) to hotspot B. User A wants to continue using its service without interruption. User A provide its authentication value to hotspot A. This step can be via using a web interface or the combination of REST and other applications . User A needs to provide its authentication information again to hotspot B after this movement so that he can continue using its service. Hotspot B can be operated with different ISP or reseller of the same ISP. There are two different conditions:

- User A might use a service that needs special port to be open on the firewall in domain B (controlled by hotspot B)
- User A does not need any changes on security services in domain B.

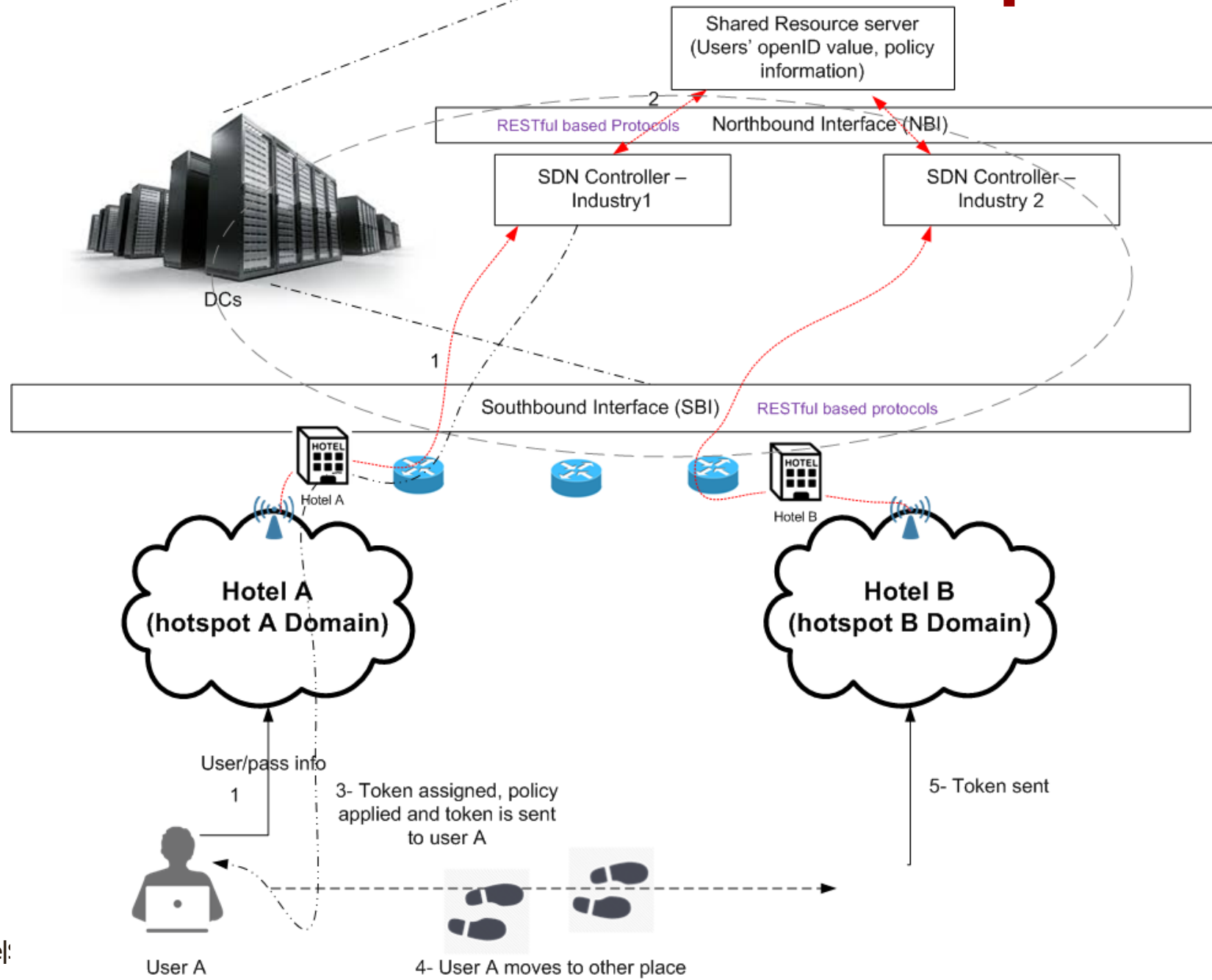
There are two different scope:

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1. Both hotspot are under the control of different SDN controller from the same industry (Accessing a storage is enough)
 2. Each hotspot are controlled by two different SDN controller from different industry (**The communications between controllers are also important – how to share information**)

- **Problem:**

- User A does not want to re-enter its credentials every time he moves to a new location (automation)

Cross-domain Architecture – multiple industry



Why The Use of SDN?

- **Easy handling any restricted policy changes needed on target network**
- **Easy access to authentication token via a centralized SDN controller**
- **Having more control on the authentication & authorization**
- **Transparency for end users (especially hotels or places that supports this hotspot and lacks of technical IT administrator to activate this feature)**
 - After discussion with some customers, especially hotels, their main problem is the configuration of such feature and they do not want to spend time while this is the demand of end users.
 - They only need to say to their ISP that whether or not they want to support this feature and ISPs has a simple possibility (like a web interface) to enable this feature
 - Simplify network