



Introducing Smaug

Cloud Application Data Protection as a Service

OpenStack Summit, Austin
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What are the Data Protection use cases

What do we want to protect ?

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Data Protection Use Cases and Workflow

Backup

Differential (file)

Incremental (block)

Full

Local Site

Remote Site

Guest Assisted

Replication

Storage Array

Hypervisor

OS/Host

Guest

..

Multiple Use Cases, Multiple Protection Plans

Users need to be able to Choose the right protection plan

Vendors need a way to plug different implementations

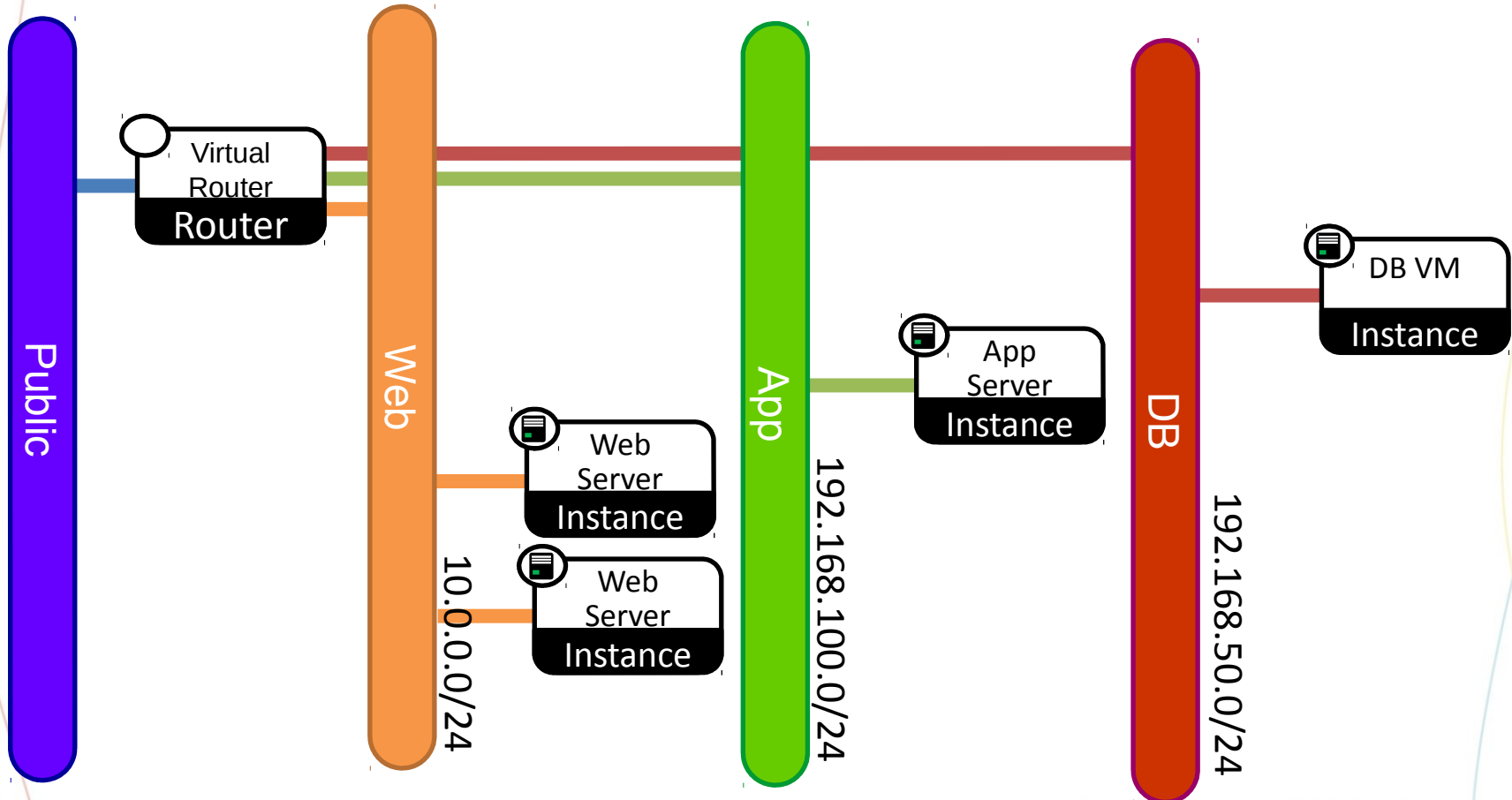
Is Data == Storage?

What do we need to protect ?

We believe

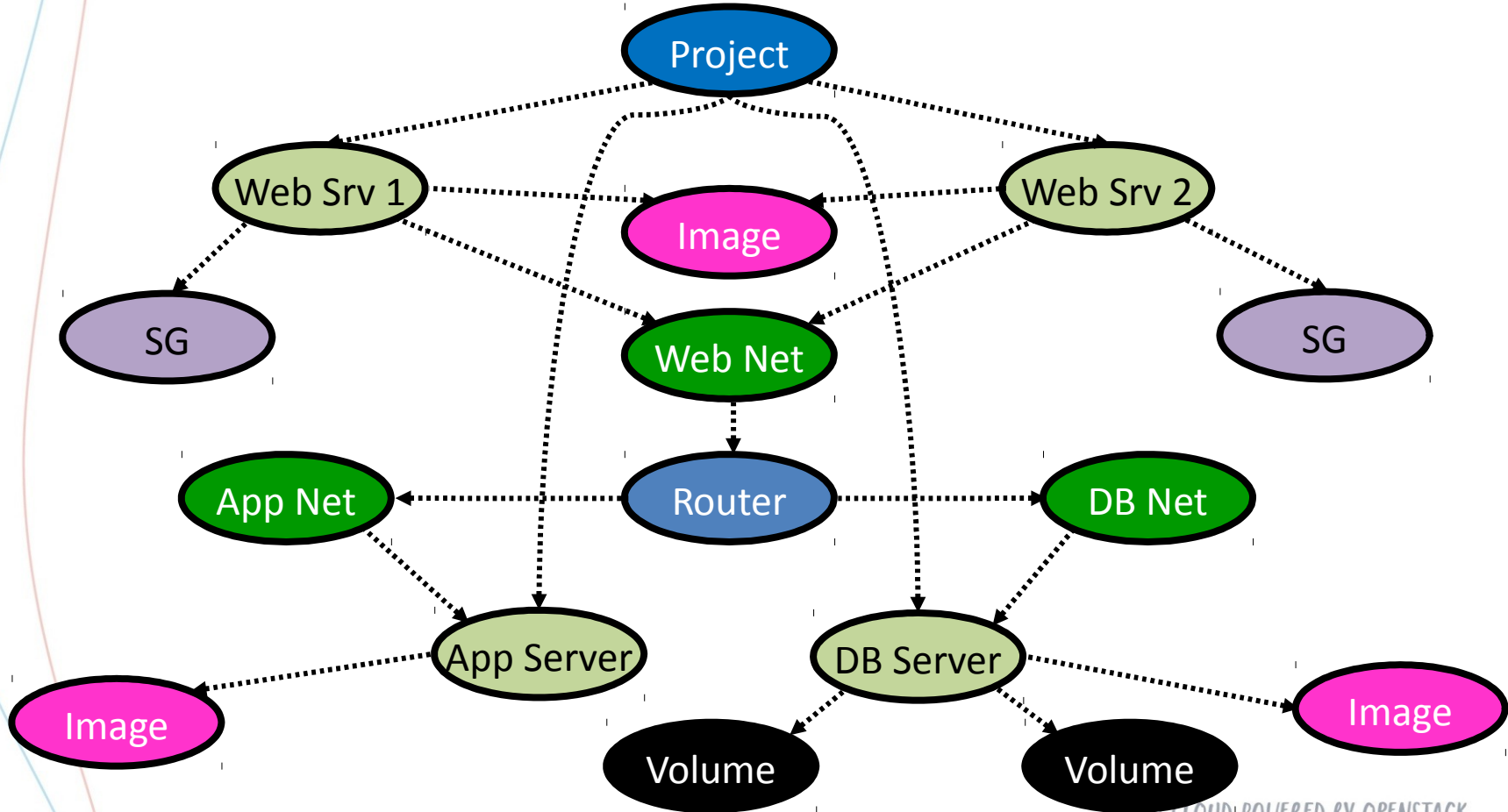
Data \geq Storage!

Case in point: Typical 3-tier Cloud App



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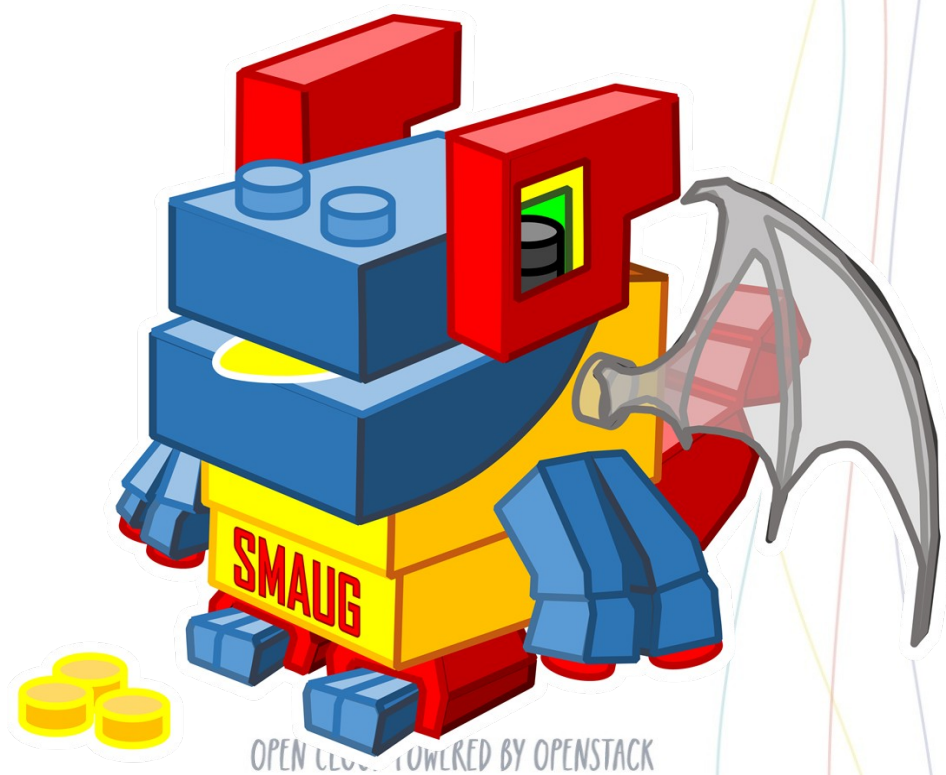


Be able to protect **Any Resource** in our cloud deployment

**WE WANT TO PROTECT APPLICATIONS,
SERVICES, RESOURCES...**

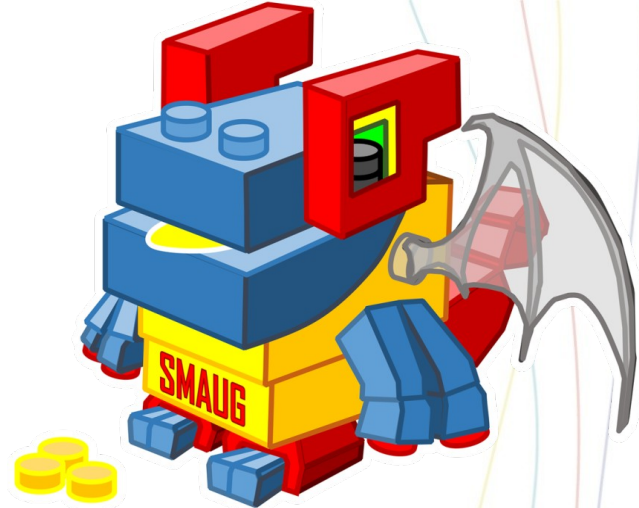
Mission Statement

- Formalize
- Any Resource
- Diversity



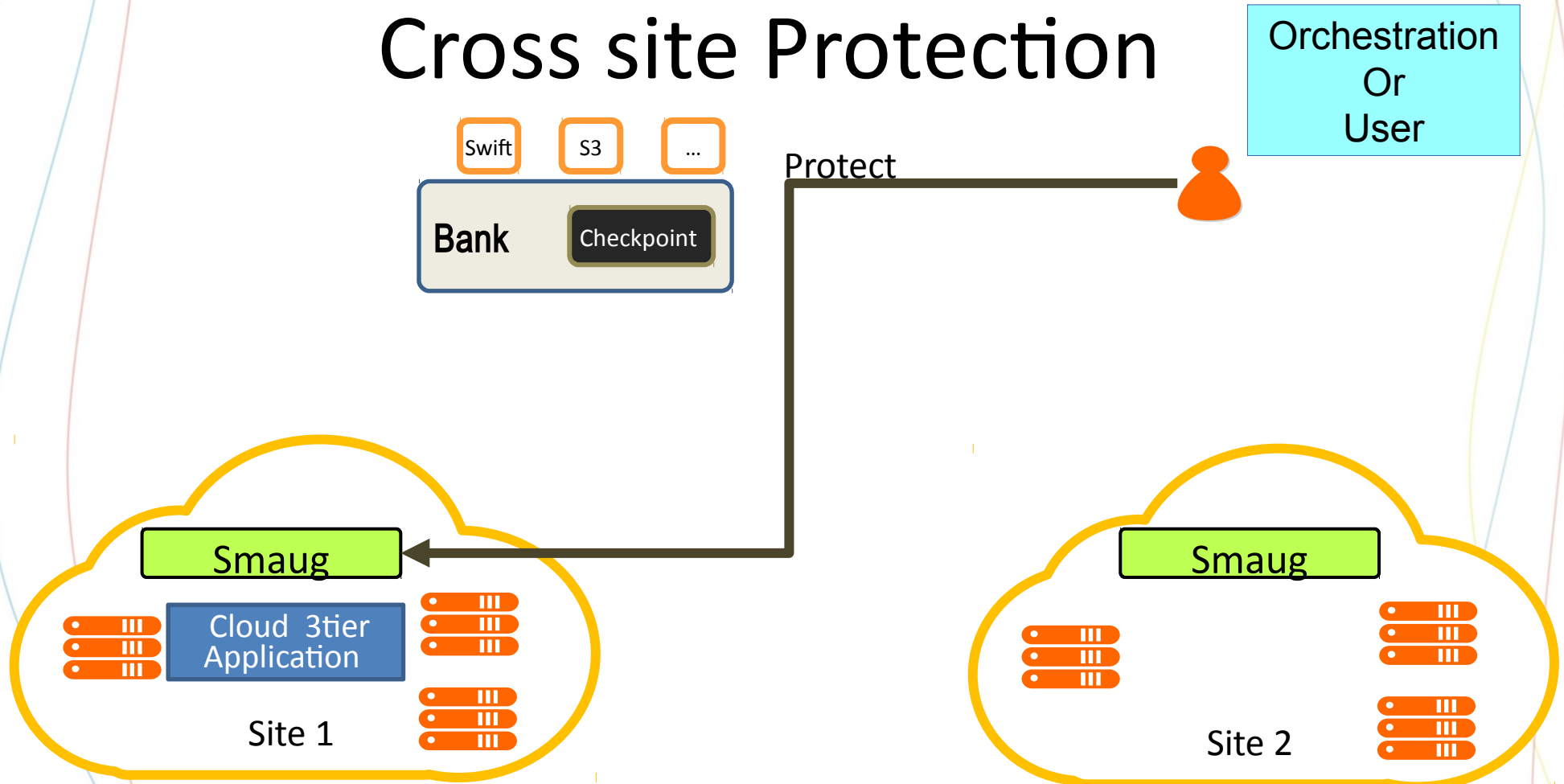
Highlights

- Open Architecture
- Set Policies
- Protect App Deployment



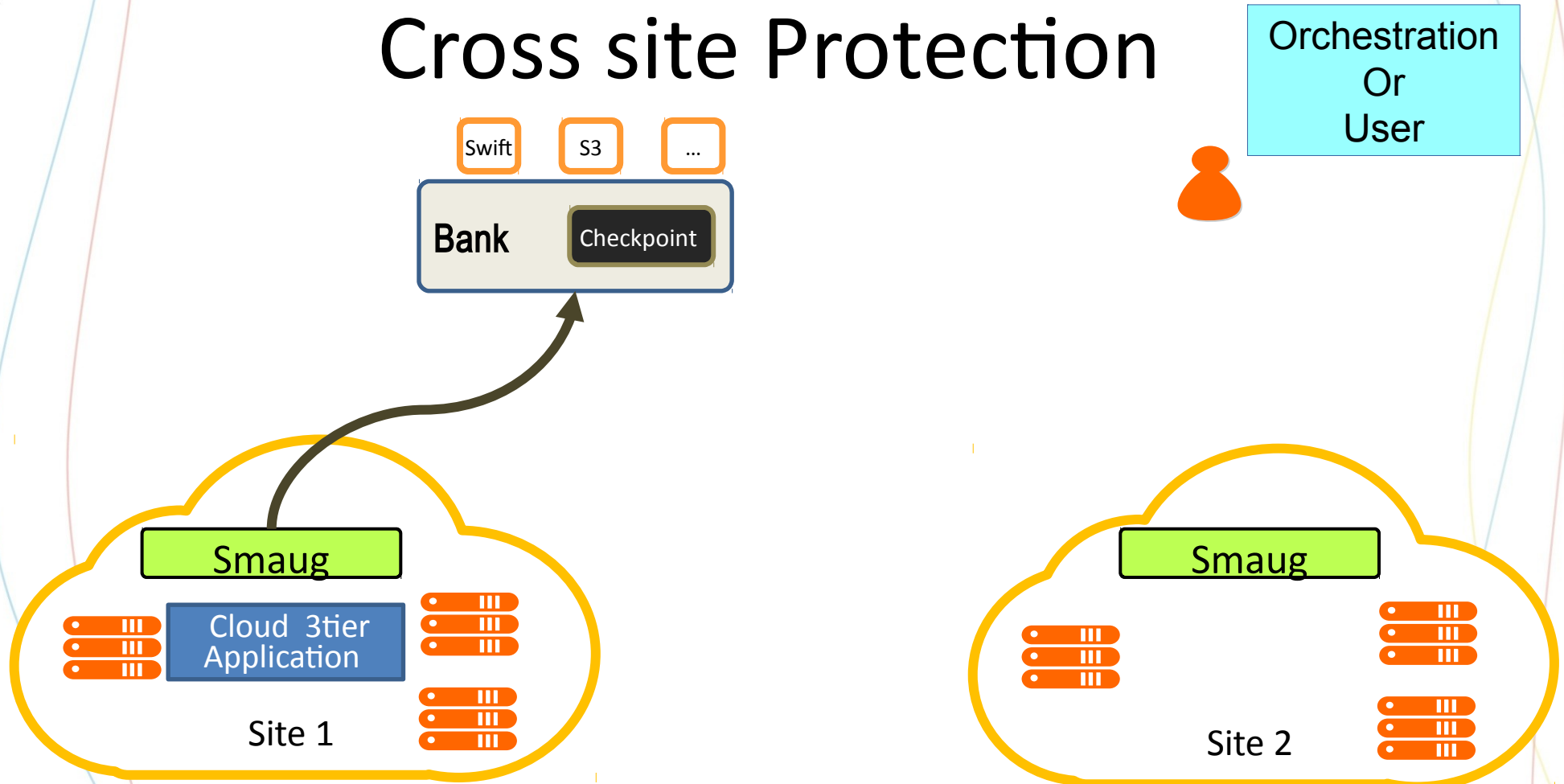
Smaug Concept

Cross site Protection



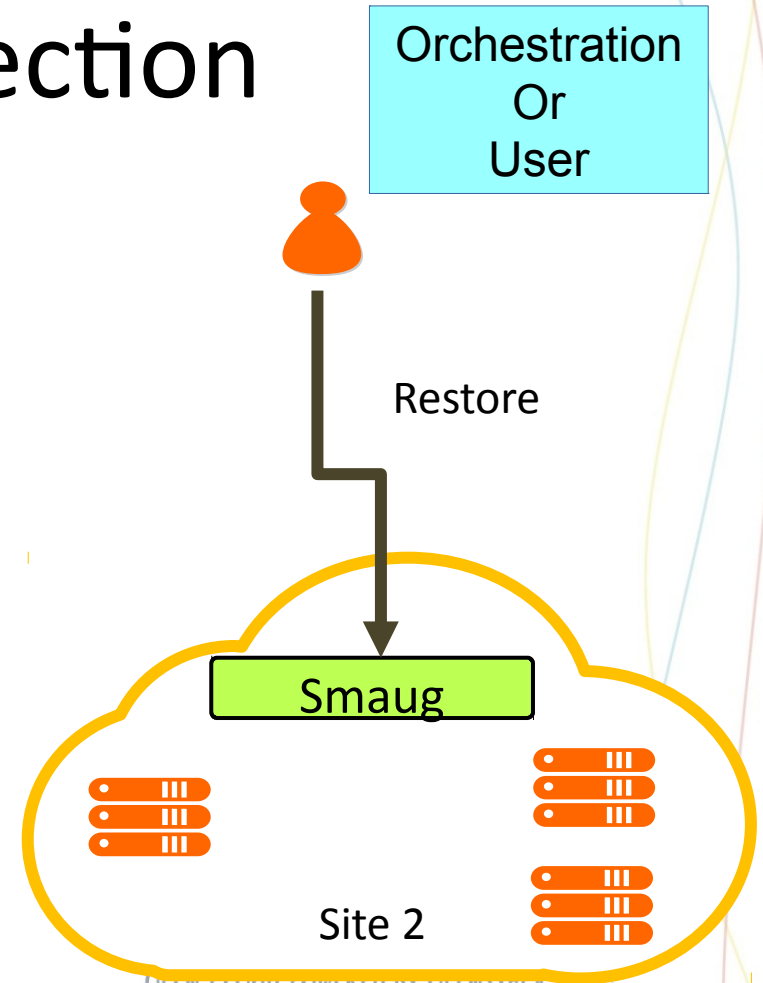
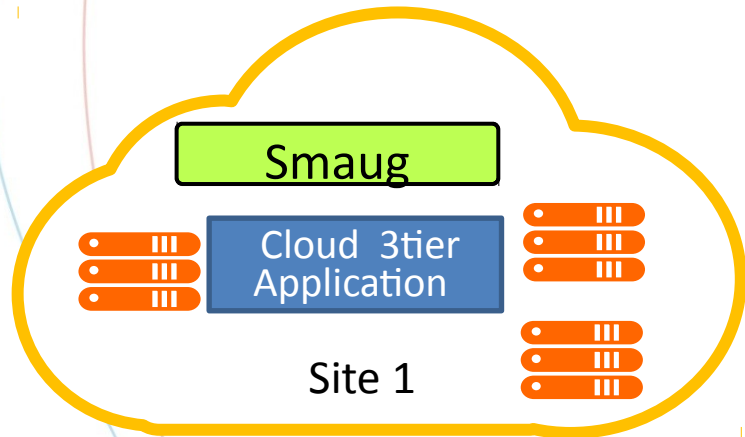
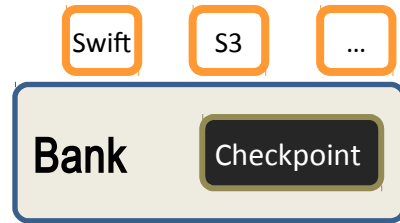
Smaug Concept

Cross site Protection



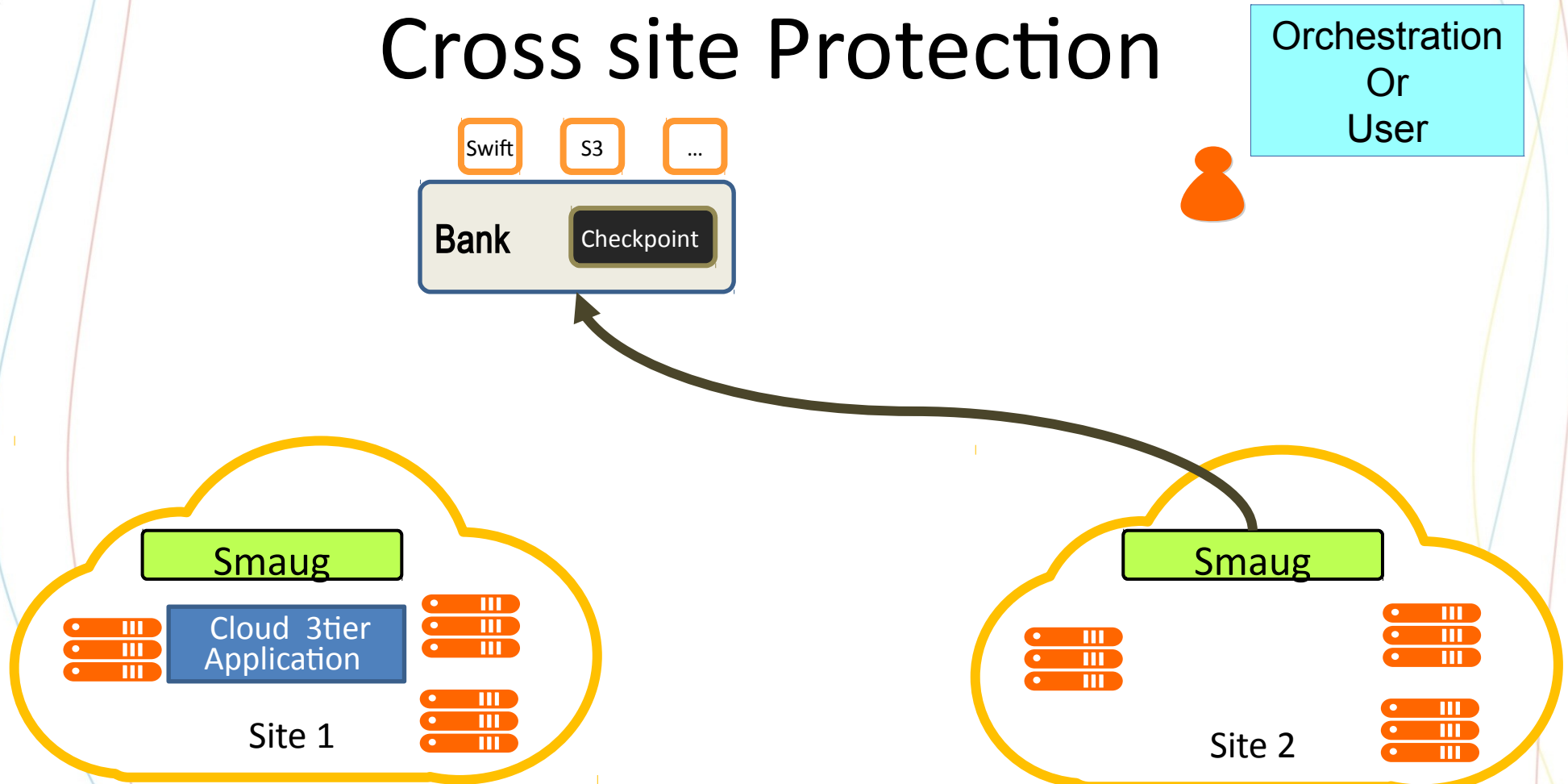
Smaug Concept

Cross site Protection



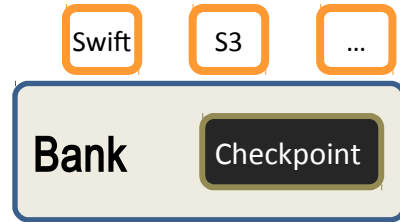
Smaug Concept

Cross site Protection

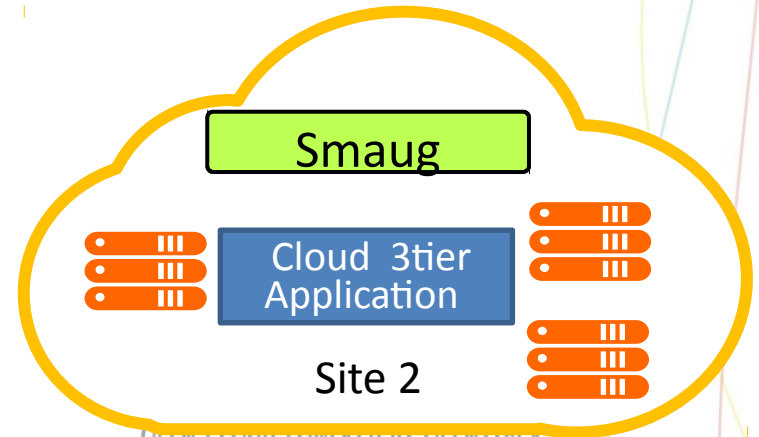
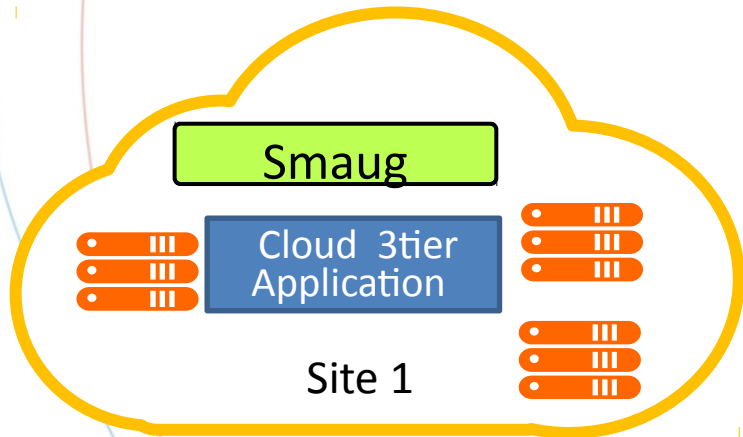


Smaug Concept

Cross site Protection



Orchestration
Or
User

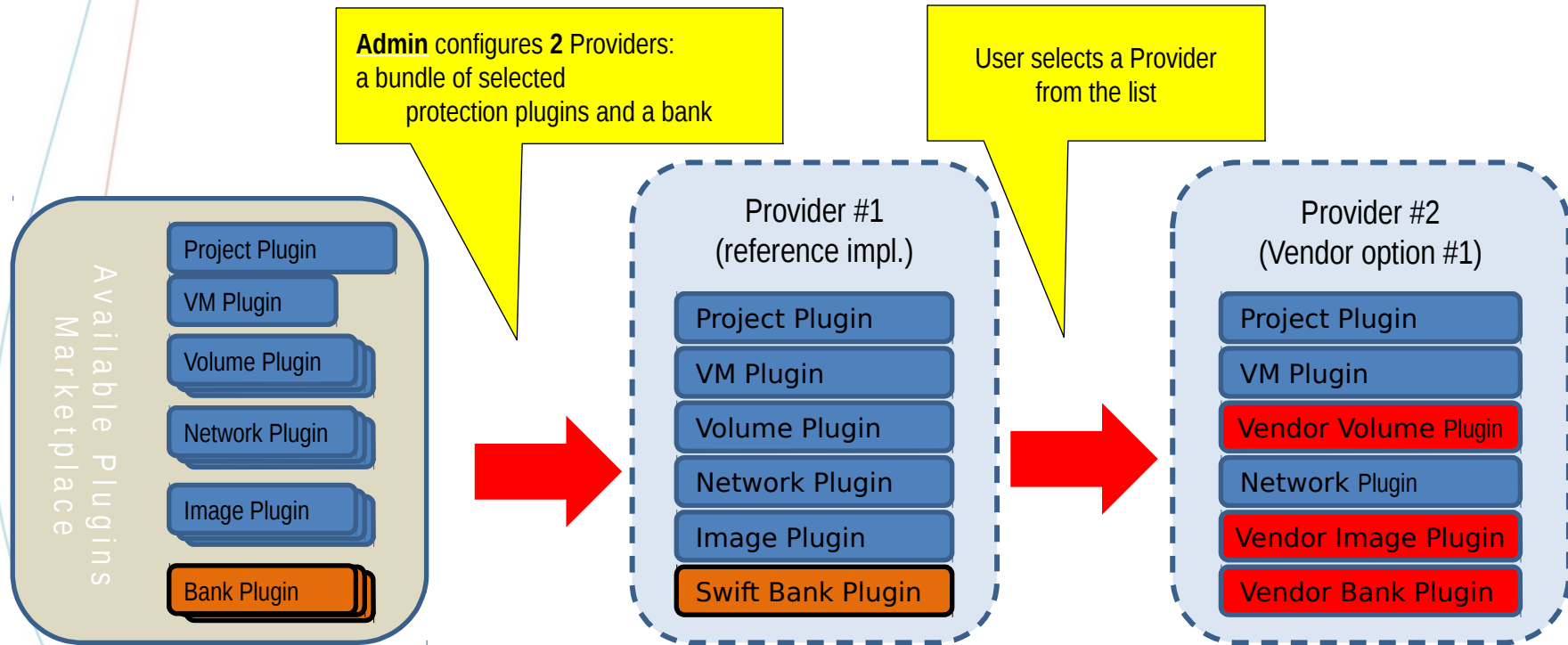


Smaug API Framework

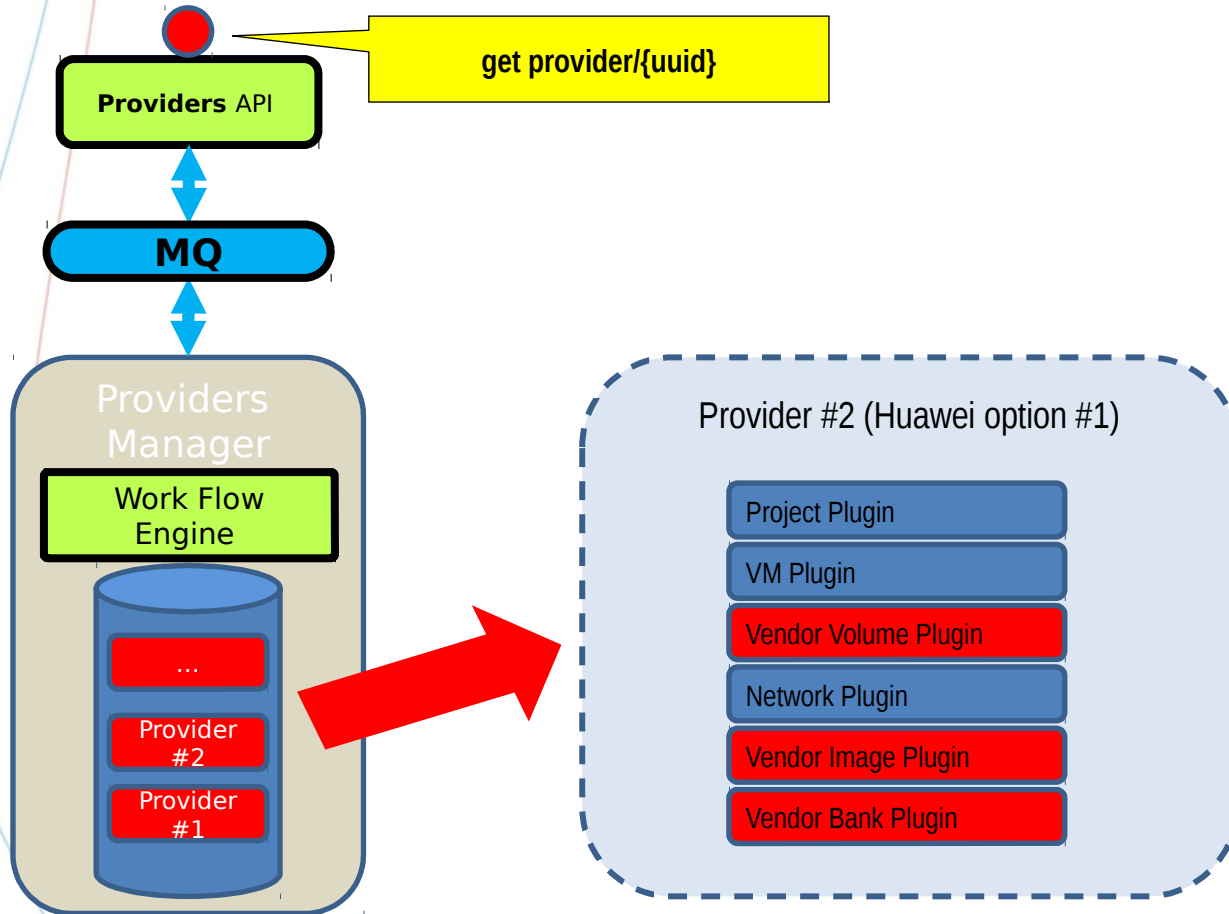


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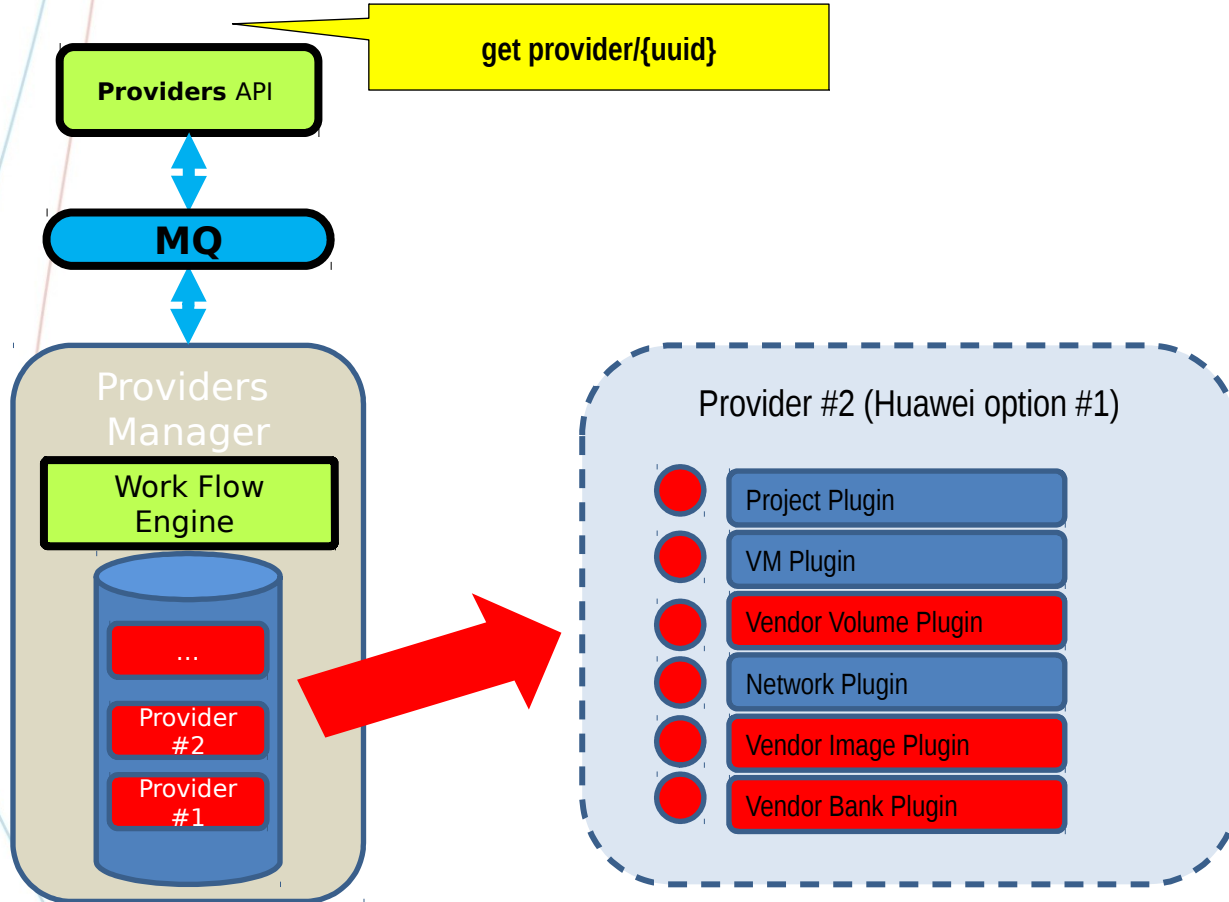
Provider - Example



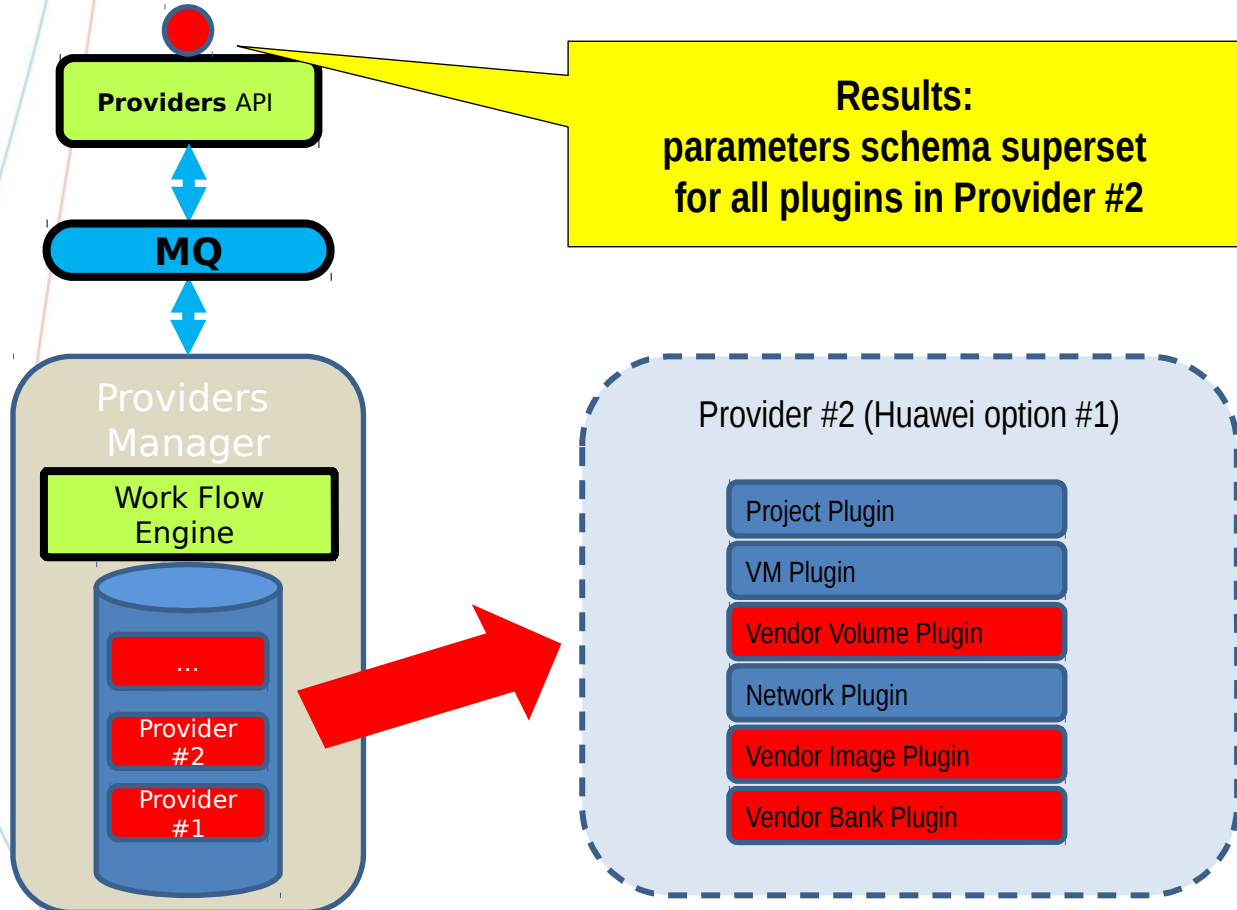
Provider Internals



Provider Internals



Provider Internals



Demo

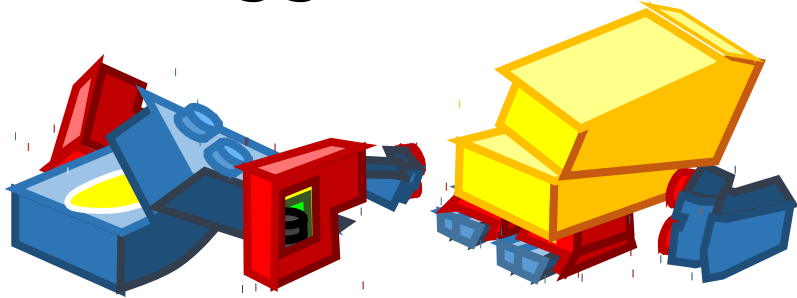
Brace yourselves

Welcome to Smaug



Help us Build **Smaug** – Join the project

- <https://launchpad.net/smaug>
- <https://openstack.org/wiki/Smaug>
- <https://github.com/openstack/smaug>
- Smaug IRC Channel #openstack-smaug
- IRC – saggi (But everyone there are happy to help)



The background features a bright sun in the upper left quadrant, casting rays across a clear blue sky with scattered white clouds. On the right side, several thin, curved lines in yellow, cyan, red, purple, and green sweep upwards. Three small black upward-pointing chevrons are positioned near the center of these lines.

Thanks