

OpenStack in hepia

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et d'architecture de Genève

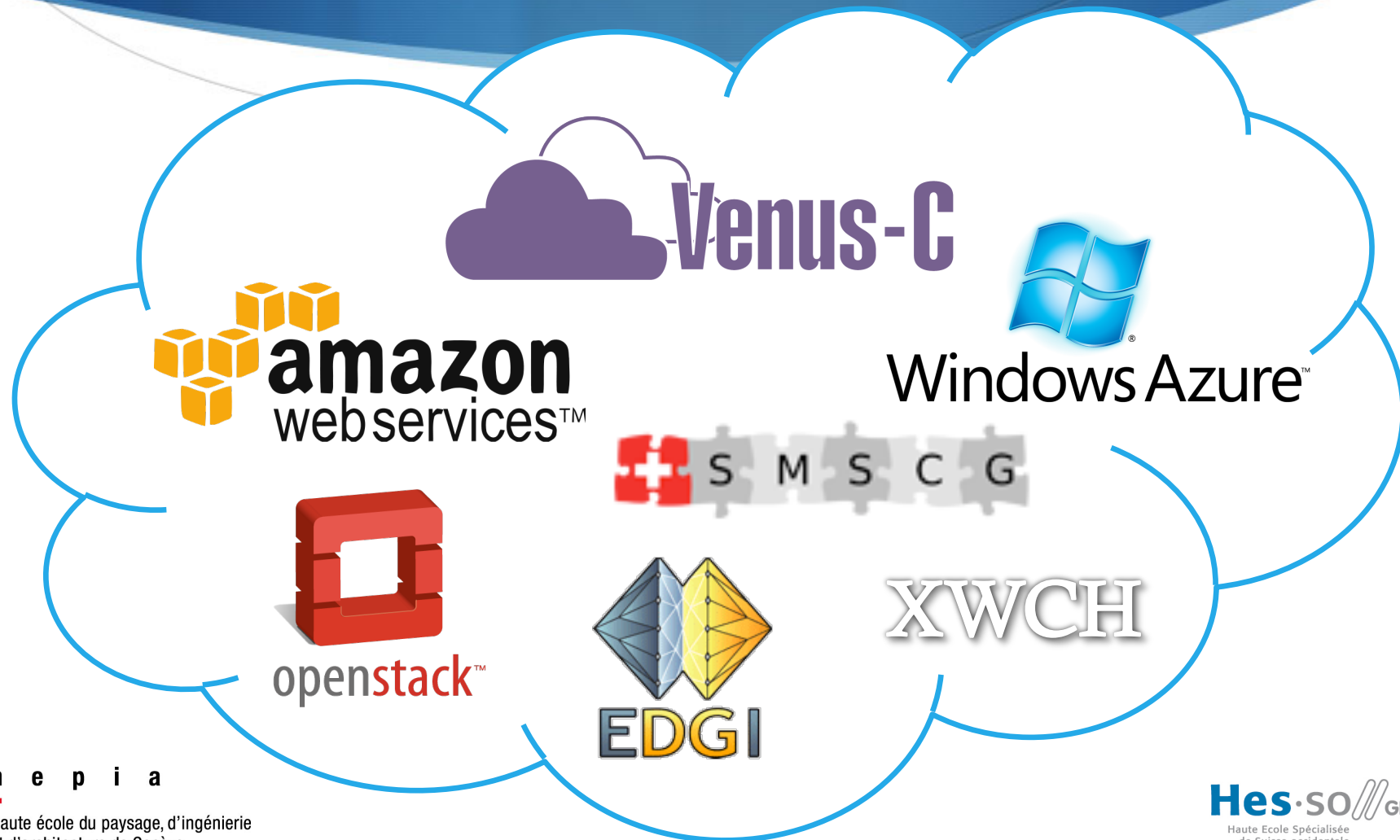


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LSDS research group

- Large Scale Distributed Systems (LSDS)
 - High Performance Computing
 - Volunteer Computing
 - Cloud Computing
- Works at hepia (Geneva)
 - Part of HES-SO

Our infrastructure



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Our OpenStack related-projects

- ◆ XtremWeb-CH
 - ◆ Volunteer Computing Middleware
 - ◆ Developed since 2003
- ◆ SwissCloud
 - ◆ OpenStack and Microsoft Azure
- ◆ CleanCity
- ◆ SlipStream™
 - ◆ Developed support for OpenStack

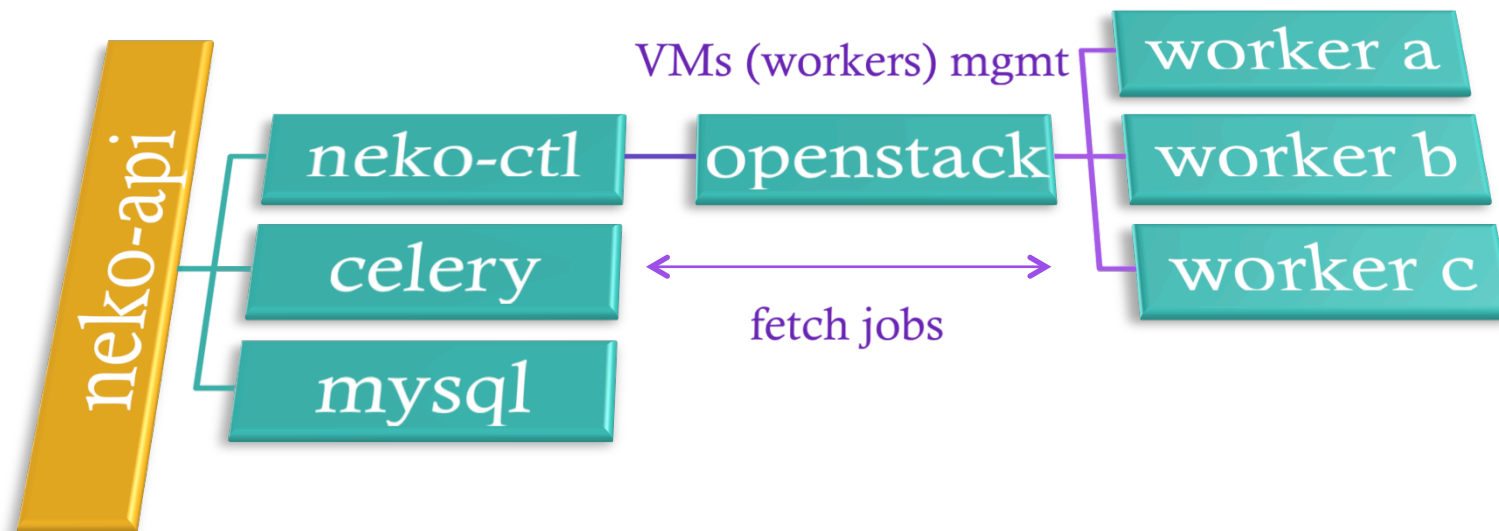
Our cloud platform

- ◆ OpenStack Folsom
 - ◆ Multi-nodes and multi-tenants installation
 - ◆ Runs on over than 40 machines
- ◆ What we use OpenStack for
 - ◆ Extend XWCH infrastructure
 - ◆ Educational purposes (Bachelors and Masters)
 - ◆ Deploy scientific applications (SwissCloud)

Our OpenStack activities

- ◆ Expertise in OpenStack installation and maintenance
- ◆ Development of several APIs for resources access and use
 - ◆ Java API: jOsApi
 - ◆ Used by students to start jobs on the infrastructure
 - ◆ Python API in development: Neko
 - ◆ Used to provide jobs platform with transparent cloud resources management

Our OpenStack activities



Our OpenStack activities

- ◆ SlipStream™
 - ◆ Multi-machine Provisioning System
 - ◆ Multi-cloud Provisioning
 - ◆ Support continuous integration processes with continuous deployment
 - ◆ Independence from specific IaaS interfaces and hypervisors
 - ◆ Used to provision instances on our OpenStack infrastructure

Thank for your attention



Question?

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