

FIWARE Cloud

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OPEN APIs FOR OPEN MINDS

www.fiware.org
@Fiware 

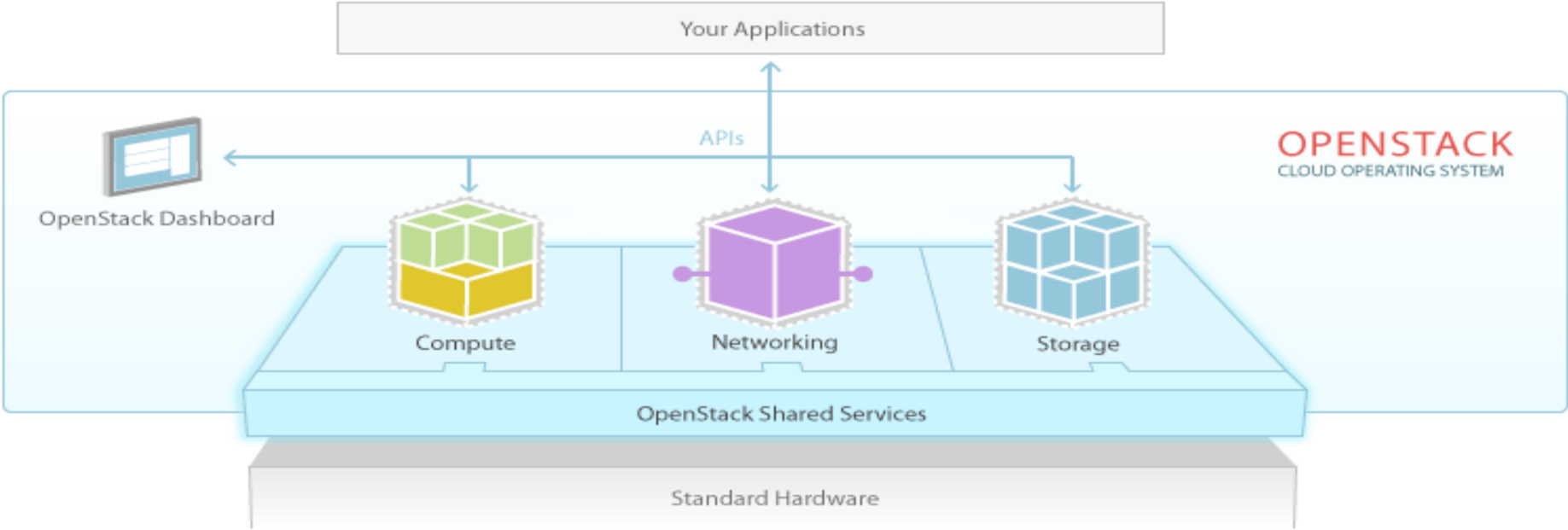


Content

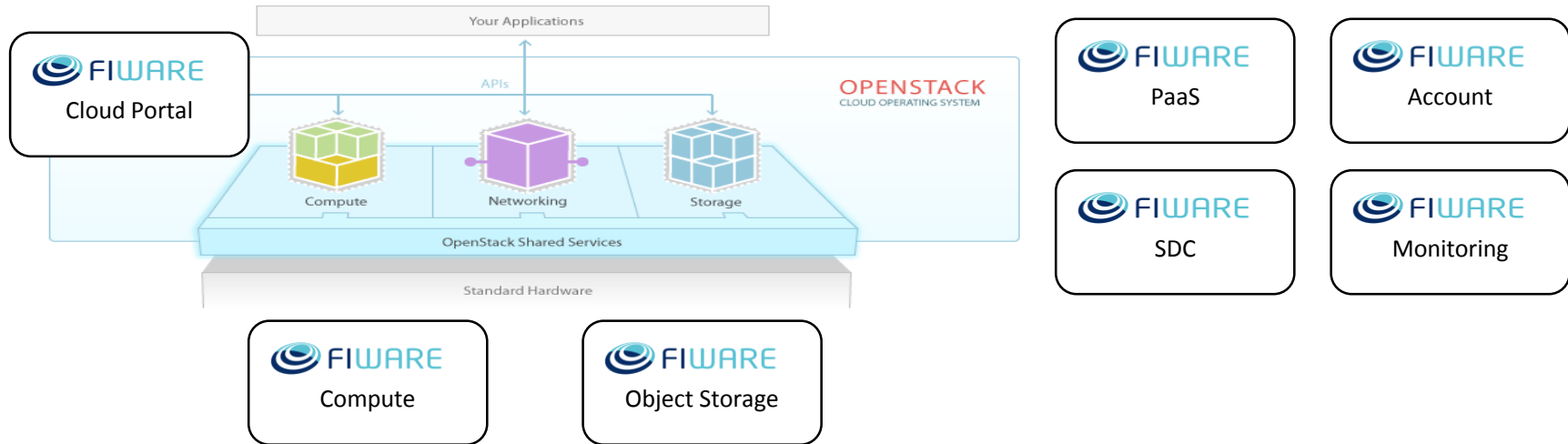
- FIWARE Lab Cloud Hosting: Overview and Architecture
- FIWARE Lab: Basic functionalities
 - FIWARE Compute Services
 - FIWARE Network Services
 - FIWARE Storage Services
- FIWARE Lab: PaaS, working with Blueprints
- Reference Information

FIWARE Lab Cloud Hosting: Overview and Architecture

FIWARE Lab Cloud Hosting

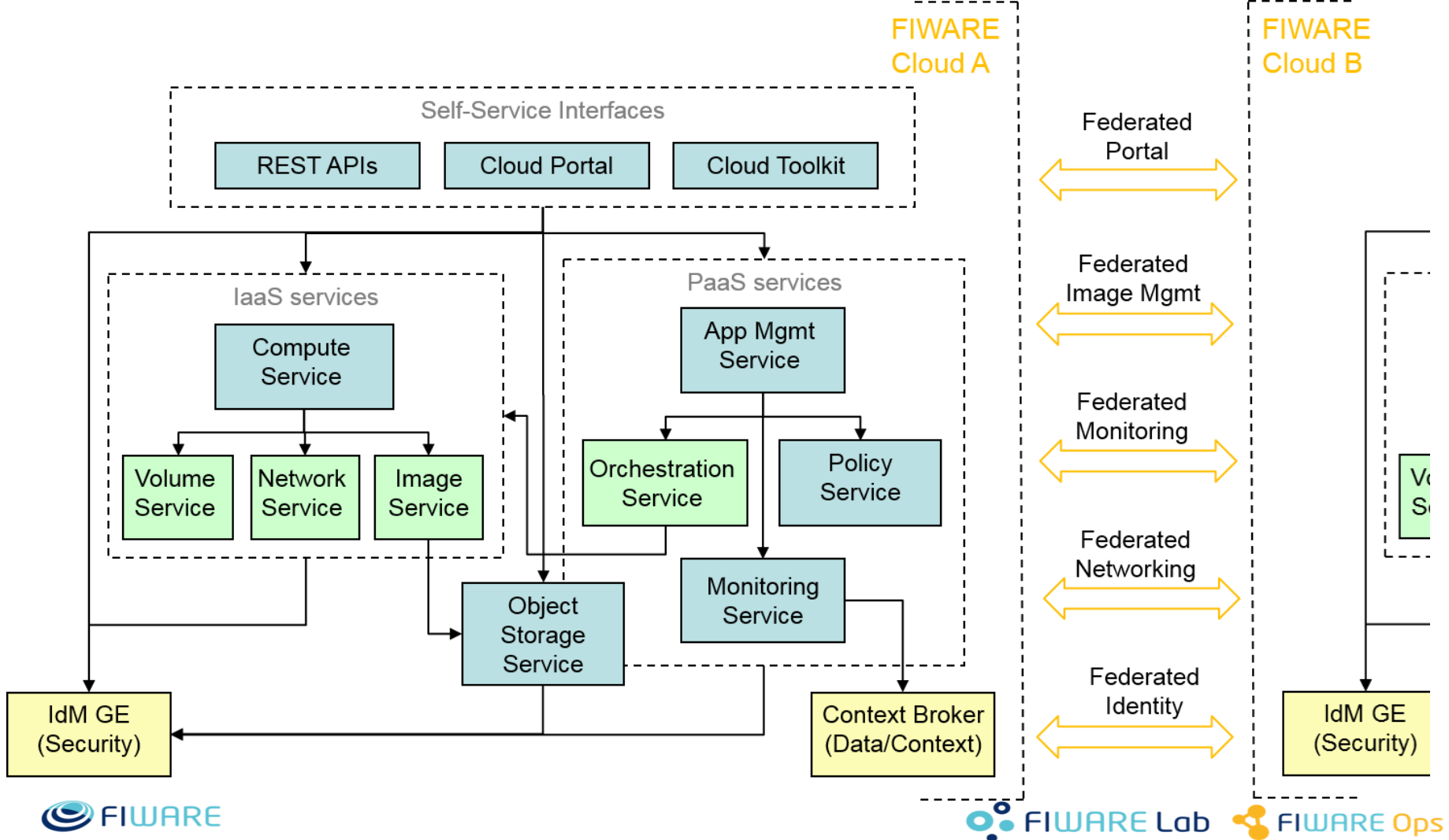


FIWARE Lab Cloud Hosting

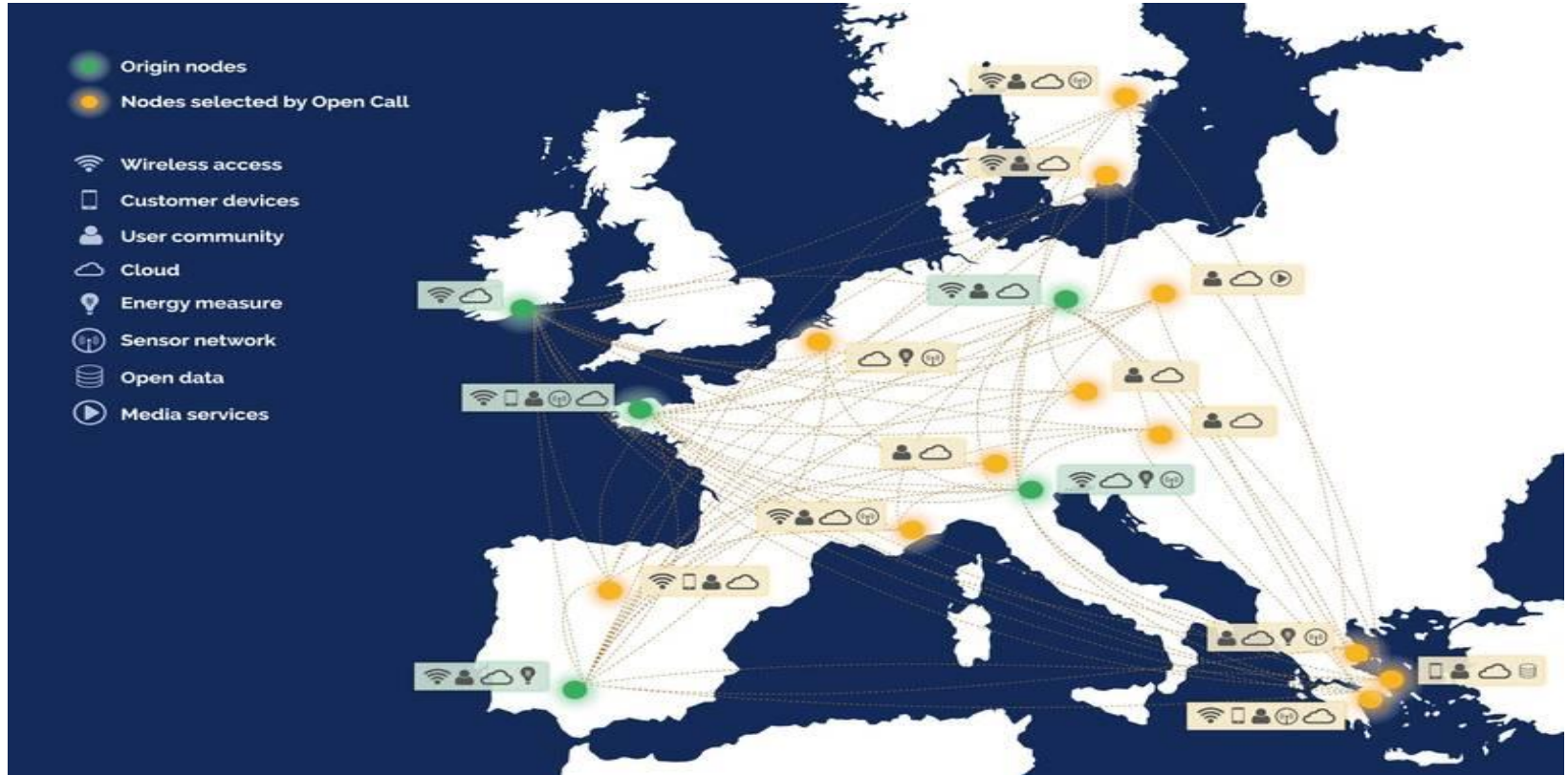


Summary

- **Account:** Manages identity and organizations; provides authentication and authorization for other services (OpenStack Keystone)
- **Compute:** Manages the lifecycle of compute instances. Responsibilities include spawning, scheduling and decommissioning of VMs (OpenStack Nova)
- **Network:** Enable Network-Connectivity-as-a-Service for other services, e.g. Compute, (OpenStack Neutron)
- **Storage:**
 - Persistent block storage for running compute instances (OpenStack Cinder)
 - Stores and retrieves arbitrary unstructured data object and provide storage for other services, e.g. Image, (OpenStack Swift)
- **Image:** Stores and retrieves VM disk images used by compute (OpenStack Glance)
- **Monitoring:** Monitoring information about VMs
- **SDC:** Deploying Software in VMs
- **PaaS Manager**
 - Working with regions
 - Creating Tiers and deploying Blueprints



FIWARE Lab Cloud – Multiregion



Account

- Creating an account
 - <https://account.lab.fi-ware.org>
- Understanding organizations
 - Mapped to OS tenants
- Signing in in Cloud Portal
 - <https://cloud.lab.fi-ware.org>
 - SSO

Add new user

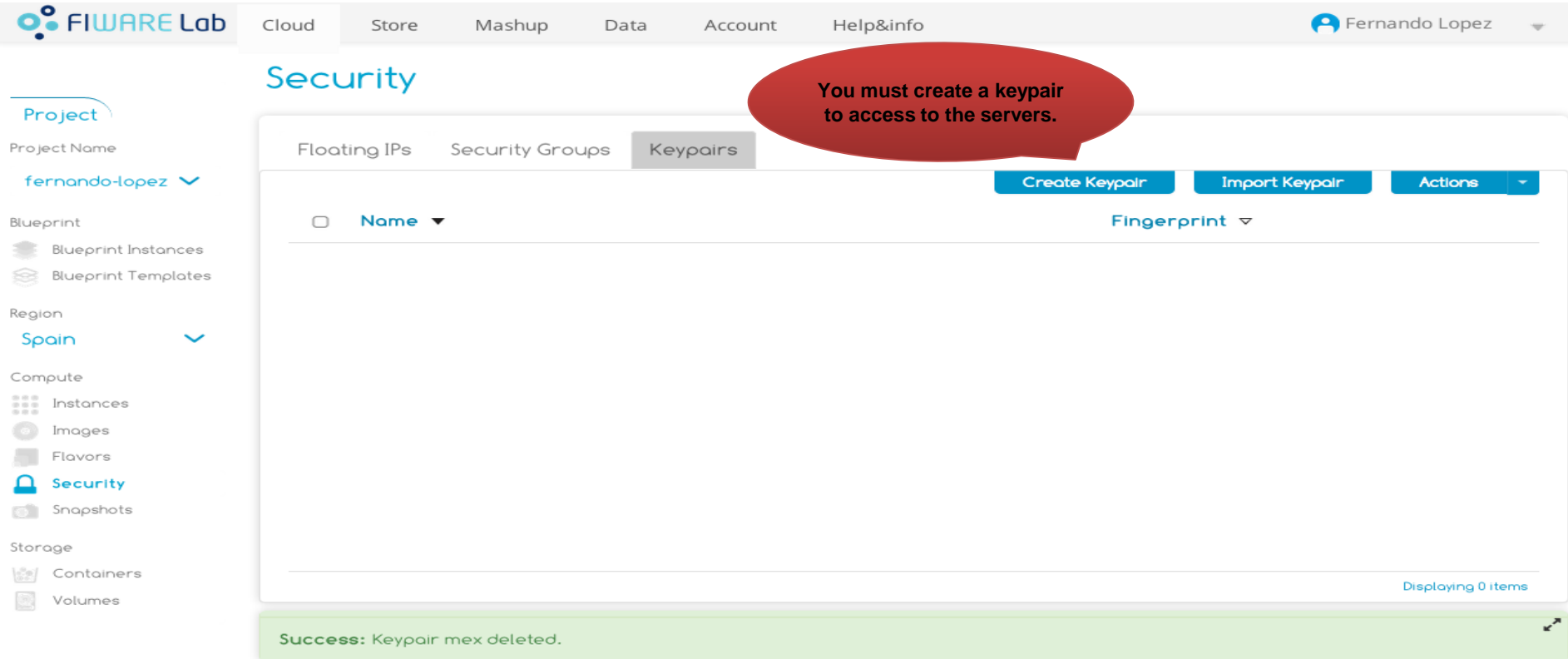
The screenshot shows a web browser window with the URL <https://account.lab.fi-ware.org>. The page features a navigation bar with the FIWARE Lab logo and menu items: Cloud, Store, Mashup, Data, Account, and Help&info. The main content area includes a section titled "FIWARE Lab" with a description: "FIWARE Lab is a working instance of FIWARE available for experimentation. You will be able to setup the basic virtual infrastructure needed to run applications that make use of the APIs provided by FIWARE Generic Enablers deployed as a Service either globally or by you (as private instance)." Below this is a "Sign up" button. A grid of four links is present: "Need Help?" (Ask a question.), "Our GEs" (See our Catalogue.), "FIWARE Lab nodes" (Learn about FIWARE Ops.), and "eLearning" (Train yourself.). On the right side, there is a login form with fields for "Email" and "Password", a "Remember me" checkbox, and a "Sign in" button. Below the form are links for "Sign up", "Forgot you password?", and "Didn't receive confirmation instructions?". Two red callout boxes are overlaid on the page: one pointing to the login form with the text "Enter your email and password to access to the FIWARE Lab." and another pointing to the "Sign up" button with the text "If you do not have it or forgot it, sign up or request for a new one."

FIWARE Lab: Basic functionalities

FIWARE Lab: Basic functionalities

- Create keypair (private key)
- Create security group (incoming ports to VM, e.g. 22 for ssh)
- Deploy an instance
 - choice from a library of predefined images, e.g. Centos, Ubuntu, etc.
 - choice flavor of resource configuration (vCPU, memory, user disk, ephemeral disk).
 - choice security group.
 - choice keypair to ssh into VM.
 - specify configuration scripts (optional).
- Associate public IP with VM.
- Create private networks and associate to VMs.
- Create storage volumes and attach to VM.

Create keypair



FIWARE Lab

Cloud Store Mashup Data Account Help&info

Fernando Lopez

Security

Project

Project Name

fernando-lopez

Blueprint

- Blueprint Instances
- Blueprint Templates

Region

Spain

Compute

- Instances
- Images
- Flavors
- Security**
- Snapshots

Storage

- Containers
- Volumes

Floating IPs Security Groups **Keypairs**

Create Keypair Import Keypair Actions

<input type="checkbox"/>	Name	Fingerprint
Displaying 0 items		

Success: Keypair mex deleted.

Security groups

Security

Project

Project Name

fernando-lopez

Blueprint

Blueprint Instances

Blueprint Templates

Region

Spain

Compute

Instances

Images

Flavors

Security

Snapshots

Storage

Containers

Volumes

Floating IPs

Security Groups

Keypairs

Create a Security Group

Create Security Group

Actions

Name

Description

default

default

Displaying 1 item

Success: Keypair mex deleted.

Create and edit Security Group rules

Edit Security Group Rules

Security Group Rules

IP Protocol ▾	From Port ▾	To Port ▾	Source ▾	Action ▾
TCP	22	22	0.0.0.0/0 (CIDR)	Delete Rule
TCP	3306	3306	0.0.0.0/0 (CIDR)	Delete Rule

Displaying 2 items

Add Rule

IP Protocol	From Port *	To Port *	Source Group	CIDR
TCP ▾	Required field.	Required field.	CIDR ▾	0.0.0.0/0

* Mandatory fields.

Cancel Add Rule

Launch Instances

Images

- Project
 - Project Name
 - fernando-lopez
 - Blueprint
 - Blueprint Instances
 - Blueprint Templates
 - Region
 - Spain
 - Compute
 - Instances
 - Images**
 - Flavors
 - Security
 - Snapshots
 - Storage
 - Containers
 - Volumes

Name	Status	Visibility	Container Format	Disk F	Actions
BoINC	active	public	OVF		Launch
CentOS-6.3-sdc	active	public	OVF	QCOW2	Launch
CentOS-6.3-x86_64	active	public	OVF	QCOW2	Launch
CentOS-6.5-x64	active	public	OVF	QCOW2	Launch
CentOS6.3.init	active	public	OVF	QCOW2	Launch
CentOS65init	active	public	OVF	QCOW2	Launch
LPCI-internal	active	public	OVF	QCOW2	Launch
MiWi-POI server	active	public	OVF	QCOW2	Launch
MiWi-POI server	active	public	OVF	QCOW2	Launch
Snapshot_orion_citysense	active	public	OVF	QCOW2	Launch

Launch new instance

Success: Released Floating IP 130.206.83.21

Launch Instances

Launch Instances ✕

1. Details — 2. Access & Security — 3. Post-Creation — 4. Summary

Instance Name *

Flavor
m1.tiny

Instance Count *

Description
Specify the details for launching an instance. The chart below shows the resources used by this project in relation to the project's quotas.

Flavor Details

Name	m1.tiny
VCPU	1
Root Disk	0 GB
Ephemeral Disk	0 GB
Total Disk	0 GB
RAM	512 MB

Project Quotas

Instance Count (3)	0 Available
VCPU (3)	3 Available
Disk (20 GB)	980 GB Available
Memory (4608 MB)	20392 MB Available

* Mandatory fields.

Cancel **Next**

Launch Instances

Launch Instances

1. Details — 2. Access & Security — 3. Post-Creation — 4. Summary

Instance Name: HHI
Image: CentOS65init
Flavor: m1.tiny
Instance Count: 1
Keypair: hamburg
Security Group: hamburg

To access the instance:
You need to include a security group with port 22 opened to access via SSH.
You need to assign a floating IP to access from a external network.

* Mandatory fields.

Back Launch Instance

Allocate IP to a project

Security

Floating IPs

Security Groups

Keypairs

Allocate new IP

Allocate IP to Project

Actions



IP Address

Instance

Floating IP Pool

Displaying 0 items

Success: Released Floating IP 130.206.83.21

Allocate Floating IP

Security

Project

Project Name

fernando-lopez

Blueprint

Blueprint Instance

Blueprint Template

Region

Spain

Compute

Instances

Images

Flavors

Security

Snapshots

Storage

Containers

Volumes

Associate Floating IP

Associate Floating IP:

130.206.83.21

to instance:

HH1

and to IP Address:

Select IP to associate with

Description

Associate a floating ip with an instance.

Cancel

Associate IP

Actions

Associate Floating IP

Remove Floating IPs

Displaying 1 item

Success: Successfully allocated floating IP

Instances Overview

Instances

Project

Project Name

fernando-lopez

Blueprint

- Blueprint Instances
- Blueprint Templates

Region

Spain

Compute

- Instances
- Images
- Flavors
- Security
- Snapshots

Storage

- Containers
- Volumes

Overview

Log

Connection

Monitoring

Info

Name: HH1
ID: 125cd18e-fa14-4f5a-8d4e-14a524b5dafa
Status: ACTIVE

Specs

RAM: 512MB
VCPUs: 1 VCPU
Disk: 0GB

IP Addresses

private: 10.0.4.209

Security Groups

default

Meta

Key name: hamburg
Image Name: CentOS65init
region: Spain

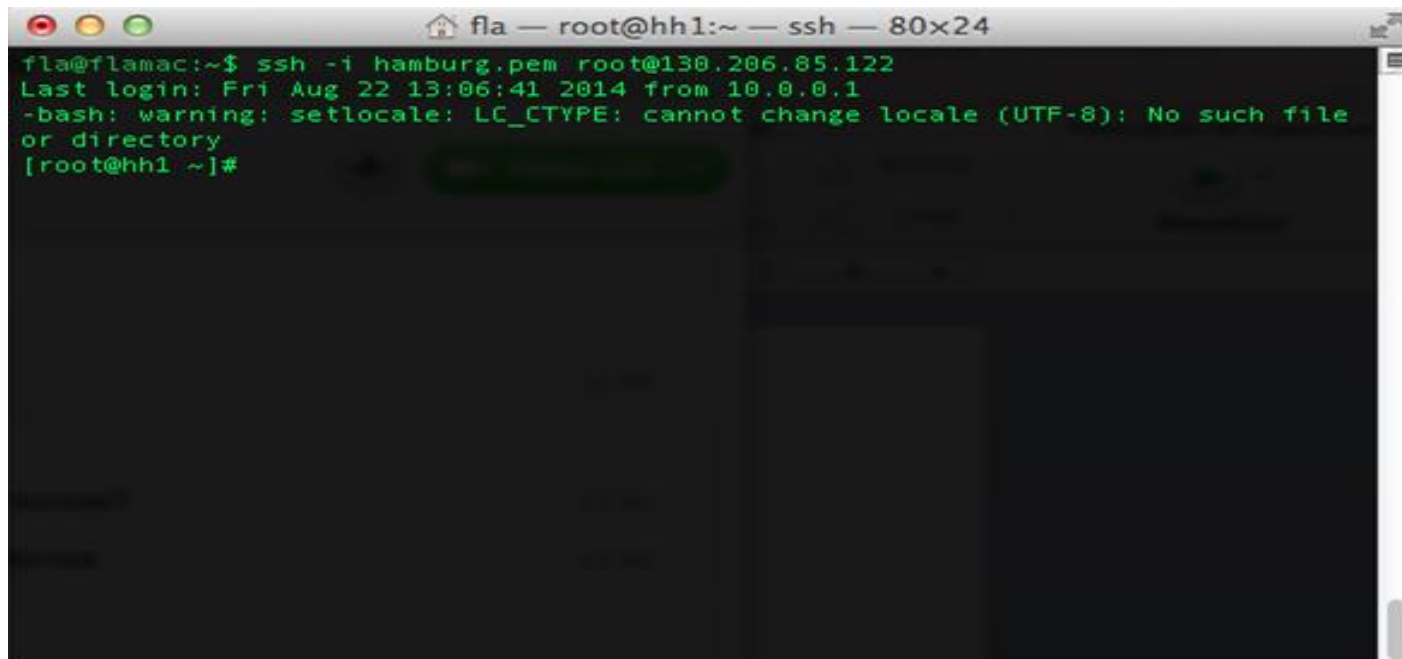
Volumes

Installed Software

[Edit](#)

Success: Successfully allocated floating IP

Access to the instance



```
fla — root@hh1:~ — ssh — 80x24
fla@flamac:~$ ssh -i hamburg.pem root@130.206.85.122
Last login: Fri Aug 22 13:06:41 2014 from 10.0.0.1
-bash: warning: setlocale: LC_CTYPE: cannot change locale (UTF-8): No such file
or directory
[root@hh1 ~]#
```

FIWARE Network

- Multi-tenancy: Do I need to isolate tenants?
 - Even if you trust them, you might want isolation.
 - Tenant creates his own network(s) and router(s) allowing complex network topologies for multi-tier applications.
- Create private network with subnets.
- Create router and interfaces.
- Set gateway.
- Deploy instance on network.

Create your own network

FIWARE Lab Cloud Store Mashup Data Account Help&info Fernando Lopez

Networks

Project Name: fernando-lopez

Blueprint: Blueprint Instances, Blueprint Templates

Region: Waterford

Compute: Instances, Images, Flavors, Security, Snapshots

Storage: Containers, Volumes

Network: Networks, Routers

Buttons: Create Network, Actions

Name	Subnets associated	Shared	Admin State
private2	subnet_private2 10.0.2.0/24	No	ACTIVE
shared_unsecure	shared_unsecure_101 192.168.101.0/24	Yes	DOWN

Info: Switched to region Waterford

Displaying 2 items

Create a new Network

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Add subnet associate to the previous network

Networks

<input type="checkbox"/>	Name ▾	Subnets associated ▾	Shared ▾	Status ▾	Actions ▾
<input checked="" type="checkbox"/>	demo-net		No	ACTIVE	<ul style="list-style-type: none">Edit NetworkAdd SubnetDelete Networks
<input type="checkbox"/>	federation-int-net-01	federation-int-sub-01 10.100.10.0/24	Yes		Add subnet
<input type="checkbox"/>	node-int-net-01	node-int-sub-01 10.101.10.0/24	Yes		
<input type="checkbox"/>	private2	subnet_private2 10.0.2.0/24	No	ACTIVE	UP

Displaying 4 items

Success: Network demo-net created.

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Add subnet associate to the previous network

Networks

Create Subnet

Subnet Name
demo-subnet

Network Address*
192.168.194.0/24

Allocation
<start_ip_...>

Enable DHCP

Gateway IP

DNS Name Servers
8.8.8.8

<nextthop>

* Mandatory fields.

Cancel Create

Displaying 4 items

Success: Network demo-net created.

Add Network Address (CIDR)

Define DNS server

Create a router

FIWARE Lab Cloud Store Mashup Data Account Help&info Fernando Lopez

Routers

Create Router Actions

Create Router

Router Name*

* Mandatory fields.

Cancel Create router

Success: Router t deleted.

Storage
Containers
Volumes

Network
Networks
Routers

Displaying 0 items

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Set gateway

Routers

- Project
 - Project Name
 - fernando-lopez
 - Blueprint
 - Blueprint Instances
 - Blueprint Templates
 - Region
 - Waterford
 - Compute
 - Instances
 - Images
 - Flavors
 - Security
 - Snapshots
 - Storage
 - Containers
 - Volumes
 - Network
 - Networks
 - Routers**

<input type="checkbox"/>	Name	Status	External Net
<input checked="" type="checkbox"/>	demo-router	ACTIVE	-

Assign a gateway to the router

- Create Router
- Actions
 - Set Gateway
 - Clear Gateway
 - Delete Routers

Success: Router demo-router created.

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Set gateway

Routers

Set Gateway

External Network

- Select network
- federation-ext-net-01
- public-ext-net-01

Description

You can connect a specified external network to the router. The external network is regarded as a default route of the router and the router acts as a gateway for external connectivity.

*** Mandatory fields.**

Cancel Set Gateway

Select the network

Success: Router demo-router created.

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Assign subnet

The screenshot shows the FIWARE Lab interface with the 'Routers' page selected. The navigation bar includes 'Cloud', 'Store', 'Mashup', 'Data', 'Account', and 'Help&info'. The user 'Fernando Lopez' is logged in. The left sidebar shows a 'Project' dropdown set to 'fernando-lopez' and a 'Region' dropdown set to 'Waterford'. The main content area displays a table of routers:

<input type="checkbox"/>	Name ▾	Status ▾	External Network ▾
<input type="checkbox"/>	demo-router	ACTIVE	public-ext-net-01

A red callout bubble highlights the 'demo-router' entry with the text: "Double Click on the router name".

At the bottom of the page, a green success message states: "Success: Gateway interface is added." The footer contains the URL <https://cloud.lab.fiware.org/#neutron/routers/6ede42a2-0b3e-4321-8354-5e2d6> and a note: "es is subject to the acceptance of the [Terms and Conditions](#), [Personal Data Protection Policy](#) and [Cookies Policy](#)".

Assign subnet

Router Detail

Project

Project Name
fernando-lopez

Blueprint

- Blueprint Instances
- Blueprint Templates

Region

Waterford

Compute

- Instances
- Images
- Flavors
- Security
- Snapshots

Storage

- Containers
- Volumes

Network

- Networks
- Routers

Router Interfaces

Add Interface

Name	Fixed IPs	Status	Type	Admin State
Displaying 0 items				

Success: Gateway interface is added.

Add interface (subnet)

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Assign subnet

Add Interface

Subnet
(demo-net): 192.168.194.0/24 (demo-subnet)

Router Name
demo-router

Router ID
6ede42a2-0b3e-4321-8354-5e2d64bec85f

Description
You can connect a specified external network to the router. The external network is regarded as a default route of the router and the router acts as a gateway for external connectivity.

* Mandatory fields.

Cancel Add Interface

Select the network to connect

Deploy a new instance: Networking

Launch Instances

1. Details — 2. Access & Security — 3. Networking — 4. Post-Creation — 5. Summary

Selected Networks

nic:1 demo-net

Available Networks

- private2
- node-int-net-01
- federation-int-net-01

Description
Control access to your instance via keypairs, security groups, and other mechanisms.

* Mandatory fields.

Back Next

Select the network to connect

Create a volume

Create Volume

Volume Name *

Description

Volumes are block devices that can be attached to instances.

Description

Size (GB) *

* Mandatory fields.

Cancel [Create Volume](#)

Attach a volume to an instance

Manage Volume Attachments

Attachments

Detach Volumes

Instance	Device	Actions
Displaying 0 items		

Attach To Instance

Attach to Instance *

Device Name *

* Mandatory fields.

Cancel

Volume attached

Volumes

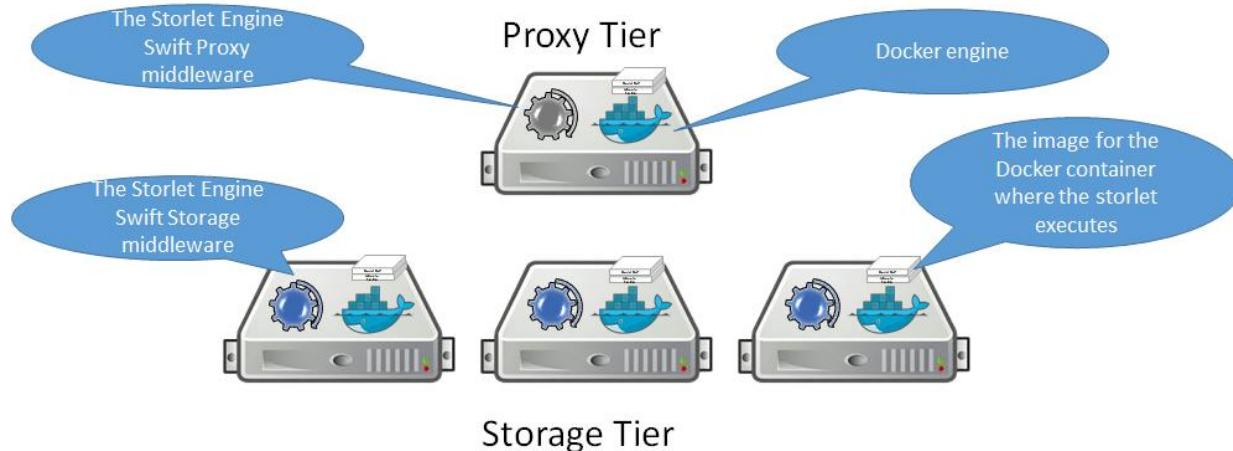
Create Volume Actions

<input type="checkbox"/>	Name ▾	Description ▾	Size (GB) ▾	Status ▾	Attachments ▾
<input checked="" type="checkbox"/>	volume1	A volume	1	In-use	1

Displaying 1 item

FIWARE Object Store, i.e. OpenStack Swift

- Create container
- Upload objects, i.e. files
- Download objects
- Storlets (to be deployed)
 - Small computer programs that can be deployed and get executed inside a Swift cluster in an isolated manner.
 - Bring the compute to the data thus saving on the bandwidth required to bring the data to the compute.
 - Based on a Swift cluster empowered with the storlet engine Swift middleware and Docker, which allows the execution of user written code inside Swift in an isolated manner.



Object Storage API

- http://forge.fi-ware.org/plugins/mediawiki/wiki/fiware/index.php/Object_Storage_-_User_and_Programmers_Guide

- **Authentication to get initial token**

```
username='email@company.com' password='mypassword' curl -d '{"auth": {"passwordCredentials": {"username":"$username", "password":"$password"}}}' \ -H 'Content-type: application/json' \ http://cloud.lab.fi-ware.org:4730/v2.0/tokens \ -vvv
```

- **Use initial token to get tenant**

```
curl -H 'x-auth-token: '$token' http://cloud.lab.fi-ware.org:4730/v2.0/tenants
```

- **Authenticate tenant to get token for Object Storage**

```
curl -d '{"auth": {"passwordCredentials": {"username":"$username", "password":"$password"}, "tenantId":"$tenantId"}}' \ -H 'Content-type: application/json' \ http://cloud.lab.fi-ware.org:4730/v2.0/tokens
```

- **Object Storage URL**

```
http://130.206.82.9:8080/v1/AUTH\_tenantId
```

FIWARE Lab: PaaS, working with Blueprints

FIWARE PaaS

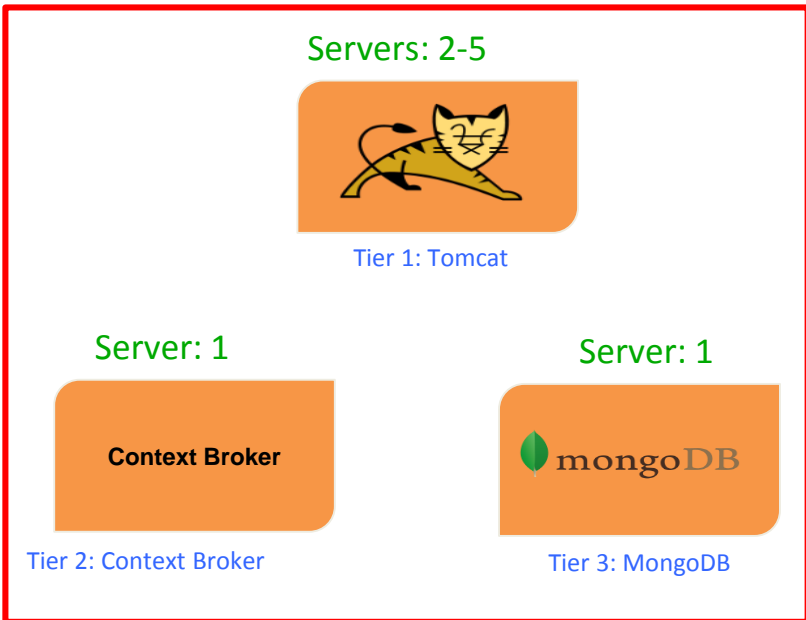
- Deploying components for your application.
- Create blueprint templates.
- Create Tiers on a blueprint template.
- Launch blueprint templates -> create blueprint instances.
- See details of the blueprint instance.
- Check the SW installed on the blueprint instance.

Real scenario

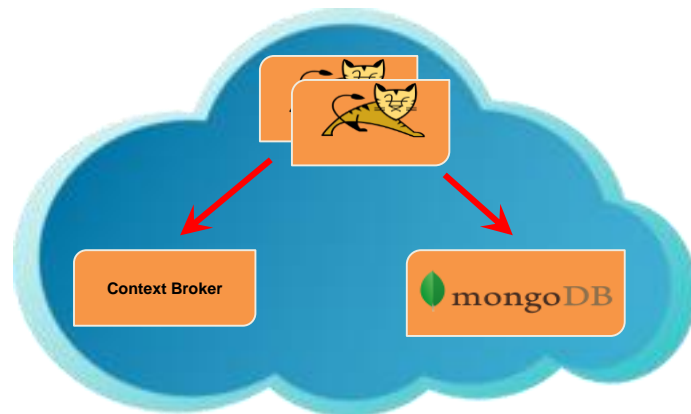
- Users want to define lots of parameters.
 - Password, ports, default installation.
- Users want to install several things in the same server.
 - Tomcat + git, tomcat + java + git, ...
- Users need to deploy complex environment.
 - One server for Tomcat, another for MySQL, ...
- Some parameters are unknown before instantiate the system.

Deploy example

Blueprint template: fiware1



- **Blueprint Template**: platform specification to be deployed.
- **Tier**: Each kind of software and server to be deployed.
- Each Tier can be deployed in one or **several servers** (e.g. tomcat, 2-5 servers).
- **Blueprint Instance**: Deployed in the testbed.



Create a new blueprint template

Blueprint Templates

Project

Project Name

fernando-lopez

Blueprint

Blueprint Instances

Blueprint Templates

Region

Spain

Compute

Instances

Images

Flavors

Security

Snapshots

Storage

Containers

Volumes

Open Catalog Create New Template Actions

<input type="checkbox"/>	Name	Description	Tiers
<input type="checkbox"/>	p1	p1	

Press the option "Blueprint Templates" from menu

You can open the Catalog of Blueprint Template or create one from the scratch.

Success: Container HamburgContainer created.

Create a new blueprint template

Create Blueprint ✕

Name *

Description

From here you can create a new blueprint.

Description *

description

* Mandatory fields.

Add tiers

Blueprint Templates

Open Catalog Create New Template Actions

<input type="checkbox"/> Name	Description	Tiers
<input type="checkbox"/> hh-template	description	0

To add new Tier, press "hh-template" name.

Displaying 1 item

Success: Blueprint hh-template created.

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Add tiers

After press "Add Tier" you see this windows to define the servers of this tier.

Create Tier

1. Details — 2. Install Software — 3. Connect Network

4 | 0

1

Name *:

Region: Spain2

Flavor *: m1.tiny (1VCPU / 1GB Disk / 512MB Ram)

Image *: CentOS-6.5init

Icon: [View](#)

Keypair: fla

* Mandatory fields.

Next

You should specify the maximum, minimum and current number of servers

You must select a Keypair to access to those servers.

Add software in tier

The screenshot shows a 'Create Tier' window with a progress bar at the top containing three steps: '1. Details', '2. Install Software' (which is active), and '3. Connect Network'. Below the progress bar, there are two main sections: 'Software in Tier' on the left, which is currently empty, and 'Software in Catalog' on the right, which contains a list of software items. A red callout bubble is positioned over the 'Software in Catalog' list, containing the text 'Install software pressing the mouse right click.' At the bottom of the window, there is a note '* Mandatory fields.' and two buttons: 'Back' and 'Next'.

1. Details — 2. Install Software — 3. Connect Network

Software in Tier

Software in Catalog

- apache2 4.0
- cep 3.2.0
- django 1.5.5
- git 1.7
- marketplace 3.2.1
- mediawiki 1.17.0
- mongodbconfig 2.2.3

* Mandatory fields.

Back Next

Add software in tier

Update Tier

1. Details — 2. Install Software — 3. Connect Network

Software in Tier

- git 1.7
 - Remove
 - Edit Attributes

Edit special attributes like default port.

Software in Catalogue

- apache2 4.0
- cep 3.2.0
- django 1.5.5
- git 1.7
- marketplace 3.2.1
- mediawiki 1.17.0
- mongodbconfig 2.2.3

* Mandatory fields.

Back Next

Add software in tier

Update Tier ✕

1. Details — 2. Install Software — 3. Connect Network

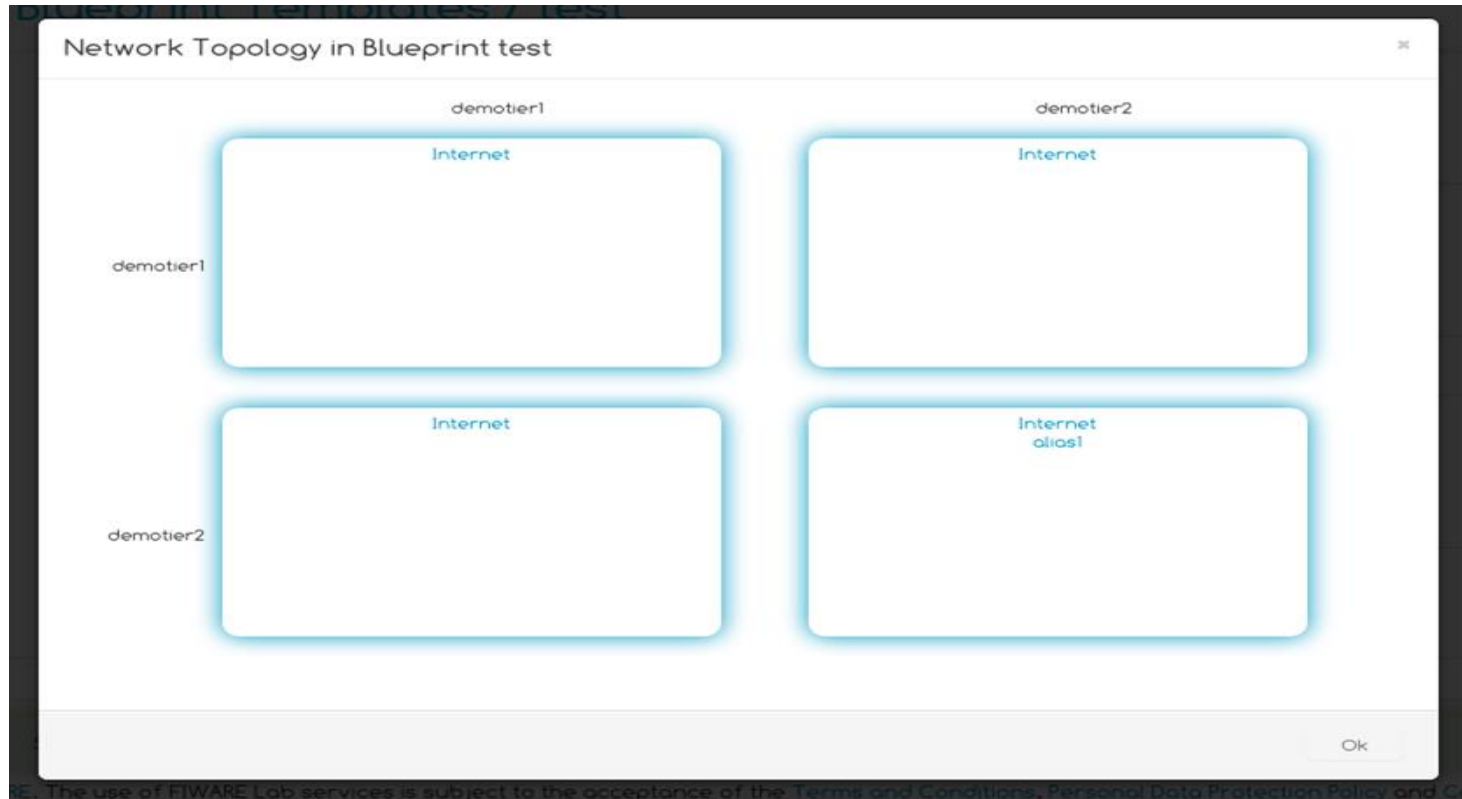
Attribute	Value	Description
No items to display		

* Mandatory fields.

Connect network

The screenshot displays the 'Create Tier' interface with a progress bar at the top containing three steps: '1. Details', '2. Install Software', and '3. Connect Network'. The '3. Connect Network' step is currently active. Below the progress bar, there are two main sections: 'Connected to Networks' on the left and 'Available Networks' on the right. The 'Connected to Networks' section contains a single entry labeled 'Internet'. The 'Available Networks' section features a text input field with the placeholder 'Enter the alias of a new network...' and a '+' button to its right. Below this input field, there is another entry labeled 'Internet'. A red callout bubble points to the 'Available Networks' section with the text 'Introduce an alias to connect together several tiers.'. Another red callout bubble points to the 'Internet' entry in the 'Available Networks' section with the text 'Drag&Drop the network to connect the tier..'. At the bottom left of the interface, there is a note: '* Mandatory fields.'. At the bottom right, there are two buttons: 'Back' and 'Create tier'.

Topology



Launch a Blueprint Template -> Blueprint Instance

Press "Action" and select "Launch Template" to launch the Instance.

Blueprint Templates

Project

Project Name

fernando-lopez

Blueprint

- Blueprint Instances
- Blueprint Templates**

Region

Spain

Compute

- Instances
- Images
- Flavors
- Security
- Snapshots

Storage

- Containers
- Volumes

Open Catalog Create New Template Actions

<input type="checkbox"/>	Name	Description	Tiers
<input type="checkbox"/>	hh-template	description	2

Displaying 1 item

Success: Tier hh-vm2 created.

Launch a Blueprint Template -> Blueprint Instance

Launch Blueprint Instance

Name *

HHBlueInstance

Description

From here you can launch a new blueprint instance.

Description *

An deployed instance

You should specify the "Name" and "Description" for your blueprint.

* Mandatory fields.

Cancel Launch Blueprint Instance

Demo

Blueprint Instances

- Project
 - Project Name
 - fernando-lopez
 - Blueprint
 - Blueprint Instances
 - Blueprint Templates
 - Region
 - Spain
 - Compute
 - Instances
 - Images
 - Flavors
 - Security
 - Snapshots
 - Storage
 - Containers
 - Volumes

Launch New Blueprint Actions

Name	Description	Tiers	Status
HHBlueInstance	An deployed instance	2	DEPLOYING

Displaying 1 item

Firstly, the deployment of infrastructure.

Success: Blueprint HHBlueInstance launched.

Demo

Blueprint Instances

Project Name: fernando-lopez

Blueprint: **Blueprint Instances**

Region: Spain

Compute: Instances, Images, Flavors, Security, Snapshots

Storage: Containers, Volumes

Launch New Blueprint

Actions

Name	Description	Tiers	Status
HHBlueInstance	An deployed instance	2	INSTALLING

Displaying 1 item

Secondly, the installation of the software.

Success: Blueprint HHBlueInstance launched.

Demo

Blueprint Instances

- Project
 - Project Name
 - fernando-lopez
 - Blueprint
 - Blueprint Instance
 - Blueprint Term
 - Region
 - Spain
 - Compute
 - Instances
 - Images
 - Flavors
 - Security
 - Snapshots
 - Storage
 - Containers
 - Volumes

<input type="checkbox"/>	Name	Description	Tiers	Status
<input type="checkbox"/>	HHBlueInstance	An deployed instance	2	INSTALLED

Pressing the name you can see the tiers of this blueprint.

Finally, if all was ok.

Success: Blueprint HHBlueInstance launched.

Blueprint Instances / HHBlueInstance

- Project
 - Project Name
 - fernando-lopez
 - Blueprint
 - Blueprint Instances
 - Blueprint Templates
 - Region
 - Spain
 - Compute
 - Instances
 - Images
 - Flavors
 - Security
 - Snapshots
 - Storage
 - Containers
 - Volumes

Back to instances



Name: hh-tier1
Flavor: m1.small
Image: CentOS6.3.init
Keypair: hamburg

Software in Tier

tomcat 6

Name: hh-tier2
Flavor: m1.small
Image: CentOS6.3.init
Keypair: hamburg

Software in Tier

mysql 1.2.4

Press it to get information of your server.

Displaying 2 items

Info: Connected to project fernando-lopez (ID 00000000000000000000000000000000104)

Demo

Blueprint Instances / HHBlueInstance / hh-tier1

Project

Project Name

fernando-lopez

Blueprint

- Blueprint Instances
- Blueprint Templates

Region

Spain

Compute

- Instances
- Images
- Flavors
- Security
- Snapshots

Storage

- Containers
- Volumes

Back to Tiers

Add Instances

Actions

<input type="checkbox"/>	Instance Name	IP Address	Size	PaaS Status	Task	Power State
<input type="checkbox"/>	HHBlueInstance-hh-tier1-1-000104	10.0.5.82 130.206.85.124		INSTALLED	None	RUNNING

Success: Security group hamburg created.

Displaying 1 item

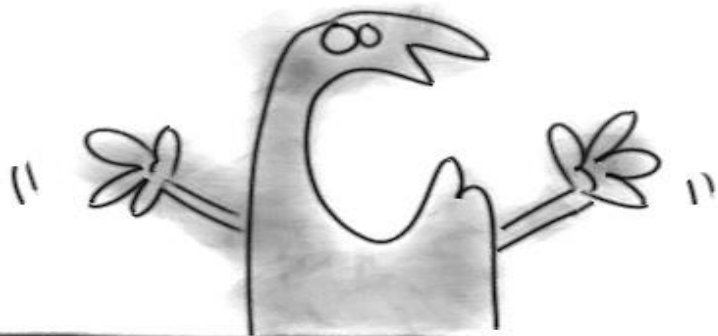
Waiting for cloud.lab.fi-ware.org... is subject to the acceptance of the [Terms and Conditions](#), [Personal Data Protection Policy](#) and [Cookies Policy](#)

Reference Information

Documentation

- FIWARE Cloud Portal:
 - Documentation: <http://catalogue.fi-ware.org/enablers/self-service-interfaces-cloud-portal-upm>
- FIWARE Cloud Infrastructure
 - Account: <http://catalogue.fi-ware.org/enablers/identity-management-keyrock>
 - SDC: <http://catalogue.fi-ware.org/enablers/software-deployment-configuration-sagitta>
 - PaaS Manager: <http://catalogue.fi-ware.org/enablers/paas-manager-pegasus>
- FIWARE eLearning Platform
 - <http://edu.fi-ware.org/>
- More detailed presentation
 - Slides: <http://tinyurl.com/fiwarelab-cloud>

Now What?!!



If you have any question or problem contact to
fiware-lab-help@lists.fi-ware.org

You can go to stackoverflow and ask question with
the tag [fiware](#) and/or [filab](#).

Thanks!



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