



FORGE Service Lab Administrative Contact Training

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FORGE Service Lab



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DIGILE

Terminology

Term	Definition
Contract	A legally binding document that enables a project formation and defines the type of the project (SDA, FPA, FPACRA)
Project	As an outcome of a signed contract a project will be formed. Various tools and resources will be made available to the project depending on the type (SDA, FPA, FPACRA)
OpenStack project	OpenStack project (aka. Tenant) is an instance of the CRA allocated for certain project types
SDA	One of the contract types is the Service Development Agreement
FPA	One of the contract types is FORGE Partner Agreement
FPA (CRA)	FORGE Partner Computing Resource Allocation is an optional addendum to the FPA contract
CRA	Computing Resource Allocation is a predefined set of computing resources. CRA realizes as FORGE OpenStack project (aka. Tenant) that has certain quota from FORGE IaaS and that is available for SDA projects
TC	FORGE Service Lab terms and conditions
IaaS	Infrastructure as a Service e.g. FORGE OpenStack, AWS
PaaS	Platform as a Service e.g. Heroku
SaaS	Software as a Service e.g. Google Apps
Technical contact	A technical role in the project that will administer technical aspects of the project e.g. CRA
Administrative contact	A role that will sign the contract and therefore enable collaboration project formation

Administrative contact role

- Legally binding role for the administrative contact is defined in the contract
- Enables the co-creation
- Signs the contract
- Nominates the technical contact for the project
- Is a "sponsor" of the project

Technical contact role

- Technical contact role
 - Is the legally binding role that is defined in the contract
 - Contains operational tasks which require technical Linux skills
 - Will be trained so that he'll able to help other project members
- Manage project's user accounts and computing resources
 - Adds and remove additional user accounts and manages computing environment quotas
 - Ensure that each user uses FORGE services in strict adherence with TC
 - Act as a 2nd tier technical support for the project
 - May request specific support from FORGE in e.g. implementing a generic purpose digital service recipe
 - Help project members in using FORGE computing environment and other FORGE services
- Help and train other project members
 - Promote and help project members in using collaboration channels, tools, documentation and help channels
 - Help project members in using cloud environment

FORGE CRA

- Computing Resource Allocation consists of CRA units
- CRA
 - 16 vcores, 32G RAM
 - 10G / vcore instance storage
 - 1TB volume storage from central storage
 - 1TB object storage
 - 5 external IPv4 IPs and shared wide network bandwidth
 - 16 instances
- Bigdata CRA
 - Suitable for a e.g. Hadoop cluster
 - 46 cores, 10G / vcore instance storage, 400G RAM, 94TB ephemeral disk, 1TB volume storage, 1TB object storage
 - 16 instances





FORGE contracts

FORGE Service Lab contracts' purpose

- In the spirit of co-creation and openness, contracts are openly available
- The purpose of the contracts is to
 - Create trust and speed the development work
 - Enable co-creation in FORGE
 - Explain how to share expertise, offer consultancy, sub components etc.
 - Enable various tools and resources

FORGE Service Lab contract types

- TC
 - FORGE Service Lab Terms and Conditions describes generic conditions
- SDA
 - Service Development Agreement enables the usage of all FORGE resources and certain computing resource allocation (CRA)
- FPA
 - FORGE Partner Agreement enables participation in the activities of the FORGE Service Lab and to offer goods or services to other FORGE Affiliates through the FORGE Plaza service
- FPA CRA
 - FORGE Partner Computing Resource Allocation is an addendum to FPA and enables certain computing resource allocation (CRA)

FORGE Service Lab contracts' outcome

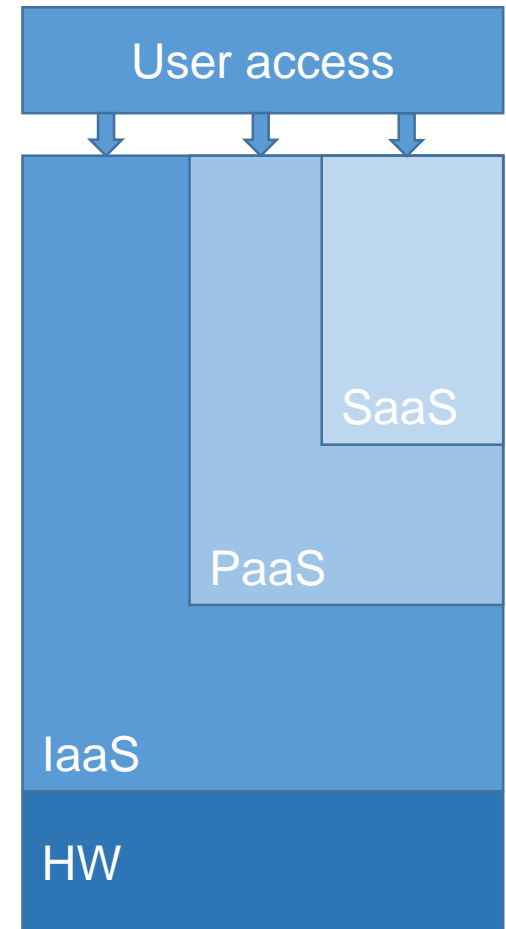
- Contract
 - The outcome of a contract is a project
 - Credentials will be provided to project's admin and technical contacts
 - Depending on the contract type, various FORGE tools and resources are enabled for the admin and technical contacts
 - E.g. SDA contract enables one CRA, SaaS, Add-ons and Plaza
 - E.g. FPA contract enables FORGE Plaza



FORGE cloud service model

Cloud computing service models

- SaaS (Software as a Service)
 - Provides you with access to application software. You don't have to worry about the installation, setup and running of the application. Service provider will do that for you. You just have to pay and use it through some client.
 - Examples: Google Apps, Microsoft Office 365.
- PaaS (Platform as a Service)
 - Computing platforms which typically includes operating system, programming language execution environment, database, web server etc.
 - Examples: AWS Elastic Beanstalk, Windows Azure, Heroku, Force.com, Google App Engine, Apache Stratos
- IaaS (Infrastructure as a Service)
 - Computing infrastructure, physical or (quite often) virtual machines and other resources like virtual-machine disk image library, block and file-based storage, firewalls, load balancers, IP addresses, virtual local area networks etc.
 - Examples: Amazon EC2, Windows Azure, Rackspace, Google Compute Engine



FORGE cloud service model

- FORGE provides IaaS through OpenStack
 - GUI
 - CLI
 - REST APIs
 - Open source Apache licence 2.0
- FORGE provides SaaS for
 - Project management
 - Source code version control
 - Collaboration
 - Instant messaging
- FORGE provides also add-ons
 - Documentation
 - Reusable example Ansible recipes which can be used to build digital services
 - Plaza service catalogue for digital services (beta)
 - Service design support (alpha)





laaS usage illustrated

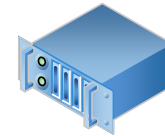
User



1. "Give me two servers called
VM1 and VM2 connected to
internal network X."



Cloud interface
server



Virtualized resources

User



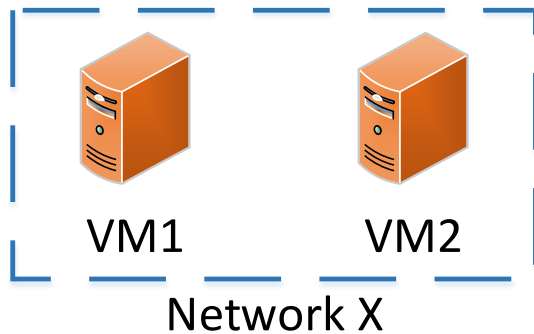
1. "Give me two servers called
VM1 and VM2 connected to
internal network X."

Cloud interface
server



2. "OK. They're running."

Virtualized resources



User



1. "Create virtual network Y."

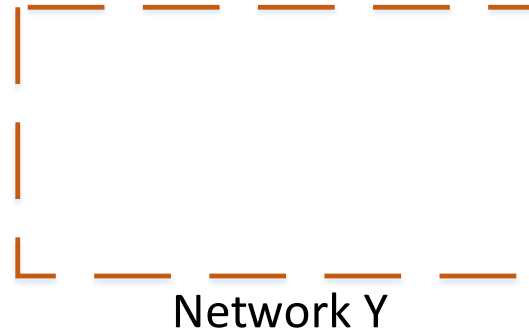
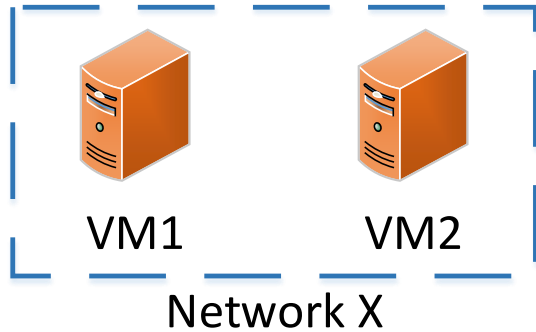


Cloud interface
server



2. "OK. Done."

Virtualized resources



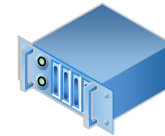
User



1. "Create a server called VM3 and
attach it to networks X and Y."

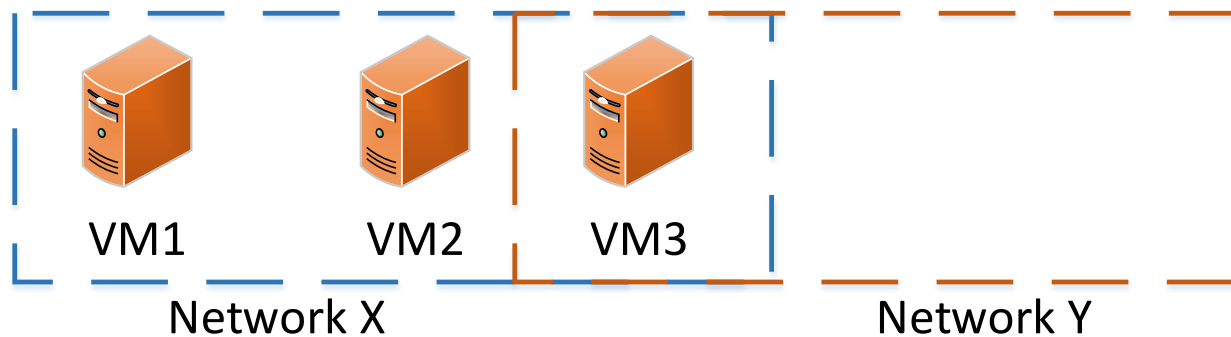


Cloud interface
server



2. "OK. Done."

Virtualized resources



User



1. "Reserve public IP address 1.2.3.4 and attach it to VM3."



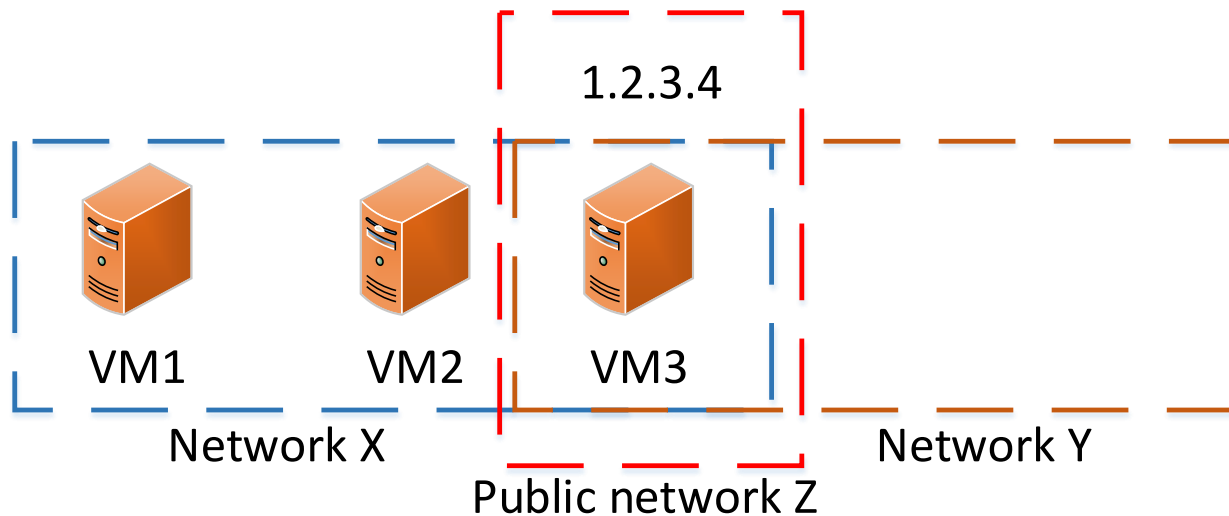
Cloud interface server



2. "OK. Done."



Virtualized resources

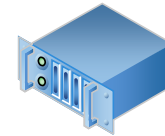


User



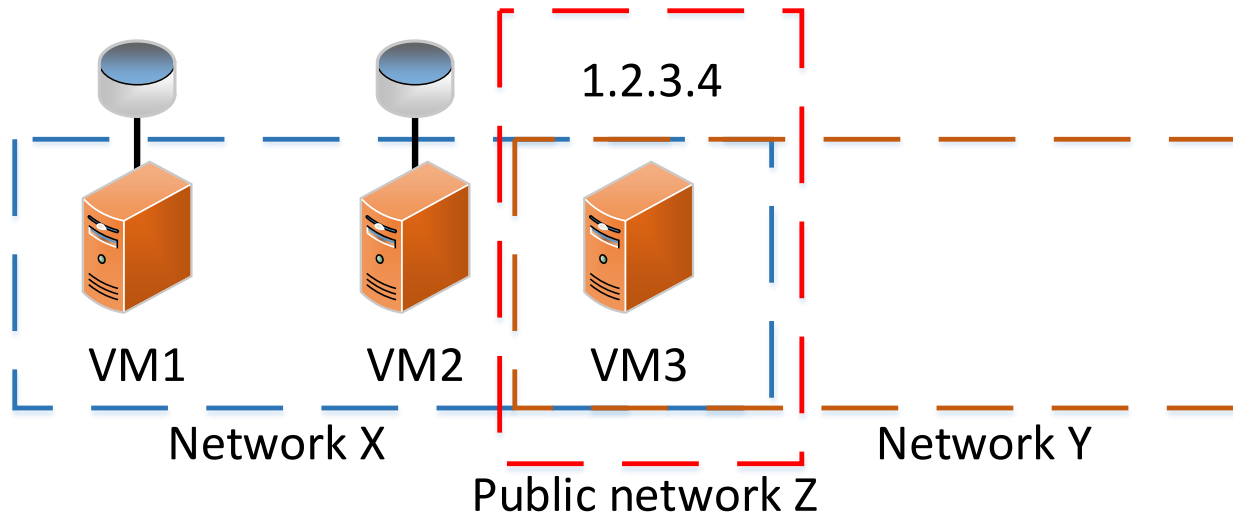
1. "Create two disks and attach them to VM1 and VM2."

Cloud interface server



2. "OK. Done."

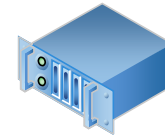
Virtualized resources



User

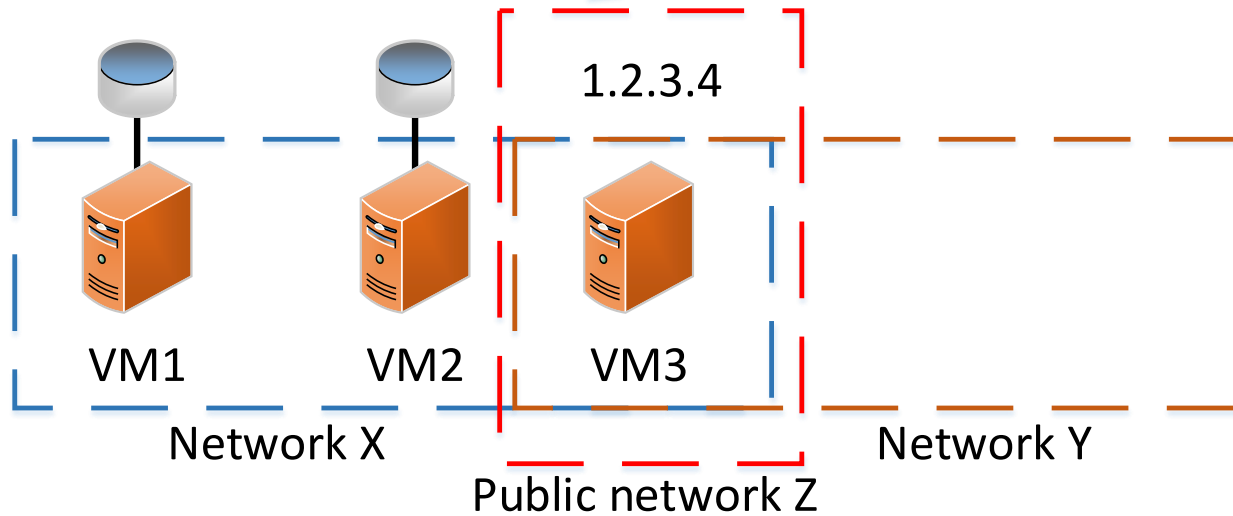


Cloud interface
server



1. Connect to 1.2.3.4

Virtualized resources



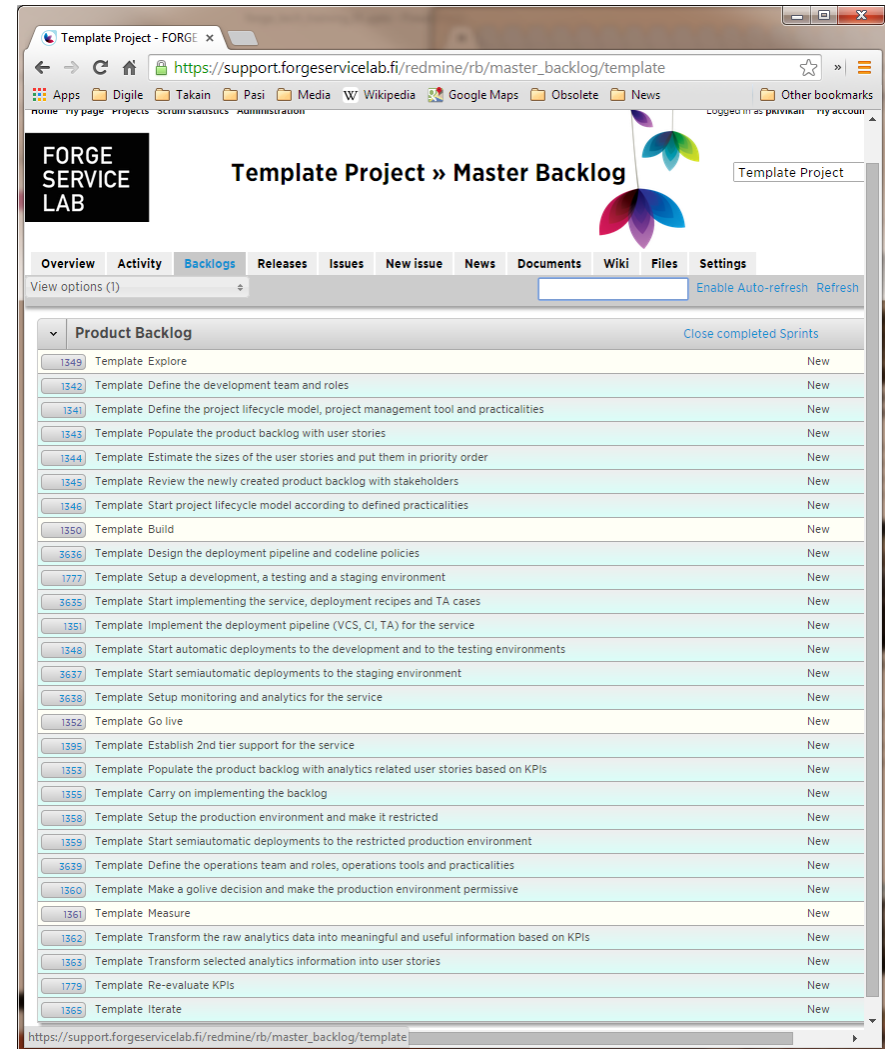


FORGE SaaS

FORGE SaaS - Redmine



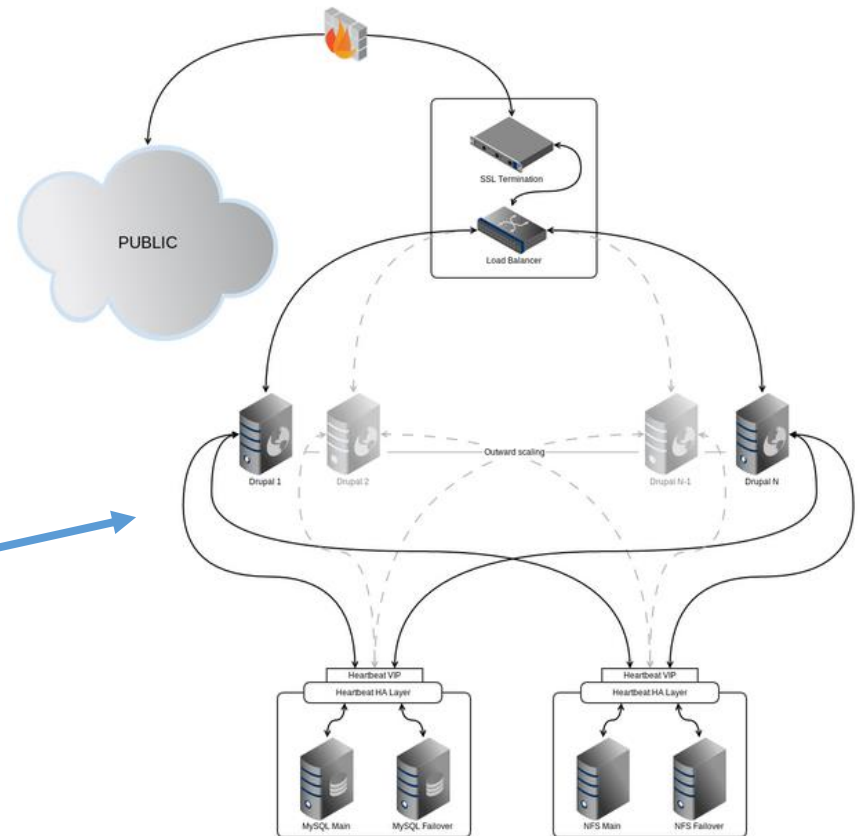
- Project management tool
 - Opensource and licenced under the terms of GNU General Public License v2 (GPL)
- FORGE usage
 - Project management and operations
 - FORGE backlog
 - Support requests (issues)
 - Announcements (news)
- Everybody
 - Documentation (wiki)
 - Collaboration (forums)
- Service Development usage
 - Project management tool
 - Available on request
 - Template project



<https://support.forgeservicelab.fi>

FORGE SaaS - GitLab

- Version control tool similar to Github
 - Completely free and opensource and licenced under the terms of MIT license
- Repository management
- Example recipes for building build digital services
- Collaboration on code



<https://git.forgeservicelab.fi>

FORGE SaaS - XMPP

- XMPP is Extensible Messaging and Presence Protocol
 - Open protocol (open standard)
 - Implementations can be developed using any software license
- Communications protocol for message-oriented middleware based on XML (Extensible Markup Language)
- FORGE's fast support channel
- Instant collaboration with others



<https://git.forgeservicelab.fi>

FORGE Add-ons – Ansible playbooks

- FORGE provides several reusable recipes to deploy certain services e.g.

- CI – Jenkins
- TA – Robot test framework
- Monitoring – Nagios
- Containers - Docker demo
- Example WEB service – Drupal cluster
- Identity backend – SimpleSAMLphp
- Analytics
- ...

ANSIBLE



Nagios®



Playbooks are available at <https://git.forgeservicelab.fi>

FORGE - Plaza

- It contains information about parties and services they offer
- It helps parties to find relevant partners and service components
- It helps parties to showcase their offering and participate in competitive biddings

The screenshot displays the FORGE Plaza website. At the top, the title "FORGE Plaza" is followed by a logo. Below this, a subtitle reads "EXPERTISE AND BUILDING BLOCKS FOR DIGITAL SERVICE CREATION, BROUGHT TO YOU BY FORGE PARTNERS". A paragraph explains that FORGE Plaza is a service catalogue for finding professionals in fields like service design, customer understanding, business and systems development, and legal services. It also mentions that digital service professionals can join the platform to showcase their results.

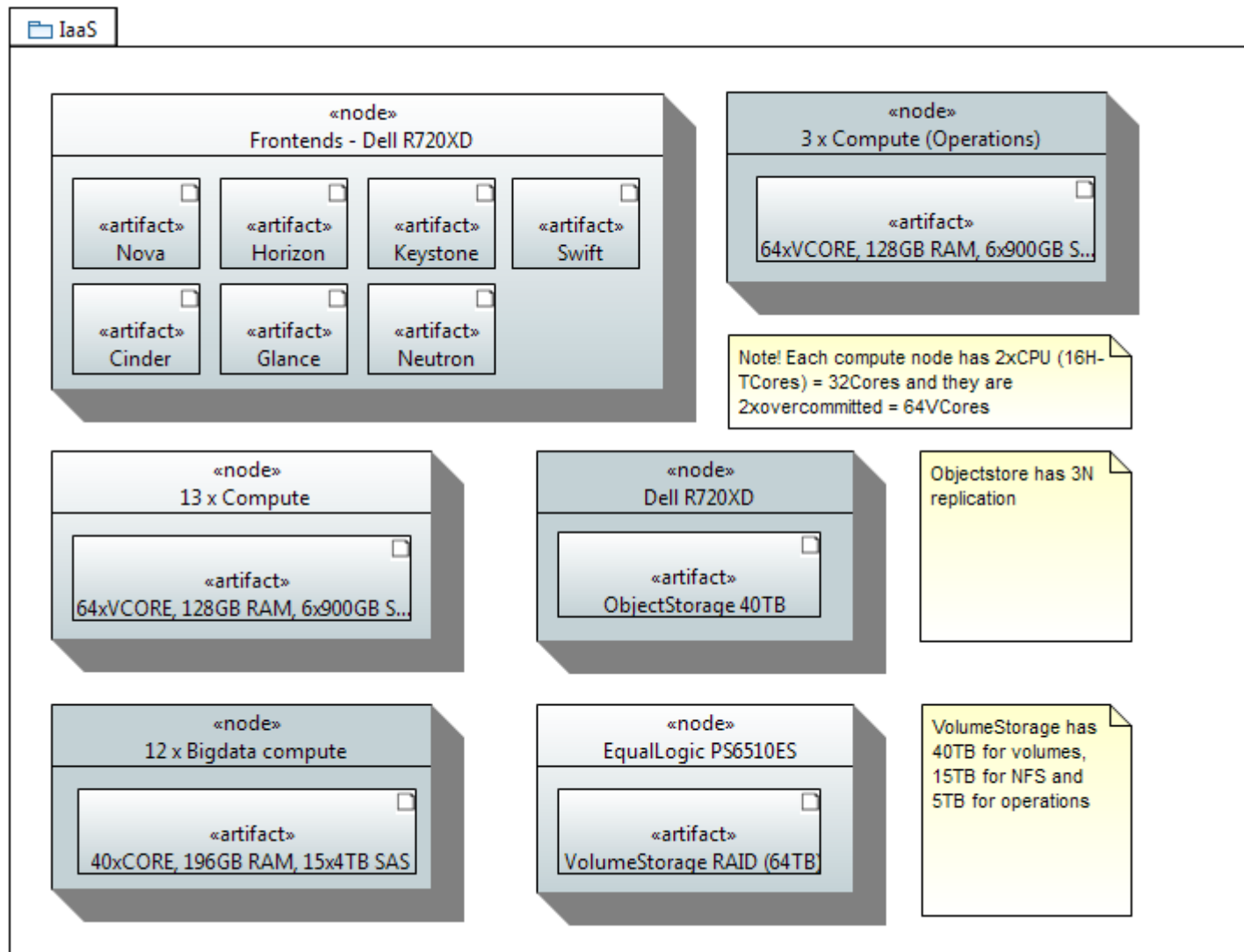
The main content area is divided into two sections: "CATEGORY" and "TAGS". The "CATEGORY" section lists various service areas with expandable icons: Training, Business Development, Project Services, Customer Understanding, Design, System Development, Community management, and Legal. The "TAGS" section includes a search box labeled "Choose some options".

Below these sections, a grid of service offerings is displayed, each with an icon, title, and description:

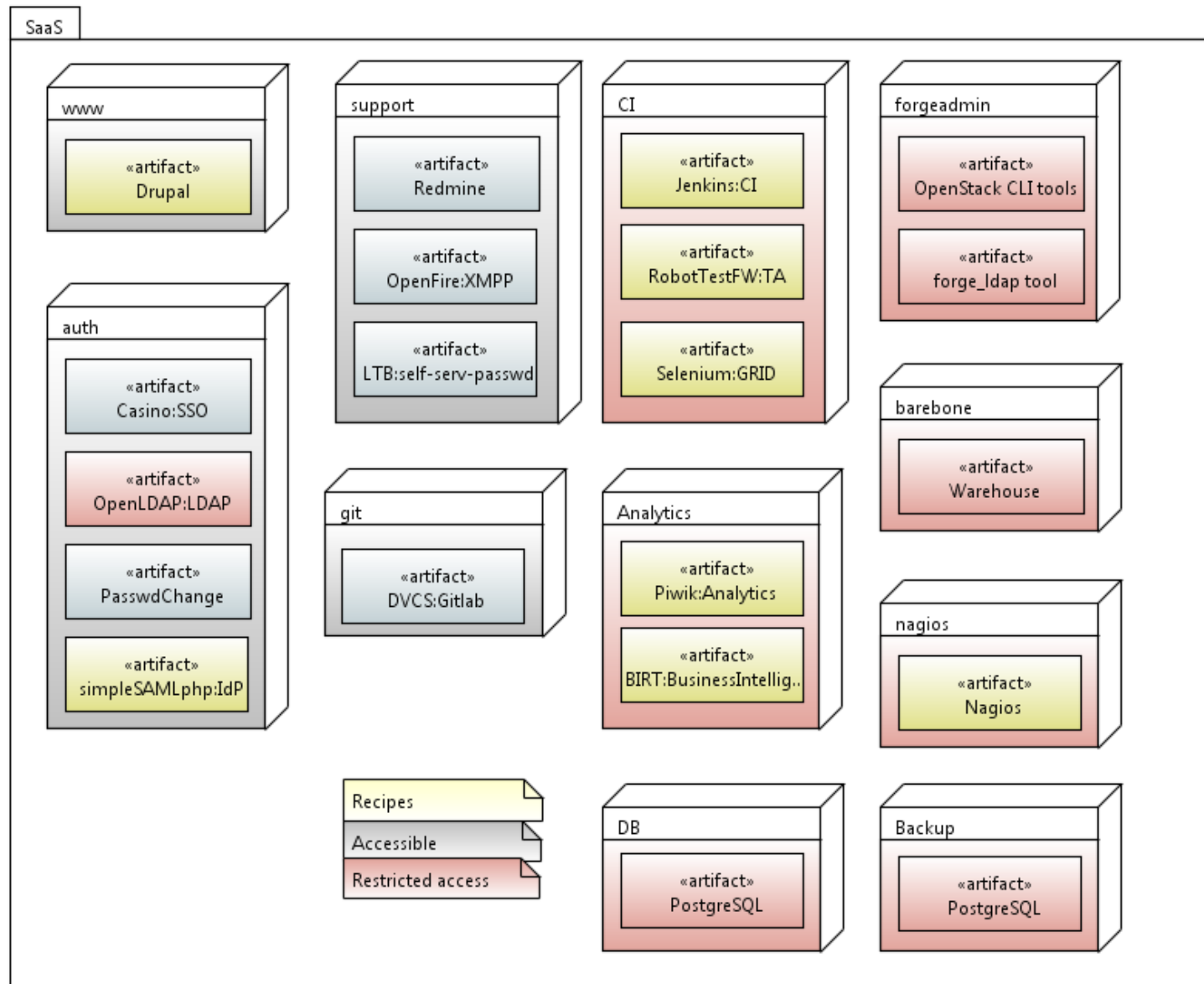
- Agile Surveys**: Takain's Agile Surveys capture in-the-moment feedback for valuable insights.
- Deployment Services (Legal and Contracting)**: Specialist legal support for service deployment.
- Agile Usability Testing**: Very popular and efficient method to evaluate your web site or other interactive product.
- Mobile service development** (weego): Mobile Service and Application Development.
- Testing facilities in Helsinki city center (Kamppi)**: Get your audience to easily accessible location!
- Visual Design**: Adds branding and appropriate tone to the user interface. Enhances usability further by visual emphasis.
- Quick prototyping**: The best way to test and communicate your product's novel concepts is an interactive prototype.
- Expert review**: Get external eyes to evaluate your product, efficiently and accurately!
- Usability Expert Review**: Seasoned User Experience specialists evaluate your product based on expertise and accepted best practices.

<http://forgeservicelab.fi>

FORGE IaaS summary



FORGE SaaS and Add-ons summary





DIGILE

FORGE Service Lab

DIGILE in a Nutshell

- **DIGILE** is the Center for Science, Technology and Innovation (SHOK) focusing on Internet economy and related technologies and business
- **Mission:** DIGILE creates Internet economy competencies to enable new global business and job growth for DIGILE's stakeholders and partners
- **Three main services:**
 - **Research:** Cooperative national and international research programs to create new technological and business innovations
 - **Solutions:** Facilitation of business ecosystems and lead solution creation to explore new global business opportunities
 - **Digital service creation:** **FORGE Service Lab** for fast digital service creation and competence scaling
- **Core enablers:**
 - International networking
 - Operative excellence
 - Co-creation leadership



FORGE Service Lab

WHAT, WHY, WHO, FOR WHOM

- **WHAT:** FORGE Service Lab is a laboratory for creating digital services in the Internet-era. It is intended as a tool to accelerate the creation of digital services in Finland - *from an idea to a scalable implementation*.
- **WHY:** Internet economy will grow stronger and digitalisation spreads across all industries. Most of the value is being created via digital services. As a result, digital services know-how needs to become one of the nation's core competencies.
- **WHO:** DIGILE, CSC-IT Center for Science, Kainuun Etu Oy with the Ministry of Traffic and Communication, the financing partner for the ramp-up
- **FOR WHOM:** To all who are interested in developing digital services e.g. businesses, educational institutions, business development teams, the public sector – all industries and government sectors are included.



FORGE Service Lab – Offering

Legal & Contract
framework for each
stakeholder: service
developers and partners

Partner network from
multidisciplinary perspective: eg.
Business development, Service
Design, Technical development

Crowdsourcing methods and tools
which enables to create as
meaningful and successful service
as possible from the end users
perspective

Cloud computing platform for
agile and fast ways to develop
and test the services



Offers wide development
framework for service projects
where multiple stakeholders and
partners can share openly the
knowledge and develop efficiently
globally recognisable successful
services

Reference model for
the creation of digital
services, from the
idea to the scalable
implementation

Guidance and support
for the project during the
service creation path in
order to manage the big
picture

More information

- Documentation
 - <https://support.forgeservicelab.fi/redmine/projects/forgesupport/wiki>
- Support tickets
 - <https://support.forgeservicelab.fi/redmine/projects/forgesupport/issues/new>
- XMPP
 - forge-support@xmpp.forgeservicelab.fi
- Email
 - support@forgeservicelab.fi



THANK YOU