

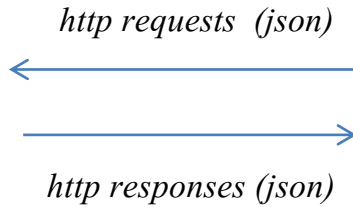
Cloud Manager :: Client

- Outlook
- MVC Architecture
- Client Components
- Main Features :: WebClient
- Java-Code :: Main Components
- Screen-shots :: WebClient
- Installation & Code

Outlook

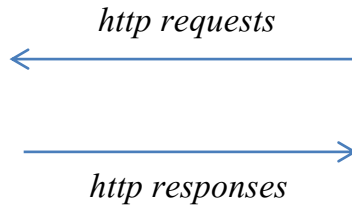


Storage Manager



OCCL-SERVER

XML-RPC

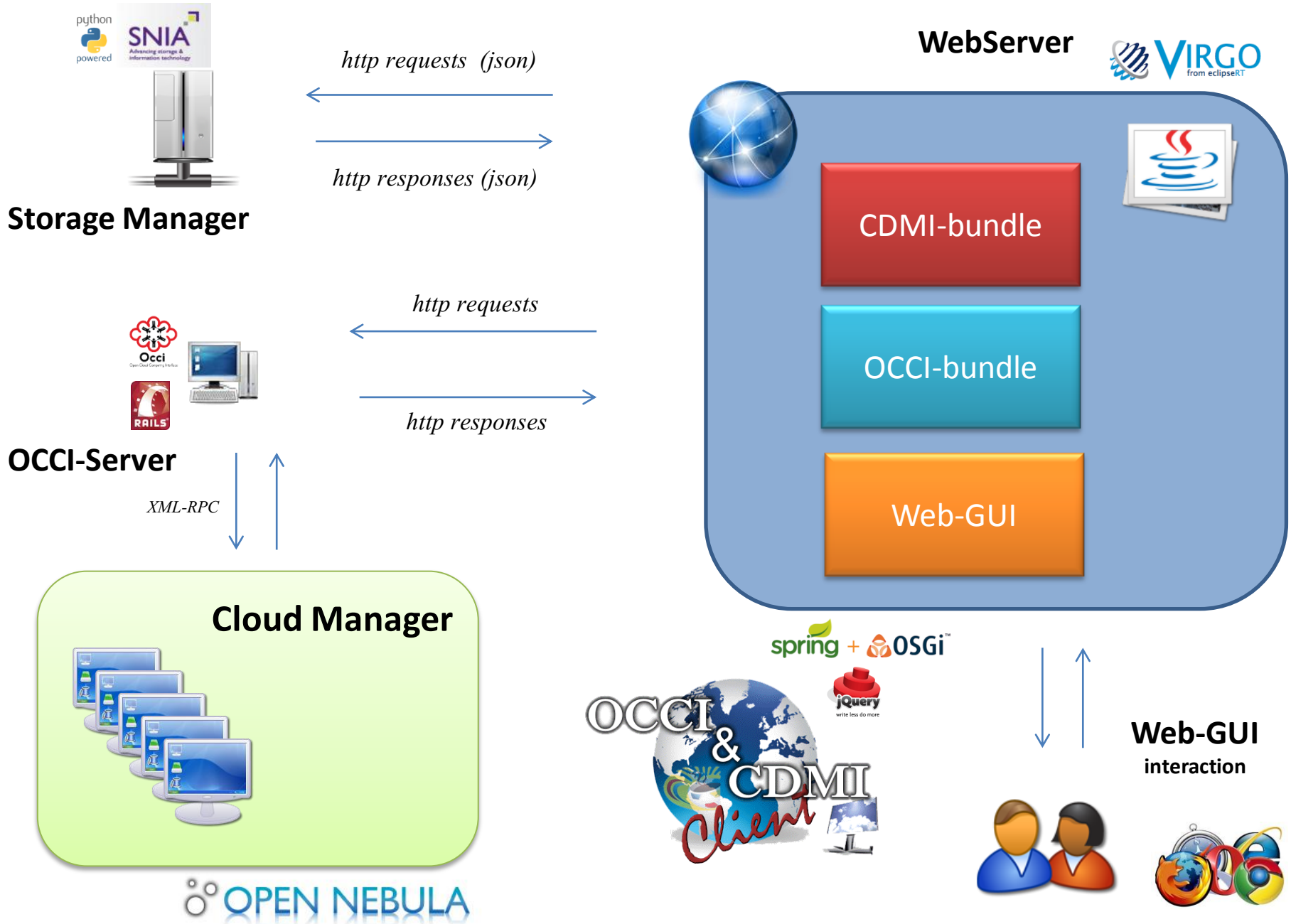


Cloud Manager

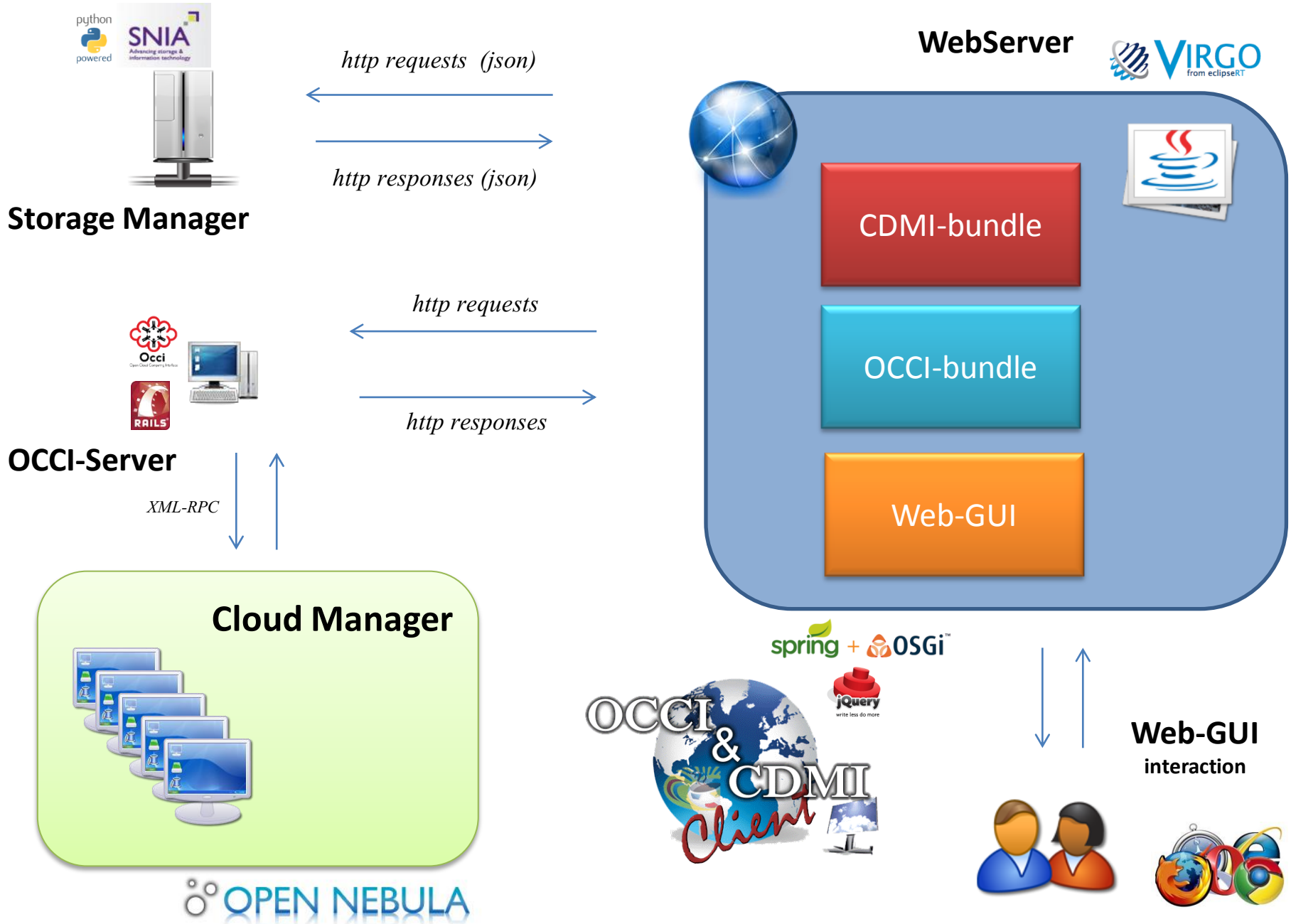


- Integration
- Testing
- User interaction

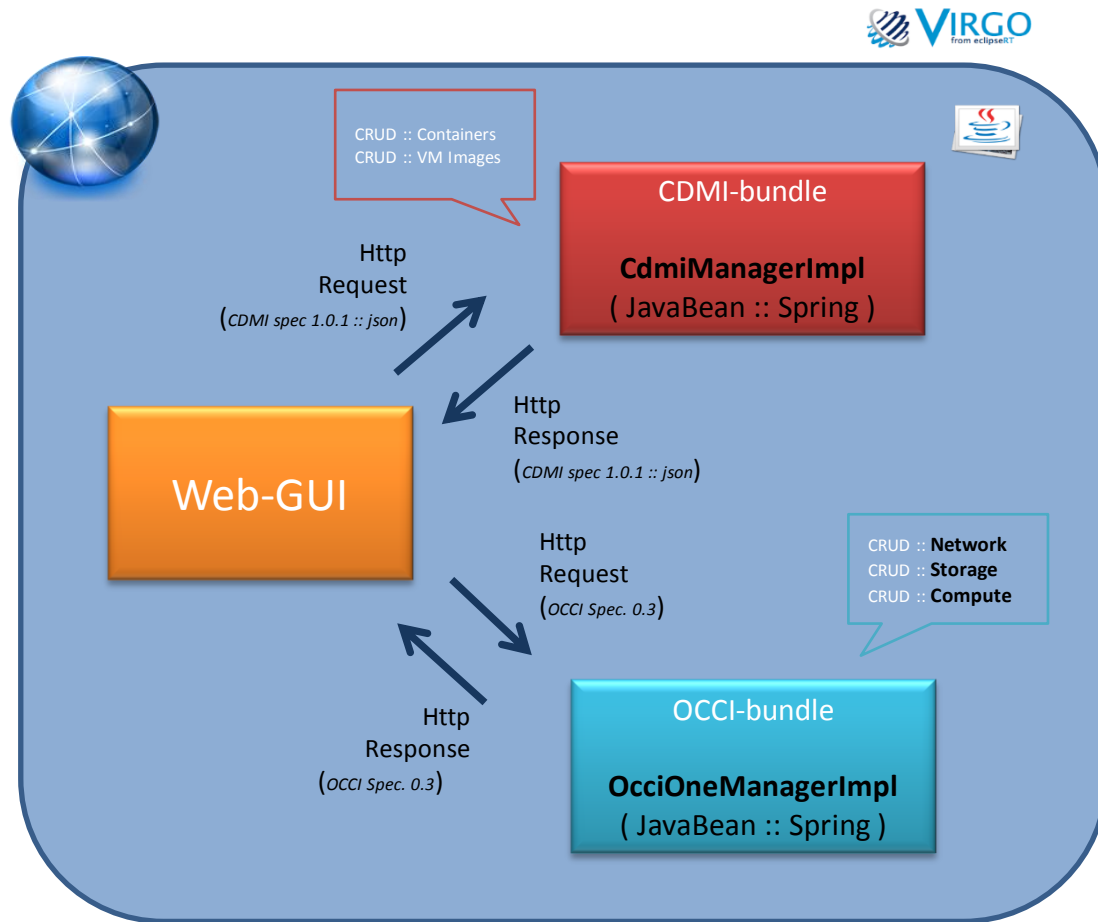
Outlook



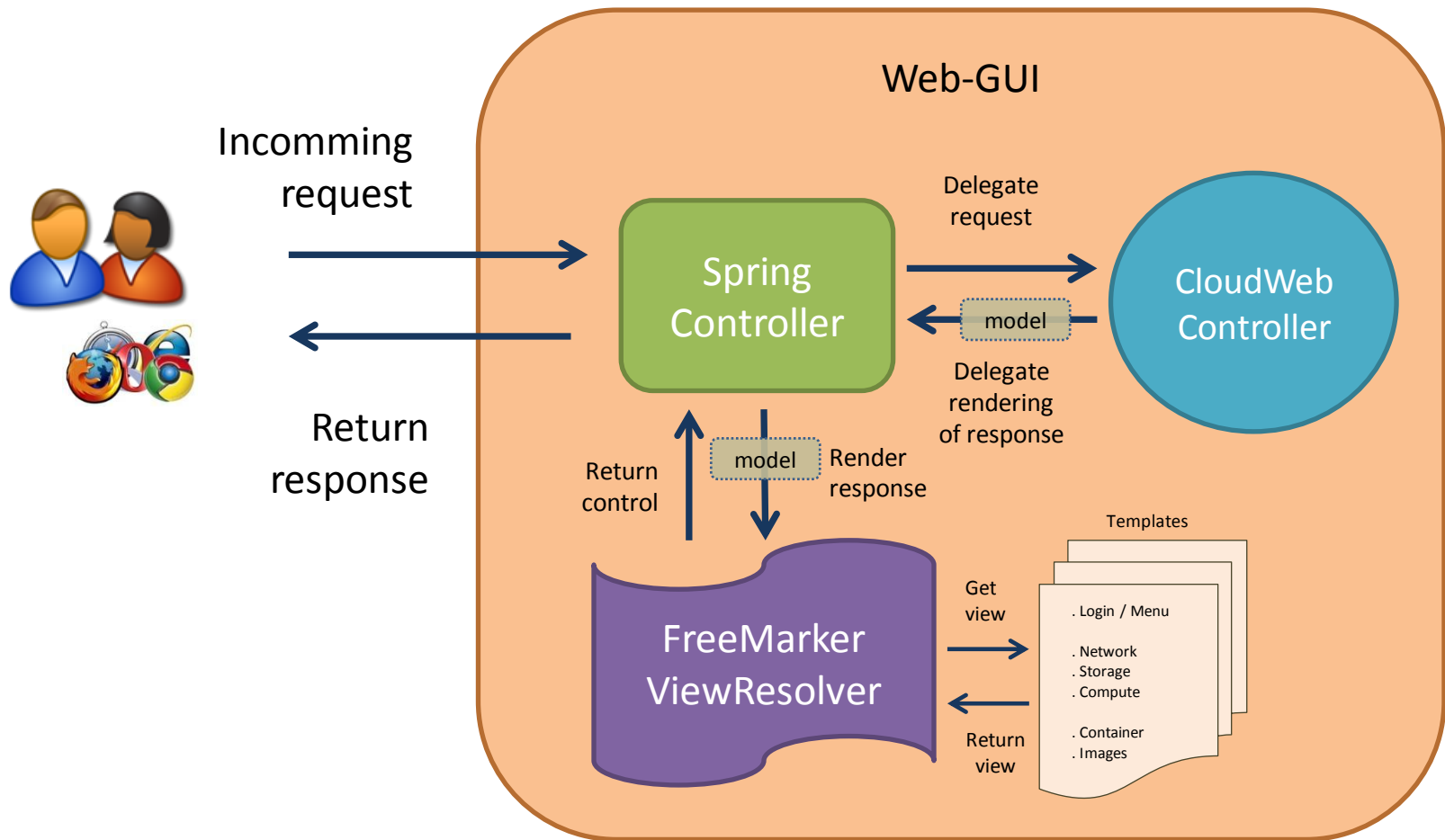
Outlook



Client ::: Main Components



Client ::: MVC Architecture



Java Bundles

- Main Bundles
 - CDMI Bundle :: implementation of *CDMI spec 1.0.1 (json)*
 - OCCI Bundle :: implementation of *OCCI Spec. 0.3*
 - Web Bundle :: freemarker 2.3 and jquery 1.8
- Main Features:
 - Available for OSGi and also as maven libraries
 - Spring framework-based (3.0)
 - Automatic deployment in Virgo (3.0)

Java Code

*** Interfaces ***

CDMI Bundle (1)

```
public interface ICdmiManager
{
    // --- Container Operations ---
    public Vector<SCDMIResponse> containers      ( String server, String path );
    public SCDMIResponse         createContainer( String server, String path );
    public SCDMIResponse         deleteContainer( String server, String path );

    // --- Non-DataObject Operations ---
    public Vector<SCDMIResponse> filesFrom      ( String server, String filter );
    public SCDMIResponse         createNonDataObject( String server, String container, String fileName );
    public SCDMIResponse         deleteNonDataObject( String server, String cdmiObjectName );
}
```

OCCI Bundle (1)

```
public interface IOCCIOneManager
{
    public String createNetwork( INetwork data );
    public String deleteNetwork( INetwork data );

    public String createStorage( IStorage data );
    public String deleteStorage( IStorage data );

    public String createCompute( ICompute data );
    public String deleteCompute( ICompute data );
    public String startCompute ( ICompute data );
    public String stopCompute  ( ICompute data );

    public String createTemplate( ITemplate data );
    public String deleteTemplate( ITemplate data );

    public INetwork [] getNetworks ( String uri );
    public IStorage [] getStorages ( String uri );
    public ICompute [] getComputes ( String uri );
    public ITemplate[] getTemplates( String uri );
}
```

Web-Bundle (1)

```
@Controller
```

```
public class CloudWebController
```

```
{
```

```
    @Autowired
```

```
    protected IOCCIOneManager one;
```

```
    @Autowired
```

```
    protected ICdmiManager cdmi;
```

CloudWebController

- ◇ one : IOCCIOneManager
- ◇ cdmi : ICdmiManager
- login() : ModelAndView
- ◇ menu(WebRequest) : ModelAndView
- cdmiContainer(WebRequest, String, String) : ModelAndView
- cdmiContainer(WebRequest) : ModelAndView
- cdmiContainer(WebRequest, String) : ModelAndView
- ◇ addContainers(ModelAndView, Session) : void
- cdmiNonDataObject(WebRequest, String, String) : ModelAndView
- cdmiNonDataObject(FileUploadContainer, DefaultMultipartHttpServletRequest) : ModelAndView
- cdmiNonDataObject(WebRequest, String) : ModelAndView
- ◇ addNonDataObjects(ModelAndView, Session) : void
- ◇ nonDataObjectsAsArray(String) : Directory
- ◇ addFiles(ModelAndView, Session) : void
- oneNetwork(WebRequest, String, String) : ModelAndView
- oneNetwork(WebRequest) : ModelAndView
- oneNetwork(WebRequest, String) : ModelAndView
- ◇ addNetworks(ModelAndView, Session) : void
- oneStorage(WebRequest, String, String) : ModelAndView
- oneStorage(FileUploadContainer, DefaultMultipartHttpServletRequest) : ModelAndView
- oneStorage(WebRequest, String) : ModelAndView
- ◇ addStorages(ModelAndView, Session) : void
- oneCompute(WebRequest, String, String) : ModelAndView
- oneCompute(WebRequest, String) : ModelAndView
- oneCompute(WebRequest) : ModelAndView

Screenshots

Web-GUI

CloudVirgo

Cloud Manager :: Authentication

Username:

Password:

OCCI
Server:

CDMI
Server:

login



The logo for OCCI & CDMI Client. It features a stylized globe with blue oceans and white landmasses. Overlaid on the globe is the text 'OCCI & CDMI' in a large, white, serif font. Below this, the word 'Client' is written in a red, cursive script. To the right of the globe is a small, black computer monitor displaying a blue sky with white clouds.

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Web-GUI



Web-GUI :: OCCl : Network

Cloud Virgo

OCCl:: Network 

URI:

Title:

Summary:

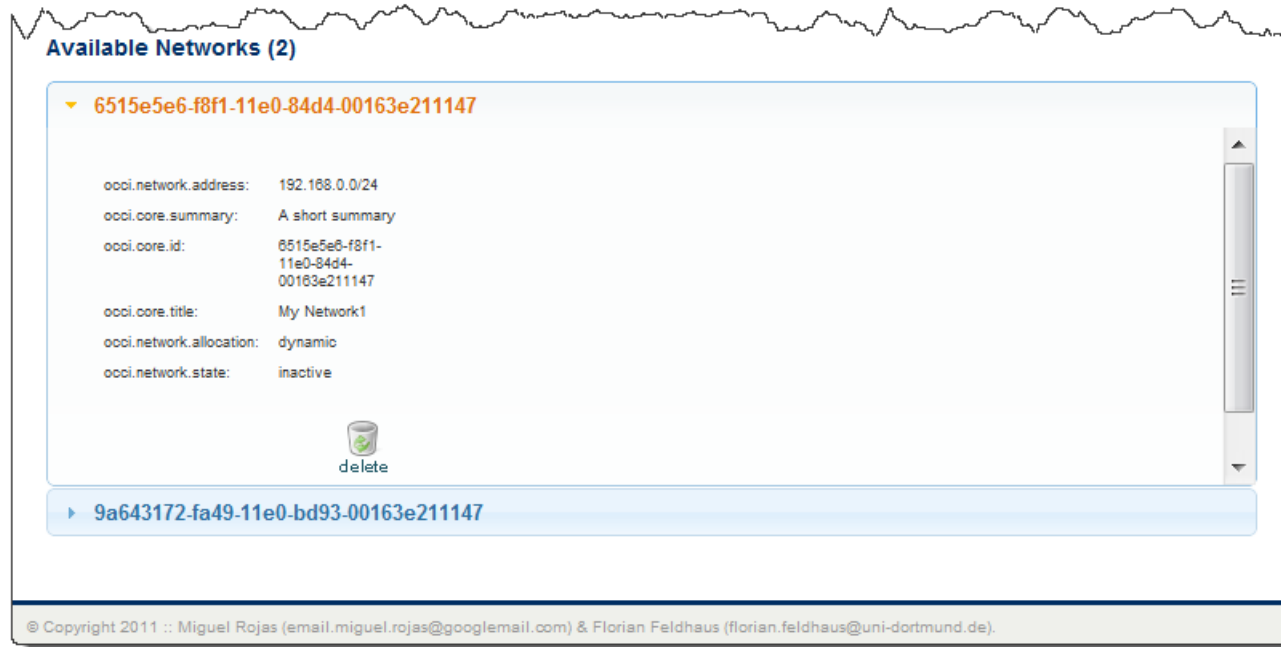
Address:
(i.e. 192.168.0.0/24)

Allocation:

vlan:



Web-GUI :: OCCl : Network



Web-GUI :: OCCI : Storage

The screenshot shows a web browser window with a dark blue header. On the left, a tab labeled 'Cloud' is active, and on the right, a tab labeled 'Virgo' is visible. The main content area has a title 'OCCI:: Storage' with a small house icon. Below the title, there are input fields for 'OCCI:' (containing 'http://129.217.211.147:3000'), 'Title:', and 'Summary:'. A section titled 'OCCI' contains a 'File:' label and a button 'Datei auswählen' followed by the text 'Keine ausgewählt'. Below this is a section titled 'CDMI Link'. At the bottom, there is a 'create' button. A large, stylized watermark 'OCCI & CDMI Client' is overlaid on the right side of the interface, featuring a globe and a computer monitor.

Cloud Virgo

OCCI:: Storage

OCCI: http://129.217.211.147:3000

Title:

Summary:

▼ OCCI


File: Keine ausgewählt

► CDMI Link

OCCI & CDMI Client

Web-GUI :: OCCl : Storage

Cloud Virgo

OCCl:: Storage 

OCCl:

Title:

Summary:

▶ OCCl

▼ CDMI Link

CDMI:

--select one--

--select one--


http://localhost:2364/xMR/linux-cdmi.iso

http://localhost:2364/WubiClub/wubi-Linux.img

http://localhost:2364/WubiClub/wubi-Linux.iso

http://localhost:2364/X-WubiClub/win.zip

http://localhost:2364/WubiDirectory/images.zip



Web-GUI :: OCCI : Storage

Available Storage (2)

▼ 9504989c-fa4f-11e0-9439-00163e211147

occoi.storage.state: offline

opennebula.image.persistent:

opennebula.image.dev_prefix: hd

occoi.storage.size: 85292

opennebula.image.type:


opennebula.image.public:

occoi.oore.summary: MrStorage

opennebula.image.bus:

occoi.oore.id: 9504989c-fa4f-11e0-9439-00163e211147

occoi.oore.title: MrStorage



delete

▶ 7d50ea30-00a7-11e1-b290-00163e211147

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Web-GUI :: OCCl : Compute

CloudVirgo

OCCl:: Compute 

OCCl: <http://129.217.211.147:3000>

CDMI: <http://localhost:2364>

Title:

Summary:


Architecture:

Cores: 2

Memory (GB): 4

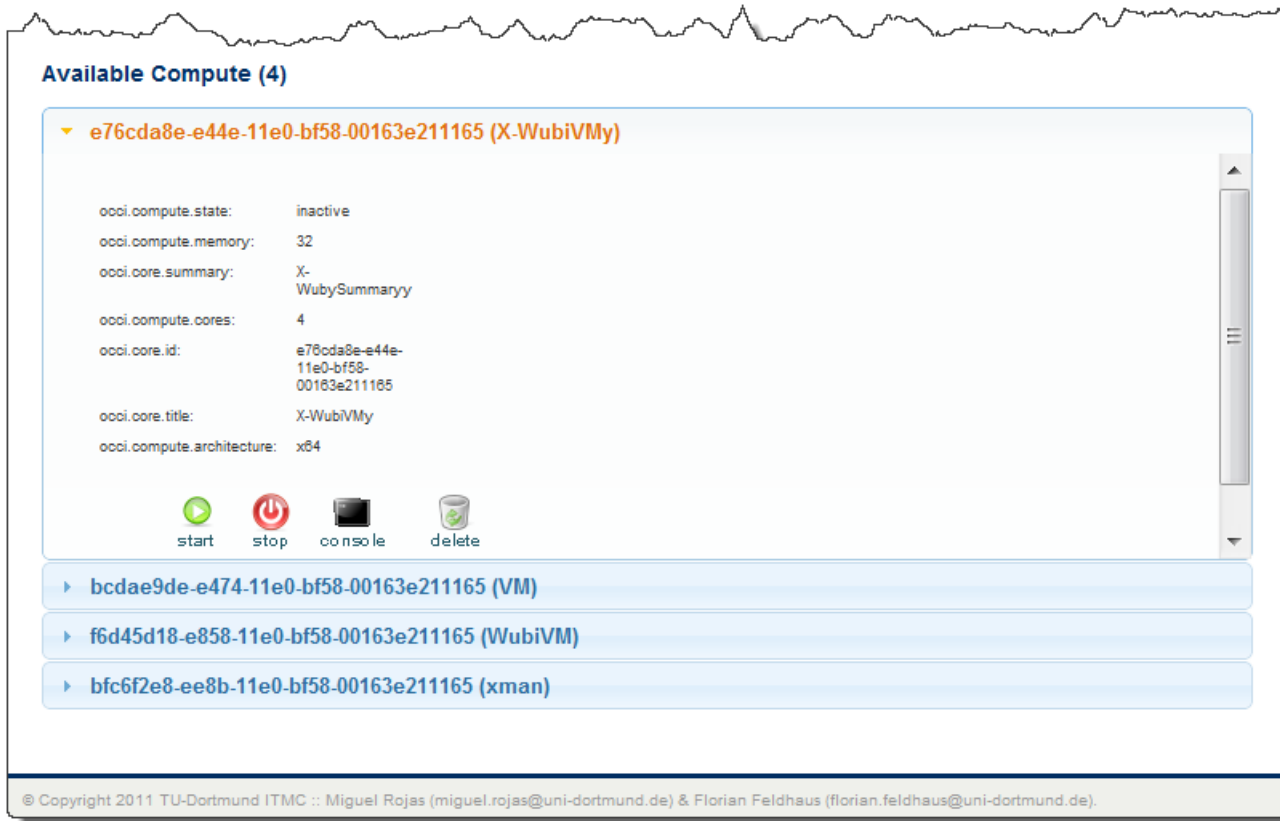
Network:

Storage:



- OCCl Storage
 - select one--
 - MrStorage
 - "ttylinux-Storage"
- CDMI Storage
 - <http://localhost:2364/WubiClub/wubi-Linux.img>
 - <http://localhost:2364/WubiClub/wubi-Linux.iso>
 - <http://localhost:2364/X-WubiClub/win.zip>
 - <http://localhost:2364/WubiDirectory/images.zip>

Web-GUI :: OCCl : Compute



The screenshot displays the 'Available Compute (4)' section of the OCCl Web-GUI. It features a list of four compute resources, with the first one expanded to show detailed attributes. The expanded resource is 'e76cda8e-e44e-11e0-bf58-00163e211165 (X-WubiVM)' and its attributes are as follows:

Attribute	Value
ooci.compute.state:	inactive
ooci.compute.memory:	32
ooci.core.summary:	X-WubySummary
ooci.compute.cores:	4
ooci.core.id:	e76cda8e-e44e-11e0-bf58-00163e211165
ooci.core.title:	X-WubiVM
ooci.compute.architecture:	x86

Below the attributes, there are four icons for actions: 'start' (green play button), 'stop' (red power button), 'console' (black monitor), and 'delete' (trash can). At the bottom of the list, three other compute resources are visible: 'bcdae9de-e474-11e0-bf58-00163e211165 (VM)', 'f6d45d18-e858-11e0-bf58-00163e211165 (WubiVM)', and 'bfc6f2e8-ee8b-11e0-bf58-00163e211165 (xman)'.

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Web-GUI :: CDMI : Container

CloudVirgo

Cloud Manager :: CDMI: Container 

CMDI: `http://localhost:2364`

Container:



Available Containers (5)

 **/xMR**

objectURI:/xMR (12859430157c426fb11333b4520175de)  delete

 **/WubiDirectory**

 **/X-WubiClub**

 **/nenis**

 **/WubiClub**

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Web-GUI :: CDMI : VM Images

Cloud

Virgo

Cloud Manager :: CDMI VM Images



CMDI: http://localhost:2364

Container:

Select one... ▼

Object:

Datei auswählen

 Keine ausgewählt

upload



Available CDMI VM Images (5)

▼ /xMR

http://localhost:2364/xMR/linux-odmi.iso >>



▶ /WubiClub

▶ /X-WubiClub

▶ /WubiDirectory

▶ /nenis

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Instalation & Code

- JDK 1.6 64bits
- Maven 3.0.3
- Virgo WebServer (tomcat-based)
<http://www.eclipse.org/virgo/download>

****** `JAVA_OPTS=-Xms1024m -Xmx2048m -XX:PermSize=1024m`

- Availability of Code : Open Source
 - Location: tobe defined.

**Thanks for your
Attention !**