



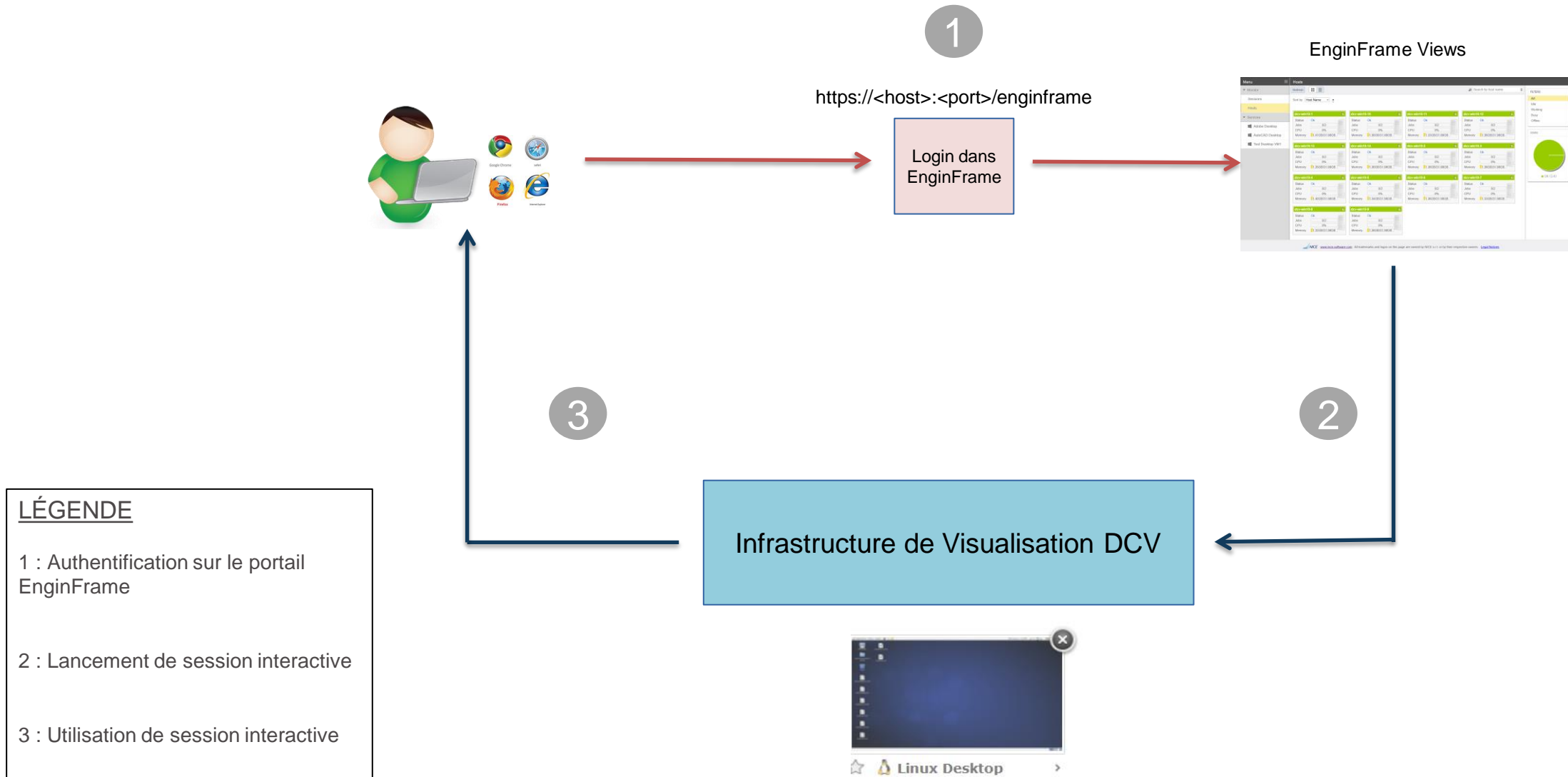
Transfert de compétences

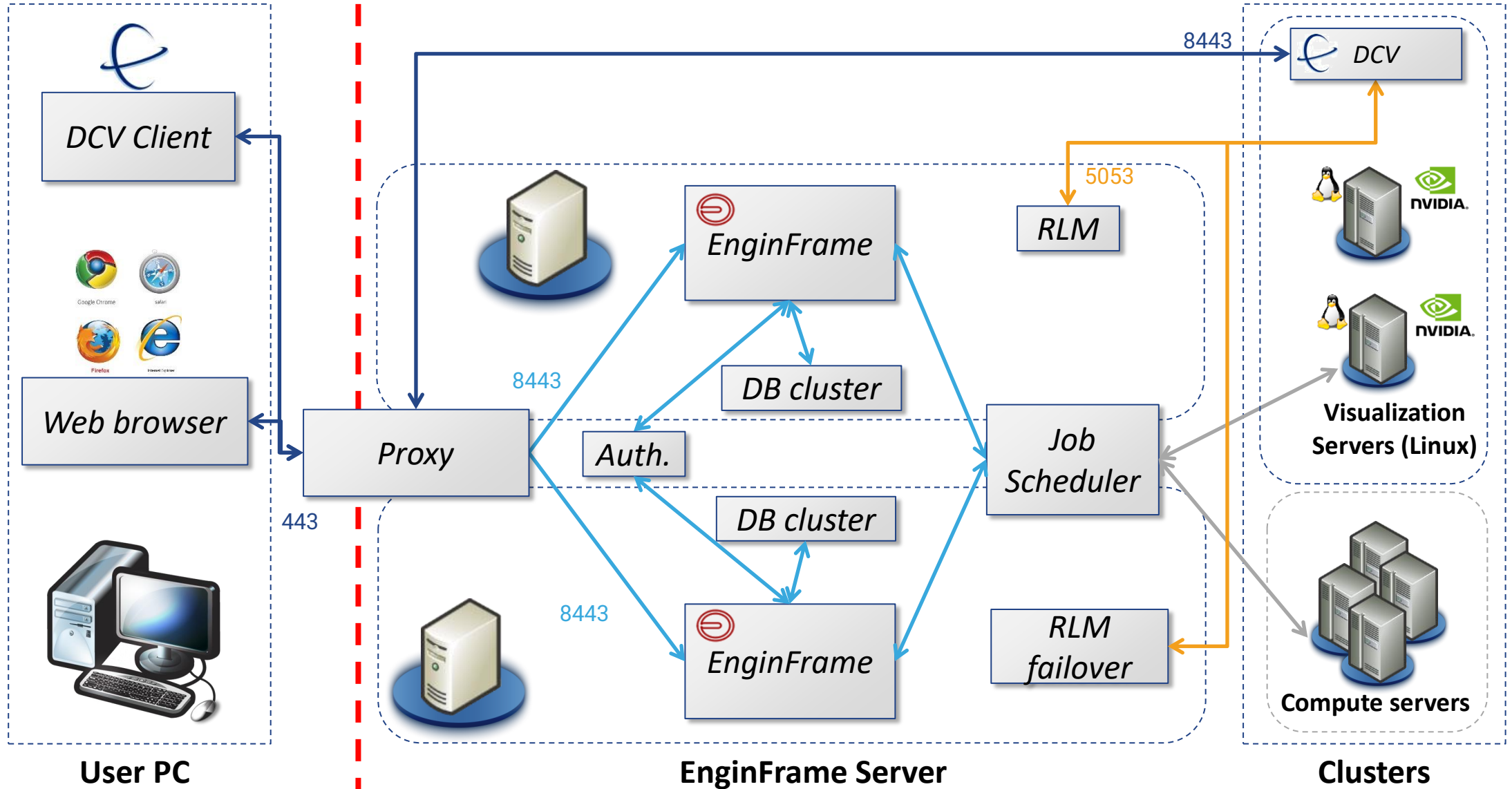


20/10/2022

A horizontal line spanning the width of the slide, with a large blue dot on the left, a small dark grey dot, and a large blue dot on the right.

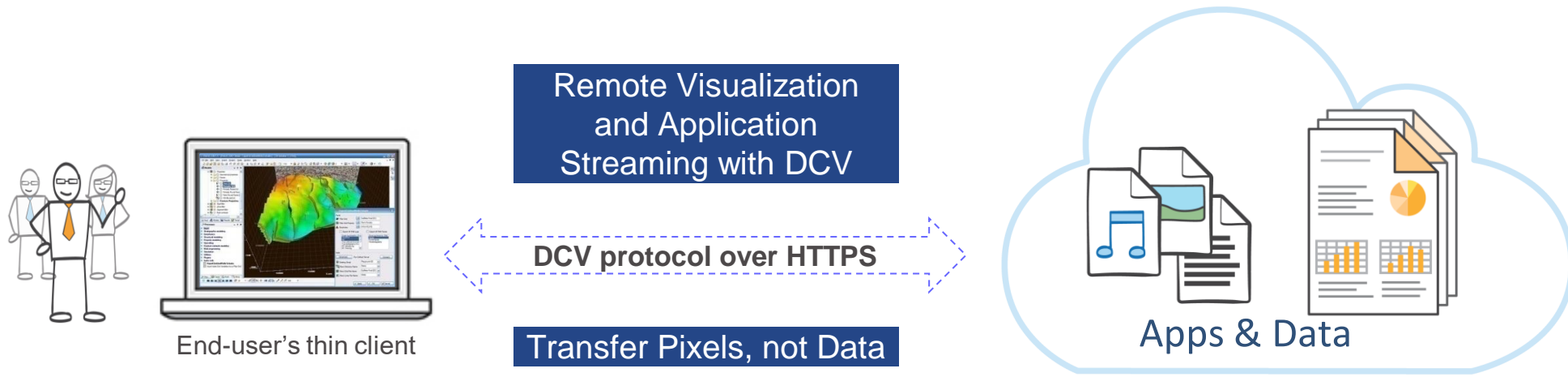
Architecture





Two horizontal lines with circles. The left line has a large blue circle followed by a small dark grey circle. The right line has a small grey circle followed by a medium blue circle.

Nice DCV



DCV (Desktop Cloud Visualization) is a streaming protocol and remote visualization solution which enables remote access of 2D/3D interactive applications over LAN/WAN networks.

RLM (RepriseLM) est le gestionnaire de licences choisi par NICE pour les licences DCV.

Déployé dans `$RLM_TOP`, RLM est défini comme un service système (utilisable avec la commande SystemV “service” basée sur init.d)

```
$RLM_TOP=/opt/nice/rlm
```

Syntaxe:

```
service dcv-rlm [start|stop|status|restart]
```

EnginFrame Views

Le fichier de licence est placé sous le nom `license.ef` dans le repertoire `/opt/nice/enginframe/license/`

DCV

Le fichier de licence est placé sous le nom `license.lic` dans le repertoire `/opt/nice/rlm/license/` sur le serveur de licences RLM

A horizontal line with four colored dots: a large blue dot, a small dark grey dot, a small light grey dot, and a medium blue dot.

EnginFrame Views

- **Client** – a common Web Browser which connects to EF server via the Web interface, or an application connecting to EF via the WebService interface
- **EnginFrame Server** – the process that acts as a **gateway** between Users service requests and the Agents service execution
 - Arbitrates access to services and visibility of outputs
 - Runs a cron-like engine (Quartz) to spawn services in batch mode
- **EnginFrame Agent** – the process directly connected to the job scheduler or computing resources, that executes the services and returns the output to the Server



UC_{IT} What is EnginFrame?

- A Web Portal
 - XHTML, REST
- A Grid Portal
 - Grids and Clusters
- A VDI Broker/Portal
 - Remote visualization with 3D OpenGL/DirectX support (NICE DCV, RGS, ...)
- A WebServices Server
 - SOAP/WSDL, Java/C# APIs, Command-line interface
- A distributed system
 - 1 or more EF Servers, 1 or more EF Agents
 - Each EF service is bound to a specific Agent
- A cron-like *service* execution infrastructure
 - Execute EF services periodically, unattended

```
$EF_TOP = /opt/nice/enginframe
```

EnginFrame est défini comme un service système (utilisable avec la commande SystemD `systemctl` ou avec la commande SystemV `service` basée sur `init.d`)

Pour les besoins du job scheduler Slurm, les répertoires de travail `sessions` et `spoolers` sont stockés dans un espace partagé dans `/opt/niceshared/`

Syntaxe

```
systemctl [start|stop|status|restart] enginframe  
service enginframe [start|stop|status|restart [server|agent]]
```

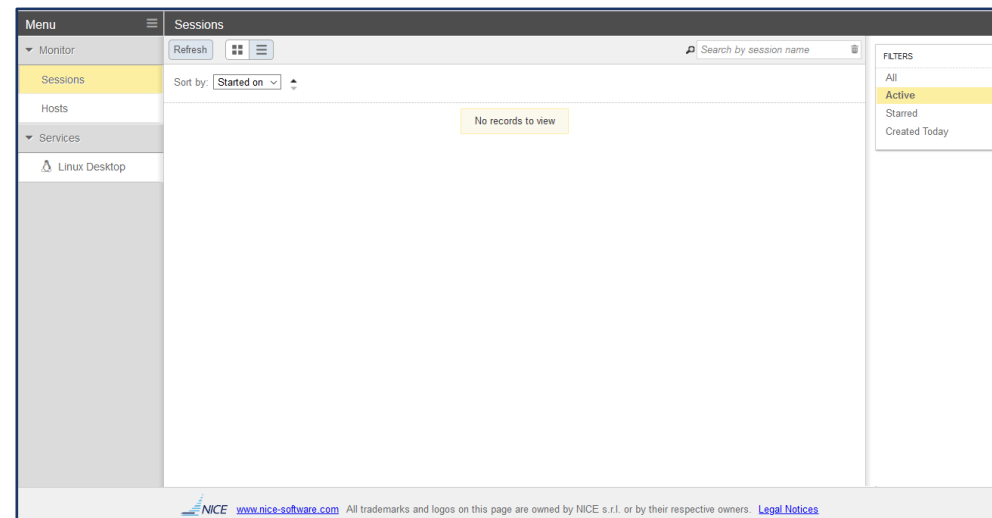
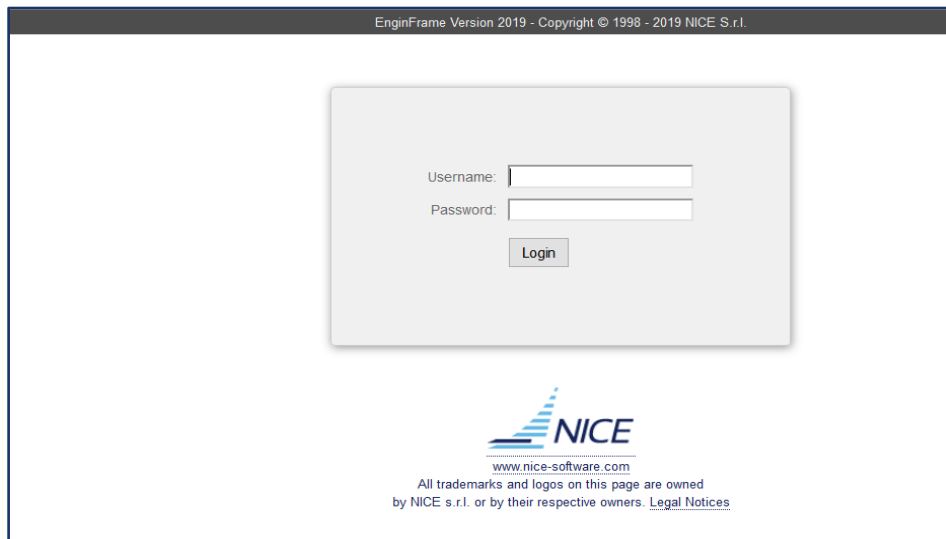
Portail utilisateur :

<https://<host>:<port>/enginframe/vdi/>

Portail de l'utilisateur privilégié :

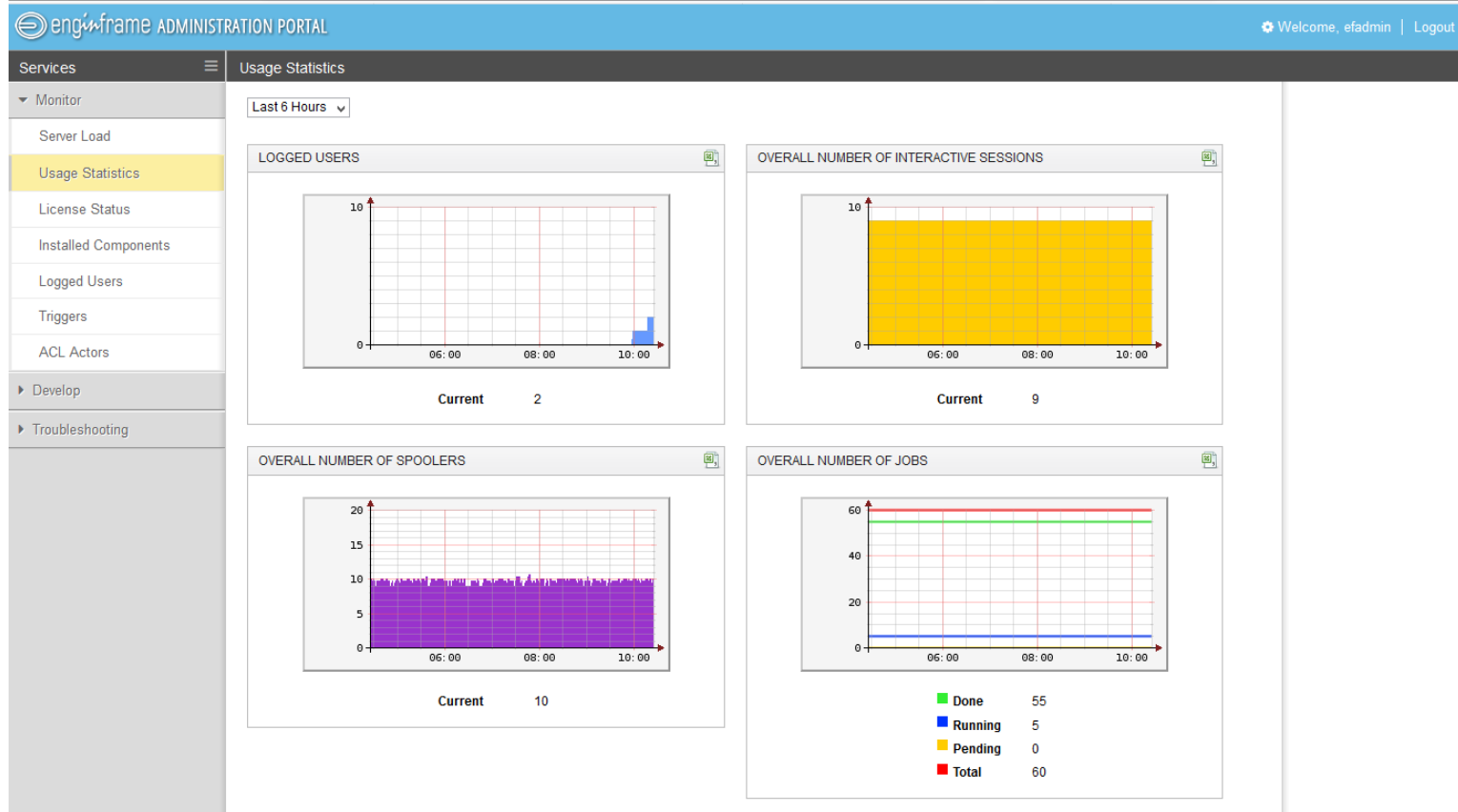
<https://<host>:<port>/enginframe/vdi/vdi.admin.xml>

(ou en cliquant sur le lien en haut à droite « Admin's Portal »)



Accès au monitoring du serveur EnginFrame, des licences...

<https://<host>:<port>/enginframe/admin/>



UC_{IT} EF Installation Directory (\$NICE_ROOT)

```
$NICE_ROOT/enginframe/ → /opt/nice/enginframe/  
├── 2021.X-rXXX/ → binaries of the release  
├── bin/  
│   └── enginframe → /etc/init.d/enginframe  
├── conf/  
│   └── enginframe.conf  
├── current-version  
├── data/  
├── install/  
├── license/  
├── logs/  
├── repository/  
└── tmp/
```

“spoolers” and “sessions” folders are stored on the NFS-shared filesystem

The interactive plugin can be configured by editing

```
$NICE_ROOT/enginframe/conf/plugins/interactive/interactive.efconf
```

- **Defaults are in**

```
$EF_ROOT/plugins/interactive/conf/interactive.efconf
```

This file contains the default parameters prefixed by

```
INTERACTIVE_DEFAULT_
```

Examples:

```
INTERACTIVE_DEFAULT_OS=[linux|windows]
```

```
INTERACTIVE_DEFAULT_REMOTE=[vnc|rgs|dcv|dcv2|...]
```

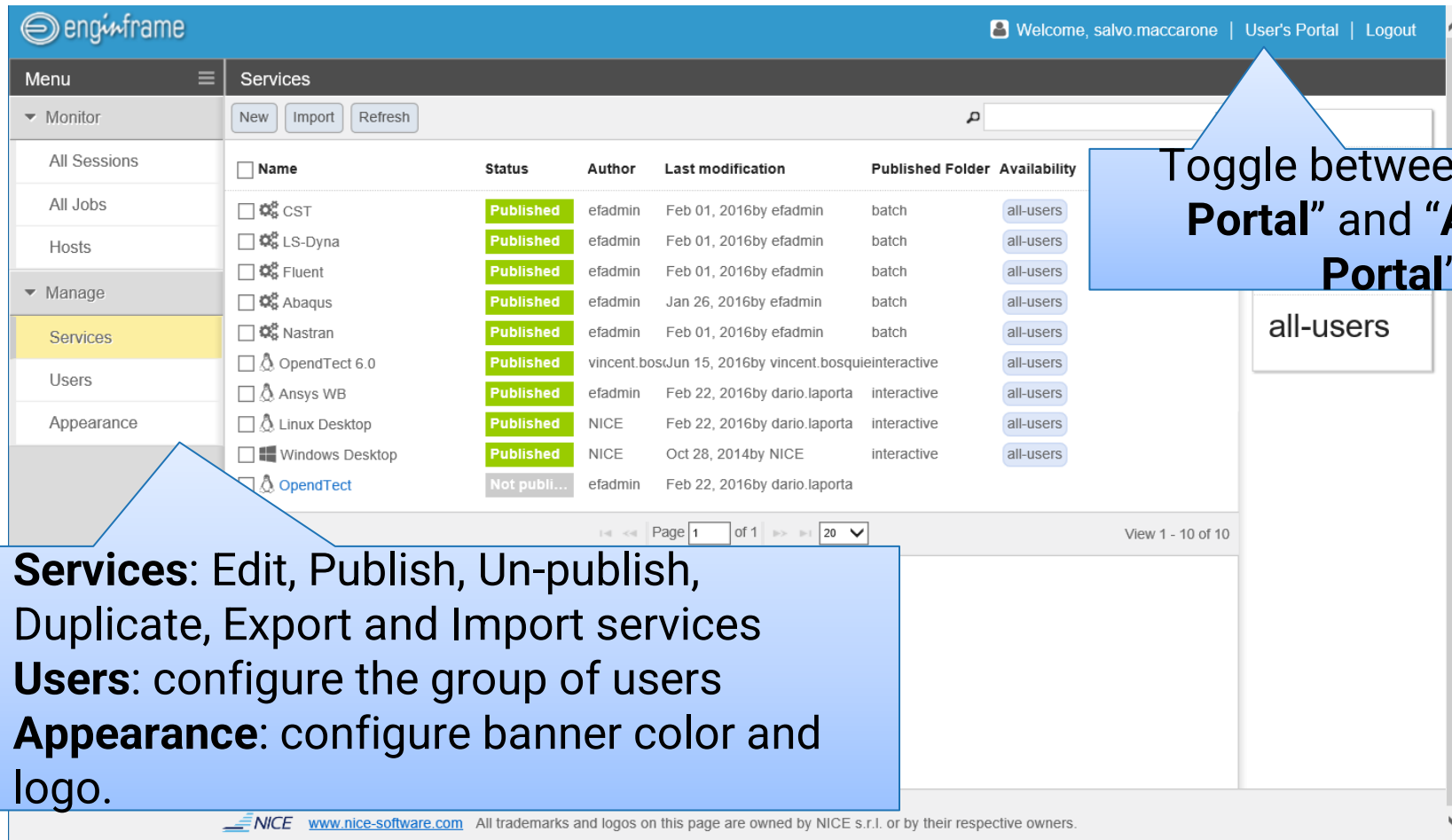

Shared Sessions Directory

- `INTERACTIVE_SHARED_ROOT=${EF_DYNAMIC_ROOT}/sessions`

This directory is used to share data between EF and the visualization nodes.

Session files will be placed under this directory according to the following structure:

- `${INTERACTIVE_SHARED_ROOT}/${EF_USER}/${SESSION_ID}/`



enginframe

Welcome, salvo.maccarone | User's Portal | Logout

Menu

Monitor

All Sessions

All Jobs

Hosts

Manage

Services

Users

Appearance

New Import Refresh

Name	Status	Author	Last modification	Published Folder	Availability
<input type="checkbox"/> CST	Published	efadmin	Feb 01, 2016by efadmin	batch	all-users
<input type="checkbox"/> LS-Dyna	Published	efadmin	Feb 01, 2016by efadmin	batch	all-users
<input type="checkbox"/> Fluent	Published	efadmin	Feb 01, 2016by efadmin	batch	all-users
<input type="checkbox"/> Abaqus	Published	efadmin	Jan 26, 2016by efadmin	batch	all-users
<input type="checkbox"/> Nastran	Published	efadmin	Feb 01, 2016by efadmin	batch	all-users
<input type="checkbox"/> OpendTect 6.0	Published	vincent.bos	Jun 15, 2016by vincent.bos	interactive	all-users
<input type="checkbox"/> Ansys WB	Published	efadmin	Feb 22, 2016by dario.laporta	interactive	all-users
<input type="checkbox"/> Linux Desktop	Published	NICE	Feb 22, 2016by dario.laporta	interactive	all-users
<input type="checkbox"/> Windows Desktop	Published	NICE	Oct 28, 2014by NICE	interactive	all-users
<input type="checkbox"/> OpendTect	Not publi...	efadmin	Feb 22, 2016by dario.laporta		

Page 1 of 1 20 View 1 - 10 of 10

NICE www.nice-software.com All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners.

- **Services:** Edit, Publish, Un-publish, Duplicate, Export and Import services
- **Users:** configure the group of users
- **Appearance:** configure banner color and logo.

Views Admins' Portal – Users and Groups

The screenshot displays the 'Users' management page in the Views Admins' Portal. The interface includes a sidebar menu with 'Monitor' and 'Manage' sections. The 'Manage' section is active, showing a list of users. A callout points to the 'efadmin' user, noting that users are added automatically at first login. Another callout points to the 'Admin' column, stating that only users with this flag can create or modify 'vdi' services. A third callout points to the 'Groups' column, indicating that users can belong to multiple groups. The table lists users with columns for checkboxes, User Name, Real Name, Admin status, Last Logged In, Registered On, and Groups. The 'efadmin' user is marked as an administrator and belongs to the 'proserv' group. The 'salvo.maccarone@nice-...' user is also in the 'proserv' group. The right sidebar contains filters and availability information.

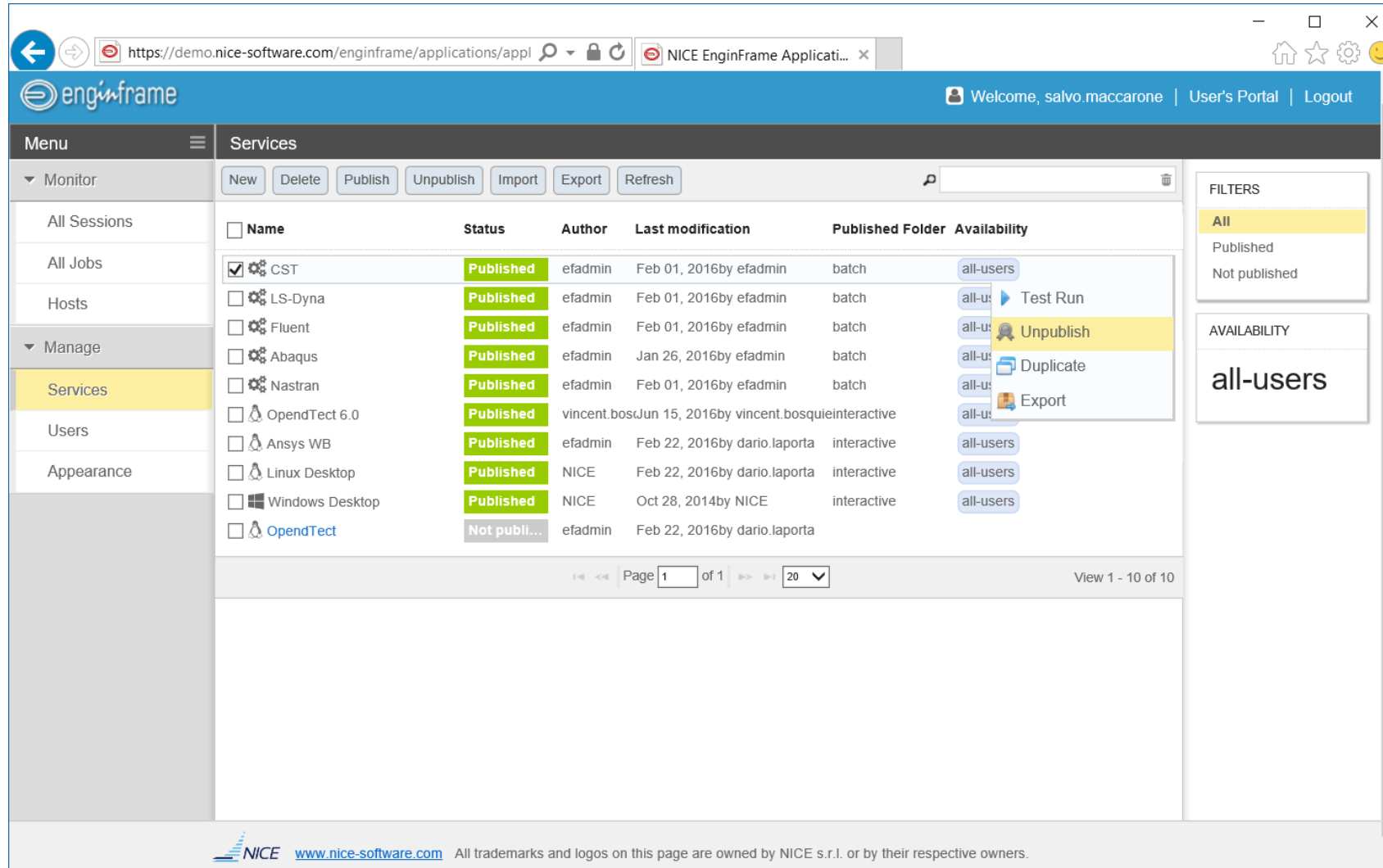
Users are added automatically at first login.

Only users with the "Admin" flag can create/modify the "vdi" services.

Users can be part of multiple groups.

<input type="checkbox"/>	User Name	Real Name	Admin	Last Logged In	Registered On	Groups
<input type="checkbox"/>	afalzone	Alberto Falzone			Today 12:46:17	proserv
<input type="checkbox"/>	bruno.franzini@nice-soft...	Bruno Franzini		Jan 11 09:17:06	Jan 10 15:30:26	
<input type="checkbox"/>	efadmin	Primary Administrator	✓	Jan 11 10:20:42	Jan 10 15:15:03	
<input type="checkbox"/>	medar	Roberto Meda			Today 12:45:46	proserv
<input type="checkbox"/>	salvo.maccarone@nice-...	Salvo Maccarone		Jan 17 10:36:07	Jan 10 15:23:07	

UCIT Views Admins' Portal – Service Actions



The screenshot displays the NICE EngineFrame Admins' Portal. The top navigation bar shows the user is logged in as 'salvo.maccarone' and provides links to 'User's Portal' and 'Logout'. The sidebar menu on the left includes 'Monitor', 'Manage', and 'Appearance' sections. The 'Services' section is currently active, displaying a table of services.

Services Table:

Name	Status	Author	Last modification	Published Folder	Availability
<input checked="" type="checkbox"/> CST	Published	efadmin	Feb 01, 2016by efadmin	batch	all-users
<input type="checkbox"/> LS-Dyna	Published	efadmin	Feb 01, 2016by efadmin	batch	all-u
<input type="checkbox"/> Fluent	Published	efadmin	Feb 01, 2016by efadmin	batch	all-u
<input type="checkbox"/> Abaqus	Published	efadmin	Jan 26, 2016by efadmin	batch	all-u
<input type="checkbox"/> Nastran	Published	efadmin	Feb 01, 2016by efadmin	batch	all-u
<input type="checkbox"/> OpendTect 6.0	Published	vincent.bos	Jun 15, 2016by vincent.bosqueinteractive		all-u
<input type="checkbox"/> Ansys WB	Published	efadmin	Feb 22, 2016by dario.laporta	interactive	all-users
<input type="checkbox"/> Linux Desktop	Published	NICE	Feb 22, 2016by dario.laporta	interactive	all-users
<input type="checkbox"/> Windows Desktop	Published	NICE	Oct 28, 2014by NICE	interactive	all-users
<input type="checkbox"/> OpendTect	Not publi...	efadmin	Feb 22, 2016by dario.laporta		

The context menu for the 'CST' service is open, showing the following actions: 'Test Run', 'Unpublish', 'Duplicate', and 'Export'. The 'Unpublish' action is currently selected.

At the bottom of the page, there is a footer with the NICE logo, the website URL 'www.nice-software.com', and a disclaimer: 'All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners.'

Welcome, testnice | [Settings](#) | [Logout](#)

Menu

- Monitor
- Sessions
- Hosts**
- Services
- Linux Desktop


Refresh
Search by host name

Host Name	Status	Jobs	Job Slots	Load (r1m)	Memory
ruce-visu02	Ok	0	40	0.02	0 bytes / 249.02 GB
ruce-visu01	Ok	0	40	1.01	0 bytes / 249.02 GB
ruce-gpu05	Ok	0	40	0.05	0 bytes / 750 GB
ruce-gpu04	Ok	0	40	0.06	0 bytes / 750 GB
ruce-gpu03	Ok	0	40	0.06	0 bytes / 750 GB
ruce-gpu02	Unavailable	0	40	0.03	0 bytes / 750 GB
ruce-gpu01	Ok	0	40	0.02	0 bytes / 750 GB
node123	Ok	0	40	15.73	0 bytes / 175.78 GB
node122	Busy	40	40	15.81	0 bytes / 175.78 GB
node121	Busy	40	40	17.87	0 bytes / 175.78 GB
node120	Busy	40	40	17.86	0 bytes / 175.78 GB
node119	Busy	40	40	25.67	0 bytes / 175.78 GB
node118	Busy	40	40	26.32	0 bytes / 175.78 GB
node117	Busy	40	40	24.15	0 bytes / 175.78 GB
node116	Busy	40	40	23.93	0 bytes / 175.78 GB
node115	Busy	40	40	23.93	0 bytes / 175.78 GB

Configure user's preferences

Working
Busy
Offline

HOST STATUS



■ Ok (23)
■ Busy (109)
■ Unavailable (3)

- Sessions:** List / Interact with history of Remote Interactive Sessions
- Hosts:** Display the clusters' nodes

Menu

▼ Monitor

Sessions

Hosts

▼ Services

Linux Desktop

Paraview (Default)

Paraview (Minimal)

Settings

VNC / NICE DCV (up to 2016.0)

NICE DCV (since 2017.0)

VIEWER TYPE

Select the type of NICE DCV viewer you want to use to connect to a remote session.

☐ Desktop Client ☒ Browser (open a new browser window)

DISPLAY RESOLUTION

Existing sessions will not be affected by changes to this setting.


Specify the display resolution to use for new DCV sessions.

Display Resolution:

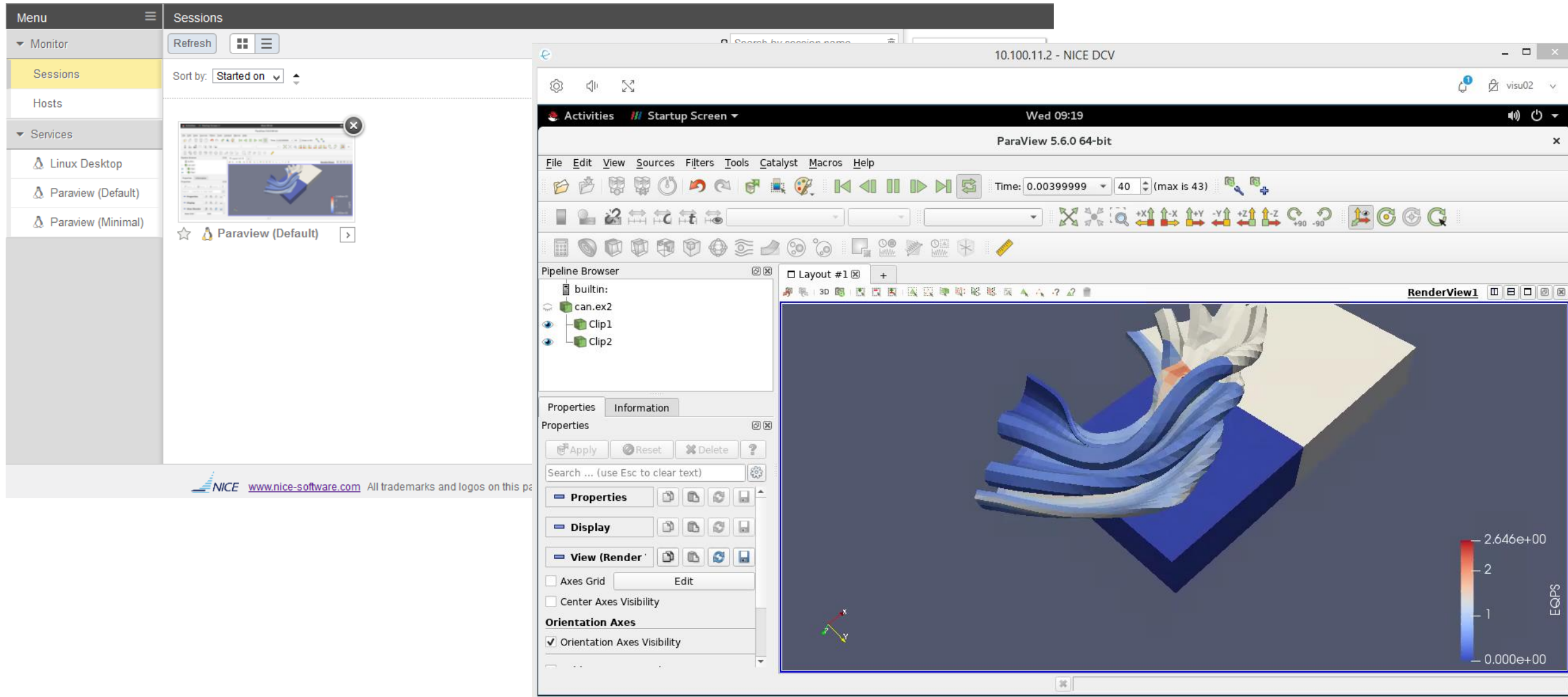
Fullscreen on single monitor (autodetect resolution) ▼

Cancel

Save

 www.nice-software.com

All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners. [Legal Notices](#)



The image shows a Linux desktop environment with a web browser window and a ParaView 5.6.0 64-bit application window.

Web Browser Window:

- Menu:** Monitor, Sessions, Hosts, Services.
- Sessions:** Sort by: Started on. A thumbnail image of a 3D visualization is shown.
- Services:** Linux Desktop, Paraview (Default), Paraview (Minimal).
- Footer:** NICE www.nice-software.com All trademarks and logos on this page.

ParaView 5.6.0 64-bit Window:

- Activities:** Startup Screen.
- Time:** 0.00399999 (max is 43).
- Pipeline Browser:**
 - builtin: can.ex2
 - Clip1
 - Clip2
- Properties:**
 - Properties:** Apply, Reset, Delete, Search ... (use Esc to clear text).
 - Display:** Properties, Display, View (Render).
 - Orientation Axes:**
 - ☐ Axes Grid
 - ☐ Center Axes Visibility
 - ☒ Orientation Axes Visibility
- RenderView1:** A 3D visualization of a fluid flow simulation. The flow is represented by blue and white streamlines. A color bar on the right indicates the EQPS (Equivalent Pressure) values, ranging from 0.000e+00 to 2.646e+00.

- Check DCV logs in `/var/log/dcv` on the DCV servers
- Check EnginFrame Views logs in `/opt/nice/enginframe/logs`

Two horizontal lines with circles. The left line has a large blue circle followed by a small dark grey circle. The right line has a small grey circle followed by a medium blue circle.

Support

<https://www.nice-software.com/download/>



Merci