HCL Sametime Meetings 11.5 Pre-Release Deployment on Docker Step by Step

Ver. 1.0
The document does not replace official documentation.

The implementation will be demonstrated on a specific example.

The document will be gradually supplemented and updated.

Thank you for the practical installation advice:

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Agenda

- HCL Sametime V11.x – Resources
- Pilot example

- Step 1 - Installation and configuration Linux Centos 7.4
- Step 2 - Installation Docker for HCL Sametime Meetings V11.5 Pre-Release
- Step 3 - Installation HCL Sametime Meetings V11.5 Pre-Release To Docker
- Step 4 - Enable Sametime Community for HCL Sametime Meetings V11.5 Pre-Release
- Step 5 - Enable Sametime Proxy for HCL Sametime Meetings V11.5 Pre-Release
- Step 6 - Use HCL Sametime Meetings V11.5 Pre-Release
HCL Sametime V11.x – Resources

Current resources:

- Installation and Administration Guide
  [Link](https://help.hcltechsw.com/sametime/11.0.0/administrator_doc.html)
  [Link](https://hclpnpsupport.hcltech.com/nav_to.do?uri=%2Fkb_view.do%3Fsys_kb_id%3Dd55eb1901b115c54086dcbf0a4bc030)

- Sametime 11.0 FP2 | Meetings Pre-Release 11.5 administrator documentation
  [Link](https://help.hcltechsw.com/sametime/11.0.2/admin/administrator_doc.html)

- Installing & Configuring CentOS (for Domino)
  [Link](https://www.slideshare.net/defaultxsp/installing-configuring-ibm-domino-9-on-centos)

- HCL Customer Support
  [Link](https://hclpnpsupport.hcltech.com/csm)

- Knowledge DB
  [Link](https://hclpnpsupport.hcltech.com/csm?id=search&spa=1&t=kb&q=sametime%20v11)

- Documentation
  [Link](https://help.hcltechsw.com/sametime/11.0.0/administrator_doc.html)

- Discussion HCL Sametime
  [Link](https://hclpnpsupport.hcltech.com/community?id=community_forum&sys_id=e3c946d01b80841077761fc58d4bcb04)
Pilot example

This procedure builds on my previous Sametime V11 installation guide. The prerequisite is already implemented Sametime, including FP2.


Deployment HCL Sametime Meetings V11.5 Pre-Release will take place on Linux Centos 7.4

Installed components:
- Docker for HCL Sametime Meetings V11.5 Pre-Release
- HCL Sametime Meetings V11.5 Pre-Release

All components will be installed on one virtual machine.
Hardware required for this Pilot Example Deployment

Hardware:
✓ 4 core, 16GB RAM, 80 GB Hard disk

Operation system:
✓ Centos 7.4.

Pre-Requisites
• Docker for HCL Sametime Meetings V11.5 Pre-Release
• HCL Sametime Meetings V11.5 Pre-Release

✓ FQDN for my Pilot example server: „meetings.kaiser.cz“
Installation Packages

- **What we need to install a HCL Sametime Meetings V11.5 Pre-Release**

![HCL Sametime Pre-Release 11.5 Downloads](image-url)
Step 1

Installation and configuration
Linux Centos 7.4
Installation Centos 7.4

Currently, HCL Sametime Meetings V11.5 Pre-Release is only supported for Docker running on Linux

For Centos installation 7.4. you can use part of a great step-by-step manual by David Olson:
https://www.slideshare.net/defaultxsp/installing-configuring-ibm-domino-9-on-centos
Step 2

Installation
Docker
for
HCL Sametime Meetings V11.5
Pre-Release
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

What is Docker?

Docker is an open-source lightweight containerization technology. It allows you to automate the deployment of applications in lightweight and portable containers and ship it all out as one package. It also allows you to run multiple Operating systems on the same host.

How to install Docker Engine: https://docs.docker.com/engine/install/centos
How to install Docker Compose: https://docs.docker.com/compose/install
• Log in with your Centos server as “root” user and execute all commands under this.
• Run the following commands for installation required Docker Engine packages:
  
  ```bash
  yum install -y net-tools wget yum-utils device-mapper-persistent-data lvm2
  ```
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

• Now run the following commands for add the docker repository for software downloads:

```bash
yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo
```
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

- Install the latest version of Docker Engine and containerd:
  `yum install -y docker-ce docker-ce-cli containerd.io`
you can allow this host to forward/route IP traffic and restart the network

```
echo net.ipv4.ip_forward=1 >> /etc/sysctl.conf
```

```
systemctl restart network
```
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

- Use the command for start the Docker Service
  `systemctl start docker`

- Use the command for enable Docker auto start
  `systemctl enable docker`
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

- Verify that Docker Engine is installed correctly by running the hello-world image.

`docker run hello-world`
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

• Now install Docker Compose on Linux systems

```bash
curl -L "https://github.com/docker/compose/releases/download/1.26.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
```
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

• Apply executable permissions to the binary:

  `chmod +x /usr/local/bin/docker-compose`
Installation Docker for HCL Sametime Meetings V11.5 Pre-Release

- You can check the installed Docker component
  
  docker info
docker-compose --version
DONE!

Installation Docker for HCL Sametime Meetings V11.5 Pre-Release
Step 3

Installation

HCL Sametime Meetings V11.5 Pre-Release
To Docker
We will now install Pre-release HCL Sametime Meeting V11.5. into to Docker.
You will need to edit the configuration files, and because it works well with Midnight Commander, I installed it with Centos:

```sh
gum install mc
```

After installation start Midnight Commander

mc
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

- Download HCL Sametime Meetings pre-release 11.5 file from Flexnet and copy this file for my example to directory `/opt/install/ST115`
- Extract the zip file `Sametime_PreRelase_11.5_MeetingServer.zip`:

  ```bash
  unzip Sametime_PreRelase_11.5_MeetingServer.zip
  ```

- If you do not have unzip available, install using:
  ```bash
  yum install unzip
  ```
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

- Update `custom.env` file. (for example: F4 on Midnight Commander)

- Rules to update the `custom.env` file:
  
  # Host name or IP address of the Sametime Proxy v11.5 host.
  `SAMETIME_PROXY_HOST=sametime11.kaiser.cz`

- # Port of the Sametime Proxy v11.5 host. Default is 443.
  `SAMETIME_PROXY_PORT=443`

- # This should be defined as the fully qualified host name of the system as you would expect users to access via a web browser. Do not add http or https before the name. Default is `meetings.company.com`
  `REACT_APP_MEETING_SERVER_HOSTNAME=meetings.kaiser.cz`
# Configure these two values as you would expect to have single-sign-on with your Sametime Proxy server.
For example, if the proxy is "webchat.company.com" and the meetings server is "meetings.company.com" then you should use "company.com" for these two fields so that cookies can be shared between the two deployments. If you do not have single-sign-on concerns, you should set the value exactly to the value set in the REACT_APP_MEETING_SERVER_HOSTNAME so that access cookies are sent by the browser only to the meeting server.

- JWT_ACCESS_COOKIE_DOMAIN=kaiser.cz
- JWT_REFRESH_COOKIE_DOMAIN=kaiser.cz

# If SAML is used for authentication, this is the IDP URL defined in that configuration. Default is empty.
# IDP_URL=
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

• # IP address of the Docker host. Check LAN configuration of the system. If the host has multiple interfaces, choose the one which is considered the routable IP for the host.  
  # DOCKER_HOST_ADDRESS=

• Note: DOCKER_HOST_ADDRESS should be commented out for most environments  
  # These are the number of days a meeting recording will be available for download/playback. Default is 3.  
  EXPIRES_IN_DAYS=3

• # Public URL for the web service. Add http or https followed by meeting server host name. If you have configured "meetings.company.com" as your host name then your PUBLIC_URL will as below.  
  PUBLIC_URL=https://meetings.kaiser.cz
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

• After update **custom.env** file save this file (F2 on Midnight Commander)
• Run the below command to load and initialize the docker images in the directory where you have extracted the zip file and

```
./install.sh
```
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

- The install.sh script will load and run the following list of docker images.
  - meetings-auth.node
  - meetings-recordings.node
  - meetings-web
  - meetings-prosody
  - meetings-jicofo
  - meetings-jvb
  - meetings-jigasi
  - meetings-jibri
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

• Confirm with the „Enter“ key („Enter the Base64 Encoded JWT_SECRET…..)
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

• Installation progress
After installation run the below command for check if meetings server is running.

Show all the loaded docker images

docker images
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

- After installation run the below command for list all running containers in docker engine

docker ps
Installation HCL Sametime Meetings V11.5 Pre-Release to Docker

- Try url: https://meetings.kaiser.cz (for my example)
- Use Google Chrome
DONE!

Installation HCL Sametime Meetings V11.5 Pre-Release to Docker
Step 4

Enable Sametime Community for HCL Sametime Meetings V11.5 Pre-Release
Enable HCL Sametime Community for Meetings

- HCL Sametime Community 11.0 FP2 requires the following changes to support Sametime Meetings:
  - Enable Sametime Meeting Policy
  - Enable Windows Sametime Community server to support Meetings
  - Create JWT Configuration
Enable HCL Sametime Community for Meetings

- Open your HCL Sametime Community server
- Edit the `polices.user.xml` found in the Sametime Community server install directory.
Enable HCL Sametime Community for Meetings

- Locate the `im.meetingsEnabled` parameter under `im` and set this to a value of 1. This policy can be enabled for anonymous and any additional policies that may exist.
- Save this file
Enable HCL Sametime Community for Meetings

• Enable Windows Sametime Community server to support Meetings

IMPORTANT!!

• Download the file StAuthTokenJwt.zip to allow JWT Configuration from HCL Software Portal. This file is located in the HCL Software Portal under Beta Products > HCL Sametime Pre-Release 11.5. It is required for Windows based Sametime 11.0 FP2 Community Server installations to incorporate the Sametime Pre-Release 11.5 Meetings capability. Do not continue with Sametime Pre-Release 11.5 Meetings deployment on Windows until this patch is in place on the Sametime Community Server.
  - Stop the Sametime 11.0 FP2 Community Server.
  - Place the DLL StAuthTokenJwt.dll in the Domino program directory.
  - Restart the server.
Enable HCL Sametime Community for Meetings

• Open your Centos server
• Create JWT Configuration:

  • Copy the value of JWT_APP_SECRET from the .env file.
  • Run the following command from the Linux shell with this JWT_APP_SECRET value:
    `echo -n <JWT_APP_SECRET> | base64 -w 0`
  • The value (output) from this command becomes the "GENERATED_SECRET" for the `sametime.ini` and `stproxyconfig.xml` in the following steps.
Enable HCL Sametime Community for Meetings
Enable HCL Sametime Community for Meetings
Enable HCL Sametime Community for Meetings

- Open your HCL Sametime Community server
- Edit the *sametime.ini* found in the Sametime Community server install directory.
Enable HCL Sametime Community for Meetings

- Add the following under `[config]`:
  
  ```
  JWT_SECRET=GENERATED_SECRET
  ```

- Change the following under `[st-bb-names]`:
  
  ```
  ST_AUTH_TOKEN=notes
  To: ST_AUTH_TOKEN=Fork:Jwt,notes
  ```
Enable HCL Sametime Community for Meetings
Enable HCL Sametime Community for Meetings

- Open your HCL Sametime Proxy server
- On the Sametime Proxy server in the conf folder, edit the `stproxyconfig.xml` file
Enable HCL Sametime Community for Meetings

- adding <jwtSecret> and <refreshJwt> settings within <configuration> like so:

```
<configuration>
  ...
  <jwtSecret>
    GENERATED_SECRET
  </jwtSecret>
  <refreshJwt>
    <enabled>true</enabled>
    <path>/meeting-auth/api/v1/refresh</path>
  </refreshJwt>

</configuration>
```
DONE!

Enable HCL Sametime Community for Meetings
Step 5

Enable Sametime Proxy for HCL Sametime Meetings V11.5 Pre-Release
Enable HCL Sametime Community for Meetings

• Open your HCL Sametime Proxy server
• On the Sametime Proxy server in the conf folder, edit the `stproxyconfig.xml` file
Enable HCL Sametime Proxy for Meetings

- Edit stproxyconfig.xml in the Proxy server's conf directory, add the following:

```xml
<configuration>
  <server>
    <host>hostname</host>
    <port>PORT</port>
    <isSecure>true</isSecure>
  </server>
  ...
</configuration>
```
Enable HCL Sametime Proxy for Meetings

- Now restart HCL Community server or all HCL Domino server and HCL Sametime Proxy server
DONE!

Enable HCL Sametime Proxy for Meetings
Step 6

Test

HCL Sametime Meetings V11.5 Pre-Release
Test HCL Sametime Meetings 11.5 Pre-Release

• For example: Open Google Chrome browser and login to HCL Sametime Chat
Test HCL Sametime Meetings 11.5 Pre-Release

- Open „Meetings“ and „Sametime Meetings“
Test HCL Sametime Meetings 11.5 Pre-Release

- Enter Name for new Meeting and click to „START“ or open „Recent Meetings“
Test HCL Sametime Meetings 11.5 Pre-Release

• You can now start testing
HCL Sametime Meetings 11.5 Pre-Release Deployment on Docker Step by Step

The END