

**ARACHNE COMMUNITY EDITION 1.14**

**DEPLOYMENT MANUAL**

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# Environment Requirements

## Hardware Requirements

##### It’s recommended to setup ARACHNE Portal and ARACHNE DataNode on separate hosts.

#### ARACHNE Portal

##### Recommended configuration:

##### Linux: CentOS 7.x or similar OS (CentOS, Ubuntu)

##### CPU: 4+ cores

##### RAM: 8GB+

##### Disk space: 500Gb+

#### ARACHNE DataNode

##### Recommended configuration:

##### Linux: CentOS 7.x or similar OS (CentOS, Ubuntu)

##### CPU: 4+ cores

##### RAM: 8GB+

##### Disk space: 200Gb+

#### SMTP server

##### ARACHNE portal requires SMTP service account to send out email messages.

# ARACHNE Portal Deployment Instructions

## Prerequisites

##### It’s assumed that we are using CentOS/RHE distribution. Install Docker and additional tools:

sudo yum update && yum install -y docker

sudo systemctl enable docker && systemctl start docker

##### To add user into Docker group run this command:

sudo usermod -aG docker <username>

## Docker Volumes

##### We will create several Docker volumes to store files on the host machine:

docker volume create --name=portalcommunity\_postgresql\_var\_lib docker volume create --name=portalcommunity\_postgresql\_var\_log docker volume create --name=portalcommunity\_postgresql\_etc docker volume create --name=portalcommunity\_files

docker volume create --name=portalcommunity\_solr\_data docker volume create --name=portalcommunity\_solr\_server

## ARACHNE Portal Container

##### Pull Docker container:

docker pull odysseusinc/arachne-central-ce:1.14.0

##### Create container with the following command:

docker create --name portal \

--restart=always \

-p 443:8080 \

-p 5435:5434 \

-v portalcommunity\_postgresql\_var\_lib:/var/lib/postgresql \

-v portalcommunity\_postgresql\_var\_log:/var/log/postgresql \

-v portalcommunity\_postgresql\_etc:/etc/postgresql \

-v portalcommunity\_files:/var/arachne/files \

-v portalcommunity\_solr\_data:/opt/solr/data \

-v portalcommunity\_solr\_server:/opt/solr/server \

-v /tmp:/tmp \

-e "server.ssl.enabled=true" \

-e "spring.mail.host=<SMTP\_SERVER\_HOST>" \

-e "spring.mail.port=<SMTP\_SERVER\_PORT>" \

-e "spring.mail.properties.mail.smtp.auth=true" \

-e "spring.mail.properties.mail.smtp.starttls.enable=true" \

-e "spring.mail.properties.mail.smtp.starttls.required=true" \

-e "spring.mail.username=<SMTP\_SERVER\_USERNAME>" \

-e "spring.mail.password=<SMTP\_SERVER\_PASSWORD>" \

-e "arachne.mail.notifier=<EMAIL\_ADDRESS>" \

-e "docker.registry.password=user" \

-e "achilles.auth-config.password=user" \

-e "portal.urlWhiteList=https://<HOST\_NAME>:443,https://<HOST\_IP>:443" \

-e "jasypt.encryptor.password=arachne" \ odysseusinc/arachne-central-ce:1.14.0

##### And start container:

docker start portal

##### As a next step we need to open PostgreSQL database to accept requests from ARACHNE DataNode Open Portal Container:

docker exec -it portal bash apt install nano

##### Open the following file for editing:

nano /etc/postgresql/9.6/main/pg\_hba.conf

##### Add the line at the end of the file:

host arachne\_portal <ARACHNE\_DATANODE\_IP>/32 md5

##### Save file and run command to restart PostgreSQL:

service postgresql restart

# ARACHNE DataNode Deployment Instructions

##### We are installing ARACHNE DataNode on a separate host.

## Docker Volumes

##### We will create several Docker volumes to store files on the host machine:

docker volume create --name=community\_datanode\_postgresql\_var\_lib docker volume create --name=community\_datanode\_postgresql\_var\_log docker volume create --name=community\_datanode\_postgresql\_etc docker volume create --name=community\_datanode\_files

## ARACHNE DataNode Container

##### Pull Docker container:

docker pull odysseusinc/arachne-datanode-ce:1.14.0

##### Create container with the following command:

docker create --name datanode \

--restart=always \

-p 443:8880 \

--add-host <ARACHNE\_PORTAL\_HOST\_NAME>:<ARACHNE\_PORTAL\_IP> \

--add-host <ARACHNE\_DATANODE\_HOST\_NAME>:<ARACHNE\_DATANODE\_IP> \

-v community\_datanode\_postgresql\_var\_lib:/var/lib/postgresql \

-v community\_datanode\_postgresql\_var\_log:/var/log/postgresql \

-v community\_datanode\_postgresql\_etc:/etc/postgresql \

-v community\_datanode\_files:/var/arachne/files \

-v /tmp:/tmp \

-e "server.ssl.enabled=true" \

-e "ACHILES\_STARTUP=0" \

-e "datanode.arachneCentral.host=https://<ARACHNE\_PORTAL\_HOST\_NAME>" \

-e "datanode.arachneCentral.port=443" \

-e "datanode.baseURL=https://<ARACHNE\_DATANODE\_HOST\_NAME>" \

-e "datanode.port=443" \

-e "jasypt.encryptor.password=arachne" \ odysseusinc/arachne-datanode-ce:1.14.0

##### And start container:

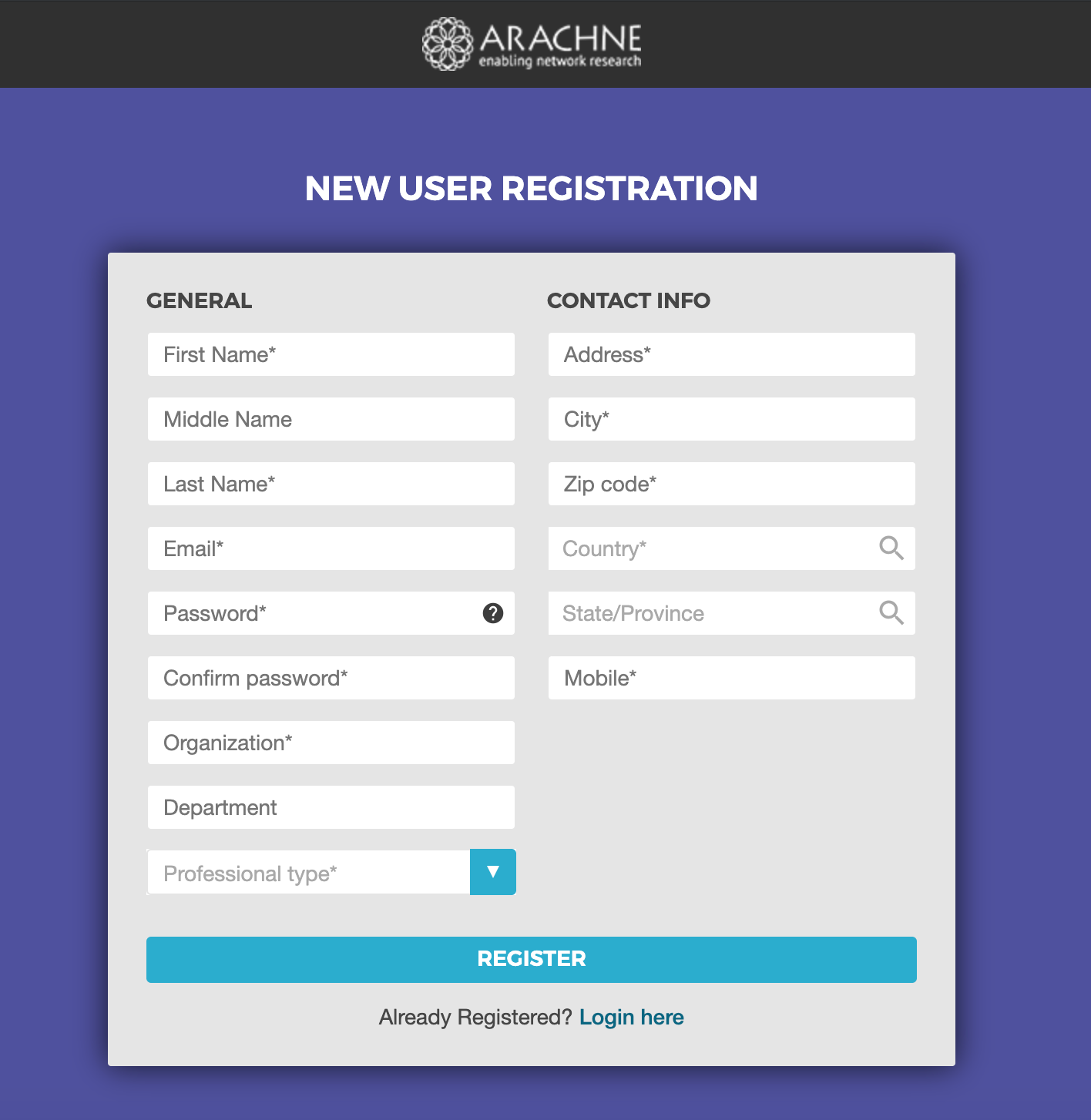
docker start datanode

Account Registration

##### After both applications are installed you can access users web interface: ARACHNE Portal: https://<ARACHNE\_PORTAL\_HOST\_NAME>

ARACHNE DataNode: https://<ARACHNE\_DATANODE\_HOST\_NAME>

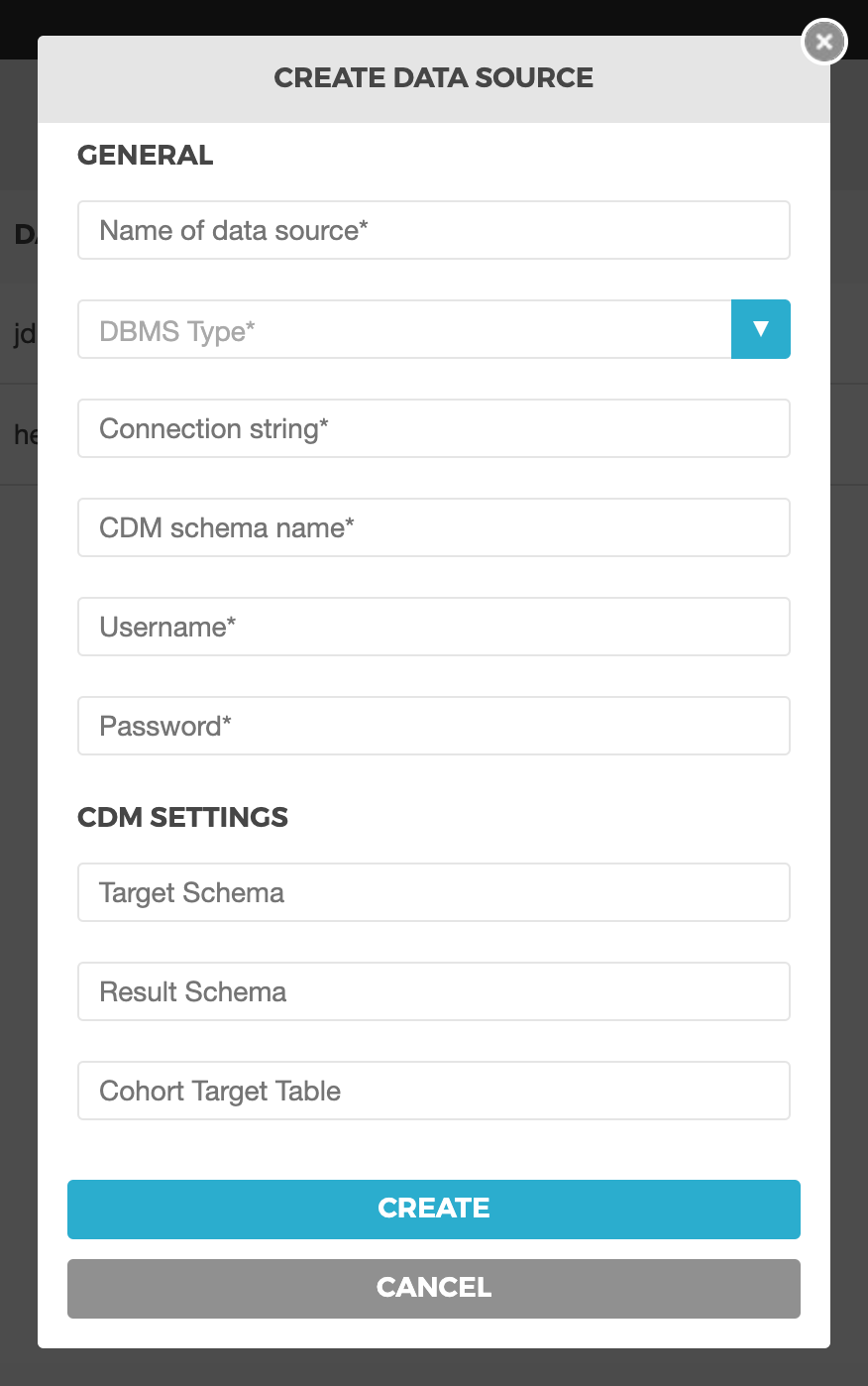
##### Open ARACHNE DataNode URL in browsers and register new account. After that you can login with the same account to ARACHNE Portal.



##### The first user registered in ARACHNE DataNode automatically becomes Administrator of application.

Data Source Registration

##### After first login you will be redirected to CDM Data Sources list. Click on the + icon at the top right corner. Modal dialog will be opened to provide connection details:



##### Fill the form with details. Connection string should be in JDBC connection string format like:

jdbc:postgresql://postgresdb.server.com:5432/cdm\_database

##### After Data Source is created, click “Publish” button in the list. You will need to fill additional information about Data Source for users in ARACHNE Portal.