Install and Configure the Data VM

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Prerequisites
- Apache 2.4.7
- Tomcat 8
- Oracle JDK 7

The em-api is deployed to tomcat on a server. Apache is used to forward requests.

Configuring Files

1. Navigate to **/em-api/api-rest-service/src/main/config/** in the repository and move the file **em-api.properties** to **/opt/data/dcds/config** on the Data VM. The properties file should look similar to **Figure 1** and requires the fields in brackets, such as <hostname>, <username>, and <password> to be configured.

   em-api.properties

   ```
   # RabbitMQ
   em.api.rabbitmq.exchange.name=iweb.amq.topic
   em.api.rabbitmq.hostname=<hostname>
   em.api.rabbitmq.username=<username>
   em.api.rabbitmq.userpwd=<password>



   # Database
   em.api.db.get.maxrows=500
   em.api.cache.user.refreshminutes=60
   ssoToolsPropertyPath=/opt/data/dcds/config



   # File Upload Properties
   em.api.service.file.upload.path=/opt/data/dcds/static/upload/
   em.api.service.file.upload.url=https://<hostname>/static/
   em.api.service.kml.upload.path=/opt/data/dcds/static/upload/kml
   em.api.service.kmz.upload.path=/opt/data/dcds/static/upload/kmz
   em.api.service.gpx.upload.path=/opt/data/dcds/static/upload/gpx
   em.api.service.geojson.upload.path=/opt/data/static/dcds/upload/geojson



   # Default Collaboration Room name for the Incident Map
   em.api.collabroom.incident.map=Incident Map



   # REPORTS
   ```

```
# SR/General Report Properties
em.api.resource.report.sr.storagepath=/opt/data/dcds/static/reports/general/
em.api.resource.report.sr.url=/data/dcds/static/upload/reports/general
em.api.resource.report.sr.path=https://<webserver>/static/reports/general/


# damage report Properties
em.api.resource.report.dmgrpt.storagepath=/opt/data/dcds/static/reports/damage/
em.api.resource.report.dmgrpt.url=/data/dcds/static/upload/reports/damage/
em.api.resource.report.dmgrpt.path=https://<webserver>/static/reports/damage/



# Export Data Layer Properties
em.api.service.export.kmlExportURL=/<workspace>/wms?request=GetMap&service=wms&st
yles=collabRoomStyle&format_options=SUPEROVERLAY:false;KMPLACEMARK:false;KMSCORE:
40;KMATTR:true;&height=1024&width=1024&format=application/vnd.google-earth.kmz&tr
ansparent=false&version=1.1.1&srs=EPSG:4326
em.api.service.export.mapserverURL=<geoserver>
em.api.service.export.mapserverUsername=<username>
em.api.service.export.mapserverPassword=<password>
em.api.service.export.collabroomStore=<store>
em.api.service.export.workspaceName=<workspace>
em.api.service.export.webserverURL=https://<webserver>/static/upload



# Import Data Layer Properties
em.api.service.import.shapefileWorkspace=<workspace>
em.api.service.import.shapefileStore=<store>



# MDT Properties
em.api.service.mdt.topic=dcds.pli.gml
em.api.service.mdt.dcdsSchemaLocationURI=http://YOURMAPSERVER/YOURWORKSPACE
em.api.service.mdt.wfsSchemaURI=http://YOURMAPSERVER/geoserver/schemas/wfs/1.0.0/
WFS-basic.xsd
em.api.service.mdt.wfsServiceURI=http://YOURMAPSERVER/geoserver/YOURWORKSPACE/wfs
?service=WFS&version=1.0.0&request=DescribeFeatureType&typeName=YOURWORKSPACE%3Am
dt
em.api.service.mdt.typeName=mdt
em.api.service.mdt.srsName=EPSG:4326



# Topic to send email to (where the email-consumer is listening)
# Default: iweb.dcds.email.alert
em.api.alert.topic=iweb.dcds.email.alert


# FROM user account on registration emails
em.api.user.alert.email=<one email address>
em.api.new.incident.emails=<to emails for when a new incident is created>
em.api.new.registered.users.emails=<to emails for when a new user has registered>
em.api.newuser.enabled.subject=<subject of email for when new registered user is
enabled>
em.api.newuser.enabled.email=<from email for when new registered user is enabled>
em.api.newuser.enabled.template=<location of file that will be inserted in the
```

body of the email for new registered users welcome packet>

List of system administrator emails. Messages sent here are intended for
administrators of the actual servers, not necessarily of the DCDS instance
itself.
Messages are sent here when an action needs taken that can't be performed in
DCDS.
#
NOTE: escape comma with a backslash if listing more than one email
#
em.api.sysadmin.alert.emails=<comma delimited list of system admin emails>

Pattern used to validate a DCDS user password. Note that if it's less
restrictive
than your Identity provider's, registration will still fail since it will fail
to
register with the Identity provider.
#
# Default: ((?=.*\\d)(?=.*[a-z])(?=.*[A-Z])(?=.*[@#$%!_-]).{8,20})
em.api.password.pattern=((?=.*\\d)(?=.*[a-z])(?=.*[A-Z])(?=.*[@#$%!_-]).{8,20})

User readable password requirements explanation that matches the
userPasswordPattern above
Default: Your password must be a minimum 8 characters long and a maximum of 20
with at least one digit\, one upper case letter\, one lower case letter and one
special symbol: @#$%-_!

```
em.api.password.requirements=Your password must be a minimum 8 characters long
and a maximum of 20 with at least one digit\, one upper case letter\, one lower
case letter and one special symbol: @#$%-_!
```

Figure 1. em-api.properties example

2. Navigate to **/em-api/api-rest-service/src/main/webapp/META-INF/context.xml** in the repository. This file needs to be updated wiht the database url, username, and password in order to connect to the application. The update can be done before building or after the war file has been deployed

> In order for the Importing of Data Layers, and uploading of Reports to work, you also need to see the OpenAM configuration for adding a Policy for the /static directory on the Data VM

Data Layer Configuration

The following Data sources have to be imported to the system:

- ArcGisRest
- GPX
- GeoJson
- KML

Follow these steps to import and configure the necessary Data Layers

1. Create the following folders in **/opt/data/dcds/static/upload** on the Data VM

   - gpx
   - arcgisrest
   - geojson
   - kml
   - kmz
2. Insert a new datasource entry into the datasource table, where the internal url is the accessible location of the previously created folders and the corrected datasource type. For example:
   - https://<your hostname>/static/upload/gpx/
3. The directories on the Data VM should be mounted to the Web VM so that they are web accessible to the UI.
4. Prior to importing a datalayer by uploading a file, make sure that your em.api.service.export.webserverURL property corresponds to the proper file mount location at **/opt/data/dcds/upload**.

Set up the static folders

1. Create the reports directories, using the following commands:

```
> mkdir -p /opt/data/dcds/static/reports
> mkdir /opt/data/dcds/static/reports/general
> mkdir /opt/data/dcds/static/reports/damage
```

2. Set the permissions on upload and reports so the API/Tomcat can write files, using the following commands:

```
# NOTE: Your tomcat username may be different
> chown -R tomcat8:tomcat8 /opt/data/dcds/static/reports
> chown -R tomcat8:tomcat8 /opt/data/dcds/static/upload
```

3. Edit the enabled site configuration file for you Data VM, and add the following above the "ProxyPass /api..." lines

```
Alias /static /opt/data/dcds/static
ProxyPass /static !
<Directory "/opt/data/dcds/static">
 Require all granted
</Directory>
```