Description:

This procedure covers the installation of the multiple components dedicated to the mapping capability in ONMSi.

Those components are:

- FNM (Fiber Network Mapping) components: the web client and server dedicated to handle the geographical representation of the fiber network
- Backmap components: the proxy, servers and databases dedicated to the background map and coordinate reference systems

Solution/Steps Taken:

1. Activate ONMSi mapping capability with Skipper

1.1 Activating mapping capabiliy

· 1. In settings.yaml file, add a new service called map and enable it.

📤 Load File

settings.yaml

```
1  ##########################
2  # ONMSi configuration file
3  ##########################
4  services:
5    backup:
6      directory: /backup
7    map:
8      enabled: true
9      backmap:
10       mode: osm
```

```
map:
  enabled: true
  backmap:
    mode: osm
```

1.2 Restart application

· sudo rfts_ctrl stop
· sudo rfts_configure
· sudo rfts_ctrl start

1.3 Verifing mapping capability

· In the Skipper GUI, the components dedicated to map are the following:
· fnm: Web Client and Server for the fiber network mapping
· fnm-db: The database of the fiber network
· fnm-db-backup: The backup engine of the database (fnm-db)
· backmap-proxy: The background map proxy service dedicated to route and convert protocol request of the background map
· backmap-server: Serve WMS background map requests in case provided GIS is required
· backmap-db: Background vector map database in case OpenStreet(*) map is installed

2. Installing OSM map package

2.1 Copy map files

Paste map file (2 files) on server using winscp.
· map.omp exemple: auvergne-rhone-alpes-190429-EPSG3857-backmap.omp
· map.omp.md5 exemple: auvergne-rhone-alpes-190429-EPSG3857-backmap.omp.md5

2.2 Move map files to osm folder

· sudo mv /home/rftsmngr/map.omp /opt/rfts_apps/conf/map/osm
· sudo mv /home/rftsmngr/map.omp.md5 /opt/rfts_apps/conf/map/osm
· sudo -i
· cd /opt/rfts_apps/conf/map/osm
· ls -l to check if both files are visible in osm folder

```
root@philippe-single-u:~# cd  /opt/rfts_apps/conf/map/osm
root@philippe-single-u:/opt/rfts_apps/conf/map/osm# ls -l
total 1378892
-rw-rw-r-- 1 rftsmngr rftsmngr 1411976705 May 10 18:28 auvergne-rhone-alpes-190429-EPSG3857-backmap.omp
-rw-rw-r-- 1 rftsmngr rftsmngr         83 May 10 18:28 auvergne-rhone-alpes-190429-EPSG3857-backmap.omp.md5
root@philippe-single-u:/opt/rfts_apps/conf/map/osm# []
```

2.3 Check map integrity

· md5sum -c map.omp.md5

```
root@philippe-single-u:/opt/rfts_apps/conf/map/osm# md5sum -c auvergne-rhone-alpes-190429-EPSG3857-backmap.omp.md5
auvergne-rhone-alpes-190429-EPSG3857-backmap.omp: OK
root@philippe-single-u:/opt/rfts_apps/conf/map/osm# []
```

· Response must be **OK**

2.4 Install map

· rfts_map install map.omp

```
root@philippe-single-u:/opt/rfts_apps/conf/map/osm# rfts_map install auvergne-rhone-alpes-190429-EPSG3857-backmap.omp
2019-07-29 12:44:40,963 INFO [__main__] ## Install OSM file /opt/rfts_apps/conf/map/osm/auvergne-rhone-alpes-190429-EPSG3857-backmap.omp
2019-07-29 12:44:41,434 INFO [__main__] Checking: '/opt/rfts_apps/conf/map/osm/auvergne-rhone-alpes-190429-EPSG3857-backmap.omp'
2019-07-29 12:44:41,470 INFO [__main__] OSM map install file version detected: '2.0'
2019-07-29 12:44:42,055 INFO [__main__] Stopping map services: backmap-server,backmap-proxy,backmap-db,fnm
2019-07-29 12:45:14,657 INFO [__main__] Backup file: '/opt/rfts_apps/conf/map/map.properties'
2019-07-29 12:45:14,657 INFO [__main__] Backup file: '/opt/rfts_apps/conf/map/proxy/mapproxy.yaml'
2019-07-29 12:45:14,657 INFO [__main__] Backup file: '/opt/rfts_apps/conf/map/server/baseMapData.map'
2019-07-29 12:45:14,657 INFO [__main__] Backup file: '/opt/rfts_apps/conf/map/server/backgroundMapData.map'
2019-07-29 12:45:14,658 INFO [__main__] Empty folder: '/opt/rfts_apps/data/map/osm/pg'
2019-07-29 12:45:14,706 INFO [__main__] Empty folder: '/opt/rfts_apps/data/map/osm/dump'
2019-07-29 12:45:14,706 INFO [__main__] Unarchiving: '/opt/rfts_apps/conf/map/osm/auvergne-rhone-alpes-190429-EPSG3857-backmap.omp'
2019-07-29 12:45:14,707 INFO [__main__] Extracting: 'map.properties' to '/opt/rfts_apps/conf/map'
2019-07-29 12:45:14,708 INFO [__main__] Extracting: 'osm-database.dump' to '/opt/rfts_apps/data/map/osm/dump'
2019-07-29 12:45:21,064 INFO [__main__] Extracting: 'baseMapData.map' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,066 INFO [__main__] Extracting: 'osm/' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,066 INFO [__main__] Extracting: 'osm/fonts/' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,067 INFO [__main__] Extracting: 'osm/fonts/DejaVuSansCondensed.ttf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,073 INFO [__main__] Extracting: 'osm/fonts/DejaVuSansCondensed-Bold.ttf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,079 INFO [__main__] Extracting: 'osm/fonts/fonts.lst' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,079 INFO [__main__] Extracting: 'osm/world/' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,080 INFO [__main__] Extracting: 'osm/world/shoreline_300.shp' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,657 INFO [__main__] Extracting: 'osm/world/processed_p.dbf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,676 INFO [__main__] Extracting: 'osm/world/boundaries.qix' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,680 INFO [__main__] Extracting: 'osm/world/shoreline_300.shx' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,696 INFO [__main__] Extracting: 'osm/world/processed_p.qix' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:21,929 INFO [__main__] Extracting: 'osm/world/processed_p.shp' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,391 INFO [__main__] Extracting: 'osm/world/shoreline_300.dbf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,435 INFO [__main__] Extracting: 'osm/world/boundaries.prj' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,436 INFO [__main__] Extracting: 'osm/world/shoreline_300.qix' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,502 INFO [__main__] Extracting: 'osm/world/TM_WORLD_BORDERS-0.3.shx' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,502 INFO [__main__] Extracting: 'osm/world/README.txt' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,503 INFO [__main__] Extracting: 'osm/world/processed_p.shx' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,546 INFO [__main__] Extracting: 'osm/world/processed_p.index' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,574 INFO [__main__] Extracting: 'osm/world/shoreline_300.index' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,590 INFO [__main__] Extracting: 'osm/world/boundaries.shp' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,805 INFO [__main__] Extracting: 'osm/world/boundaries.dbf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,806 INFO [__main__] Extracting: 'osm/world/TM_WORLD_BORDERS-0.3.dbf' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,806 INFO [__main__] Extracting: 'osm/world/TM_WORLD_BORDERS-0.3.prj' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,807 INFO [__main__] Extracting: 'osm/world/TM_WORLD_BORDERS-0.3.qix' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,807 INFO [__main__] Extracting: 'osm/world/boundaries.shx' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:27,808 INFO [__main__] Extracting: 'osm/world/TM_WORLD_BORDERS-0.3.shp' to '/opt/rfts_apps/conf/map/server'
2019-07-29 12:45:28,737 INFO [__main__] Starting map services: backmap-db
2019-07-29 12:45:32,629 INFO [__main__] Container 'backmap-db' is running
2019-07-29 12:45:32,629 INFO [__main__] Looking for restore lock file '/opt/rfts_apps/data/map/osm/dump/osm-database.lock'
2019-07-29 12:46:02,717 INFO [__main__] Restoring ... 39% done
2019-07-29 12:46:22,737 INFO [__main__] Restoring ... 51% done
2019-07-29 12:46:42,741 INFO [__main__] Restoring ... 67% done
2019-07-29 12:47:02,752 INFO [__main__] Restoring ... 73% done
2019-07-29 12:47:22,772 INFO [__main__] Restoring ... 73% done
2019-07-29 12:47:42,792 INFO [__main__] Restoring ... 73% done
2019-07-29 12:48:02,813 INFO [__main__] Restoring ... 80% done
2019-07-29 12:48:22,824 INFO [__main__] Restore is complete
2019-07-29 12:48:23,328 INFO [__main__] Stopping map services: backmap-db
2019-07-29 12:48:25,226 INFO [__main__] Starting map services: backmap-server,backmap-proxy,backmap-db,fnm
```