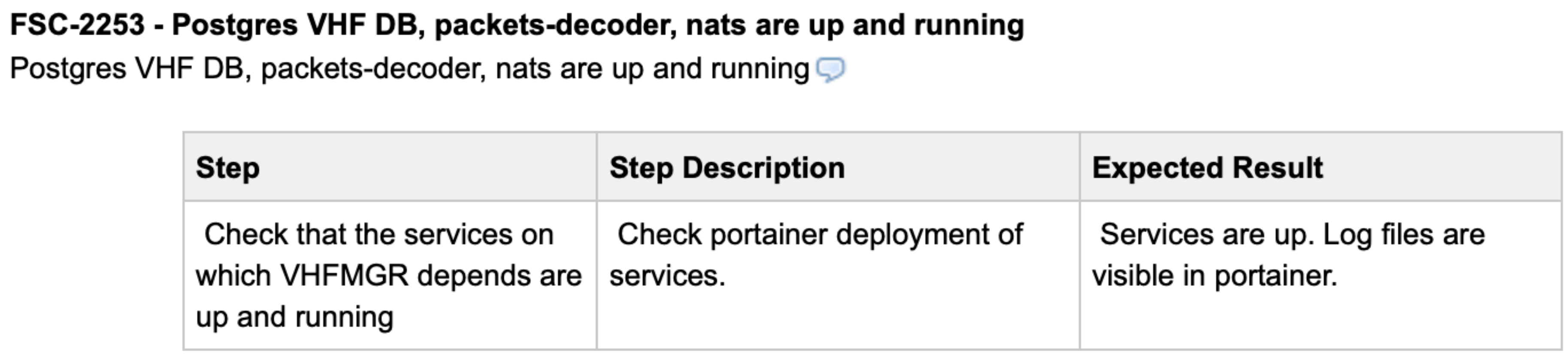
DC1 Vhf and common services

AF, HL, TS - Irfu CEA/Saclay

Deployed services : VHF

- VHF data
    - Pre-requisites : Postgres (same server as SDB), NATs, Orchestra(tor) [for automatic chain based on notifications]
- VHFMGR
    - packet_decoder : generated code to decode VHF packets
    - vhfmgr : server + DB to manage uploaded packet
- Tested with :
    - vhf_simulator : use last version of CNES DB + realistic sequence with a GRB

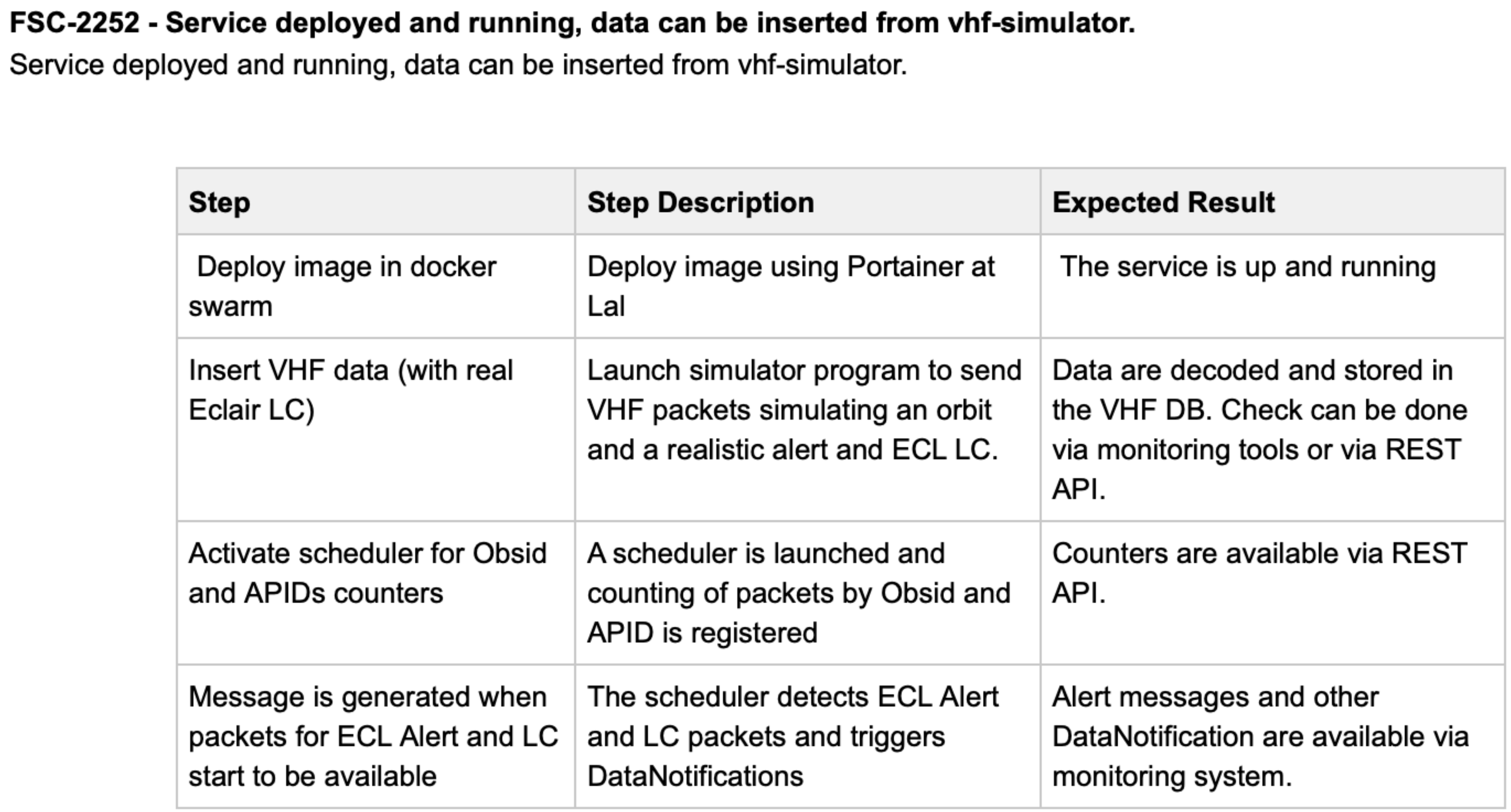
Test results: vhfmgr



FSC-2253 - Postgres VHF DB, packets-decoder, nats are up and running

Postgres VHF DB, packets-decoder, nats are up and running

Step	Step Description	Expected Result	
Check that the services on which VHFMGR depends are up and running	Check portainer deployment of services.	Services are up. Log files are visible in portainer.	✓



FSC-2252 - Service deployed and running, data can be inserted from vhf-simulator.

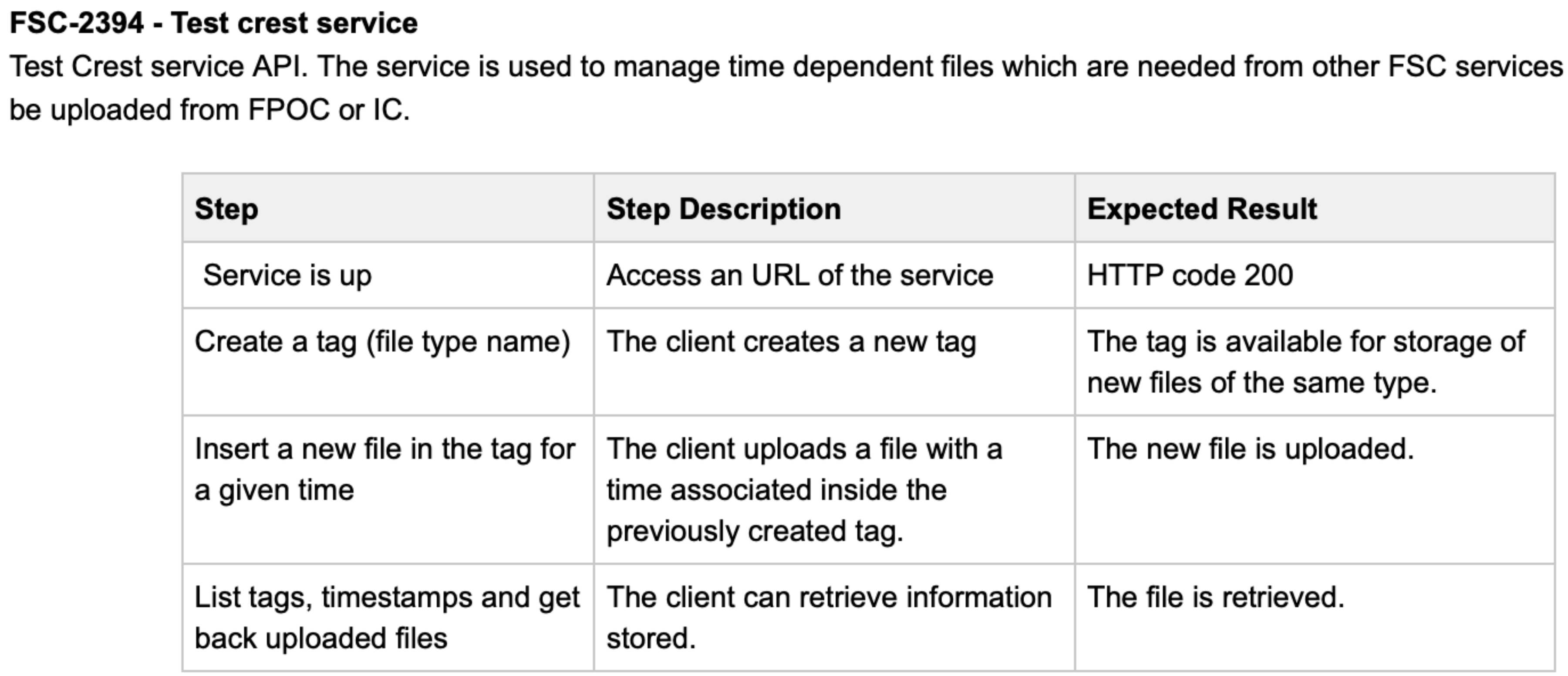
Service deployed and running, data can be inserted from vhf-simulator.

Step	Step Description	Expected Result	
Deploy image in docker swarm	Deploy image using Portainer at Lal	The service is up and running	✓
Insert VHF data (with real Eclair LC)	Launch simulator program to send VHF packets simulating an orbit and a realistic alert and ECL LC.	Data are decoded and stored in the VHF DB. Check can be done via monitoring tools or via REST API.	✓
Activate scheduler for Obsid and APIDs counters	A scheduler is launched and counting of packets by Obsid and APID is registered	Counters are available via REST API.	✗
Message is generated when packets for ECL Alert and LC start to be available	The scheduler detects ECL Alert and LC packets and triggers DataNotifications	Alert messages and other DataNotification are available via monitoring system.	✗

Deployed services : crest

- Time dependent files in any format
  - Pre-requisites : Postgres (same server as SDB)
- Crest
  - crest: server + DB
  - REST API to create a new file type + upload files with a given timestamp + retrieve available files for a file type.
- Tested with :
  - crestdbio : low level client available in messaging project

Test results: crest



FSC-2394 - Test crest service

Test Crest service API. The service is used to manage time dependent files which are needed from other FSC services and should be uploaded from FPOC or IC.

Step	Step Description	Expected Result	
Service is up	Access an URL of the service	HTTP code 200	✓
Create a tag (file type name)	The client creates a new tag	The tag is available for storage of new files of the same type.	✓
Insert a new file in the tag for a given time	The client uploads a file with a time associated inside the previously created tag.	The new file is uploaded.	✓
List tags, timestamps and get back uploaded files	The client can retrieve information stored.	The file is retrieved.	✓

Deployed services : monitoring

- Monitoring data: from docker, logs, …
  - Pre-requisites : Postgres (same server as SDB)
- Monitoring
  - InfluxDB, Grafana, telegraf
  - Dashboard for basic monitoring of swarm ready
  - Dashboard with input from vhfmgr service
- Tested with :
  - Grafana : web interface

Status

- DC1
  - Tests performed with the informations stored in the wiki of data-challenge project
  - Generally successful …
- VHFMGR problem
  - Input data times not conforming to expected time in simulator (corrected)
  - ObsID : some packets do not have an obsid, provide a default number instead of trying to parse a weird integer.
  - Scheduler for notification: still weak logic that did not allow to trigger the oblc preprocessing pipeline automatically