5G EVE 5G European Validation platform for Extensive trials

Live demo of 5G EVE portal and validation framework

5G EVE webinar, 27th Feb. 2020 Giada Landi, Nextworks





Agenda

- Introduction to 5G EVE experimentation workflow
 - 5G EVE Roles
 - Basic concepts and terminology
 - Overview of 5G EVE portal
- Live demo for experimenters





5G EVE Portal: a WEB access to all 5G EVE services

Test design

Test preparation

Test execution & monitoring

Test PE and Analysis

Design your experiment

- Select a target 5G environment
- Browse a wide portfolio of tools and service components to build your experiment
- Bring your own applications
- Create new **blueprints** to easily reproduce your tests with different operational conditions

Vertical's VNF provider



Experiment developer



Customize your experiment

• Configure your **experiment** settings using a wizard or an Intent-based Interface

Schedule your experiment

• Select a time slot to run the experiment and wait for the environment preparation

Experimenter

Site Manager





Execute your experiment

- Build your own virtual environment and execute the tests
- Monitor the experiment progress and visualize monitoring graphs for your metrics, logs and KPIs

Experimenter



Assess service performance

- Check **statistics** about experiment results
- **Compare** KPIs from different experiment settings and tune your service configuration
- Use diagnostics for troubleshooting

Experimenter









5G EVE Portal (WEB)



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5G EVE Roles: who's in charge of what?



- **Vertical**: actor with the knowledge of the service to be tested, including SLAs and service components.
- **Verticals' VNF Provider**: actor who provides the VNF packages for the vertical applications.



Experiment developer: actor responsible for specifying the blueprints associated to an experiment, as well as the associated NFV network services descriptors. This user has the knowledge about the 5G EVE infrastructure and expertise about NFV network service modelling.





- **Experimenter**: actor responsible for the request of an experiment and the assessment of its results; defines the characteristics of an experiment starting from its blueprint, requests the deployment of related virtual environment and experiment execution and analyses results and KPIs.
- 5G EVE
- **Site manager:** system and infrastructure administrator for a 5G EVE site.





Basic concepts and terminology (1)

- Experiment blueprint: high-level representation of an experiment template, built by an experiment developer. Includes:
 - Vertical service blueprint: defines service components, their interconnectivity, service-level parameters, application metrics, configurable parameters.
 - Context blueprints: defines the operation context and/or experimental conditions to run the experiment (e.g. artificial background traffic, artificial delay, etc.). They can be selected from the 5G EVE catalogue.
 - Test case blueprints: defines the scripts to run the experiment and their configuration.
 - Network Service Descriptor associated to vertical service and experiment. Defines
 <u>how</u> to deploy the service and the experiment in the virtual infrastructure. If needed,
 service-specific VNF packages can be also provided for vertical applications.
 - Target site(s), infrastructure metrics to be measured and KPIs to be validated.





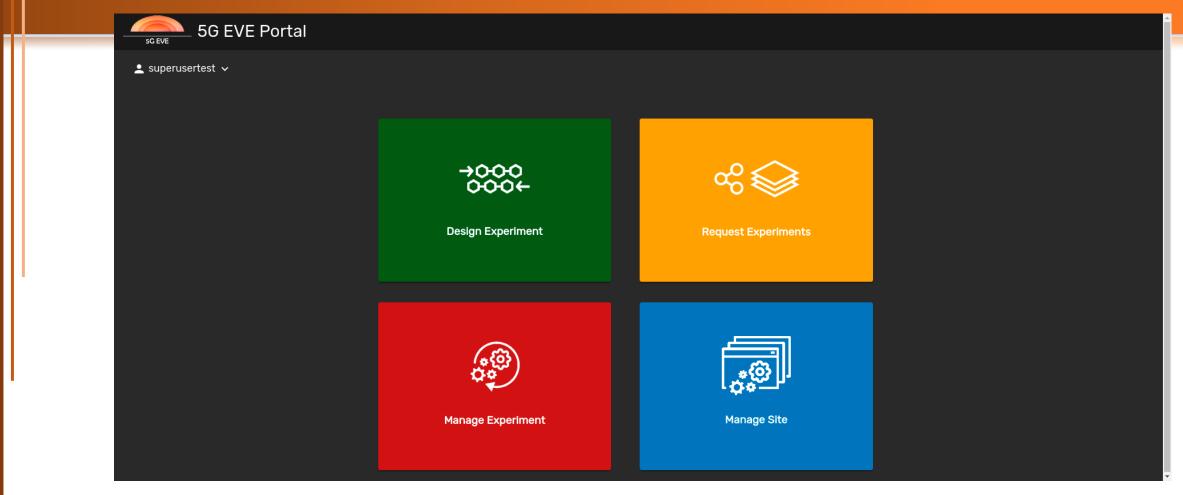
Basic concepts and terminology (2)

- **Experiment descriptor:** defines the characteristics of an experiment instance, providing the specific target values for the service parameters defined in the experiment blueprint.
 - Internally, it is composed of vertical service descriptor, context descriptors and test case descriptors.
- The basic steps to run an experiment are:
 - Select the target site
 - Select the experiment blueprint
 - Provide the values to define your experiment descriptor
 - Select a desired time slot, wait for the site configuration (offline procedure) and instantiate your experiment
 - Your environment is ready to run your experiment executions





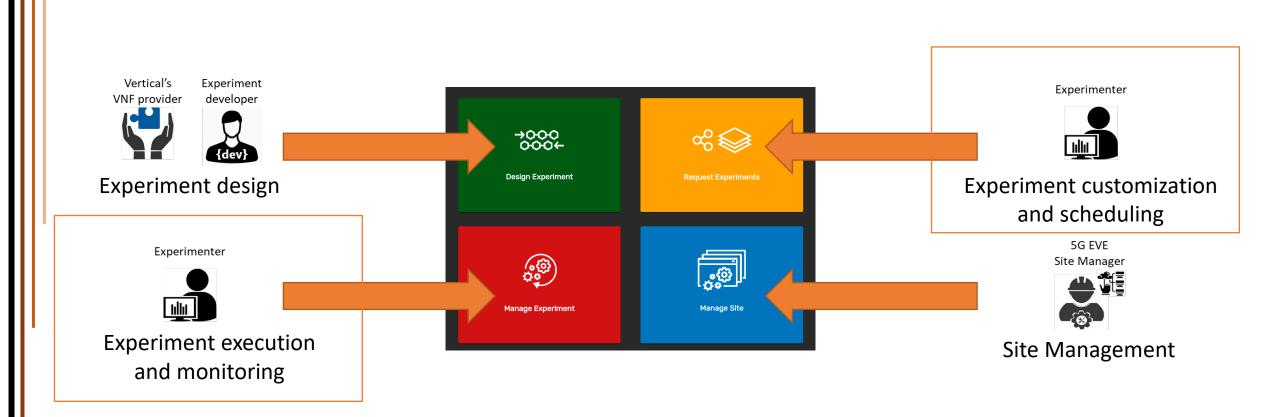
5G EVE Portal home page







How to use the 5G EVE portal







Let's start the demo

5G EVE Portal

Thank you for your attention

Questions?