

SliceNet Use Cases

Three use cases benefitting from network slicing in the SliceNet project are:

- **5G Smart City:** IoT network and applications that aggregate information from the city itself such as intelligent lighting and water metering in order to optimise public resources.
- **5G Smart Grid Self-Healing:** Here self-healing and automation in energy distribution with 5G network slicing solutions will enable system operators to benefit from a significant reduction in the outage duration.
- **5G eHealth:** This use case shows that 5G slicing could be leveraged to provide one-stop shop end to end services for offering enhanced Quality of Service and Quality of Experience for the health scenarios.

Contact Us!

Project Coordinators:

Maria Barros, Anastasius Gavras, Eurescom GmbH

Technical Coordinators:

Jose Alcaraz-Calero, Qi Wang, The University of the West of Scotland

Email: contact@slicenet.eu

Phone: +49 (0) 6221 989 308

Website: www.slicenet.eu

Project Partners



End-to-End Cognitive Network Slicing and Slice Management Framework in Virtualised Multi-Domain, Multi-Tenant 5G Networks



SliceNet is supported by the European Commission Horizon 2020 Programme under grant agreement number H2020-ICT-2016-2/761913

What is SliceNet

SliceNet is a 5G-PPP initiative with partners from France, Germany, Greece, Ireland, Israel, Italy, Portugal, Romania, Spain and UK. SliceNet focuses on management of network slicing by use of cognitive techniques and artificial intelligence. This is because the expected complexity of future 5G networks requires a significant leap on how network management is approached. SliceNet is a second phase 5G infrastructure PPP project, which is part of the European Horizon 2020 programme for research and innovation.

SliceNet Foundations

The SliceNet project foundations are based in six main pillars. The first one is the Network Slicing concept, which will enable service providers to **open and monetise** the network to the vertical industry. The second SliceNet pillar is the ability to **request a Network Slice** and deliver a Network Slice that crosses multiple service providers. The third pillar is the **One-Stop Shop Application Programming Interface**, which gives a single-entry point for the vertical to reach the system functionalities. **Plug & Play** is the fourth pillar which provides an innovative combination of customized control functions, APIs and tools. The fifth pillar is the **cognitive network management**. Finally, the sixth core aspect is the **cross-plane orchestration capability**, providing a set of co-ordination functions across several logical layers and constructs - such as service, slice, resource, and infrastructure - with the aim of orchestrating the provisioning of end-to-end slices.

Network Slicing

Network slicing is considered as one of the most important innovations in future 5G networks due to its role in maximising network resource sharing, optimising flexibility to meet diverse requirements and responding to vertical business needs for configurable Quality of Service and Quality of Experience. SliceNet delivers three use cases in verticals such as Smart Cities, Energy and eHealth as illustrated.

Benefits of SliceNet

Infrastructure providers want to optimise infrastructure resources AND offer richer services to customers. Vertical customers demand more flexibility in controlling network services.

SliceNet framework delivers on the challenges of network infrastructure optimisation while offering richer services and more network service flexibility to customers. This opens new markets and enables a wide range of exacting, diverse and innovative use cases.

