SDO Impacts of 5GROWTH

Tezcan Cogalan

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interdigital

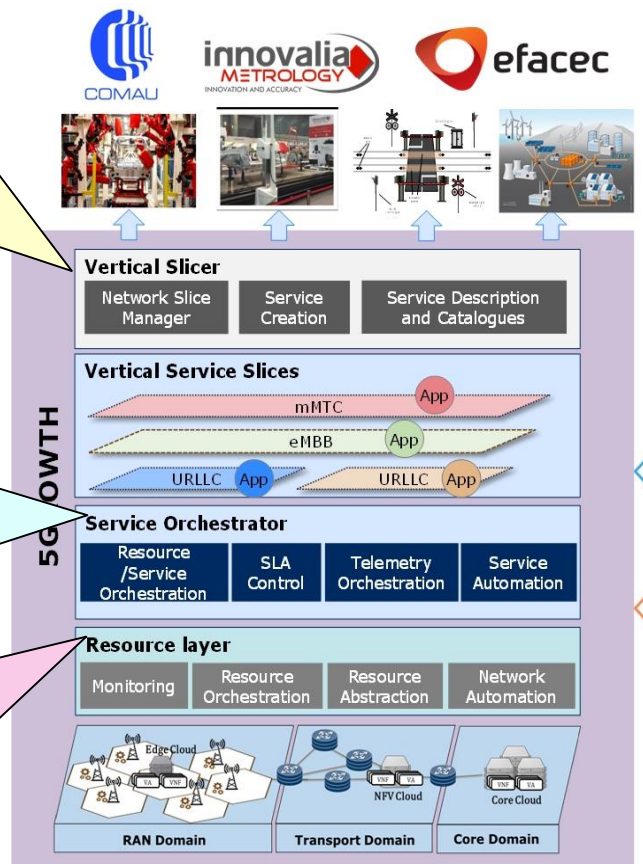
5GROWTH Vision

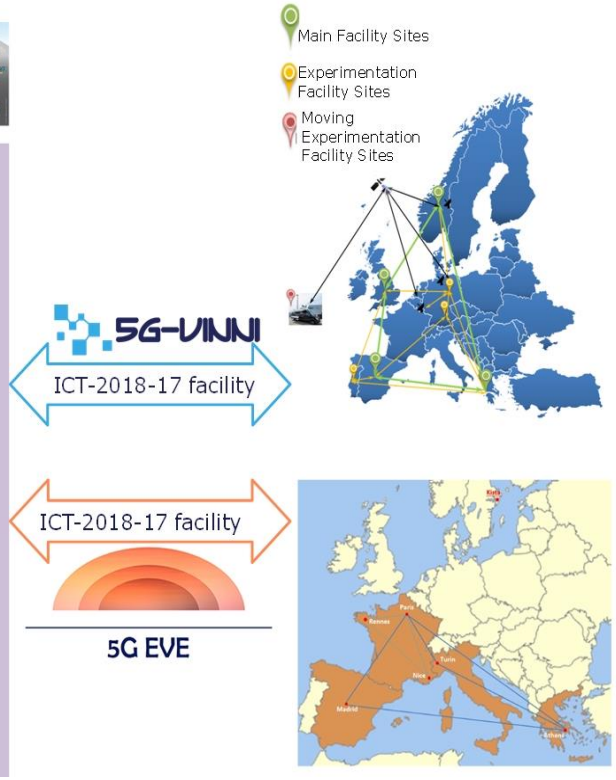
To empower vertical industries, such as Industry 4.0, Transportation, and Energy with an AI-driven Automated and Shareable 5G End-to-End Solution

- **Enhanced vertical support:** processing vertical service requests
- **Enhanced network slices management** including RAN slices, to deploy the E2E vertical services

- **Closed-loop automation and SLA control** for vertical service lifecycle management (create, instantiate, update/modify, terminate…)

- **AI-driven end-to-end network solutions** to jointly optimize Access, Transport, Core and Cloud, Edge and Fog resources, across multiple technologies and domains





- **Integration with two ICT-17 5G End-to-End platforms (**5G EVE and 5G-VINNI)
  - Field trials to perform technical and business validation of 5G for different vertical industries

- **Develop 5Growth platform** to create, provision and manage the vertical services with AI-driven innovations
  - Leverage on the 5GPPP Phase 2 project 5G-TRANSFORMER platform

Contributions from 5GROWTH

- Currently 57 Contributions listed in the tracking sheet
- 24 out of 57 accepted/adopted.
  - 14x 3GPP
  - 5x ETSI
  - 5x IETF

Contributions from 5GROWTH

Target SDO	Item/Activity	Status	Explanation
IETF	https://datatracker.ietf.org/doc/draft-ietf-dhc-slap-quadrant/	Adopted	It is relevant for I4.0 use cases, where a massive number of devices need connectivity and might benefit from the local addressing assignment mechanisms described in the draft -> This document describes extensions to DHCP to allow a requester (client or hypervisor) indicate the preference of the type of local address to obtain. This is applicable to 5Growth scenarios, e.g. in Industry 4.0. It is an adopted WG document at the very end of the publication process as RFC.
3GPP SA5	S5-201596 Rel-16 Study Item "study on non-public networks management"	Accepted	Relevant contribution for 5Growth network slicing mechanisms as means of NPN provisioning in industrial 4.0 scenarios. This is related to D3.1, because the contribution treats the use of slicing (following a NSaaS model) to provisioning public network integrated with NPNs, emphasising the public-private integration. In this sense, it is related with Section 3.4 of D3.1 ("Initial study on ICT-17 integration with 5Growth").
ETSI ZSM	https://portal.etsi.org/webapp/WorkProgram/Report_WorkItem.asp?WKI_ID=59231	Accepted	Report of the capabilities provided by OSM, as reference orchestrator for the integration of project innovations at 5TONIC, to support multi-domain closed-loop operations
3GPP SA5	S5-204463 Rel-17 work item "Management of non-public networks (OAM_NPN)"	Accepted	The interconnection of vertical and ICT-17 facilities is allowing the project to analyze the implications of the integration of non-public networks (NPNs) and public network services to address industrial environment requirements. This is one in a series of contributions related to the concepts and results available.
3GPP SA5	S5-204465 Rel-17 work item "Management of non-public networks (OAM_NPN)"	Accepted	The interconnection of vertical and ICT-17 facilities is allowing the project to analyze the implications of the integration of non-public networks (NPNs) and public network services to address industrial environment requirements. This is one in a series of contributions related to the concepts and results available.
ETSI MEC	MEC(20)000258 (must be a member of ETSI)	Accepted	This contribution outlined the E2E architecture framework for an intelligent edge and far edge integrated with an E2E 5G system.
ETSI MEC	MEC(20)000259 (must be a member of ETSI)	Accepted	This provided a description of the 5Growth I4.0 use case on zero defect manufacturing and the role of edge in supporting this use case.
ETSI MEC	MEC(20)000261 (must be a member of ETSI)	Accepted	This provided a description of the 5Growth I4.0 use cases involving robots/AGVs and the role of edge in supporting this use case.
3GPP SA2	S2-2005788	Accepted	This provides a solution for low latency switching of user plane functions between MNOs for edge deployments.
3GPP SA2	S2-2005942	Accepted	This provides service continuity when it is necessary to switch between a private and public network temporarily.
3GPP SA2	S2-2006257	Accepted	This provides terminal inputs of quality of experience to the data analytics enhancements to improve network performance.
3GPP SA1	S1-204435	Accepted	This provides a description of switching terminal connections from terminal to terminal to local network via a gateway.
3GPP SA1	S1-204436	Accepted	This provides a description of switching hosting environments via a gateway.
IETF	RFC 8948 (https://datatracker.ietf.org/doc/rfc8948/)	Accepted	It is relevant for I4.0 use cases, where a massive number of devices need connectivity and might benefit from the local addressing assignment mechanisms described in the draft. This document describes extensions to DHCP to allow a requester (client or hypervisor) indicate the preference of the type of local address to obtain. This is applicable to 5Growth scenarios, e.g., in Industry 4.0. It is an adopted WG document at the very end of the publication process as RFC.
ETSI ENI	ETSI ENI PoC #9	Accepted	The PoC will embed algorithms, strategies, and procedures for the composition, sharing and auto-scaling of network slice subnets to build and dynamically adjust the entire set of end-to-end network slices following a closed-loop approach (Task 2.4) to meet service-level requirements, while optimizing the usage of the underlying 5G infrastructure, jointly considering access, core, edge, cloud resources. Such strategies will be fed and assisted by the ENI system, based on short-term and long-term profiles related to resource availability, service and network slice performance, service demands, etc.
3GPP SA5	S5-211479	Accepted	CAG is a 3GPP mechanism that allows for UE access control in PNI-NPN scenarios. This is relevant for 5Growth use cases.