About

Dell EMC, a part of Dell Technologies, enables organizations to modernize, automate and transform their data center using industry-leading converged infrastructure, servers, storage and data protection technologies. This provides a trusted foundation for businesses to transform IT, through the creation of a hybrid cloud, and transform their business through the creation of cloud-native applications and big data solutions. Dell EMC services customers across 180 countries – including 98% of the Fortune 500 – with the industry's most comprehensive and innovative portfolio from edge to core to cloud.

Dell has a workforce of 140,000 team members and total revenue across all companies of $74B.
It has global footprint in 180 countries, 25 manufacturing locations and combined sales force of over 40,000.

Over 20,000 patents and patent applications, along $12.7B invested in R&D the past three years within its 17 global R&D centers.

At the **Israeli Center of Excellence** of DELL EMC, we put brilliant Israeli minds to work to create, innovate and explore technologies that will shape how information is delivered, managed and used.

DELL EMC Israel's Seeking to get into 5G End to End Facility (ICT 17) Open Call

Company's Potential Contribution & Objective:

Our contribution consists of blend of the practical evolution with mobile awareness. Initially based on, CUPS – Control and User Plane Separation CUPS architecture– (architecture targeted for 5G) LTE entities are separated into their constituent User Plane Node and Control Plane Node parts in order to provide more flexibility and scalability to show that 5G PPP network KPIs can be met.

This kind of Control and User Plane disaggregation goes along with the Distributed Data Center approach or the Cloud Edge Data Center. Aligned with the MEC (Mobile Edge Computing ETSI ISG) while utilizing end to end virtualization. This approach also is aligned as well with NFV/SDN techniques such as Service Chaining technologies & Network Slicing as key component to support vertical use cases.

Our objective will be focused on the re-architecture LTE/EPC Network and eventually validation of the 5G network KPIs e.g. capacity, ubiquity, speed, latency, reliability, density of users, service creation time, network management capex/opex through network trials. While basing our research while focusing of the User Plane.

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By introduction of such disaggregated SDN and NFV-driven Architecture, we aim to introduce a representative end to end 5G architecture including SDN and NFV-driven end to end service provisioning with slicing capabilities and solving slicing issues between core , access and the edge.(Service Providers with OSS tech).

We see our work having meaningful contributions to standards related to flexible allocation, orchestration and management of cross-layer network functions and services thus providing the substrate for dynamic network service chains.

All of the above is realized as Real-time(as in QoS capable) Services Orchestration based on Policy based management 5G system End 2 End orchestrator.

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