# Latency-aware and self-Adaptive Service cHaining in reliable 5G/SDN/NFV infrastructures (LASH-5G)

M. Gharbaoui, G.Davoli, C. Contoli, G. Cuffaro, B. Martini, F. Paganelli, W. Cerroni, P. Cappanera – CNIT, Italy

LASH-5G EXPERIMENT

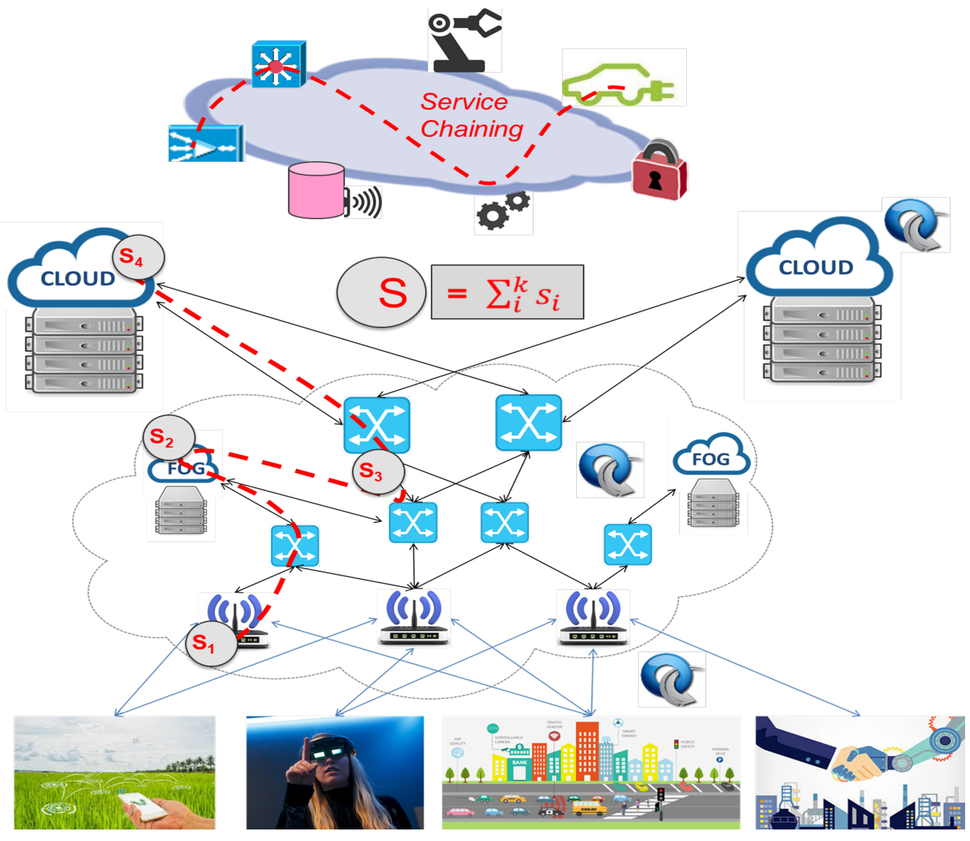
Scenario: SDN/NFV/5G technologies will enable application delivery as **chains of application and network services deployed as virtual functions (VFs)** in micro-clouds distributed at the Edge of the network.

Challenges: coping with (*i*) stringent end-to-end **latency requirements** (*ii*) adaptive service chains and allocation of resources (*iii*) multi-technology resource domains and capabilities.

Goals: evaluate an **enhanced service chaining** mechanism toward end-to-end orchestration of resources over geographically distributed SDN-based Edge clouds

Achievements: demonstration of both **end-do-end service chaining orchestration** – **intra-DC orchestration** – **inter-DC WAN orchestration** levels toward addressing latency, adaptability and availability requirements of 5G verticals.

LASH-5G can generate an industrial impact by fostering an adaptive 5G service ecosystem where the quality of experience to users is pursued through **optimal service instance selections** and **context-aware adaptations**.

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- develops partnerships in the area of telecommunications among industries, operators, public and private research centers
- provides research post-graduate fellowships in telecommunications and supports scientific divulgation initiatives
- manages several research and industrial projects (110 European projects, 74 National research projects and 167 Industrial projects in 2015-17)

In LASH-5G CNIT involves researchers from the CNIT Photonic Networks & Technologies Lab (CNIT-PNTlab) and from research units at the University of Florence (CNIT-UNIFI) and University of Bologna (CNIT-UNIBO)

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