

# Networking Group@ Lancaster University

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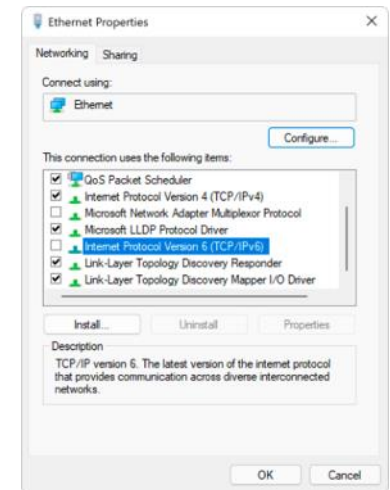
Charalampos Rotsos, Nicholas Race, Paul Smith

[c.rotsos@lancaster.ac.uk](mailto:c.rotsos@lancaster.ac.uk), [networkedsystems@lancaster.ac.uk](mailto:networkedsystems@lancaster.ac.uk)

# School of Computing and Communications



- Established in 1983, top 20 UK CS departments (research).
- ~50 academic staff
  - Networking, Security, Comms, HCI, Data Science, Software Engineering, Digital Health.
- NCSC/EPSRC Academic Centre of Excellence, Security and Protection Science, Data Science Institute, Digital Health Hub




# Project Portfolio

 Security & Resilience

**SAI<sup>2</sup>**  **HyRiM**  
Hybrid Risk Management for Utility Providers

 **SECcrit**  
Secure Cloud computing for Critical Infrastructure IT

 Media Delivery

 **AI4ME**  
AI for Personalised Media Experiences

 **mpat**

**P29**  
NEXT

 **FI content**

 Network Management/  
SDN/NFV

 **NG-CDI**  
NEXT GENERATION • CONVERGED DIGITAL INFRASTRUCTURE


 **MANY**  
Mobile Access North Yorkshire

**ster** 

**TUDOR** 

 **5GRIT**  
Rural Integrated Testbed


**TOUCAN**  
ULTIMATE NETWORK CONVERGENCE

 Testbeds

 **INITIATE**

 **FED4FIRE**  
FEDERATION FOR FIRE PLUS

 **FELIA**

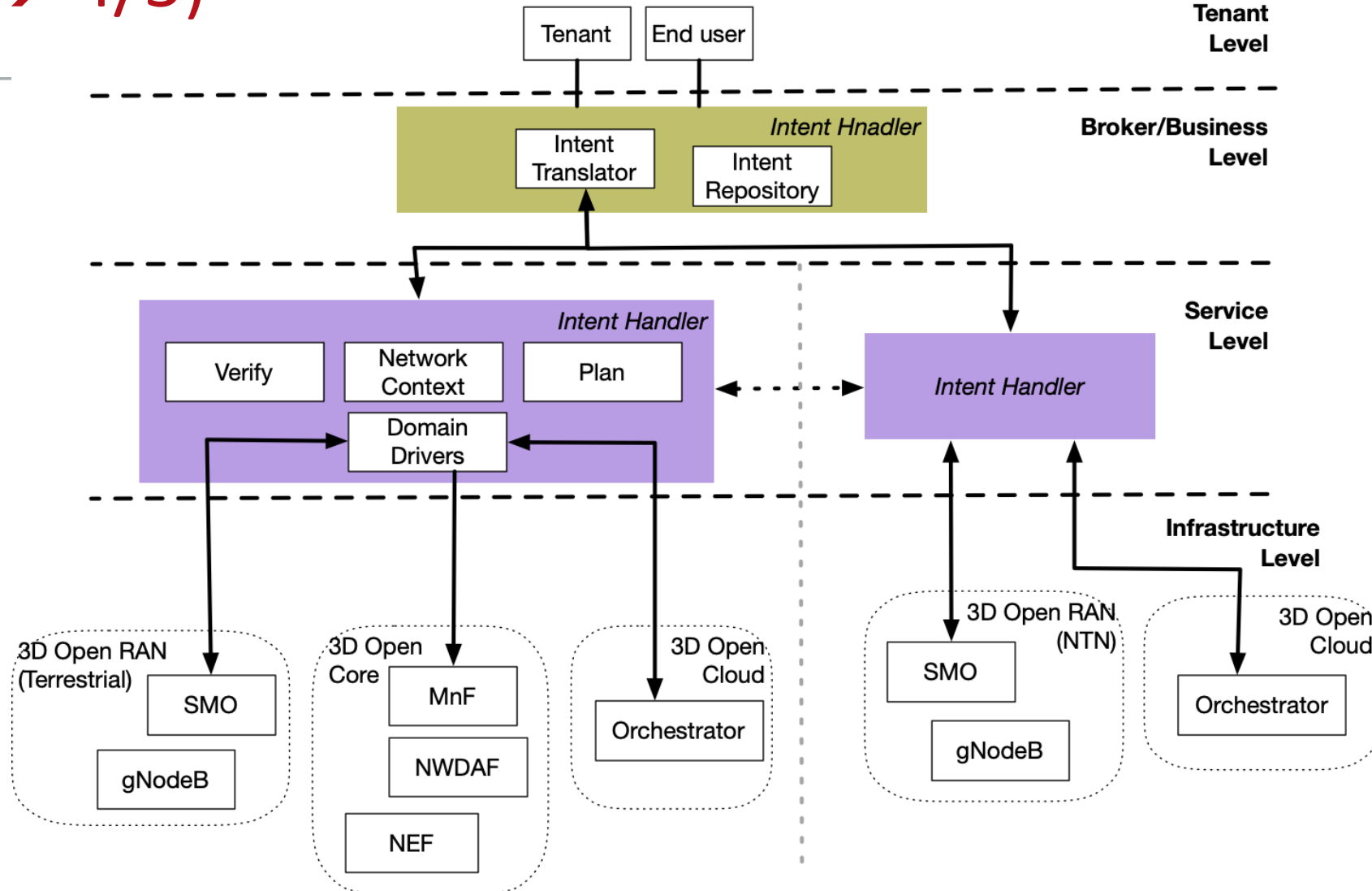
 Standards

**ETSI** 

**tmforum**

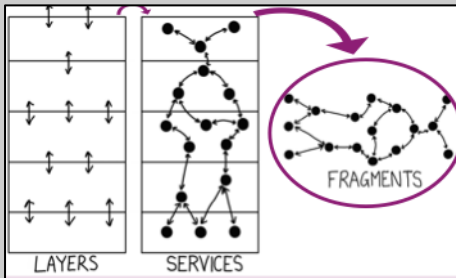
 **I E T F**

# Intent-based Multi-domain Orchestration (TRL 3 → 4/5)



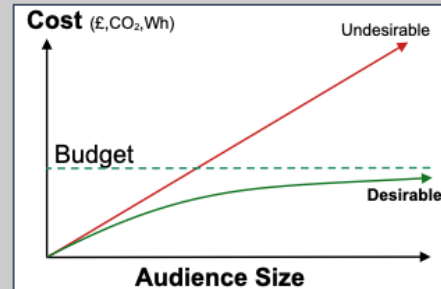
# Network-Assisted Object Media Delivery (TRL 3 → 4/5)

Flexible media software composition approaches for selective offloading of compute to cloud/edge



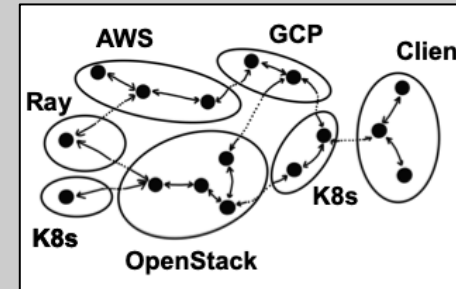
For universal access & enabling rich new features for audiences

Sub-linear scaling of compute with audience sizes



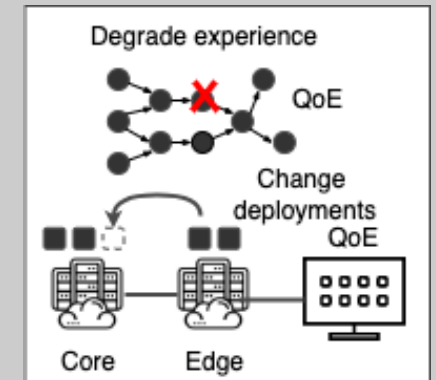
For cost effective and environmentally sustainable delivery

Intelligent provisioning and orchestration of software compositions across heterogeneous compute targets and networks



For deployments that fulfil business objectives (QoE, cost/energy KPIs)

Real-time adaptation and optimisation of experience-delivery systems



To maintain user QoE (graceful degradation) and cost/energy budgets