

Title: “Network Control Using AI, An Overview of ETSI ENI”

Abstract: This presentation is a comprehensive overview of the work developed by the European Telecommunications Standards Institute (ETSI) Industry Specification Group (ISG) on Experiential Networked Intelligence (ENI), including the use cases, requirements, context aware gap analysis, reference architecture and proof of concept (PoC). ENI is the first ETSI group that focuses on the standardization and specification of an architecture that uses AI to improve the operator’s experience. ETSI ENI is a group of over 30 network operators, equipment manufacturers and research institutes. Since its start in February 2017, ENI has been specifying a set of use cases and the derived requirements for a generic, technology-independent, system architecture. A gap analysis of ENI work on context-aware and policy-based standards has been carried out. A high-level architecture that uses closed loop AI mechanisms to learn and make decisions is being specified, and a work item to create one or more Proof of Concepts (PoCs) has been established. By analogy, ETSI ISG NFV (Network Function Virtualization) several years ago defined transformation of hardware-based networking into software-defined networking with virtualized network functions. Now, ETSI ENI is specifying the transformation of the control of the network from manual to a closed-loop, AI-based approach or augmentation.