

# Operations and Control of Network 2030 Services: Network Management 2030

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**Abstract:** *The future promises a surge of novel network services like tactile internet, holographic communication, and tele-driving. These advancements will demand unprecedented levels of precision and control from network management systems. This paper explores the gap between current network management capabilities and the demands of these future services. It highlights the need for advancements in service assurance for ultra-high-precision applications and novel network programming models that go beyond current DevOps and Software-Defined Networking (SDN) approaches. This new paradigm, potentially termed User-Defined Networking, will be crucial for effectively operating and controlling the complex networks of 2030.*

**Keywords:** Network Management, Service Orchestration, Edge Computing, AI in Network Management, Future Network Architectures