



Title: Architectural Proposal for the Handling of Network Operations Data with Specific Focus on Virtualized Networks

Source: NGMN Alliance Project – Network Management & Orchestration Working Group

To: 3GPP, ETSI, TM Forum

CC:

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1. About the NGMN Alliance

The NGMN Alliance is an industry organization of leading worldwide telecom operators, vendors and research institutes (see www.ngmn.org) and was founded by international network operators in 2006. Its objective is to ensure that the functionality and performance of next generation mobile network infrastructure, service platforms and devices will meet the requirements of operators and, ultimately, will satisfy end user demand and expectations. The NGMN Alliance will drive and guide the development of all future mobile broadband technology enhancements with a focus on 5G. The targets of these activities are supported by the strong and well-established partnership of worldwide leading operators, vendors, universities, and successful co-operations with other industry organisations.

2. NGMN 5G Work-Programme, Project on Network Management & Operation

In February 2015, the NGMN Alliance published its 5G white paper providing consolidated 5G operator requirements. In June 2015, NGMN launched a 5G-focused work-programme that has built on and further evolved the white paper guidelines with the intention to support the standardisation and subsequent availability of 5G for 2020 and beyond.

The enhancement of performance, support of modular network functions by the architecture, scalability, automation of network operations functions, self-healing capabilities are all requested in the NGMN 5G white paper. In addition, along with 5G networks the number of devices will increase dramatically with wide scale introduction and deployment of IoT and M2M communication.



It is expected that 5G will be deployed, operated in a heterogeneous environment with multi-vendor solutions. The 5G system is foreseen to be software based with a split between hardware and software. Therefore, Cloud and virtualised Telecommunication Technology, SDN, Industry 4.0 (Internet of Things), etc. will be taken into consideration for the 5G deployment.

3. Intention of the LS and required actions

As network operators move towards 5G, the challenges associated with accessing and storing network data, especially from highly virtualized networks, are expected to increase significantly. The white paper 'Architectural Proposal for the Handling of Network Operations Data with Specific Focus on Virtualized Networks' proposes a technical solution how to capture and process network data such that many different use cases, both for virtualized and legacy scenarios, can be fulfilled.

The purpose of this liaison paper is to draw vendors' attention to a new technical direction which operators are keen to explore and develop further. In particular, the paper proposes an architectural solution which outlines operators' desires to achieve improved access to network data in order to broaden analytics capabilities and overcome some of today's functional limitations.

The NGMN Network Management and Orchestration Working Group requests vendors and probe suppliers review the paper with a view to incorporating the proposed architecture and requirements into their future solutions.

References

None.