



AI in network management activities in WP6

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WP6 leader

Motivation for WP6 AI in network management activities

Network management path from manual -> OSS/BSS -> automation -> ML -> GenAI

ChatGPT appeared in 2022, and became fastest-growing consumer software

New buzzword, there is a sense that “something should be done about this”

If it can write text or code, can it write network configurations, scripts?

Can it really help in other network management fields?

The use of AI in network management is the key topic of many scientific conferences in the last two years, also in IRTF

- Agentic AI / LLM

- AI based Network Management Agent (NMA): Conc Zhao, 7 min
- Applicability of MCP for the Network Management, min, Qin Wu
- Integration of Network Digital twin with Network AI min, Qin Wu
- A Framework to Evaluate LLM Agents for Network C
- A Framework for LLM-Assisted Network Manageme minutes
- Framework and Automation Levels for AI-Assisted N

IRTF NMRG
meeting on AI
8.10.2025.

IEEE/IFIP Network Operations and Management Symposium 2026

Rome, Italy

18 - 22 May 2026

Conference theme: theme “AI for Management and Management for AI”

Study methodology

The use of GenAI in NM analysed across traditional ISO **FCAPS** categories (**F**ault, **C**onfiguration, **A**ccounting, **P**erformance, **S**ecurity) (deliberately **less focus on security**)

Analysed **peer-reviewed scientific papers and influential preprints** (2018 - June 2025) that explicitly employ **generative models** for network-management tasks.

Studies were retained if they:

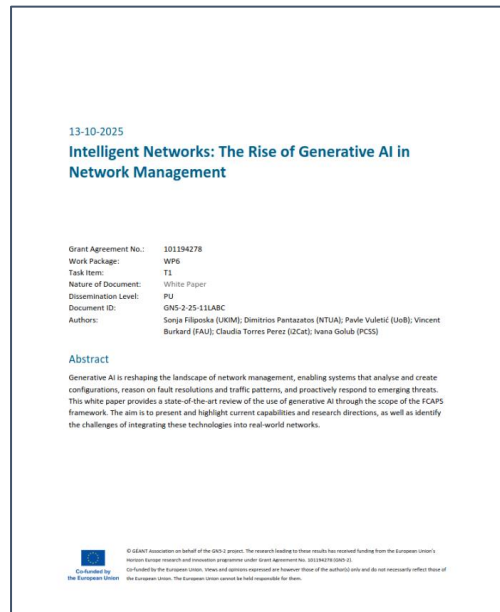
- (i) reported quantitative results on real or emulated networks,
- (ii) targeted at least one FCAPS function, and
- (iii) offered code, data or methodological clarity sufficient for reproduction.

Total: 57 scientific references

The second part: the analysis of both **open source and commercial tools within the fields of AIOps** (Artificial Intelligence for IT Operations) and network performance management. **39 tool ref.**

Research team: prof **Sonja Filiposka (UKiM)**, **Dimitris Pantazatos (NTUA)**, **Vincent Burkard (FAU)**, **Claudia Torres Pérez (i2Cat/UPC)**

<https://zenodo.org/records/17349004>



On the menu today:

- From prompt to provisioning - Sonja Filiposka (UKIM)
- AI module for Workflow Orchestrator - Peter Boers (SURF)
- LogsLLM - Dimitrios-Vasileios Pantazatos (NTUA)
- Network eAcademy - AI courses - Maria Isabel Gandía (CSUC/RedIRIS)
- Q&A

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