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**Group REPORT**

Experiential Networked Intelligence (ENI);

Research on application scenarios of network OAM large models

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# Foreword

This Group Report (GR) has been produced by ETSI Industry Specification Group <long ISGname> (<short ISGname>).

# Modal verbs terminology

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# Executive summary

# Introduction

# 1 Scope

The present document will focus on how to leverage large model technologies to assist in communication network operations and management. It will identify typical application scenarios, analyze key technologies, and investigate the business architecture and standardization requirements for applying large model technologies in communication network operations and management scenarios. Specific technical aspects include:

1. Analysis of roles in large model assisted communication network operations and management.
2. Application scenarios of large model assisted communication network operations and management.
3. Interaction processes in large model assisted communication network operations and management.
4. Standardization requirements for large model assisted communication network operations and management.

# 2 References

## 2.1 Normative references

Normative references are not applicable in the present document.

## 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non‑specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] <Standard Organization acronym> <document number><version number/date of publication>: "<Title>".

[i.2] etc.

# 3 Definition of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the [following] terms [given in ... and the following] apply:

## 3.2 Symbols

For the purposes of the present document, the [following] symbols [given in ... and the following] apply:

## 3.3 Abbreviations

For the purposes of the present document, the [following] abbreviations [given in ... and the following] apply:

#  Introduction

Due to complex pre-training objectives and a large number of model parameters, large-scale pre-trained models (referred to as large models) can effectively capture knowledge from a vast amount of labeled and unlabeled data. By storing knowledge in a large number of parameters and fine-tuning them for specific tasks, the rich implicit knowledge encoded in these parameters can benefit various downstream tasks. Adopting large models as the backbone for downstream tasks, rather than learning models from scratch, has become a new paradigm in the field of AI/ML applications. Meanwhile, the introduction of AI/ML models to assist network OAM has also entered the stage of large-scale applications.

However, due to the high operational costs of training and inference for large models, they cannot be deployed at scale in scenarios like existing AI/ML models. It is necessary to collaborate among model providers, model consumers, and application integrators. Therefore, standard guidance is urgently needed for the applicability of large models in network operation management scenarios, the lifecycle management of large models themselves, and their integration with downstream tasks such as network OAM applications.

This research focuses on how to leverage large model technologies to assist in communication network operations and management. It will identify typical application scenarios, analyze key technologies, and investigate the business architecture and standardization requirements for applying large model technologies in communication network operations and management scenarios.

#  Roles analysis in large model assisted network O&M

Editor’s Note: This clause will provide roles analysis in large model assisted network O&M. The roles may include operators, providers, consumers, infrastructure, etc. There are the potential inputs, outputs, and activity changes for these roles after introducing large models.

#  Application scenarios in large model assisted network O&M

Editor’s Note: This clause will provide several typical application scenarios in large model assisted network O&M.

#  Interaction processes in large model assisted network O&M

Editor’s Note: This clause will provide general interaction processes in large model assisted network O&M. The introduction of large models may lead to changes in both the internal processes of individual roles and the interactions among roles.

#  Standardization requirements for large model assisted network O&M

Editor’s Note: This clause will combine the above research content to further explore the standardization requirements.

Annex A:
Title of annex

Annex B:
Title of annex

# B.1 First clause of the annex

## B.1.1 First subdivided clause of the annex

Annex:
Bibliography

Annex :
Change history

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