ETSI GR ZSM 017 V1.1.1 (2026-01)



GROUP REPORT

Zero-touch network and Service Management (ZSM); Closed-Loop Automation Security aspects

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Foreword

This Group Report (GR) has been produced by ETSI Industry Specification Group (ISG) Zero-touch network and Service Management (ZSM).

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Introduction

The general ZSM security were studied and provided in ETSI GR ZSM 010 [i.1] and ETSI GS ZSM 014 [i.15], the autonomous, dynamic, and cross-domain nature of Closed Loops introduces a new and complex threat landscape within the ZSM framework. The present document covers security threat and risk analytics on the Closed Loop and Closed-Loop Automation within the ZSM framework, including the implementation of a single Closed Loop and the coordination/governance between multiple Closed Loops.

Several key security issues are identified according to security risk analytics, and potential solutions were proposed to mitigate the risks, which include:

- Trust issue of multiple Closed Loops during the coordination and build relationship between Closed Loops across multiple management domains.
- Access control for the coordination between different Closed Loops provided by multiple domain service producers of ZSM framework.