

2024 - Autonomous Operations Theme Charter

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1. Theme Information

* indicates that this field is required

Theme Name*	Autonomous Operations
IPR Mode*	RAND  Explanations of each mode is available at http://www.tmforum.org/IPRPolicy/11525/home.html
Strategic Program	Zero Touch Operations
Theme Website Link	Autonomous Operations - TM Forum
Theme Lead	Olta Vangjeli
TMF Project Manager	Alan Pope

2. Theme Overview / Executive Summary

Mission	• To make Zero-Touch Operations a reality by delivering the frameworks, foundational standards and know-how required for next-generation operating models that leverage AI and create zero-touch operations.
Value (Benefit)	• AI-driven operations are predicted to save the telecoms industry \$27 billion in the coming decade, reduce time to market by leveraging AI to automate manual tasks, reduce customer churn and improve life-time value through effective use of AI and help operators invest wisely to get the right results with AI
Implementation	• Enable CSPs to deploy autonomous networks so that they can achieve zero-touch operations • Create a mature AIOps framework so that CSPs can deploy AI in their existing operations, to make them more intelligent and automated • Deliver the AI framework and governance tools so CSPs can manage and operate AI at scale • Bring the AI Driven Closed-loop anomaly detection and error correction architecture to life so that CSPs can deploy in their networks and reduce network outages and improve customer experience • Drive global adoption of the autonomous operations frameworks and own the position in the market

Theme Projects	AI Closed Loop Automation
	CSPs are overwhelmed with huge amounts of data, taking days or weeks to troubleshoot problems. Even though traditional expert systems have helped identify root causes and anomalies, they have significant operational expenses associated with them, not to mention being tedious and time-consuming to build. This is why we need AI/ML-based systems to help with proactive detection and automation to keep up with today's data growth and complexity. We need to understand what is required to detect an anomaly that is a service impact and what is required to automate a remediation for such an anomaly.
	AI Operations (AIOps)
	The focus of the analysis and assessment in this work is the AIOps Service Management layer, and more specifically the analysis and assessment of the IT and Network service management processes, to identify gaps and challenges and define principles and guidelines for the reengineering of those processes in order to prepare them to manage and govern large deployments of AI systems and AI components in CSPs operations environments. The end goal of our journey is to enable and drive the transformation of traditional service management practices into what we call AIOps Service Management.
	Autonomous Networks
	The Autonomous Networks Project aims to define fully automated zero wait, zero touch, zero trouble innovative network/ICT services for vertical industries' users and consumers, supporting self-configuration, self-healing, self-optimizing and self-evolving telecom network infrastructures for telecom internal users: planning, service/marketing, operations and management. AN incorporate a simplified network architecture, autonomous domains and automated intelligent business/network operations for the closed-loop control of digital business, offering the best-possible user experience, full lifecycle operations automation /autonomy and maximum resource utilization.
	Measuring and Managing Autonomy
	Measuring and Managing autonomy (MAMA) is a cross-autonomous operations project that defines, manages and communicates the clear business value outcomes and business benefits of any and all of the autonomous operations initiatives, as well as providing justifiable measures and metrics to enable the communication services industry and verticals realize the business investment benefits of AI-ClosedLoop automation, Autonomous Networks and all other technology-led project in the autonomous operations theme.

3. Project Chairs

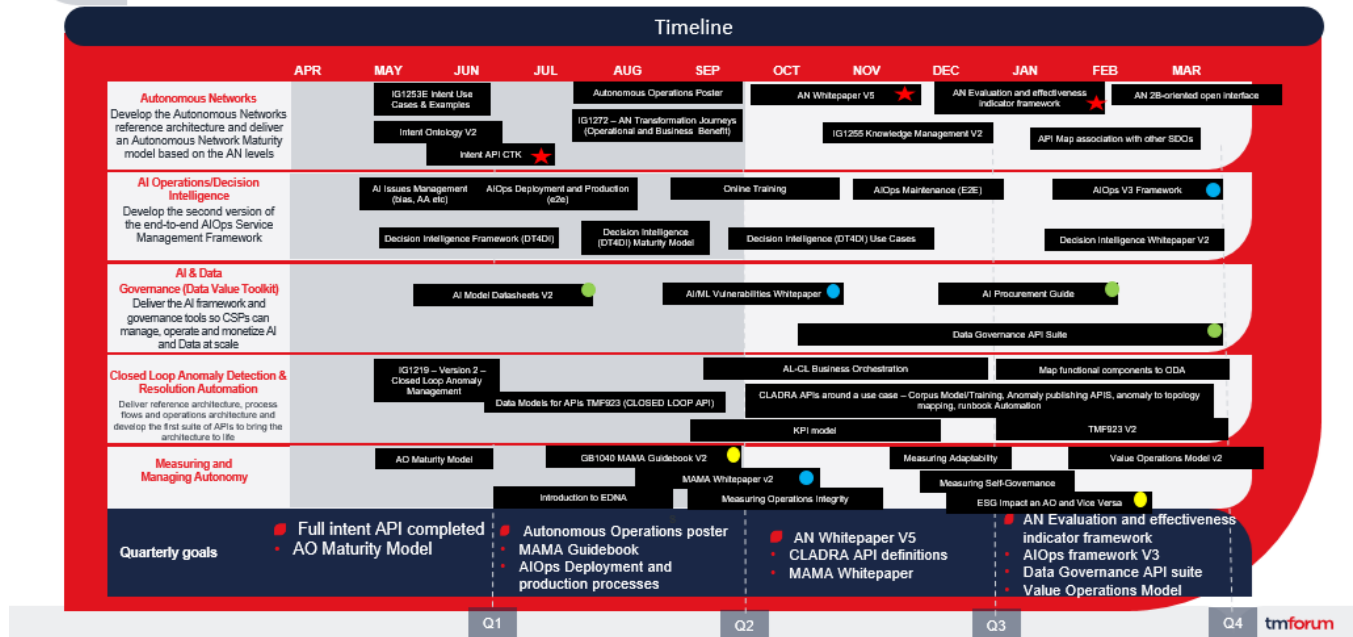
This section identifies the team leads, chair and co-chairs.

Note - Please review the [Team Roles & Responsibilities RACI here](#) which also indicates which roles are mandatory or optional

Projects	Project Team Chairs	Project Manager	Subject Matter Expert	Comments
AI Closed Loop Automation	Emmanuel A. Otchere Mathews Thomas Satish Sadagopan	Stuart Dunn		
AI Operations	Luca Franco Varvello Nitin Mishra	Stuart Dunn		
Autonomous Networks	Kevin McDonnell Jörg Niemöller Yuval Stein	Alan Pope		
Measuring and Managing Autonomy	Emmanuel A. Otchere Maria Bakalouli Rohit Chowdhary	Alan Pope		

4. Roadmap

FY23/24 – ZTO Roadmap



5. Legal Notice

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