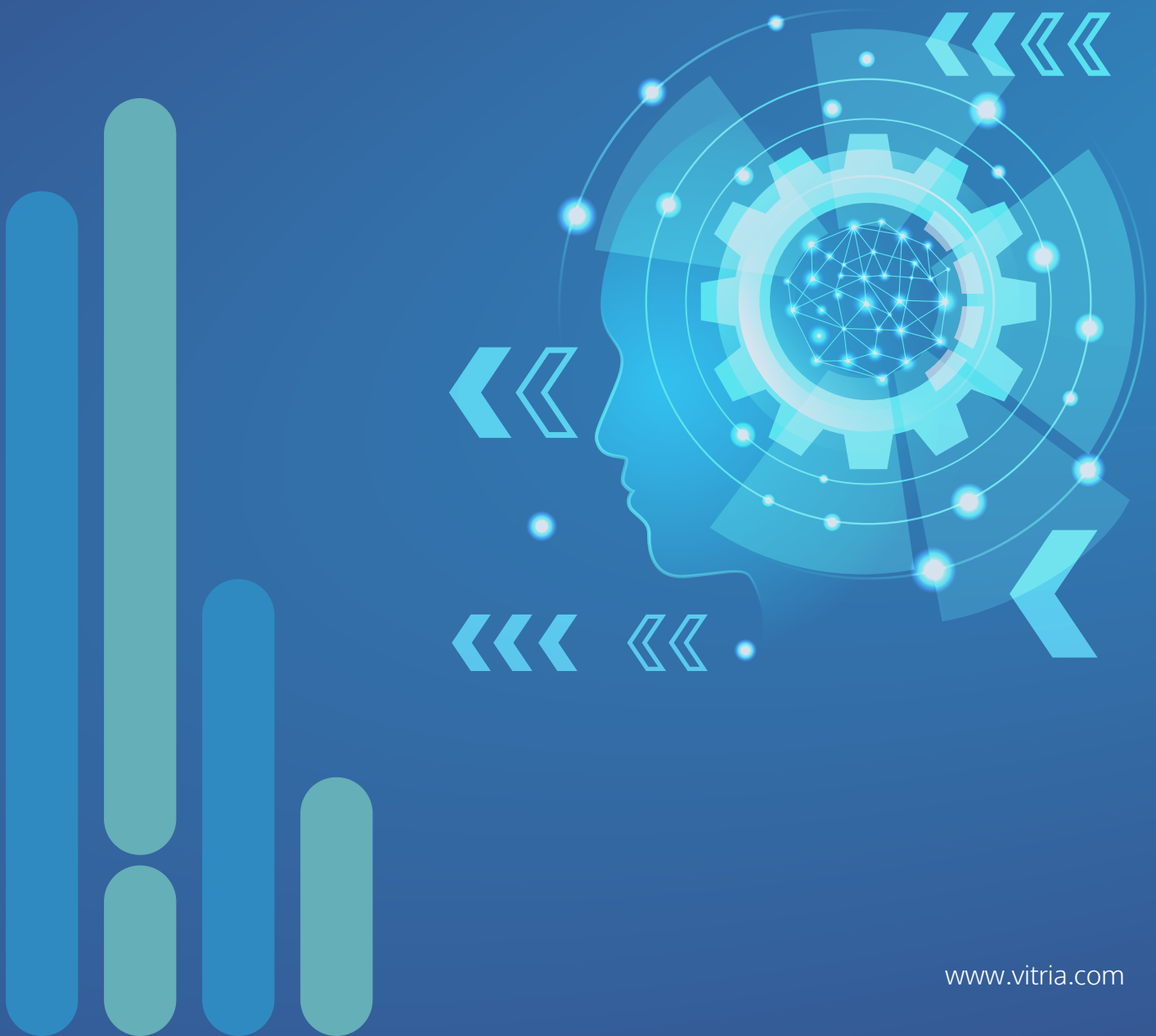


# Journey to the Next- Generation of AI-based Service Operations

Start with the end in mind.



To move towards the long-term goal of a self-healing network, a telco will require:

- A data set that provides a comprehensive understanding of service performance across domains and up/down cloud stacks
- An intelligence architecture that enables sophisticated observability, anomaly detection, and predicted resolution
- A vision for this architecture which sees it interacting with multiple systems across the network to enable a complex set of closed-loop actions.



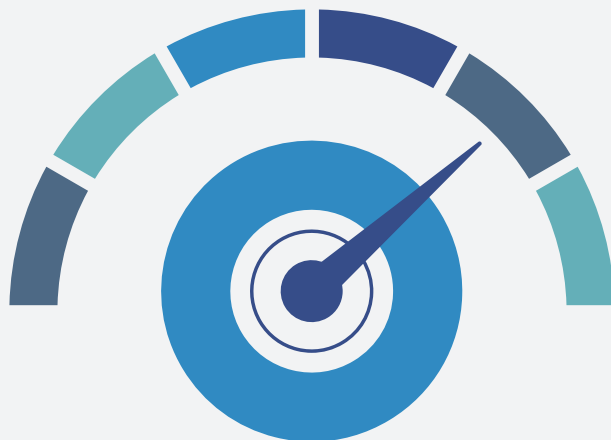
## The Why

5G and 5G Advanced bring significant new complexity to telco networks, necessitating a move from single-domain data gathering to cross-domain approaches that will enable successful service performance management. This data gathering must stretch horizontally across domains from the last mile to the metro to core networks and vertically up and down cloud stacks (both native and public), bringing in application-level insight as needed.

Focusing on a single domain will no longer deliver the data necessary to understand and remediate complex service-related issues. Replacing this focus with cross-domain data gathering will allow telcos to combine a rich data set from the network, CRM, maintenance systems, inventory management, and other locations to create a single view of the customer's experience. Every service experience metric can then be measured across domain, stack and application to drive the right behavior, with the end-user customer as the focal point.

Delivering this end-to-end view will bring measurable benefits to service operations management. Finally, it will allow detailed understanding of complex anomalous behaviors that were previously invisible and enable the remediation needed.

If telcos are to successfully move to a self-healing network and remediate issues before the customer experiences a problem, they will need to reduce the time elapsed between issue detection and its resolution. With VIA AIOps, clients have achieved a success rate of 85% measured against this objective. That's transformational.



VIA AIOps achieves **85% success** in proactive issue resolution.

## The Solution, a new intelligence architecture

The only way to successfully understand service performance and who is impacted is to collect and interact with end-to-end data using an AI/ML or AIOps platform. This platform will act as the “brain” of the self-healing network and, unlike traditional observability systems, AI/ML is able to cope with the complexity of delivering a view of service performance, anomaly detection, and causation across domains and stacks. Increasingly, it will also provide the ability to predict the likely fix and form the foundations for more advanced automations.

This platform is where all the input “signals” from across the network (and beyond) arrive to be processed, correlated, and analyzed by specialized machine learning. It provides “higher intelligence” capabilities such as complex correlation, causal analysis, topology discovery and prediction of likely fix using its understanding of remediation best practices. These best practices can be derived from the huge repository of trouble tickets (a feature of the telco’s complex IT operating environment) and provide a knowledge base of problems and potential resolutions. Mining this repository using GenAI will be one of the future keys to successful proactive issue resolution.



An AI/ML platform serves as the “**brain**” of Telco Service Performance Management

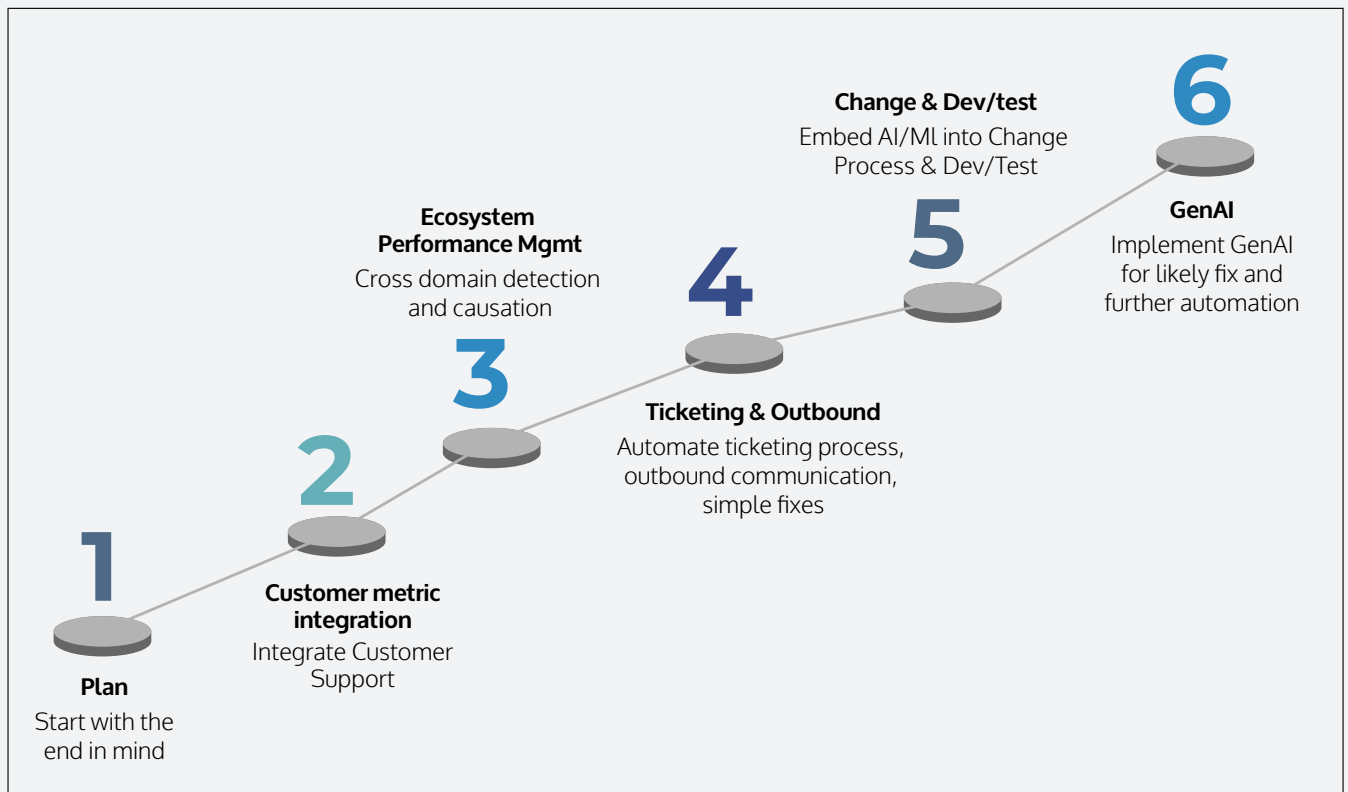
# The Journey to a self-healing network

To begin this automation journey, focus first on reducing customer impact by advanced notification of issues and reducing the time-to-resolve through accelerating issue resolution processes. This means reducing the time to pinpoint where the problem originates – searching across network layers and the entire technology stack - and then getting a predicted fix identified and a prescribed action to the correct actuator.

This requires much more than observability. It requires ML-based correlation, grouping of related incidents, and automating ticketing within IT service management systems. It should also include automation of closed-loop communication internally, closing the ticket, and maintaining ongoing automated communication on issue status and remediation back to the customer care centre.

Once these milestones are in place, you can begin further automation, leveraging AI and GenAI to accelerate the journey.

## Six-step journey to the self-healing network



# Milestones along the Journey

## 1. Start with the end in mind

- Establish cross-domain objectives that are tied to the required customer experience goals
- Select a champion that is respected across domains and has the skills to drive change
- Select one service to begin
- Build a small team with representation from each technology domain within a specific service
- Ensure visibility to the C Suite including EVP, CFO, CTO, CIO to cut through roadblocks and resolve issues
- Select the AI/ML platform
- Run a 30-day proof of concept with real data and integration

## 2. Integrate Customer Support

- Gather and feed cross-domain data into the AI/ML system
- Feed customer impact information back into the customer care area

## 3. Cross Domain Detection and Causation

- Leverage AI/ML system to automate detection and causation within and across domains
- Measure results in 30-day increments

## 4. Ticketing and Communication

- Layer in closed-loop communication to call center, and support staff
- Automate ticketing with focus on the population of context
- Automate opening and closure of tickets, ensuring closed-loop communication for all involved
- Automate outbound messaging to customers on status and resolution
- Begin to automate simple fixes

## 5. Change Process and Development/Testing

- Roll out AI/ML and embed implementation into the change process
- Embed AI/ML into your test and development processes to accelerate innovation

## 6. Gen AI

- Begin rollout in after the first service has been successfully deployed on the AIOps platform
- Initiate use of Gen AI to further automation and improve efficacy

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### About VIA AIOps

**VIA AI powers VIA AIOps** to deliver the process automation capabilities required to transform operations and dramatically lower cost. VIA delivers intelligent automation from a powerful platform that combines AI, analytics, and machine learning in real time. VIA provides Telcos with a modern operating model that enables a superior customer experience and supports a leaner, more efficient, and effective operations staff.