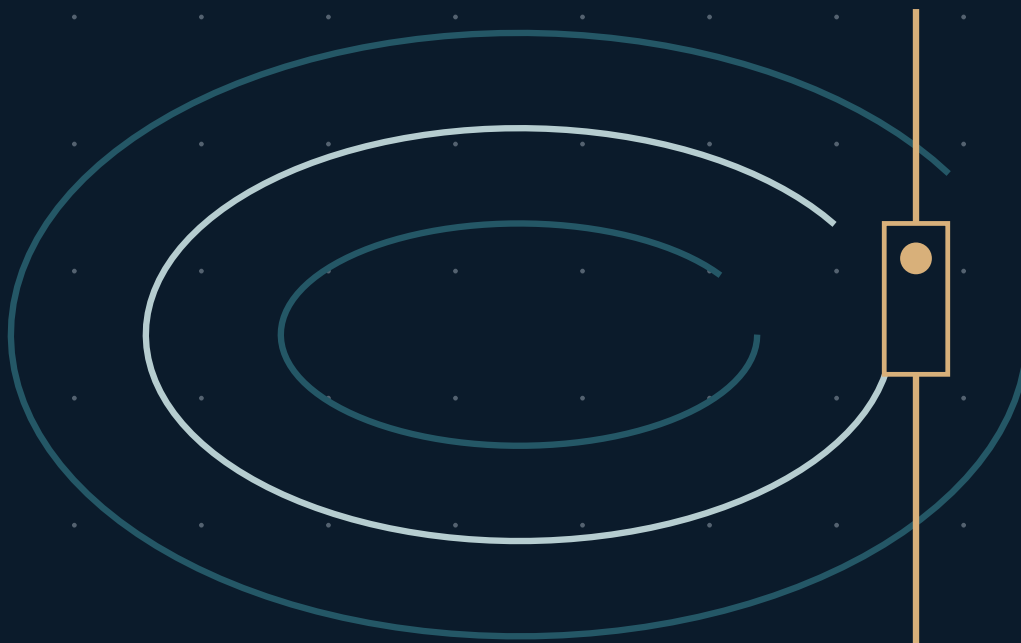


TELECOMMUNICATIONS

# AI in Gulf telecoms: how far does the loop close?

Separate internal AI practice, customer offerings and future infrastructure across ten telecom entities.



ORIGINAL MAYDEN GRAPHIC / OPERATING QUESTIONS

## 01 / THE EXECUTIVE VIEW

# Network assurance, customer service and cyber investigation have different action and rollback boundaries.

Separate internal AI practice, customer offerings and future infrastructure across ten telecom entities.

10

selected entity records

42

recorded claims

29

qualifying claim records

9

candidate research themes

## 01 / THE OPERATING QUESTION

Network assurance, customer service and cyber investigation have different action and rollback boundaries.

## 02 / THE OPERATING QUESTION

Trace the signal, recommendation, authorised action and return signal. Ask what happens when information is missing, contradictory or outside the permitted action range. Rollback and escalation are part of the work.

## 03 / THE OPERATING QUESTION

Before widening an action boundary, record what changed, supporting evidence, exception owner and rollback conditions. Compare interruption and escalation burden with the service result. More automated action is not automatically desirable: reversible low-impact tasks and consequential network changes require different decisions.

AI-assisted, bounded public-source research. Purposefully selected entity scopes; no company participation, endorsement, independent assurance or population inference implied. Confidential assessment is in development.

## 02 / THE ARGUMENT

# Four questions to carry into the business.

Read each step as a test of the operating claim. This is an analytical framework, not a measured maturity ladder.

- 1** **What does the system observe?**  
For a network workflow, identify the service, assets and operating unit. For customer service, distinguish answering a question from changing an account.
- 2** **Which action is actually connected?**  
Trace the signal, recommendation, authorised action and return signal. Ask what happens when information is missing, contradictory or outside the permitted action range.
- 3** **Who handles exceptions?**  
Name the operator responsible for ambiguous requests, failed actions and prohibited changes. Inspect escalation and rollback in addition to routine completion.
- 4** **What would justify wider authority?**  
Before widening an action boundary, record what changed, supporting evidence, exception owner and rollback conditions. Compare interruption and escalation burden with the service result.

## How to use this report

Follow the source accounts and their limits, use the diagrams to frame an evidence request, then choose one recurring workflow for deeper examination. A company name identifies an attributed account; it does not imply participation, endorsement or an enterprise rating.

### 03 / THE ANALYSIS

Network assurance, customer service and cyber investigation have different action and rollback boundaries.

Telecom AI sits in different loops: detecting a network problem, completing a service request or investigating a security alert. Each loop can stop at observation, recommendation or action. An executive should know where the system stops and an accountable operator takes over.

## Name the loop before discussing autonomy

For a network workflow, identify the service, assets and operating unit. For customer service, distinguish answering a question from changing an account. For cyber investigation, separate evidence gathering from containment or remediation. None establishes the authority of the others.

A group disclosure may describe a policy, shared platform or one subsidiary. Record that boundary. Group ambition and a subsidiary implementation cannot be treated as interchangeable observations.

## Follow observation through to action

Trace the signal, recommendation, authorised action and return signal. Ask what happens when information is missing, contradictory or outside the permitted action range. Rollback and escalation are part of the work.

The selected accounts illustrate assurance, service interaction and security investigation. They are attributed source descriptions. This report does not infer an architecture, permission or intervention rate where the source does not provide one.

## Attributed operating examples

These separate cases were selected by the operating question, not company standing. The diagram does not imply one connected system.

## Network assurance

stc Bahrain reports AI assurance deployed particularly for fixed wireless access. Bahrain operation; award account is not an operating audit. The next research question is: Which faults can it correct, and which require an engineer?

Source: [stc Bahrain wins awards for AI-powered CX assurance and convergent billing](#).

## Customer interaction

Batelco says Basma connects to backend systems for billing, device searches and fraud-reporting support. Batelco Bahrain; completion and escalation rates undisclosed. The next research question is: Does the interaction finish the request or transfer unfinished work?

Source: [Beyon Sustainability Report 2025](#).

## Security investigation

Beyon Cyber describes Oryx AI investigating alerts through live queries with human oversight. Managed-security service; not proof of Batelco-wide adoption. The next research question is: What action can follow an investigation, and who authorises it?

Source: [Beyon Annual Report 2025](#).

EXHIBIT 01 / ATTRIBUTED ACCOUNT

# Observation, recommendation and action are different operating claims

Network, customer-service and security cases have different permissions and fallback requirements.

|    |                                                                    |                                                                                                                                                                                                                                                                          |
|----|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | <b>Network assurance</b><br><br>Fixed-wireless network performance | stc Bahrain reports AI assurance deployed particularly for fixed wireless access.<br><br>Boundary: Bahrain operation; award account is not an operating audit.<br><br>Ask: Which faults can it correct, and which require an engineer?                                   |
| 02 | <b>Customer interaction</b><br><br>Billing or service request      | Batelco says Basma connects to backend systems for billing, device searches and fraud-reporting support.<br><br>Boundary: Batelco Bahrain; completion and escalation rates undisclosed.<br><br>Ask: Does the interaction finish the request or transfer unfinished work? |
| 03 | <b>Security investigation</b><br><br>Managed-security alert        | Beyon Cyber describes Oryx AI investigating alerts through live queries with human oversight.<br><br>Boundary: Managed-security service; not proof of Batelco-wide adoption.<br><br>Ask: What action can follow an investigation, and who authorises it?                 |

Company and supplier accounts are attributed descriptions, not independent assurance. Each row describes a different operating task; no company comparison or rating is intended.

Unit: Separate source-described operating cases. Research cutoff: 2026-10-10.

Sources: TEL-034 / TEL-031 / TEL-033

## 03 / THE ANALYSIS

## Test routine and exceptional work separately

Routine completion can conceal a fragile exception process. Test representative requests, ambiguous cases and prohibited actions, recording both completion and policy compliance. Repeat the test where variability matters. Successful demonstrations do not establish reliable operation under changing load.

The tau-bench research distinguishes repeated success from one-run success in simulated retail and airline tasks and discusses limits of final-state checks. These concepts inform test design; synthetic tasks do not measure telecom production reliability. **tau-bench: A Benchmark for Tool-Agent-User Interaction in Real-World Domains.**

## Extend authority with an operating case

Before widening an action boundary, record what changed, supporting evidence, exception owner and rollback conditions. Compare interruption and escalation burden with the service result. More automated action is not automatically desirable: reversible low-impact tasks and consequential network changes require different decisions.

A future assessment should ask operational roles about the same loop. Disagreement between

engineering, service and governance accounts is an issue to investigate, not a number to average away.

## Leadership agenda

Engineering: trace a deployed loop and actual action permissions.

Service and security: review completed cases alongside escalations and reversals.

Governance: record the evidence required before increasing authority.

## Scope and reading boundaries

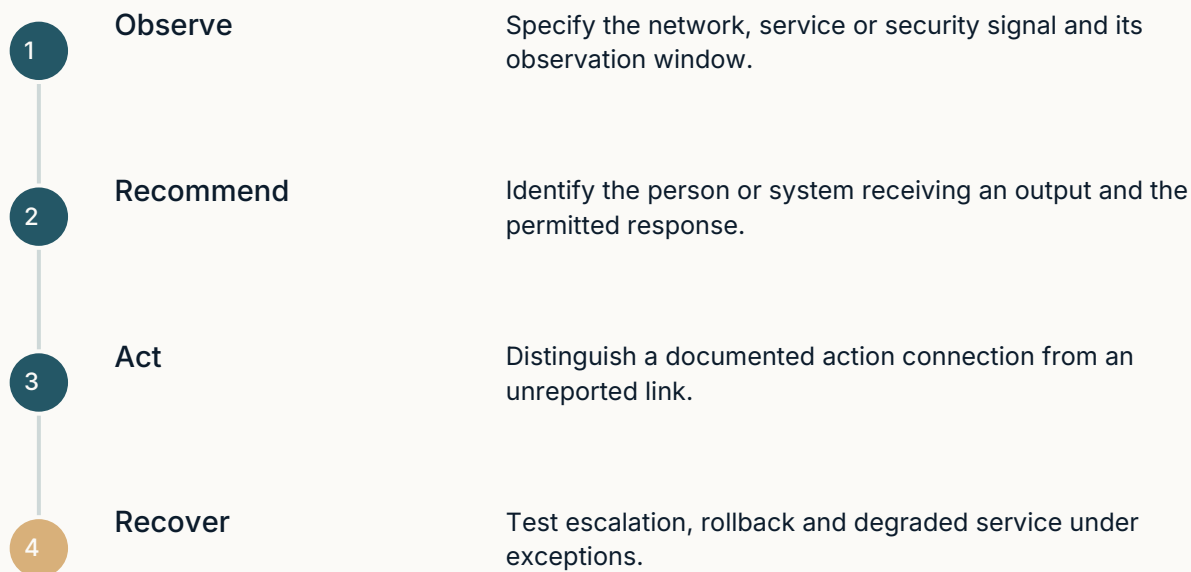
The source corpus contains 80 purposefully selected entity records across eight sectors, ten per sector. Headquarters markets are Saudi Arabia, the UAE, Qatar, Kuwait and Bahrain; Oman is outside this edition. Groups, subsidiaries and specific operations have different scopes. This is not a representative sample. Source cutoff: 10 October 2026; publication edition: 11 October 2026.

Source extraction and challenge were AI-assisted, not independent human assurance or verification of current operations. Source visibility is not adoption prevalence. Unreported details are unresolved questions, not absent capabilities. Named examples imply neither participation, endorsement, confidential access nor a Mayden client relationship.

## EXHIBIT 02 / CONCEPTUAL TOOL

# Test the boundary before extending the loop

Mayden analytical framework / questions to test, not measured maturity stages



Mayden conceptual framework. These questions specify evidence to request; they do not assert that a named organisation has or lacks the practice. This is not a validated instrument or an observed causal sequence.

Unit: Conceptual decision or evidence request. Research cutoff: 2026-10-10.

## EXHIBIT 03 / CONCEPTUAL TOOL

# An operator needs evidence of both normal and exceptional work

Mayden analytical framework / questions to test, not measured maturity stages

01

## Normal work

Request recurring volume, accepted recommendations, quality and service consequences.

02

## Exceptional work

Request contested outputs, incidents, interventions, rollback and recovery time.

Mayden conceptual framework. These questions specify evidence to request; they do not assert that a named organisation has or lacks the practice. This is not a validated instrument or an observed causal sequence.

Unit: Conceptual decision or evidence request. Research cutoff: 2026-10-10.

## 04 / SOURCE ACCOUNT

# Network assurance

Operating object: Fixed-wireless network performance

## TEL-034 / ATTRIBUTED ACCOUNT

stc Bahrain reports deployed AI assurance for network performance, particularly fixed wireless access.

Scope. stc Bahrain Company B.S.C. (closed), Bahrain operations

Source date. 2025-10-26. Publication date does not confirm continuing operation.

Locator. AI and Machine Learning Customer Experience award paragraph

[stc Bahrain wins awards for AI-powered CX assurance and convergent billing](#)

## Boundary and next question

Bahrain operation; award account is not an operating audit.

Which faults can it correct, and which require an engineer?

## 04 / SOURCE ACCOUNT

# Customer interaction

Operating object: Billing or service request

## TEL-031 / ATTRIBUTED ACCOUNT

Batelco expanded Basma to handle billing, device searches and fraud-reporting support through backend integration.

Scope. Beyon B.S.C., consolidated group including Batelco by Beyon

Source date. Undated. Publication date does not confirm continuing operation.

Locator. Printed pp.58-59 / PDF page index30, Batelco by Beyon

[Beyon Sustainability Report 2025](#)

## Boundary and next question

Batelco Bahrain; completion and escalation rates undisclosed.

Does the interaction finish the request or transfer unfinished work?

## 04 / SOURCE ACCOUNT

# Security investigation

Operating object: Managed-security alert

## TEL-033 / ATTRIBUTED ACCOUNT

Beyon Cyber launched Oryx AI for alert investigation with live queries and human-in-loop oversight.

Scope. Beyon B.S.C., consolidated group including Batelco by Beyon

Source date. Undated. Publication date does not confirm continuing operation.

Locator. Printed pp.30-31 / PDF page index16, Beyon Cyber

Beyon Annual Report 2025

## Boundary and next question

Managed-security service; not proof of Batelco-wide adoption.

What action can follow an investigation, and who authorises it?

## 05 / THE LEADERSHIP AGENDA

# Ask for evidence that changes the decision.

## 01 / Engineering

Evidence to request: trace a deployed loop and actual action permissions.

## 02 / Service and security

Evidence to request: review completed cases alongside escalations and reversals.

## 03 / Governance

Evidence to request: record the evidence required before increasing authority.

## Method and boundaries

This is an AI-assisted, bounded public-source review of a purposefully selected corpus. It publishes sector research and attributed operating examples, without current individual-company scores, ranks or coded profiles. Source accounts establish what a publisher reports; they do not independently assure operations. The working definition and nine candidate themes require empirical validation.

Recorded source dates run from 2025-02-10 to 2026-06-22. 22 of 29 qualifying claim records have no recorded publication date. This is not a common observation window or confirmation of continuing use.

The confidential opt-in diagnostic remains in development. Independent human review, instrument testing, participant data collection and comparable benchmark norms are future gates. Prior named public-evidence comparisons remain explicitly historical; changes in publication format do not establish changes inside companies.

[Inspect the method](#) / [Explore sector research](#)

## 06 / SOURCES & PROVENANCE

# Follow the argument back to its source.

The following sources support the cited analysis or attributed examples. Inclusion is not independent verification, company endorsement or assurance. Research cutoff: 10 October 2026. Publication revision: 11 October 2026.

S01 / stc Bahrain wins awards for AI-powered CX assurance and convergent billing

stc Bahrain / 2025-10-26 / company\_press\_release

Locator: AI and Machine Learning Customer Experience award paragraph

[Open source](#)

S02 / Beyon Sustainability Report 2025

Beyon / Undated / company\_sustainability\_report

Locator: Printed pp.58-59 / PDF page index30, Batelco by Beyon

[Open source](#)

S03 / Beyon Annual Report 2025

Beyon / Undated / company\_annual\_report

Locator: Printed pp.30-31 / PDF page index16, Beyon Cyber

[Open source](#)

S04 / tau-bench: A Benchmark for Tool-Agent-User Interaction in Real-World Domains

Author preprint / Sierra research / 2024-06-17 / original-benchmark-preprint

Locator: Synthetic interactive agent benchmark with repeated trials

[Open source](#)

## About Mayden

Mayden connects senior judgement, research and engineering to help organisations turn strategic choices into working capabilities. The AI Native Index is a research programme on recurring work, decisions and accountability.

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