

FACTSHEET

meshIQ AI Agent

Agentic AI Troubleshooting for Enterprise Middleware

From symptom to root cause to
resolution, grounded in the live state
of your middleware estate



CONTENTS

- 1 The Middleware Expertise Gap
- 2 Why Traditional Middleware Troubleshooting No Longer Scales
- 3 meshIQ AI Agent Architecture
- 4 How the meshIQ AI Agent Works
- 5 Business Impact Across the Enterprise

The Middleware Expertise Gap

Enterprise middleware has become one of the most critical layers of modern IT. Every customer transaction, business event, and application integration depends on platforms such as **IBM MQ™, Apache Kafka®, RabbitMQ®, Apache ActiveMQ®, Solace PubSub+, TIBCO Enterprise Message Service™, and IBM App Connect Enterprise (ACE)** operating reliably across increasingly complex environments.

While organizations have modernized their middleware environments, the way they troubleshoot them has changed very little.

When issues occur, application teams can often identify the symptoms, but determining the root cause still depends on a small number of experienced middleware administrators. Their expertise is built over years of operational experience, making it difficult to document, distribute, or scale. As environments grow, this dependency becomes an operational constraint.

The result is a familiar cycle. Tickets accumulate. Application teams wait for answers. Middleware experts spend valuable time investigating repetitive operational issues instead of focusing on architecture, modernization, and platform improvement. **The challenge is no longer simply seeing what is happening. It is making expert troubleshooting knowledge available wherever and whenever it is needed.**

The meshIQ AI Agent brings agentic intelligence to the meshIQ Platform, using its capabilities and live operational context to reason, automate, and orchestrate across enterprise middleware environments. From investigating operational issues and identifying probable root causes to executing authorized actions, the AI Agent extends middleware expertise across teams and enables a more intelligent approach to managing complex middleware operations.



The Evolution of Enterprise Middleware Operations

01 PLATFORM OPERATIONS

Each middleware platform is managed independently through separate tools, scripts, and specialist expertise.

02 UNIFIED OPERATIONS

Centralized management and observability provide a single operational view across the middleware estate.

03 OPERATIONAL INTELLIGENCE

Real-time telemetry, alerts, and policies reveal what is happening across complex middleware environments.

04 AGENTIC OPERATIONS

Intelligence, automation, and orchestration extend across the middleware estate through the meshIQ AI Agent.



Why Traditional Middleware Troubleshooting No Longer Scales

In most enterprises, deep middleware expertise sits within a small IT shared services or platform team. When an application team encounters a growing queue, consumer lag, a stalled channel, or a failed message flow, resolution often begins the same way: open a ticket and wait for a specialist.

This model creates a dependency that becomes harder to sustain as the middleware estate grows. Application teams cannot independently investigate issues, while middleware administrators spend a significant portion of their time responding to repetitive first- and second-line requests. Every new application, integration, and middleware platform adds operational demand without necessarily adding the expertise required to support it.

The result is not simply slower troubleshooting. **It is a support model in which access to expertise becomes the bottleneck.** Critical knowledge remains concentrated within a few specialists, application teams wait for answers, and experienced administrators have less time to focus on architecture, capacity, resilience, and modernization.

The meshIQ AI Agent changes this model by making expert troubleshooting capabilities available directly to the teams that need them. Grounded in live middleware data and operating within existing access controls, it enables application teams to investigate and resolve issues through a governed conversational experience, while allowing middleware specialists to focus their expertise where it creates the greatest value.

From Ticket- Driven Support to Governed Self - Service

Capability	Traditional Troubleshooting	meshIQ AI Agent
Application Team Self - Service	Limited	✓
Analysis Grounded in Live Platform State	Depends on Specialist Investigation	✓
Cross- Platform Middleware Expertise	Depends on Available Specialists	✓
Guided Root Cause Analysis	Manual	✓
Availability	Limited by Team Capacity	✓
Diagnostic Consistency	Varies by Experience	Always Available
Enterprise Access Controls	✓	Consistent and Repeatable
Expert Capacity	Consumed by Routine Troubleshooting	Focused on Strategic Work

WHY THE MESHIQ AI AGENT IS DIFFERENT

01

Grounded in Live Middleware State

Investigates live operational data through the meshIQ Platform rather than relying on generic model knowledge.

02

Built for Middleware Troubleshooting

Applies middleware - specific diagnostic reasoning and asks the contextual questions an experienced administrator would ask

03

Designed for Governed Self - Service

Enables application teams to troubleshoot within the security and access controls already enforced by meshIQ.

04

LLM - Agnostic by Design

Supports the organization's model strategy, including commercial, open source, and on - premises models.

The goal is not to replace middleware expertise. It is to make that expertise available wherever and whenever it is needed.

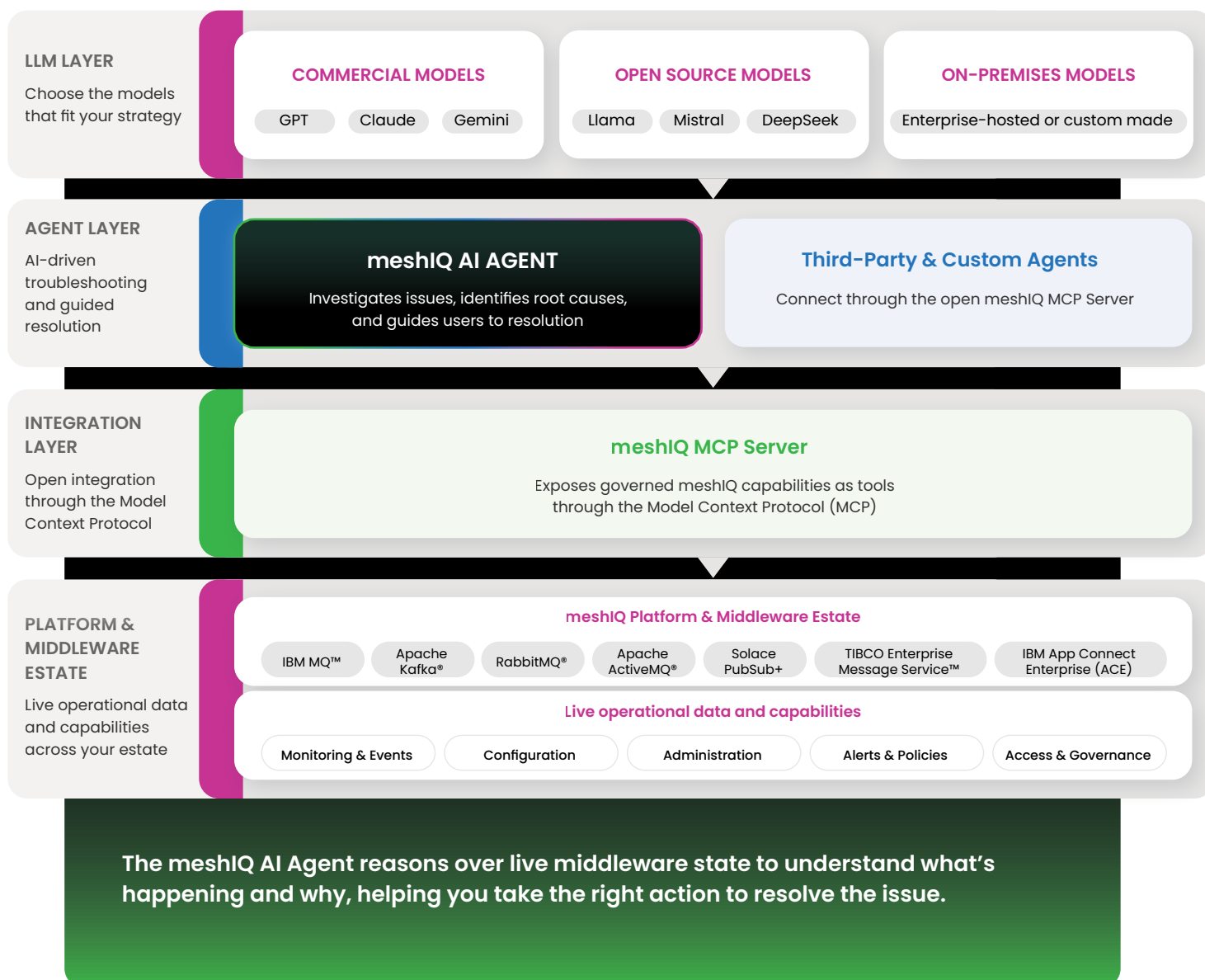
meshIQ AI Agent Architecture

The meshIQ AI Agent is built on an open, layered architecture that connects agentic AI directly to the capabilities and live operational context of the meshIQ Platform.

The meshIQ Platform provides a unified foundation for managing, observing, tracking, and acting across enterprise middleware environments. It gives the AI Agent the operational context and access needed to work intelligently across the middleware estate.

The meshIQ MCP Server exposes meshIQ Platform capabilities as tools through the Model Context Protocol, creating a standard integration layer for the meshIQ AI Agent as well as third-party and custom agents.

Built on this foundation, the meshIQ AI Agent applies middleware-specific intelligence to investigate issues, correlate evidence, identify probable root causes, and guide users toward resolution. Its LLM-agnostic architecture gives organizations the flexibility to use commercial, open source, or on-premises models.



CORE AI AGENT CAPABILITIES

01

LIVE MIDDLEWARE CONTEXT

Queries operational telemetry, including queue depths, channels, connections, consumer lag, configuration, and events



04

GUIDED RESOLUTION AND ACTION

Recommends the appropriate resolution and, where authorized, executes actions through governed meshIQ capabilities to help resolve the issue and verify recovery

02

CONTEXTUAL DIALOGUE

Asks targeted questions to gather the context needed to investigate and diagnose the issue



05

MULTILINGUAL TROUBLESHOOTING

Enables teams to investigate and troubleshoot middleware issues in multiple languages through the same conversational experience

03

CROSS - ESTATE CORRELATION

Connects symptoms and operational evidence across middleware platforms, components, and dependencies to isolate root cause



06

GOVERNED ACCESS

Operates within the security and access controls already enforced by the meshIQ Platform, ensuring users can only access and act on resources they are authorized to manage



How the meshIQ AI Agent Works

Troubleshooting middleware issues often requires a specialist to move between monitoring tools, configuration data, logs, and platform consoles before enough context exists to determine what went wrong. The meshIQ AI Agent brings that investigation into a single conversational experience.

Users can describe an issue in natural language and troubleshoot in their preferred language. The AI Agent gathers live operational context through the meshIQ Platform, asks targeted questions when additional information is needed, analyzes the available evidence, and identifies the probable root cause. It then recommends the appropriate resolution and, where authorized, can take action to help resolve the issue and verify recovery.

From Question to Verified Resolution

01 UNDERSTAND

The user describes the issue in natural language, in their preferred language.



Why are orders backing up?

02 INVESTIGATE

The AI Agent queries live middleware telemetry, configuration, events, and relevant operational context.



Order Queue depth is increasing and consumer activity has stopped.

03 DIAGNOSE

The AI Agent correlates the available evidence and identifies the probable root cause.



The consumer connection dropped 18 minutes ago and has not reconnected.

04 RESOLVE

The AI Agent recommends the appropriate action and, where authorized, can execute the resolution through governed meshIQ capabilities.



I can restart the consumer connection and verify that message processing resumes.

05 VERIFY

The AI Agent confirms the outcome using live platform state.



The connection is active and the queue depth is returning to normal.

From the first question to verified resolution, the meshIQ AI Agent brings live operational context, middleware expertise, and governed action into one conversational troubleshooting experience.

Business Impact Across the Enterprise

The value of the meshIQ AI Agent extends beyond faster troubleshooting. By making middleware expertise available directly to the teams that need it, organizations can change how operational knowledge is accessed, how support resources are used, and how quickly issues move from detection to resolution.

Application Teams

Gain direct access to middleware troubleshooting through natural language, reducing dependency on tickets and specialist availability.

IMPACT

Faster answers and greater self-service



Middleware Administrators

Spend less time investigating repetitive operational issues and more time on architecture, resilience, capacity planning, and modernization.

IMPACT

More expert capacity for strategic work



IT Shared Services

Extend specialist knowledge across more applications, platforms, and teams without scaling support resources at the same rate.

IMPACT

A more scalable support model



Incident Response

Accelerate investigation by bringing live middleware context and diagnostic reasoning into the troubleshooting process.

IMPACT

Faster root cause identification and resolution



Knowledge Continuity

Turn specialist troubleshooting knowledge into a repeatable capability that is available beyond the individuals who traditionally hold that expertise.

IMPACT

Less dependency on institutional knowledge held by a small number of experts



From Expert Dependency to Scalable Expertise

TRADITIONAL MODEL



WITH meshIQ AI AGENT



The meshIQ AI Agent **transforms middleware expertise from a scarce resource into an enterprise capability**, helping teams troubleshoot faster, automate operational tasks, and allowing specialists to focus on the work that moves the business forward.



meshIQ.com

