IBM Engineering AI Hub

Trusted AI-assisted engineering at scale

Product Overview



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IBM Americas Sales Leader

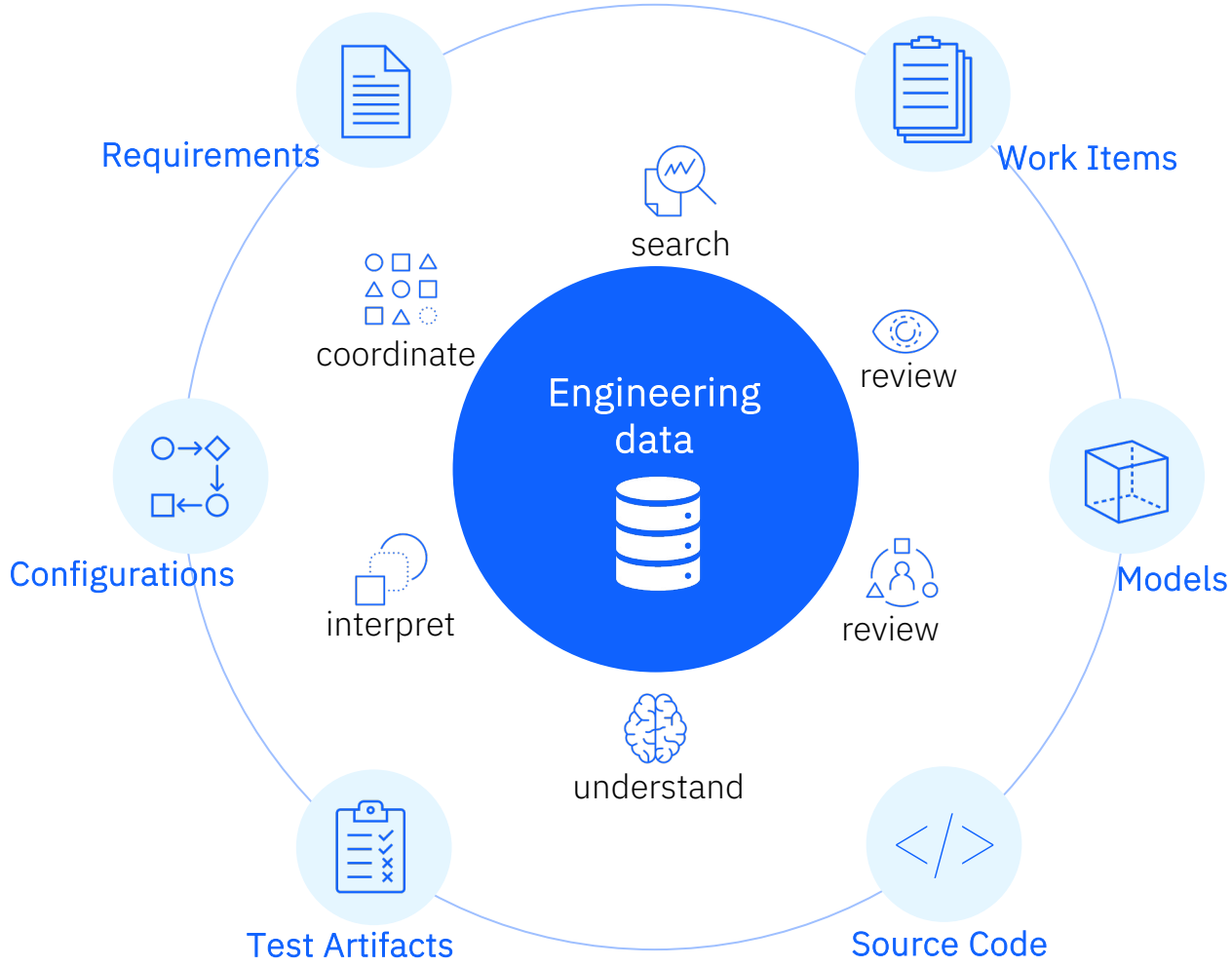
AI is changing how engineering work gets done

From understanding and creating to analyzing, recommending and acting



AI-assisted engineering has a higher bar

It must **understand** engineering context, **connect** across the lifecycle, and **operate** with trust.



Scaling AI across engineering needs a shared foundation



Trusted context

AI grounded in engineering information and relationships



Connected experiences

AI connected across engineering workflows and lifecycle activities



Governed use

AI operates within enterprise policies and boundaries



Human accountability

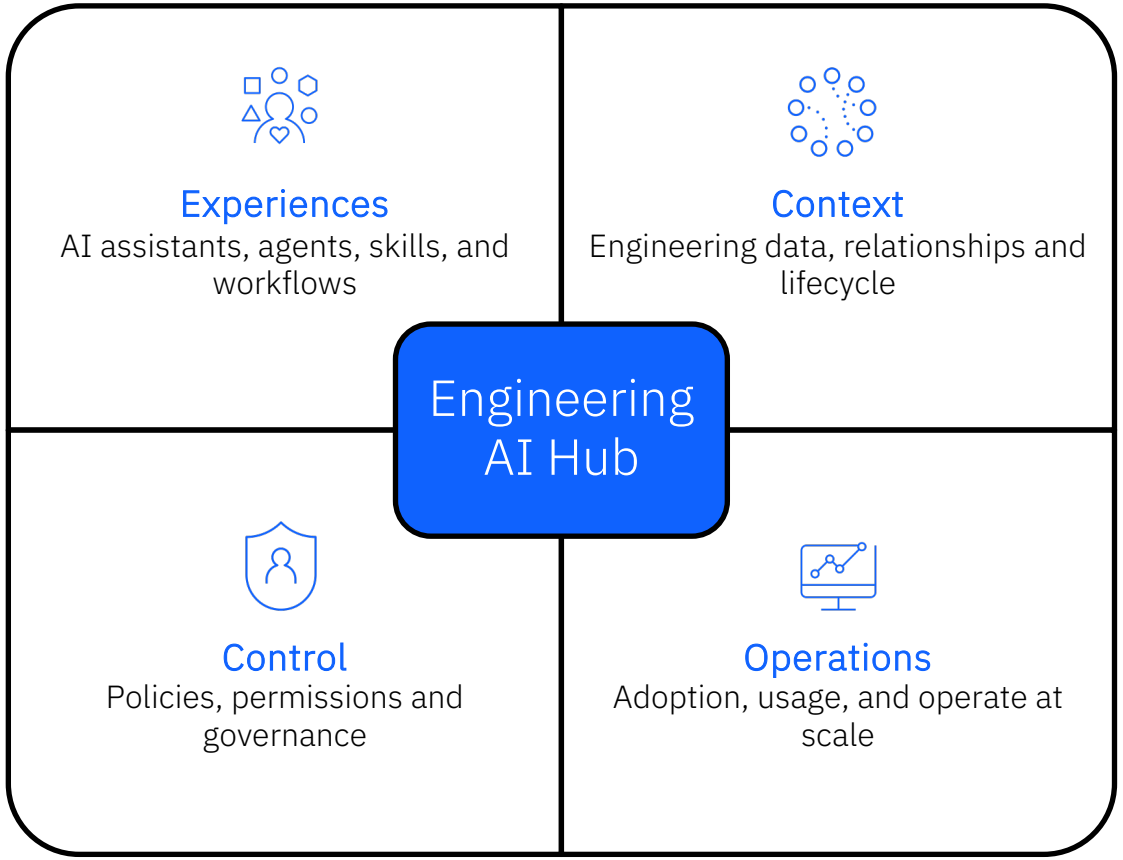
People review, decide, and remain responsible for outcomes

IBM Engineering AI Hub

AI platform for IBM Engineering Lifecycle Management (ELM)

Engineering AI Hub is a trusted foundation for operationalizing AI-assisted engineering across ELM by bringing AI into the engineering lifecycle.

It connects AI experiences with engineering data, context and workflows across ELM, so teams can apply AI where engineering work happens, with the controls needed to scale it across the enterprise.



Why does engineering need an AI platform ?

AI becomes more valuable when it moves from individual experiences to connected, governed engineering workflows.



Individual AI

- One task
- One context
- One experience



Connected AI

- Shared context
- Reusable capabilities
- Lifecycle relationships



Governed AI

- Consistent controls
- Human accountability
- Auditability



AI at Scale

- Adoption
- Operational visibility
- Enterprise management

Context → Capabilities → Governance → Auditability → Operations

What can Engineering AI Hub help teams do?

01 Accelerate with specialist AI agents

Use domain-aware agents to accelerate engineering tasks across artifacts and lifecycle workflows.

02 Ground AI in engineering context using MCP tools

Connect AI to trusted ELM data and actions through governed MCP tools.

03 Create and evaluate with AI

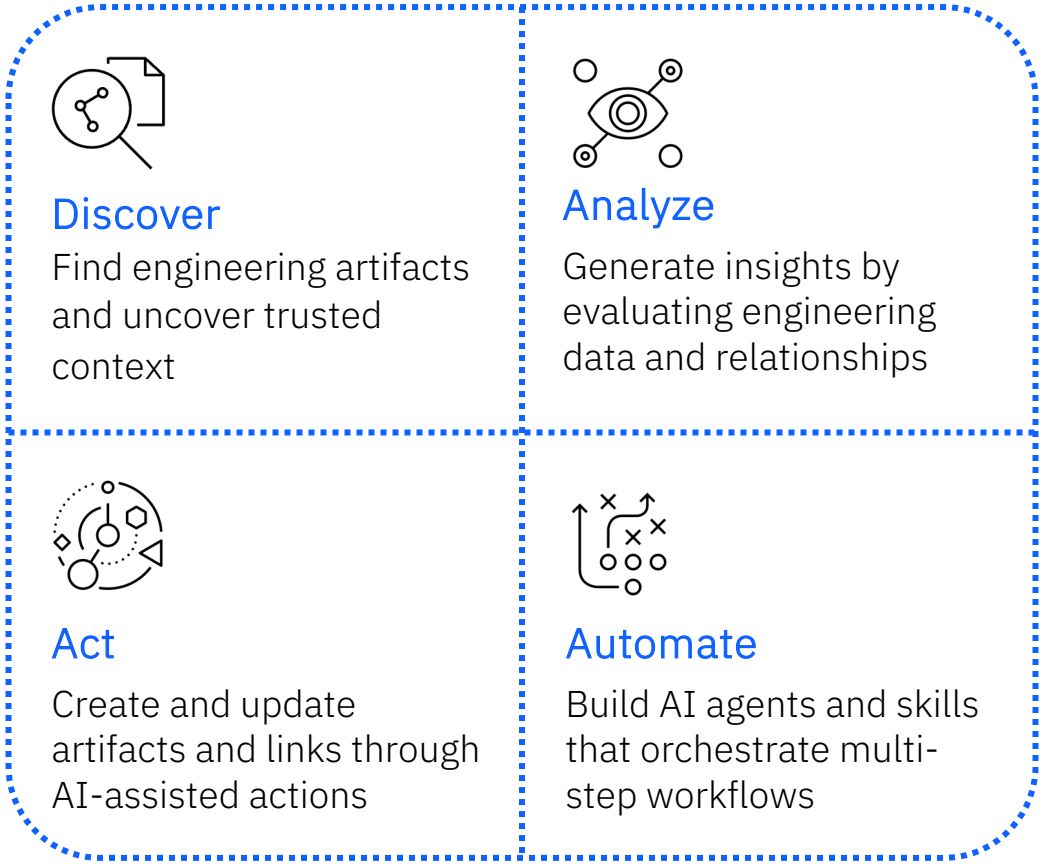
AI creates → Humans evaluate; Humans create → AI evaluates

04 Scale AI with enterprise governance and controls

Apply consistent policies, permissions, controls, and usage insights across AI workflows.

05 Make AI auditable and trustworthy

Understand AI context, contributions, decisions and resulting changes.



Specialist AI agents turn engineering intent into action



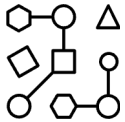
Requirement quality analysis

Analyzes requirements to identify quality issues and recommend improvements to improve quality of requirements



Engineering Assistant

Answers engineering questions using trusted project and lifecycle data to access information faster



Work Item synopsis

Generates concise synopses of complex, long-running work items and related activity to provide quick context.



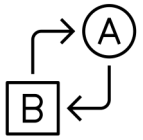
Work Item compose

Generates high-quality work item drafts from minimal user input to reduce time spent on repetitive authoring



MBSE use case discovery

Identifies use cases and actors in natural language requirements to help engineers to move faster



New in V 1.4

Test generation

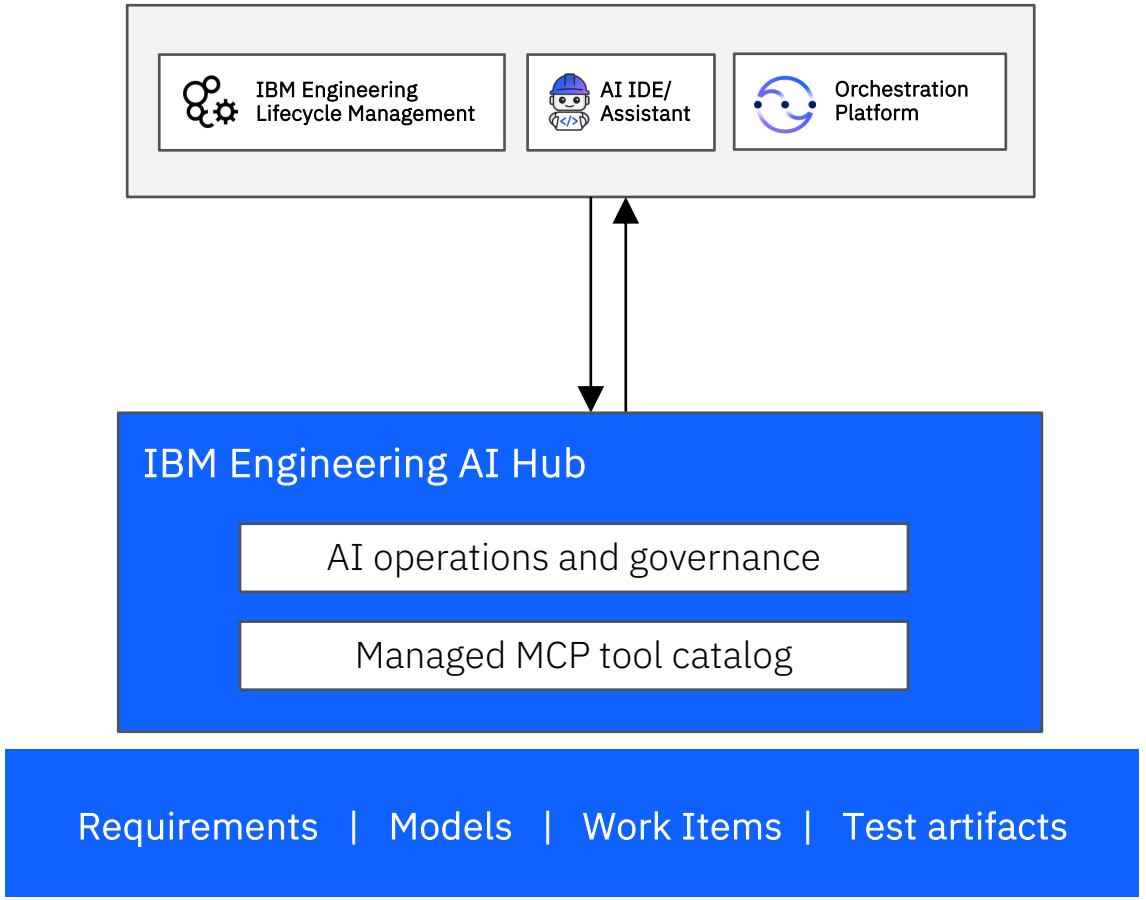
Generates test cases and test scripts from requirements to accelerate test design and improve requirements-test coverage

Ground AI in context and data with MCP tools

Enable natural language interactions with trusted engineering context and data, providing a governed, reusable foundation for AI-assisted engineering

Why IBM Engineering AI Hub's MCP Tools?

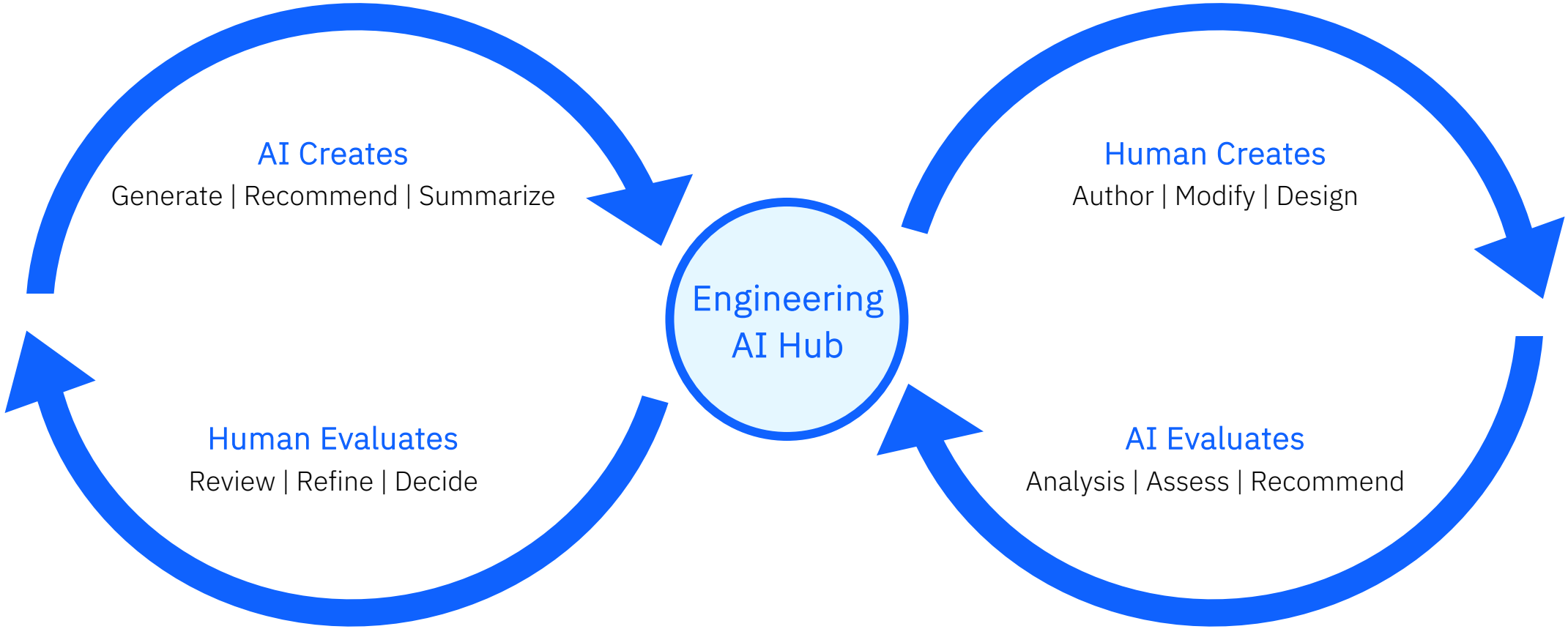
- ☑ Ready-to-use AI access to trusted ELM data, context, and lifecycle relationships
- ☑ Built on ELM governance, preserving role-based access, permissions, and end-to-end traceability
- ☑ Enterprise controls for system stability, security, and fair resource usage
- ☑ Reusable foundation for assistants, agents, and custom AI applications



Refer to IBM Documentation for details of MCP tools available in Engineering AI Hub 1.4

AI accelerates engineering. Keep Humans accountable

Create and evaluate with AI to ensure Human-in-the-loop through review and approval workflows of AI and human generated content



Scale AI with enterprise governance and controls

Engineering AI Hub provides the control plane needed to operationalize AI capabilities responsibly at enterprise scale.

Use a centralized foundation to:

- ☑ Balance accountability and rigor in AI-assisted engineering
- ☑ Scale AI across teams and workflows without losing control, accountability or trust.
- ☑ Meet the security, quality, and compliance expectations of regulated industries

01

Govern access

Who can use AI and what engineering context they can access

02

Control capabilities

What AI can connect to, what it can do, and what capabilities are available

03

Manage operations

Usage and adoption insights, providers, models and operational controls

04

Maintain evidence

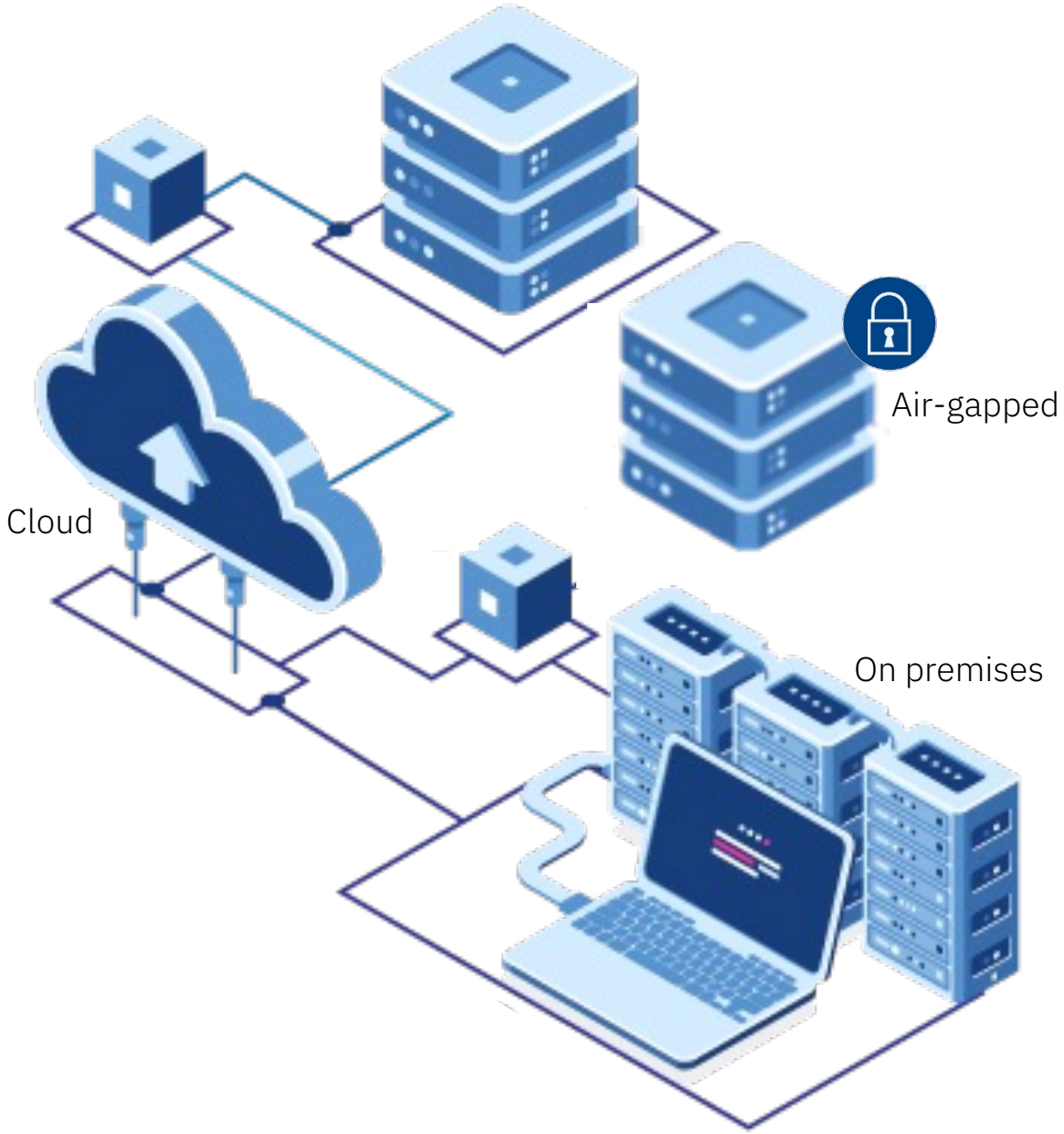
AI use and interactions that support accountability and compliance

Deploy AI where it fits your enterprise

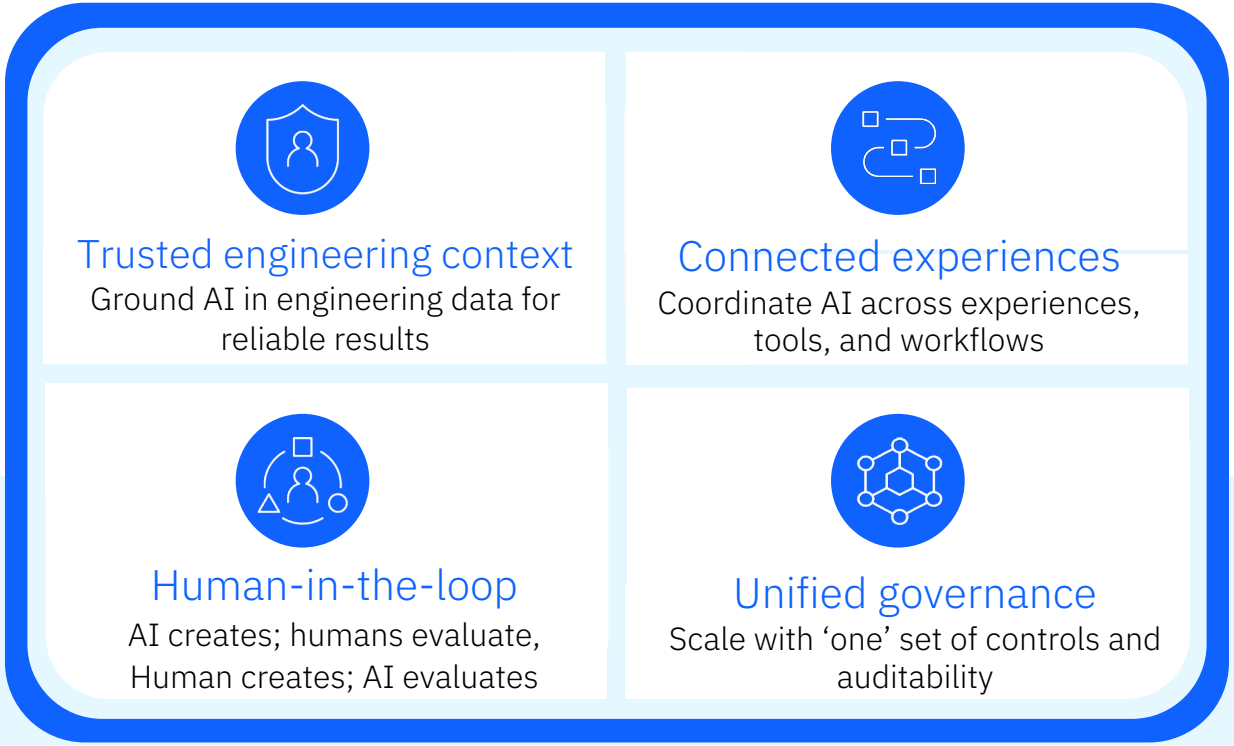
Deploy Engineering AI Hub where your engineering data, security, and compliance requirements demand, without changing how AI is governed

Why it Matters?

- ☑ Meet data residency and regulatory requirements
- ☑ Integrate AI into existing enterprise environments
- ☑ Scale AI consistently without creating governance silos



Engineering AI Hub connects the foundation needed for AI-assisted engineering



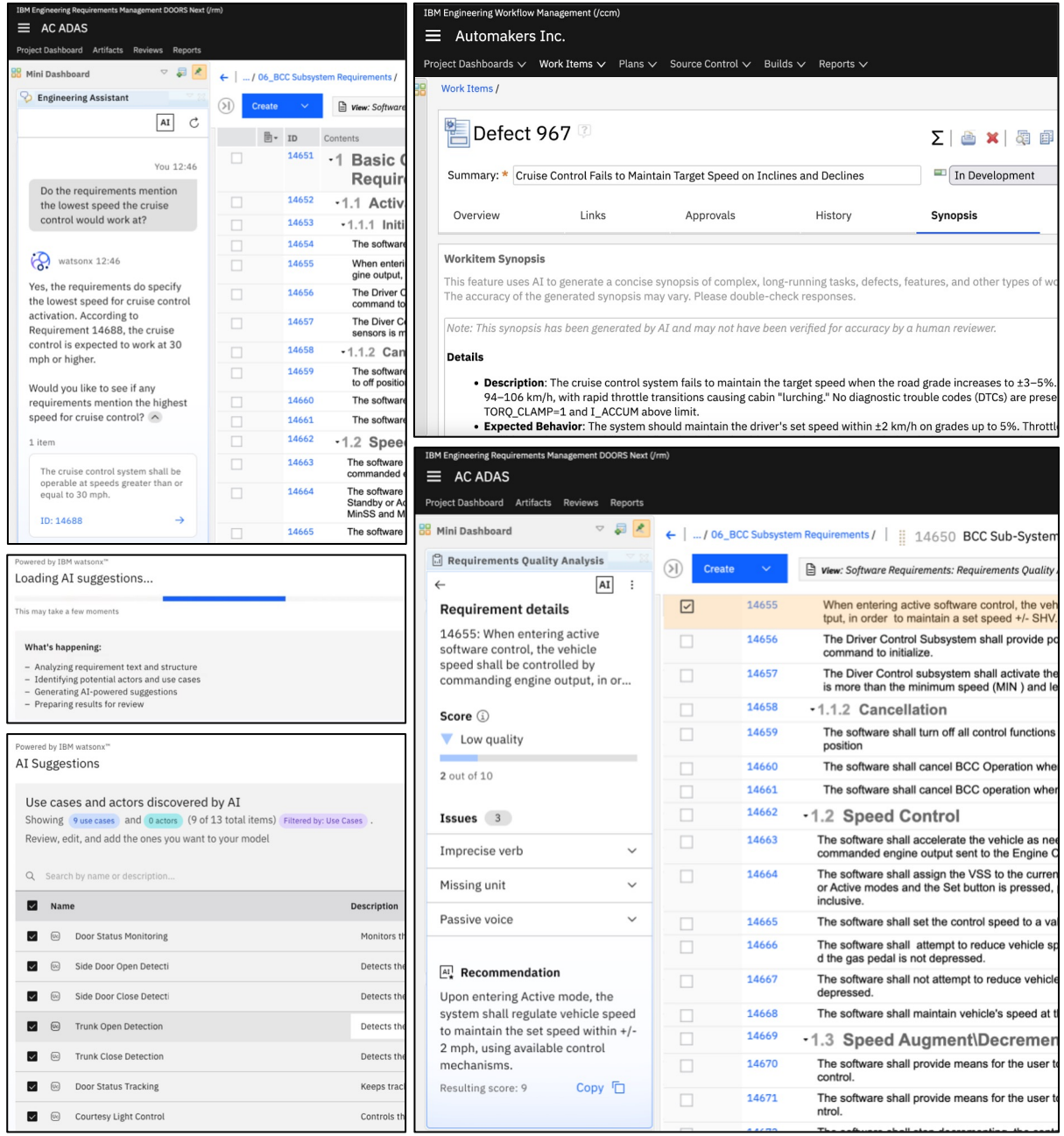
Engineering AI Hub connects these into a trusted, governed AI platform for IBM Engineering Lifecycle Management.

Specialist AI agents | Governed MCP tools | Enterprise controls | Centralized Management

IBM Engineering AI Hub continues to expand across engineering lifecycle

Engineering AI Hub has a flexible product architecture that positions IBM to expand and evolve Engineering AI Hub in the agentic platform for engineering teams. With each release, you can see:

- **More engineering context**
  Connect AI to more lifecycle information and relationships
- **More engineering experiences**
  Expand AI-assisted creation, analysis and action
- **More enterprise control**
  Extend governance, administration and operational visibility



Ready to operationalize trusted AI for engineering?

Let’s connect.

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Backup

Requirement quality analysis

Analyze requirements against industry standards to generate quality scores with detailed feedback, with recommendations for wording enhancements that raise requirement quality.

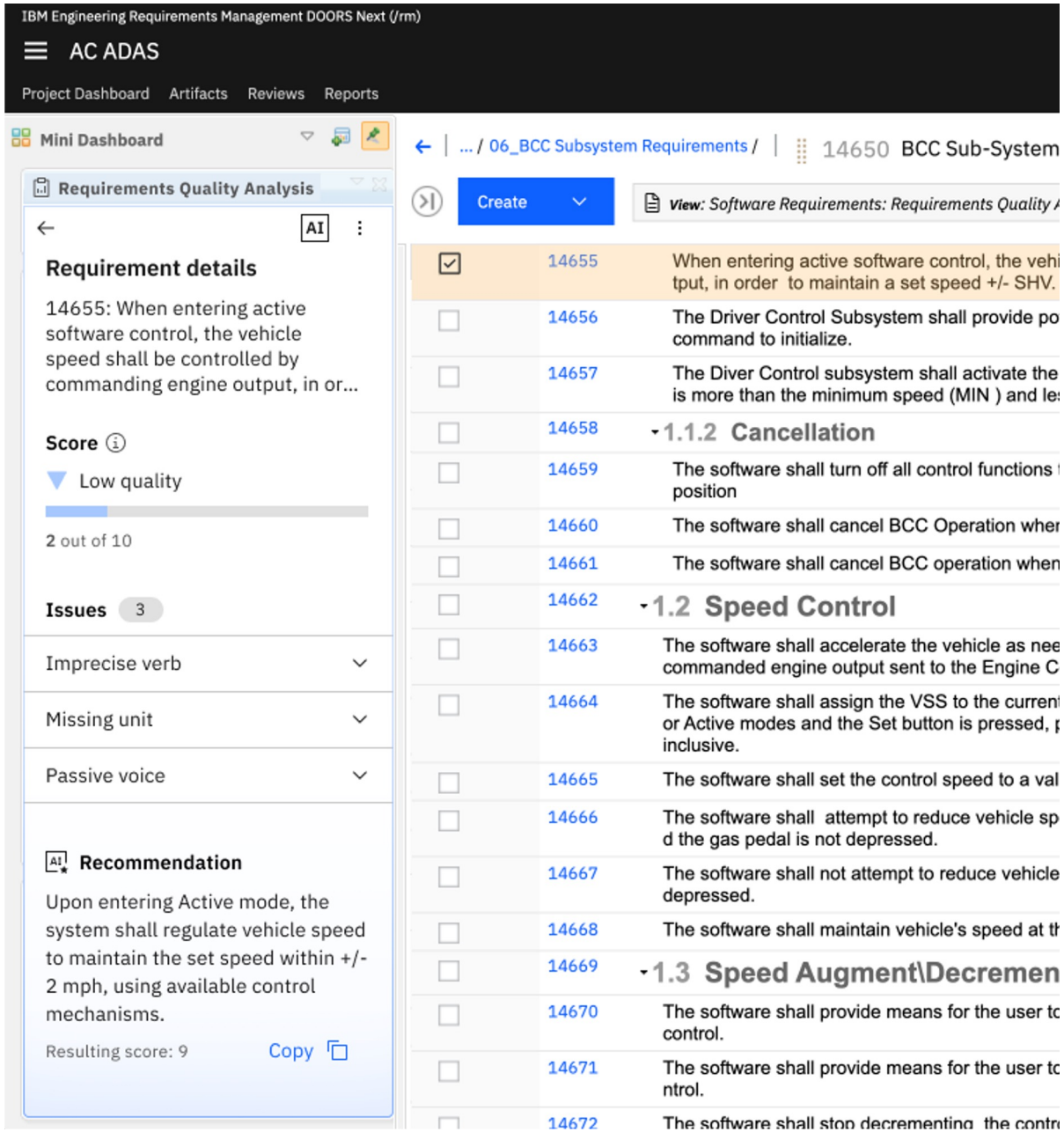
Requirements engineers receive actionable suggestions designed to:

Improve clarity and precision of requirements

Accelerate requirements review and signoff

Minimize downstream delivery risks

Learn to write better requirements



Engineering assistant

Use a natural language interface to requirements, enabling conversational queries, topic-based searches, summaries, and translations.

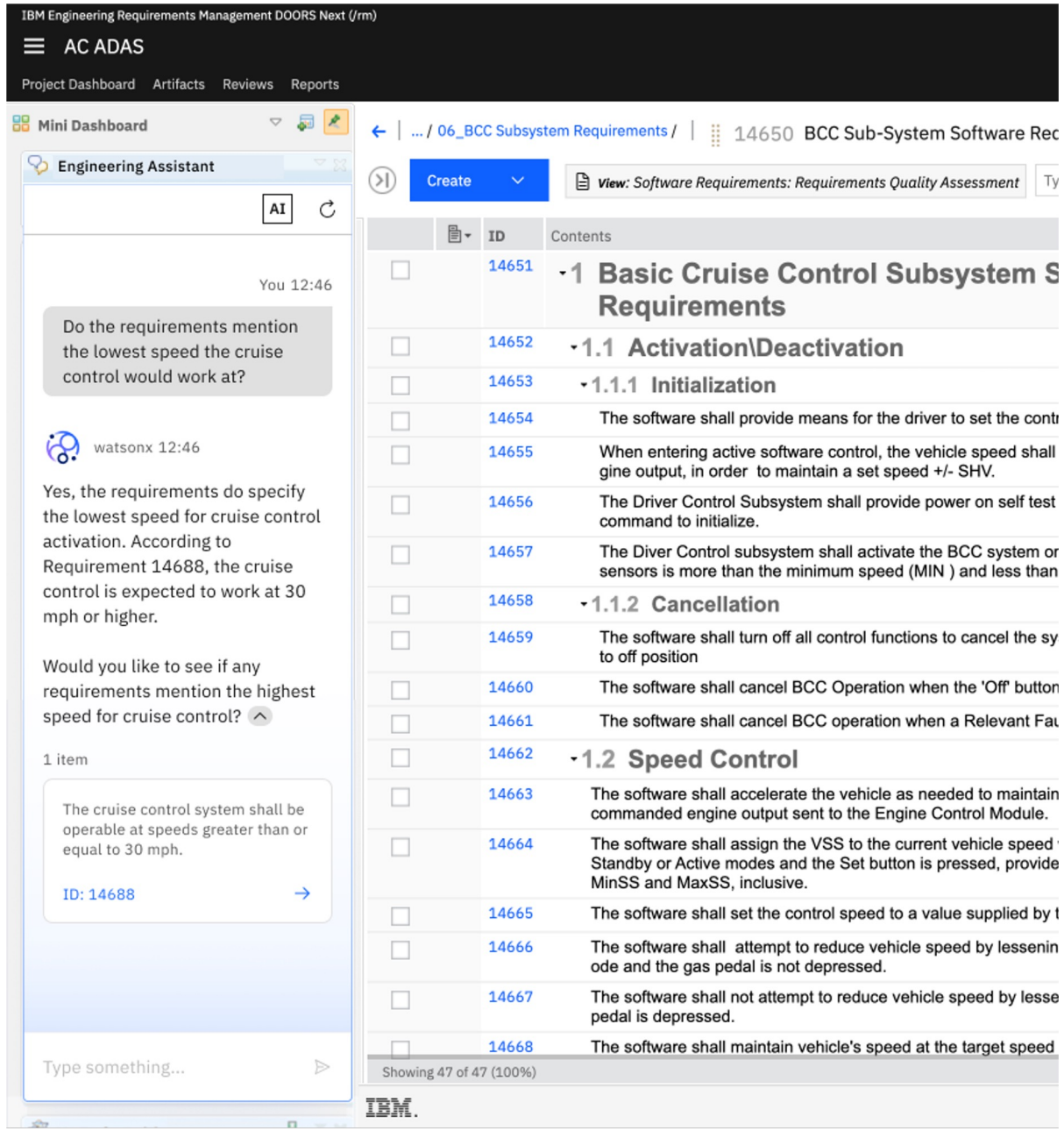
Requirements engineers interact with complex requirements specifications in natural language so they can:

Get access to relevant information

Reduce misinterpretation of large volumes of requirements

Improve team collaboration across global projects

Better alignment and shared understanding of requirements



Work Item synopsis

Generate synopsis of complex, long-running tasks, defects, features, and other work items, highlighting context, key details, status, working notes, and risks.

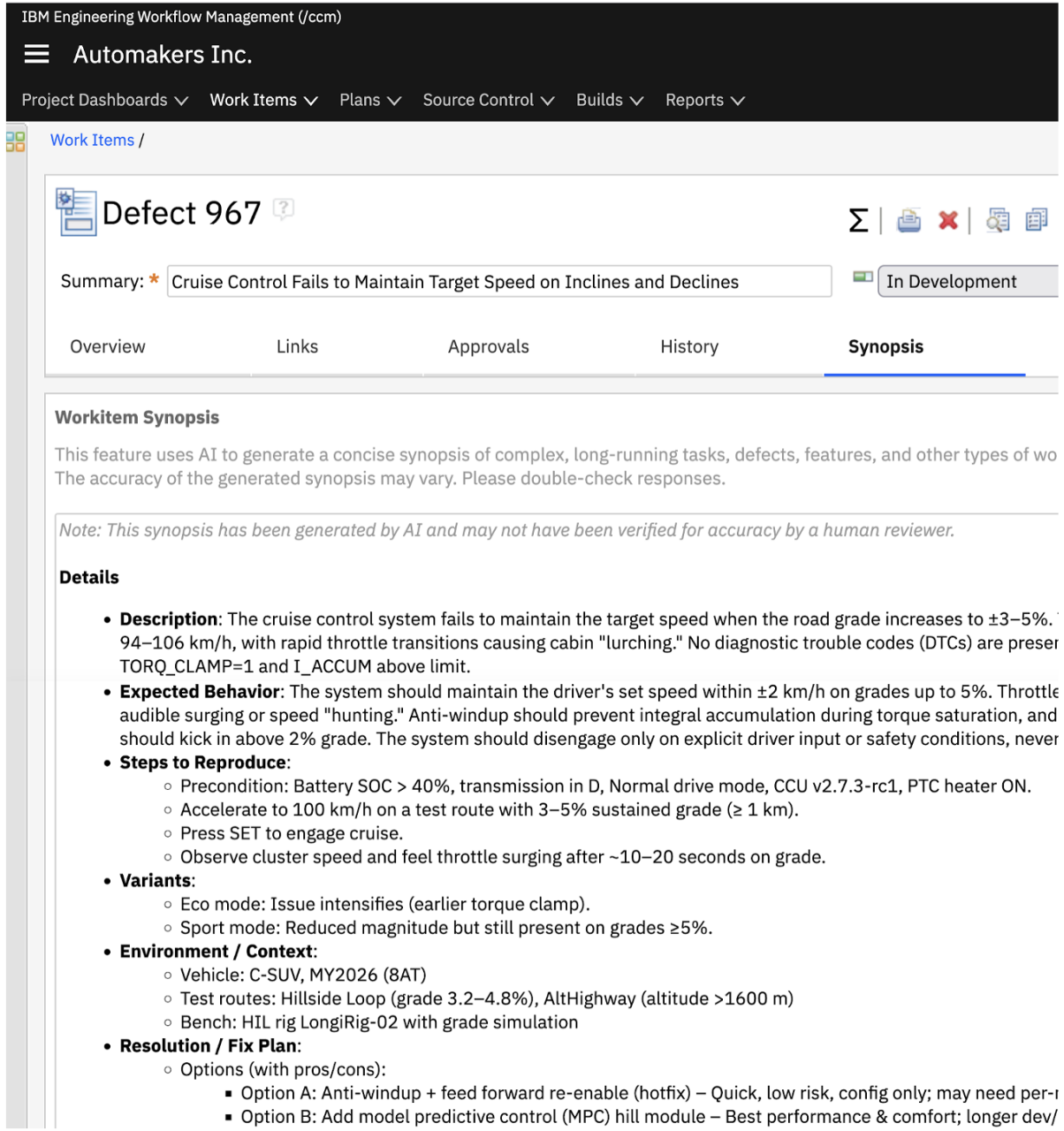
By reducing the need to read lengthy descriptions, comments, etc., engineers and managers can:

Improve productivity and communication

Accelerate the flow of work with shorter handoffs

Reduce time required to ramp up as they switch contexts

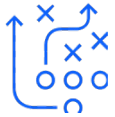
Make faster decisions based on visibility into work



Work Item compose

Create high-quality, well-structured draft of description and success/acceptance criteria for epics, features, and user stories.

With assistance on creating high-quality starting points of work items before downstream work begins, teams can:



Use time spent on manual authoring for other high-value work



Accelerate planning with confidence on having right scope



Improve clarity and consistency to ensure alignment across teams



Reduce rework, delays caused by incomplete and unclear details

Note: This content has been AI-generated and should be reviewed for accuracy.

Problem Statement

Drivers often unintentionally drift out of their lanes, leading to potential accidents. This feature aims to address this issue by providing a lane-keeping assist system that helps drivers stay within their lane.

Business Value

Implementing Lane Keeping Assist (LKA) can significantly reduce the number of lane departure accidents, enhancing vehicle safety. This feature is crucial for meeting regulatory requirements and improving customer satisfaction, which can lead to increased market share and revenue. Failure to implement LKA may result in non-compliance with safety standards and potential legal issues.

Overall Use Case

The overall use case is for drivers who need to stay within their lane while driving to avoid accidents. The system will monitor the vehicle's position within the lane and provide corrective steering inputs if the vehicle begins to drift. This ensures that the driver remains safe and compliant with traffic rules.

User Needs

- **Driver**: Needs the vehicle to stay within the lane to avoid accidents. Requires the system to provide gentle steering corrections without disrupting the driving experience.
- **Passenger**: Needs to feel safe during the journey. Requires the system to operate seamlessly without causing discomfort.
- **Vehicle Manufacturer**: Needs to comply with safety regulations. Requires the system to be reliable and effective in reducing lane departure incidents.

Additional Context

This feature will integrate with the existing advanced driver-assistance systems (ADAS) to provide a comprehensive safety solution. The system will use cameras and sensors to

MBSE use case discovery

Identify use cases and actors in natural language requirements and creates corresponding model elements and use case diagrams in Rhapsody SE and Rhapsody 10.

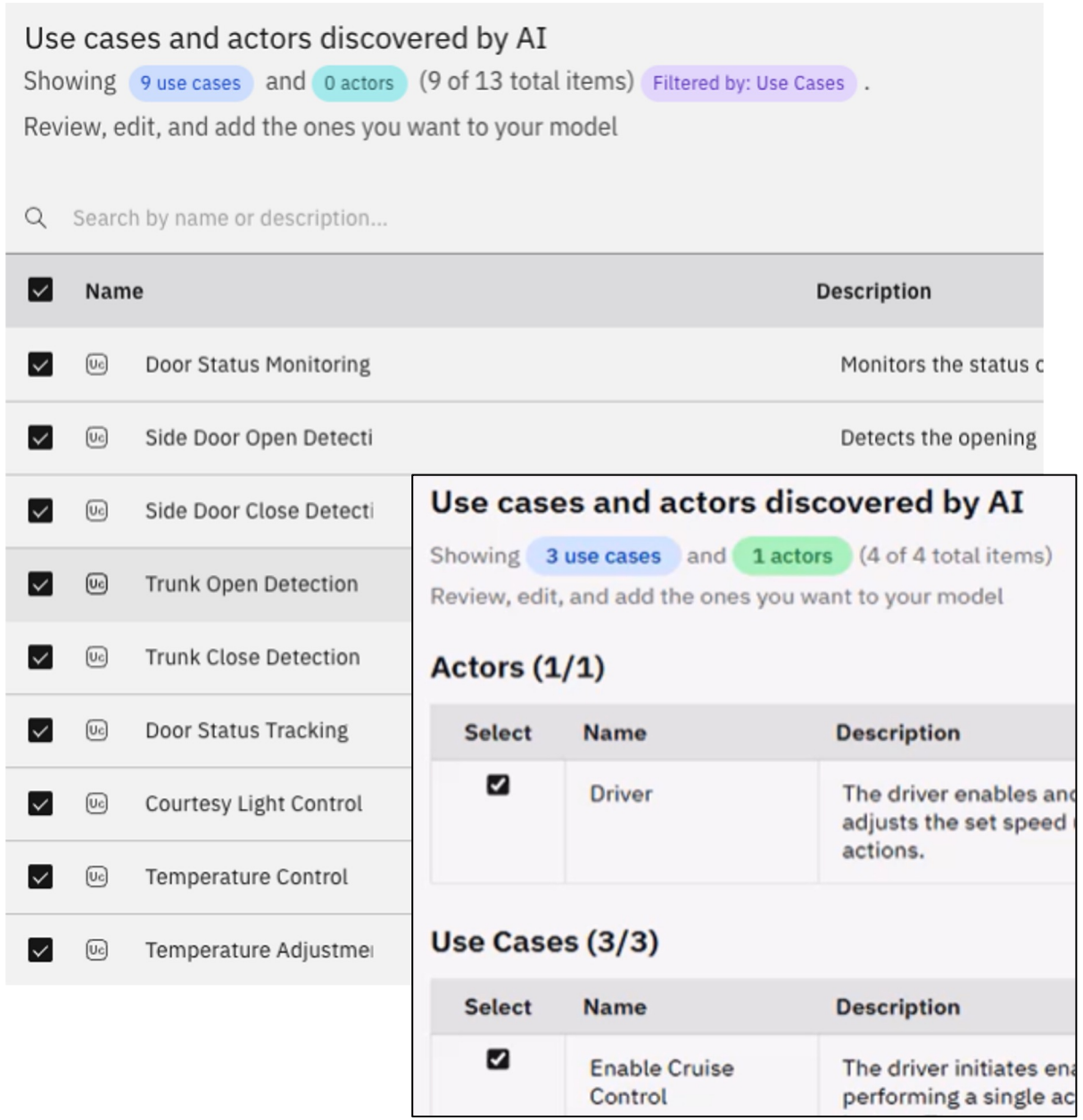
Systems engineers apply use case discovery consistently across complex specifications to:

Accelerate the analysis of requirements

Easier to get started with modeling

Reduce the effort spent on manual tasks to get started

Improve traceability by auto-linking requirements to generated model elements



Test generation agent

Generates test cases, including test designs, pre- and post-conditions, and detailed test scripts from selected requirements in a test plan.

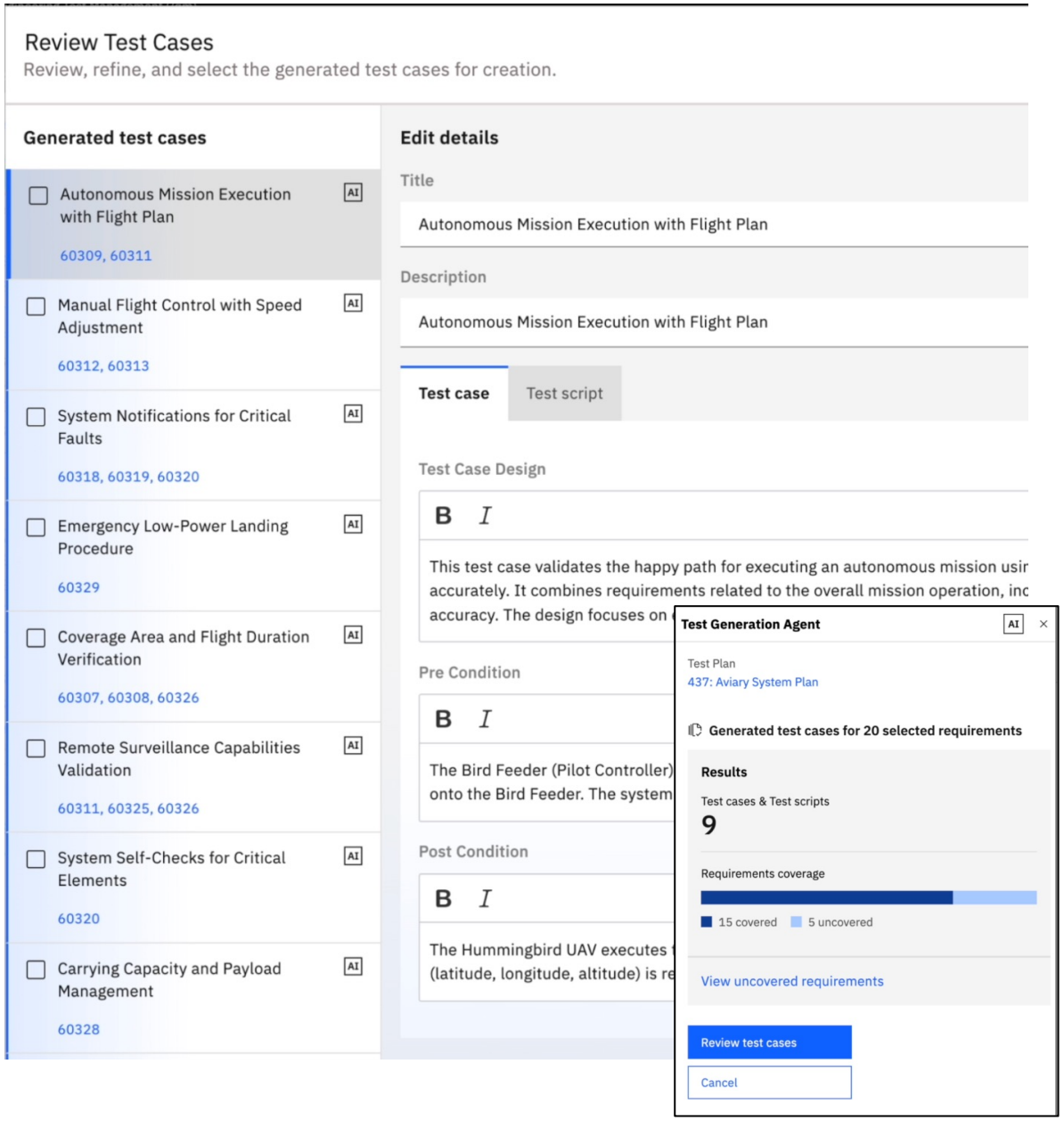
With AI-assisted test generation, test engineers can:

Accelerate test design and execution readiness

Improve test coverage and completeness

Reduce manual effort in test creation

Standardize test design with consistent, high-quality test assets



MCP tools for Engineering Lifecycle Management

Operate across cross-domain engineering lifecycle artifacts and configurations (streams, baselines)

	Common (Cross-App)	RM (Requirements)	CCM (Work Item & SCM)	QM (Test artifacts)	AM (Models)
Discover	Find users, projects, configurations, and linked artifacts	Search and browse requirements across global and local configurations	Search work items and source control artifacts	Search test assets across local configurations	Search model elements
	Explore project context and lifecycle relationships	Explore requirement types, configurations, structures, streams, and baselines	Explore categories ownership, and SCM components	Explore test structures and schemas, streams, and configurations	Explore model structures and relationships
	Navigate project areas, timelines, and teams	Navigate component hierarchies, baselines, streams, and configuration contexts	Navigate work item categories and changesets	Navigate test hierarchies, execution contexts, versions, and configuration context	Navigate model hierarchies, branches, and versions
Analyze	Analyze relationships across lifecycle artifacts	Analyze impact of requirements change across streams and baselines	Compare and analyze impact of work item and source code changes	Analyze test coverage and execution results across local configuration context	Analyze dependencies
		Assess requirement coverage and gaps across requirements, test, and configurations	Track iteration status and progress	Assess release readiness across streams, baselines, and test configurations	Assess impact of change
Act	Collaborate on lifecycle artifacts	Create requirements	Create work item	Add comment on test artifacts	–
			Add comments to work items		
Trace & Link	Trace linked artifacts across the lifecycle	Link requirements to work items and tests	Link work items to requirements and tests	Link tests to requirements and work items	Trace dependencies across model elements

This is a representative list of MCP capabilities and is not an exhaustive list. Refer to IBM Documentation for a complete list of MCP tools available in Engineering AI Hub 1.4

Expanded MCP tool catalog

Refer to IBM Documentation for details of MCP tools available in Engineering AI Hub 1.4

Legend

Color — Read — Trace — Write

Cross-cutting

- get_user
- get_project_area
- list_project_areas
- get_configuration
- search_configuration
- list_linked_requirements
- list_linked_testartifacts
- list_linked_workitems
- link_workitem_and_requirement
- link_testartifact_and_requirement
- link_workitem_and_testartifact

Work Items

- get_workitem
- search_workitems
- get_workitem_schema
- list_workitem_categories
- list_workitem_releases
- add_comment_to_workitem
- create_workitem

Source Control

- get_scm_artifact
- compare_scm_artifacts

Requirements

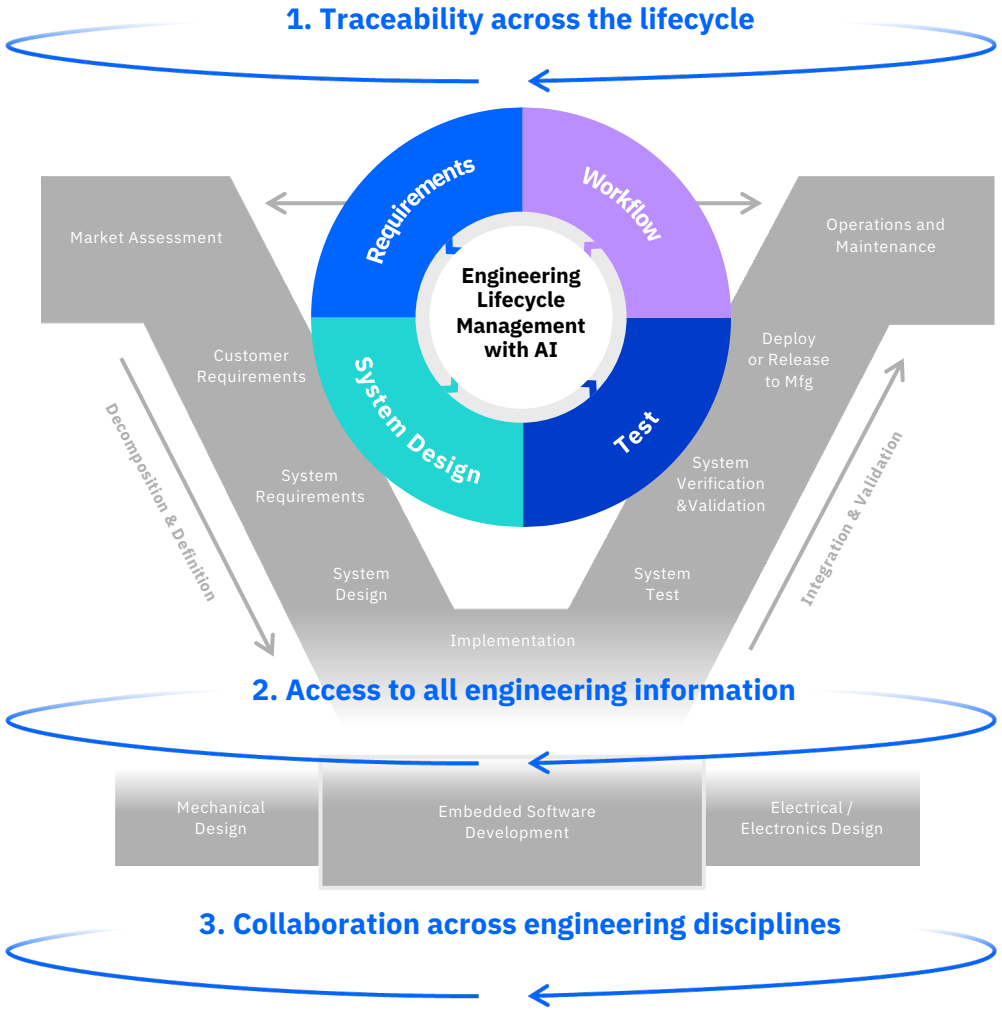
- get_requirement
- get_rm_component
- get_rm_component_configuration
- list_rm_component_folders
- get_rm_component_types
- search_requirement
- create_requirement
- create_requirement_change_set
- deliver_requirement_change_set

Test artifacts

- get_testartifact
- get_testartifact_schema
- get_qm_component
- get_qm_component_configuration
- search_testartifact
- add_comment_to_testartifact

Models

- get_model_project_area
- get_model_element
- get_model_project_structure
- list_reference_modeling_projects
- search_model_elements



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