

A silhouette of a person's head and shoulders in profile, facing left. They are holding a smartphone in their right hand and pointing at it with their left index finger. The background is a dark blue gradient with various digital icons, charts, and world maps overlaid, suggesting a high-tech or data-driven environment. The overall aesthetic is futuristic and professional.

Reimagining network systems delivery with agentic AI

A five-pillar model for quality-led delivery, intelligent operations, and continuous portfolio modernization

Network systems are under pressure from every direction. Application estates keep expanding. Third-party tools accumulate over time. Delivery teams are expected to move faster, but also improve quality, resilience, transparency, and cost efficiency. At the same time, many organizations are still operating with delivery models built around volume, effort, and manual coordination.

That model is reaching its limits. For complex network systems portfolios, transformation increasingly depends on smarter operating models: AI-assisted transition, agentic engineering, portfolio simplification, domain-led execution, and real-time governance. These capabilities help organizations move from effort-based delivery to quality-led execution, where work is easier to govern, outcomes are easier to measure, and modernization becomes a continuous discipline rather than a one-time program.

Our approach brings this together through five connected pillars:

- Zero-Risk Transition
- AI Development Lifecycle
- Data-Driven Rationalization
- Domain-Driven Pods
- Real-Time Cross-Platform Insights Dashboard

Powered by ADAM – our Agentic Data & Application Management platform, the model embeds reusable AI agents across transition, engineering, rationalization, support, and governance workflows. The goal is to protect business continuity while improving delivery efficiency, reducing complexity, strengthening decision-making, and creating a more scalable path to modernization.

1. Zero-risk transition

Turning knowledge transfer into a structured, AI-assisted process

Large technology transitions often struggle because knowledge is scattered across tools, teams, documents, and individual experts. Service scope, dependencies, workflows, ownership, SLAs/KPIs, tooling, and versioning are rarely captured in one place. That makes transition slow, risky, and heavily dependent on manual knowledge transfer.

A zero-risk transition approach changes the starting point. Instead of treating handover as a document collection exercise, it uses AI-assisted discovery to build a working understanding of the environment. Knowledge is captured from platforms such as Confluence, Jira, Git, SharePoint, Google Drive documents, and related delivery artifacts. This creates a clearer view of applications, workflows, dependencies, and operational responsibilities before steady-state execution begins.

The transition is then organized into waves, with each wave validated through domain mapping, readiness checks, SME reviews, access provisioning, and structured onboarding. Program dashboards give leaders visibility into progress, risks, ownership, and takeover readiness.

The result is a more controlled transition model: less reliance on informal knowledge, fewer blind spots, and stronger continuity from day one.

Business value created:

- Faster knowledge acquisition across complex portfolios
- Lower transition risk through phased execution
- Clearer ownership of applications, workflows, and dependencies
- Real-time visibility into readiness and progress
- Stronger auditability through milestone tracking and sign-offs

2. AI development lifecycle

Embedding intelligence across product, engineering, testing, and support

Software delivery in network systems often moves through fragmented handoffs. Business teams define needs. Product teams translate them into requirements. Architects shape the solution. Engineers build. QA validates. Operations teams support what goes live. Each handoff creates room for delay, rework, and loss of context.

The AI Development Lifecycle brings intelligence into each stage of that flow.

AI agents can support backlog creation, user story generation, architecture validation, design-to-code conversion, code generation, unit test creation, code review, defect analysis, automation script generation, and intelligent AMS. The goal is not to replace engineering judgment, but to reduce repetitive work, improve consistency, and preserve context from idea to production.

This requires orchestration, not isolated tools. A development orchestration agent coordinates specialized agents across requirements, impact analysis, solution design, engineering, QA, deployment, documentation, and support. These agents operate within a context layer that includes business rules, application knowledge, engineering standards, governance requirements, NSA 2.0 compliance expectations, and team-level practices.

Human-in-the-loop validation remains essential. Product SMEs, engineering SMEs, architects, developers, QA teams, and governance stakeholders review and approve critical outputs. AI accelerates the work, but accountability stays with the teams responsible for business and technology outcomes.

What this enables

- Faster movement from requirements to working software
- More consistent user stories, designs, code, tests, and documentation
- Reduced rework across handoffs
- Better traceability from business need to production release
- Stronger engineering governance through human-reviewed AI outputs

3. Data-driven rationalization

Reducing portfolio complexity with measurable modernization decisions

Most large application portfolios become complex gradually. Teams add new systems to solve urgent business needs. Tools are introduced for specific functions. Older platforms remain because they are connected to critical processes. Over time, the estate becomes harder to change, more expensive to operate, and more difficult to govern.

Data-driven rationalization brings structure to that complexity.

Instead of relying on opinion-based decisions, applications and tools are assessed through business, financial, technical, telemetry, AI readiness, regulatory, and security signals. This creates a more complete view of what should be modernized, consolidated, retired, invested in, or redesigned.

The rationalization journey typically moves through six steps:

- Identify simplification candidates through AI-supported assessment
- Evaluate business value, cost, usage, telemetry, risk, and technical fit
- Categorize opportunities into rationalization or transformation paths
- Validate recommendations through prototypes and business outcomes
- Execute with modular architectures aligned to NSA 2.0 principles
- Govern progress through continuous portfolio visibility

This approach also supports the move toward agent-driven microservices. By combining intent-based orchestration, proactive fault resolution, unstructured data intelligence, and knowledge graph-enabled payloads, organizations can move away from rigid, rule-heavy architectures toward services that are more adaptive, resilient, and easier to evolve.

Modernization outcomes:

- Clearer decisions on what to retain, retire, consolidate, or transform
- Reduced application and third-party tool duplication
- Lower operating cost and technical debt
- Better alignment with NSA 2.0 modernization goals
- A more agile foundation for future agentic capabilities

5. Real-time cross-platform insights dashboard

Making governance continuous, predictive, and evidence-based

Traditional governance often depends on periodic reporting. By the time issues appear in a review meeting, delivery risk may already be growing. Large portfolios need something more immediate: a live operating view of work, risk, cost, quality, AI impact, and portfolio health.

A real-time cross-platform insights dashboard provides that control layer. It brings together data from Jira, ServiceNow, AYS, CI/CD pipelines, telemetry platforms, SRE systems, knowledge graphs, and other enterprise tools. Instead of giving leaders disconnected reports, it creates a single view of delivery, impact, health, cost, and execution across applications, domains, SLAs, risks, rationalization progress, and productivity.

AI-driven governance can detect early signals of SLA breach risk, P1/P2 incident risk, delivery delays, cost drift, and dependency issues. Persona-based views help executives, product leaders, engineering teams, governance teams, and application owners focus on the metrics that matter most to them.

The dashboard also strengthens responsible AI governance. Model cards, AI effectiveness tracking, audit trails, and human-in-the-loop checkpoints help organizations understand where AI is being used, how it is performing, and where human review is required.

Governance impact:

- One trusted view of delivery, cost, risk, and portfolio health
- Earlier detection of SLA, incident, and delivery risks
- Automated evidence for governance, true-ups, and audits
- Better visibility into AI effectiveness and productivity gains
- More confident decision-making across leadership and delivery teams

Proven Impact Across Network Systems Transformation

Our five-pillar model builds on our experience across network services, network assurance, operations, consumer support, SRE, CI/CD, and ticket automation.

Representative outcomes include:

- 14x workflow simplification across markets
- \$7 million annual licensing cost eliminated
- Faster MTTR through root-cause intelligence
- Proactive outage detection before customer impact
- 36,000+ engineering hours saved annually
- 90%+ ticket classification accuracy
- 5,000+ order fallouts proactively avoided
- 3x faster deployment frequency
- 50% reduction in change failures
- Increased stability across a 90+ microservices ecosystem

These outcomes show how AI-assisted delivery, rationalization, observability, and engineering modernization can translate into significant operational and financial impact.

The Path **Forward**

Network systems modernization is no longer only a technology upgrade. It is an operating model shift. Enterprises need to transition without disruption, engineer with greater intelligence, simplify portfolios continuously, organize teams around domains, and govern performance in real time.

Our five-pillar model provides a practical path forward. With ADAM as the agentic foundation, organizations can embed AI into transition, development, rationalization, operations, and governance while keeping human expertise at the center.

The result is a more adaptive, transparent, and quality-led model for modernizing Network Systems at scale.

About Brillio

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise.

Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.



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