



The Situation Room: What it takes to scale AI

We examine three real-world AI scenarios to reveal the pressures organisations face: meeting local data residency requirements across markets, managing growing volumes of production data across sites, and controlling multi-cloud costs and vendor lock-in. Discover the questions leaders should be asking and the infrastructure needed to support the next generation of intelligent systems.





Is your infrastructure limiting AI success?

Enterprises are ready to scale AI. The question is: Can your underlying infrastructure keep up?

The reality is that **scaling AI is more than just about models and compute**, even if that is where much of the conversation has been focused. Ramping up AI tests how effectively data moves, where workloads run, how quickly systems connect, and whether leaders make the right decisions to ensure security, resilience, compliance, performance, control, and architectural flexibility as operational complexity and scale increases.

One of the biggest mistakes organisations can make is treating AI scale as a single monolithic challenge. Different AI use cases place different demands on infrastructure. Some rely on fast, secure access to distributed data and applications.

Others depend on real-time performance across geographically dispersed operations. Many must balance data residency requirements, multi-cloud architectures and cost efficiency as they scale.

Telstra Digital Infrastructure and Equinix understand the barriers enterprises face as they scale AI, and why success depends on building an adaptable, integrated, and AI-ready digital infrastructure foundation.

We will explore three enterprise situations, each carefully selected to show how different AI use cases place distinct demands on the infrastructure around them. These situations may reflect similar pressure points in your own environment, helping you understand the infrastructure considerations involved and identify the capabilities needed to respond.

Situation Room 1

Expanding AI-driven financial crime detection solution



The Situation

A global bank has successfully tested AI agents to help its financial crime compliance team investigate suspicious transactions and make recommendations in one APAC market. The autonomous agents draw on customer profiles, transaction histories and records held across core banking, KYC and CRM systems.

The bank now wants to scale the use of these agents across more countries, where data sits across different systems, cloud environments and locations. For the agents to deliver timely and accurate risk assessments, investigation summaries and recommendations, the underlying infrastructure must support high volumes of data movement with low latency, while meeting local data residency needs and maintaining performance, security and resilience.



Questions in the Room

- How do we give AI agents access to the data they need when it is spread across multiple systems, environments and locations?
- As more AI agents and systems talk with one another, can our network handle the growing volume of data moving between applications, clouds and data sources?
- How do we maintain resilience without becoming dependent on a single cloud provider or connectivity path?
- How do we expand AI agents into new markets while supporting local data residency requirements?

How Telstra Digital Infrastructure and Equinix can help

As AI agents expand from a single use case to multi-country deployment, the challenge shifts from proving the technology works to scaling it consistently across markets. Telstra Digital Infrastructure and Equinix help organisations build a repeatable model for scaling AI. By combining in-country, AI-ready data centres, private cloud connectivity and a high-performance regional network, organisations can keep sensitive data closer to where it is generated. And at the same time, they can maintain secure access to the cloud, AI services and digital ecosystems. Telstra Digital Infrastructure and Equinix help enterprises standardise their AI architecture globally while meeting local data residency requirements in each market.



Situation Room 2

Taking AI quality inspection from pilot to global production



The Situation

A global manufacturer is scaling an AI quality inspection solution from a single factory to production sites across APAC, Europe and North America. The system analyses video feeds, machine telemetry and production data to identify defects and recommend corrective actions in real time.

As the solution scales, it requires access to increasing volumes of live operational data generated from multiple factories. Production, telemetry and video data must move quickly and securely between plants, cloud platforms, and environments to recommend real-time insights and prevent unplanned disruptions, without compromising the security of critical OT environments.



Questions in the Room

- Can our infrastructure handle the growing volumes of live production data generated across multiple factories?
- How do we ensure data moves quickly and reliably between factories and compute environments to support real-time production decisions and predictable application performance?
- As we add new factories, cloud services and AI platforms, how do we avoid creating a fragmented infrastructure architecture that becomes harder to manage and scale?

How Telstra Digital Infrastructure and Equinix can help

Telstra Digital Infrastructure and Equinix can help organisations scale AI across more regions and sites. Telstra Digital Infrastructure's global, managed connectivity, combined with Equinix's cloud-adjacent, AI-ready data centres and interconnection, give AI systems a high-performance infrastructure foundation. Adding new sites, cloud platforms and AI services without redesigning the underlying network, while maintaining performance, resilience, real-time visibility, security control can be made easier.



Situation Room 3

Building a global multi-agent AI platform across multiple clouds



The Situation

A SaaS provider is launching a multi-agent platform that brings together enterprise knowledge bases, customer data, business applications and models distributed across multiple regions. As adoption grows, the platform must operate consistently across cloud providers while meeting data residency and sovereignty requirements.

To be successful, the solution needs secure, low-latency access to data, applications and AI models distributed across multiple clouds and regions. And it must be able to accommodate a significant rise in traffic between clouds and AI platforms as agent-to-agent and agent-to-model interactions increase, while keeping egress costs under control. Its infrastructure architecture must also deliver a consistent user experience globally and avoid dependence on a single cloud provider.



Questions in the Room

- How do we give the platform secure, low-latency access to enterprise data, applications and AI models that are distributed across multiple clouds and regions?
- How do we place workloads and manage data movement so that we can meet the data residency and sovereignty requirements of different customers?
- As data traffic between clouds and AI platforms increases, how do we manage egress costs and keep infrastructure costs under control?
- How do we build a multi-cloud architecture that gives us flexibility across cloud providers and avoids vendor lock-in?

How Telstra Digital Infrastructure and Equinix can help

Telstra Digital Infrastructure and Equinix provide a flexible infrastructure foundation for AI offerings that need to operate across multiple clouds and regions. Telstra Digital Infrastructure's global network spans close to 200 countries and territories, providing private, high-bandwidth, low-latency connectivity across regions. Equinix adds 270+ data centres across 30+ countries and 200+ cloud on-ramps, giving organisations direct access to multiple cloud environments. Organisations can have greater flexibility over where workloads run and how they connect across clouds, meet data residency requirements, avoid vendor lock-in and reduce unnecessary data movement and egress costs.



Customer success story

Learn how one organisation reduced its annual infrastructure costs by 50% as it expanded into four new markets.

[Read case study](#)



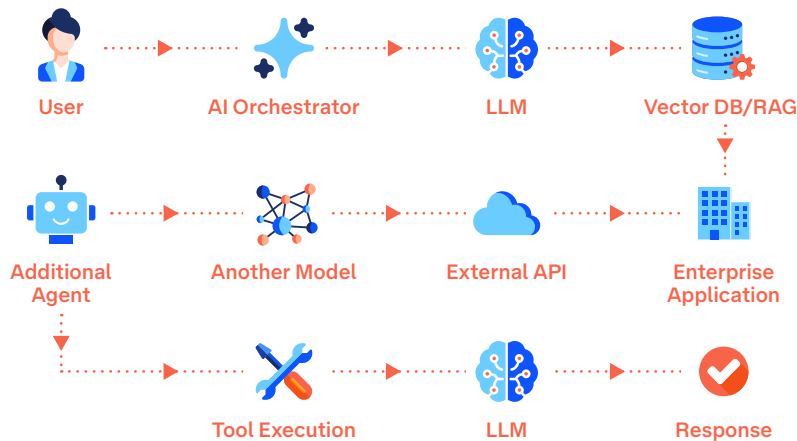
Agentic AI changes the traffic model

Agentic AI changes the way data moves. A single user request can trigger multiple model calls, data lookups, API interactions and parallel agent tasks, creating more traffic and compounding latency across the network. As these interactions multiply, traditional approaches to sizing and managing infrastructure are no longer enough.

An example of traditional application workflow



An example of how Agentic AI workflows change network traffic



What the right AI infrastructure delivers in the Agentic AI era



Smarter Workload Placement

Place AI workloads closer to users, data sources, cloud services and approved jurisdictions. This helps organisations balance performance, sovereignty, capacity and cost, and gives them more flexibility as requirements change.



Secure, Diverse Operations

AI systems often process sensitive data and support business-critical decisions. Private connectivity, trusted data-centre environments, diverse network paths and enterprise-grade controls help strengthen security, continuity, and governance across the infrastructure.



Lower Egress Costs

As AI agents interact across multiple clouds, applications and data environments, data movement costs can quickly add up. More direct and efficient connectivity helps organisations reduce unnecessary data transfer, improve traffic efficiency, and provide greater control over spending.



Performance at Scale

Agentic AI places increasing demands on networks, compute and data movement. High-bandwidth, robust infrastructure helps handle latency-sensitive, data-intensive and high-volume workloads, and maintain consistent performance.

Ready to create an infrastructure foundation fit for AI at scale?

Don't let technology constraints limit how far and fast your organisation can transform with AI. Telstra Digital Infrastructure and Equinix can help you build the integrated and adaptable foundation you need to scale AI without compromising performance, cost efficiency, security, control and compliance.

[Learn More](#)[Reach Out Now](#)

About Telstra Digital Infrastructure

Telstra Digital Infrastructure is a leading digital infrastructure provider, delivering end-to-end solutions through world-class fibre, duct, subsea cable, data centre, tower, satellite infrastructure and engineering services. Combining decades of operational expertise with a global reach spanning close to 200 countries and territories, we help customers scale with confidence and navigate the opportunities of the AI economy.

telstrainternational.com

About Equinix

Equinix is the world's digital infrastructure company®. Digital leaders use Equinix's trusted platform to bring together and interconnect foundational infrastructure at software speed, helping organisations scale with agility and launch digital services faster.

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