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Artificial Intelligence.
Real Wisdom.

Omar's CEO is anxious about PoC failure rates. But Omar is certain he can operationalize his GenAI project. Find out here what he and other Orange Business customers know.

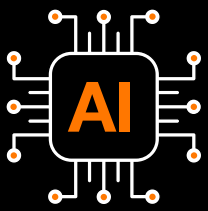
Addressing the perils and promise of GenAI: a manifesto

The role of digital infrastructure in operationalizing GenAI services

Executive summary

There is undeniable hype, confusion, and misdirection in and around the topic of AI. There is also a huge gap between most organizations' GenAI ambitions and their ability to deliver on them. In fact, Gartner claims that at least 30% of generative AI (GenAI) projects will be abandoned after Proof of Concept (PoC) by the end of 2025, for reasons such as poor data quality, inadequate risk controls, escalating costs or unclear business value[1]. This is because operationalizing an AI project – scaling a PoC into a robust production-grade service – is difficult.

High-quality data and a reliable low-latency digital infrastructure – together with the ability to wrap the necessary security and governance policies around these – must all be aligned if an AI service is to deliver the value that is expected from it. Any Large language model (LLM) is only ever as good as the data it is trained on, and the underlying digital infrastructure must support the ability to gather this information from wherever it is located and serve it up in the most cost-effective and lowest-latency manner possible, to wherever those that must make use of it are located.



This requires an intimate knowledge of the (Gen) AI technologies on which businesses are betting their futures and an end-to-end capability spanning cloud, connectivity, data and security, all with the ability to ensure that strategy flows seamlessly into execution.

The expectation gap

Several decades ago, Geoff Moore originated the term, 'crossing the chasm' to describe the obstacles facing dot.coms as they sought to transition into enterprise IT companies. Today, the term aptly describes the situation facing many organizations seeking to transform AI-based Proof of Concepts (PoCs) into scaled AI services – a process we describe as operationalization.

Adhering to the maxim that 'Wisdom is the reward you get for a lifetime of listening' (Doug Larson), we commissioned GlobalData to survey 400 companies worldwide. The resulting report explored the impact of GenAI on digital infrastructure and confirmed something we already strongly suspected – that, as companies operationalize GenAI services, they find that there is a chasm between a PoC and an enterprise-wide AI service. Bridging this gap is proving much harder than businesses expect, with AI projects costing more and taking longer than predicted.

The survey revealed that most organizations were struggling with, well, just about everything. A huge proportion – 96% – of enterprises said they needed to re-evaluate their cybersecurity strategy due to GenAI. 70% said the same thing about their cloud strategy. Less than half of organizations had or will have the IT infrastructure they need to support GenAI deployments. Finally, just over half (51%) listed the complexity associated with data management as a key pain point.

These findings have been substantiated by a host of other surveys. For example, the Boston Consulting Group found that 85% of CEOs planned to increase their spending on AI and GenAI, but 90% of them were waiting for GenAI to move past the hype. The same report claimed that 66% of leaders were ambivalent or dissatisfied with the progress they have made with AI to date.

A separate Economist Impact report found that 85% of organizations are actively using GenAI in at least one business function (this figure reached 97% for companies with revenue over US$10bn) and that 99% of executives expect GenAI adoption across internal and external use cases by 2027. However, it also found that only 37% of executives believe their GenAI applications are production-ready, a figure that falls to just 29% among practitioners.

The reason for this chasm between expectation and delivery is simple. Operationalizing GenAI services is no small feat.

It is relatively trivial to throw up a PoC of a proposed AI-based service (which is, of course, why so many companies have already done so) because there is only a very limited need to coordinate security, infrastructure and data teams; overcome silos in data repositories and fix outputs that may have low quality and many 'hallucinations' (false findings); ensure a robust security posture; or to upskill large teams.

However, as organizations operationalize that PoC, each of these areas assumes a huge new significance. And, as our survey showed, cloud costs that could be managed as part of existing budgets suddenly start to 'skyrocket'.

Scaling successfully

So, having completed a PoC and sizing up to the challenges that await you as you try to upgrade this into an enterprise-wide service, what can you expect to find there?

Firstly, infrastructure must scale: this is not only to support the huge workloads created by GenAI but to provide the ubiquitous high-speed and low-latency connectivity necessary to ensure services can be accessed by all those that need it. The KPIs that define acceptable network performance must also be in place, together with the observability necessary to track whether these goals are being met. Edge computing solutions will enable you to process data locally, thereby reducing latency and enabling real-time analysis – while also reducing cloud costs. And data traffic will only grow as GenAI services become part of daily operations, so this infrastructure must grow with it.

Data silos must be overcome so information can be gathered from locations ranging from the boardroom to the factory floor and in formats that include not only structured data in standard repositories but data from IoT sensors and unstructured data in corporate documents (emails, presentations, etc.). This data must also be cleaned so it can deliver the high-quality foundations that ensure your resulting data services are not plagued with hallucinations.

The importance of good governance cannot be overstated if you are to avoid implementation errors, security breaches, and data exposure. For efficient AI, having clear data ownership and processing guidelines will support compliance with relevant data privacy and sovereignty regulations. For unstructured data, such as documents, you will need to implement appropriate classification and manage access controls. And, as opening access to internal documents is a key GenAI use case, you must have a robust privilege process in place to protect the integrity of sensitive information.

Finally, you must have cybersecurity policies and practices in place that ensure that cybercriminals cannot exploit the increased attack surface created as data moves across the network. You will need to implement or upgrade zero-trust architecture with streamlined technology and create consistent and centrally managed security policies for the entire network that will simplify enforcement, updates, and configurations. You must be able not only to set up these policies but also to stress-test them and update them as the risk landscape changes.

This capability will be supported by a secure, distributed network using a SASE solution that encompasses on-demand cloud connectivity, SSE cybersecurity solutions, and a flexible network.

Eliminate silos, don't replicate them.

Bridging this gap takes strong leadership. It requires those at the top to set the vision and engender a culture of innovation. The key to all of that is encouraging collaboration. Because, with GenAI, you cannot treat infrastructure, data, governance, and security as standalone concerns – they are all intrinsically linked. Unfortunately, most organizations find a cultural divide exists within the IT function – cloud, security, and infrastructure teams – and between IT and the business units.

With AI talent in short supply and great demand, organizations are looking to third parties for help in plugging resource gaps. (42% are relying on cloud/app platform vendors, communication service providers, and IT service providers to deliver their GenAI services, according to our GlobalData survey.). And these silos simply become replicated as they do so. Consultants consult. Integrators integrate. Data scientists, AI engineers, and infrastructure architects all plough their separate furrows with no one focused on the overall field of AI.

What is needed is an end-to-end capability. But this is a term that has been cheapened by decades of misuse and overclaiming. So, what does this mean in a GenAI context? Firstly, it mandates expertise in the core components of AI services – infrastructure, data management and governance, and security. It demands the consulting and implementation expertise necessary to ensure that strategy flows seamlessly into execution and that value is delivered. It also requires intimate knowledge of the (Gen) AI technologies on which businesses are betting their futures. No organization can credibly claim to be able to support the operationalization of its customers' GenAI services if it has not been using those same technologies in its own products and services.

So, pulling all these threads together to create scalable AI services that deliver real value takes more than mere technical know-how (although it does need plenty of that) – it requires an end-to-end capability that transcends these silos.

It works better when it works together

Orange Business is renowned as a Tier One network services provider trusted by customers around the world for several decades to manage their mission-critical data and recognized by industry analysts as a leader in network and digital integration. We are very proud of these achievements. And we have so much more to offer than that.

We are a global systems integrator with over 30,000 employees who offer business customers a unique and secure digital experience combined with unparalleled support in 166 countries around the world.

We are the world's leading cybersecurity services provider, with more than three thousand security specialists and more than 30 years of experience. For example, we have more than 200 ethical hackers who find vulnerabilities in your security posture before bad actors can.

We are also pioneers in the adoption of AI. We have incorporated AI into every aspect of our operations: our AI tooling touches everything on our network; our employees use GenAI to generate content and manage projects; and AI-powered threat intelligence is at the heart of our risk-based approach to cybersecurity.

The accumulated wisdom deriving from this unique combination of end-to-end experience and expertise makes Orange Business ideally placed to help its customers overcome the challenges associated with the operationalization of AI services. We have the consultancy and implementation expertise to ensure that your AI strategies work as well in practice as they do on paper.

Our entire history has been building up to this moment. We have all you need to face the challenges involved in operationalizing GenAI with confidence, secure in the knowledge that you can deliver the production-grade services on which your organization's future relies...

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