



# Teradata's AI Unlimited: An evolution in large scale AI

Robin Bloor ©Bloor November 2023

**In today's data-driven world, AI and ML innovations are transforming industries across the globe. Teradata is in the vanguard of this movement. Its Vantage platform delivers a unified data architecture that enables businesses to integrate and analyse all of their data, regardless of its size, format, or location. It can reside in the cloud or on-premise or straddle both environments.**

Teradata's new AI Unlimited offering is an important extension to these AI capabilities. The problem it addresses could be described as follows:

Although AI has long been a necessary investment by large organisations that preside over extensive data resources, budgets are finite and typically, the demand from AI practitioners and teams for resources can only be partially satisfied. The constraints generally produce friction of some kind which can manifest as inflexibility, limited data access, over-rigid IT controls, operational inefficiency and heated budget discussions.

What AI Unlimited delivers is a versatile and flexible on-demand (serverless) capability that will reduce such friction.

## The AI scale problems

The scale problems of AI/ML can arise in all areas of the technical and business process and tend to grow exponentially with the data. It is project-dependent and can involve data collection and preparation (for model training), the model training itself, deployment into the production environment and the on-going monitoring and maintenance of the implementation. The actual business benefits can only be measured and hence only emerge when all of these activities are technically and organisationally bedded in.

That's considering each project or process on its own account. At the enterprise level the collaboration between data scientists, engineers, and product/project managers steps into the picture. There are competing priorities that add complications and imposing limitations.

If we now take into account that Generative AI has inserted itself into the equation and simply observe that it can be every bit as resource-hungry

as AI/ML or even more so – those LLMs need to be trained and tamed – we can see that the need for economies of AI scale are likely to increase.

## AI Unlimited

It has long been clear that cloud computing platforms, with their "unlimited" computing resources, have a clear part to play in the AI scaling solution. They are cost-effective, but nevertheless, controlling their costs is frequently a challenge. Businesses need to avoid paying for resources that they don't actually use. And yet the productivity of the AI effort will stall if the AI teams cannot grab hold of the data and the resources they need at the time that they need it.

This is where AI Unlimited enters the scene. It provides intelligent management of resource usage, providing an environment where individual teams can, at any stage of a project spin up new resources and then close them down when they are no longer required. Indeed AI Unlimited allows AI teams to save a process at any point in the development cycle – in a sense, take a snapshot – and set it to one side for later use. This is not only convenient from a cost-efficiency perspective but can be a useful capability when the AI development cycle spans days or weeks.

For its initial release, Teradata is partnering with Microsoft, which means that AI Unlimited will run in Azure. The integration with Azure services such as GitHub, Notebooks, Azure ML, and OpenAI ensures a seamless user experience and allows access to a comprehensive ecosystem of tools in a user's own data environment.

In addition to availability in the Azure marketplace, it will also be integrated into the Microsoft Fabric which significantly reduces the need for data movement and data management. It takes advantage of Microsoft's OneLake common data source.

Much more could be said about the fine granularity of AI Unlimited, its position within the Teradata Vantage platform and its integration with Azure, but it would require more than a blog post to elaborate on this. ▶

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### ► In summary

Teradata has introduced a powerful platform, Teradata AI Unlimited, that enables organisations to explore, experiment, and operationalise AI at any scale. With a flexible serverless architecture in the cloud, its users will be able to explore and discover AI innovations and use cases without being constrained by their current boundaries. The fear of cost overruns is much reduced, making it easier and faster to move breakthrough ideas from testing into real production environments.

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