



Establishing an Effective AI Center of Excellence

Unlock the full potential of AI in your organization.

Getting smarter about artificial intelligence

Artificial Intelligence (AI) isn't the future — it's already here. But while 85% of respondents from a survey conducted in 2022 say their organization uses AI to drive business insights and/or efficiencies, only 36% have optimized its use.¹ What does that mean for organizations? It may be time to establish an AI Center of Excellence (CoE) to evaluate and maximize efficacy, especially when using a hybrid cloud environment.

In simplest terms, data plus AI can unlock a wealth of insights and value for businesses. However, there is more to the process than initially meets the eye. Without a centralized and collaborative team, challenges to successful AI can emerge. Separate teams with disparate goals may enact their own policies with little-to-no collaboration, creating inconsistencies that disrupt the potential value of AI. With a lack of visibility and siloed communication across teams and their cloud environments, shadow AI can develop and create unnecessary costs.

For organizations that want transformative AI, a streamlined approach is required. This guide will cover the priorities of establishing an effective AI CoE:

- Assembling a CoE team
- CoE in action
- Real-world applications
- Taking it to the next level with hybrid solutions from NVIDIA

The three personas: Who is needed for an AI CoE

Part of developing a proper AI CoE is revisiting the idea that data and AI unlocks value. If we dive a little deeper into these three areas, we can better understand what needs our AI CoE should meet.

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Data

This includes the sourcing, selection and classification of data to be used for business insights.

AI

In order to activate data for AI, data must be cleaned, normalized and scaled, and a model must be selected and trained.

Value

To gain value from our data and AI, we need to operationalize by deploying, monitoring and potentially retraining the model.

These three aspects need to work together in harmony, which is why a properly established team with a shared focus is crucial. Once executive sponsorship is established, allowing for proper funding and support, a qualified team can be developed. That team includes data science and DevOps, FinOps, and platform engineering and DevX.



Data science & DevOps

This group oversees the development of AI by setting requirements and generating models that will uncover insights about the customer/audience. DevOps is included here because of their CI/CD philosophy and application of automation where necessary. DevOps teams might also be called to develop the visualization or end-user interfaces to the data science team's work.



FinOps

FinOps creates value through fiscal responsibility. Their visibility into spend and usage of storage, platform, etc. allows them to manage and contain costs. With costs contained, investments can be made where necessary and the unified CoE team can allocate resources appropriately.



Platform engineering & DevX

For the FinOps and data science teams to be able to do their portion of the work, they need platform engineering and DevX to develop a common system across multiple teams. This work is necessary to ensure proper access, visibility and integrations. It also reduces the cognitive workload associated with running infrastructure from the data science teams.

A well-designed AI CoE means more seamless management of a business's AI, and by extension, its on-premises and cloud environments. With this level of visibility and collaboration, resources can be distributed for the best ROI. For organizations looking to maximize the value of their AI and hybrid cloud environment, this CoE framework is a critical part of the process.

CoE in action

Once this team is assembled, additional best practices can be launched to ensure a smooth process going forward. Whether a business is in the midst of an AI deployment or starting from scratch, this process can be a valuable way to align teams and resources.

Define fundamental policies and goals.

In a siloed approach, constraints around standards and compliance, legal or data governance, ethics and security can all emerge. Different parts of the AI process require different policies and expertise to tackle properly. For example, security measures may look different for raw data versus the output from an AI model. With fragmented teams, policies may be redundant or developed in a vacuum without consideration of the other parts of the process. This lack of harmony among internal stakeholders can lead to inconsistency and improperly managed AI. Establishing an AI CoE ensures there is a shared understanding of:



Standards and compliance



Data governance



Ethics



Security

Lastly, part of the team's shared understanding is clear and established goals for the AI. An AI model cannot be successful without this step and consensus from the CoE.



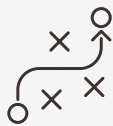
Hire and train.

For organizations with gaps in their AI CoE, it may be necessary to hire certain positions before moving forward with confidence. Next is training, which for experienced professionals may seem like an unnecessary step. However, for teams looking to have a shared mindset around a business project, this can be a valuable piece of the puzzle. This training puts everyone on the same page not just technically, but organizationally.



Build a PoC.

With policies, goals and training established, organizations should look toward a Proof of Concept (PoC). Even for businesses that may have AI already implemented, the previous steps of the process may have revealed the need for a redesign. The PoC will serve as a pilot of the sought-after AI and insights to help determine if the proposed model will yield the desired results. Most importantly, this is a chance for the AI CoE to collaborate and iterate on the project to ensure the best outcome at full implementation.



Develop a shared MVP.

The final stage of establishing the CoE is to develop a Minimum Viable Product (MVP) — which in this case means balancing the best implementation of the AI with the lowest risk and resource investment. The work of AI in a business is not done here, but this stage means the AI CoE team can move out of the establishment phase of their work and into the AI management phase. It's common for many efforts to stall at this phase. To get the most value, one of the key elements of the MVP is to validate a business plan and process that takes it into a production roll out. Without a financial, operational, and technical plan — your projects will continue to stall or die in this phase.

Applying it in the real world

The [NVIDIA DGX™ platform](#) includes compute, networking and software components from NVIDIA Base Command to NVIDIA AI Enterprise software suite to deploy the most demanding AI workloads with pre-trained models and reference architectures supported by all major storage models. With an AI CoE, organizations can start with one use case leveraging NVIDIA DGX™ platform to validate that it works at their organization. From this success, this framework can then be leveraged for multiple AI projects. Some examples of the value it can bring, especially in a hybrid cloud environment, are below.



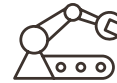
Financial Services (FSI)

A banking and investment firm may implement a chatbot feature to start using [NVIDIA DGX BasePOD for FSI](#) or DGX Cloud. Once proven successful, they might proceed to a recommendation system for their clients and capture deeper insights into their clients' propensity for investment.



Health Care & Life Sciences (HCLS)

A health system could start with an AI-based diagnostic tool using [NVIDIA DGX BasePOD for HCLS](#) before expanding into personalized treatment plans and disease detection leveraging DGX Cloud for a truly hybrid environment.



Manufacturing

A manufacturing company might leverage [NVIDIA Omniverse™](#) to simulate an environment and test AI-powered models before running them in the real world to ensure safety and viability in a lower-risk environment.



NVIDIA DGX systems

A wide portfolio for a variety of AI needs:



[NVIDIA DGX BasePOD](#)

The solution to a critical foundation for business transformation and fully realized AI applications.



[NVIDIA DGX SuperPOD™](#)

The ultimate enterprise AI data center platform that delivers scalable performance without compromise for every user and workload.



[NVIDIA DGX Cloud](#)

The latest in NVIDIA's DGX portfolio, combining the best of both worlds for on-premises and cloud capabilities for AI.

Supercharge your hybrid cloud environment with NVIDIA DGX Cloud

With an effective AI CoE, your organization will be ready to take things to the next level. The NVIDIA DGX platform and [DGX Cloud](#) takes the on-premises AI development that NVIDIA has matured through years of real-world applications and made it available in a cloud environment. This offering gives businesses the best of both worlds by closing the gaps that on-premises and cloud have on their own. With a single pane view provided by [NVIDIA Base Command™ Platform](#), organizations have visibility into their entire NVIDIA environment all at once, for easier monitoring and management. It is a way of jump-starting your AI CoE without the capital expenditure of building your own AI environment.

Most importantly, NVIDIA DGX Cloud gives businesses access to bursting. For companies that need access to on-demand scalability, this is the solution. While on-premises environments require planning and delivery before use, NVIDIA DGX Cloud can be deployed as needed. This new consumption model also allows organizations to scale back down when they don't need the additional capacity, allowing for cost containment of their cloud investment with fixed pricing. Now, your teams can operationalize quickly without the hiccups of starting from zero, while keeping visibility all in one place.

Across the industries



Financial services:

Financial institutions can't always predict when customers will want access to digital banking services, but that access needs to be possible. With DGX Cloud, the company can scale up through the cloud service as needed without missing a beat, or transaction.



Health care:

Being responsive to patient needs is the top priority, and with DGX Cloud an influx of patients, diagnoses or other challenges won't get in the way of top-tier treatment.



Manufacturing:

Increased connectivity and smart automation mean there are endless uses for AI and Machine Learning (ML) in manufacturing. Regardless of how a business is deploying them, DGX Cloud can ensure streamlined visibility and decision-making with low latency even in remote locations.

Driving innovation with digital transformation

At Insight, we help clients enable innovation with an approach that spans people, processes and technologies. We believe the best path to digital transformation is integrative, responsive and proactively aligned to industry demands. Our client-focused approach delivers best-fit solutions across a scope of services, including the modern workplace, modern applications, modern infrastructures, the intelligent edge, cybersecurity, and data and AI.

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NVIDIA provides a [Deep Learning Institute](#) (DLI) and [LaunchPad](#) lab for individuals, teams and organizations to advance their knowledge in AI and gain hands-on experience with NVIDIA AI technologies.

Whether you've already started your AI journey or you're ready to get started, our partnership gives you access to end-to-end tech and organizational expertise. Our team has the strategic knowledge to guide you from ideation to operationalization and even optimization of data and AI.

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¹ Marketpulse Research by Foundry Research Services. (February 2023). The Path to Digital Transformation: Where Leaders Stand in 2023. Commissioned by Insight.