

The Generative AI revolution and its impact on Enterprise Applications

How CIOs can maximize Gen AI gain – and
minimize pain – with future-primed ADM

The future where Generative AI (Gen AI) is beginning to radically disrupt the technologies and applications that drive businesses forward is already here. This is presenting CIOs with a ton of challenges around the enterprise applications and associated development & maintenance (ADM) services that form a critical part of the foundation of their operations. However, the opportunity that stands to be gained here could be even greater, across knowledge, service, problem, and incident management, along with enhancements, testing, transition, and training and even into new unthought of areas of service.

The disruptive effects that Gen AI is already having on how we work – and the applications we utilize – are just as profound, with 70% of employees reporting that they utilize Gen AI on the job (without informing their employers).⁽¹⁾

While just like shadow IT, this “shadow AI” is exploding and – without a forward-looking plan and secure employee platforms – the risks could be exponentially more dangerous. Issues around data privacy, security, and the reliability of Gen AI could have potentially catastrophic effects – infinitely more disruptive to your business than those associated with shadow IT.

However, it’s not all doom and gloom. Utilizing the right strategies and solutions can bring significant productivity gains, with people being able to accomplish more thanks to augmented assistance. Over 70% of executives agree that Gen AI will enable their businesses to widen the scope of knowledge worker roles, while more than 60% mentioned that Gen AI would completely revolutionize their ways of working.⁽²⁾ Additionally, within ADM services specifically, many organizations are seeing productivity gains of over 30% – where 8-15% is coming directly from the use of Gen AI.⁽³⁾



68% of high-tech organizations have begun working on generative AI pilots, but 51% cite the lack of clarity on underlying data used to train generative AI programs as a challenge.”⁽⁴⁾

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For example, fresh Gen AI use cases are being developed and enabled by multiple bots, where they are woven together with a user interface (traditional UI or chat-bot) to create an AI Agent. One or more AI Agents can also deliver next-gen ADM capabilities like Transition, Incident Management, Design, Develop, Test, and Release Management. While industry-specific Gen AI solutions are gaining traction in Life Sciences, Material Sciences, Silicon Chip Design, and Parts Design specifically. Gen AI solutions also offer defense from sophisticated cyberattacks across many industries.

⁽¹⁾ ComputerWeekly.com, “Employees more comfortable than bosses with GenAI, research shows,” March, 2024

⁽²⁾ Capgemini Research Institute, “Harnessing the value of generative AI: Top use cases across industries,” July, 2023

⁽³⁾ Everest Group, “Impact of Generative AI Impact Being Proposed by Some Leading Provider in Application Development Deals,” February, 2024

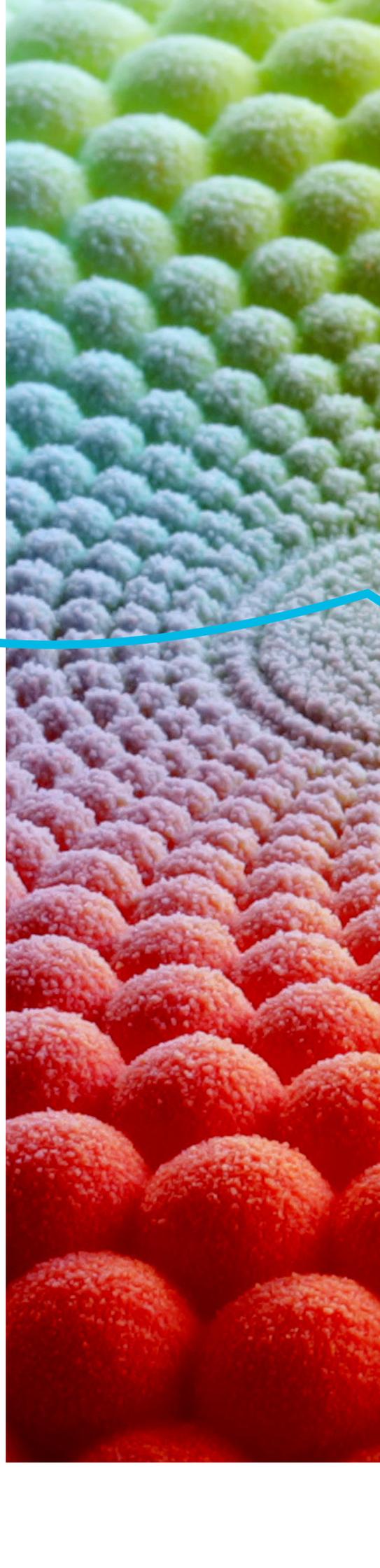
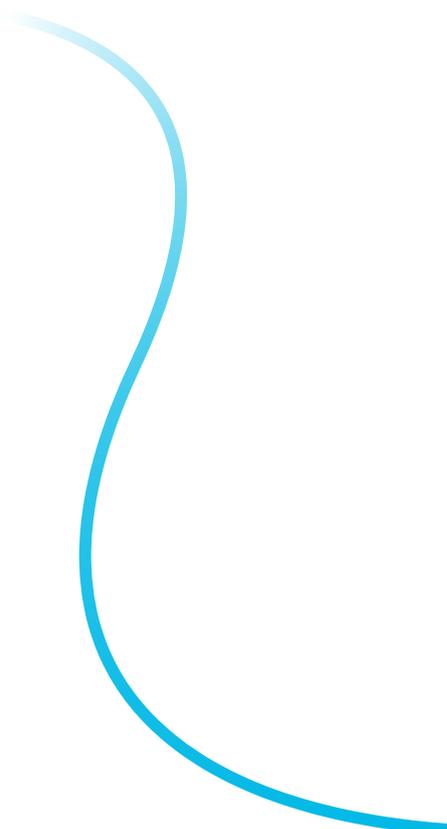
⁽⁴⁾ Ibid.



Gen AI in ADM services: Testing and incidents

Testing is performed after a major incident or minor releases – and Gen AI can broaden scope, and generate and execute test scripts. With Gen AI models, we can generate test cases for almost any scenario, along with full test data creation, optimization, prioritization, vulnerability behavior testing, and automation script generation. Overall, this can deliver:

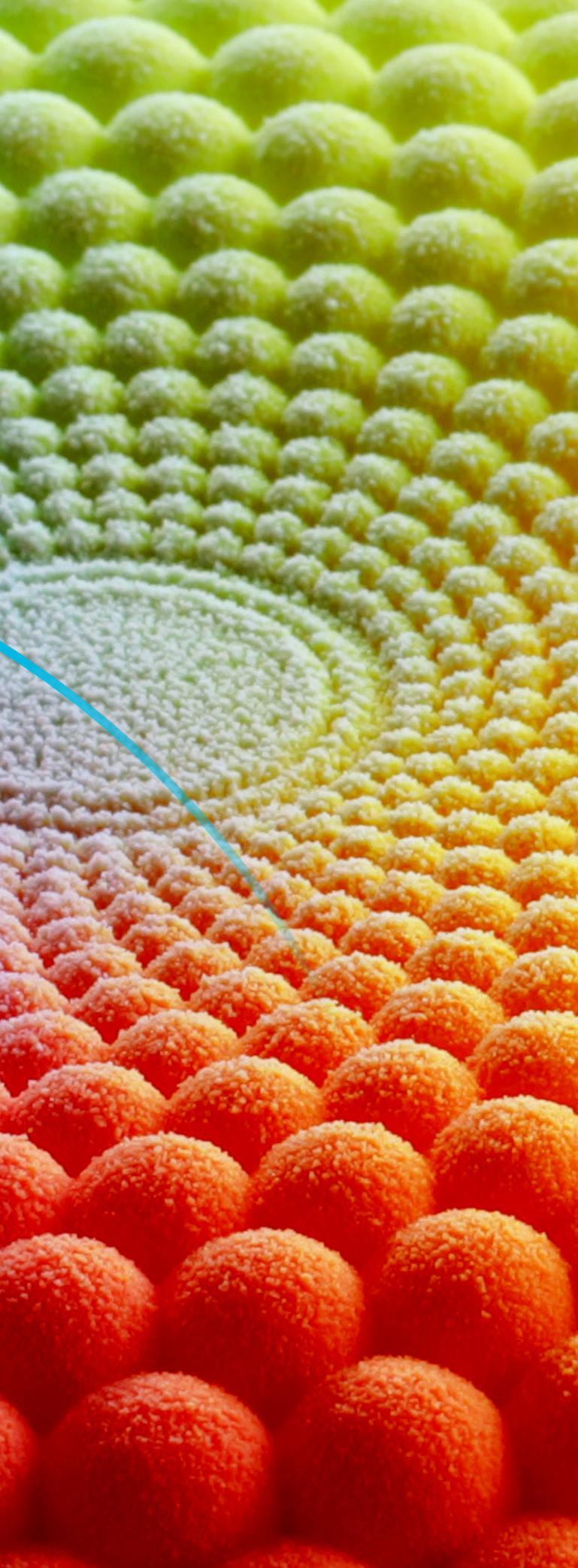
- Enhanced, intelligent test case generation and adaptive testing systems
- Test scripting and execution automation
- Increased testing coverage, consistency, and integration into the CI/CD pipeline.



The Gen AI revolution: **How did we get here so fast – and what is your best course of action right now?**

Before you begin to panic – or dive in headfirst – it may be beneficial to look outside at the wider market and how we’ve arrived at this point, while also peering inward throughout your own business and how you have evolved within this rapidly changing landscape.

Previously, we were confronted with major challenges around data sourcing and efficient compute-to-ROI capabilities. We lacked the necessary data to do proper predictive analysis. So, there was a reliance on less agile tools and measurement – like correlation between remote incidents and aggregating issues to better home in on problems and reduce alerts. We got better but challenges still existed within more fundamental areas such as data gathering and knowledge management. It is when we dive into these challenges specifically that Gen AI and automation can help you make some major headway with solutions that are more efficient than human sourcing – and less costly and of higher quality.



Gen AI in ADM services: Solve-to-search incident and service request management

Gen AI-based solve-to-search solutions can help support engineers with embedded search-and-propose capabilities that bring contextually relevant solutions from Knowledge Error Database (KEDB) (based on user-provided rankings wherever applicable). And through Gen AI integration, additional solution recommendations, Standard Operating Procedures (SOPs), and Knowledge Articles can be generated where solutions are not available in KEDB. Overall, Gen AI can help facilitate the following benefits:

- Faster Automated Exploratory Testing for effort and cost reductions
- Better SLA Management and SOP-based ticket resolution
- Reduced probability of ticket reopening and Subject Matter Expert (SME) dependency.

Challenges surrounding security and data privacy also became more important. In providing answers to these challenges, AI was beginning to be used in reviewing data and checking for anomalies of all sorts – from too many Priority 1 and 2 tickets to a lack of tickets – or high call amounts but with lower ticket volumes. AI was also applied to identify recurring problems and root causes to eliminate problems, along with correlating multiple alerts into fewer root causes and consolidating alerts. Overall, this resulted in lower numbers of these tickets and significantly reduced mean-time-to-resolve.



Looking to the future:
**Spotting key trends and
positioning your
organization – and your
people – ahead of the pack**



Gen AI in ADM services: Leveraging Gen AI to generate intelligent training capsules after the roll out of new features, modules, or greenfield systems

Large costs are incurred when it comes to training teams on new systems, processes, and capabilities throughout organizations. If the training content can be fed through a backend model, then a front-end Gen AI tool can conduct the training virtually – while also enabling exit tests and monitoring participation that can be reported. Overall, this can bring:

- Drastic reduction in training costs
- Time savings and the ability for re-use across multiple rollouts
- Easy integration into existing Learning Management Systems (LMSs).

Now, as we look to the future, what does tomorrow look like? The reliability of Gen AI and Large Language Model (LLM) technologies is a major concern for many organizations, along with ensuring that employees have the tools needed to scale themselves up and effectively watch over bots. The good news is that predictions for employee augmentation into 2025 see professionals across multiple industries delivering consistently above their experience. Additionally, employment numbers will remain neutral with no loss or increase due to Gen AI directly. It will merely enable people to augment themselves upwards and increase overall productivity.

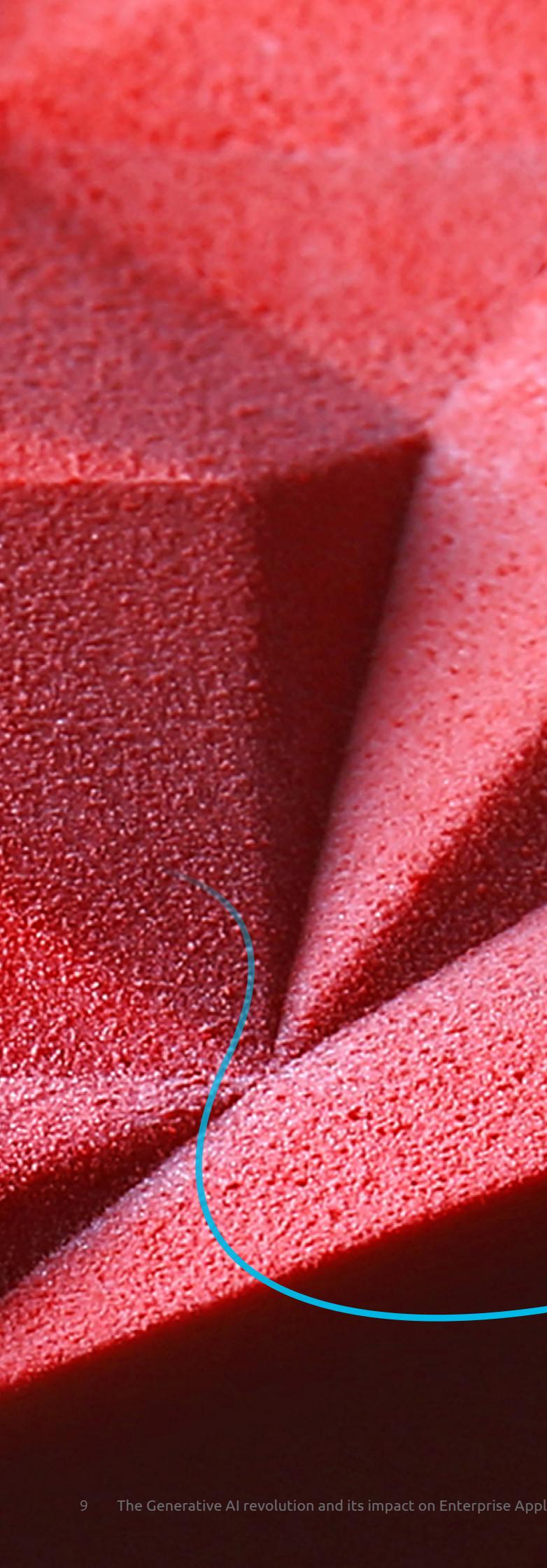
Gen AI skills will become like computer and productivity skills – in that they will be required to operate effectively as a next-level employee. While 30% of marketing messages from large organizations are predicted to be created using Gen AI (up from 2%) and Generative Design (an iterative design process using AI algorithms) in the future. Overall, organizations stand to gain significant efficiency benefits and open new frontiers in the combination of Gen AI and Cognitive AI.



As well as opening up new job roles and requirements, as 68% of executives in our survey say will happen, the integration of generative AI into the workforce will require a significant investment in upskilling and cross-skilling of talent.”⁽⁵⁾

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⁽⁵⁾ Ibid.



*The day after
tomorrow:*

Going deeper into Gen AI and the final frontier

Now, what about the day after tomorrow? What does the future really hold for Gen AI, your people, and your business? Significant emphasis needs to be placed on rapid upskilling journeys that can be scaled.

The current context we find ourselves in may be like the printing press and typesetting, where typesetters had to learn something completely different, but authorship and publishing exploded. In the same way, autonomous ADM services with Cognitive AI, Gen AI, and Automation capabilities will play a more creative role in focusing on – and driving business outcomes. Automated ADM services can also free up more time and availability to work on higher order business outcomes. While Citizen Orchestrator services can take the place of citizen developers – becoming the ultimate democratization of IT. There are massive productivity gains to be had here for those who can scale effectively – enough to off-set jobs and living income concerns – and forge a new frontier.

Less pain, more gain: Scaling your people and applications to maximize gain, minimize pain, and lead across the next frontier

So, how do you take immediate action to maximize the gain potential that Gen AI holds and minimize any pain? The answer lies in designing a strategy and roadmap with the highest value-adding use-cases and capabilities – with rich pilots and scaled deployment. However, it's also critical to select a capable partner that can help guide you in effectively implementing these pilots and drive new skill development, while also prioritizing security and scalability.



Organizations need to have a clear roadmap prioritizing use cases across functions. 40% have established dedicated teams and budgets for generative AI ... [they] see more gain than pain in generative AI – 74% believe the benefits of generative AI outweigh the associated risks.”⁽⁶⁾

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Capgemini and its ADMnext offering can help you formulate an action plan for your people and applications, along with driving experimentation through unique PoCs (Proof of Concepts). We can assist you in identifying and prioritizing your advanced use cases and enablers and develop new partnerships to jointly test use cases and budget for the future. The last frontier is not “space,” it is what we do next.

Visit us here to learn more about Capgemini’s ADMnext and our Gen AI capabilities.

⁽⁶⁾ Ibid.



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