avanade

No more waiting: How Gen AI and your mainframe can work together.

Do what matters

One of the big messages in the marketplace around generative Artificial Intelligence (gen AI), is that you need to be operating in the cloud—with high efficiency—to achieve AI readiness and take advantage of its game-changing capabilities. Many technology specialists are predicting that the allure of gen AI will be the carrot and the stick that finally spurs organizations into mainframe modernization.

We understand the fear and risk that prevents organizations from tackling mainframe modernization. Even for a prospect as enticing as gen AI. And we have some good news. Rather than waiting to use gen AI until after mainframe modernization, you can use gen AI to reduce the very fear and risk that is holding you back.

Gen AI provides visibility into the intricate complexities of the mainframe

One of the biggest barriers to beginning mainframe modernization is the lack of visibility into what part of the system handles which pieces of the business, and any interdependencies that are essential to keep everything running smoothly. Think of a spy movie where the good guys open a hatch to discover a bomb with thousands of different wires running to various nodes and they have about two minutes to figure out which ones they can safely cut to avoid catastrophe. If those good guys were CIOs and the clock said 10 years instead of two minutes, chances are they'd close the hatch and try to solve the problem another way.

Used correctly, gen AI can provide visibility into an organization's mainframe. It can dissect code and map out structure and dependencies. Gen AI can infer what an application is doing, allowing the client to accelerate testing using a natural language model. It creates a bridge for common understanding among mainframe coders, Azure developers and business executives who can look at a common framework and see which wires connect to what, what each of them do,and what effect cutting one might have on key areas of the business. Gen AI ratchets down the suspense and provides subtitles in various languages. Suddenly everyone understands what's going on and realizes this has changed from a spy movie to a documentary.

From vision into action

There's a reason no one has made a movie about mainframe modernization. It's a bit of a slog. Gen AI can help here, too, not by taking on the entire process at once, but through strategic application in discrete areas. The technology excels in three key areas:

- **Code analysis** of existing mainframe code, extracting architectural information, including functional flows through linked programs.

- **Code generation to enable modernization** by providing an understanding of business domains to accelerate creation of next generation applications, even down to GitHub CoPilot producing snippets of code.

- **Test acceleration, automation and accuracy**, which consume about 70% of mainframe conversion efforts today.

It's worth noting that gen AI isn't a panacea for mainframe modernization. You can't ask it to refactor a large code base all at once or autonomously migrate A-to-Z processes, but it's a powerful assistant to work alongside people who are willing to check its work. CoPilot is not AutoPilot. (To continue with the film metaphor, you might ask AI to identify all the scenes with a particular actor you are looking to cut out of a film, but you'd never ask it to edit the entire film.)

One of the early messages of gen AI is that it works with humans, not instead of them, to produce faster results. When it comes to mainframe modernization, there is another key element to the solution, and that is tools that can work with both AI and people to accelerate the process and enable organizations to start driving cloud-based business strategies through their upgraded systems.

Avanade has decades of experience modernizing legacy applications and more recently working with Microsoft on various gen AI initiatives to help our clients transform their mainframe. We draw on a full suite of tools to advance organizations beyond the modernization conundrum and into optimization. Tools like our Automated Migration Technology (AMT), a fully automated transformation engine that converts all legacy artifacts, delivering first class code quality, with the client requirements and preferences in scope. We have used AMT with 80 clients so far with consistent success.

If there is a downside to accelerating modernization (and we haven't found much of one yet), it is giving up on the idea of migration as a craft, looking at each piece of mainframe content and deciding where it should go. This, to us, harkens back to the days of editing a film by looking at each frame against candlelight. If you can fast forward through a lot of the exposition and identify the good parts that require your attention and fine tuning, why not use the advanced editing suite?

From vision to action back to vision

Few organizations are clinging to their mainframe by choice Mainframes are remarkable at what they do best, with performance and stability at the top of that list that keep organizations tied to them. Lack of flexibility, agility and cost effectiveness, however, make them unable to quickly respond to their clients and the market. The fear of failure and business disruption, the lack of available skills, the ability to prioritize budget—all these barriers are real and omnipresent. Yet,we believe that gen AI not only mitigates the pain of the migration, but it offers a compelling benefit at the other end.

Once you're able to see and understand the structure and interdependencies of your mainframe, you can focus your modernization efforts on the parts that really matter. And that's when gen AI makes things really interesting. Because of its in-depth analysis capabilities and its natural language modeling, it can show you what's possible. Let's say you would like to make your insurance claims processing more transparent to customers. Gen AI could show you how to do that. Or, if your priority is getting features out more quickly to customers, gen AI can highlight that pathway as well. Once we understand which wires control what areas of the business, we can modernize those aspects and unleash the considerable power of gen AI to deliver strategic advantage.

We can help

Avanade has been at the forefront of AI innovation on Microsoft for the best part of a decade, in part because of our proprietary partnership with Microsoft, one of our parent companies. Our research has focused not only on how gen AI can advance an organization's strategic and competitive agenda, but also how it can help close any gaps created by legacy systems that are holding companies back. We have a full suite of market-leading and specialized tools and platforms that leverage gen AI to accelerate mainframe modernization along the tracks described here. We truly believe that AI is that once-in-a-generation, transformative technology, and we are committed to enabling all our clients to do what matters with these new innovations, from wherever they are starting.

We have recently been recognized as Leaders in Mainframe Modernization software in the USA by Information Services Group (ISG). The Global technology research and analyst firm highlighted Avanade's global scale and emphasized its commitment to innovation and driving digital transformation through AI.
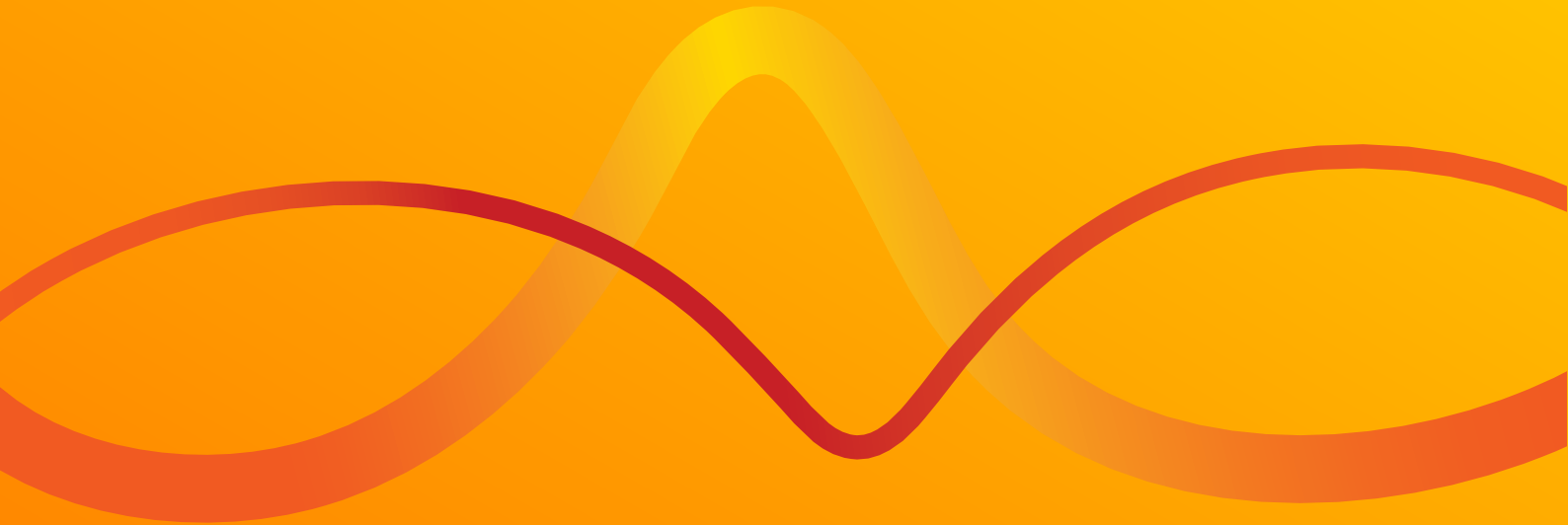Read more here.

An easy way to start is a simple assessment. Our assessment will provide the information you need to make the right decisions.

You'll receive:

- An accurate inventory of your virtual and physical assets (including servers, storage, databases, etc.)
- An end-to-end migration and/or modernization plan based on the inventory
- Customized report on the TCO of moving to the cloud

Contact us or visit Mainframe Migration &Modernization | Avanade

North America
Seattle
Phone +1 206 239 5600
America@avanade.com

South America
Sao Paulo
AvanadeBrasil@avanade.com

Asia-Pacific
Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

Europe
London
Phone +44 0 20 7025 1000
Europe@avanade.com

About Avanade
Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 60,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers.

With the most Microsoft certifications (60,000+) and 6 Solutions Partner Designations and the 7th coveted **Microsoft Cloud Badge,** we are uniquely positioned to help businesses grow and solve their toughest challenges.

As a responsible business, we are building a sustainable world and helping young people from underrepresented communities fulfill their potential.

Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com.

avanade

Do what matters