

Mainframes — Services and Solutions

A research report comparing provider strengths,
challenges and competitive differentiators

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Public sector investments in mainframes is growing as AI helps drive efficiencies.

The legacy mainframe is experiencing a renaissance that began in 2024 and is set to continue into 2025. Mainframe systems, traditionally regarded as liabilities due to maintenance challenges, are being reevaluated and recognized as strategic assets.

Investments in training and AI are starting to pay off, leading to reduced challenges in mainframe maintenance. The unique capabilities of mainframes to support AI models while reliably managing and protecting mission-critical data allow new value to be added to the IT ecosystem.

These new value propositions, when weighed against the high risk of migrating data and applications off mainframes, are prompting agencies to reassess the risk-reward relationship. Consequently, the choice to shut down mainframes is becoming less attractive.

Technology trends

Hybrid Architectures

As organizations come to grips with the reality of the eternal mainframe, they are refocusing on how these machines can function more efficiently and add value to a more connected IT ecosystem. In smaller implementations, agencies can completely exit their mainframes and shut them down. However, shutting down mainframes that support more complex and extensive mission-critical functions has proven to be much more challenging. Agencies and organizations are asking.

- What applications should we move off the mainframe, and which should stay?
- How can we efficiently access the data on our mainframe to support AI models and enhance decision-making?
- How can we optimize applications remaining on the mainframe?

New tools and services are emerging to help agencies address these questions and provide solutions. The focus on risk reduction and regulation compliance continues to drive

The **changing administration** at the federal level will have far-reaching implications.



much of the decision-making in state and local government modernization strategies.

Importance of Access to Data

The requirement for access to data to support and train AI has created a demand for new strategies to leverage hard-to-access mainframes. Data stored on mainframes is typically the most important to the business operation, requiring robust protection and security layers. DevSecOps strategies, APIs and microservices that make data more accessible and secure will become “must-have” capabilities in the coming years.

AI

Applying AI to reduce the costs and risks associated with maintaining and modernizing mainframe applications is emerging as a leading use case. The use of AI for automatic translation of COBOL to more modern languages, which are easier to maintain, has not met expectations. However, using AI to map and document mainframe applications, making them easier for humans to work on, has been significantly more productive.

AI also facilitates the creation of knowledge graphs and documentation customized to specific users, further improving the maintainability of mainframes.

AI is also helping to reduce the challenges posed by the limited number of skilled mainframe developers. AI code assistants and chatbots streamline the learning process and enable newer developers to write better code.

AI also holds the promise of repositioning the mainframe as a strategic asset. The announced IBM z17, equipped with Telum 2 chips, is set for release in 2025. This new product is poised to innovate mainframe capabilities with built-in AI accelerators designed to optimize running ML and LLMs. The mainframes’ ability to handle large volumes of data, coupled with its high processing power and robust security features, makes it well-suited for processing AI models. With many agencies’ most valuable data residing on mainframes, running models on these machines reduces the risks of moving business-critical data. While the z17 is not yet available, the perspective around the value that mainframes can offer is beginning to shift.

Rising Software Licensing Costs

The fees required to run mainframes have become an increasingly large share of overall costs. Many long-term licensing agreements are up for renewal across the industry in 2025, allowing ISVs to take advantage of this scenario by demanding higher fees. Some licenses are reportedly increasing between 125 and 175 percent. Service providers work with clients to devise alternative strategies or leverage bargaining power to reduce software costs.

Rising software costs are also squeezing margins for MFaaS providers, making it increasingly difficult to sustain this business model. This challenge reduces the number of players in this segment, as economies of scale and a laser focus on costs are essential.

Investments in Training Are Paying off

The aging workforce of skilled mainframe developers has posed challenges for many years. Service providers that established training programs to attract younger developers to learn mainframes and build their skill sets are realizing the return on their investments.

These firms report an increase in younger professionals on their payrolls who possess the skills to maintain legacy code.

Changing Political Environment

The changing administration at the federal level in the U.S. is expected to have far-reaching implications. Based on articulated policy changes, we anticipate changes in IT investments at the state and local levels.

One of the new administration’s primary goals is to reduce the size and influence of the federal government. This strategy will likely place greater responsibility on states to deliver services and make decisions. With added stress on legacy systems, state and local governments must be able to support these changes. Resources should also be allocated to states to support increased investments in modernizing mainframes.

This shift in responsibility may foster increased collaboration among state, local and education (SLED) agencies. States are already banding together to procure software, hardware and services and are beginning to exchange



technology and services. This trend is expected to accelerate as they adapt to the shifting political landscape.

Offshoring Becoming Less Taboo

Restrictions on where sensitive government data can be stored have made it challenging for state and local governments to leverage low-cost offshore resources. However, the growth of hybrid architectures and mainframe optimization strategies, such as DevOps, AIPs and microservices, are making it easier to offshore less sensitive code and data to lower-cost regions. Governments are becoming more comfortable working with offshore teams if developers do not access sensitive data.

Uneven Growth

Innovation in the mainframe services market is being rewarded with growing revenues. Providers that invest in tools, processes and technology see significantly better growth rates than those that do not. Leaders are experiencing growth rates of approximately 20 percent, while laggards are generating little to no revenue growth from their mainframe business. This disparity is likely to grow in

the coming year as new technologies and approaches are embraced and improved to deliver differentiated services and products.


While the mainframe's role within IT stacks is evolving, the competitive positioning of service providers has not considerably changed. We have seen leaders gaining momentum, while firms not adapting to the mainframes' changing role will likely become increasingly marginalized.

M&A Activity

M&As in the mainframe space have slowed since a particularly active year in 2003. In early 2024, IBM acquired Advanced and Rocket Software closed the acquisition of OpenText.

AI is also promising to help reposition the mainframe as a strategic asset. The announced IBM z17, featuring Telum 2 chips, is set for release in 2025. This new product is setting the stage for innovation on the mainframe, with built-in AI accelerators designed to optimize the execution of ML and LLMs.




 Provider Positioning

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	Mainframe Optimization Services	Application Modernization Services	Mainframe as a Service	Mainframe Operations
Accenture	Market Challenger	Leader	Not In	Leader
Astadia (Amdocs)	Not In	Market Challenger	Not In	Not In
Atos	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Avanade	Not In	Leader	Not In	Not In
BlueHill Data Services	Not In	Not In	Contender	Contender
BMC	Contender	Not In	Not In	Not In
Capgemini	Not In	Leader	Contender	Product Challenger
Cognizant	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Deloitte	Market Challenger	Market Challenger	Not In	Not In
DXC Technology	Leader	Rising Star ★	Leader	Leader



 Provider Positioning

	Mainframe Optimization Services	Application Modernization Services	Mainframe as a Service	Mainframe Operations
Ensono	Leader	Market Challenger	Leader	Leader
FNTS	Not In	Not In	Leader	Leader
Fujitsu	Not In	Contender	Not In	Not In
HCLTech	Product Challenger	Leader	Product Challenger	Product Challenger
HPE	Not In	Contender	Not In	Not In
IBM	Not In	Product Challenger	Not In	Not In
Infosys	Leader	Leader	Not In	Product Challenger
INNOVA	Not In	Contender	Not In	Not In
Kyndryl	Leader	Market Challenger	Leader	Leader
Maintec	Not In	Not In	Not In	Contender



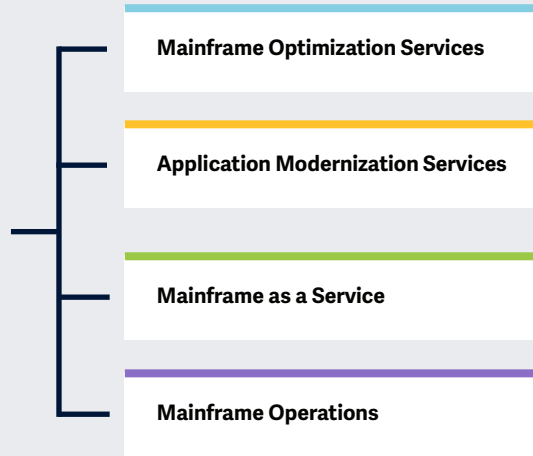
 Provider Positioning

	Mainframe Optimization Services	Application Modernization Services	Mainframe as a Service	Mainframe Operations
Mphasis	Product Challenger	Product Challenger	Not In	Product Challenger
NTT DATA	Not In	Leader	Not In	Not In
PSR	Not In	Not In	Contender	Contender
Recovery Point Systems	Not In	Not In	Market Challenger	Contender
TCS	Leader	Leader	Not In	Leader
Tech Mahindra	Product Challenger	Leader	Not In	Not In
TSRI	Not In	Product Challenger	Not In	Not In
Unisys	Market Challenger	Not In	Not In	Market Challenger
Wipro	Leader	Leader	Leader	Leader



Key focus areas for Mainframes – Services and Solutions 2025.

Simplified Illustration Source: ISG 2025



Definition

Mainframe systems have been supporting public sector IT operations for decades. However, with the widespread demand for digital modernization of systems and operations, most agencies question how legacy mainframe environments can be leveraged to meet availability, interoperability and cost requirements in today's digital world. This ISG Provider Lens™ study assesses service providers and software vendors that enable the modernization of mainframe systems, software environments and business applications to meet current and next-generation digital requirements of U.S. public sector organizations, including state, local, municipal and educational (SLED) agencies. Resilient mainframe environments can leverage high-performance hardware and software tools for continuous modernization, enabling mainframe applications to integrate with new technologies and computing platforms. The service providers and vendors in this study assist clients in adapting their mainframe applications to meet modern digital business needs by offering modernization and outsourcing services, either

on-premise or via a mainframe-as-a-service (MFaaS) model. The providers in this study cover mainframe platforms such as IBM (Z and AS/400), HP, Cray, Fujitsu and Unisys. The ISG Public Sector Provider Lens™ studies examine, explain and offer guidance on business software platforms, solutions, tools, services and providers that help improve public sector organizations' operations and transform them toward digital realities.



Scope of the Report

In this ISG Provider Lens™ quadrant study, ISG includes the following four quadrants: Mainframe Optimization Services, Application Modernization Services, Mainframe as a Service and Mainframe Operations.

This ISG Provider Lens™ study offers IT-decision makers:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on U.S. Public Sector market

This ISG Provider Lens™ study offers IT-decision makers: Our study serves as the basis for important decision-making in terms of positioning, key relationships and go-to-market considerations. ISG advisors and enterprise clients also use information from these reports to evaluate their existing provider.

Provider Classifications

The provider position reflects the suitability of providers for a defined market segment (quadrant). Without further additions, the position always applies to all company sizes classes and industries. In case the service requirements from enterprise customers differ and the spectrum of providers operating in the local market is sufficiently wide, a further differentiation of the providers by performance is made according to the target group for products and services. In doing so, ISG either considers the industry requirements or the number of employees, as well as the corporate structures of customers and positions providers according to their focus area. As a result, ISG differentiates them, if necessary, into two client target groups that are defined as follows:

- **Midmarket:** Companies with 100 to 4,999 employees or revenues between \$20 million and \$999 million with central headquarters in the respective country, usually privately owned.

- **Large Accounts:** Multinational companies with more than 5,000 employees or revenue above \$1 billion, with activities worldwide and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product & Market Challenger and Contender), and the providers are positioned accordingly. Each ISG Provider Lens™ quadrant may include a service provider(s) which ISG believes has strong potential to move into the Leader quadrant. This type of provider can be classified as a Rising Star.

- **Number of providers in each quadrant:** ISG rates and positions the most relevant providers according to the scope of the report for each quadrant and limits the maximum of providers per quadrant to 25 (exceptions are possible).





Provider Classifications: Quadrant Key

Product Challengers offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

Contenders offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in products/ services and a follow sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

Leaders have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

Market Challengers have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

★ **Rising Stars** have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

Not in means the service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.





Mainframe Optimization Services

Mainframe Optimization Services

Who Should Read This Section

This report is valuable for service providers offering mainframe optimization services in the U.S. public sector to understand their market position and for enterprises looking to evaluate these providers. In this quadrant, ISG highlights the current market positioning of these providers and examines how each addresses key regional challenges.

CIOs

Should read this report to understand the strengths and weaknesses of providers, including the way they employ the latest technologies to deliver reliable offerings.

Technology leaders/CTOs

Should read this report to understand how mainframe optimization can enhance technology integration across products, services and business operations.

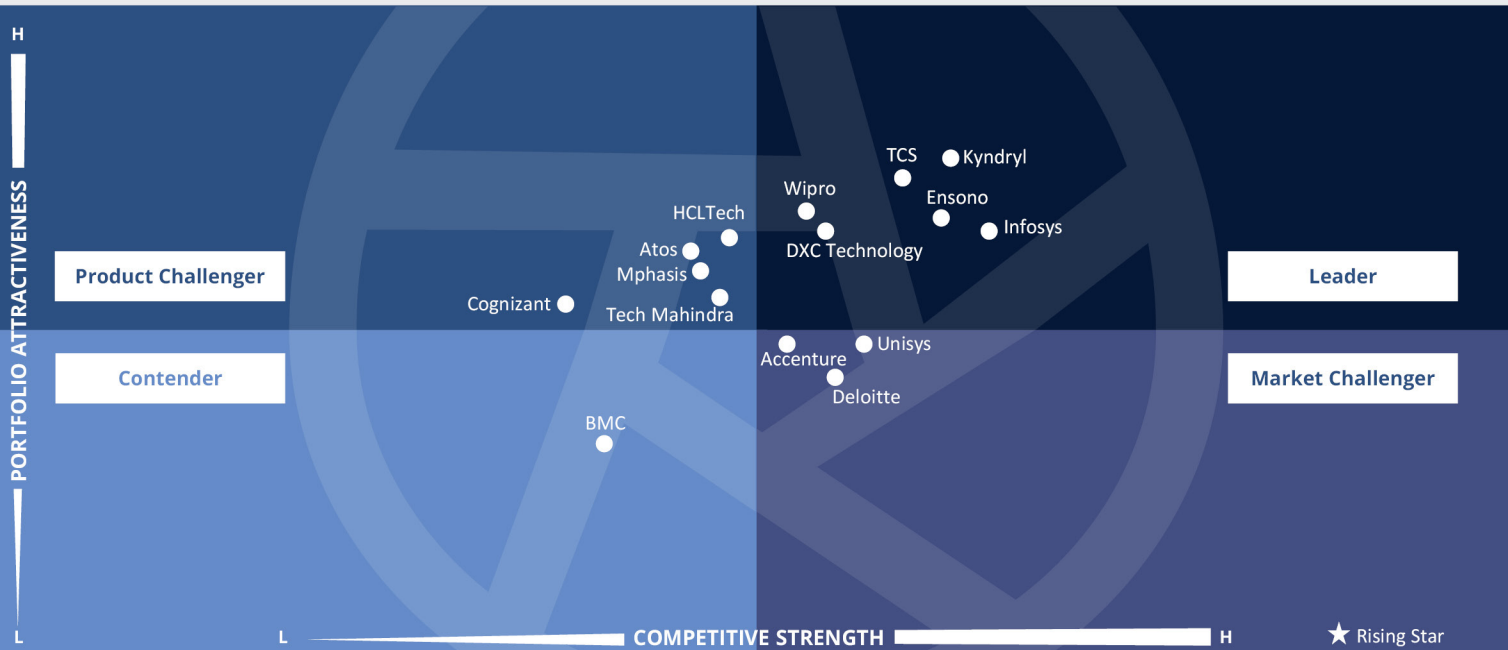
Mainframe technology leaders

Should read this report to understand their competitors and peers in the mainframe market, including their offerings, innovations, talent and portfolios.



Mainframes – Services and Solutions
Mainframe Optimization Services

U.S. Public Sector 2025



This quadrant assesses how service providers help public sector agencies **optimize** their current **mainframe applications**. It also assesses the introduction of modern application development practices and strategies that promote more agile development.

Peter Crocker



Mainframe Optimization Services

Definition

Like most legacy systems, mainframes were implemented decades before the emergence of modern application development practices. While mainframes are based on legacy programming languages and architectures, modern approaches to development and maintenance can improve the efficiency of application development and operation.

Service providers in this quadrant offer legacy application modernization services that are less disruptive to the mainframe operation, enabling organizations to better leverage contemporary technologies and practices. The providers offer services such as implementing code repositories, including GitHub or equivalent platforms, integrating DevOps practices, and automating testing processes and conducting security assessments. Modernization retains the original programming language, such as COBOL, adding architecture optimization and documentation to enable agility. After modernization is complete, clients can adopt agile methodologies for developing and maintaining applications running on

mainframe systems. This includes utilizing code repositories, quality assurance and DevOps practices.

The providers can assess a client's application portfolio to create a modernization plan, offering guidance on which applications should remain on the mainframe platform and which should be migrated. They also help public sector organizations decide on the type of applications that can be transformed and migrated to other platforms, thus enabling cost and performance optimization.

Eligibility Criteria

1. Demonstrate **wide customer presence** and involvement in the U.S. public sector as defined by ISG
2. Offer case studies around mainframe modernization of either IBM Z, IBM AS/400, IBM iSeries, HP, Cray, Fujitsu or Unisys applications
3. Include examples of **DevOps** tools integration, including code repository
4. **Modernize legacy programming languages**, such as COBOL, to build and deploy in line with modern continuous integration and deployment best practices
5. Plan for **phased modernization** with robust testing and quality assurance
6. Decouple applications, develop APIs and **integrate with applications** outside the mainframe environment
7. Offer guidance for future-state **application governance** and **application assessment services**
8. Deliver services directly through **employees** with adequate expertise in COBOL and other mainframe programming languages



Mainframe Optimization Services

Observations

While the mainframe optimization services market continues to grow in the public sector, the competitive environment has not seen the same level of change as in previous years. AI has moved beyond the experimentation phase and most vendors are embracing adoption. Hybrid architectures have also become mainstream.

Changes in provider positioning include Unisys moving from a Leader position to a Market Challenger and Accenture being positioned as a market challenger for the first time. Kyndryl and Enson have also strengthened their leadership position, while Tech Mahindra has moved from the position of a Contender to a Product Challenger.

From the 29 companies assessed for this study, 15 qualified for this quadrant, with six being Leaders.



DXC Technology is a global IT service provider headquartered in the U.S. The company divested its SLED business a few years ago with non-compete language in the deal. This agreement has now expired, paving the way for the company to pursue new opportunities in the public sector.



Enson is a mainframe services specialist with a strong presence in the public sector. This specialization contributes to its superior offerings and services, driving growth faster than its more diversified competitors.



Infosys sees the public sector as an important strategic part of its business, and the company management is positioning it to take advantage of this opportunity.



Kyndryl is the spin-out of IBM's service business, which provides it with unparalleled knowledge of IBM operating systems and a business much larger than most in the industry. Its Kyndryl Bridge tool supports robust mainframe integration with the cloud.



TCS is one of the largest global IT companies providing mainframe optimization services. The company reorganized its mainframe services business by integrating it with its newly formed Ai.Cloud group, which brings together cloud, AI innovation and mainframes.



Wipro is a large global service provider based in India. The company is increasing investments in added-value services and innovation, building on its role as a traditional systems integrator.





“Ensono continues to lead the mainframe optimization market in the public sector. The company serves as the preferred choice for mainframe optimization in this sector.”

Peter Crocker

Ensono

Overview

Ensono is headquartered in Illinois, U.S. It has more than 3,500 employees across nine offices in five countries. The company recorded total revenues of over \$1 billion in 2024. Ensono was recently acquired by leading global investment firm KKR in 2021 following strong financial performance after rebranding in 2016. Ensono generates over 15 percent of its mainframe revenues from the U.S. public sector and 97 percent from the Americas. The company has U.S. public sector agencies as clients in 15 states that consume Ensono’s mainframe optimization, operations and MFaaS services.

Strengths

Commitment to the public sector: Ensono continues to lead the SLED market, growing its business in this space by 3X over the past three years. The company claims a 100 percent retention rate for its U.S. public sector clients and operates in 15 states. The company’s focus on supporting complex and regulated industries provides it with significant and differentiated expertise and capabilities in the public sector. Strong security and a deep understanding of compliance regulations are two examples of this specialization.

Focused strategy: Ensono’s mainframe optimization service focuses on four main areas: capacity, security, performance and cost. This includes strategies to reduce hardware footprints and legacy code,

manage software licensing costs, decommission unused code and data, and optimize workload for less costly processing engines.

Strong hardware partners: Ensono has strong go-to-market (GTM) and co-innovation partnerships with Dell and IBM. These relationships enable GTM initiatives alongside players that have a strong presence in the SLED space. These partnerships also include co-innovation programs that allow Ensono early access to new products and inputs on product roadmaps.

Caution

Ensono has grown rapidly, with revenues surpassing \$1 billion. This status positions the company in greater competition with larger global service providers with more resources. As Ensono attracts more attention, competitors may create environments that make it harder for the company to succeed.





Application Modernization Services

Who Should Read This Section

This report is valuable for service providers offering application modernization services in the U.S. public sector to understand their market position and for enterprises looking to evaluate these providers. In this quadrant, ISG highlights the current market positioning of these providers and examines how each addresses key regional challenges.

CIOs

Should read this report to understand the strengths and weaknesses of providers, including the way they employ the latest technologies to deliver reliable offerings.

Technology leaders/CTOs

Should read this report to understand how application modernization can enhance technology integration across products, services and business operations.

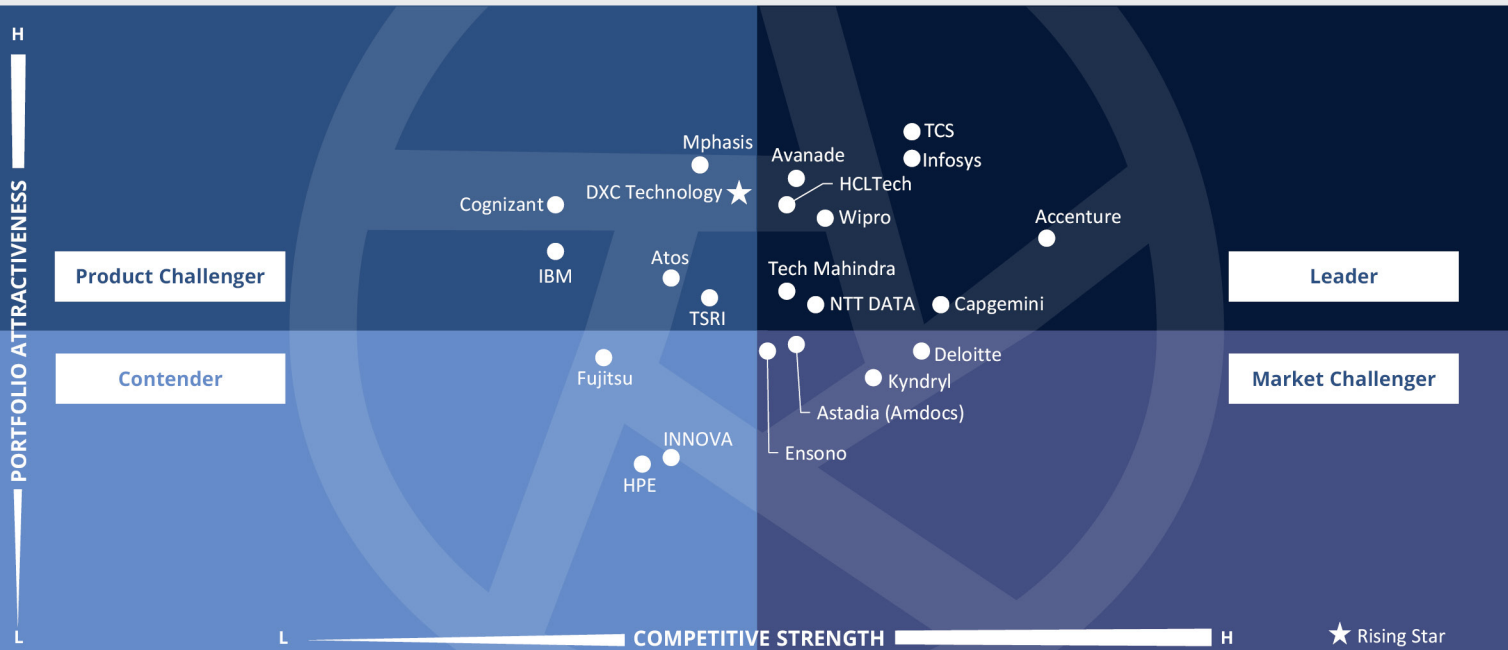
Mainframe technology leaders

Should read this report to understand their competitors and peers in the mainframe market, including their offerings, innovations, talent and portfolios.



Mainframes – Services and Solutions
Application Modernization Services

U.S. Public Sector 2025



This quadrant assesses how service providers help public sector agencies **rewrite** legacy mainframe **applications** in modern programming languages. It also assesses how these providers help agencies migrate applications off the mainframe once they are modernized.

Peter Crocker



Application Modernization Services

Definition

The number of software developers skilled in maintaining mainframe applications written in decades-old programming languages is dwindling. To ensure these applications remain operational and to preserve the business logic refined over many years of serving constituents, agencies are seeking to transform legacy mainframe codes into modern programming languages that are not restricted to the mainframe environment. Transforming applications reduces maintenance costs and eliminates mainframe licensing costs. The applications are also more agile and better adaptable to changing technology.

This quadrant assesses application development and maintenance services providers with new application modernization methodologies to assess and rewrite legacy programming language applications written with COBOL, RPG, Fortran, PL/1, Natural and other languages that typically run on mainframes. The main target programming

languages may include Java, .Net, C#, Python and others, enabling the same logic and business rules to run on any platform, including the public cloud.

Government organizations seeking to move their applications off the mainframe can choose service providers that offer modernization methods such as refactoring, rehosting, encapsulating, replatforming, rewriting and reengineering. A complete transformation should include UI translation services that can eliminate green screens while introducing a modern graphic UI for a better UX.

Eligibility Criteria

1. Demonstrate **wide customer presence** and involvement in the U.S. public sector as defined by ISG
2. **Ability to reverse engineer** legacy applications to provide application logic documentation
3. **Showcase expertise in automating code conversion** with tools to reduce the time required to transform the applications
4. Offer **emulation systems** to run legacy applications on other platforms without rewriting code
5. Offer services such as application assessment, phased transformation with robust testing and quality assurance, application decoupling, system architecture, API development and future-state application governance
6. Offer phased transformation with robust project management, testing and quality assurance
7. Ability to help clients incorporate **agile development** and maintenance with CI/CD automation through transformation



Application Modernization Services

Observations

In general, movement within the Application Modernization Services quadrant is limited. However, Wipro and NTT Data are exceptions, each advancing into the Leader position due to increased innovation and strong relationships with leading hyperservers. DXC has emerged as a Rising Star with its non-compete agreement expiring in the public sector. The financial backing from the much larger Amdocs has enabled Astadia to become a more competitive entity, moving from Contender to Market Challenger.

The M&A activity that has been prevalent in this space over the past few years subsided in 2024. Providers are now refocusing on maximizing their investments and finding the most effective GenAI applications.

From the 29 companies assessed for this study, 22 qualified for this quadrant, with nine being Leaders and one a Rising Star.

accenture

Accenture is a global IT service and consulting company. This unique combination of consulting and IT expertise positions Accenture distinctively in the market, enabling it to offer differentiated and innovative solutions to various business challenges.

Avanade

Avanade, a joint venture between Microsoft and Accenture, operates collectively while maintaining distinct client base and go-to-market (GTM) strategies, with some overlapping offerings. The acquisition of Asysco in 2022 has further strengthened Avanade's capabilities in the mainframe application modernization space.

Capgemini

Capgemini is a global consulting company based in France, but it also serves many clients in the U.S. public sector. The company's strategy focuses on developing a broad talent base to deliver services in the mainframe application modernization market.

HCLTech

HCLTech, an India-based global IT services company, provides differentiated integration capabilities with extensive tools, platforms and frameworks.

Infosys

Infosys, the second-largest global IT services company, has identified public sector agencies worldwide as an important growth driver and is executing a deliberate strategy to capitalize on this opportunity.

NTT DATA

NTT DATA, a subsidiary of Japan-based NTT Group, specializes in mainframe modernization services focusing on risk mitigation. The company collaborates with AWS and offers strong toolsets to enhance its market offerings.



Application Modernization Services



TCS stands out as one of the largest global systems integrators, making significant investments in GenAI. This strategic move aligns well with its focus on technological innovation and its strong mainframe application modernization market offerings.



Tech Mahindra is rapidly evolving from a conventional systems integrator to a consulting partner. The company has developed strong analytic offerings to help clients navigate strategies beyond mere execution.



Wipro, a global IT service provider, is integrating smart AI innovation and mainframe data access strategies into their mainframe application modernization services.



DXC Technology has emerged as a Rising Star in the Application Modernization Services quadrant in the U.S. public sector, with expired non-compete agreements allowing the company to engage with the U.S. public sector market fully.





Mainframes as a Service

Who Should Read This Section

This report is valuable for service providers offering MFaaS in the U.S. public sector to understand their market position and for enterprises looking to evaluate these providers. In this quadrant, ISG highlights the current market positioning of these providers and examines how each addresses key regional challenges.

CIOs

Should read this report to understand the strengths and weaknesses of providers, including the way they employ the latest technologies to deliver reliable offerings.

Technology leaders/CTOs

Should read this report to understand how MFaaS can enhance technology integration across products, services and business operations.

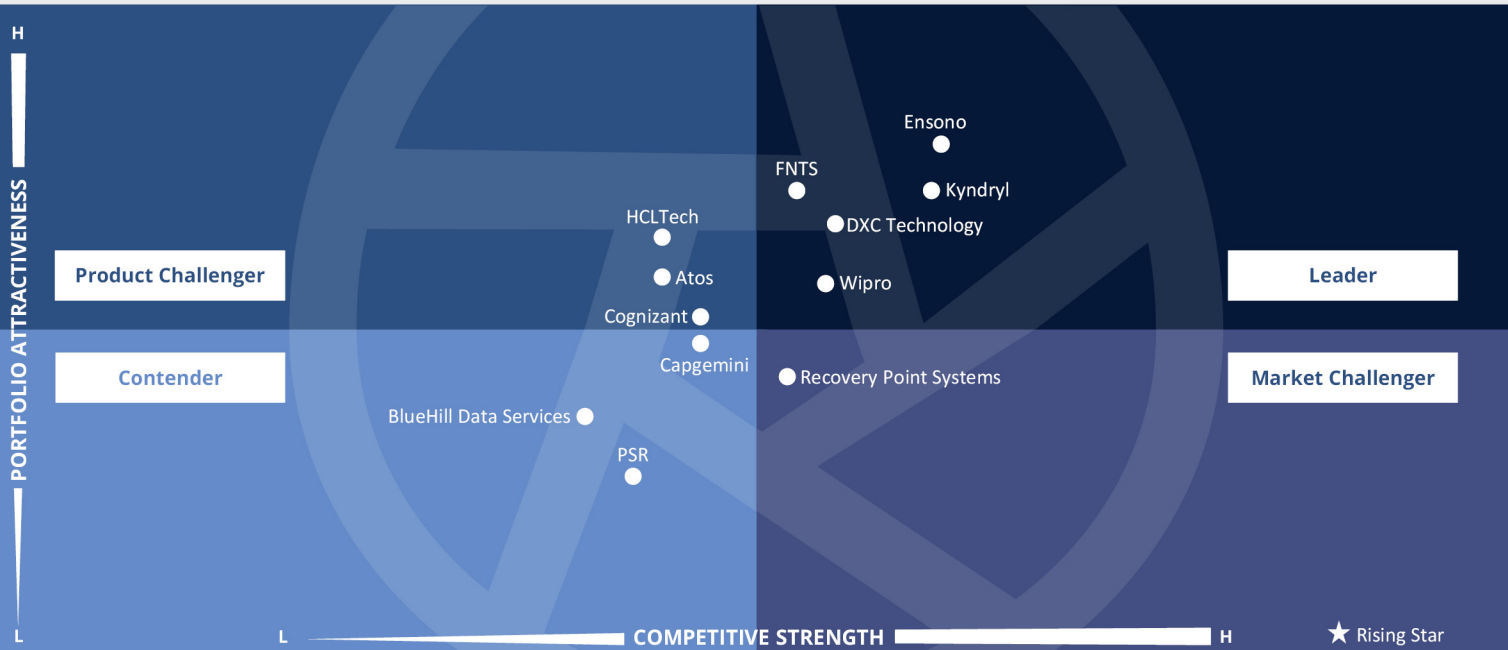
Sourcing and procurement leaders

Should read this report to understand their outsourcing deals and develop a clearer perspective on the consulting and transformation services landscape for mainframes.



Mainframes – Services and Solutions
Mainframe as a Service

U.S. Public Sector 2025



The Mainframe as a Service (MFaaS) quadrant assesses how providers deliver MFaaS to the public sector. It also assesses the services that enable agencies to **host** their mainframes in data centers controlled by these **service providers**.

Peter Crocker



Mainframes as a Service

Definition

Mainframe-as-a-service offering provides a valuable alternative to agencies that run and maintain a mainframe in their own data center. Challenges with licensing costs and finding qualified professionals to support these systems put significant pressure on agencies to keep these systems running. In many cases, state and local agencies cannot manage mission-critical applications that run on mainframes. They find handling the disruption and risks of rewriting applications and modernizing the systems challenging. Moving their mainframe environment to a third party's infrastructure and tasking them to maintain it eliminates some challenges of operating a mainframe on their own.

This quadrant assesses infrastructure service providers that offer shared IBM Z mainframes under a pay-per-use contract model. The services include facilities, hardware, connectivity, mainframe network management,

licensing, operating system, subsystems and tools. The providers must also offer all maintenance services required to keep mainframe workloads running and to comply with the expected performance established upfront. An MFaaS is hosted at a provider's or partner's data center, offering a cloud-like experience.

A more cloud-like mainframe has many capabilities and benefits. It enables customers to scale up or down their service as requirements change. Latency is also low as the mainframe is closer to the public cloud than in an agency's data center.

Eligibility Criteria

1. Demonstrate **wide customer presence** and involvement in the U.S. public sector as defined by ISG
2. Use **robust and secure data centers** to deliver high performance and availability as expected from mainframes
3. Offer **services** such as job scheduling, performance optimization, CICS®, batch, backup, restore, system upgrades, security patches and other typical mainframe operations
4. Demonstrate the **disaster recovery** effectiveness of its MFaaS infrastructure
5. Offer low-latency **connections to clients' locations** through its hosting facilities and the public cloud, such as AWS Direct Connect, Azure Route and GCP Direct Connect
6. Demonstrate the **financial capacity** to invest in and grow mainframe operations
7. Have a **hiring and training** program to ensure future skill availability in the future
8. **Ensure** performance and security as per SLAs and corresponding contractual penalties



Mainframes as a Service

Observations

Changes in the MFaaS quadrant are limited. Many providers from the 2024 study maintain their leadership positions with one exception. FNTS moved up from being a Rising Star to a Leader in this quadrant. As a Leader, Ensono has also strengthened its position among its competitors.

Challenges related to rising software licensing costs and the limited room for differentiation keep the number of providers in the MFaaS market relatively small.

Recovery Point Systems has emerged as a Market Challenger due to its demonstrated capability in disaster recovery, and Cognizant has become a Product Challenger due to its improved portfolio offerings.

From the 29 companies assessed for this study, 12 qualified for this quadrant, with five being Leaders.



DXC Technology, a U.S.-based global IT service provider, expects new growth in the U.S. public sector as non-compete agreements expire.



Ensono specializes in MFaaS and the U.S. public sector which gives it a unique leadership position in this market.

FNTS

FNTS is a First National of Nebraska subsidiary headquartered in Omaha, Nebraska. The company's experience working with highly regulated industries gives it an advantage in collaborating with agencies in the U.S. public sector.



Kyndryl is the spinout of IBM's services business, providing the company with one of the largest customer bases in the MFaaS market. The company is currently undergoing a transition period as it shifts its focus from profitability to growth.



Wipro is a global IT services business that demonstrates its ability to implement AI in innovative ways that leverage its capabilities while paying attention to its limitations.





“Ensono continues to separate its MFaaS business from its competitors in the public sector, building scale and enhancing expertise.”

Peter Crocker

Ensono

Overview

Ensono is headquartered in Illinois, U.S. It has more than 3,500 employees across nine offices in five countries. Total company revenues are over \$1 billion. Ensono was recently acquired by leading global investment firm KKR in 2021 following strong financial performance after rebranding in 2016. The company generates over 15 percent of its mainframe revenues from the U.S. public sector and 97 percent from the Americas. The company offers mainframe optimization, operations and MFaaS services to its public sector agencies clients in 15 states.

Strengths

Public sector MFaaS focus: Ensono has established a strong presence in the MFaaS market, making it a key business area for the company. This focus has led to significant growth in Ensono’s MFaaS business, with increasing MIPS under management. The company focuses much of its MFaaS efforts on the public sector and is listed as a preferred vendor by the National Association of State Procurement Officials (NASPO).

Latency-optimized strategies: Ensono conducts latency risk assessments to establish the most effective method to move mainframe code to minimize latency. Mainframes can be hosted close to hyperscaler data centers to reduce latency further.

Workload flexibility: Ensono offers Enson Flex®, a program allowing clients to migrate workloads across Ensono platforms without penalties. This flexibility enables clients to optimize their Mainframe workloads, ensuring they operate in the optimal environment or platform.

GTM partnership: Ensono is collaborating with Dell Technologies to expand its MFaaS business in the SLED space. Dell EMC storage products support Ensono’s MFaaS offerings. Ensono’s collaboration with IBM grants the company early access to new releases, a benefit Ensono is leveraging to create an experimental environment in preparation for the z17 AI capabilities.

Caution

While Ensono is a specialist in the mainframe market and its mainframe business is comparable to or larger than that of its competitors, the company’s overall size is significantly smaller than that of the global system integrators with which it competes.





Mainframe Operations

Mainframe Operations

Who Should Read This Section

This report is valuable for service providers offering mainframe operations in the U.S. public sector to understand their market position and for enterprises looking to evaluate these providers. In this quadrant, ISG highlights the current market positioning of these providers and examines how each addresses key regional challenges.

CIOs

Should read this report to understand the strengths and weaknesses of providers, including the way they employ the latest technologies to deliver reliable offerings.

Technology leaders/CTOs

Should read this report to understand how mainframe operations can enhance technology integration across products, services and business operations.

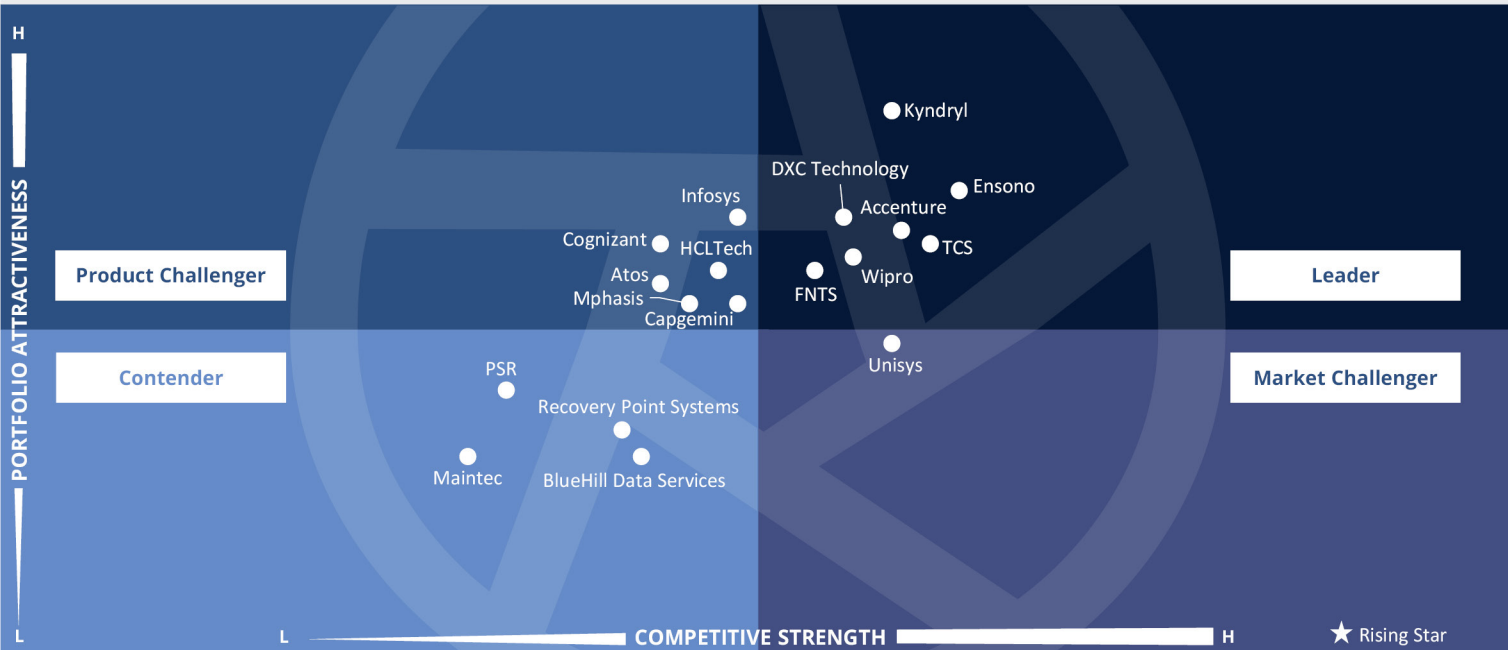
Sourcing and procurement leaders

Should read this report to understand their outsourcing deals and develop a clearer perspective on the consulting and transformation services landscape for mainframes.



Mainframes – Services and Solutions
Mainframe Operations

U.S. Public Sector 2025



This quadrant assesses providers **managing mainframe** operations hosted at **customer data centers**. It also assesses the services offered, including routine maintenance, performance optimization and staff augmentation.

Peter Crocker



Mainframe Operations

Definition

Maintaining a skilled workforce to operate mainframes within a government agency is challenging. While finding COBOL developers is difficult, agencies' tight budgets often make retaining them cost-prohibitive. When outsourcing the whole environment to a third party as an as-a-service model is not viable, agencies may bring experts in to work on their machines.

This quadrant assesses traditional outsourcing providers with extensive experience in offering mainframe services. Typical participants employ experienced practitioners to cover legacy mainframe technologies and the most recent mainframe releases. Constantly updating the skill level of these consultants and maintaining a knowledge base are key requirements.

Mainframe operation service providers offer skilled teams to keep clients' mainframes running. These services can be delivered at any client- or provider-owned hosting facility. Such services have long existed, including job scheduling, performance optimization, CICS®, batch processing, backup and restore, system upgrades, security patches and other typical mainframe operations. Multiple options exist for hardware and software ownership, upgrades and modernization responsibilities. Mainframe operations cover staff augmentation and support the operation of client-owned on-premises mainframes.

Eligibility Criteria

1. Offer **wide customer presence** and involvement in the U.S. public sector as defined by ISG
2. Demonstrate a strong mainframe operation capacity through case studies
3. Have a **hiring and training program** to ensure skills availability in the future
4. Offer **professional services** to manage and monitor CPU, memory, databases, operating systems and tools
5. Offer professional services to **install and replace** hardware, software and tools
6. Offer professional services such as **patching services** for operating systems, middleware and applications, system upgrades, data center security, network configuration and system integration
7. Provide management **dashboards**, including utilization reports, performance indicators and chargeback
8. Offer services, such as incident management, problem management and release management, that **comply with ITSM** best practices



Mainframe Operations

Observations

The Mainframe Operations quadrant is the oldest business line in the mainframe services study and is quite mature. Typically, changes in the competitive landscape are limited due to challenges associated with differentiating providers' services.

This year, however, there have been some slight movements in providers' competitive positioning in the quadrant. Capgemini moved from Leader to Product Challenger. Unisys moved from Leader to Market Challenger and FNTS moved up to the Leader position from being a Product Challenger. Capgemini has a strong portfolio of services but is not investing aggressively in innovation within the public sector or securing new businesses. Unisys maintains a strong position in the public sector due to the number of Unisys systems still in operation; however, its offerings are restricted to these systems, constraining the breadth of its portfolio. As a smaller company, FNTS is gaining new ground in the public sector, successfully moving from a Product Challenger to a Leader position.

From the 29 companies assessed for this study, 18 qualified for this quadrant, with seven being Leaders.

accenture

Accenture focuses on continuous analytics of the mainframes it manages, allowing the company to make informed recommendations for optimization while leveraging an extensive portfolio to deliver results.

DXC TECHNOLOGY

DXC Technology, a large U.S.-based IT service provider, is reenergizing its public sector business by emphasizing scale and TCO in the market.

ensono

Ensono specializes in serving public sector clients with mainframe services, positioning it uniquely in the competitive market landscape.

FNTS

FNTS, a subsidiary of First National of Nebraska headquartered in Omaha, Nebraska, concentrates on providing mainframe services to highly regulated industries, including financial institutions and public sector agencies.

kyndryl

Kyndryl, the spinout of IBM's services business, has one of the largest customer bases in the mainframe market. The company is equipped with a highly skilled workforce, refined hybrid capabilities and integration tools.

TCS TATA CONSULTANCY SERVICES

TCS is the largest IT services company based in India. It is focused on innovating with GenAI and helping clients reduce their mainframe costs.



Wipro is a global IT service provider offering clients greater service consumption flexibility. The company also provides a full suite of mainframe services to the public sector, creating more client options.



Ensono



“Ensono’s proactive approach to mainframe operations and focus on tools to identify issues before they escalate into challenges serves as a key differentiator in the market.”

Peter Crocker

Overview

Ensono is headquartered in Illinois, U.S. It has more than 3,500 employees across nine offices in five countries. Total company revenues are over \$1 billion. Leading global investment firm KKR acquired Ensono in 2021 after strong financial performance after rebranding in 2016. Ensono generates 97 percent of its mainframe revenues from the Americas, with over 15 percent of the revenue from the public sector. The company has public sector agency clients in 15 states that consume Ensono’s mainframe optimization, operations and MFaaS services.

Strengths

Proactive approach: Ensono has developed a predictive engine that enables early identification of potential issues and proactive measures to prevent or mitigate their impact. Ensono’s Advisor tool also leverages AI to analyze mainframe operations and identify optimization opportunities. This collaborative approach allows AI and mainframe experts to deliver the best client service. The Ensono Enison® platform further enhances this initiative by integrating automation to streamline the implementation of optimization strategies.

Strong partnership: Ensono maintains a close relationship with IBM, granting it unique access to IBM’s product development processes and early access to new programs for IBMz. This partnership positions Ensono


ahead of its competitors by equipping it with the latest skillsets in managing these systems. Ensono also has a strong GTM partnership with Dell, offering sophisticated automation technologies that comply with fail-safe requirements mandated by government entities.

Commitment to the public sector: Ensono has proven its strength and focus in the public sector, demonstrating its commitment to growth in this area. The company consistently wins competitive bids and has set aggressive growth targets. Ensono boasts a 100 percent retention rate within the U.S. public sector.

Caution

Ensono emphasizes its MFaaS outsourcing offerings and considers its operations business an extension of these services. Clients seeking simple operations outsourcing may be directed toward an MFaaS structure with Ensono instead.





Star of Excellence

A program, designed by ISG, to collect client feedback about providers' success in demonstrating the highest standards of client service excellence and customer centricity.

Customer Experience (CX) Insights

In the ISG Star of Excellence™ research on enterprise customer experience (CX), clients have given feedback about their experience with service providers for their **Mainframes — Services and Solutions** services.

Based on the direct feedback of enterprise clients, below are the key highlights:

Industry Average CX Score



- ▲ Highest CX: 90.9
- ▼ Lowest CX: 50.0

CX Score: 100 most satisfied, 0 least satisfied
Total responses (N) = 362

Client Business Role

- ▲ **Most satisfied**
Finance
- ▼ **Least satisfied**
Legal/Compliance

Region

- ▲ **Most satisfied**
Eastern Europe
- ▼ **Least satisfied**
Asia

Industry

- ▲ **Most satisfied**
Chemicals
- ▼ **Least satisfied**
Pharmaceuticals and life sciences

Most Important CX Pillar

Business Continuity and Flexibility

Service Delivery Models	Avg % of Work Done
Onsite	56.8%
Nearshore	25.2%
Offshore	18.0%

Source: ISG Star of Excellence™ research program, Insights till February 2025





Appendix

The ISG Provider Lens 2025 – Mainframes — Services and Solutions research study analyzes the relevant software vendors/service providers in the U.S. Public Sector market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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The research and analysis presented in this study will include data from the ISG Provider Lens™ program, ongoing ISG Research programs, interviews with ISG advisors, briefings with service providers and analysis of publicly available market information from multiple sources. ISG recognizes the time lapse and possible market developments between research and publishing, in terms of mergers and acquisitions, and acknowledges that those changes will not reflect in the reports for this study.

All revenue references are in U.S. dollars (\$US) unless noted.

The study was divided into the following steps:

1. Definition of Mainframes — Services and Solutions market
2. Use of questionnaire-based surveys of service providers/ vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Use of Star of Excellence CX-Data
6. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
7. Use of the following key evaluation criteria:
 - * Strategy & vision
 - * Tech Innovation
 - * Brand awareness and presence in the market
 - * Sales and partner landscape
 - * Breadth and depth of portfolio of services offered
 - * CX and Recommendation



Author & Editor Biographies

Author



Peter Crocker
Lead Analyst

Peter leads the Mainframes Provider Lens research for ISG for the U.S. Public Sector. He is an experienced IT market analyst, entrepreneur, and content creator with over 15 years of experience covering software applications and services. Peter has founded multiple companies and has worked with many boutique research and consulting firms delivering marketing services and insights to software vendors, IT service providers, and telecom equipment vendors. His primary area of expertise is in mobile, cloud, digital transformation, and enterprise applications.

In addition to evaluating markets and IT service providers for ISG, Peter works with clients to produce thought leadership and product marketing messaging and content in the information technology sector. Peter holds an MBA in marketing from the College of William and Mary and BA in psychology from Rollins College.

Enterprise Context and Overview Analyst



Manoj M
Senior Research Analyst

Manoj is a senior research analyst at ISG and supports ISG Provider Lens™ studies on Private/Hybrid Cloud – Data Center Services, Mainframes and Public Cloud Data Center Solution and Services. He also supports the lead analysts of multiple regions in the research process. Prior to this role, he supported the ROI process in sales intelligence platform and was an individual contributor in handling research requirements for advanced technologies in different sectors.

He has considerable expertise in predicting the automation impact by considering certain parameters such as productivity, efficiency and time reduction. During his tenure, he has supported research authors and authored Enterprise Context and Global Summary reports with market trends and insights.



Author & Editor Biographies

Study Sponsor



Heiko Henkes
Director and Principal Analyst

Heiko Henkes is a Director and Principal Analyst at ISG; in his role as Global ISG Provider Lens™ (IPL) Content Lead and Program Manager, he is responsible for strategic business management and acts as thought leader for IPL Lead Analysts. In his role as Star of Excellence (SOE) Product Owner, he leads the program design and IPL integration. His core competencies are in the areas of defining derivations for all types of companies within their IT-based business model transformation. Within this context,

Mr. Henkes supports companies to undergo continuous transformation, combining IT competencies with sustainable business strategies and change management. He acts as Keynote speaker in the context of digital innovation.

IPL Product Owner



Jan Erik Aase
Partner and Global Head – ISG Provider Lens™

Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor.

Now as a partner and global head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.



iSG Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens™ research, please visit this [webpage](#).

iSG Research™

ISG Research™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research™ delivers guidance that helps businesses accelerate growth and create more value.

ISG offers research specifically about providers to state and local governments (including counties, cities) as well as higher education institutions. Visit: [Public Sector](#).

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iSG

ISG (Information Services Group) (Nasdaq: III) is a leading global technology research and advisory firm. A trusted business partner to more than 900 clients, including more than 75 of the world's top 100 enterprises, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including AI and automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis.

Founded in 2006, and based in Stamford, Conn., ISG employs 1,600 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.

For more information, visit isg-one.com.





MARCH, 2025

REPORT: MAINFRAMES — SERVICES AND SOLUTIONS