

G-Cloud 15

Mainframe as a Service



AtoS

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1. What is MFaaS?

Mainframe as a Service provides a fully managed, all-inclusive IBM Mainframe (System z) infrastructure consisting of hardware and operating system software, transaction processing, database, and timesharing software, ensuring high reliability and performance.

Atos' Mainframe Operations aaS approach also provides flexibility to scale mainframe usage for the future, without investment in hardware or technical skills:

Traditional Mainframe Services

- Reduce TCO
- Access to services of a world-class provider
- Free up resources for strategic projects
- Avoid recruitment of key technical skills (greying workforce)

Agility and Flexibility

- Pay as you Go Atos helps customers use IBM mainframes in a hybrid setup, so they can run and manage mission-critical workloads across platforms as one integrated environment ("one box").

Modern workloads (Linux, Java)

- Stable, proven, predictable yet modern and frequently used
- Atos proven Track record

We have all relevant certifications in place, including ISO 9001, ISO 27001, ISAE3402 and PCI (card processing)

Customer benefit

Transforming your mainframe:

- We run one of Europe's largest Mainframe data centres (the largest Sysplex in Europe)
- We provide hosted Mainframe services to more than 70 enterprise clients
- Current worldwide processing capacity is more than 50,000 MIPS (z/OS, z/VM, z/VSE)
- We support Linux on z, zAAP, and zIIP processors
- We have all relevant certifications in place, including ISO 9001, ISO 27001, ISAE3402 and PCI (card processing)

- Everything we do is backed up by the experience drawn from our 40 years of continuous Mainframe service.

Thanks to the combination of traditional Mainframe Services with newer and emerging technologies, we can offer our customers the Mainframe Services they need – and, because of the sheer scale of our Mainframe Hub, they benefit from economies of scale. We can offer up to 20% cost savings compared to the market.



2. What does it deliver?

Atos MFaaS turns capex into opex and minimises customer risk. At the same time, the Atos Mainframe Hubs from which Mainframe as a Service is delivered are state-of-the-art twin DC locations, with standard data encryption (where legally possible) and an optimised delivery model. The services comprise Mainframe environments (LPARs, databases, middleware, application operations, ISV software, performance & capacity management), Service management (with reporting and invoicing), and Innovations (with Blockchain, Machine Learning, Cloud object storage, Containers, Docker).

Mainframe as a Service (MFaaS)

- **Shared Infrastructure:** Offers a multi-tenant mainframe system with shared IBM Mainframe processors, DASD, and virtual tape capacity.
- **Elasticity:** Dynamically increases or decreases capacity based on workload demands.
- **Flexible Pricing:** Utility-based pricing model, converting CAPEX to OPEX for cost efficiency.
- **Currency Maintenance:** Hardware and software are regularly upgraded to ensure the latest technology is in use.

2. Migration and Transformation

- **Phased Migration:** Transition workloads to the Atos Mainframe Hub in structured waves, ensuring minimal disruption.
- **Modernisation:** Incremental modernisation of mainframe applications to cloud-native, microservices-based architectures.
- **Cost Savings:** Up to 20% upfront platform cost savings and reduced operational costs through economies of scale.

3. Disaster Recovery (DR) and Security

- **Built-In DR:** Fully replicated disaster recovery capabilities with aggressive RPO (1 hour) and RTO (4 hours).
- **Data Encryption:** Encryption for data at-rest and in-flight, ensuring robust security.
- **Compliance:** Adherence to stringent regulatory standards, including PCI, HIPAA, and SOC 2 Type 2.

4. Operational Excellence

- **Automation:** Up to 80% automation for L0/L1 support, reducing incidents and improving efficiency.
- **Expert Support:** Access to 2,000+ mainframe experts and a dedicated Atos Mainframe Academy to ensure continuity of expertise.
- **Performance Optimisation:** Enhanced performance through advanced tools and methodologies, including zHyperlink connectivity and FlashCopy.

5. Sustainability and Innovation

- **Energy Efficiency:** Reduction in energy consumption by up to 51% with modern hardware.
- **AI-Powered Automation:** Integration of AI-driven tools for proactive maintenance and intelligent operations.
- **Future-Ready:** Support for emerging technologies and partnerships with cloud providers like AWS, Google Cloud Platform, and Microsoft Azure.

6. Comprehensive Support

- **End-to-End Services:** Includes operations support, systems engineering, database administration, and application modernisation.
- **Vendor Partnerships:** Leverages relationships with IBM and other key vendors for cost-effective software licensing and support.

3. What technology does it use?

Mainframe as a Service provides full services on IBM Mainframe systems, including Mainframe Operations Services, all required infrastructure (compute power, storage, backup, network, disaster recovery, software, etc.), and required certifications. The shared service model with its consumption-based charging is very flexible.

1. IBM z16 Processor Architecture

- **Latest Hardware:** The Atos Mainframe Hub utilises IBM z16 processors, the most current mainframe hardware available.
- **Performance Enhancements:**
 - 1.5x more cache capacity per core compared to the IBM z15.
 - Reduced average access latency, improving transactional processing capabilities.
- **Scalability:** Supports dynamic workload adjustments with dedicated Logical Partitions (LPARs) for clients **12**.

2. Storage and Backup Systems

- **DASD Storage:** Upgraded to IBM DS8950F all-flash disk systems for high-speed data access and reliability.
- **Virtual Tape Systems:**
 - IBM TS7770 Virtual Tape Server (VTS) with Transparent Cloud Tiering for seamless integration with cloud storage.
 - Tapeless systems eliminate the need for physical tape volumes, enhancing efficiency and scalability.
- **Data Replication:** Full replication of DASD and Virtual Tape data for disaster recovery, ensuring RPO < 1 hour and RTO < 4 hours **12**.

3. Operating Systems and Middleware

- **z/OS Operating System:** Supports core mainframe operations with high reliability and security.
- **Middleware:**
 - IBM CICS, MQ Series, and WebSphere Application Server for transaction processing and messaging.
 - IBM Message Broker (IIB) for integration and data transformation.

- **Database Systems:** Includes DB2 and IMS, supported by dedicated database system programming teams ¹.

4. Disaster Recovery and Security

- **Disaster Recovery:**
 - Dual data centres in Irving, TX, and Charlotte, NC, providing full contingency solutions.
 - Advanced replication technologies like TDMF and Global Mirror for seamless data migration and recovery.
- **Security:**
 - Data encryption for both in-flight and at-rest data.
 - Compliance with stringent regulatory standards, including PCI DSS, HIPAA, and SOC 2 Type 2 ¹⁹.

5. Automation and Optimisation

- **Automation Tools:**
 - IBM Tivoli Asset Discovery for z/OS (TADz) to optimise software usage and reduce costs.
 - SyntBots automation platform for proactive maintenance and incident reduction.
- **Performance Monitoring:** Advanced tools for capacity planning, performance tuning, and reporting.

6. Green IT and Sustainability

- **Energy Efficiency:** Modern hardware can reduce energy consumption significantly.
- **Cloud Integration:** Transparent Cloud Tiering enables hybrid cloud capabilities, supporting UN Sustainable Goal 12 (SDG12).

7. Connectivity and Certifications

- **High-Speed Connectivity:** Redundant, multi-operator network access ensures uninterrupted operations.
- **Certifications:** Infrastructure complies with Tier III+ standards, ISO 27001, and other global certifications for reliability and security.



4. What terms apply?

To the fullest extent permitted under G-Cloud 15 Framework Agreement and the Call-Off Contract, Atos will provide the Services in accordance with the Atos Supplier Terms (which will include, but may not be limited to, the Supplier Acceptable Use Policy, Supplier Data Processing Agreement, Supplier Specific Shared Responsibility Model, Supplier SLAs and Supplier Licence Terms and any applicable Third-Party Terms outlined in this Service Description document and the Order Form) and this Service Description document.

For clarity:

- Atos Supplier Terms may be modified in accordance with the provisions of the Call-Off Contract, and remain effective except where expressly overridden.
- Hyperlinks included in the Atos Supplier Terms and Service Description document remain effective where they point to Atos' or the relevant Third-Party Terms or documents. Should a hyperlink cease to function, Atos will work with the client to update it through the agreed procedure.



5. Termination

Termination shall be in accordance with:

- The G-Cloud 15 Framework terms and conditions
- Any terms agreed within the Order Form of the relevant Call-Off Contract
- For this specific service, by default Atos ask for at least thirty (30) days prior written notice of termination without cause.

Atos commits to the continued provision of services for the duration of the Call-Off Contract subject to the terms and conditions of the G-Cloud 15 Framework Agreement, the Call-Off Contract, the Atos Supplier Terms and the applicable Third Party Agreements (as defined in the Atos Supplier Terms and indicated in the Order Form) related thereto.



6. How do I order?

Please contact our team at: gcloud@atos.net

- We will prepare a quotation for your review, including any applicable volume discounts.
- Once the quotation is agreed, we will issue the necessary documentation (as required by the G-Cloud Framework) and request a purchase order from you.
- Upon receipt of your purchase order, we will configure the services in line with the agreed requirements. Where applicable, you will also receive access to our self-service portal to begin provisioning services.
- If you are a new customer, you may need to complete additional 'new supplier' forms.
- Invoices will be issued to you and to Crown Commercial Service (CCS), quoting the purchase order number, for the services procured.
- We will also submit the required monthly management information reports to Government Procurement.



7. Glossary

Term	Definition
DASD	Direct-Access Storage Device
DR	Disaster Recovery
HIPAA	Health Insurance Portability and Accountability Act
ISV	Independent Software Vendor
L0/L1	Refers to the first two tiers in IT support, where Level 0 (L0) is user-driven self-service (FAQs, chatbots, knowledge bases) for basic issue deflection, and Level 1 (L1) is the first human contact, handling common problems like password resets and simple troubleshooting, acting as the frontline for resolving easy issues before escalating complex ones to L2
LPAR	Logical Partition (mainframe)
MFaaS	MainFrame as a Service
PCI	Payment Card Industry
RPO	Recovery Point Objective
RTO	Recovery Time Objective
SDG 12	UN Sustainable Development Goal 12
SOC 2 Type 2	An auditing standard by the AICPA for service organisations to securely manage customer data, focusing on Security, Availability, Processing Integrity, Confidentiality, and Privacy (Trust Service Criteria)
TADz	Tivoli Asset Discovery for z/OS
TCO	Total Cost of Ownership
VTs	Virtual tape System
DASD	Direct-Access Storage Device



8. Why Atos

Atos has been a trusted partner on every G-Cloud iteration since the framework began, helping public sector organisations modernise with confidence. We combine global expertise with deep UK experience, delivering secure, scalable cloud solutions that meet the highest government standards.

As Europe's leading provider of cloud and cybersecurity services, Atos offers end-to-end capabilities - from migration and hosting to SaaS and consultancy - supported by UK delivery centres and strategic partnerships with hyperscalers.

Our focus on innovation, sustainability, and social value ensures that customers not only achieve operational excellence but also contribute to a greener, fairer future. With Atos, you gain a proven partner committed to driving efficiency, resilience, and transformation across public service.



About Atos

Atos Group is a global leader in digital transformation with c. 67,000 employees and annual revenue of c. €10 billion, operating in 61 countries under two brands – Atos for services and Eviden for products. European number one in cybersecurity, cloud and high-performance computing, Atos Group is committed to a secure and decarbonized future and provides tailored AI-powered, end-to-end solutions for all industries. Atos Group is the brand under which Atos SE (Societas Europaea) operates. Atos SE is listed on Euronext Paris.

The purpose of Atos Group is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

Learn more at: atos.net