

IBM Z

Designed for trusted digital experiences

Made for the future of your business

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IBM[®]

IBM Z

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Why IBM Z?



IBM Z[®] enables all kinds of organisations to build greater business value, reduce costs and create a competitive advantage. With the world's highest security and availability for enterprise computing, Z mainframes were made for analytics, blockchain, cloud and cognitive computing.

Experience how IBM Z can help your business win with exceptional security, transparency, speed and agility. [Learn what's new.](#)

For the new era of business and technology

- **Infinite learning:** With IBM machine learning on Z and in the cloud, every digital application, product and process can understand, reason and learn.
- **Outstanding mobility:** IBM Z scales to handle huge, unpredictable transaction rates with 100% uptime for better client experiences.
- **Hybrid cloud agility:** Utilise a world-leading hybrid cloud platform for enterprise transactions, systems of record and application workloads.
- **Enterprise-grade Linux:** Linux[™] on z Systems[®] offers a simplified data centre, security-rich operations and cost-effective economics.
- **Security-rich:** Enjoy enterprise-level mainframe security, pervasive encryption and isolation.

Harness a new kind of digital intelligence



IBM Z helps you meet cognitive business challenges by creating outstanding customer experiences, delivering agility and efficiency via the cloud and helping to provide always-on service and data protection. It's time to transform your business.

Key initiatives

For virtually every major digital challenge faced by businesses today, IBM is a leader in creating innovative and security-rich solutions on Z mainframes.

Pervasive encryption is the new standard

Protection of client and corporate data is not optional. IBM Z is designed for trust and helps protect from internal and external threats with encryption of virtually all data.

[Read more](#)

Automate insights with machine learning

IBM Watson Machine Learning for z/OS® and advanced analytics on Z help meet the challenge of deriving insights from vast and diverse data sources.

[Read more](#)

Ready for the blockchain revolution

Blockchain is changing business. IBM Blockchain on Z and IBM Bluemix® High Security Business Network (HSBN) are enterprise-class, cross-industry open standards designed to provide significant protection against breaches.

[Read more](#)

Build a data powerhouse

Copying analytics data between platforms is inefficient. IBM DB2® Analytics Accelerator for IBM z/OS is enhancing performance, cost-effectiveness, fraud protection and sales opportunities.

[Read more](#)

Data serving on Linux on IBM z Systems

By 2020, 1.7MB of data will be created per second for every person. Linux on z Systems is a cost-effective solution for handling the data tsunami, with high workload availability and security.

[Read more](#)

Achieve 24x7 high performance

Demand for 24x7 operations keeps rising, while allowed service windows shrink. IBM Operations Analytics for z Systems provides anomaly detection and cloud cost-saving insights.

[Read more](#)

Master hybrid cloud

Hybrid cloud is helping businesses achieve quicker time to market and richer customer experiences. But not all cloud infrastructures are equal. Unlock the API economy and provide agility without compromise, all while maintaining mainframe security. No wonder Z is one of the world's leading cloud platforms.

Tackle cyber security

Hybrid combines private, on-premises cloud with public, off-premises services for greater agility. That can lead to security worries – unless you're running IBM Z mainframes, which offer:

- The highest-grade security of any platform (EAL 5+)
- 99.999% availability or less than 5 minutes' downtime per year
- Pervasive data encryption in transit and in storage with no application changes and without impacting SLAs

Drive performance and margins sky high

A growing company doesn't always mean a growing IT budget. IBM Z delivers high-performing cloud solutions that are more cost-efficient, to differentiate your services and keep profit margins high.

50% lower cloud infrastructure costs than competing platforms

30% faster Linux and Java workload

8,000 virtual servers on a single server

60% lower TCO than public cloud over 3 years

Trusted by the world's top companies

IBM Z powers hybrid cloud services at:

92 of the world's top 100 banks

90% of the world's biggest airlines

the top 10 biggest insurance companies

One of the world's most open platforms

Open, connected IBM Z mainframes can help dramatically shorten development and service build time. With IBM Z your cloud is mainframe strong.

Meet IBM Z

A new generation of mainframes built to provide the core of trusted digital experiences.

IBM z13s

Entry-point enterprise computing

The IBM z13s™ is built for hybrid cloud and the constantly evolving security landscape. Enhanced enterprise security capabilities help your business to simplify and improve security from infrastructure to end point. In a single-frame footprint, z13s can deliver enterprise-class services and performance to mid-sized clients. Z13s helps to reduce costs, enhance security and deliver fast insights.



[Watch the video](#)

IBM z14

Mainframe computing

The new IBM z14™ is designed to meet the growing data, compliance and innovation needs of organisations in every industry. With faster processors and more memory, z14 supports higher transaction volumes and greater data movement than any previous generation. And pervasive encryption on z14 protects critical assets without compromising performance.

[Watch the video](#)



Drive innovation

- IBM Z and Apache Spark Analytics deliver lightning-speed insights from structured and unstructured data. Your business is empowered to develop faster, simplify access to enterprise data, analyse in place and act faster.

[Watch the video or read more](#)

✓ **Built for today and tomorrow**

20 configurable processor units (max) deliver performance to support digital business and handle new and current workloads with speed, security, and resiliency.

✓ **Smart alternative**

With the full capabilities of an IBM Z mainframe in a smaller-capacity model, benefit from accelerated data and transaction serving, integrated analytics, access to the API economy and more.

✓ **Improved chip design**

22nm 8-core processors deliver greater economies of scale, simultaneous multi-threading (SMT), single instruction multiple data (SIMD) vector processing, on-chip cryptography and bigger and faster caches.

✓ **Enterprise grade Linux**

Robust and trusted for critical workloads, ready for open source applications.

✓ **Larger memory**

8x as much real memory per server as the previous generation, up to 4TB.

✓ **Unprecedented capacity**

With 170 configurable cores and 1.5x more on-chip cache than the previous generation, the new z14 is perfectly optimised for data.

✓ **Next-generation throughput**

Advanced simultaneous multi-threading on z14 improves virtualisation performance and maximises throughput of every workload.

✓ **Huge memory**

32TB maximum memory opens opportunities for in-memory data marts and analytics, with room to spare.

✓ **High-speed connectivity**

New IBM zHyperLink technology reduces I/O service times by up to 10x. The FICON® Express16S+ feature boosts I/O rates to absorb demand spikes.

✓ **Automatic protection**

The exclusive IBM Secure Service Container automatically secures data on z14, even in innovative implementations like blockchain.

- With pervasive encryption on IBM Z, your data is protected at the core of the enterprise.



IBM Z software

IBM Z software combines leading-edge innovation with the unparalleled capabilities of the Z platform. So you can accelerate your most important workloads including cloud, IT and business analytics and DevOps. You can also drive new levels of performance and cost efficiency, all with the ultimate security.

✓ **Database & data management**

Enjoy real-time access to critical insights while minimising cost and complexity. There are Z software solutions for data, data warehousing, predictive analytics and business intelligence.

✓ **IT service management**

IBM ITSM solutions help IT operations teams effectively manage complex, hybrid environments and accelerate cloud services delivery.

✓ **Mixed language application servers**

Deploy and safeguard IBM Z applications and transactions with unmatched flexibility at scale.

✓ **Machine learning on private cloud**

The IBM machine learning cognitive platform on Z automates the creation, training and deployment of analytic models. Data scientists across industries can explore new analytics frontiers.

[Learn more](#)

IBM Z software solutions



Hybrid cloud



Real-time analytics



Enterprise mobility



Enterprise DevOps



Enterprise security

Operating systems

IBM Z supports z/OS, z/VSE, z/TPF, Linux and the z/VM hypervisor.

We're flexible. Take your pick.

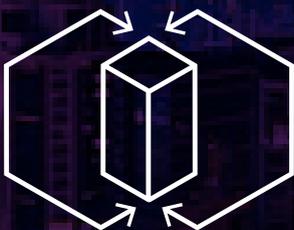
The best storage solutions for IBM Z

Data is the world's new natural resource, driving today's digital business insights along with bigger, more capable storage requirements. IBM offers a family of mainframe storage solutions designed, developed and tested together with Z for extraordinary value.

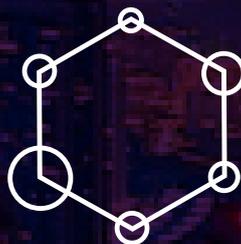
IBM DS8800 series: Enterprise data systems made for the future, designed with inherent synergies with IBM Z

- ✓ The IBM DS8880 family of enterprise hybrid and all-flash data systems is designed to enable your data centres for systems of insight and cloud environments.
- ✓ The unparalleled synergy between DS8880 and Z delivers continuous access to data with 24x7 availability, accelerated analytics and optimised data economics for mission-critical environments.
- ✓ New enhancements drive IBM z and DS8800 synergies with intelligence and insights, improved business efficiencies, savings in CPU utilisation and secure data transactions.
- ✓ The I/O infrastructure delivered by IBM z14 strengthens the unrivalled synergy between DS8880 and Z, delivering improved, persistent performance and data integrity for mission-critical environments.

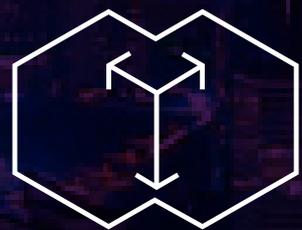
Learn more



Up to 4.5x acceleration for critical applications



Unparalleled integration with IBM Z



99.999% availability for 24x7 continuous access to data and applications



Reduce TCO with advanced feature packages that fit your capacity needs



30% less footprint for optimised space utilisation



High-performance flash enclosure for extreme performance

Blockchain on Z

IBM Z mainframes already run the next generation of transactional applications. Make more of your investment in Z by innovating with blockchain.

Security at every link

Security is paramount when transferring digital assets between enterprises. Blockchain provides a cryptographically secure, uniform, open ledger. But a digital ledger is only as good as the system it's built on. IBM Z:

Protects data

in all states to reduce business risk

Accelerates cryptography

with dedicated hardware

Removes transaction middlemen

with a complete blockchain solution

Builds trust

with unmatched uptime and power

IBM Z is built for blockchain

Greater speed

Fast memory networking capabilities accelerate interaction between blockchain and your existing business data in CICS, IMS, TPF, DB2, VSAM or other Z processes.

Stronger security

Digital signatures and hashing encryption are generated faster on Z, using cryptographic accelerators not found on x86 platforms common to public clouds.

Built for scale

With the capability to support thousands of virtual machines, IBM Z can run the toughest blockchain workloads - quickly and securely.



Blockchain has the potential to vastly reduce the cost and complexity of getting things done

- Jerry Cuomo, IBM Vice President for Blockchain Technologies

For organisations who want to embrace the future of fast and secure transactions, blockchain on IBM Z is the premium choice.

Financing*

IBM Global Financing helps you facilitate the acquisition of IBM solutions. Discover an unequalled selection of flexible options, attractive rates and state-of-the-art tools.

Choose from a variety of IBM financing options to address your unique solution requirements and manage your cash flow and assets.

If you want to

IBM Global Financing can help

Optimise cash flow

Minimise up-front payments and better align project costs with anticipated benefits

Maximise liquidity

Free up cash and preserve credit lines for core business needs

Reduce financial unpredictability

Better manage risk with predictable and known costs over a fixed term. Mid-lease upgrades increase capacity with little change in monthly payments

Reduce the risk of technology obsolescence

With leasing, keep your IT Infrastructure up to date with the latest technology in an affordable and cost-effective way

Reduce cost and improve return on investment (ROI)

Lower ongoing maintenance and support costs and improve ROI with Fair Market Value (FMV) leasing-based refreshes. FMV leases can be lower in cost on a present-value basis than outright purchase

Reduce risk

IBM Global Financing offers global coverage, a thorough understanding of credit and technology risk and over 30 years of extensive technology financing expertise.

To learn more about how you can affordably invest in your future today, please contact your IBM Global Financing representative or visit ibm.com/financing.

*Not all offerings are available in every country in which IBM operates.

Share in success

Today's most compelling success stories are about disrupting markets. Large enterprises and growing businesses alike are using cognitive, analytics and cloud to reveal insights that could not be discovered any other way. And IBM Z mainframes are at the heart of many of the biggest innovations.

View success stories by industry

[Finance](#)

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[Insurance](#)

The IBM Z success stories

This e-book provides success stories from many more industries, which can help you get to know IBM Z and drive better business outcomes.

[Download the e-book](#)



[KEONICS](#)

KEONICS is a government organisation on a mission to bring world-class infrastructure to Karnataka, India. KEONICS has adopted Linux and IBM z/OS on Z to support a new ERP system, maximise the value of its investments and save an estimated 50% on digital learning.

[Read the case study](#)



[Vodafone](#)

Vodafone provides intelligent services to cities, helping them ensure more effective management of city resources and address some of the most pressing needs faced by cities today. In this video Vodafone executives explain the benefits of working with IBM Z.

[Watch the video](#)



[CTIE](#)

CTIE is Luxembourg's state IT services body. Facing 17% year-on-year transaction processing growth, CTIE deployed a z13s server to modernise applications and meet new demand. Interactive and batch workloads were accelerated by a 25% increase in Java performance.

[Read the case study](#)

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IBM BPs on Destination z
zNextGen community
The World of DB2 for z/OS



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