

FUJITSU Enterprise Postgres on IBM LinuxONE™

Fastest. Most secure. Most reliable.

Maximize and secure
your enterprise data value

FUJITSU Enterprise Postgres on IBM LinuxONE™ is a world-class platform that embraces open source and improves data security, performance, and business continuity for your organization. It gives you the best of open source flexibility with the peace of mind that comes knowing that it is backed by Fujitsu and IBM.

About FUJITSU Enterprise Postgres

FUJITSU Enterprise Postgres is an ANSI-compliant enhanced true native PostgreSQL version with enterprise-ready features for security, HTAP workloads, High Availability, and mission-critical systems.

FUJITSU Enterprise Postgres combines the features of open source PostgreSQL with Fujitsu's extensions for enterprise customers, while retaining total compatibility with the open source version.

We believe that performance, reliability, and operability are essential requirements for an enterprise database, and we have built the FUJITSU Enterprise Postgres features based on these attributes.

With fully warranted code (including patches and upgrades) and 24x7x365 global support, FUJITSU Enterprise Postgres is backed by PostgreSQL experts that are active participants in the PostgreSQL development community by regularly contributing to its development – which further enhances the value of FUJITSU Enterprise Postgres.

Enterprise capabilities

FUJITSU Enterprise Postgres delivers on 5 key capabilities required by the modern enterprise:

- Hardened and available
- Open and compatible
- Secured and governed
- Multi-modal and extensible
- Accelerate and analyses



About IBM LinuxONE™

IBM LinuxONE™ is a scalable enterprise-class Linux server, known for its security, scalability and reliability, providing superior levels of data protection, resiliency and openness with its platform purpose-built for the cloud and integrated with IBM Storage on an open-source Linux operating system.

It makes it easy for organizations to safeguard their most valuable data assets against breaches and cyberattacks, wherever the data resides, while staying regulation-compliant and maintaining customers' trust.

It is designed to be a high-performance machine. With its impressive number of processors, clock-speed, I/O bandwidth, and more, IBM LinuxONE™ is designed to operate at near 100 percent utilization.

Its robust architecture with pervasive encryption can run production workloads using commercially-licensed Linux software side-by-side with open source workloads such as FUJITSU Enterprise Postgres.

Resiliency and availability

IBM LinuxONE™ is designed to deliver 99.999% availability and beyond, with redundancy in internal components, including Redundant Array of Independent Memory (RAIM), which detects and recovers from memory failures.

The platform scales like a cloud, provides class-leading security, has traditional enterprise server reliability, and can consolidate workloads from many smaller servers onto a single integrated machine.



The IBM LinuxONE™ technology with the enhanced features of FUJITSU Enterprise Postgres enables increased speed, scalability, security, and the high availability demanded by today's enterprises.

Why FUJITSU Enterprise Postgres?

FUJITSU Enterprise Postgres combines the features of open source PostgreSQL with Fujitsu's extensions for enterprise customers (improved performance, enhanced security and reliability) while retaining total compatibility with the open source version.

Enterprise customers demand a high level of security, reliability and performance from their database software vendors. An enterprise needs the certainty that their software investments are as future-proof as possible, with long-term support and development being core components. FUJITSU Enterprise Postgres is the culmination of Fujitsu's 35 years of experience in database development, and expertise in open source PostgreSQL. With these credentials, FUJITSU Enterprise Postgres can provide enterprises with this certainty.

Enterprise-ready capability

Fujitsu, by virtue of its association with large enterprises over a long period of time, has an excellent grasp of the requirements and the issues faced by these enterprises.

We enabled PostgreSQL adoption across a range of industries by enhancing PostgreSQL features with enterprise-ready features we perfected over many years based on our own in-house technologies. FUJITSU Enterprise Postgres provides enterprise-level solutions for both government and commercial sectors.

Designed and tested on cloud platforms, the following innovative features allow for maximum performance, reliability, flexibility, and data security:

- 256-bit Transparent Data Encryption (PCI-DSS compliant)
- Data Masking
- Dedicated Audit Logs
- In-Memory Columnar Index*
- WAL duplication
- DB Mirroring Controller
- Connection Manager

* Implemented via Vertical Clustered Index by Fujitsu Laboratories

Why IBM LinuxONE™?

Security is architected into IBM LinuxONE™ for both the hardware and software. As an example, pervasive encryption can encrypt all data associated with an application, database, or cloud service, whether at rest or in flight. This level of protection is achieved through hardware accelerated encryption of data, delivered with near-zero overhead by the on-chip Central Processor Assist for Cryptographic Function (CPACF) and the new dedicated Crypto Express6S adapter. The availability of this level of encryption makes it easier for applications to meet regulations such as HIPAA and PCI DSS.

Reliability is a well-known capability of IBM's unique enterprise server architecture — for example, the fact that it has no single points of failure. IBM LinuxONE™ inherits these capabilities, including component redundancy to allow the machine to continue when a single component fails. This feat is possible because maintenance and repairs can be performed while the machine is still running workloads.

LinuxONE™ cores are more powerful than x86 cores, through a combination of processor architecture, clock-speed, cache, optimization, and I/O offloading. While security and scalability are the key differentiators of these platforms, the hardware also provides reliability and performance benefits for many important workloads.

FUJITSU Enterprise Postgres on IBM LinuxONE™

Challenges that FUJITSU Enterprise Postgres on IBM LinuxONE™ addresses include:

- **Data security:** CryptoCard integration and full integration with Transparent Data Encryption and Data Masking provides industry-leading levels of security.
- **Server sprawl:** Consolidating Linux workloads on LinuxONE results in decreased costs for energy, floor space, networking and administration.
- **Enterprise class:** IBM LinuxONE™ is a scalable enterprise-class Linux server, known for its security, scalability and reliability, used by digital banks, crypto custodians, blockchains and many major institutions.
- **Software cost:** A single LinuxONE server is optimized for running commercially-licensed RDBMSs as well as Open Source RDBMSs now including FUJITSU Enterprise Postgres, allowing a customer to turn their Open Source vision into reality.
- **Disaster recovery:** IBM's Capacity Backup is available for LinuxONE, which uses On/Off Capacity on Demand (CoD) capabilities to provide an off-site, disaster-recovery server, drastically reducing DR software licensing requirements.
- **Faster innovation:** Cloud-native applications can integrate with existing data and are optimally deployed across and managed within the hybrid multicloud, unleashing the potential and value of your enterprise data and applications

Multi-tiered support options

Fujitsu provides a variety of support options designed to offer customers peace of mind and flexible enough to suit unique enterprise requirements. Our support options include:

- 24x7x365 support
- Business hours support
- Consulting services - Includes migration services, information architecture services, and remote administration services

Moving forward with Fujitsu

We create the best possible products to meet requirements, backed up by the certainty ensured by Fujitsu's involvement. As the global marketplace evolves, we aim to continue empowering enterprises to adapt, grow, and meet the challenges of the future with FUJITSU Enterprise Postgres.

Read more

For more information on FUJITSU Enterprise Postgres on IBM LinuxONE™ capabilities, we recommend our following resources:

- [FUJITSU Enterprise Postgres on IBM LinuxONE™ webpage](#) 
- [FUJITSU Enterprise Postgres on IBM LinuxONE™ resources](#) 

Contact us

If you have any questions about FUJITSU Enterprise Postgres on IBM LinuxONE™, please feel free to contact us at enterprisepostgresforibm@fujitsu.com.

About Fujitsu

Fujitsu is the 5th largest IT service provider in the world, offering a full range of technology products, solutions and services. Around 160,000 Fujitsu employees support customers in over 100 countries.

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