

UXDB Product White Paper

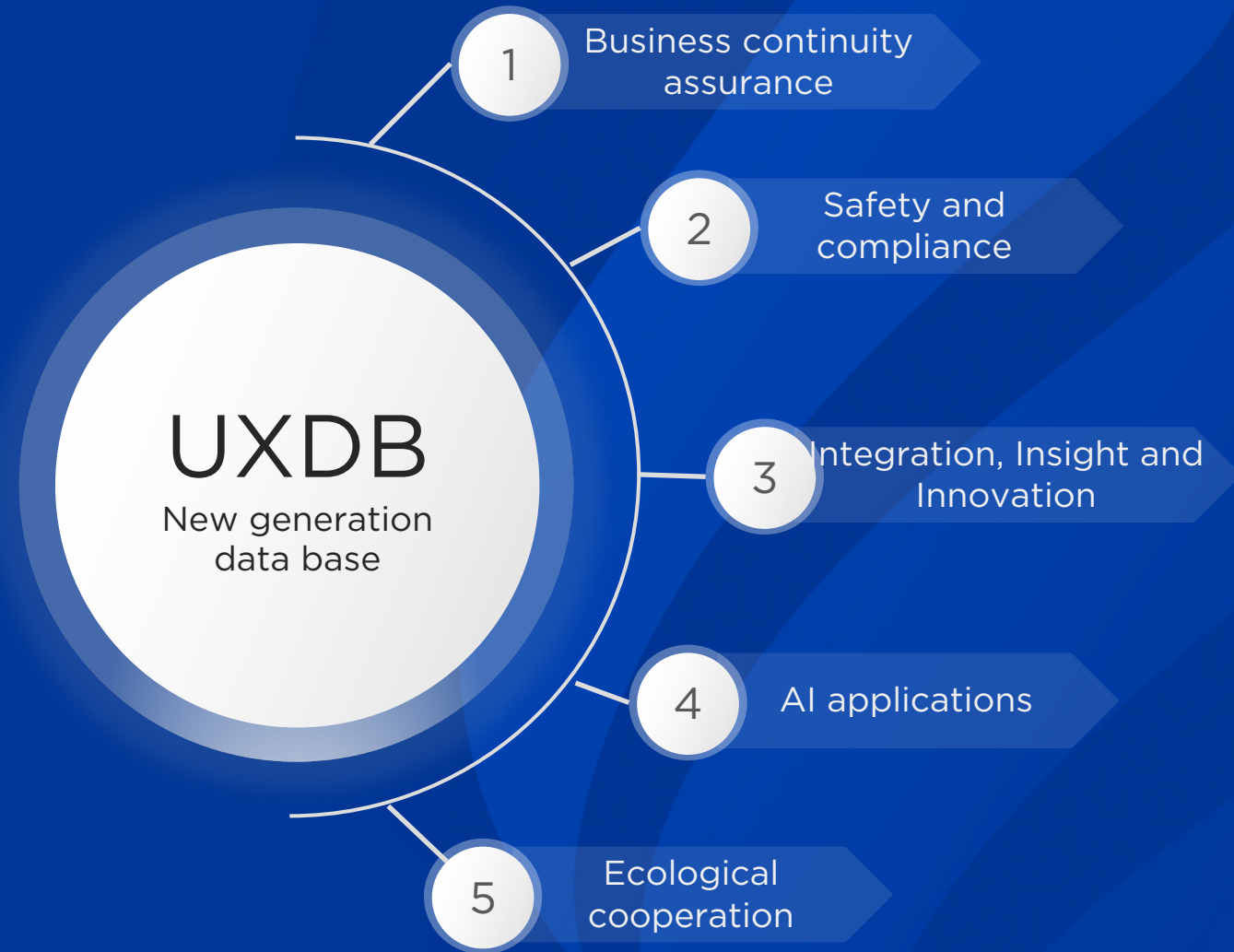
Building Database-Centric Infrastructure for Intelligent Applications



2026.1

UXDB Product Introduction

UXDB is a data foundation built for the future digital intelligence field. With reliability, security, multi-modal integration and intelligent driving as its core, it supports full-scenario data management, flow and insight through a unified architecture, realizing continuous evolution from data science to ecological collaboration, and enabling data to play a more efficient, reliable and intelligent role in future business.

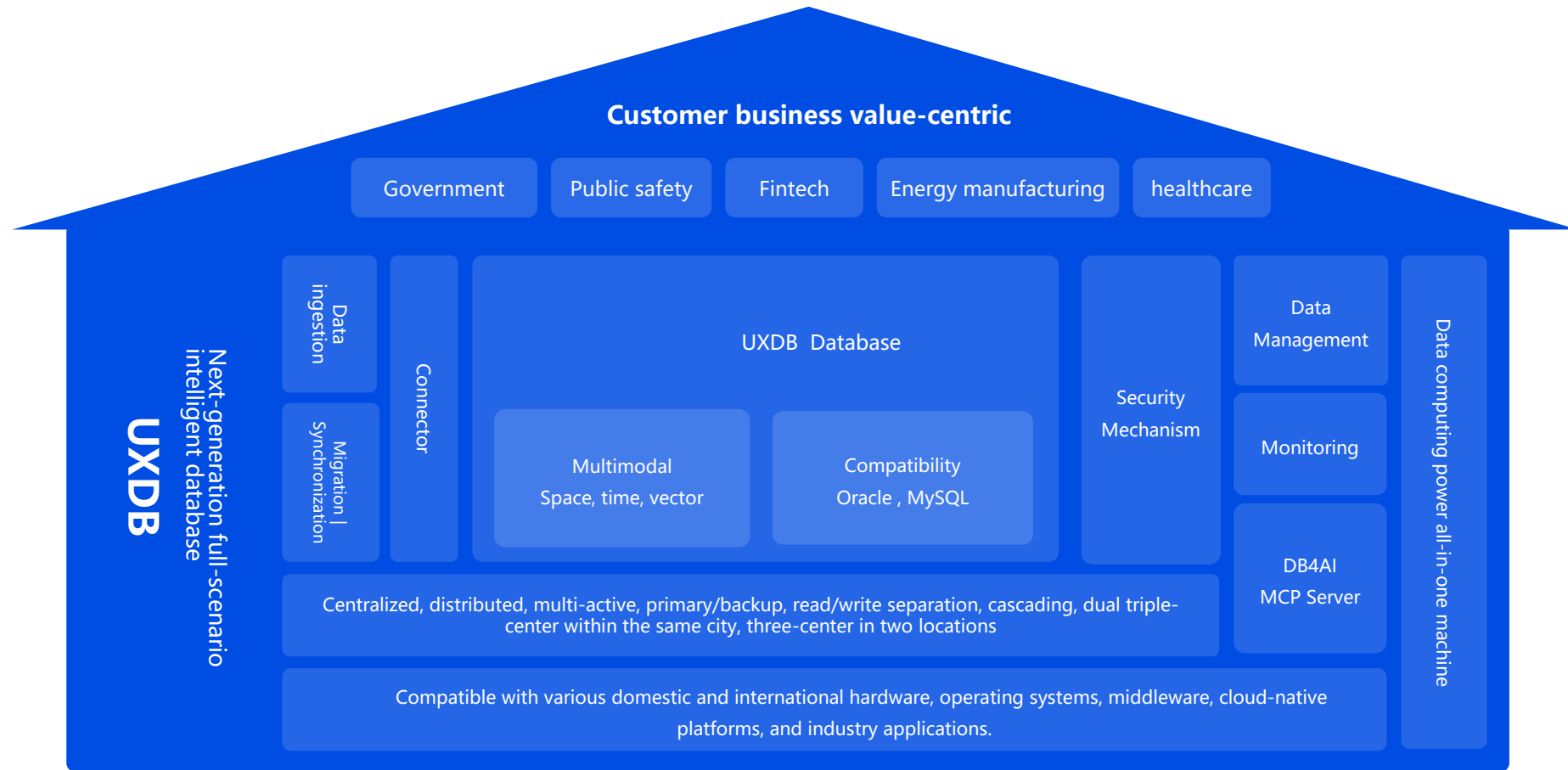


PART 01

Product Introduction



2. UXDB Product Positioning



UXDB – Building an Autonomous Data Intelligence Foundation Covering the Entire Data Lifecycle



3. UXDB Functional Architecture Diagram

UXDB is a reliable, secure, integrated, and intelligent enterprise-grade database, serving as the foundation for organizations and enterprises to achieve digital and intelligent transformation and upgrading.

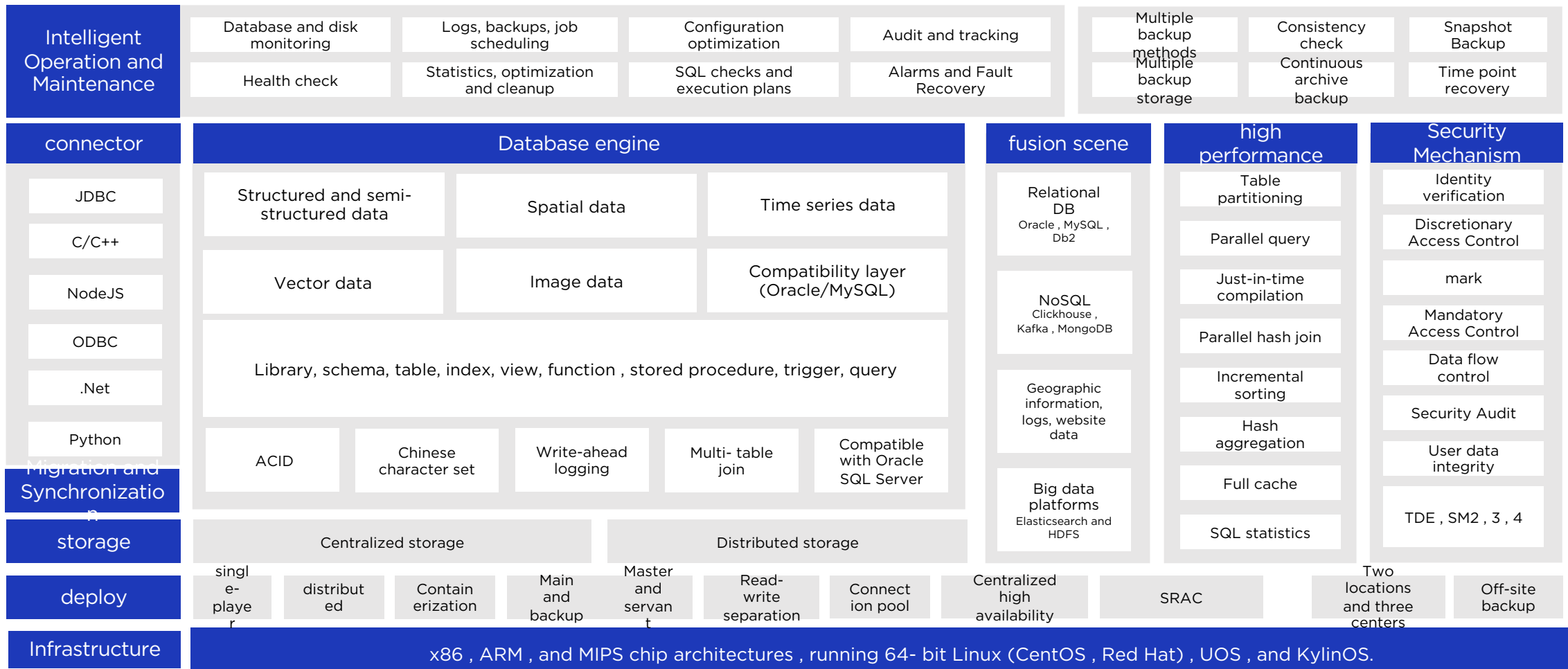


Figure 1 : UXDB Functional Architecture Diagram



4. UXDB Product Roadmap

	2018	2019	2020	2021	2022	2023	2024	2025		
	V2.0	V2.1 -V3,5,8					V10			
Kernel and Extensions	UXDB Centralized Database	Block size changes, index optimization, parallel queries, partitioned table enhancements...					Oracle/MySQL compatible	GB18030	Driver Enhancement	
		MPP Distributed Database					Enhanced compatibility, stored procedures support transactions			
		DFS Distributed Storage					Spatial data			
							Vector data			
								Time series data		
								Multiprotocol connection		
Safety and compliance	Security features (separation of powers, authentication, access control, security auditing, etc.)			Forced visit control/integrity	Safety function switch	Encryption and decryption, transparent encryption				
				Key Management System (KMS)		Audit logs are encrypted and de-identified.				
Business continuity and high availability	SRAC multi-active cluster	SRAC memory fusion, distributed lock management, fully symmetric cluster transaction control, cluster member management					SRAC Stability and Optimization	Kernel cache optimization		
				Fault switching		Read/write splitting cluster		Load balancing		
Performance and stability		Performance optimization >10%, encryption performance loss <10%								
Migration and Synchronization						Data migration and synchronization tools	Multi-source synchronization and data comparison	Migration Enhancement		
Management and Operation	Web-based management tools					Database management tools	Enhanced uxcc monitoring and diagnostics	Data management supports sharded tables		
Ecological compatibility		Domestic ecosystem compatible with 1000+								

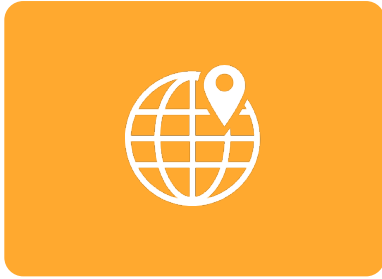
Figure 2 UXDB Database 2018-2025 Roadmap

PART 02

Product Features



1. Supports a wide range of data types and multiple business scenarios.



Spatial data

Support geospatial data and operations
Provides LBS and geospatial routing capabilities



Time series data

Efficient processing of time series data
Supports distributed querying and horizontal scaling



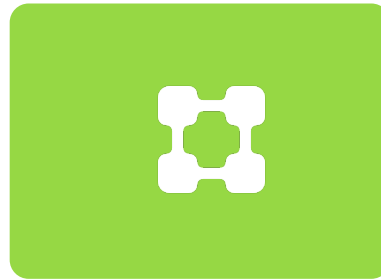
Vector data

Functionality of handling vectors in high-dimensional space
Implementing LLM - based AI applications



semi-structured data

Built-in JSON and JSONB data types
Supports SQL/JSON path languages and query optimization



Large object data

Supports writing and managing large objects
Use a database as NoSQL storage



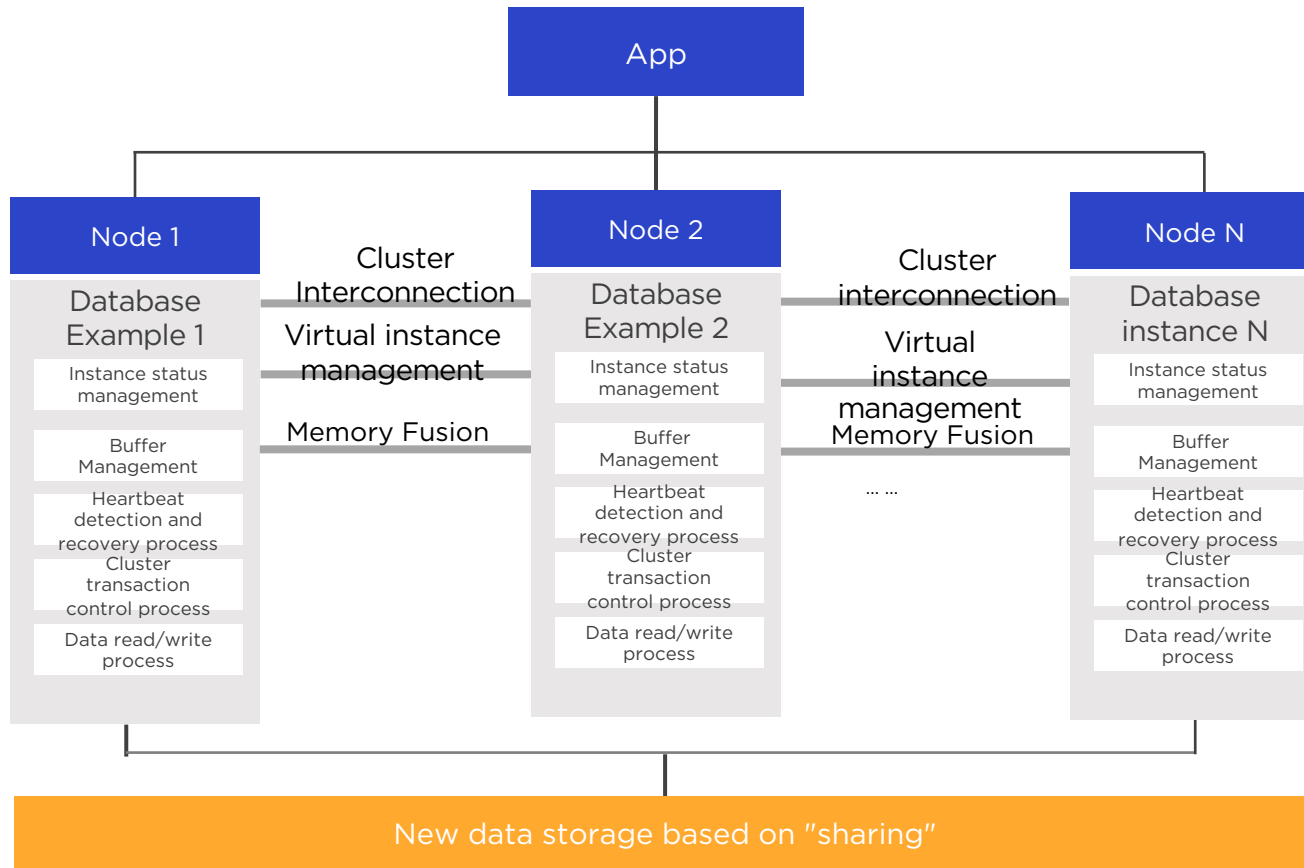
Image data

Graph database supports
Applications of Cypher query language



2. Industry-leading high availability and business continuity assurance for databases

UXDB SRAC can combine multiple servers to form a cluster, achieving overall performance superior to a single large server . While ensuring strong data consistency in the cluster, it enables real-time concurrent processing and elastic scaling, meeting the stringent requirements of core businesses for high availability and high performance.



- Fully symmetrical architecture:** peer-to-peer nodes, decoupled applications
- High availability:** automatic fault recovery, zero downtime
- High performance:** multi-machine parallel processing, performance multiplication
- Elastic scalability:** instant scaling up and down, no migration required

tpmC	2,600,000 tpmC (times / minute)
Number of nodes	8 nodes
Continuous runtime	>1 year
Fault recovery time	RTO ≤ 30 seconds
Database capacity	1PB

Figure 3 : UXDB SRAC Functional Architecture Diagram



3. protection of customer security and compliance, UXDB EAL4+ security version

UXDB is designed in accordance with national laws and regulations such as the Cybersecurity Law, Data Security Law, and Personal Information Protection Law (PIPL), and based on the Level 4 standard of "GB/T20273-2019 Security Technical Requirements for Database Management Systems" and "GB17859-1999 Classification Criteria for Security Protection Levels of Computer Information Systems," to comprehensively protect customer data security.

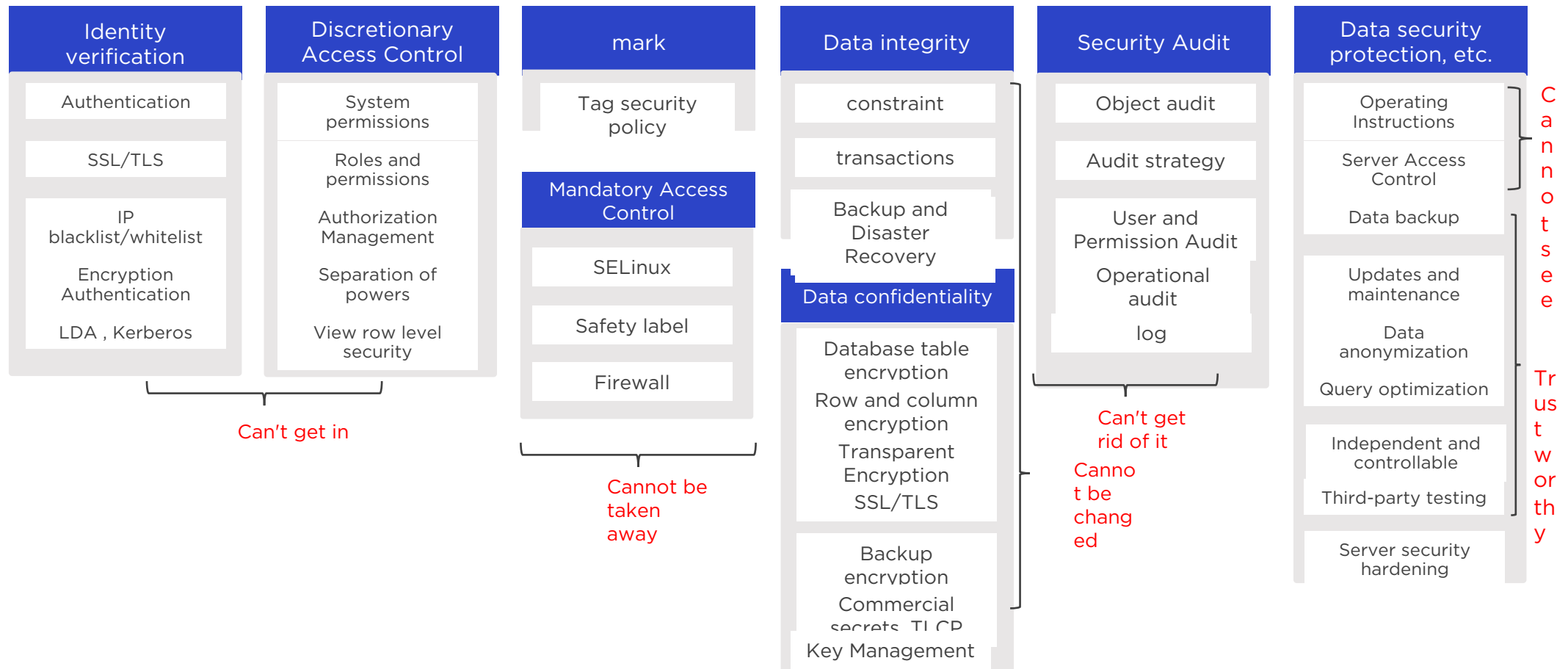


Figure 4 : Overview of UXDB Security Function Architecture



4. Best Practices for Database Compatibility and Migration

It is fully compatible with the three major database ecosystems: Oracle , MySQL , and PostgreSQL , minimizing the learning, migration, and application modification costs for users.

Syntax compatibility: Supports core syntax features of Oracle and MySQL , such as Oracle 's MERGE INTO , WITH FUNCTION , and CONNECT BY for hierarchical queries ; MySQL 's REPLACE INTO and LIMIT for pagination; and PostgreSQL 's CTE and CREATE EXTENSION .

Function and package compatibility: Includes a large number of compatible functions, such as Oracle 's DECODE() and DBMS_OUTPUT packages; MySQL 's NOW() and DATE_ADD() ; and supports Oracle PL/SQL stored procedures, triggers, and commonly used system packages such as DBMS_JOB .

Data type compatibility: Fully supports key data types from the three major ecosystems, including Oracle 's NUMBER , VARCHAR2 , and BLOB/CLOB ; MySQL 's TINYINT , DATETIME , and AUTO_INCREMENT attributes; and PostgreSQL 's rich extended types.

Case-sensitive: Compatible with Oracle 's case-sensitive mode (object identifiers are uppercase, data is case-sensitive); also supports MySQL 's case-insensitive mode (object identifiers are case-insensitive, data is also case-insensitive).

Graphical migration tool UXDMS



Supports migration of databases such as Oracle , MySQL , SQL Server , PostgreSQL , Sybase , and Db2.

Figure 5 : UXDMS migration capabilities



5. Robust backup and recovery capabilities, supporting off-site backup and disaster recovery.

uxBackup is used for data backup and recovery in production environments, ensuring data security and availability.

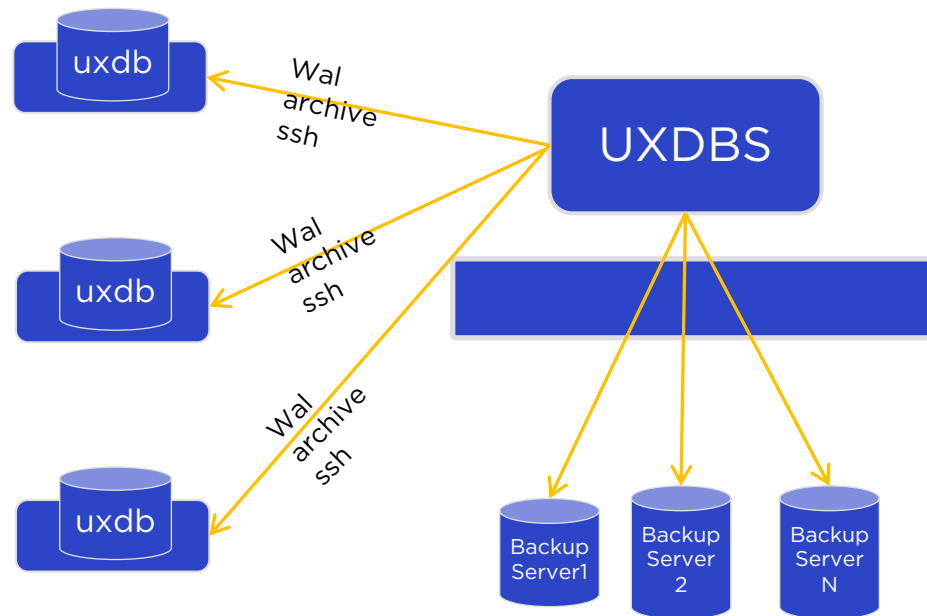


Figure 6. Schematic diagram of UXDBS operation

Multiple storage media : Supports various storage media such as local disks, NFS , and object storage .

Multiple backup types: Supports full, differential, and incremental backups (file or block-level).

Parallel processing: Supports multi-threaded parallel backup, making it more efficient and faster.

Remote backup: Supports remote backup, enabling off-site backup and disaster recovery.

Backup integrity : Calculate the checksum of each file in the backup and wait for each WAL segment to keep the backup consistent.

Durability guarantee : All operations use file and directory level fsync to ensure data durability.

Safe and efficient: Supports backup compression and encryption to ensure backup security.

Flexible recovery: Offers a variety of recovery options , including point-in-time recovery, partial recovery, and remote recovery .

Image Display : Supports image display backup sets .

Alternatively, ux_probackup , ux_rman , and ux_basebackup can also be considered .



6. Comprehensive data management provides support for application development.

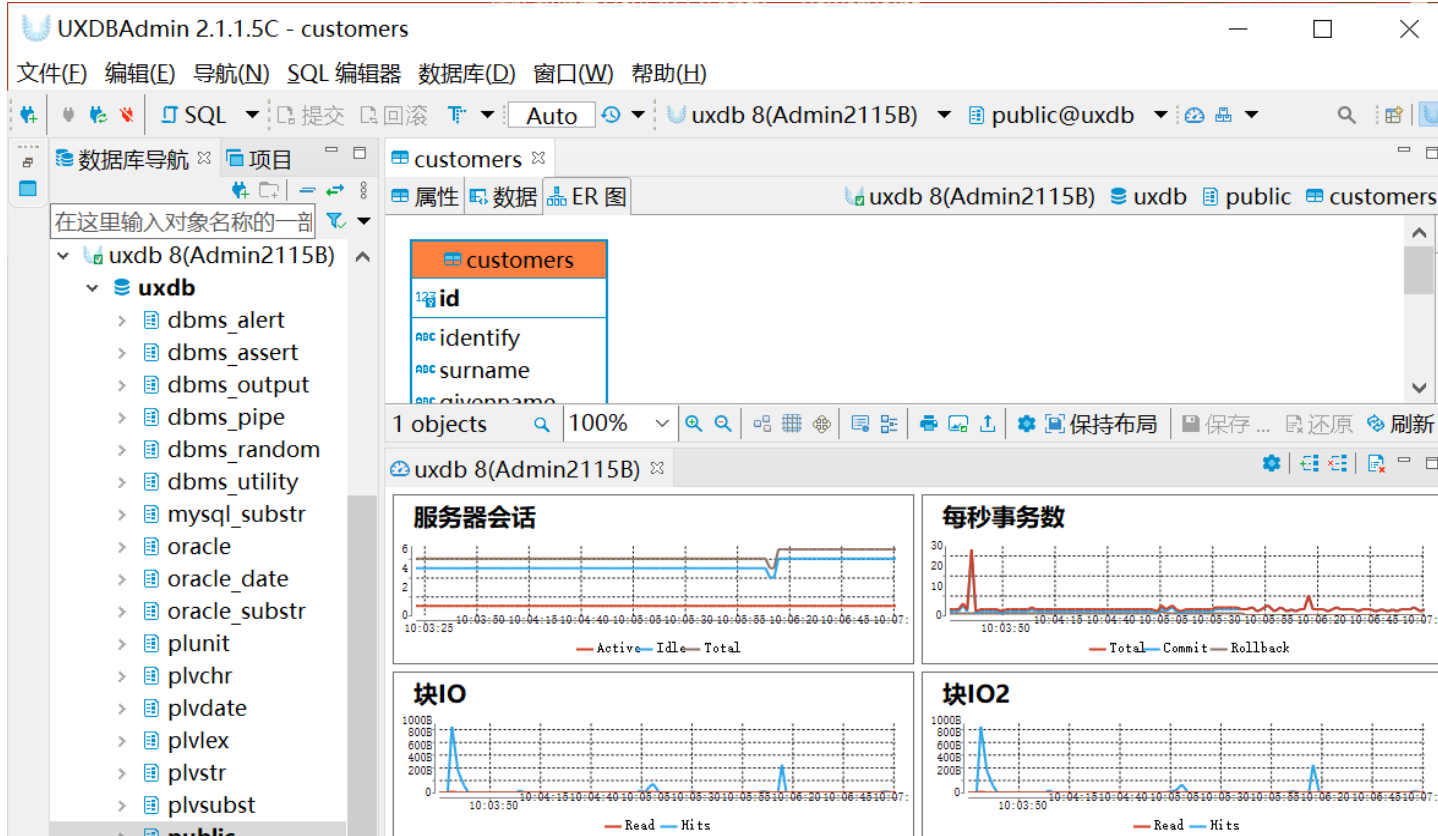


Figure 7 uxdbadmin working interface

I. Visual SQL Development and Debugging Capabilities

Intelligent SQL Editor: Auto-completion, syntax highlighting, error messages, SQL execution plan viewing, SQL debugging, multi-tab editing, SQL templates, code snippets, and formatter.

II. Data Visualization and Data Analysis Capabilities

Table view, filtering, sorting, grouping, pivot table
Graphical charts, data editing, batch modification, and export of CSV/Excel/JSON query results.

III. Data Modeling and Database Architecture Management Capabilities

ER diagram generation and visualization of database object structure relationships; supports schema/DDl viewing, comparison, and synchronization of enhanced metadata browsing: tables, indexes, constraints, triggers, etc.



7. Meets the requirements for intelligent operation and maintenance of database infrastructure,



Figure 8 UXDB working interface

I. Panoramic Visual Monitoring

With UXDB performance and status as the core, it enables one-click topology discovery and large-screen visualization, providing a global view of business health.

II. Full-Stack Resource Monitoring

Deeply monitor UXDB and uniformly manage the hosts, networks, storage, middleware, virtualization, and cloud resources it depends on.

III. Intelligent Analysis and Self-Healing

Based on unified alarms and logs, it enables fault self-healing and intelligent root cause analysis, and improves efficiency through automated scripts and tasks.

IV. Asset Compliance and Mobile Operations

Built-in UXDB asset management supports regular inspections, compliance reports, and mobile terminal maintenance.



8. UXDB +MCP Server : A data capability hub for intelligent applications.

This allows AI to quickly and reliably utilize enterprise data while mitigating core data risks, thus shortening the implementation cycle of intelligent applications.

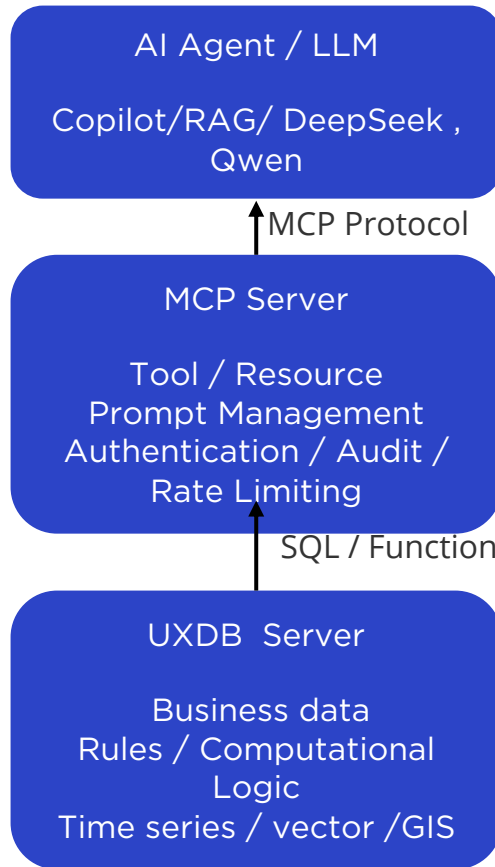


Figure 9. Schematic diagram of UXDB+MCP Server workflow

Core Product Capabilities

The system encapsulates SQL, views, functions, time series, and vector capabilities in a unified manner, allowing AI to call them on demand through MCP Tool/Resource , thus achieving efficient data utilization and flexible integration.

Service-oriented approach to complex logic

By embedding business rules and computational logic on the database side, AI can invoke "capabilities" instead of concatenating SQL, resulting in more reliable outcomes, simplifying the development process, and improving the stability and accuracy of intelligent applications.

Security and governance advantages

By employing fine-grained data permissions and access control, and unifying authentication, auditing, and rate limiting, we effectively prevent models from directly connecting to the database, ensuring data security and compliance, and providing a reliable data environment for AI applications.

Unified support for multi-modal data

It can carry structured, time-series, and vector data in one, supporting scenarios such as RAG, Copilot, and intelligent analysis, meeting diverse intelligent application needs, and helping enterprises with digital transformation.

Typical application scenarios: Copilot Data Analytics | Intelligent Operations Assistant | Industry Knowledge Q&A (RAG) | Intelligent Decision Support



9. A comprehensive machine integrating UXDB and AI.



UXDB is a high-performance database solution deeply integrated with domestically produced hardware. The product uses standard domestically produced servers as computing nodes, equipped with all-flash or hybrid storage devices, high-speed Ethernet or InfiniBand networks, and RDMA protocol to achieve high-speed interconnection within the system. Relying on core innovative technologies such as global transaction control, streaming memory fusion, and parallel on-demand recovery, it ensures strong consistency and high availability while achieving intelligent resource scheduling and rapid fault recovery. It can be widely applied in critical business scenarios such as finance, telecommunications, energy, transportation, and government and enterprise sectors that have stringent requirements for high reliability, high performance, and high concurrency.

model		Type	Type	Type C
compute nodes	server	2U Hygon 3rd Generation, 2 nodes	2U Hygon 4th Generation, 2-4 Nodes	2U Hygon 4th Generation, 2-4 Nodes
	CPU	Haiguang 5460/5480×2	Haiguang 7470/7480/7490×2	Haiguang 7470/7480/7490×2
	Memory	128 GB , DDR5	384 GB , DDR5	512 GB , DDR5
	harddisk	2×480G SSD , 2×960G SSD , 4×4T SATA	2 ×480G SSD , 2×960G SSD , 4×4T SATA	2×480G SSD , 2×960G SSD , 4×4T SATA
	Network card	4×10GE optical ports with optical modules , 4×GE	4×40GE with optical modules , 4×GE	2 × 200G IB network cards, 4 × GE
	power supply	Dual Redundancy	Dual Redundancy	Dual Redundancy
	OS	Kylin Server V10	Kylin Server V10	Kylin Server V10
Management Node	1U Hygon server, 5460 x 2 , 64GB RAM, 2 x 240GB 10K SAS disks, 1 x RAID 1GB cache, 2 x 10GE optical ports with optical modules, 4 x GE , 1 x IPMI , redundant power supply. Kylin Server V10			
storage nodes	server		4U 24- bay storage array , dual controller	3-14 nodes)
	CPU		Hygon or Phytium CPUs	2× Hygon 5460/5480/7470
	Memory		64GB	384GB
	harddisk		4 to 24 15.36TB SAS SSDs	2 x 480GB SSDs , 4 to 24 x 15.36TB SSDs
	Network card		4×40GE ports with optical modules , 4×GE	4×10GE optical interfaces with optical modules; 2×IB 200G dual-port network cards with optical modules.
	power supply		Redundant power supply	Redundant power supply
Network Nodes		1 24- port 10 Gigabit Ethernet switch	2 48 - port 10 Gigabit Ethernet switches	Two 40- port 200G IB switches (Mellanox QM8790-HS2F)
Database deployment		UXDB master-slave cluster	UXDB S RAC shared storage multi-write multi-read cluster	UXDB S RAC Distributed Storage Multi-Write Multi-Read Cluster
Application scenarios		Social security and tax systems Carrier BOSS System Data Warehouse and Business Intelligence Risk Prevention and Precision Analysis Internet of Things Data Processing Center	Banking and securities trading systems E-commerce order processing platform Enterprise Resource Planning (ERP) Medical Information System Industrial data acquisition and monitoring	Deployment in the field and harsh environments Temporary business support platform Remote and edge service nodes Automated Operations and Emergency Response



10. Typical application scenarios of UXDB

Online transaction scenarios	Complex query and analysis scenarios	IoT / V2X Scenarios	geospatial scene	AI application scenarios
<p>Scene Description</p> <ul style="list-style-type: none">• High-frequency concurrency• Transaction consistency• Real-time inventory / orders• Stable low latency <p>Key requirements</p> <ul style="list-style-type: none">• High Availability Architecture• Strong consistency transaction isolation• Index and Partition Optimization• Performance observability	<p>Scene Description</p> <ul style="list-style-type: none">• Large table analysis• Complex multidimensional queries• Cross-time aggregation• Interactive self-service analytics <p>Key requirements</p> <ul style="list-style-type: none">• Columnar / Partitioned Tables• Parallel query• Vectorized execution• Data hot and cold stratification	<p>Scene Description</p> <ul style="list-style-type: none">• Millisecond-level write• High-speed time series• Long-term archiving• Dashboard monitoring <p>Key requirements</p> <ul style="list-style-type: none">• Batch processing, high throughput, and write performance• Automatic partitioning and compression• Retention Strategy Management	<p>Scene Description</p> <ul style="list-style-type: none">• Location data management• Spatial range retrieval• Path / Distance Calculation• Map visualization support <p>Key requirements</p> <ul style="list-style-type: none">• GIS Spatial Index• Large-scale spatial partitioning• Vector / raster blending• High-efficiency space function library	<p>Scene Description</p> <ul style="list-style-type: none">• Multi-source business data• Natural Language Interaction• Real-time analysis response• Confidential result output <p>Key requirements</p> <ul style="list-style-type: none">• Data standardization• Vector query• Embedded business rules• agent connection
<p>Product portfolio: UXDB + High Availability + Monitoring & Alerts + Backup</p>	<p>Product Portfolio: MPP + Data Acquisition + Metadata Management + Tiered Cold and Hot Storage</p>	<p>Product portfolio: Time series data acquisition + monitoring visualization</p>	<p>Product portfolio: uxGIS + Data Acquisition + Spatial Indexing and Partitioning + Map Display</p>	<p>Product Portfolio: UXDB++MCP Server + AI Copilot Secure Call</p>



11. UXDB Core Value

Business Continuity



SRAC cluster, utilizing an 8-node cluster with 99.9995% availability, ensuring uninterrupted operation of critical business processes.

Security and Compliance



Secure and reliable, EAL4+ full-link encryption and security hardening, full database encryption with <5% performance overhead.

Multimodal Engine



Comprehensive support for time-series, spatial, and vector data, providing a one-stop solution for multiple business scenarios.

Smooth Migration



Highly compatible with mainstream Oracle and MySQL, enabling smooth migration and replacement of existing systems.

Full-Stack Toolchain



Complete set of tools for data synchronization, backup, monitoring, and operation and maintenance

Horizontal Scalability



Distributed architecture, achieving millisecond-level response for tens of billions of data points, high performance and linear scalability under massive data volumes.

AI Native



Supports vector data and intelligent data access, enabling AI application integration and delivery under private deployment.

Open and Compatible



Supports ARM, x86, Loongson architecture, CentOS, RockyLinux, KylinOS, UOS, and other domestic operating systems.

PART 03

Product Advantages



UXDB versions are provided or customized according to different customer application scenarios.

Functional categories	Feature list	Single-version	Standard Edition	Enterprise Edition	distributed	Safe version
UXDB database	Basic functions	✓	✓	✓	✓	✓
	High-availability data components		✓	✓	✓	✓
	External data encapsulation component	o	✓	✓	✓	✓
UXDB Optional Components	Massive Parallel Processing Suite				✓	
	Read/write separation kit			✓		✓
	High availability components		✓	✓	✓	✓
	Shared Storage Multi-Active SRAC			o	o	o
	Space components			o	o	o
	Vector components			o	o	o
	Timing components			o	o	o
Safety	Basic security functions		✓	✓	✓	✓
	Advanced security features					ffl
	Transmission encryption, national cryptographic algorithms, key management		✓	✓	✓	✓
	Hardware encryption support					✓
Database management tools	UXDB ADMIN	✓	✓	✓	✓	✓
Intelligent maintenance software	UXCC	o	✓	✓	✓	✓
Migration tools software	UXDMS	o	✓	✓	✓	✓
Data synchronization software	UXDTS	o	o	o	o	o
Server security hardening software	UXCDPS	o	o	o	o	o

Illustration: ✓ Built-in or includes o Optional

PART 04

Excellent cases



1. Safety and Compliance – Datang International Tangshan Thermal Power Substation

Project Background

The monitoring system for Datang International Tangshan Thermal Power Plant's substation needs to meet the high security requirements of the power industry, possess cluster expansion capabilities, and support a multi-level backup system to ensure the long-term stable operation and security compliance of the monitoring system.

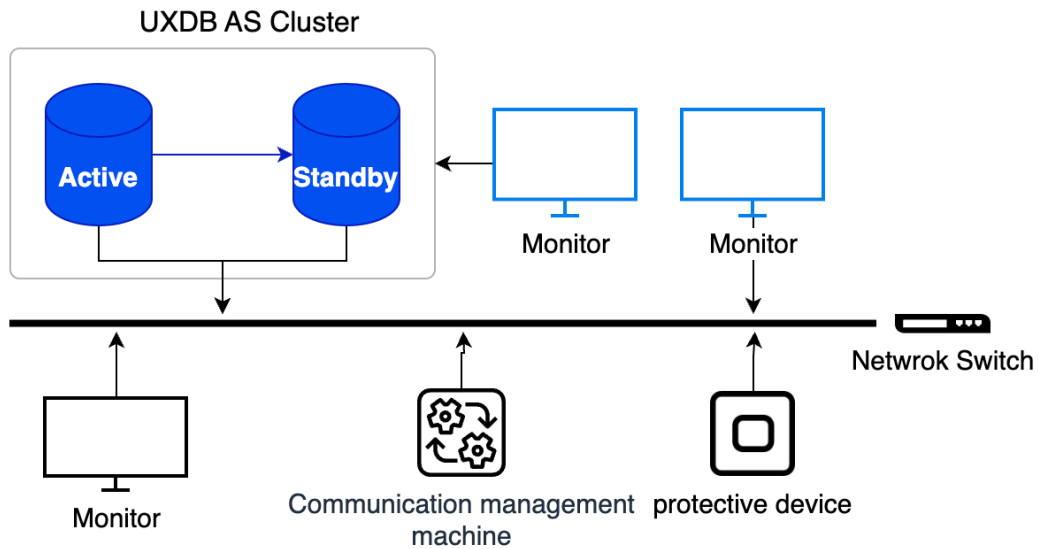


Figure 11. Architecture diagram of the UXDB ASC system at Datang International Tangshan Thermal Power Substation.

Requirements Overview

High availability and scalability require the database to have distributed capabilities with the continuous growth of monitoring data.

The system has strict requirements for multi-level backup, requiring support for various backup methods such as full backup, incremental backup, and differential backup, to ensure auditing and rapid recovery in the power industry.

Solution

- Access control and audit logging mechanisms are employed to meet the security standards and compliance requirements of the power industry.
- High-availability deployment is achieved through horizontal scaling of nodes, thereby improving concurrent processing capabilities and system disaster recovery capabilities.
- Full/incremental/differential backup and automated scheduling are provided, supporting multi-point recovery and rapid rollback.

Value Delivered to the Customer

- The cluster architecture and elastic scaling enhance system scalability, increasing system processing capacity by approximately 3 times.
- Multi-level backup and rapid recovery capabilities reduce the average recovery time by 70%.
- Security auditing, access control, and encryption system testing fully meet the requirements of a Level 3 information security protection system.



2. Large-scale parallel analytics – management systems of over 20 commercial banks

Project Background

Twenty commercial banks across China needed to build a unified performance appraisal platform to achieve systematic and scientific management of performance data.

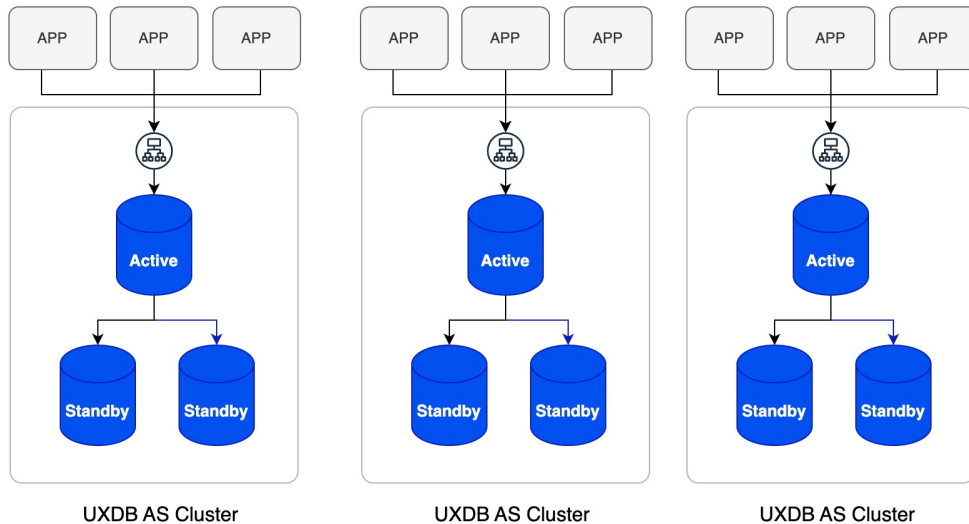


Figure 12. Architectural diagram of a commercial bank's management UXDB ASC system.

Requirements Overview

- The banks needed to unify their dispersed performance processes, centralize data, and standardize rules to create a systematic performance appraisal system.
- The solution needed to be quickly deployable and replicable across multiple banks to reduce implementation costs.

Solution

- UXDB, as the core supporting database, fully supports the performance platform's business data and meets financial-grade stability requirements.
- The solution provides 60 sets of primary/standby architecture for the banks, ensuring 7x24 stable system operation.
- UXDB was optimized for performance, supporting columnar storage, and concurrent performance tuning was completed to support large-scale concurrent access.

Value Delivered to the Customer

- Performance management efficiency increased by over 40%, performance calculation and aggregation efficiency improved, and the appraisal cycle was significantly shortened.
- Platform stability was greatly improved, with the primary/standby architecture achieving 99.99% availability throughout the year and no service interruptions during peak periods.
- The solution enabled rapid implementation across more than 20 banks, shortening the overall implementation cycle by 50%.



2. Multi-modal data fusion – Chongqing Huaneng Power Big Data Analysis System

Project Background

The construction of a unified power big data center by Chongqing Huaneng requires the support of relational and time-series data, enabling standardized management, real-time analysis, and efficient operation of massive amounts of power data. This places high demands on the database's reliability, performance, and distributed scalability.

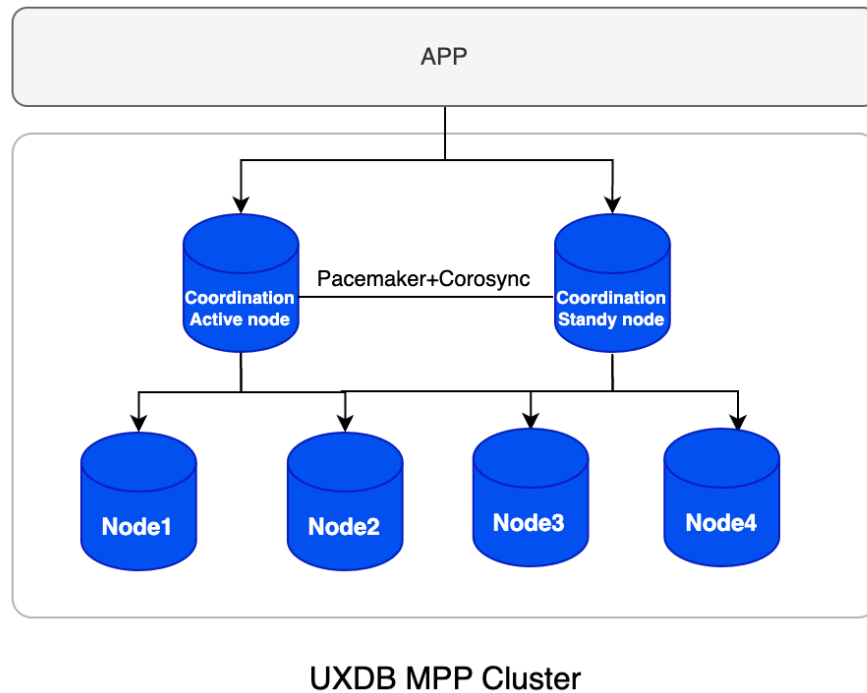


Figure 13: Chongqing Huaneng Power Big Data Analysis UXDB MPP Architecture Diagram

Requirements Overview

- A unified data center is built to integrate multi-source power data, enabling unified management and centralized analysis.
- Supporting massive wide table storage services requires processing thousands of wide tables and terabytes of historical data.

Solution

- The distributed architecture uses distributed deployment to support high concurrency and large-scale data storage and computing.
- Wide table and TB- level data optimization supports high compression and high-performance access for 1500- column wide tables and TB- level data volumes.
- The heterogeneous data access capability allows the unified engine to read data from multiple source libraries, reducing the cost of interface modification.

Value brought to customers

- The distributed MPP engine enables second-level response for big data analysis, improving overall analysis efficiency by 3 to 5 times.
- It supports a complex thematic model library that stably supports more than 10 types of dynamic models, including load forecasting, demand forecasting, and power grid quality monitoring.
- Stable operation with massive data volumes supports TB -level data and 1500 - column wide tables for continuous high-performance operation, with data throughput capacity increased by 200%+ .



4. UXDB SRAC Cluster - Empowering the construction of data simulation platforms.

Project Background

To enhance the realism and reliability of simulation and deduction, a certain institution needed to build a new generation of simulation platform. The requirements included a database with extreme write throughput, millisecond-level fault self-healing, and global data strong consistency to support real-time computation and deduction of massive entity states in complex environments. The existing database architecture could not meet these requirements.

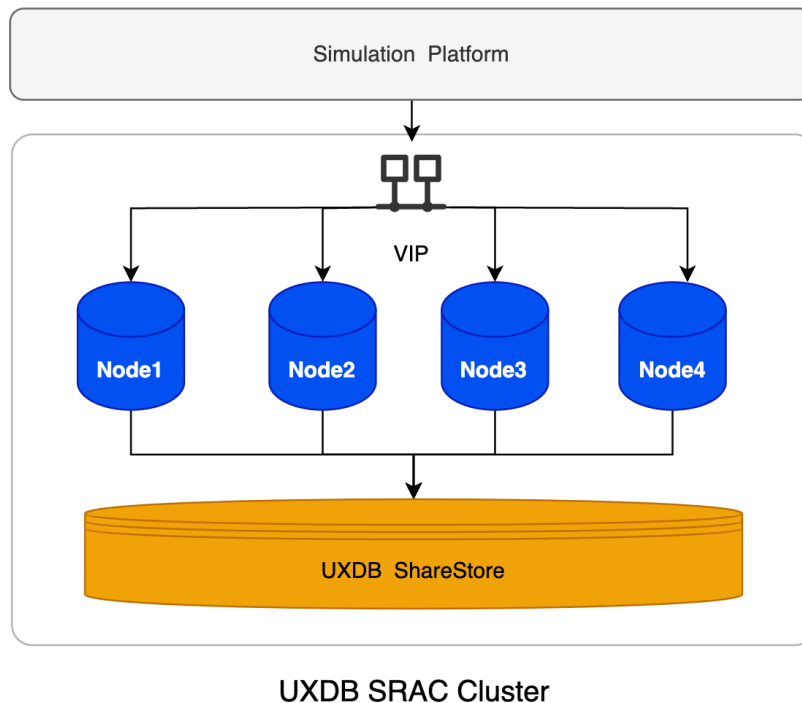


Figure 15. Data simulation platform based on UXDB SRAC.

Requirements Overview

The system needs to support continuous and stable writing of entity state data at a rate of up to 96MB per second.

Zero interruption of the simulation process is required, demanding that the database cluster have the ability to automatically recover from any node failure within seconds, without affecting business operations.

All deduction and computation nodes must be based on a completely consistent data view, eliminating distortion caused by data latency or ambiguity.

Solution

Deploy a 4-node UXDB SRAC cluster with shared storage. All nodes simultaneously provide read and write services, linearly increasing write throughput.

Enable memory fusion and global transaction control: ensuring global consistency of data cache and strong transaction consistency within the cluster.

Configure a heartbeat arbitration and online recovery subsystem to achieve second-level detection of node failures and recovery without downtime.

Value Delivered to the Customer

Database availability reaches over 99.999%, achieving no unplanned downtime throughout the year.

Fault switching time is reduced from several minutes to seconds, supporting long-term, uninterrupted combat simulation tasks.

Write performance reaches 96MB/second, and response time for millions of queries is within 0.1 seconds, ensuring the real-time nature of command and decision-making.

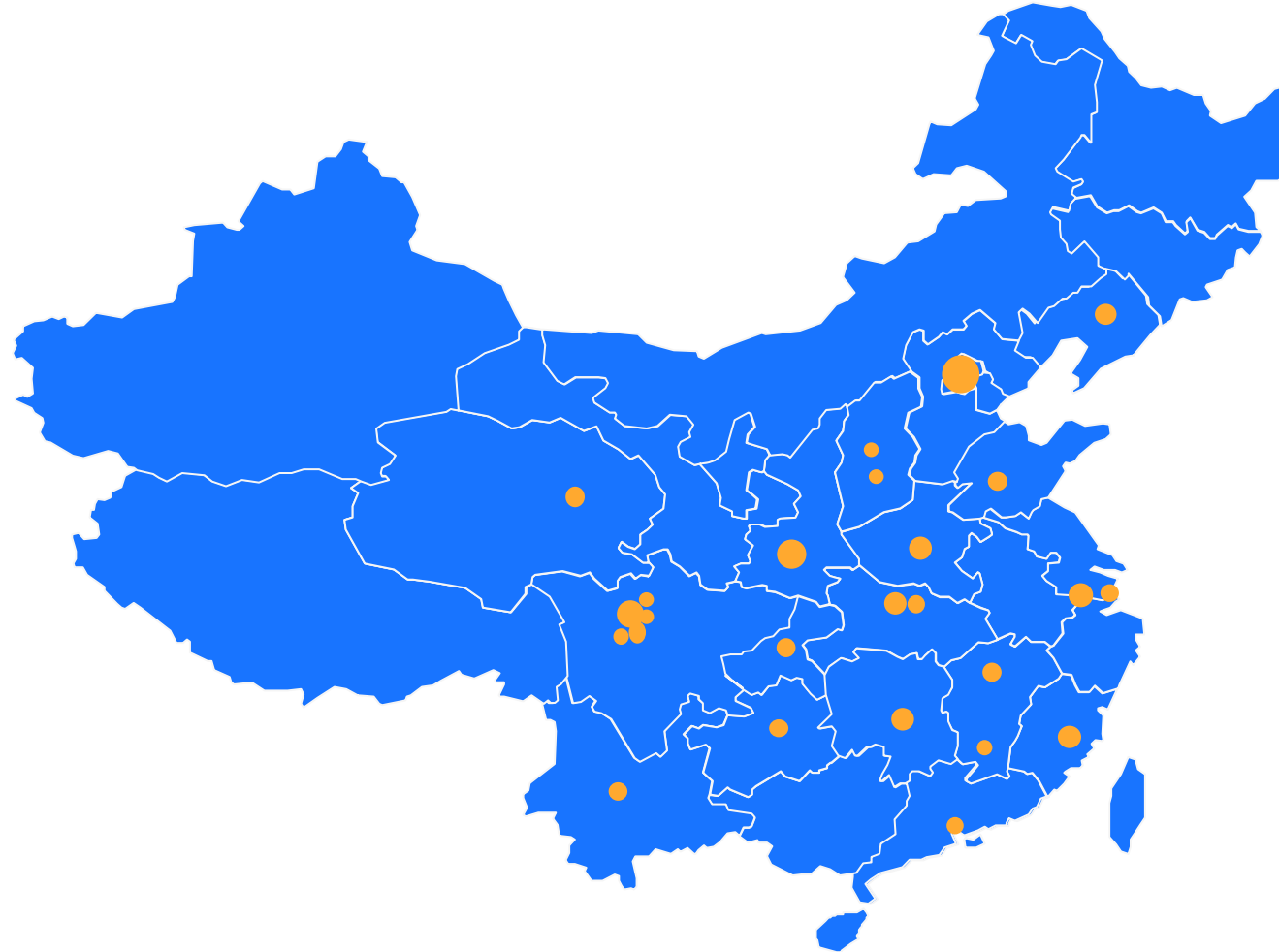
In a localized environment, it eliminates dependence on critical technologies and meets the high security requirements of the system.

PART 05

product delivery



1. UXDB SLA Technical Service System and Scope



UXDB signs Service Level Agreements (SLAs) with its clients, which clearly define the service content, the responsibilities and obligations of both parties, and the service details regarding quality levels and prices.

With Beijing, Xi'an, and Chengdu as its three centers, the company has formed a nationwide technical service system with

2020 , we have served over a thousand clients, achieving a problem resolution rate of 98.7% and an average customer satisfaction rate of 96.3%.



1. UXDB SLA Technical Service System Troubleshooting

Service Level	Response Item	Classification Explanation
Severity Level 1 error Solve the goal	2 hours	This refers to catastrophic production errors in software that severely impact a customer's production system, causing the software in the customer's production system to shut down or become inoperable; or errors in the software that lead to the loss of production data and the absence of program functionality, including security vulnerabilities.
Severity Level 2 Error Resolution Target	4 hours	This refers to software that is in production and can run, but some key functions are not performed as documented, and there is no available solution.
Severity Level 3 error Solve the goal	8 hours	This refers to minor functions of software in production not being performed as documented, or software in development or testing environments not being performed as documented.
Initial response target	60 minutes	
Support time	7x24 hours	
Accident Types	product	
Number of support events per year	unlimited	
Authorized Contact Person	2-6 contacts; add 1 designated contact for each additional purchasing level.	



2. UXDB SLA DBA's daily technical service content

People and activities	Monitoring and Alarms	Backup and Disaster Recovery	Installation and maintenance	High availability and security	Performance optimization
Remote DBA Resource Request	7 x 24 monitoring	Disaster recovery planning	Install a database instance , if necessary.	High availability architecture maintenance	Regular health scans
Certified DBA Team	Automated monitoring implementation	Production backup verification	Apply patches, minor and major database upgrades	Scalability and load balancing recommendations	Database parameter tuning
Best Practices Recommendations	Real-time alerts for multiple dimensions	Set a time point to resume (if needed).	Set up a development/testing environment for each production environment	User/Group Security Configuration and Maintenance	Workbench maintenance and cleaning optimization
Connection Pool Best Practices	Custom alarm thresholds		Establish a read-replica copy for each production instance	Best practices for encryption and secure access	Query performance optimization guide
Weekly status meetings and database environment health and activity reports	Trend analysis of capacity/space, load, and latency		Table partitioning		Index maintenance and efficiency
Documentation Help (Knowledge Base)	Proactively remedy issues that have already been reported.		Cleaning		
	Report to management (as needed)		User Access Management		
	Evaluate database patches and upgrades		Directory corruption check		

PART 06

Company Overview



About us

Beijing Uxsino Database Co., Ltd. (hereinafter referred to as "UXDB") is a Chinese database software provider. With the mission of "building a secure, reliable, and intelligently integrated data foundation to empower industrial upgrading," the company is a Chinese high-tech enterprise and a "specialized, refined, and innovative" enterprise in Beijing. It provides full-lifecycle database products and full-stack technical services for critical sectors such as government, military, energy, and finance.

Its core product, Uxsino Database (UXDB), innovatively develops a multi-read, multi-write shared storage high-availability cluster (UXDB SRAC), achieving minute-level fault recovery and zero data loss, ensuring the continuous operation of core businesses. Through multi-modal integration, it uniformly processes various types of data, including relational and time-series data, simplifying complex architectures and providing a unified data foundation. It supports performance self-tuning and fault prediction. The company also focuses on technologies such as MCP and hardware-software integration to support the production application of integrated AI.

Based in three R&D centers in Beijing, Xi'an, and Chengdu, Uxsino provides full-stack support from planning to long-term operation and maintenance through its 25 branches nationwide. In the future, the company will continue to deepen its secure, reliable, and intelligent data technologies, becoming a trusted partner for its customers.



Our partners

Government and public services

Ministry of Industry and Information Technology
Ministry of Finance
Ministry of Education
Ministry of Civil Affairs
Ministry of Natural Resources
Ministry of Agriculture and Rural Affairs
Ministry of Human Resources and Social Security
Ministry of Housing and Urban-Rural Development
Ministry of Emergency Management
State Taxation Administration
State Administration of Radio and Television
State Administration for Market Regulation
National Bureau of Statistics
State Intellectual Property Office
All-China Federation of Trade Unions
People's Government of Tibet Autonomous Region
Shenfu Reform and Innovation Demonstration Zone, Liaoning Province
Chongqing Municipal Government Hotline
Yunnan Provincial Administration for Market Regulation
National Museum of China

Financial sector

Shanghai Clearing Center of the People's Bank of China
People's Bank of China Tianjin Branch
China Construction Bank
Industrial and Commercial Bank of China, Guizhou Branch
Bank of China Jilin Branch
Agricultural Bank of China Beijing Branch
Huafo Bank
China Merchants Bank
Industrial Bank
Shanghai Pudong Development Bank
Tianjin Binhai Rural Commercial Bank
Chongqing Bank
Guotai Junan Securities Co., Ltd.
Northeast Securities Co., Ltd.
Southwest Securities Co., Ltd.
China Investment Securities Co., Ltd.
People's Health Insurance Company of China
Great Wall Huaxi Bank
Chengde Bank
Cangzhou Bank

Public safety

Shanghai Higher People's Court
Guizhou Provincial Higher People's Court
Qianxinan Prefecture Intermediate People's Court
Suzhou Intermediate People's Court
Chengdu Xindu District People's Court
Chengdu Jinniu District People's Court
Sichuan Guanghan People's Court
Valve City People's Court
Guangyuan Municipal People's Court
Guiyang Municipal People's Court
Anshun Intermediate People's Court
Lingshui People's Court of Hainan Province
Jinan People's Procuratorate
South China Sea Branch of China Coast Guard
Beijing Municipal Prison Administration Bureau
Shenyang Railway Police
Mianyang Public Security Bureau
Chinese Armed Police Special Police Academy
China Criminal Police University
Changde Public Security Bureau, Hunan Province

Energy Transportation

China Huaneng Group
China Datang Corporation
China Huadian Corporation
China Guodian Corporation
China Power Investment Corporation
China Hydropower Engineering Bureau 4
State Power Investment Corporation
Guodian Power Development Co., Ltd.
China Energy Group Guangdong Power Co., Ltd.
NARI Group
China Gezhouba Group Corporation
China Shenhua Energy Company Limited
China Resources Power Holdings Co., Ltd.
State Power Investment Corporation
Ningxia Energy Aluminum Co., Ltd.
State Grid Jiangxi Electric Power Company
State Grid Ningxia Electric Power Co., Ltd.
Southern Power Grid Yunnan Electric Power Company
Ningxia Electric Power Investment
Taiyangshan Photovoltaic Power Generation Company
Xinjiang Tianshan Electric Power Co., Ltd.
NARI Technology Co., Ltd.

healthcare

Health Commission of Chaoyang District, Beijing
Health Commission of Miyun District, Beijing
Chongqing Municipal Health Commission
Shenzhen Municipal Health Commission
Xi'an Municipal Health Commission
Chengdu Longquan Health Bureau
Guizhou Provincial Center for Disease Control and Prevention
Shenzhen Nanshan District Center for Disease Control and Prevention
Mianyang Municipal Center for Disease Control and Prevention
Beijing Wenren Medical Center
Beijing Children's Hospital
Peking University People's Hospital
Guangzhou Panyu Central Hospital
Shenzhen Third People's Hospital
The Second People's Hospital of Yubei District, Chongqing
Nanmu City First Hospital
The Second Affiliated Hospital of Nanchang University
Shijiazhuang First Hospital
Huashan Central Hospital, Xi'an
West China Hospital of Sichuan University



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Thanks



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Disclaimer

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The development, release, and timing of any features or functions of the UXDB product are entirely determined by UXDB.