



Sun Java™ System Directory Server Enterprise Edition

The Leading Directory Solution for High-Scale Environments

Highlights

Complete core directory services combined with related identity data services in one comprehensive solution:

- High-performance, highly scalable directory for enterprise and carrier-grade environments
- Robust security controls, including complete visibility into access requests
- Flexible replication capabilities for availability in distributed environments
- Integrated data services, including virtualization and distribution
- Password, identity, and group synchronization with Microsoft Active Directory
- Ability to manage multiple directory server instances as a single service
- Web-based interface for anytime, anywhere object updates



Organizations, carriers, and service providers are developing and deploying more identity-enabled applications to more users every day. These applications rely on a directory to provide secure, reliable access to digital identities and their credentials. However, in today's increasingly networked environments, a directory must offer much more than just a repository for identity data. It must provide easy yet secure access to information in multiple repositories, maintain the highest possible levels of availability, and be able to scale dramatically to keep pace with constantly growing and changing groups of internal and external users. A directory that is only a data repository cannot possibly address all these challenges. For this reason, many enterprises have turned to multiple point solutions to provide all the directory-related functionality they need. This can result in an unnecessarily complex directory environment that can be extremely costly both to deploy and to administer.

What's needed is a directory solution that delivers the performance, availability, and scalability to securely support increasing numbers of identity-enabled applications in dynamic networked environments. Such a solution must be able to:

- Integrate seamlessly with existing technology platforms and environments
- Aggregate user identity information from multiple sources into a single identity
- Ensure consistent, reliable access to identity data
- Promote large-scale manageability with virtual views of user identity data
- Protect identity data against illegal access, denial-of-service attacks, and other security risks

Sun Java™ System Directory Server Enterprise Edition

Sun Java™ System Directory Server Enterprise Edition is the only high-performance directory server to provide core directory service and a range of essential data services — all in one solution. It includes a number of key components that together provide a complete directory service:

- Directory Server for core directory service
- Directory Proxy Server for load-balancing, high-availability, virtualization, and distribution capabilities
- Identity Synchronization for Windows for identity data, password, and group synchronization between Microsoft Active Directory and Java System Directory Server
- Directory Editor for directory object editing
- Directory Server Resource Kit for tuning and optimizing directory server performances

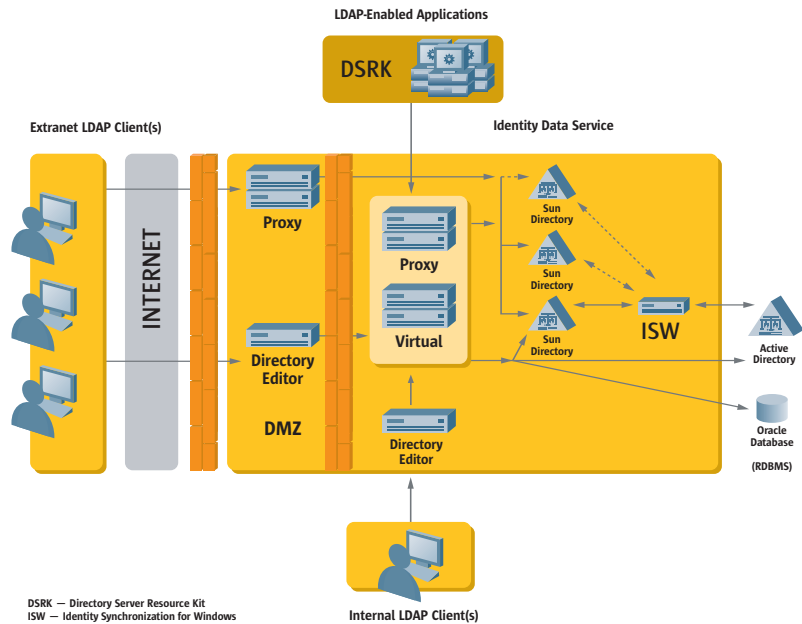
The Java System Directory Server Enterprise Edition solution provides high-performing directory services, based on Sun's industry-leading Directory Server, as well as essential data services — such as virtualization, proxy, and distribution — that enhance data modeling across multiple repositories and applications.

Comprehensive, high-performance solution

As the number of identities and applications in the enterprise grows, so does the need for a high-performance directory solution that delivers all the functions and features that large-scale, identity-enabled environments

demand. Directory Server Enterprise Edition features a 64-bit enterprise-class directory to provide both sustained search performance and near-relational database write performance — no matter how many applications require access to identity data. In environments where there is so much data that it must be split across multiple servers, Directory Server Enterprise Edition offers integrated distribution capabilities to consolidate the data so that it can be managed more efficiently.

Directory Server Enterprise Edition includes virtual directory and directory proxy services, and is designed to integrate easily into existing technology infrastructures. For example, because Microsoft Windows provides the desktop interface most frequently found in enterprise environments, Directory Server Enterprise Edition includes identity, group and password synchronization with Microsoft Active Directory. This enables users to change passwords in either Windows or Directory Server Enterprise Edition and keep the password synchronized between the two. Directory



Directory Server Enterprise Edition includes multiple components to provide the entire service function.

Sun Java System Directory Server Enterprise Edition is the only high-performance directory server with core directory service and essential data services — all in one solution.

Server Enterprise Edition is the only directory solution that offers seamless, nonintrusive integration with the Microsoft environment to enable effortless synchronization.

Built for maximum availability and massive scalability

As a critical component of the enterprise identity infrastructure, today's directory must provide consistent, reliable access to identity data at all times. Directory Server Enterprise Edition

delivers a highly flexible replication environment to help ensure data availability. The integrated Directory Proxy Server prevents any single point of failure for the directory service, and also provides operation-based routing, load-balancing, and failover features to ensure that data is always available to users and applications when they need it.

Identity data availability is essential no matter how much or how rapidly the number of users and applications grows — making scalability a critical quality for directory solutions. Directory Server Enterprise Edition provides for both vertical and horizontal growth without major deployment redesign. The 64-bit enterprise-class directory also features linear CPU scalability to 18 CPUs to support high performance in the largest-scale environments.

Industry-leading security and access controls

Identity data is by nature sensitive. This mandates a directory solution to provide robust security to protect against illegal access, denial-of-service attacks, and other security risks. In addition to data and communication encryption and password protection, Directory Server Enterprise Edition secures data with Access Control Instructions (ACIs) that define access rights all the way down to the attribute level. The integrated Directory Proxy Server minimizes the risk of unauthorized access to data by providing ACIs at the proxy level, resource usage limits to avoid denial of service attacks, and authentication and encryption enforcement.

Another first from a pioneering leader in identity management solutions

Sun is the first provider of identity management solutions to offer a full-service directory solution, eliminating the integration and support issues that come with using multiple products to get comprehensive functionality.

Directory Server Enterprise Edition is the most widely deployed general-purpose LDAP-based directory server, with more than three billion entries in production. Directory Server Enterprise Edition has been identified as number one in market penetration by the Burton Group. Gartner has recognized it as a leading solution

in the Gartner Directory Server Magic Quadrant. And, its leading position for Enterprise/Carrier market segment — from both revenue and number of directory entries sold — is confirmed by The Radicati Group's latest industry analysis report, "*Directory Services Market 2006-2010.*"

Directory Server Enterprise Edition is a key component of Sun's complete identity management portfolio, which also includes products for converged provisioning and auditing, access management, and identity federation. The company has a large installed base, with thousands of customers, many in the Fortune 500.

Capabilities at a glance

Directory Server Enterprise Edition provides all the capabilities and services needed to successfully deploy identity-enabled applications.

Capability	Function	Benefit
Centralized Repository for Identity, Application, and Network Resource Information	<ul style="list-style-type: none"> Provides a highly scalable, secure, and flexible means of storing and managing identity data — from entry-level to large-scale deployments 	<ul style="list-style-type: none"> Enhances security, reduces IT complexity, increases efficiency, and lowers costs
Directory Proxy Services	<ul style="list-style-type: none"> Prevents denial-of-service (DoS) attacks, controls access based on specific criteria, and intercepts unauthorized operations Enables failover operations, allowing the directory service to continue when a server is offline Load balancing protects the directory environment from load-related failures and delivers horizontal scalability on reads/searches 	<ul style="list-style-type: none"> Strengthens security and ensures availability Increases productivity and lowers costs by maximizing availability while providing flexibility for periodic maintenance Increases efficiency by ensuring reliability and availability of up-to-date consistent data
Unlimited Number of Masters	<ul style="list-style-type: none"> Provides a highly flexible and scalable replication environment 	<ul style="list-style-type: none"> Ensures availability in distributed environments that adapt to customer deployment scenarios
Web-based Identity and Object Editor	<ul style="list-style-type: none"> Provides an intuitive administration interface for managing users, groups, and organizations 	<ul style="list-style-type: none"> Increases directory usability and makes data management seamless
Global Directory Service Management	<ul style="list-style-type: none"> Provides the ability to manage multiple directory servers as a service 	<ul style="list-style-type: none"> Simplifies administration, increases efficiency of operations, and enables outage-free maintenance
Consolidated Identity View	<ul style="list-style-type: none"> Allows multiple directory servers with different schemas to act together to service clients 	<ul style="list-style-type: none"> Simplifies administration and reduces complexity
Virtual Directory	<ul style="list-style-type: none"> Aggregates identity data from multiple sources to provide a virtual view accessed through LDAP for identity-enabled applications 	<ul style="list-style-type: none"> Reduces time and complexity for deployment of identity-enabled applications that require information from different data sources Avoids the complexity and data ownership issues associated with metadirectory solutions Streamlines corporate directory integrations for mergers and acquisitions

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Supported standards and managed resources

Directory Server Enterprise Edition standards support — including its industry-leading LDAP protocol support — allows identity business processes to be easily integrated into broader business process functions. Standards support also ensures out-of-the-box integration with existing and future technology infrastructure investments.

Specifications

Industry standards

- Relevant LDAP v2 and v3 RFCs, including RFC 2079, 2246, 2247, 2307, 2713, 2788, 2798, 2831, 2849, 2891, 3045, 3062, 3296, 3829, 3866, 4370, 4422, 4505, 4511, 4512, 4513, 4514, 4515, 4516, 4517, 4519, 4522, 4524, and 4532
- FIPS 180-1
- DSML v2
- X.509 Digital Certificates

Operating systems and platforms¹

For core Directory Server, Directory Proxy Server, and Directory Server Resource Kit components:

- Sun Solaris 9 and 10 Operating Systems
- Red Hat Enterprise Linux Advanced Server (AS) 3 and 4
- SuSE Linux Enterprise Server 9 and 10
- Hewlett-Packard HP-UX 11.23 (PA-RISC)
- Microsoft Windows 2000 Server and Advanced Server
- Microsoft Windows Server 2003 Standard Edition and Enterprise Edition

Supported databases for virtualization:

- MySQL 5.0
- Oracle9i and 10g
- IBM DB2 9

For Identity Synchronization for Windows:

- Sun Solaris 9 and 10 Operating Systems
- Red Hat Enterprise Linux AS 3
- Microsoft Windows 2000 Server and Advanced Server SP4
- Microsoft Windows Server 2003 Standard Edition and Enterprise Edition

System requirements (for a typical 250,000 entries configuration)

Directory Server

- Minimum disk space: 4 GB
- Minimum memory: 2 GB

Directory Proxy Server

- Minimum disk space: 2 GB
- Minimum memory: 2 GB

Identity Synchronization for Windows

- Minimum disk space: 400 MB
- Minimum memory: 512 MB

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Learn more

For more information on Java System Directory Server Enterprise Edition, visit sun.com/identity.

¹. Platforms listed for LDAP server only. For other capabilities, please visit docs.sun.com or contact your account manager.