

Security, Compliance and Data Protection in Couchbase Server

Key Benefits

Flexible Authentication

RBAC for Admins

End-to-end Encryption

Fine-grained Auditing

Simple Management

Security Vendor Partnerships

Data breaches continue to escalate in frequency and impact. Data security is a top operational concern for system architects and operators. Mission-critical operational databases, like Couchbase, must be scalable, reliable, efficient, and secure. Security is a complex topic, encompassing Authentication, Authorization, Encryption, Auditing, and Compliance. A comprehensive approach to security must include product features as well as integration with industry-standard tools and solutions.

Couchbase Server Enterprise Edition provides a full suite of capabilities, tools, integration, best practices, and technology partnerships, providing a comprehensive approach to secure deployments, secure data access and operational compliance.

Authentication

Administrators can authenticate via LDAP, PAM or using passwords. Couchbase Server supports SCRAM, a strong challenge-response SASL protocol over TLS for application authentication. For Amazon Web Services (AWS) cloud deployments, Couchbase Server also provides Network Access Control Lists (ACLs) and security groups for the Amazon Virtual Private Cloud (VPC).

Authorization

Couchbase Server supports detailed administrative control, making it possible to define a granular separation of duties between different types of system administrators.

Encryption

Couchbase Server provides encryption on the network and on disk. Data moving between client and server, and between data centers is encrypted using the Transport Layer Security (TLS) 1.2 protocol. With X.509 certificates, Couchbase Server can encrypt communications between client libraries and server over a trusted channel. Couchbase partners with industry leading third-party security solution providers, such as Vormetric, Gemalto, and others to provide encryption at rest, data masking, and fine-grained compliance control.

Auditing

Couchbase Server auditing captures the “Who does What, When, and How” for over 25 separate administrative events. Audit records are securely written to configurable, rotating JSON audit files. This makes it easy to audit directly or by using third-party tools for threat management and regulatory compliance, like security identity event management (SIEM) alerting systems.

Management

Couchbase Server security features can be easily managed via encrypted access using the Couchbase Web Console or REST APIs.

Learn More

[Security in Couchbase Server](#)

[Security Best Practices](#)

[Securing Your Installation](#)

[Vormetric](#)

[Gemalto Safenet](#)

	Couchbase Server		Partners	
	Community Edition	Enterprise Edition		
AUTHENTICATION	Password based authentication	✓	✓	
	LDAP		✓	
	PAM (Pluggable authentication)*		✓	
AUTHORIZATION	Internal Full-administrator account	✓	✓	
	Internal Read-Only administrator account	✓	✓	
	Multiple LDAP administrator accounts		✓	
	Role-based Authorization Control for Admins		✓	
ENCRYPTION	Self-signed certificates		✓	
	PKI X.509		✓	
	Client-Server communications		✓	
	Between clusters (XDCR)		✓	
	On-disk	✓	✓	Vormetric, Gemalto, Protegrity
AUDITING	Tokenization & dynamic data masking	✓	✓	Vormetric, Gemalto, Protegrity
	JSON based administrative audit logs		✓	
	Time based audit log rotation		✓	
	Fine-grained administrative auditing		✓	
SECURITY MGMT	Web console	✓	✓	
	REST APIs	✓	✓	
SECURITY BEST PRACTICES	Anti-virus scans	✓	✓	
	Static code scans	✓	✓	
	Reporting a vulnerability	✓	✓	
	Security best-practice documentation	✓	✓	

About Couchbase

Couchbase delivers the database for the Digital Economy. Developers around the world choose Couchbase for its advantages in data model flexibility, elastic scalability, performance, and 24x365 availability to build enterprise web, mobile, and IoT applications. The Couchbase platform includes Couchbase, Couchbase Lite - the first mobile NoSQL database, and Couchbase Sync Gateway. Couchbase is designed for global deployments, with configurable cross data center replication to increase data locality and availability. All Couchbase products are open source projects. Couchbase customers include industry leaders like AOL, AT&T, Cisco, Comcast, Concur, Disney, DIXONS, eBay, General Electric, Marriott, Nordstrom, Neiman Marcus, PayPal, Ryanair, Rakuten / Viber, Tesco, Verizon, Wells Fargo, as well as hundreds of other household names. Couchbase investors include Accel Partners, Adams Street Partners, Ignition Partners, Mayfield Fund, North Bridge Venture Partners, Sorenson Capital and WestSummit Capital.



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