
























When it comes to cloud storage, security isn't just a feature – it's a foundational requirement.

This comparison highlights how Backblaze B2 Cloud Storage delivers enterprise-grade security that stands shoulder-to-shoulder with providers like Amazon AWS S3 and other object storage providers. Discover how you can achieve top-tier data protection without the unpredictable costs or complexity often associated with cloud storage providers.

Security Feature	Backblaze B2 Cloud Storage	AWS S3	Wasabi Hot Cloud Storage
Encryption at rest	 (SSE-B2, SSE-C)	 (SSE-S3, SSE-KMS, DSSE-KMS, SSE-C)	 (SSE-C only)
Backblaze provides server-side encryption with options for both service-managed keys and customer-provided keys. Your data is encrypted with the Advanced Encryption Standard with a 256-bit key (AES-256)—widely considered “military grade” and approved by the NSA for protecting classified information up to the “TOP SECRET” level.			
Encryption in transit	 (HTTPS/TLS)	 (HTTPS/TLS)	 (HTTPS/TLS)
Backblaze B2 Cloud Storage encrypts data in transit using Transport Layer Security (TLS) over HTTPS. All data transmitted to and from Backblaze B2 is secured, ensuring confidentiality during transfer.			
Object Lock immutability	 (No cost)	 (Charge for PUT fees)	 (No cost)
Backblaze B2's Object Lock feature lets you make data immutable to prevent a file from being changed or deleted until a given date which protects data that is stored in Backblaze B2 from threats like ransomware or for regulatory compliance. Choose from Governance or Compliance mode or Legal Hold . Unlike hyperscalers (AWS S3, Google Cloud, Azure), Backblaze does not charge for PUT calls to renew Object Lock on a file—a practice that can inflate your storage costs.			
Versioning	 	 	
Versioning automatically preserves multiple iterations of an object, allowing users to recover previous, uncorrupted data states, crucial for mitigating accidental deletions, overwrites, or ransomware attacks. Custom Upload Timestamps enable users to specify exact upload times, critical for data integrity, precise versioning, and compliance.			
Multi-factor authentication (MFA)	 	 	
Backblaze enforces mandatory multifactor authentication (MFA). The different forms of verification that Backblaze supports today are email, SMS, and TOTP/authentication applications—Google Authenticator or Authy.			
Access controls	 	 	
The Backblaze enterprise web console employs role-based access controls (RBAC) with single sign-on (SSO) or SCIM integrations for easy administration of the entire user base. Bucket Access Logs, Event Notifications, Scalable Application Keys, and Multi-Bucket Application Keys are also available.			
Threat detection/monitoring	 (Uploads and downloads)	 (GuardDuty requires setup across multiple paid AWS services)	 (Download monitoring only; no configurable thresholds)
Backblaze Anomaly Alerts enable configurable severity thresholds with automated alerts for anomalous upload and download activity.			

Backblaze B2 Cloud Storage Compliance Comparison

While all reputable cloud providers prioritize security, their specific certifications and attestations vary, reflecting their commitment to different global and sector-specific standards. This section compares how Backblaze B2 and other cloud storage providers address key compliance frameworks, helping you determine if a provider aligns with your unique data governance and legal obligations.

Security Feature	Backblaze B2 Cloud Storage	AWS S3	Wasabi Hot Cloud Storage
SOC 2 Compliance	✓ (SOC 2 Type 2 data centers and company level compliance)	✓ (SOC 2 Type 2 data centers and company level compliance)	✓ (SOC 2 Type 2 data centers only)
Backblaze has achieved SOC 2 Type 2 compliance by an independent third-party firm. Backblaze operates in data centers that are also SOC 2 compliant.			
HIPAA	✓	✓	✓
Backblaze can provide a Business Associate Agreement (BAA) upon request for business customers who are Covered Entities under HIPAA regulations.			
GovRAMP	✓	✓	✗ (Not GovRAMP authorized but does have FedRAMP Ready status)
Backblaze is listed as a Progressing Product in the Government Risk and Authorization Management Program (GovRAMP) Authorized Product List.			
TX-RAMP	✓	✓	✓
Backblaze is listed in the Texas Risk and Authorization Management Program (TX-RAMP) Certified Cloud Products list with a Certification Status of TX-RAMP Provisional.			
PCI DSS	✓	✓	✓
Backblaze utilizes Stripe to store and process card information, which, combined with internal security controls, contributes to Backblaze's adherence to Payment Card Industry Data Security Standard (PCI-DSS) requirements.			
GDPR	✓	✓	✓
Backblaze adheres to General Data Protection Regulation (GDPR) privacy policies. Data Processing Agreement Addendums (DPAs) for EEA/EU and UK residents are available for compliance standards.			
EU-U.S. Data Privacy Framework	✓	✓	✗
Backblaze has certified to the EU-U.S. Data Privacy Framework (DPF) and adheres to the DPF Principles.			
TPN	✓	✓	✓
Backblaze obtained Trusted Partner Network (TPN) Blue Shield status that is aligned with the Motion Picture Association (MPA) Content Security Best Practices (CSBP) framework.			
Additional compliance documentation:			
HECVAT: Backblaze completed the Higher Education Community Vendor Assessment Tool (HECVAT) lite and full version 3.06 assessments.	VPAT: Backblaze obtained a Voluntary Product Accessibility Template (VPAT) report documenting compliance with Section 508 accessibility guidelines.	CCPA/CPRA: Backblaze satisfies California Consumer Privacy Act/California Privacy Rights Act (CCPA/CPRA) privacy obligations, including consumer request, data inventory, and a privacy notice.	ISO 27001: Backblaze predominantly utilizes data centers that hold International Organization for Standardization (ISO) 27001 certificates.

Learn More

For additional information, questions, or to set up a free proof of concept:

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About Backblaze

Backblaze (NASDAQ: BLZE) is the cloud storage innovator delivering a modern alternative to traditional cloud providers. We help businesses use open cloud workflows with the providers they prefer at a fraction of the cost. Headquartered in San Mateo, CA, Backblaze serves over 500,000 customers in 175 countries around the world.