

EMC Atmos

Simplifying cloud storage

The Big Picture

- Purpose-built cloud storage platform designed to scale and distribute content globally
- Policy-defined content management
- Flexible content protection with GeoProtect
- Secure, partitioned architecture to support multiple tenants
- Flexible web services access to enable web-scale applications

Cloud computing and cloud-optimized storage (COS)

Cloud computing has introduced a new way of operating and managing your business. Cloud environments are large in scale, distributed, and require a new architecture for storage that is built with these requirements in mind. Every day, the amount of information managed by an enterprise increases, and over time, implementing a cloud infrastructure to meet these demands will become an integral part of the organization's health and success.

EMC® Atmos® is designed for cloud-based content infrastructures. The software runs on low-cost, high-density hardware that is delivered in an efficient footprint and is designed with simplicity in mind:

- **Massive scalability:** Scales effortlessly within one location or across multiple locations to accommodate the ever expanding need for storage
- **Global distribution:** Policy management capabilities to define movement of content throughout its lifecycle based on business objectives
- **Efficiency at scale:** Easy, cost-effective technology for managing massive amounts of unstructured content

Content protection built for the cloud: Cloud optimized protection

EMC Atmos was purpose-built to address the new requirements of cloud computing. Its globally distributed architecture and management capabilities make it an ideal solution for protecting your content at cloud scale. Often, traditional methods of protecting your content are not sufficient when applied to large-scale cloud environments—those that serve hundreds of thousands of web-scale applications—all simultaneously. To optimally protect your content, you need protection methods that are flexible and optimized for large, distributed cloud environments.

GeoProtect is a feature of EMC Atmos that offers enhanced content protection methods designed specifically for distributed cloud environments. Not all content is valued the same, that is why GeoProtect gives administrators the flexibility to apply the right performance and protection levels to their information based on the content's value. GeoProtect presents two content protection schemes to balance storage efficiency—reliability and performance. Replication creates and distributes multiple copies across your cloud infrastructure, while erasure coding—an advanced protection technique—divides and distributes object segments either locally or across your cloud infrastructure. GeoProtect helps you achieve your business objectives and improve service levels by applying the right content protection schemes to ensure your content is tuned and optimized for your business.



Features and benefits for cloud-based content infrastructures

EMC Atmos offers the most extensive range of advanced features for cloud storage, including:

- **Policy-based management:** EMC Atmos improves operational efficiency by automatically distributing content based on business policy. The administrator-defined policies dictate how, when, and where the information resides.
- **Cloud optimized protection:** EMC Atmos offers enhanced content-protection methods designed specifically for distributed cloud environments. With the GeoProtect feature, you can granularly control the protection, performance, and storage cost associated with your content.
 - **Replication:** Ensures content is available and accessible by creating multiple copies of the object to one or more designated locations
 - **Erasur coding:** Ensures content is available and accessible by dividing objects into multiple segments and distributing them to one or more designated locations
- **All-in-one data services:** EMC Atmos includes the following data services: versioning, compression, deduplication, and spin-down. These features are native to Atmos and can be managed and accessed via policy.
- **Web services and legacy protocols:** EMC Atmos provides flexible web services access (REST/SOAP) for web-scale applications and file access (CIFS/NFS/Installable File System) for traditional applications.
- **Automated system management:** EMC Atmos provides auto-configuring, auto-managing, and auto-healing capabilities to reduce administration and downtime.
- **Multi-tenancy:** EMC Atmos enables multiple applications to be served from the same infrastructure. Each application is securely partitioned and cannot access another application's data. Multi-tenancy is ideal for service providers or large enterprises that wish to provide cloud services for many customers or departments with logical, secure separation within a single infrastructure.
- **Unified namespace:** EMC Atmos has a single namespace that provides universal access regardless of location, reducing complexity and improving productivity.
- **Flexible administration:** EMC Atmos can be managed via GUI, Command Line, or Programmatic API.

Cloud environments for every purpose across industries

EMC Atmos enables you to focus on your business rather than on the business of information management and distribution. It delivers a unique degree of freedom to build cloud environments that suit different purposes and industries.

- **Healthcare:** Healthcare organizations are faced with new challenges and opportunities in the areas of medical image management and collaboration. Atmos provides new, more efficient ways to manage image distribution and archiving and offers collaboration enhancements across multi-site facilities.
- **Government:** It is essential to the nature of all Federal agencies—whether civilian, defense, or intelligence organizations—to employ and coordinate users and worksites across the country, and often around the world. All work must adhere to strict business processes and policies, requires multiple levels of storage management, and are governed by differing levels of access and security. EMC Atmos is ideally suited for this complex, policy-sensitive, widely distributed environment.
- **Web 2.0/Internet:** Many rich Internet applications, such as video sharing, produce petabytes of user-generated content that needs to be accessed from all over the world. Typically, the content has an initial period of intense activity followed by long phases of dormancy. Using the Atmos policy-based, content-management feature, you can automate content delivery to match popularity, geographic location, and retention periods.
- **Service providers:** Service providers can use the multi-tenant feature and web service APIs to build an application that offers secure online storage for consumers. For example, a wireless provider could create a service that enables subscribers to securely store their own digital content in a global “lock box” or vault. The service provider can then choose to monetize the service or give it away as a competitive offering.
- **Media:** The business of media creation and distribution is inherently global and requires intense cooperation with disparate parties and systems. The web service APIs can be used to easily integrate with content creation tools, while policy-based content management and all-in-one data services features can be used to streamline the collaboration and distribution processes.

EMC Atmos support and independent software vendors (ISVs)

EMC Atmos is available and supported direct from EMC. EMC Atmos is integrated with EMC products as well as a number of growing ISV partners to deliver solutions across multiple industries. Each EMC ISV partner delivers application and industry expertise that is tuned to the EMC Atmos system to provide solutions optimized for our customers’ needs. A complete list of EMC Atmos partners, their solutions, and information on how to become an Atmos partner is available on EMC’s website at www.EMC.com/atmos.



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