

# **EXPLOITING S3 ANALYTICS, VERSIONING, AND REPLICATION FOR DATA OPTIMIZATION**

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# S3 EVENT NOTIFICATIONS

**“Overview:** Trigger notifications for actions like object creation or deletion. These can integrate with AWS Lambda, SQS, SNS, or Amazon EventBridge for automated workflows.”



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# S3 EVENT NOTIFICATIONS

**“Utility:** Ideal for use cases like thumbnail generation post-image upload, enhancing real-time application responsiveness.”



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# S3 ANALYTICS – STORAGE CLASS ANALYSIS

**“Overview:** Helping analyze storage access patterns and recommend when to transition objects to the most cost-effective storage class. Although not applicable for One-Zone IA or Glacier, it's a critical tool for optimizing storage costs.”



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# S3 ANALYTICS – STORAGE CLASS ANALYSIS

**“Utility:** Generates daily reports to guide Lifecycle Rule enhancements, with insights visible within 24-48 hours after setup.”



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# AMAZON S3 STORAGE LENS

**“Overview:** Provides a dashboard to analyze and optimize storage across an AWS Organization, identifying cost efficiencies and data protection enhancements.”



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# AMAZON S3 STORAGE LENS

**‘Utility:** Monitor and manage storage with advanced metrics available through both free and paid tiers, supporting detailed insights and recommendations for performance and cost optimization.”



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# S3 PERFORMANCE FEATURES

**“Overview:** Automatically scales to support high request rates, for example, up to 5,500 GET requests per second per prefix.”



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# S3 PERFORMANCE FEATURES

**“Utility:** Use Multi-Part upload and S3 Transfer Acceleration for large files to boost transfer speeds significantly, ideal for global businesses.”



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# S3 VERSIONING

**“Overview:** Allows for multiple versions of the same file to exist simultaneously, enabling comprehensive version control at the bucket level.”



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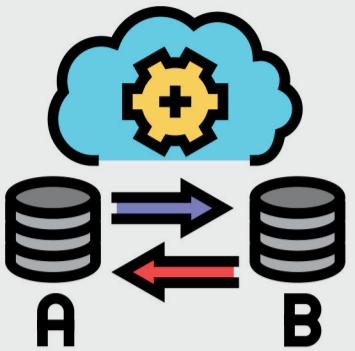
# S3 VERSIONING

**“Utility:** Essential for preventing data loss from accidental deletions, as it allows for easy restoration of previous versions.”



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# S3 REPLICATION (CRR & SRR)

**“Overview:** Automatically replicates data across buckets in the same or different regions, supporting both inter and intra-regional needs, including those spanning different AWS accounts.”



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# S3 REPLICATION (CRR & SRR)

**“Utility:** Ensures compliance with regulatory standards, reduces latency for data access, and provides a dependable data protection mechanism through asynchronous replication.”



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