Cluster-to-Cluster Sync
Continuous data sync between separate MongoDB clusters

MongoDB Cluster-to-Cluster Sync provides you with continuous, uni-directional data synchronization between two MongoDB clusters in the same or different environments.

Easily migrate data to the cloud, spin up dev/test environments, create dedicated analytics environments, and support audits & data residency requirements.

With Cluster-to-Cluster Sync you have full control of your synchronization process by deciding when to start, stop, pause, resume, or reverse the direction of your data sync at will. With Cluster-to-Cluster Sync, you can also monitor the progress of the synchronization in real-time.

Innovation beyond a single cluster
Easily move data to new clusters and apps. Expand innovation by connecting MongoDB clusters deployed in Atlas, in a private cloud, on-premises, and on the edge.

Full control of data synchronization
Start, stop, pause, and resume your cluster synchronization at will. The synchronization process can be paused for hours/days and continued from where you left off.

Data movement with reliability
The only MongoDB solution for enabling long-running cross-cluster sync. Seamlessly sync real-time data across your clusters to create target read-only clusters.
Key Capabilities of Cluster-to-Cluster Sync

<table>
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<th>Capability</th>
<th>User Guarantees</th>
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<tr>
<td>Continuous Sync</td>
<td>Achieve ongoing sync (24/7) between two MongoDB clusters.</td>
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<td>Resumability</td>
<td>Pause and resume the sync from where you left off.</td>
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<td>Support for Hybrid Environments</td>
<td>Sync data between different environments including Atlas, self-managed, on-premises and edge clusters.</td>
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<td>Support for Sharded Cluster</td>
<td>Natively support sharded clusters without extra manual effort.</td>
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<td>High Resiliency</td>
<td>Move data with confidence during replica set elections on the source and destination.</td>
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<td>Reverse Direction</td>
<td>Fallback when needed by swapping the direction of the source and destination cluster.</td>
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<td>Encrypted Transfer</td>
<td>Securely synchronize data across clusters by default with end-to-end encryption.</td>
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<td>Monitor progress</td>
<td>Track all key indicators during the synchronization process.</td>
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Use Cases: Leveraging the Power of Cluster-to-Cluster Sync

Migration to Atlas
Cluster-to-Cluster Sync is the most complete and performant MongoDB tool to migrate from on-premises to Atlas with confidence. Built in the tool is the ability to pause, resume, and reverse direction, providing users with peace of mind and a fallback mechanism when needed. This makes of Cluster-to-Cluster Sync the most advanced MongoDB technology for large cluster-to-cluster migration projects.

Support for Blue-Green Deployments
A blue-green deployment is a technique that reduces downtime and risk by running two identical MongoDB production environments called Blue and Green. At any time, only one of the environments is live, with the live environment serving all production traffic. Cluster-to-Cluster Sync helps MongoDB users that want to set up blue-green deployments in entirely separate clusters with real time data movement between the two environments.
Use Cases: Leveraging the Power of Cluster-to-Cluster Sync

Dedicated Analytics Environments

Historically, operational and analytics environments have been managed by different teams. These teams want a complete separation of workloads (operational-analytics) as well as full control of the clusters that run these different environments. Cluster-to-Cluster Sync helps users to synchronize data from operational clusters, with reads and writes, to read-only analytics clusters.

Stressed Exit

There are many countries with mandates that require any commercial and/or government entity to be prepared to cut any dependency on a cloud service provider with short notice. This is specifically true in the financial services industry, where there are local financial regulations that require a fast migration away from public clouds in hours instead of days, weeks, or months. Even without this regulatory requirements, many organizations feel the need of having a fallback plan that allows them to quickly migrate away from a public cloud deployment and into an on-premises cluster. Cluster-to-Cluster Sync helps users to make a stressed exit from public cloud providers into on-premises clusters.

Audit & Compliance

MongoDB users have to meet audit and compliance requirements of local and regional jurisdictions. Regardless of where an application operates, users may be required to move data from a global or regional headquarters running on Atlas to a remote location running on-premises due to in-country compliance requirements. Atlas currently supports over 80 cloud regions across three cloud providers, but if a specific Atlas region is not directly running within a country, Cluster-to-Cluster Sync can help sync data between the Atlas cluster and a local on-premises cluster.

Moving Data to the Edge

Edge clusters are an important component of any modern data architecture. Latency and potential connectivity issues make it impossible to run cloud applications in remote locations. In many cases, having a read-only copy of the data is all it takes to be able to operate applications at the edge. In the case of loss of connectivity, Cluster-to-Cluster Sync is able to pause and then resume synchronization to always keep the edge data updated.

Cluster-to-Cluster Sync: Get Started

Cluster-to-Cluster Sync utilizes the new mongosync tool. mongosync is a downloadable and self-hosted tool that enables data movement between two MongoDB clusters. mongosync can be downloaded at the [MongoDB Download Center](https://www.mongodb.com/download-center).

Learn More

Read the [Cluster-to-Cluster Sync documentation](https://www.mongodb.com/docs/atlas/cluster-to-cluster-sync).

For more information:

- Visit [mongodb.com](https://www.mongodb.com)
- Contact us at [sales@mongodb.com](mailto:sales@mongodb.com)
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