



CLOUD CONNECTOR BUYER'S GUIDE

5 “Must-Have” Capabilities for Cloud Architects Considering Data Preservation in the Cloud.

As enterprises across industries continue to adopt an increasingly cloud-first approach to preserving enterprise data, a key consideration occupying architects now is how to best connect highly variable on-premise applications and systems to radically different cloud environments.

This is not a simple choice among equally substitutable gateways and connectors. Between the wide variety of business requirements across an enterprise's IT ecosystem that need to be supported and the sheer volume and velocity of data generated by modern enterprise, cloud architects need to carefully scrutinize their options for the right integration layer to handle translation and synchronization to ensure that their data is efficiently and responsibly preserved.

Cloud Connectivity Speeds

How fast can your cloud connector transfer your data to the cloud?



**Adequate Throughput for
Terabyte to Petabyte Data
Volumes**



**50 TB/day/VM transfer
speeds**

With the accelerating growth of data among today's enterprises, high speed connectivity between clouds and on-premise is of critical importance in selecting the right cloud connector as enterprise data reach petabytes in scale. As petabyte scales increasingly becomes the norm among enterprises, speed has a direct impact upon their ability to effectively manage these massive data volumes effectively, determining on-premise archival periods and limiting the frequency at which they can reliably transmit and retrieve data from the cloud. This has implication on the size of on-premise storage systems as it determines the active backup set size they need to maintain.

While some on-premise solutions may offer native cloud connectivity, they operate a slower speeds due to cloud being more of an afterthought. Among various cloud connectors, there can be a significant difference in performance speeds of as much 5 to 10 times.

In a recent competitive bake-off, a CloudLanes customer was able to compare our speeds with an established back up software vendor's cloud connector. Whereas the later was able to move 100GBs to the cloud over 32 hours, CloudLanes was able to zip the same amount of data to the cloud in a matter or minutes with our connection speeds of up to 50TB/day per VM.

Multi & Cross Cloud Connectivity

Does your cloud connector allow you to easily and quickly move data between cloud providers?



Data ingest to multiple clouds and PaaS



Cloud to Cloud Migration



Cross-Cloud PaaS Connections

As more and more enterprises adopt a cloud-first approach to their data, it is also important to note that this will likely entail leveraging multi-cloud environments. As such, it's not just important to send data from on-premise to your cloud of choice cloud at adequate speeds, but to also send this data between various cloud providers.

Despite the promises of superior enterprise agility among cloud providers, vendor lock-in can pose as a serious impediment. When selecting a cloud connector, it is crucial to choose one that allows you the maximum amount of flexibility in which cloud providers and platforms you need to leverage as your business requirements change. Cloud connectors need provide connectivity to all leading public cloud providers like AWS, Azure and Google Cloud Platform as the bare minimum while also enabling you to easily and quickly move data between cloud providers in anticipation of shifting business needs.

Data Security and Protection Assurances

What security layers are active while data is on-premise, in-transit, and in the cloud?



End-to-End Data Encryption



Retention Locks and Data Immutability Features

Critical enterprise data needs to be secured at every phase of its journey, whether it is sitting in on-premise systems, in-flight to the cloud, or when it is finally at rest in cloud storage. This means using nothing less than the latest encryption protocols to secure data transmissions between on-premise systems and the cloud as well as data immutability tools, such as WORM and other Retention locks, to ensure that data is intact, available and ready for retrieval at any point. This is not a point of compromise and should leverage best-in-class technologies available from AWS, Azure, Google Cloud, and other popular public cloud platforms.

Audit Logs

Do you have full visibility into the condition of your data across its life cycle?



**Cloud-Native audit trails and
Chain of Custody Logs**



**Visibility across data journey
(from on-premise, in-transit,
to the cloud)**

With the sheer amount of data that modern enterprises need to preserve and manage, certain mechanisms need to be in place in order to provide full visibility and traceability into changes to that data. That means detailed views into the “who”, “what”, and “when” behind every instances of data access or modification.

To address this, selecting a cloud connector that provides detailed audit trails through an in-depth Chain of Custody is necessary. This provides administrators with critical information that will allow them to perform detailed forensics into data changes as well as add an additional layer of assurance that data sent to the cloud has not been tampered with and ready for retrieval at any moment.

Data Verification

How do you ensure your data is secure once it has reached the cloud and traverses the cloud?



Cloud-based Data Integrity Verification

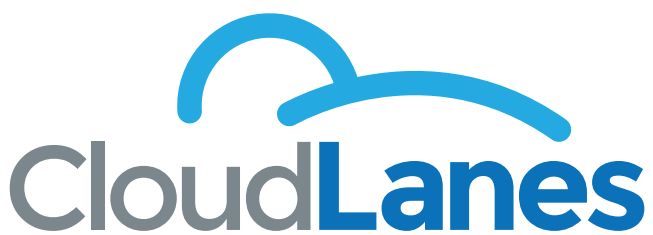


Dedicated separate environment for data verification services

While data is rest in the cloud, reliable integrity assurances still need to be in place to protect it from compromise and guard against silent data corruption in cloud storage sub-systems that could potentially degrade the data. This is another point where enterprises cannot compromise. Reliable data integrity verification services that can be run on-demand or according to a schedule will be critical in ensuring all your data, regardless of scale, is restore-ready at any time every time.

In Conclusion

When selecting a cloud connector, you aren't just choosing among a set of equivalent data gateways but a critical layer of your overall IT and Cloud strategy. Whatever solution you choose needs to offer superior performance in these 5 areas in order to drive the value of your cloud investments and secure your critical enterprise data.



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