



MapR Perspective Series

MAPR

CLOUD-SCALE DATA FABRIC

HOW A CLOUD-SCALE DATA FABRIC CAN BE A KEY ELEMENT OF MODERNIZING BIG DATA MANAGEMENT AND UNLOCKING YOUR BUSINESS VALUE FASTER.

EXECUTIVE SUMMARY

If data is not already the lifeblood of your business, it will soon be a critical competitive imperative. Several major impediments keep most organizations from taking full advantage of their data, but new technology is now making possible the creation of a modern global data fabric which is able to radically modernize an organization's data management strategy while also enabling unlocking the business value to directly drive transformation of the business in a more compelling way. MapR has a unique vision and technology to create such a data fabric while also operationalizing the data for business impact.

NEW CHALLENGES

The growth in unstructured data is explosive, and that is why it also holds the greatest promise. From high-resolution sensors and smart applications to Industrial IoT devices, there are more data sources emitting more data than at any time in history. The issue is that the diversity of data types is causing new silos to appear for specific kinds of processing and thus creating islands of insights which are not easily applied to operational use. Without a mechanism to collect, analyze and apply the results to operational systems, much of the value is lost.

CURRENT AND EMERGING TECHNOLOGIES ARE NOT ABLE TO KEEP UP

Legacy solutions do not have the scale or cost efficiencies needed today. Cloud storage, while being relatively cost effective in some cases, tends to have high latencies and can lead to surprisingly high costs when data needs to be moved. "Big data" solutions such as Hadoop or NoSQL databases have reliability and scalability challenges which means they cannot be "systems of record" with dependable SLAs for mission critical business use.

MAPR DESIGNED A BREAKTHROUGH TECHNOLOGY SOLUTION FOR CREATING GLOBAL DATA FABRIC

MapR has been working for many years with global leaders to perfect a Converged Data Platform that has been proven in mission critical applications. SAP and Ericsson among many notable names have chosen this technology as the basis for creating large-scale global data fabric on which a broad range of data, analytics and operational apps will be increasingly deployed. MapR believes that the ten criteria for success are met by the architecture and product capabilities found in the MapR-XD Cloud-scale Data Store and that it is a foundational element in a modern data management and analytics strategy.

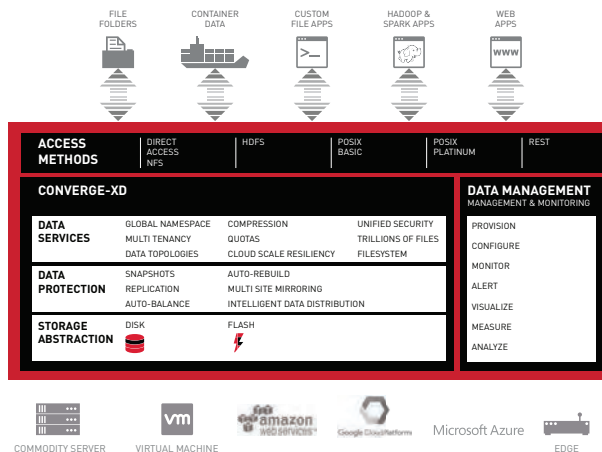
CLOUD-SCALE DATA FABRIC

MAPR PERSPECTIVE ON THE ISSUES TO CONSIDER WHEN CRAFTING A MODERN DATA STRATEGY

Experience with global organizations in crafting modern data management strategies has led MapR to develop critical success criteria for selecting technology solutions. There are ten critical issues that must be addressed in order to attain the degree of capability needed by organizations aiming to develop a core competency in operationalizing their data:

- 1. VAST SCALABILITY** Support for trillions of files. Classic Hadoop only supports 100M to 200M files which is insufficient. The fabric must support a decade or more of expected volume.
- 2. GLOBAL NAMESPACE** The ability to see a logical view of all the globally distributed data regardless of where it is physically is an essential enabler.
- 3. SUPPORT FOR DIVERSE DATA** The only way to not create new silos is to be able to manage Files, Data tables, Stream data, and containers with one solution.
- 4. NATIVE MULTI-TEMPERATURE MANAGEMENT** Policy based control over hot, warm, or cold data for automatic placement on the fastest or cheapest devices.
- 5. CLOUD-GRADE RELIABILITY** to serve as a system of record.
- 6. MULTI-TENANCY AND SECURITY** built-in with common architecture across the platform.
- 7. NATURALLY ANALYTICS-READY** "in-place" analytics without moving data.
- 8. BUILT-IN OPERATIONAL APPLICATION CAPABILITY** Integrated, low-latency operational database is required to 'operationalize' the analytics in real time.
- 9. RELIABLE GLOBAL PUB/SUB STREAM TRANSPORT** that can treat the stream itself as a system of record.
- 10. CAPABLE OF SPANNING FROM EDGE TO EDGE** and into the cloud as needed for creating vast IoT systems of intelligence.

MAPR-XD OVERVIEW



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