



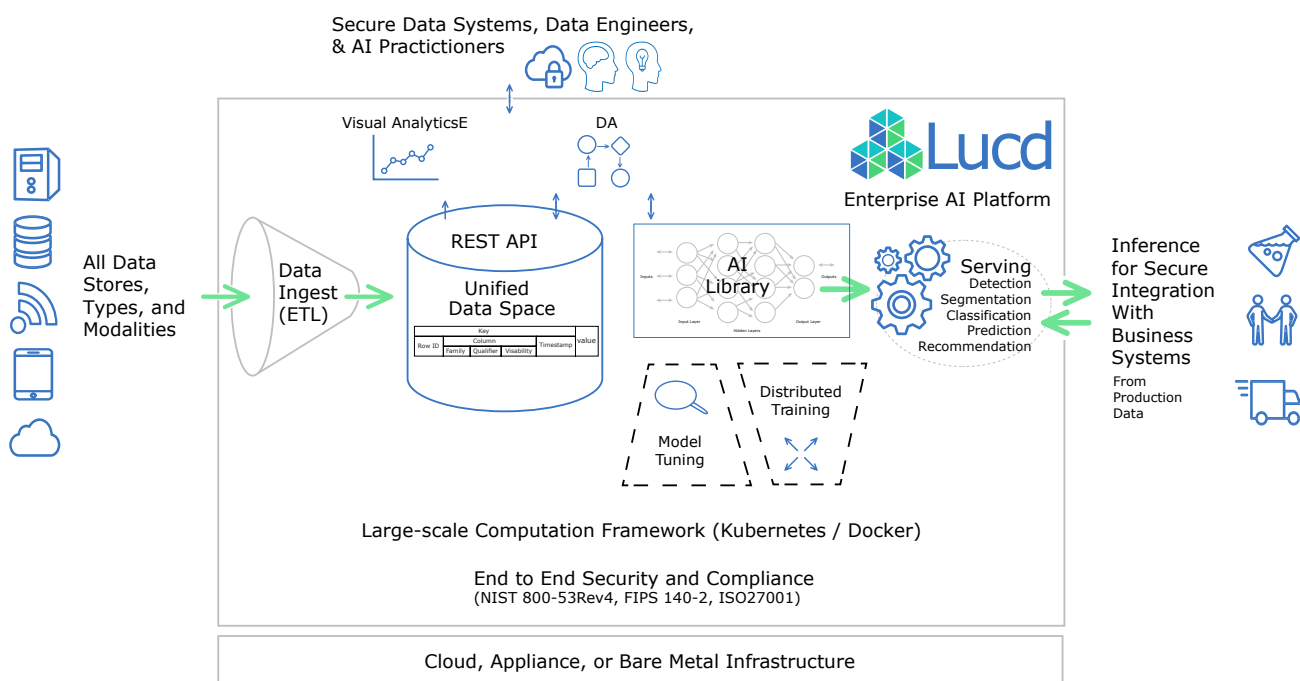
# The Platform for AI Innovation

## Driving Enterprise AI Success

### BIG DATA FILE SYSTEM

Lucid's integrated Big Data File System provides a means for storage and retrieval of large datasets for the execution of AI models and applications and outputs. Turnkey integration of MapR, a Hadoop compatible file system, provides the needed performance, scale, compliance and resiliency for enterprise-ready applications and solutions.

### PRODUCT ARCHITECTURE



### BIG DATA AND AI

AI requires large amounts of data, i.e., in order to train Deep Neural Networks. Just managing these large amounts of data often becomes a "Big Data " challenge. Leveraging Big Data capabilities in an AI Platform not only makes sense, it often becomes a necessity. MIT Sloan Management Review: "The convergence of big data with AI has emerged as the single most important development that is shaping the future of how firms drive business value from their data and analytics capabilities. The availability of greater volumes and sources of data is, for the first time, enabling capabilities in AI and machine learning that remained dormant for decades due to lack of data availability, limited sample sizes, and an inability to analyze massive amounts of data in milliseconds." [Link](#)

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## LUCD LEVERAGED MAPR HADOOP COMPATIBLE FILE SYSTEM



The MapR platform provides a POSIX-compliant, 99.999% available filesystem. Both internal and external testing of MapR performance has repeatedly demonstrated a 30% performance gain using MapR over other Hadoop implementations.



## THE LUCD UNIFIED DATA SPACE LEVERAGES THE LUCD BIG DATA FILE SYSTEM.

The Lucd Big Data File System serves as the File System that the Lucd Unified Data Space NoSql database uses to read and write files for storage and for calling into libraries, training, testing sets and deployment scenarios. The Lucd Big Data File System sits below the Lucd Unified Data Space and above the Lucd Commodity or Cloud Infrastructure. Lucd leverages the Hadoop Big Data MapR File System capable of 5 9's data availability depending on deployment approach. Also, reliability, security, auditing capabilities that are associated with the MapR File System. The MapR file system, which replaces SAN and NAS based technologies by providing data replication, block-level de-duplication and storage management services. The ability to ingest, store, and handle large volumes of data with speed and in immediate time frames is an absolute requirement for any AI pipeline. Having the Lucd Big Data File System as part of the Lucd AI platform provides this critical capability.