Azure Data Engineering Design & Implementation Roadmap
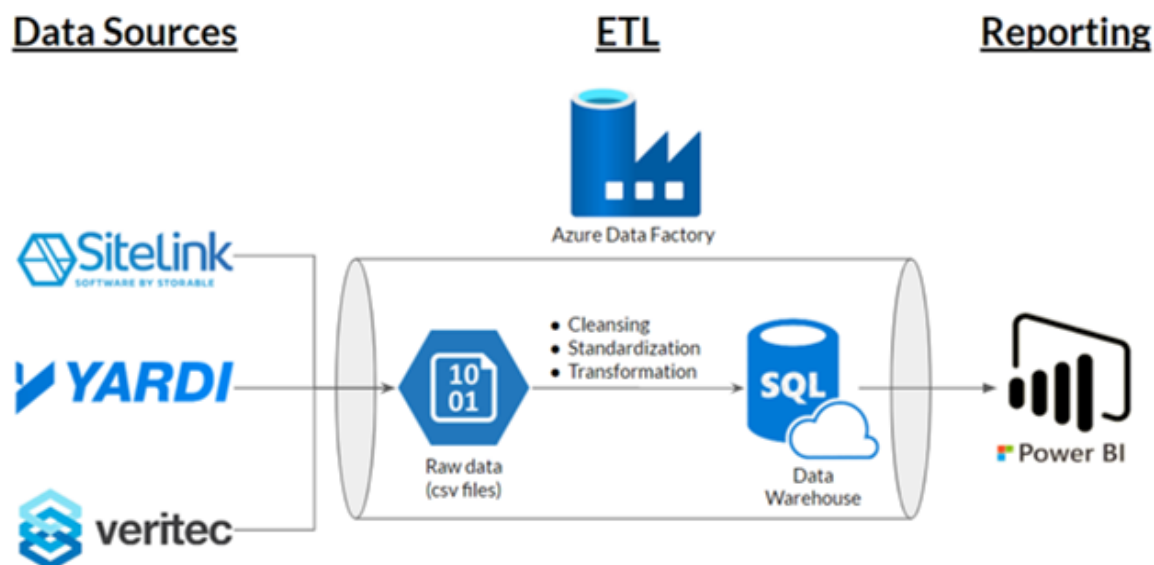
ORGANIZATION

Founded in 2009 and headquartered in Charlotte, North Carolina, our client is a full-service private equity real estate firm primarily focusing on the multifamily and self-storage sectors. They develop and invest in properties across the United States. They develop, acquire, and manage self-storage properties with the help of investment professionals with more than 75 years of combined experience and a team of 100 employees.

CHALLENGE

Our client has a manual reporting system built with Excel, which gathers data sent by third-party hosting companies. They don't have a technical team to design, implement, and manage an automated data pipeline. The current data gathering, integration, and reporting processes are error-prone, poorly documented, and dependent on individuals. Our client requested a design and roadmap for a data pipeline and reporting data store to cater to multiple reporting needs.

TECHNICAL SOLUTION

XTIVIA reviewed and understood the current reports, attributes, how the data is integrated, and the current issues. We also gathered the future-state reporting requirements to create a generic data model. Finally, we provided a data pipeline design that includes an incremental data ingestion from three data sources using Azure Data Factory, land the data in Azure Blob Storage, and take the data through sanity checks, cleanup, standardization, integration, and storage.

We considered Azure SQL as the initial target data warehouse platform based on the client's request. We educated the client regarding Azure SQL and Synapse differences, illuminating the pros and cons. XTIVIA provided an implementation roadmap that includes schedule, resource requirement, and cost.

BUSINESS RESULT

With XTIVIA's assistance, the client now has improved awareness of the Azure platform and its services, such as Blob Storage, ADF, Azure SQL, and Synapse. The roadmap provided the basis for cost-benefit analysis, implementation planning, budgeting, staffing, and risk management.

KEYWORDS

- Azure Data Engineering
- Cloud Data Engineering
- Data Architecture

SOFTWARE

- Azure Blob
- ADLS (Azure Data Lake Storage)
- ADF (Azure Data Factory)
- Azure SQL
- Synapse
- Power BI

HARDWARE/PLATFORM

- Azure

ABOUT XTIVIA

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our clients' specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions, and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia, and India. www.xtivia.com