Data Ingestion/Integration

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| **Load and ingest** | Description | Use Case | | Links |
| Azure Event Hub | Big data streaming and event ingestion. | | * Anomaly detection * Transaction processing * Live dashboards * Device telemetry streaming | https://learn.microsoft.com/en-us/azure/event-hubs/event-hubs-about |
| Azure Data Factory | Cloud-based ETL and data integration service to move and orchestrate data at scale. Integrates with over 90 sources.  Copy -> Transform -> Publish -> Monitor | | * Product Recommendations * Moving data to an Azure Data Lake | https://learn.microsoft.com/en-us/azure/data-factory/introduction |
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| **Store** |  | |  |  |
| Azure Data Lake Gen 2 | Dedicated to big data analytics build on Blob Storage.  Supports file system semantics, file-level security and scale. Low cost, tiered and high availability and recovery capabilities. Has a hierarchical namespace to Blob storage. | | Store large of amounts of a variety of data, unstructured data. | https://learn.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-introduction |
| Azure Synapse Analytics | Enterprise analytics service. Runtimes include SQL, Apache Spark and Data Explorer. | | Real-time insights at scale. | https://learn.microsoft.com/en-us/azure/synapse-analytics/ |
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| **Process** |  | |  |  |
| Azure Steam Analytics | Analyze and process fast moving streams of data that can be used to get insights, build reports or trigger alerts and actions. | | * Remote monitoring and predictive maintenance, think elevators. * Geospatial analytics for fleet management. | https://learn.microsoft.com/en-us/azure/stream-analytics/stream-analytics-introduction |
| Azure Cognitive Services | Cloud-based AI.  4 Pillars:   1. Vision 2. Speech 3. Language 4. Decision | | * Sentiment Analysis * Voice Activation * Voice Transcription * Facial Verification | https://learn.microsoft.com/en-us/azure/cognitive-services/what-are-cognitive-services |
| Azure Machine Learning | Train and develop models | | * Inventory optimization * Visual Search * Sentiment Analysis * Fraud detection | <https://learn.microsoft.com/en-us/azure/machine-learning/overview-what-is-azure-machine-learning>  <https://azure.microsoft.com/fr-fr/blog/current-use-cases-for-machine-learning-in-retail-and-consumer-goods/> |
| Azure Databricks | Big data analytics platform based on Spark. | | * Intrusion Detection * Churn Analysis * Recommendation engines | <https://learn.microsoft.com/en-us/azure/databricks/what-is-databricks>  https://azure.microsoft.com/fr-ca/blog/three-critical-analytics-use-cases-with-microsoft-azure-databricks/ |
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