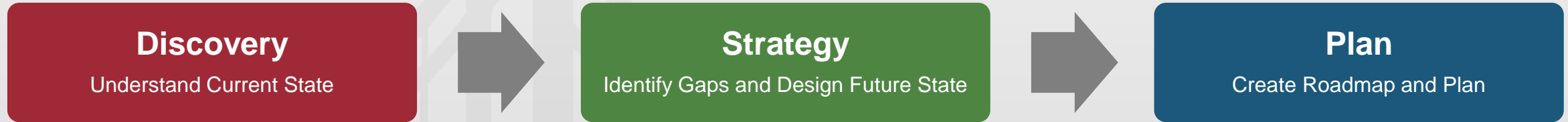# Common Data Challenges

Some of the common challenges we help our customers solve

- The data is in silos, shared drives, and tons of Excel files - there is no single source of the truth!

- We have data we just don't know what to do with it… data is collected off our fringe devices, during manufacturing, across the supply chain, in finance and operations, and sales but we don't have the expertise to bring it all together.

- Our business is demanding secure, discoverable, and trusted data that they can use for actionable insights, but we don't have people with the skills to build and maintain our data estate.

- We have accessible data, but business users doesn't understand the data and tools.

- Our data usage is seasonal and growing. Our hardware is expensive and costly to maintain, can moving our data to the cloud help reduce costs?

Data Estate Assessment Approach

Bridgeworks leverages a three-phase approach to understand your current environment, help define your future business and technical needs and create an actionable plan enabling measurable results.

Discovery	**Strategy**	**Plan**
Understand Current State	Identify Gaps and Design Future State	Create Roadmap and Plan

People carry forward a company's mission on a day-to-day basis. Without fully enabled, engaged and efficient employees, companies will struggle to align their capability with their desired business outcomes. Bridgeworks works with companies to uncover road-blocks and challenges and to remove barriers unlocking the true potential of your people.

Processes (both documented and un-documented) are the backbone of how an organization functions. Bridgeworks documents, evaluates, and optimizes key data related business and technology processes as part of the transformation.

Technology enables (or hinders) an organization ability to be competitive, scalable, compliant, and able to provide industry-differentiating offerings. A modern data platform is "table stakes" in today's fast-passed, data-driven world.

Data Estate Assessment Activities & Deliverables

In 5 to 8 short weeks, the data experts at Bridgeworks will work with you to understand your current state from a people, processes, and technology perspective and build out a strategic vision, enterprise-grade conceptual architecture, and prioritized roadmap of the steps, anticipated costs, and value that building out a modern data estate could provide to your organization.

Deliverables

- ✓ User Personas
- ✓ Conceptual Architecture
- ✓ Findings and Recommendations
- ✓ Key Process and Data Flow Diagrams
- ✓ Prioritized Business Needs Backlog
- ✓ Roadmap of prioritized workloads, anticipated costs, and business value
- ✓ Executive Data Estate Strategy Presentation
- ✓ Next Step Schedule and Budget Forecast

2 Weeks   **2 Weeks**   **1 Week**

Discovery
- Interview key stakeholders
- Identify & Prioritization Requirements
- Inventory key source systems & applications
- Create current state conceptual architecture
- Create current state process flows
- Planning

Strategy
- Analyze documentation, systems inventory and working session output
- Create personas
- Develop future state conceptual architecture
- Identify data consolidation, migration, & optimization strategies
- Document & prioritize backlog
- Identify People, Process, and Technology flows

Plan
- Group backlog into projects
- Develop high-level cost & schedule estimates
- Create Data Estate Roadmap
- Review and finalize deliverables
- Detailed plan & cost estimates for next step
- Develop & Present Executive Summary

Bridgeworks Modern Data Platform Architecture

On-premises, in the cloud, and at the edge – designing a business-driven, maintainable, and extensible solution on the Microsoft Azure platform ensures we'll design for who you are, and where you are.

Bridgeworks develops enterprise-grade, secure, performant, and future-ready data architecture designed to meet your organization's needs based on the Microsoft Azure platform that may include:

- Azure DevOps & GitHub
- Azure event & IoT hubs
- Azure Data Services (Azure Cosmos, Dataverse, Azure SQL)
- Azure Synapse Analytics
- Azure Data Lake
- Azure Databricks
- Azure Purview
- Azure Stream Analytics
- Azure Cognitive Services & Machine Learning
- Power BI
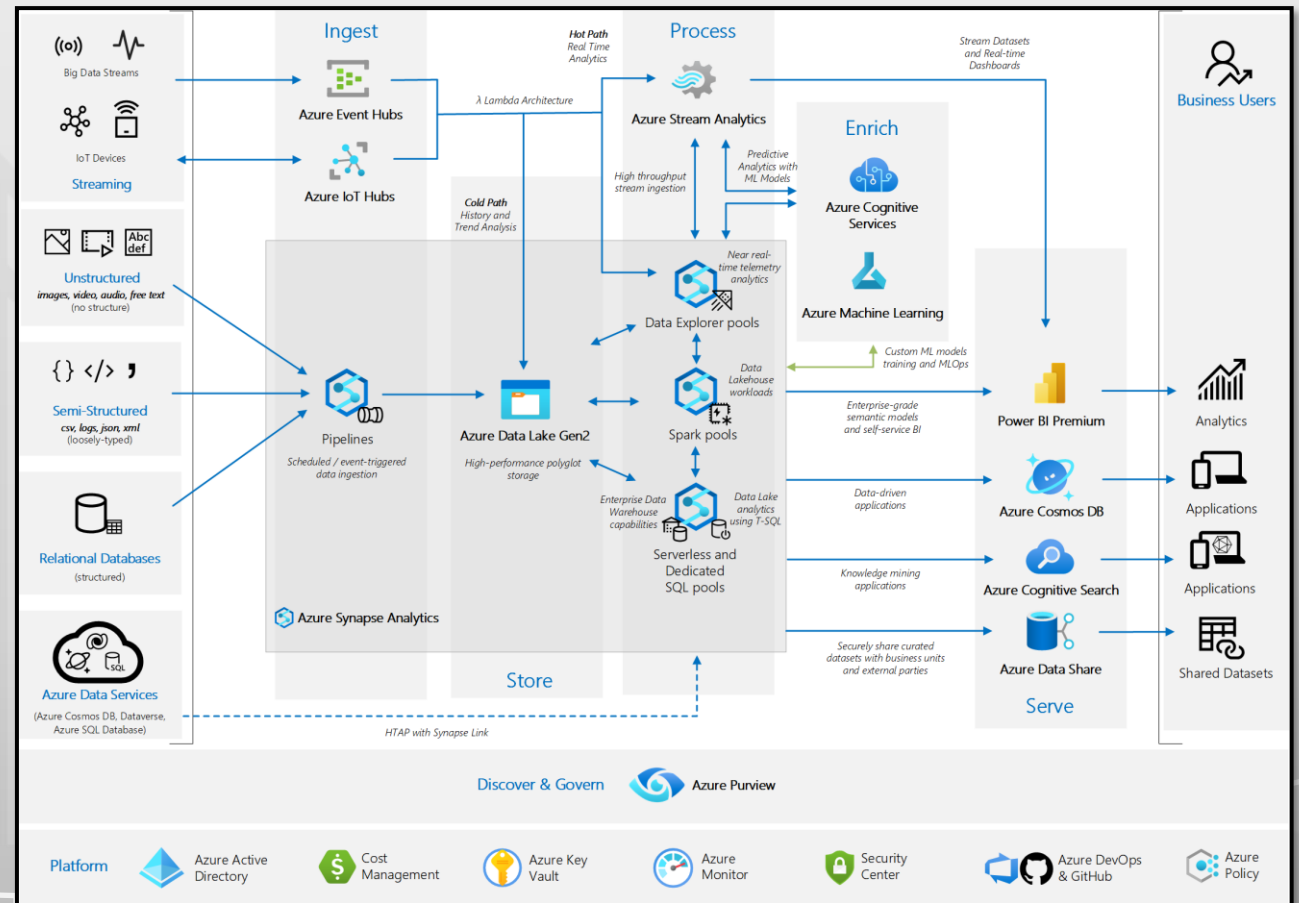
Microsoft Azure

Bridgeworks uses Microsoft Azure to help manage turnover, licensing, and certifications for Cancer Care

With over 250 physicians, 220 nurse practitioners and physician assistants and nearly 100 locations, this world-class cancer care and research institute needed help storing, automating, and visualizing their data in order to make more informed decisions

![Microsoft Azure]

Situation:

This world-class cancer care and research institute enlisted Bridgeworks to help them understand and analyze their healthcare management and human resources data to identify medical staffing licensing and certification gaps to ensure regulatory compliance as well as identify automation and optimization opportunities.

Solution:

Bridgeworks performed an assessment of their business needs and analyzed their HCM and HR data. Bridgeworks was able to meet their needs by implementing a modern data platform based on **Microsoft Azure** (Azure Data Bricks, Azure Data Lake, Azure SQL, Azure Data Factory, and Azure Data Catalog) that ingested their HCM SaaS and internal HR data and provide decision support dashboards with drill-down capabilities by leveraging Microsoft Power BI.

Benefits:

- **Modern Data Platform** – An enterprise-class data warehouse was developed using Microsoft Azure enabling the secure ingestion, cleansing, and validation of data.

- **Integration and Automation** – Automating the data ingestion and transformation process meant HR no longer had to spend significant time entering data and building reports allowing them to instead focus on critical HR tasks.

- **Dashboards and Reports** – Executives and managers now have dashboard that better inform their decision making as it relates to hiring and planning as well as ensuring regulatory compliance regarding medical staff licensing and certifications reducing legal and compliance risks and improving the quality of patient care.

Bridgeworks uses Microsoft Azure to modernize a data platform for Construction Materials

A $3.8B publicly traded construction materials company had aggressively grown through acquisitions creating challenging business processes and divergent technologies leaving them with a complex and unmanageable data estate.

![Microsoft Azure]

Situation:

Due to aggressive acquisition, the current data estate was a combination of disjointed systems, Excel files, and disparate on-premise databases. They found themselves unable to work across their business units and the business was unable to trust their data.

Solution:

Bridgeworks partnered with IT and business stakeholders to assess their current people, processes and technologies. Many solutions were modernized and created on **Microsoft Azure** to provide reliable data to the business at scale, including a near-real-time data lake implementation. Bridgeworks provided architectural and infrastructure advisement, DevOps and development support for follow-on initiatives such as data migrations, data warehousing, data integrations, and Internet of Things while transferring knowledge and modernizing the current staff's capabilities.

Benefits:

- **Centralized Reporting on Power BI Premium Capacity** – Reporting solutions from various platforms were centralized on Power BI Premium to enable enhanced security, data and reporting features with dedicated capacity.

- **Modernized Integration Solutions** - Working in partnership with the client and audit teams, integrations were templatized, categorized and managed based on integration type (SOX, Operational, Data Lake, and Data Warehouse).

- **Near Real-Time Data Solutions** – Implemented a best of breed data lake architecture supporting near real time data replication to enable value driven business insights.

Bridgeworks uses Microsoft Azure to empower data for Human Capital Management

A leading Human Capital Management company asked Bridgeworks to help with streamlining their core HR, benefits providers, and payroll solutions into a manageable enterprise-level, cloud-based solution.

Microsoft Azure

Situation:

The client's business is consistently working with new clients to migrate data from legacy systems and previous HCM platforms such as Workday, Ceridian, ADP, Paylocity, and other ERP systems to populate their HR, Benefits and Payroll solutions. The onboarding and provider integrations processes were becoming unwieldy and slowing their time-to-market in a highly competitive industry.

Solution:

Bridgeworks partnered with the client to develop modern data platform based on **Microsoft Azure**. Bridgeworks also developed a standardized and repeatable methodology and data ingestion toolset enabling them to easily discover, map, cleanse, validate, and migrate data from new customer's various source systems into their new platform.

Benefits:

- **Modern Data Platform** – Provided a cloud-based, extensible, and maintainable data platform leveraging Microsoft Azure

- **Methodology and Ingestion Toolset** - Provided an extensible, repeatable and fully automated data migration solution reducing data migration efforts and data accuracy issues while increasing the speed with which customers could be brough onboard.

- **Extensible API Solutions** - that can be utilized for Data and Analytics solutions after data migration.

Bridgeworks uses Microsoft Azure to meet the growing data needs of Agricultural Credit Associations

Premier provider of technology products to the Farm Credit System with over $43B in managed assets and over 100K borrowers partnered with Bridgeworks to modernize their data platform to meet the growing demands of their Credit Associations

Microsoft Azure

Situation:

Their data platform was a combination of Excel files, Access databases, flat files and manual entries. They found themselves unable to meet the needs of their credit association's and were at high risk of failing regulatory audits.

Solution:

The client requested that Bridgeworks perform a Data Estate Assessment and the post-assessment implementation to build out their modern data platform. The solution included providing data lineage, normalizing their financial calculations, migrating their data to the cloud, and provide integration and reporting solutions. Bridgeworks architecture built on **Microsoft Azure** enabled them to provide their ACA communities data in a secure, performant, and auditable environment for operational reporting, business analytics, and future data science needs such as fraud detection.

Benefits:

- **Single Code Base Solution** - The data platform was developed to work with all five member ACAs despite varying systems and data needs, resulting in a single code-base and specification that serves the needs across ACAs.

- **Audit Compliance** - Working in partnership with the client and PWC, the audit solution developed provides data lineage and automates the clients rigorous financial auditing process and compliance requirements.

- **Extensibility** - The Data Lake architecture has a host of reusable data patterns and solutions that allow them to extend their data solution to new systems and support current and anticipated future compliance needs.