![Microsoft Azure logo] Microsoft Azure

COVID-19 Vaccine Proof and Test Verification Solution Accelerator

POWERED BY: EARLY ACCESS ENGINEERING

Regular health verification is vital to the future of work

COVID-19 has permanently changed on-site work

Majority of workers can't work from home	Constantly evolving regulations and governmental guidance	Developing and implementing document tracking processes	Consistently high volume and frequency of test verification
79% of Americans were required to work on-site by March 2021.[1]	**80% of employers** plan to keep vaccine and testing requirements in place, despite SCOTUS ruling against federal mandate.[2]	**79% of employers** implementing vaccine requirements plan to manually verify documentation.[3]	**64.4 million lab tests** were performed in the United States and its territories in January of 2022.[4]

1. Another Truth About Remote Work," The Atlantic, Sept. 20, 2021
2. "Despite Supreme Court ruling, most major employers keeping vaccine mandate for workers," CNN, Jan. 26, 2022.
3. "Implementing Vaccine and Testing Mandates in the U.S.," Gartner, Nov. 15, 2021
4. "United States COVID-19 Cases, Deaths, and Laboratory Testing," CDC, Jan. 21, 2022.

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Challenges to monitoring virus testing and vaccine status

Frequency, volume, and lack of standardization increase complexity

Manual processing is inefficient and prone to human error, causing delays and providing incomplete data.

Lack of standardized documentation due to unique test result forms and various ways to fill out vaccination cards.

Internal skilling required to automate and apply AI to record-tracking and compliance solutions is scarce.

Complicated form submission processes increases the burden on employees trying to upload their forms.

Frequent changes to internal, governmental, and union requirements complicates compliance.

Insufficient analytics to inform workplace health and safety decisions.

Automate form intake and gain timely, accurate insights

Improve efficiencies, compliance, and ability to maintain a safe and healthy workplace

Enable **efficient, accurate processes** that track test results in a timely manner.

Gain **timely analytics and insights** that help improve workplace health and safety.

Deliver a **standardized, simple submission mechanism** for all documentation.

Establish reporting to validate **internal, regulatory, and union compliance.**

Simplify employee submissions and data processing
Leverage automation and AI to collect, analyze, and verify COVID-19 status documentation

The **COVID-19 Vaccine Proof and Test Verification Solution Accelerator** uses an email attachment or mobile application submission process to quickly acquire, digitize, and analyze documents in any format to confirm an individual's COVID-19 test results and proof of vaccination.

It leverages the **AI-powered Azure Form Recognizer** to extract content and data with accuracy, and a **Power BI** dashboard to provide insights to help validate compliance and inform strategies for greater health and safety.

Enable **user-friendly** form submission via email attachments.

Automate form processing and data ingestion.

Visualize virus testing and vaccination metrics and insights.
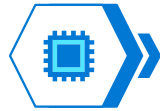
Minimize **deployment times** with a no-code, out-of-the-box solution.

Digitize and automate your COVID-19 tracking system

Gain relevant vaccination and testing insights minutes after employees submit their documents

Document collection

Employees submit documents via email attachment or mobile application.

Documents are stored in a data lake.

Data extraction

Azure Form Recognizer extracts printed and written text, tables, and document structures turning forms into usable data.
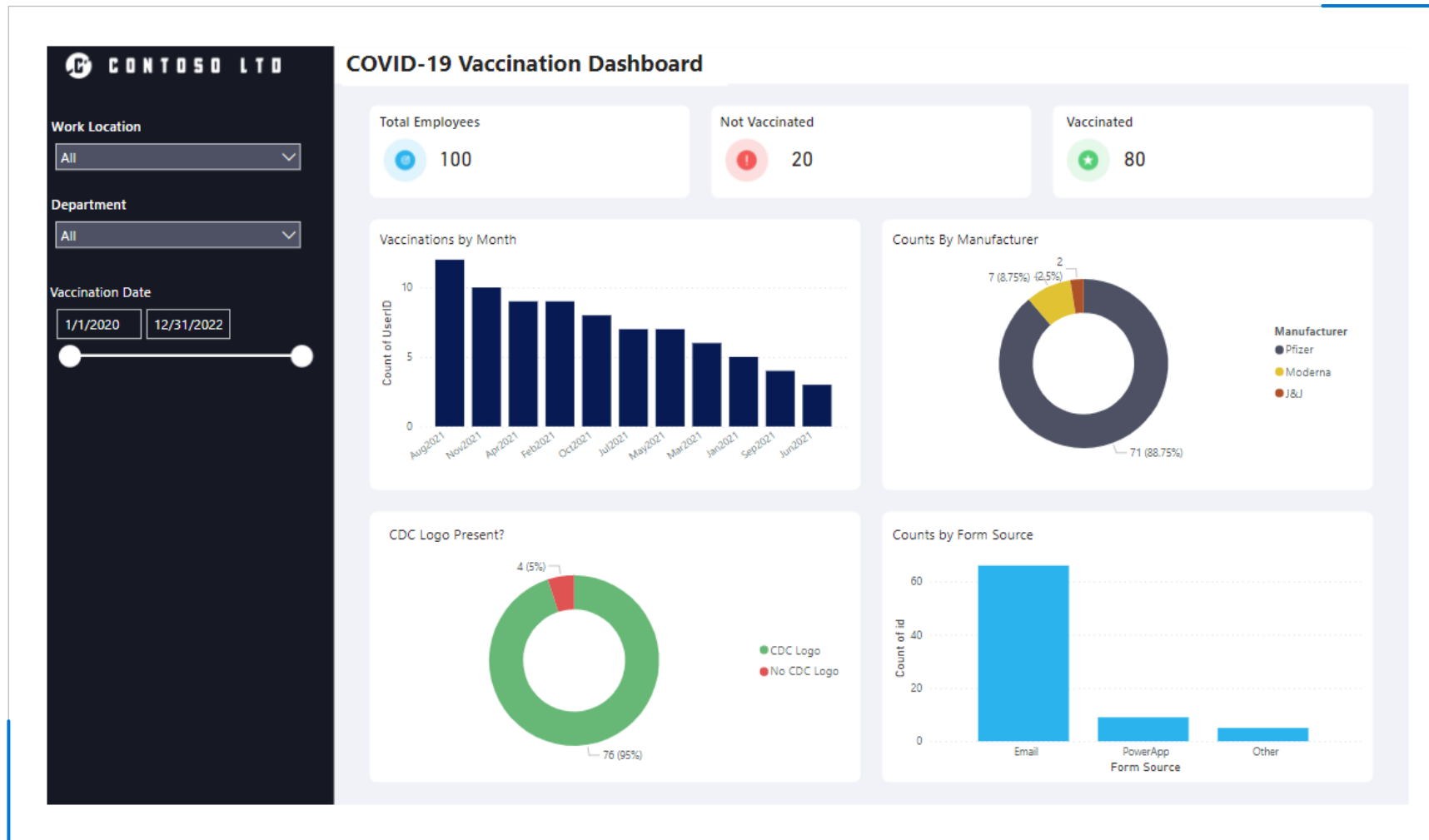
Data is stored in a database.

Reporting and analytics

Power BI generates reports and analytics on workforce vaccination status and test results.
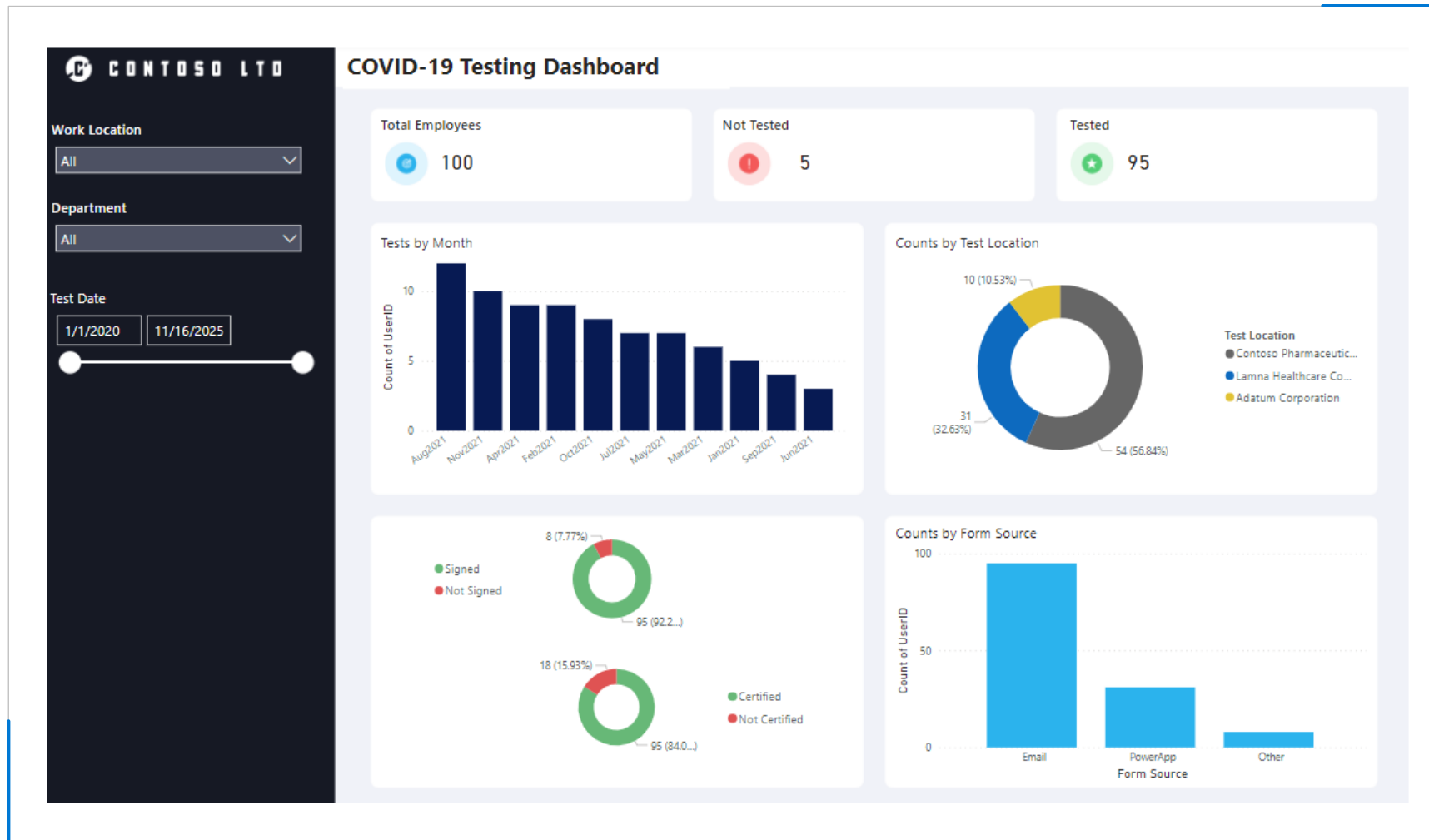
Dashboards display accurate, timely insights

Quickly visualize vaccination data and analytics

Dashboards display accurate, timely insights

Quickly visualize test result data and analytics

Global transit leader uses AI to manage document processing

Situation

One of the world's largest public transportation authorities mandated COVID-19 vaccinations or weekly PCR testing for all employees. However, they lacked the necessary technology to efficiently process the thousands of unstructured forms they continuously received.
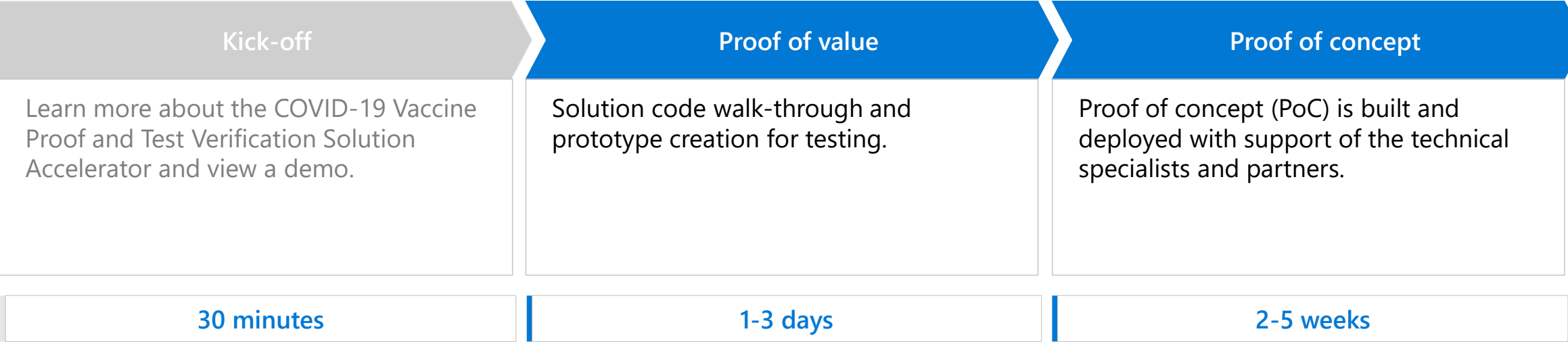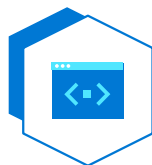
Solution

The organization implemented the COVID-19 Vaccine Proof and Test Verification Solution Accelerator to automate document processing and validation, including their own custom forms.

Impact

As a result, the organization benefited from significant cost and time savings from AI-enhanced data processing, compared to manual data extraction. The ability to quickly and accurately monitor employees' COIVD-19 status also enabled them to minimize service interruptions.

Easily collect and verify COVID-19 status documents

Kick-off	Proof of value	Proof of concept
Learn more about the COVID-19 Vaccine Proof and Test Verification Solution Accelerator and view a demo.	Solution code walk-through and prototype creation for testing.	Proof of concept (PoC) is built and deployed with support of the technical specialists and partners.
30 minutes	1-3 days	2-5 weeks

Transform COVID-19 status monitoring and reporting

Quickly transform diverse document types into raw data and actionable insights

Automate document collection, processing, and storage.

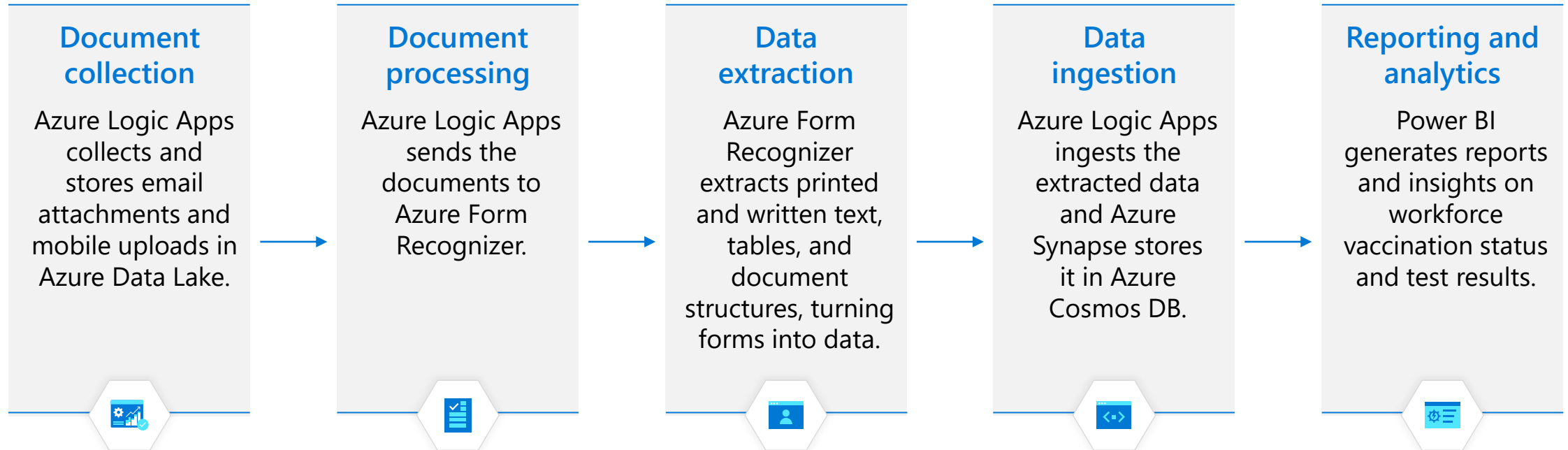Leverage advanced AI to **accurately extract data** from dissimilar forms.

Deliver **timely** COVID-19 status reports and analytics.

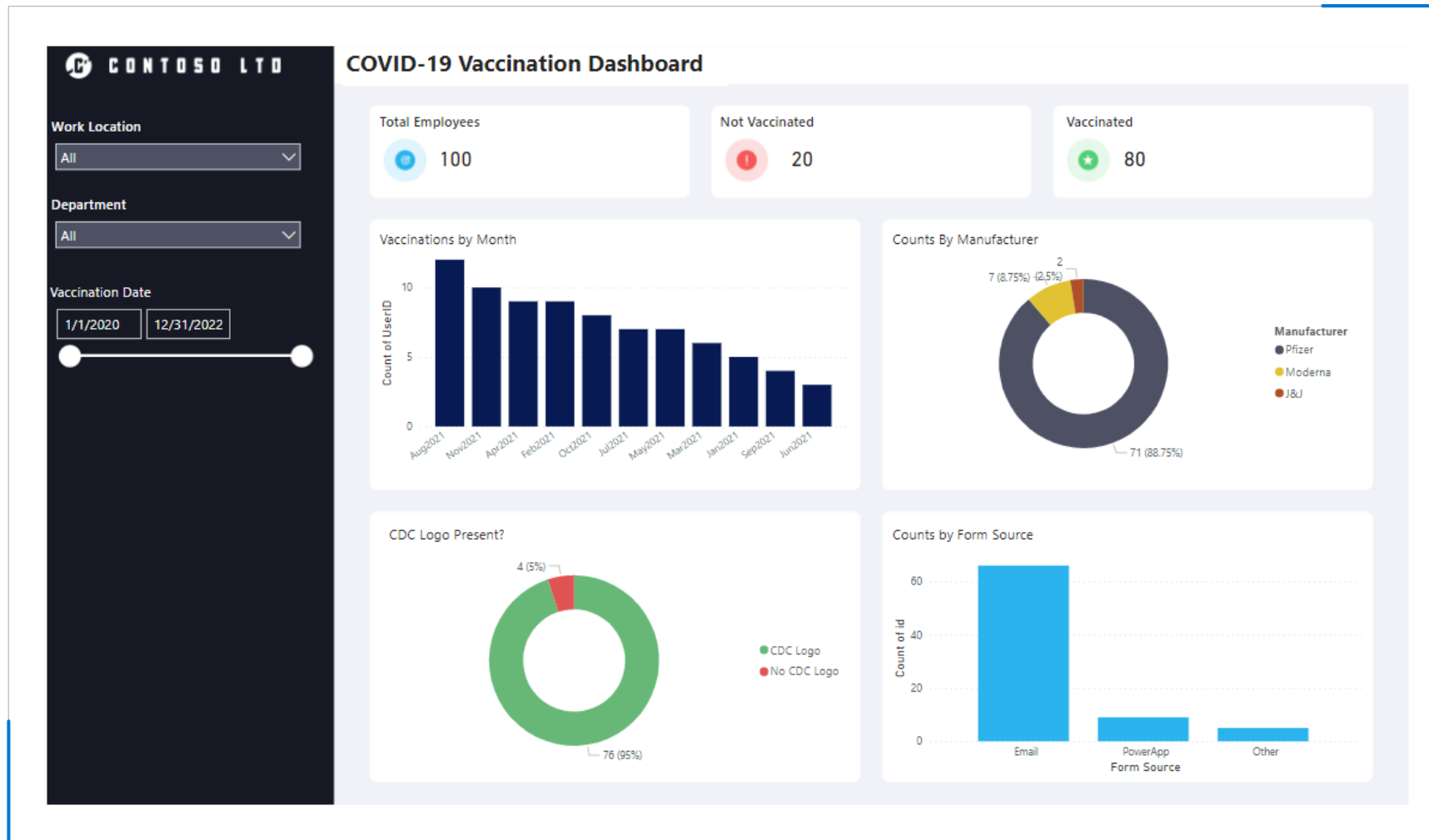**Minimize deployment time** with a no-code, PaaS solution.

Deliver timely COVID-19 status data and insights

Leverage AI and automation to streamline document collection and verification processes

| Document collection	Document processing	Data extraction	Data ingestion	Reporting and analytics
Azure Logic Apps collects and stores email attachments and mobile uploads in Azure Data Lake.	Azure Logic Apps sends the documents to Azure Form Recognizer.	Azure Form Recognizer extracts printed and written text, tables, and document structures, turning forms into data.	Azure Logic Apps ingests the extracted data and Azure Synapse stores it in Azure Cosmos DB.	Power BI generates reports and insights on workforce vaccination status and test results.

Dashboards display accurate, timely insights

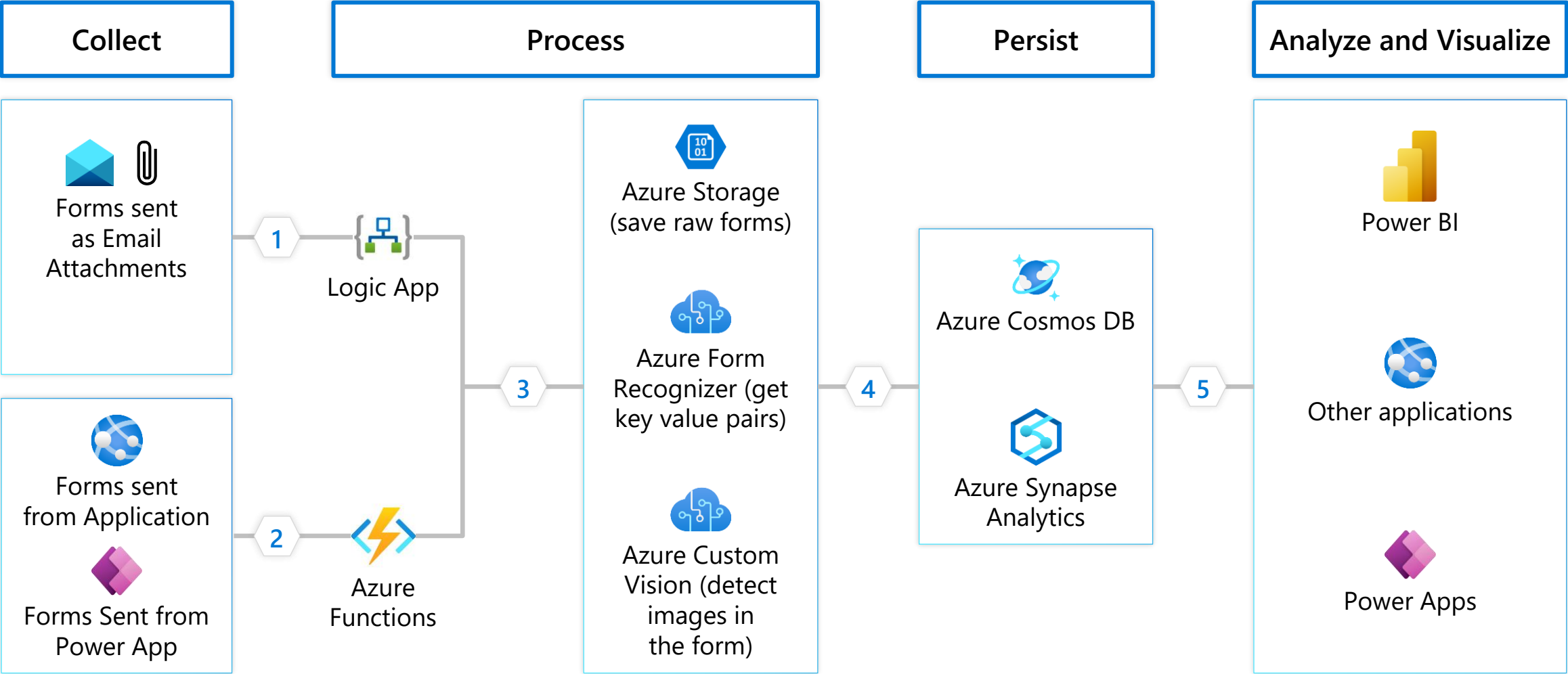Quickly visualize vaccination data and analytics

Dashboards display accurate, timely insights

Quickly visualize test result data and analytics
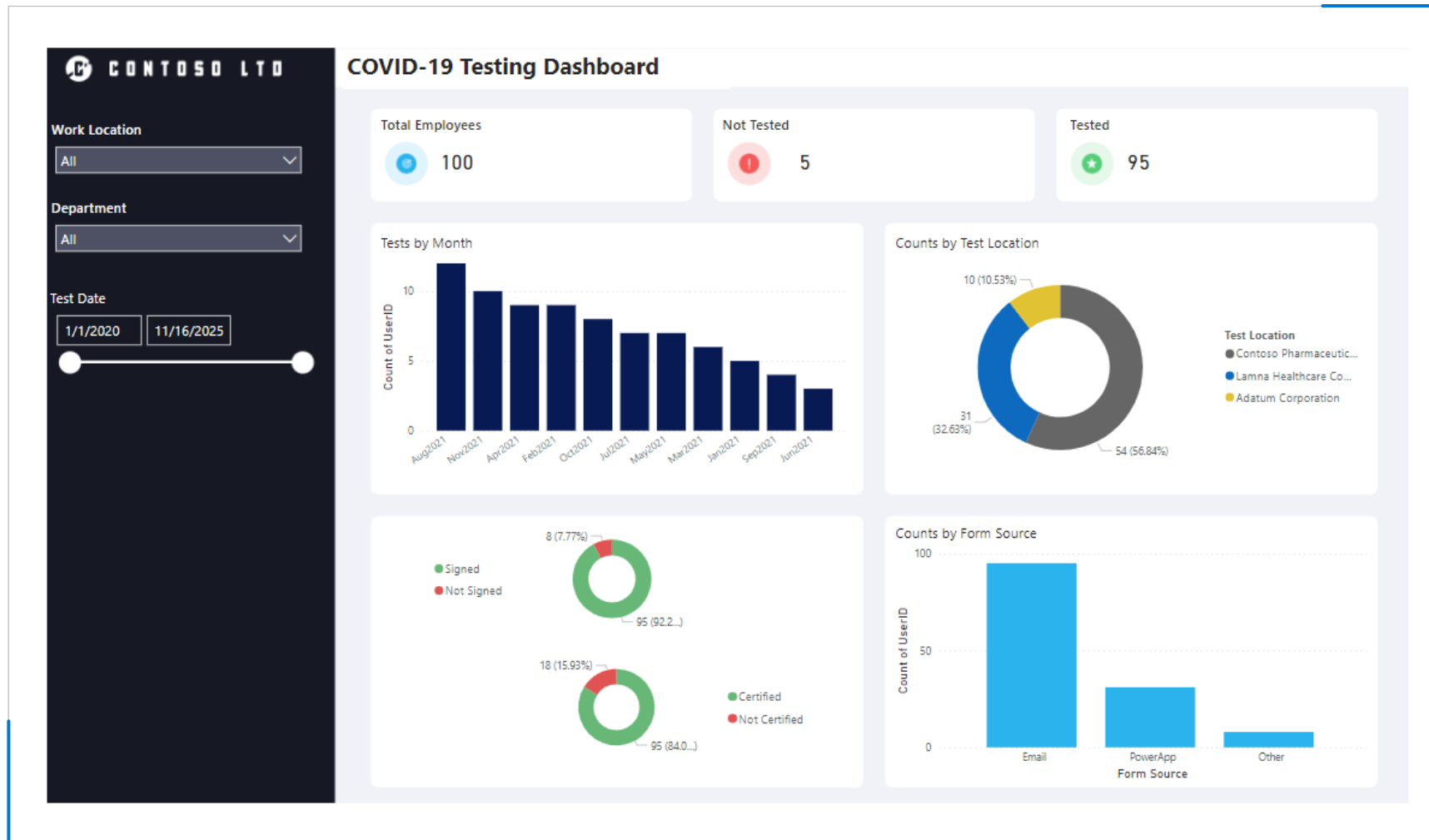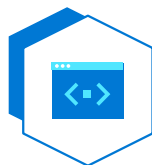
Reference architecture

Next steps to AI-powered COVID-19 status verification

Deploy Resources	Train AI Models	Set up and Customize
Create a resource group you can use as a container to begin deploying the resources to Azure.	Train Azure Form Recognizer's advanced machine learning and AI models to accurately extract data from various test result forms and CDC vaccination cards.	Set up Azure Logic Apps for automation and customize your Power BI dashboards to deliver near real-time analytics and reports that fit your organization's needs.

With demo data and forms, create a POV in 1-3 days.

With your customer data and forms and a prep session, create your POC in 2-5 weeks.

Thank you