Microsoft

SUS04R

Integrating Azure AI's Document Intelligence models with SDSF

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Meet your speakers

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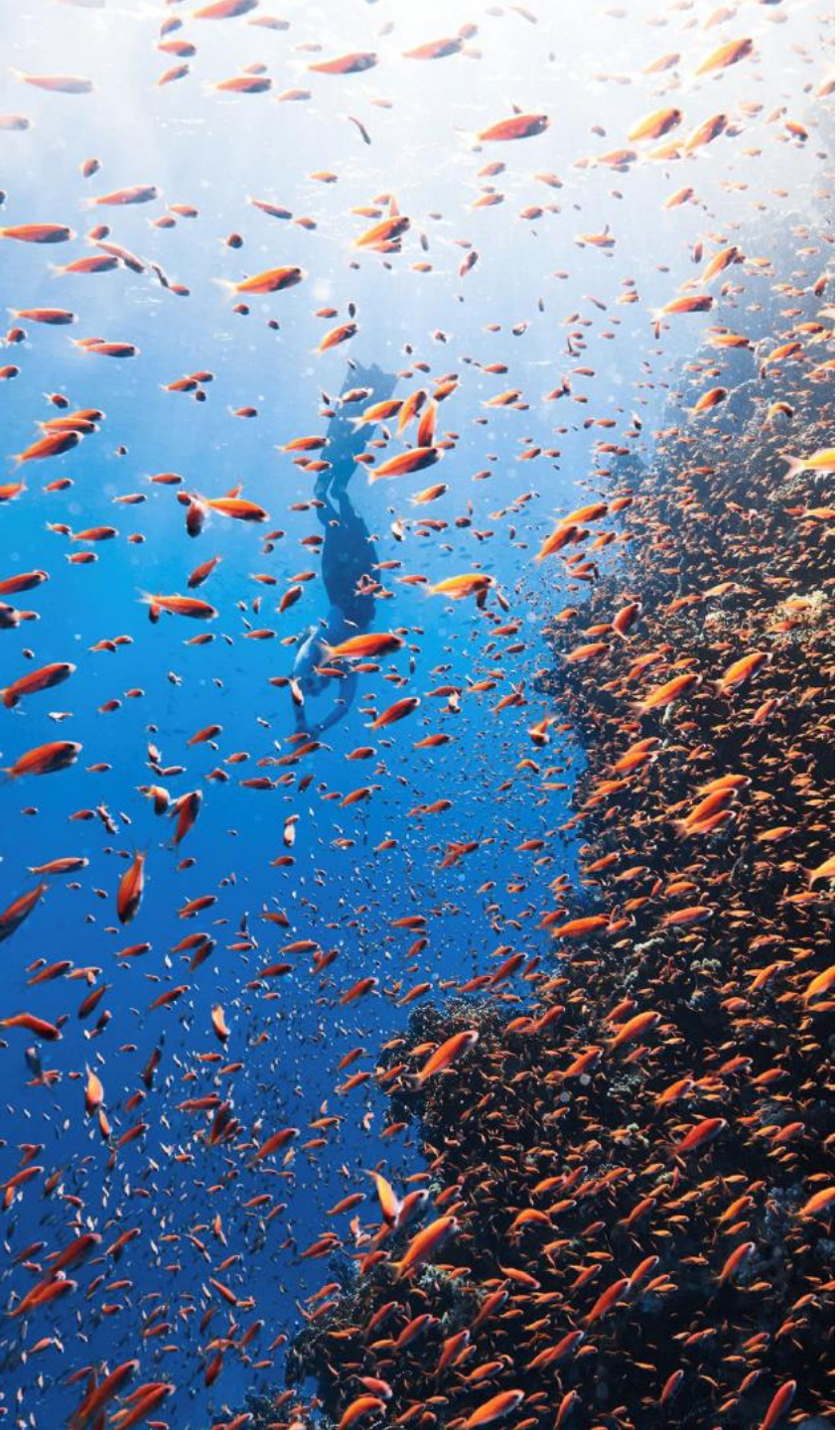


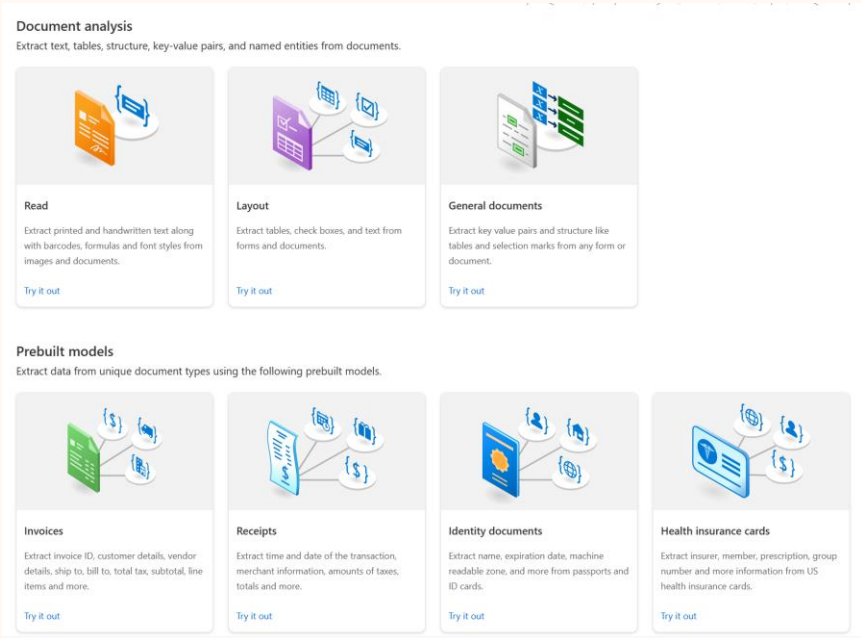
Agenda

- Overview of Document Intelligence models in Azure AI
- Applications in Sustainability
- Architecture
- Extracting and transforming data
- Demo
- Q&A

Overview of Document Intelligence models in Azure AI

A cloud-based service that uses machine learning models to help you process and extract data from documents

- Build solutions that **automatically converts** images, forms and documents into usable data.
- Enable users to focus on **data driven decision making** rather than compiling data.
- Customers can use **pre-built domain-specific models** or train their own **custom model** based on their business use cases.
- **Query fields** feature allows users to specify the exact field names to search for in a pre-built model.
- **Accuracy scores** measures the custom model's ability to accurately predict the labelled value on a document. Include multiple variations and formats to improve accuracy score.
- **Confidence scores** indicates probability by measuring the degree of statistical certainty that the extracted result is detected correctly.



Applications in Sustainability

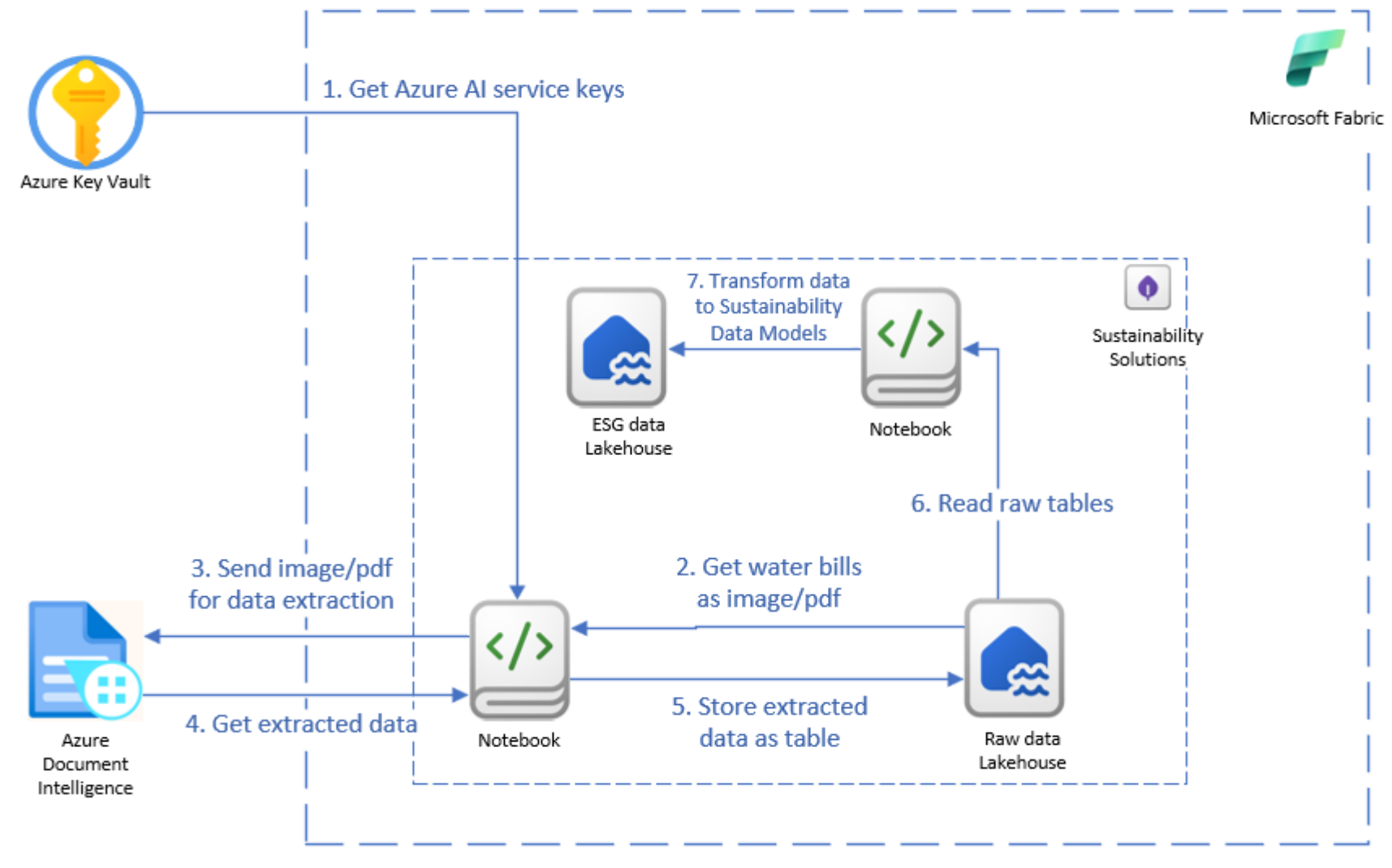
Consider the ethical implications of data processing, including data privacy and security concerns

- **Data from utility companies**: Process data from scanned images of bills generated by utility companies to understand the consumption patterns and cost associated with purchased electricity and third-party water.
- **Value chain data**: Analyse documents like shipping invoices or manifests to extract supply-chain and product lifecycle data to measure your organization and product environmental footprint.
- **Benchmarking and goal setting**: Compare and analyse sustainability reports against industry benchmarks to measure your organization's sustainability performance and set realistic data-driven goals for improvement.
- **Regulatory compliance**: Increase the efficiency of the compliance process by automating the document verification process required for staying compliant with national and regional environmental regulations.
- **Social and Governance data**: Extract and store relevant information about your organization's overall sustainability from financial reports, press releases and other documents.

Architecture

Technical deep dive on the data flows and interactions in the solution

- Notebook **fetches** invoices from Lakehouse and sends to Azure Document Intelligence service
- **Stores** the response as a table
- Another notebook uses this table and **transforms** it into Sustainability Analytics Data models



Output from Azure Document Intelligence

- Uses pre-built model for **Invoice**
- Model **collects** the key-value labels from the document
- **Extensibility**: Custom keys apart from out of the box keys can be added
- Each value has a **confidence level**

VendorName #1		92.60%
	MARIN WATER	
VendorAddress #1		88.10%
	220 Nellen Avenue Corte Madera, CA 94925-1105	
CustomerId #1		93.90%
	987654	
InvoiceDate #1		94.20%
	2023-10-01	
ServiceAddress #1		91.60%
	220 NELLEN AVE	
ServiceStartDate #1		93.30%
	2023-08-01	

Demo

Using Azure AI's Document Intelligence models with SDSF

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Microsoft Cloud for Sustainability

Related sessions

Focus on Sustainability Data Solutions

Session	Title	Abstract	Speakers	Date
SUS04M	Introduction to Sustainability Data Solutions in Fabric (SDSF)	This introductory session will guide you through the foundational features of Sustainability Data Solutions in Fabric (SDSF). We will also uncover deployment best practices to maximize your Environmental, Social, and Governance (ESG) impact and investments.	Ravindran Gangadharan, Sourav Chakraborty	Monday, May 6
SUS05M	Audit compliance for Sustainability regulations	Discover how to adeptly navigate disclosure reporting requirements and utilize Microsoft Cloud for Sustainability to enhance the audit process, ensuring precision and compliance every step of the way. This session will provide an overview of the audit requirements for disclosure reporting and the capabilities provided by Microsoft for streamlining the audit process.	Neha Gupta, Chintan Rajvir	Monday, May 6
SUS04T	Transform your data with the ESG Data Estate	This session will expand upon the foundational concepts and explore how to extend the ESG Data Estate capability to meet sustainability reporting and analytical requirements.	Sourav Chakraborty	Tuesday, May 7
SUS05T	Microsoft Azure Emission Insights + Azure Carbon Optimization	Learn how to obtain, visualize, analyze, and optimize emissions data for Azure workloads. Discover the capabilities of Azure Carbon Optimization and Microsoft Emissions Insights offerings, and how they can empower you to make data-driven decisions for a more sustainable cloud environment.	Sourav Chakraborty, Kiran Motwani	Tuesday, May 7
SUS04W	SDSF + Azure OpenAI service + Azure AI Studio - An open platform for Copilot	Join us as we continue our journey of Sustainability data solutions in Fabric. In this session, we'll show you examples of leveraging an integration between the ESG data in Fabric and Azure AI services to meet sustainability analytic use cases.	Sourav Chakraborty, Chintan Rajvir	Wednesday, May 8

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Thank you!

- **How was the Summit? Share your feedback!**
  aka.ms/MCfSTSFeedback
- **Azure AI Document Intelligence**
  https://learn.microsoft.com/en-us/azure/ai-services/document-intelligence/
- **Join the Sustainability Community!**
  aka.ms/MCfSCommunity
- **Learning Resources**
  aka.ms/CloudforSustainabilityLearnCollection

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Q&A

Please type your questions **in the chat** and we will answer them during the Q&A session.