



# What's new in Azure Data platform and AI

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Guenda Sciancalepore

Start at 11.30



**Guenda Sciancalepore, CSA**  
Data Science and AI

 @guenda\_s

 guenda-sciancalepore



**Pietro Brambati, Senior CSA**  
Data and IoT Expert

 pietro-brambati

# Azure data services

- NoSQL
  - Open Source
  - SQL
  - Analytics and Insights
  - Data Governance

Announcing

# Azure Cosmos DB



Integrated cache



Enterprise-grade security



Linux emulator



Free tier enhancements

Announcing

# Serverless

Generally available

# Azure data services

NoSQL



Open Source

SQL

Analytics and Insights

Data Governance

Announcing

# Azure Database for PostgreSQL and MySQL



Flexible Server Free Offer—June 2021



PostgreSQL Hyperscale basic tier



PostgreSQL 13 on Hyperscale



Azure Defender for PostgreSQL and MySQL

# Azure data services

NoSQL

Open Source

SQL

Analytics and Insights

Data Governance



Announcing

# Azure SQL



Azure SQL Database ledger capabilities

# Azure data services

NoSQL

Open Source

SQL

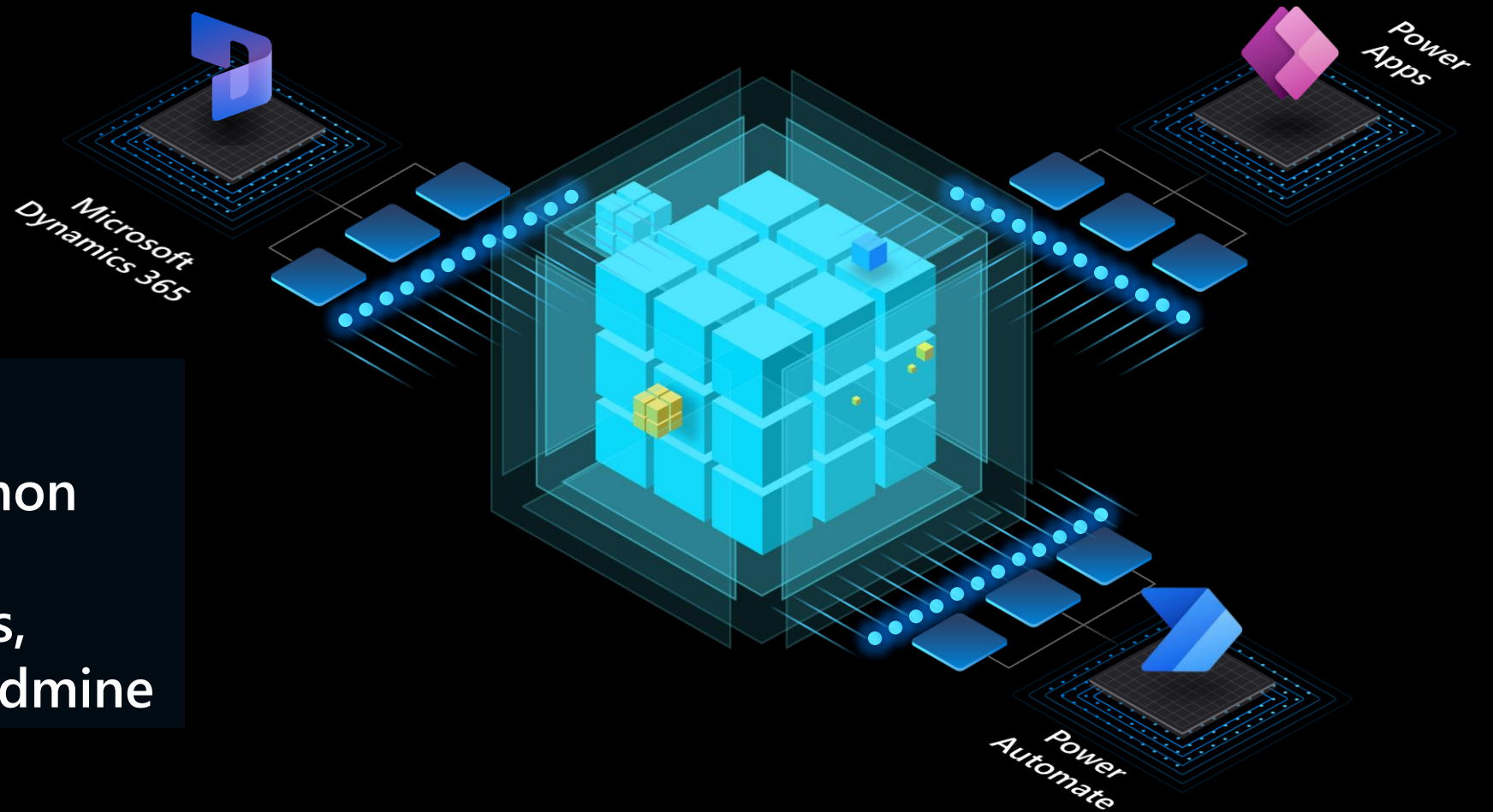


**Analytics and Insights**

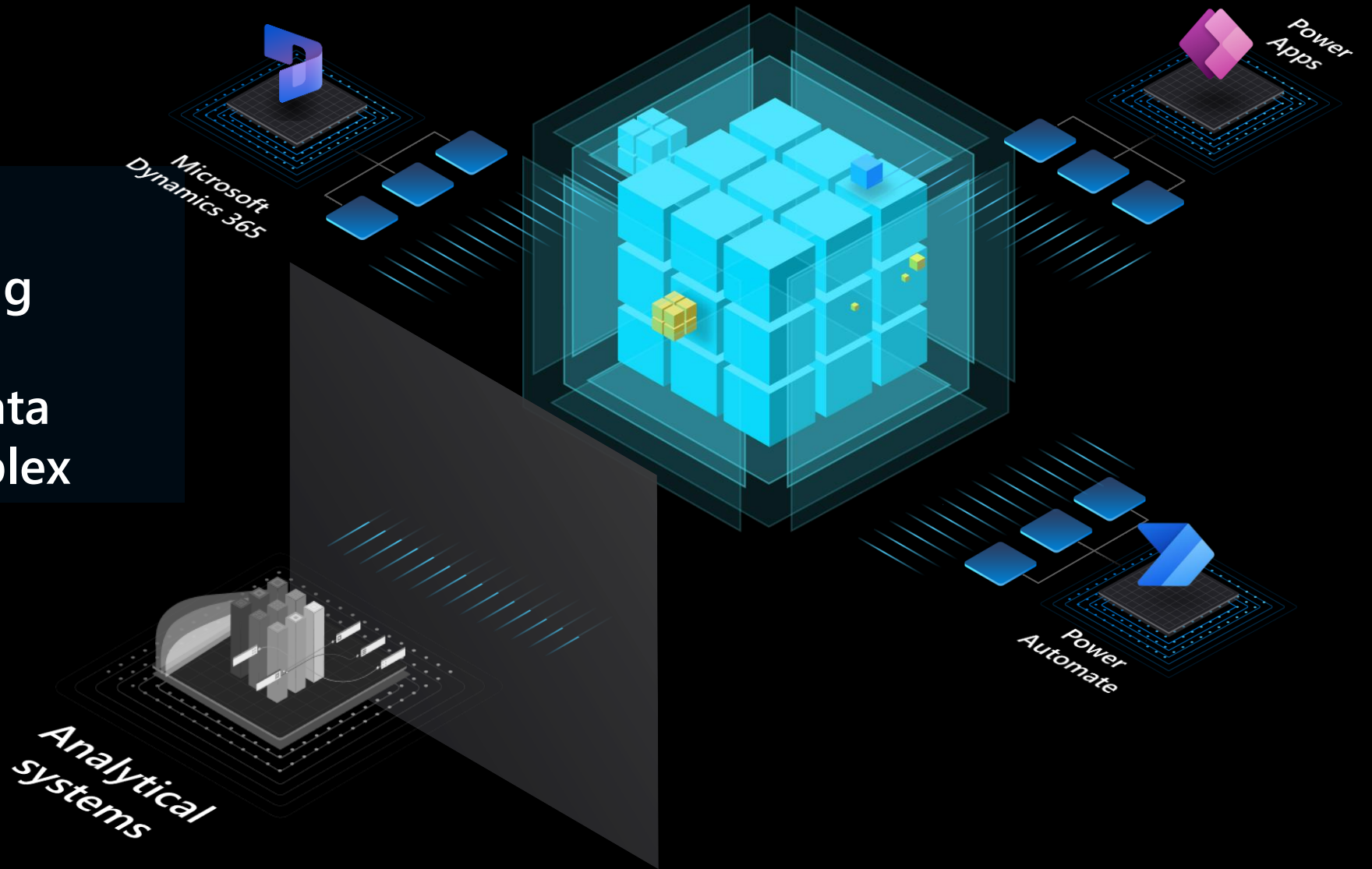
Data Governance

# Dataverse

Dataverse, the common store for Microsoft business applications, is a data insights goldmine

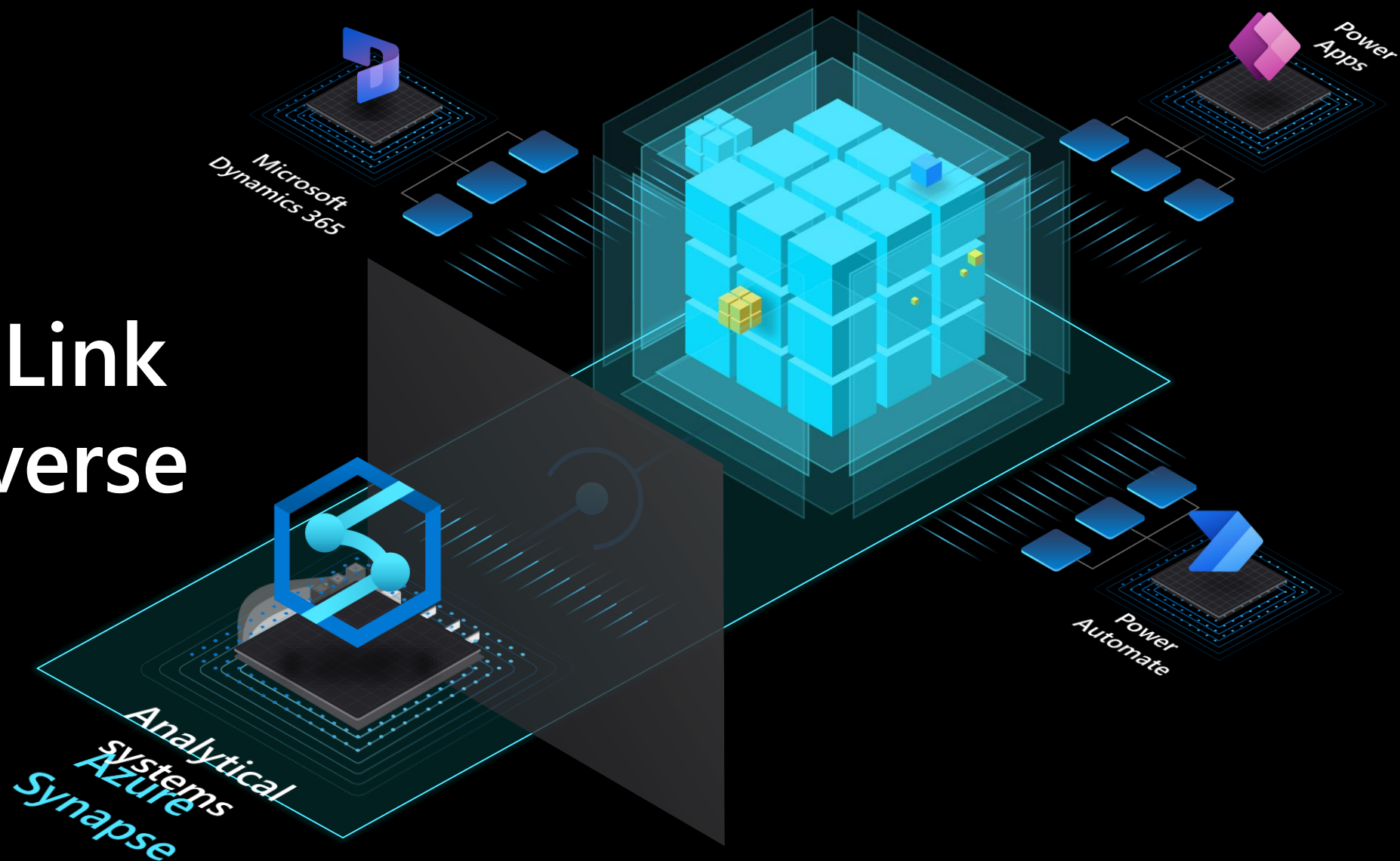


However, performing  
advanced analytics  
on business apps data  
is tedious and complex



Announcing

# Azure Synapse Link for Dataverse



Announcing

# Synapse Apache Spark



## Apache Spark 3.0 now available

- Full ACID compliance with Delta Lake (0.8)
- Adaptive query execution and dynamic partition pruning
- ANSI SQL compatibility



## Built-in GPU support

- Accelerated data preparation workflows with NVIDIA RAPIDS
- Accelerated deep neural network processing

Announcing

# Streaming dataflows

Streaming data as a first-class citizen in Power BI



Seamless low-code/no-code experience



Includes both real-time (hot)  
and historical (cold) data



Real-time reports with every  
Power BI visualization

# Azure data services



NoSQL

Open Source

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Analytics and Insights

Data Governance



Announcing

# Data governance

Azure Purview now supports automated  
scanning and classification of OSS Databases



Azure DB for MySQL

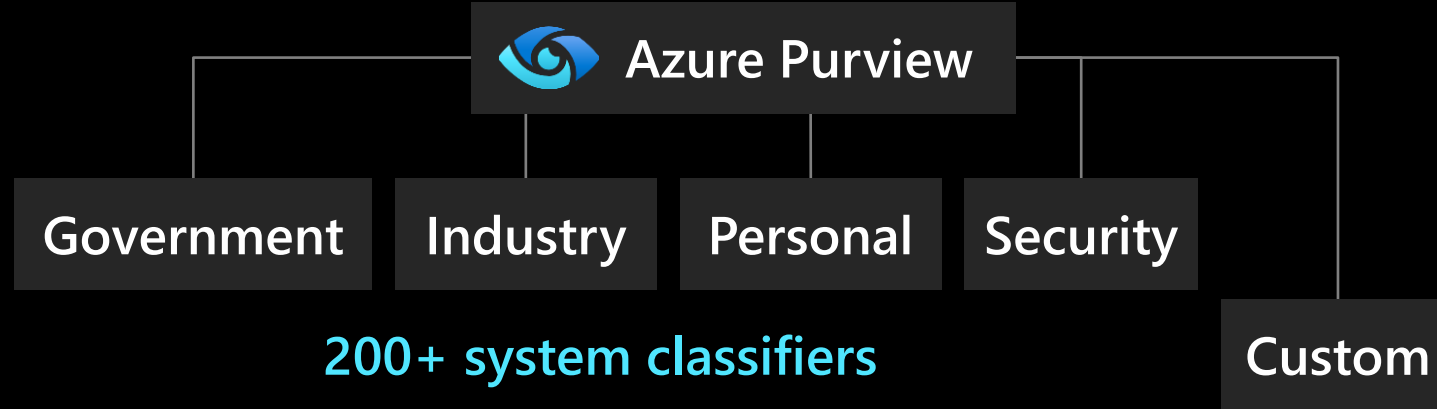


Azure DB for PostgreSQL

Announcing

# Data governance

Azure Purview now supports 2X system classifiers





# Azure AI

Announcing

## Azure Applied AI Services



Azure Video  
Analyzer



Azure Metrics  
Advisor



Azure Bot  
Service



Azure Form  
Recognizer



Azure Cognitive  
Search



Azure Immersive  
Reader

## Azure Cognitive Services



Language



Vision



Decision



Speech

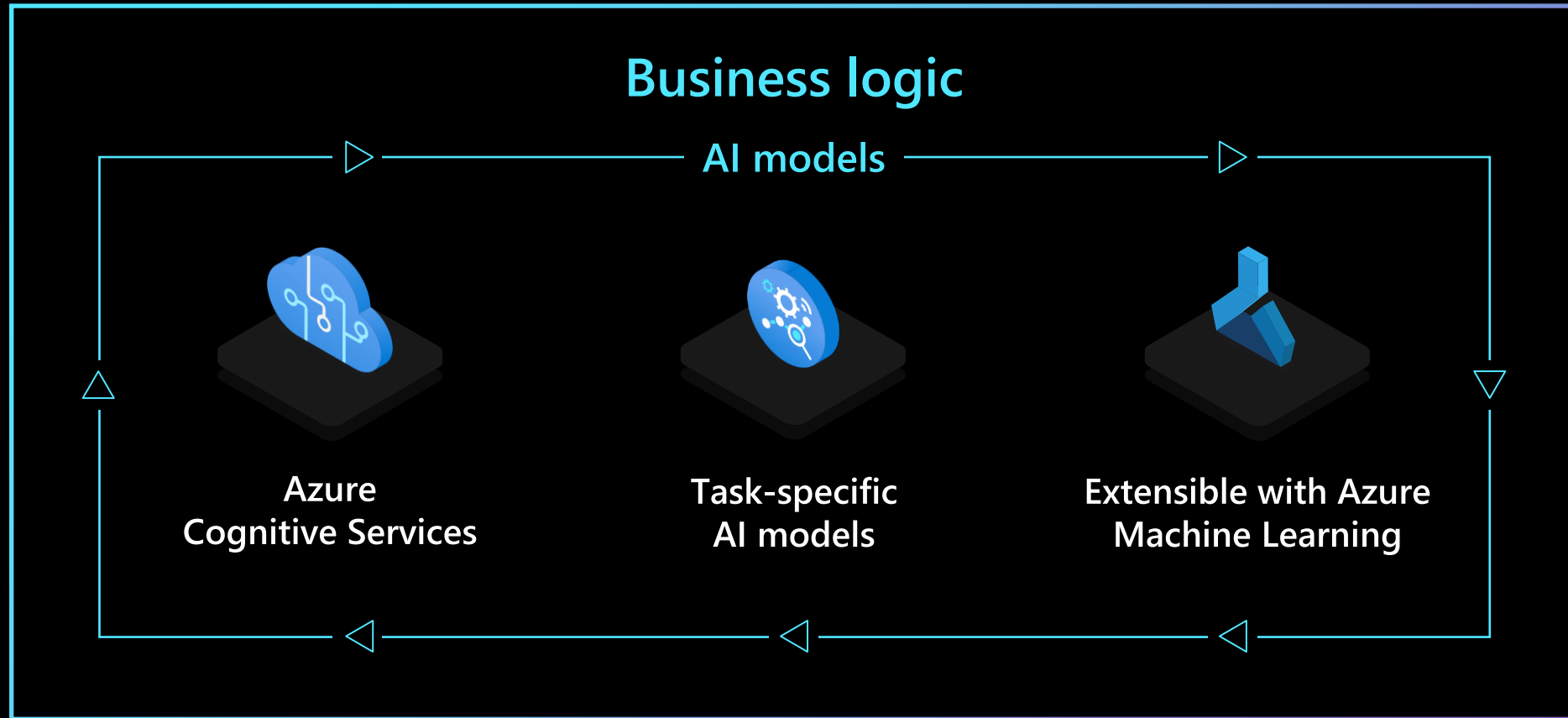
## Azure Machine Learning



Azure Machine Learning

# Azure Applied AI Services

Accelerate development of AI solutions for common business processes



Announcing

# Azure Video Analyzer

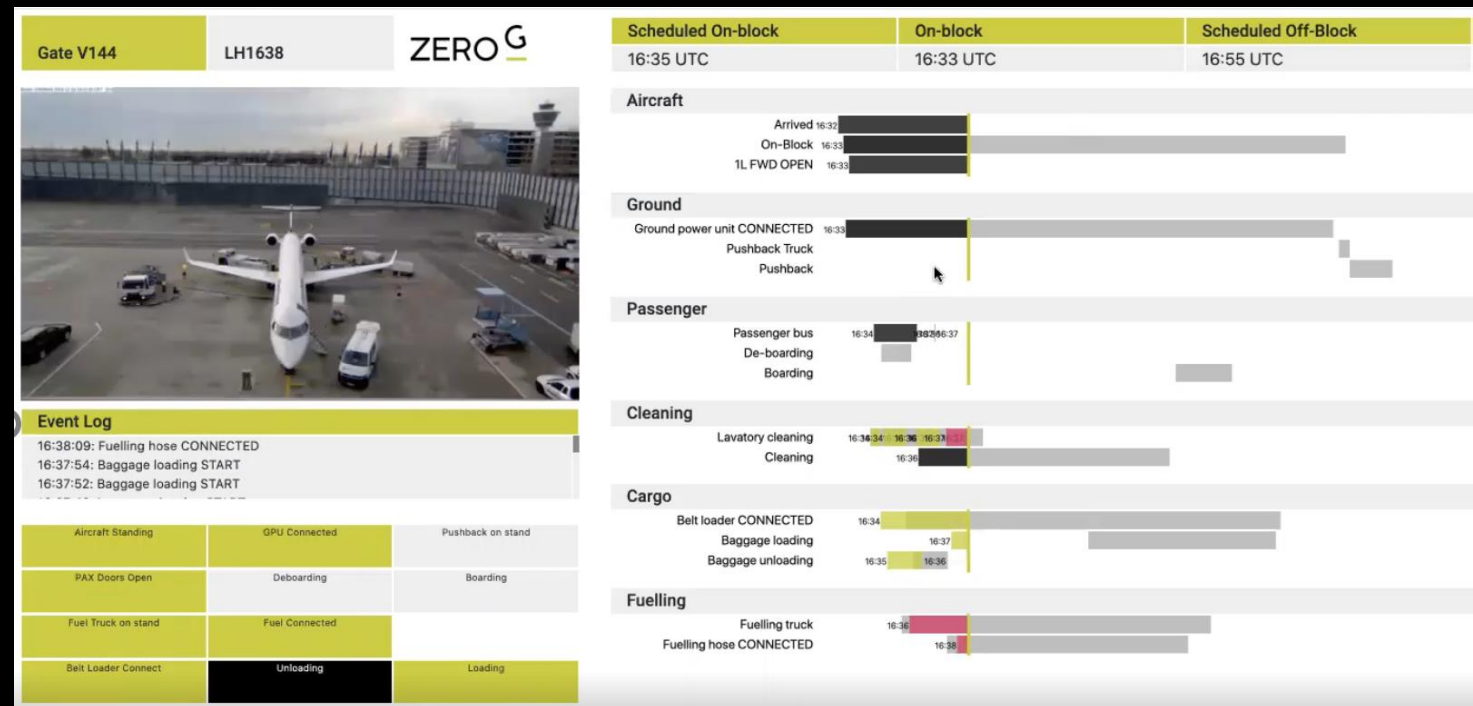
Extract actionable insights from videos

## Preview

Capture, record,  
and analyze videos

Extract rich insights from  
stored and streaming videos

Run responsibly anywhere



Announcing

# Azure Metrics Advisor

Proactive monitoring and root-cause analysis

General availability

Simplify data ingestion  
and augmentation

Detect anomalies for  
a variety of scenarios

Monitor and diagnose with  
alerts and root-cause analysis



Announcing

# Azure Bot Service

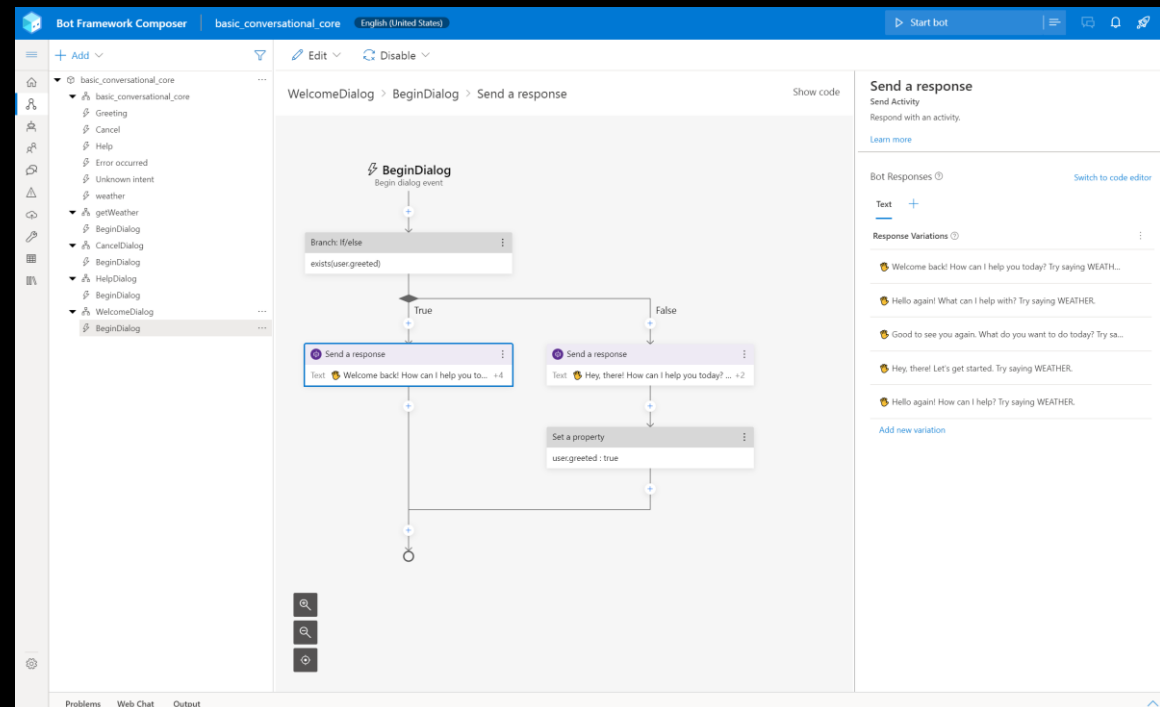
Comprehensive bot development experience

New Capabilities

Integrated end-to-end  
development experience

Text and voice assistant templates

Telephony support





# Azure AI

## Azure Applied AI Services



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## Azure Machine Learning



Azure Machine Learning

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## Azure Machine Learning



Azure Machine Learning

# Text Analytics for Health

## Extract medical insights

Woman in NAD with a h/o CAD, DM2, asthma, and HTN on Altace for 8 years awoke from sleep around 2:30 am this morning of a sore throat and swelling of tongue. She came immediately to the ED b/c she was having difficulty swallowing and some trouble breathing due to obstruction caused by the swelling. In the ED she was given 25mg Benadryl IV, 125 mg Solumedrol IV and Pepcid 20mg IV.



# Document translation

Translate at scale  
and preserve format



AutoSave On | Dem... - Last Modifie... | Krishna Doss Mohan

File Home Insert Draw Design Layout References Mailings Review View Help ACROBAT

## Microsoft Azure

### Document Translation

#### Overview

Document Translation is a new feature in [Azure Translator service](#) which enables enterprises, translation agencies, and consumers who require volumes of complex documents to be translated into one or more languages preserving structure and format in the original document. It asynchronously translates whole documents in a variety of file formats including Text, HTML, **Word, Excel, PowerPoint, Outlook Message, PDF**, etc. across any of the **80+ languages**, supported by Translator service.

**Standard translation offerings in the market accept only plain text or html, and limits count of characters in a request.** Users translating large documents must parse the documents to extract text, split them into smaller sections and translate them separately. If sentences are split in an unnatural breakpoint it can lose the context resulting in suboptimal translations. Upon receipt of the translation results, the customer must merge the translated pieces into the translated document. This involves keeping track of which translated piece corresponds to the equivalent section in the original document. The problem gets complicated when

customers want to translate complex documents having rich content.

Document Translation makes it easy for the customer to translate:

- a) volumes of large documents,
- b) documents in variety of file formats,
- c) documents requiring preserving the original layout and format, and
- d) documents into multiple target languages.

#### User experience

User makes a request to the Document Translation specifying location of source and target documents, and the list of target languages. It returns an identifier enabling the user to track the status of the translation. Asynchronously, Document Translation pulls each document from the source location, recognizes the document format, applies right parsing technique to extract textual content in the document, translates the textual content into target languages. It then reconstructs the translated document preserving layout and format as present in the source documents, and stores translated document in a specified location. Document Translation updates the status of translation at the document level.

Document Translation enables users to customize translation of documents by providing custom glossaries, a custom model id built using [customer translator](#), or both as part of the request. Such customization retains specific terminologies and provides domain specific translations in the translated documents.

Feature <sup>1</sup>	Microsoft Translator
Supported file formats	txt, tab, tsv, html, docx, pptx, xlsx, <b>msg, pdf, tmx, and xlf</b>
Total number of files	≤ 1000
Document size	≤ <b>40MB</b>
Total content size in a batch	≤ 250 MB
# of target languages in a batch	≤ <b>10</b>
# of languages supported	80+
Customer translation models	Supported
Custom glossary	Supported file formats – <b>tsv, xlf</b>
Size of glossary file	≤ 10 MB
# of glossary file per document	<b>1 per language pair</b>

<sup>1</sup> The limits in this table would be revised based on user feedback during public preview.

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Page 1 of 1 456 words English (United States) Display Settings Focus 90%

# Azure AI

## Azure Applied AI Services



Azure Video  
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Service



Azure Form  
Recognizer



Azure Cognitive  
Search



Azure Immersive  
Reader

## Azure Cognitive Services



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Speech

## Azure Machine Learning



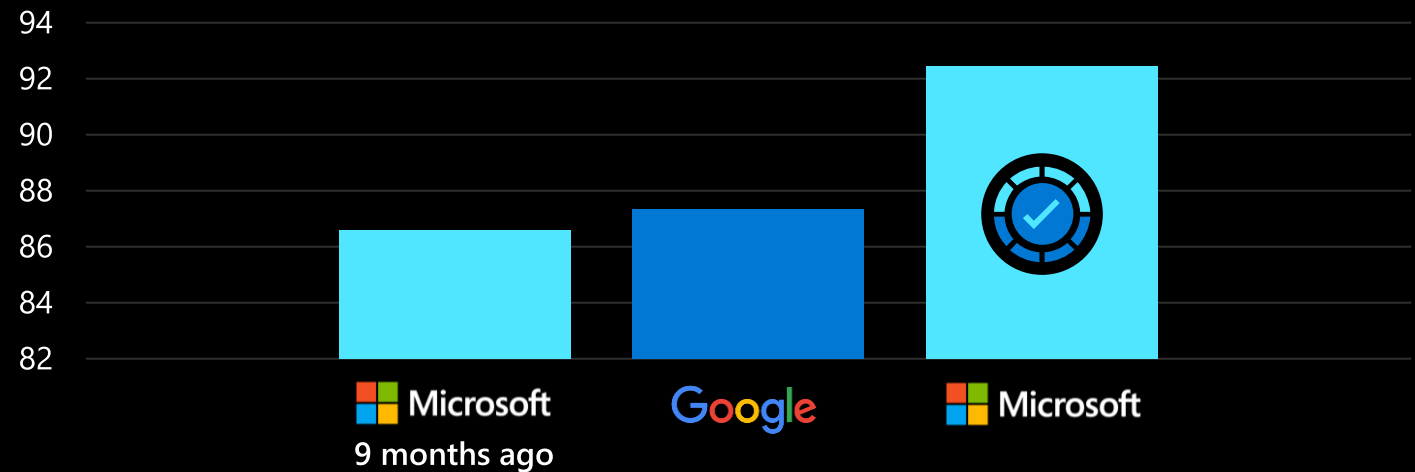
Azure Machine Learning

# Leader in nocaps benchmark

Image captioning

CIDEr

(Consensus-based Image Description Evaluation)



May 5, 2021

# Vision

Industry-leading image captioning



~~A field of wheat~~  
A field of wheat plant



# Vision

## Industry-leading image tagging



**Before**

Plant, dandelion; green;  
field; grass; sky; sun;  
day; outdoor; flower;  
grassy; spring;  
landscape; nature





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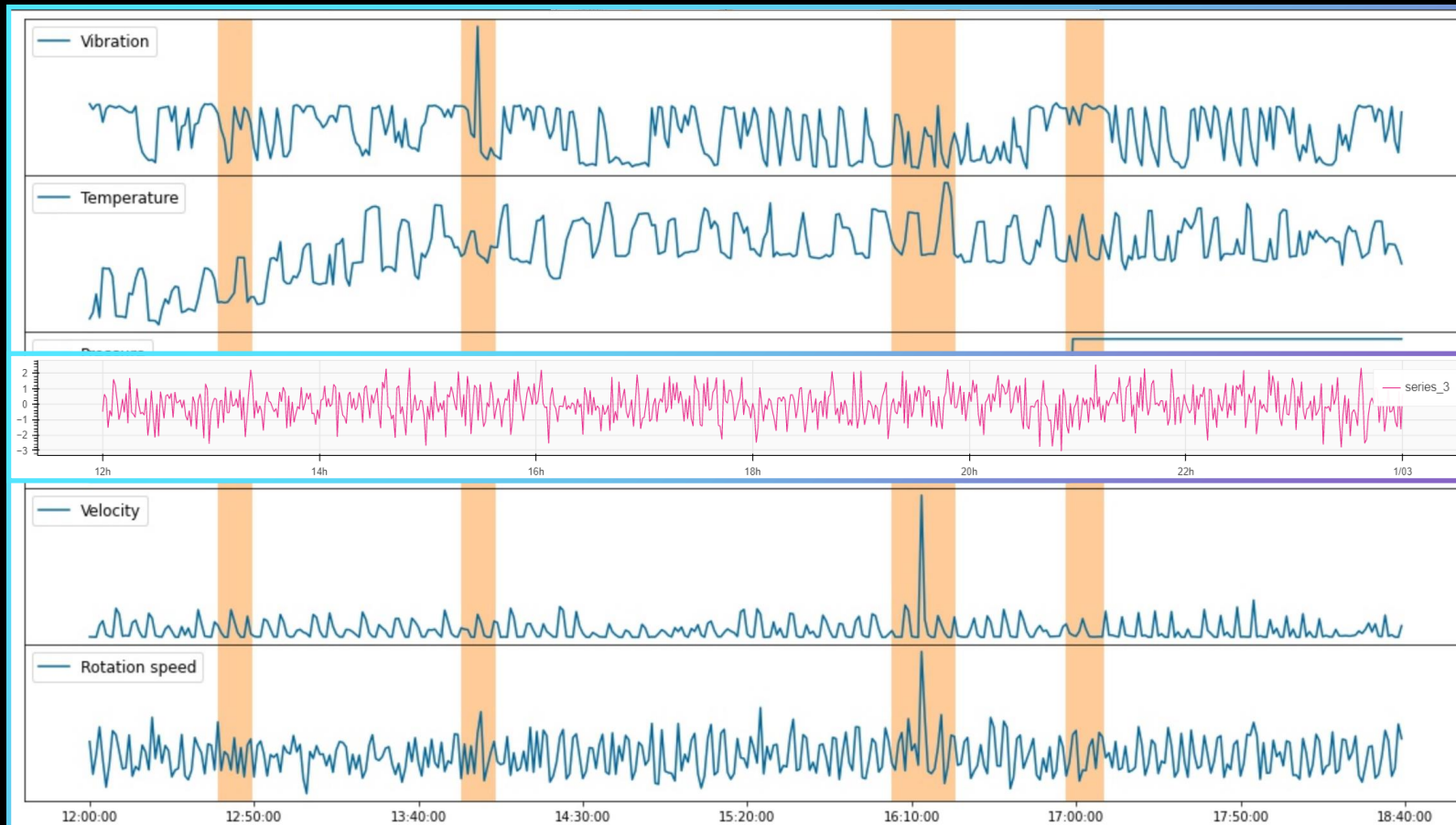
## Azure Machine Learning



Azure Machine Learning

# Decision

## Multivariate anomaly detection



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Azure Machine Learning

# Speech transcription

Continuous language detection

## Before

**Agent:** Thank you for calling 311 service center, how may I help you?

**Caller:** Hello, see Alice panyol?

**Agent:** See absolutely make it and keep weather.

**Caller:** Oh honey all Korea padded ayuda but I can make it Adam Lani V della entrada.

## After

**Agent:** Thank you for calling 311 service center, how may I help you?

**Caller:** Hello, sí...hablas español?

**Agent:** Sí, absolutamente. ¿En qué puedo ayudar?

**Caller:** Oh genial, quería pedir ayuda para que quiten la nieve de la entrada.

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## Azure Machine Learning

Announcing



Azure Machine Learning Managed Endpoints

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## Azure Machine Learning

Announcing



PyTorch Enterprise Support Program

# Extending the reach of AI

## Azure Power Platform



Power BI



Power Apps



Power Automate



Power Virtual Agents

AI Builder

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## Azure Machine Learning



Azure Machine Learning





Grazie e buona  
continuazione

# *Agenda della mattinata*

09:30: **Welcome** - Claudia Angelelli - Technical team Lead – Stefano Alini - Technical team Lead

09:45: **"Microsoft Viva fundamentals and partner opportunity"** - Chris Brown - Viva Insights Ecosystem Lead for EMEA & Guelay Vural - Viva Channel Sales Lead for EMEA

10:30: **"Tips to build the integration with Dynamics 365 Business Central"** – Giuseppe Russo - Partner Technical Architect



11:30: **"What's new in Azure Data Platform and AI"** - Guenda Sciancalepore e Pietro Brambati- Cloud Solution Architects

12:00: **"What's new in App Modernization & DevOps"** – Lorenzo Barbieri e Daniela Tomoiaga - Cloud Solution Architects

12:45: Q&A e chiusura Innovation Morning