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Azure Cognitive Services

Azure Cognitive Services is a cloud platform developed by Microsoft which aims to bring Artificial Intelligence to developers and data scientists in a more readily available setting. The Azure Cognitive AI has built-in models that can be used for enterprise implementation. The way this platform makes it easy is by providing and API that you can call to have computer vision, hearing, language translation, be able to speak, use search and understand different topics as well as implementing decision-making into your applications.

The different features of the Azure Cognitive Services include the following areas:

- **Speech** in this area the platform has the ability to transcribe audible speech into readable and searchable text. It can convert text to speech, integrate real-time translation to your applications, identify and verify people via audio.
- Language in this area, the platform can understand conversations and even unstructured texts. It has the ability recognize entities and commonly used domain specific terms. It can do sentiment analysis, and detect opinions from text. It can answer questions, do conversational in different natural languages and ability to translate into over 100 languages and dialects.
- **Vision** in this area it can analyze content and images and videos, recognize images that you can use for your business, and can detect and identify people and emotions in images.
- **Decision** in this area, the platform can make smarter decisions faster and efficiently by identifying potential problems early, detect potentially offensive and unwanted content, and create rich and personalized experiences for the users.

The Azure Cognitive Services provides the ability for extension through its OpenAI Service, which contains advanced language models to different use cases. In the Open API, it has the following features

- Be able to unlock new language scenarios
- Tailor models to business needs
- Apply AI responsibility with its built-in controls and filters
- Implements Role-based access control for enterprise-grade security

Azure Cognitive Services is a mature platform ready for Enterprise usage as it has the following certifications:

Global

- CIS Benchmark
- CSA-STAR attestation
- CSA-STAR certification
- <u>CSA-STAR self-assessment</u>

- ISO 20000-1:2011
- ISO 22301
- ISO 27001
- ISO 27017

Global

- ISO 27018
- ISO 27701
- ISO 9001
- <u>SOC 1</u>
- <u>SOC 2</u>
- <u>SOC 3</u>
- WCAG

US Government

- CJIS
- CNSSI 1253
- DFARS
- DoD IL2
- DoD IL5
- <u>DoE 10 CFR Part 810</u>
- EAR (US Export Adm. Reg.)

US Government

- <u>FedRAMP</u>
- FIPS 140-2
- IRS 1075
- <u>ITAR</u>
- <u>NIST 800-171</u>
- NIST CSF
- Section 508 VPATS

Industry

- 23 NYCRR Part 500
- AFM + DNB (Netherlands)
- APRA (Australia)
- AMF and ACPR (France)

- CDSA
- CFTC 1.31 (US)
- DPP (UK)
- EBA (EU)
- FACT (UK)
- <u>FCA + PRA (UK)</u>
- FDA CFR Title 21 Part 11

Industry

- FERPA
- FFIEC (US)
- FINMA (Switzerland)
- FINRA 4511 (US)
- FISC (Japan)
- FSA (Denmark)
- GLBA (US)
- GSMA
- GxP
- HDS (France)
- HIPAA / HITECH

Industry

- HITRUST
- KNF (Poland)
- MARS-E (US)
- MAS + ABS (Singapore)
- MPA
- NBB + FSMA (Belgium)
- NEN-7510 (Netherlands)
- NERC
- OSFI (Canada)
- PCI-3DS
- PCI-DSS

Industry

- RBI + IRDAI (India)
- SEC 17a-4
- SEC Regulation SCI (US)
- Shared Assessments

- <u>SOX</u>
- TISAX
- TruSight

Regional

- ABS OSPAR (Singapore)
- BIR 2012 (Netherlands)
- C5 (Germany)
- Canadian Privacy Laws
- CCPA (US-California)
- Cyber Essentials Plus (UK)
- IRAP (Australia)
- CS Mark Gold (Japan)

Regional

- DJCP (China)
- EN 301 549 (EU)
- ENISA IAF (EU)
- ENS (Spain)
- EU Model Clauses
- GB 18030 (China)
- GDPR (EU)
- G-Cloud (UK)

Regional

- IDW PS 951 (Germany)
- ISMAP (Japan)
- ISMS (Korea)
- IT-Grundschutz workbook (Germany)
- LOPD (Spain)
- MeitY (India)
- MTCS (Singapore)
- My Number (Japan)

Regional

- NZ CC Framework (New Zealand)
- PASF (UK)

- PDPA (Argentina)
- Personal Data Localization (Russia)
- TRUCS (China)
- VCDPA (US-Virginia)

Conclusion:

Azure Cognitive AI is an excellent platform which contains all these models, instead of building things from the ground-up, businesses can leverage these things and get the benefits of AI

References:

https://azure.microsoft.com/en-us/services/cognitive-services/#overview

https://azure.microsoft.com/en-us/services/openai-service/#overview

 $\underline{https://docs.microsoft.com/en-us/compliance/regulatory/offering-home?view=o365-worldwide}$