Accelerate time to intelligence with a secure, application-rich cloud

By: Kristen Summers, Operating Unit CTO, Microsoft Federal

Data is the lifeblood of the US Intelligence Community. Finding new ways to enhance how data is gathered, stored, processed, analyzed, and disseminated helps keep the United States one step ahead of our adversaries. Accelerating cloud adoption and leveraging commercial capabilities help the Intelligence Community move faster, improve decision-making, and do more for missions.

When tools to capture and analyze data are made available on-demand in a way that is secure and resilient, data can be rapidly transformed into actionable intelligence. Through the use of artificial intelligence (AI) and machine learning (ML), the Intelligence Community gains improved agility, innovation, and insights.

With [Microsoft Azure for Government](#), raw data can be converted into actionable intelligence, even by those without a background in data science. AI and ML can rapidly process vast amounts of data—including visuals, text, and more—flagging the most important information for review by a human, saving their limited bandwidth for tasks that require a higher level of thinking and interpretation. It even works for those protecting our national security in many environments, from fully connected central locations to disadvantaged locations and the tactical edge.

Optimized cloud solutions increase the Intelligence Community's impact

At the most fundamental level, intelligence analysts make sense of large amounts of data. Analysts need tools that can help make that data actionable.

In some cases that may mean fusing disparate data points or creating a finished intelligence product. In others, it could require prioritizing actions in fast-evolving situations or providing a briefing to those in a position to act. Whatever the use case, Azure for Government provides access to tools for users at all levels, meeting users where they are with solutions that fit their level of expertise and requirements.

Designed for commercial use and hardened for sensitive materials, Azure for Government is optimized to process, manage, and move the mountains of data that intelligence teams collect and process. Wide arrays of raw data can be analyzed and made actionable quickly and securely. And with compliant levels of Azure for Government, classified materials can be stored in the cloud and used anywhere, from stateside headquarters to remote connected positions.

A rich ecosystem of cloud solutions

Azure for Government was designed to streamline and expedite access to data and information via cloud services. Taking a holistic approach that goes beyond infrastructure, it delivers a rich ecosystem of services and tools to support data-intensive intelligence applications with AI, ML, and analytics, including pre-built capabilities to create custom applications. Analysts and data scientists, as well as those who are not data experts, can:

- Process language, video, and images

- Analyze data and determine the importance level
- Create reports to trigger the right responses to the data.

And, in the Azure for Government environment, homegrown or custom applications can be expanded on and evolved by leveraging synthetics, computer vision, natural language processing (NLP), translation, AI, and/or ML.

Advanced image identification capabilities enhance operations in the moment

Computer vision applications augment other systems to provide intelligence teams with powerful capabilities. By quickly and effectively identifying important objects in visual imagery, it frees up human bandwidth to focus on the harder interpretations of what those objects mean and what should be done in response. Analysts can also cross modalities and generate a textual description of an image.

Microsoft's synthetics can also be used to create more data to train models using computer vision, enabling a greater capacity for image processing. Our synthetics capabilities generate enough data to train new ML to recognize even for relatively uncommon objects. This huge leap forward means teams can use information to quickly make identifications and to inform decisions accurately.

Take Natural Language Processing to the next level with advanced cloud technologies

Microsoft's extensive Natural Language Processing (NLP) capabilities include not only machine translation, sentiment analysis, and entity extraction, but also opinion mining that identifies what the sentiment is directed towards, as well as keyword extraction with classification into the taxonomy of topics.

Analysts can effectively monitor the continuous torrent of chatter taking place in myriad channels around the world and flag the most relevant for human analysts to review. This approach directs valuable human attention to the right place to better identify the proverbial needle in the haystack.

During the COVID-19 pandemic, a solution with our NLP recognized "fake news" and other mis- and disinformation surrounding COVID. The same technology can be used in other contexts where disinformation can impact our national security.

Translation and complementary applications provide a fuller picture from global sources

When gathering intelligence from around the world, it is a given that much of it will not be in English or in the language of the analyst working with it. While a great deal of language processing takes place in its original language, Microsoft's machine translation intakes source material from a great many languages and displays it in a language the analyst can understand.

Whether in the original form or having been translated, that material can then be used with other applications, including those that extract relevant representations. For instance, an NLP analysis can identify what kinds of entities are being discussed and help match those to real-world entities.

Every level of user can make an impact with powerful but easy-to-use AI and ML

Microsoft has a robust suite of cloud-based AI and ML solutions for all types of intelligence users—from teams of seasoned AI and ML pros who need to take their current tools to the next level to those who do not work in the space as a part of their daily activities. We offer capabilities with AI built-in and pre-trained ML that is ready to use as-is (or, for some offerings, you can choose to retrain with your own data without having to do any other data science). And for data scientists or ML engineers who want to build, train, and use their own models, do-it-yourself tools are also available.

Our objective is to lower the barriers to entry and provide the tools to make AI and ML easy and intuitive. Intelligence teams can take advantage of automation that lets the systems do the work. Identify the task, and Microsoft's AI and ML tools can figure out which model is optimal. Or, if you prefer, take a full hands-on approach and select one of the vast array of tools available in our cloud.

Microsoft Azure for Government brings the Intelligence Community a solution accelerator

With Azure for Government, the Intelligence Community has access to unclassified and classified cloud infrastructures with a robust ecosystem of state-of-the-art tools and services. These end-to-end offerings can help support and bring value to every user in the Intelligence Community. This makes Azure for Government a solution accelerator, delivering infrastructure designed for speed and security along with the tools needed to support and enhance applications.

In short, with services and applications at the ready, time-to-value is accelerated when creating new solutions and transforming existing applications. More importantly, actionable intelligence is expedited. Ultimately, solutions with Azure for Government can reduce time-to-intelligence insight, untangle the analysis and assessment of information, and put valuable intelligence in the hands of those who need it, precisely when they need it.

Do more for the mission with Azure. Visit [Azure for US Government](#).