

IoT and Azure – PI in the Sky

Mixed Reality Platform

Niten, Director of Cloud Strategy at Microsoft

“It’s so critical for leaders not to freak people out, but to give them air cover to solve the real problem. If people are doing things out of fear, it’s hard or impossible to actually drive any innovation.”

– Satya Nadella, Microsoft CEO

Empower Users to Innovate Easily

- *IT has a pivotal role in fostering a culture of innovation.*
- *Technology driven change has the potential to improve organizational performance, reduce bureaucracy, reenergize people, and in some scenarios, even resurrect entire organizations.*
- *Greater mission effectiveness ensuing from adaptability and continual innovations are more important drivers of cost reduction.*
- *“Art of the possible” fueled by rapid innovation in cognitive services, artificial intelligence, cloud technologies, and new types of computing platforms like the HoloLens.*



Data sources



Apps



Sensors and devices

Information management

- Data Factory
- Data Catalog
- Event Hub

Big data stores

- Data Lake Store
- SQL Data Warehouse

Machine learning and analytics

- Machine Learning
- Data Lake Analytics
- HDInsight (Hadoop, Spark)
- Stream Analytics

Intelligence

- Cognitive Services
- Bot Framework
- Cortana
- Dashboards and visualizations
- Power BI



People



Web



Mobile



Bots



Apps



Automated systems

Action

Advanced Cognitive Services, Machine Learning, High Performance Computing, Recognition Tech., Cyber Analytics



ESRI:
Location Intelligence



Mixed Reality Platform

– Data Intelligence and Enhanced Visualization

Mixed reality encompasses a wide range of experiences that previously were considered to be only augmented reality or only virtual reality. In mixed reality, people, places, and objects from your physical and virtual worlds merge together in a blended environment that becomes your canvas.

- IoT Data – with sense of location
- 3-D Objects (depth of image to enhance visualization/understanding)
- Intelligence using super fast data co-relation and cognitive services

Azure Security Investments

Azure Government has 4 regions (2 FedRamp High, 2 DoD IL5) compared to a single AWS GovCloud region (FedRAMP High). By the end of the calendar year, Azure Government will add 2 additional FedRAMP High regions, for a total of 6. This provides the following advantages:

- Ability to provide disaster recovery solutions with data centers separated by > 500 miles
- Ability to provide a data center geographically near the government customer, minimizing network latency
- Demonstrated infrastructure investment, and therefore commitment, to a Government cloud

Azure Government has made a major investment in ensuring that our individual Azure services are included in our FedRAMP High boundary. We have grown from 13 included services (at launch) to 32 included services (as of 2/22/2017) in less than one year. This is significantly more than any other commercial cloud provider.

Intelligent Security Graph

- Telemetry every second from 200 + Services and 6 Billion Devices across the world
- 350 Billion Authentications per month.
- 200 Billion emails per month.
- First to see Phishing attacks, malicious URLs
- Cyber Threat Analytics

Hololens

<http://www.bing.com/videos/search?q=hololens+mars&&view=detail&mid=EB8503784A74CE5D47E4EB8503784A74CE5D47E4&FORM=VRDGAR>

<http://www.bing.com/videos/search?q=hololens+nasa+kelly&&view=detail&mid=13B1E42CBA9CD71CA6D313B1E42CBA9CD71CA6D3&FORM=VRDGAR>

<https://www.bing.com/videos/search?q=elevator+repair+hololens&qpvt=elevator+repair+hololens&view=detail&mid=1ED0BA5D007652576BC21ED0BA5D007652576BC2&FORM=VRDGAR>

Questions

Please wait for the **microphone** before asking your questions



State your **name & organization**

Please don't forget to...

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The Power of Data

DECISION READY IN REAL-TIME

Evaluation Form (Seminar Location - Date)

Name: _____ Company: _____

Email: _____

Quality and content of the presentations	Poor	Good	Excellent	N/A
Welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Journey To Real-Time Operational Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Power of Connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank Level Management System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the PI System to Aid in Troubleshooting Operational Aspects of Oil and Gas Well Drilling and Completion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unleash your Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on the Spot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wrap-up/Seminar Conclusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality and organization of the seminar				
Choice of date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time allowed for lunch/breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choice of presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Date and time allowed for the presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>