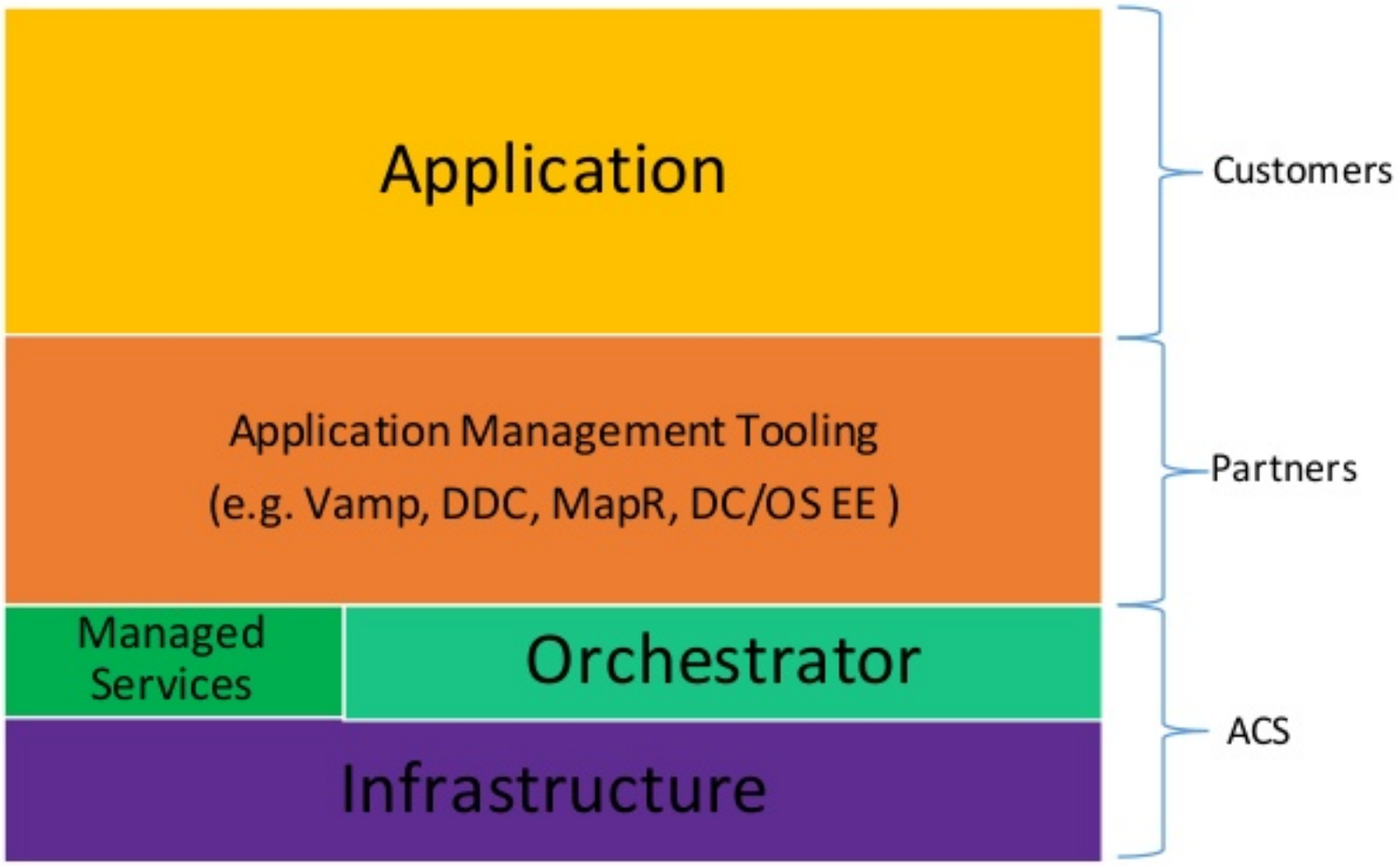
Microsoft

Azure Container Service

The best place to run your workload



- We are not a PaaS. Customers build what they need, how they need.
- 1st and 3rd Party Vertical "PaaS-Like" solutions
- Accelerate your time to market

ACS: The best place to run your workloads

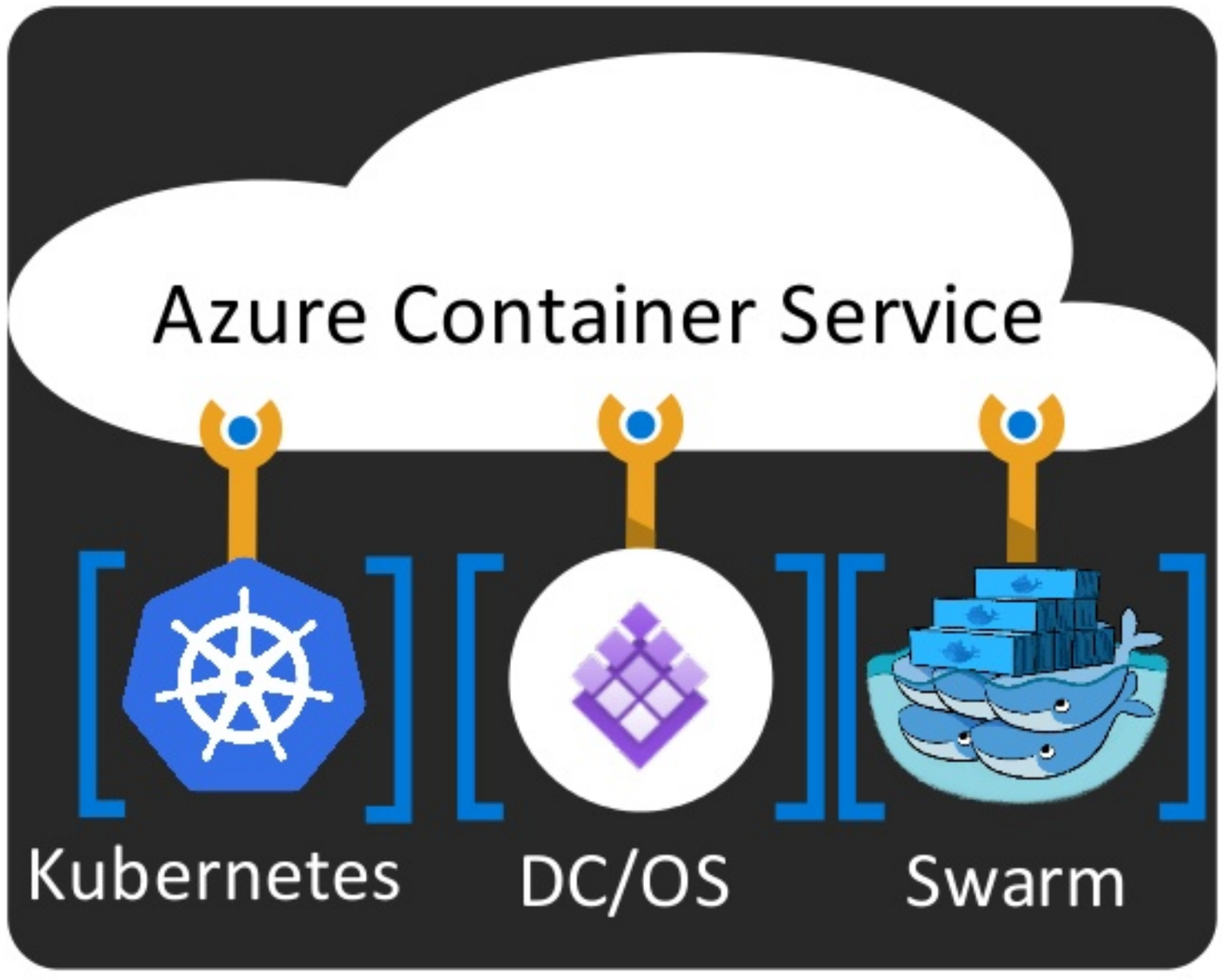
Streamlined provisioning of DC/OS, Docker and Kubernetes

Standard tooling and API support

Build what you need

With what you choose

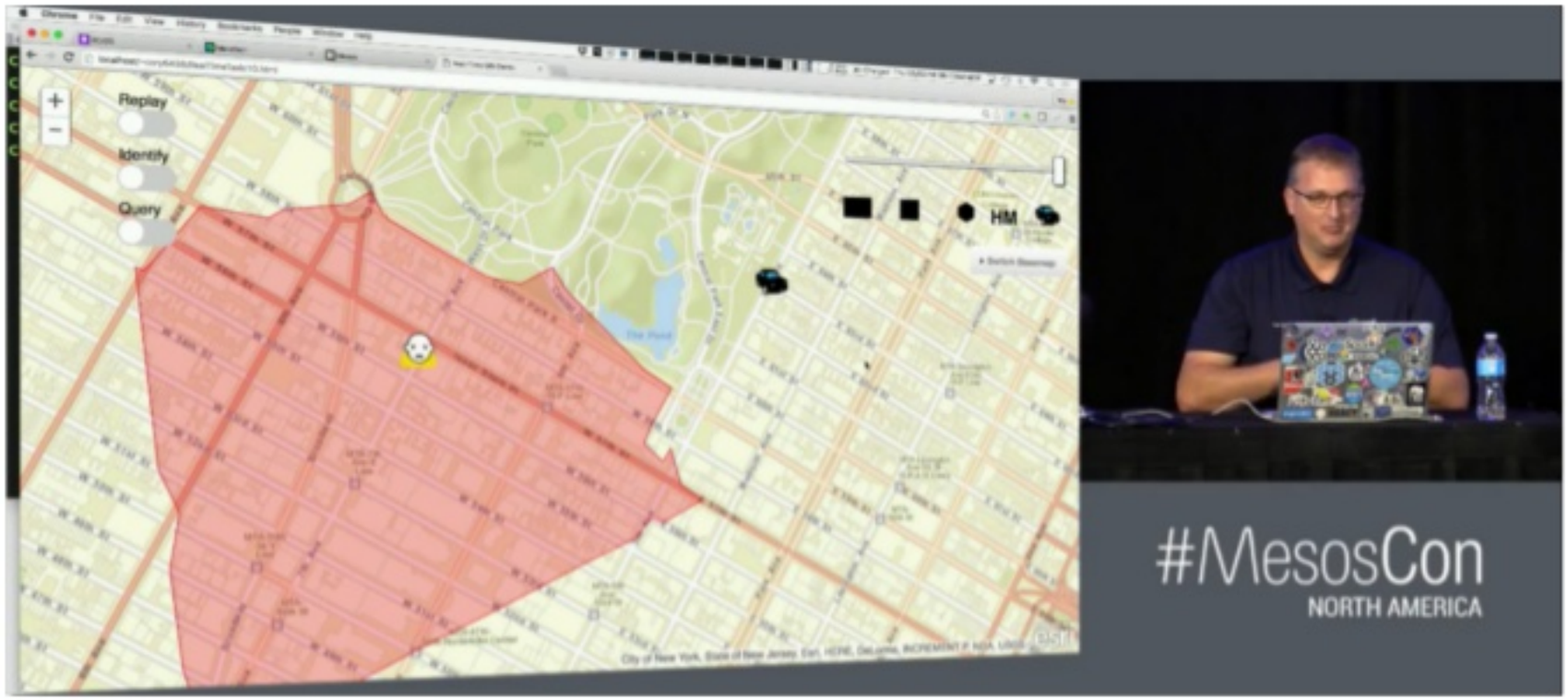
Microsoft contributes to the ecosystem



What are people doing on ACS?

ESRI – Real Time GIS Services

http://customers.microsoft.com/en-us/story/esri



- PoC from weeks to days
- Process in real time
  - 7.1 million GPS positions in 1 hour
- Visualizations
- DVR style playback
- Improve routing, customer satisfaction
- Machine Learning for predictions
- IoT Hub for data collection

MesosCon Keynote Demo 2016 - https://aka.ms/esri-acs

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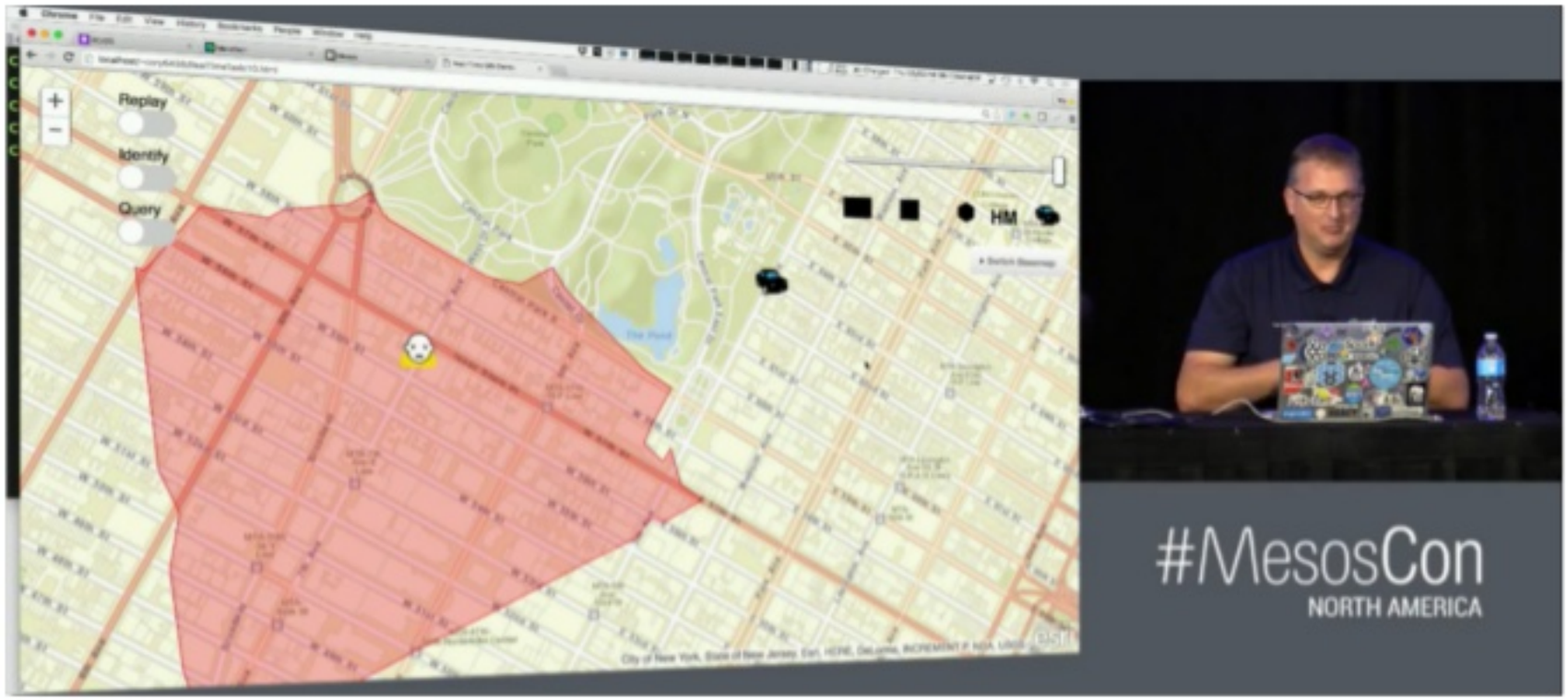

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Biocatch

http://customers.microsoft.com/en-us/story/biocatch

- Apache Spark and Docker containers
- DC/OS using Apache Mesos
- Improved performance exponentially
- Slashed costs dramatically
- Enhance product daily versus quarterly

- Analyzing huge volumes of real-time user behavioral data
- 8 million users in the first year
  - V1.0 struggled, needed to re-architect
- "By using Azure Container Service with open source DC/OS, we are able to use a single scheduler for both Apache Spark workloads and Docker containers, thus simplifying our architecture"
  - Dekel Shavit, Director of Operations and Chief Information Security Officer
- Response times improved by more than 1,500 percent
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Choose your preferred engagement model

OSS + IaaS

ACS Engine

Partner + Azure

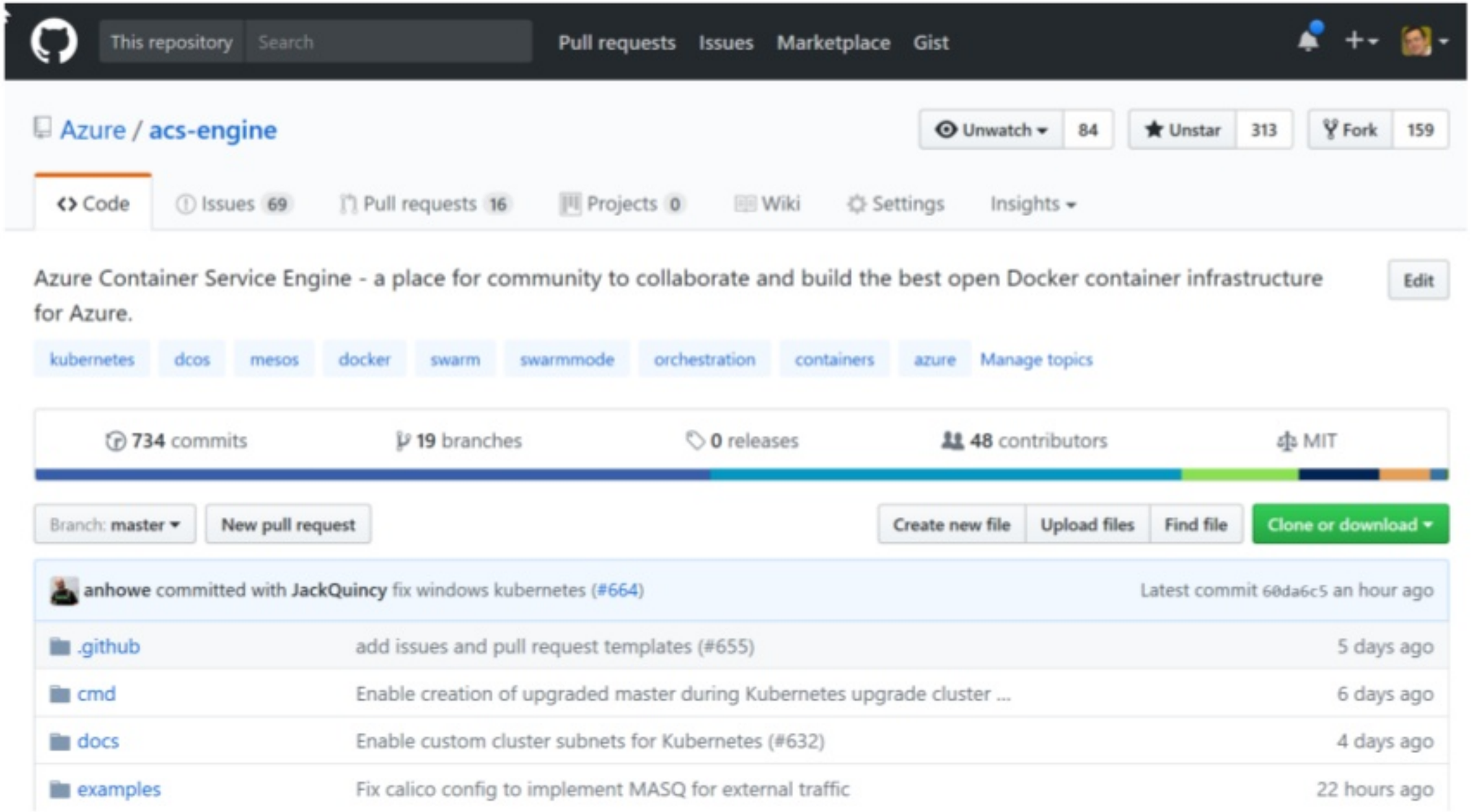
ACS (DC/OS) MESOSPHERE

ACS (Docker) docker

Microsoft first party

ACS
(Kubernetes)

Contribute to your Future with ACS



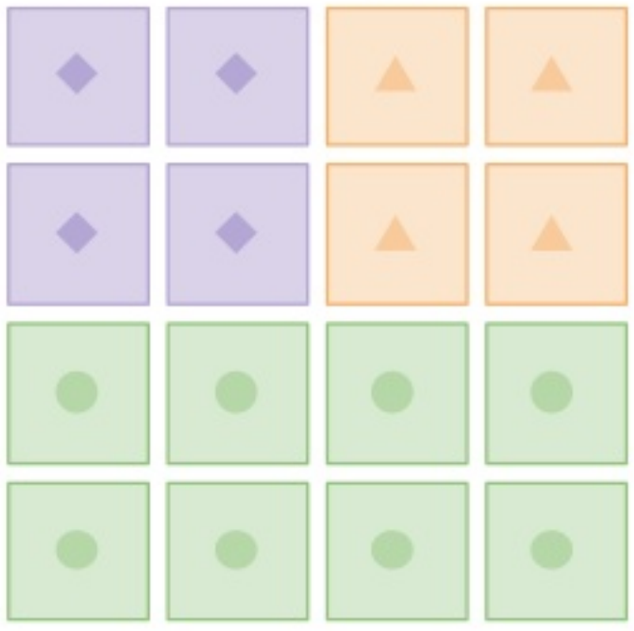
Partnerships for the win

Why Mesosphere?

THE MODERN ENTERPRISE APP

MICROSERVICES

STATELESS CONTAINERS



BIG DATA SERVICES

ANALYTICS

Streaming

Batch

Machine Learning

DATABASES

Search

Time Series

SQL / NoSQL

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DATA AGILITY

EVENTS

Continuous data streams from connected devices

INGEST

Ingest millions of events per second

STORE

Distributed & highly scalable database

ANALYZE

Real-time and batch process data

ACT

Visualize data and build data driven applications

Sensors

Devices

Clients

Apache Kafka

Apache Cassandra

Apache Spark

Akka

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Mesosphere automates the adoption and operations of cloud native technologies

Cloud-native technologies.

Containers, microservices, data services (e.g., Spark, Kafka, Cassandra).

Distributed computing expertise.

Engineering and operations of secure & highly reliable services at scale.

DevOps process and culture.

Frequent & reliable releases supported by an automated CI/CD toolchain.

Partners help deliver a hybrid story

Azure Container Service on the Azure Cloud

Open source so you control your own destiny?

- ✓ Use your own technical expertise
- ✓ Use our partners Mesosphere and Docker

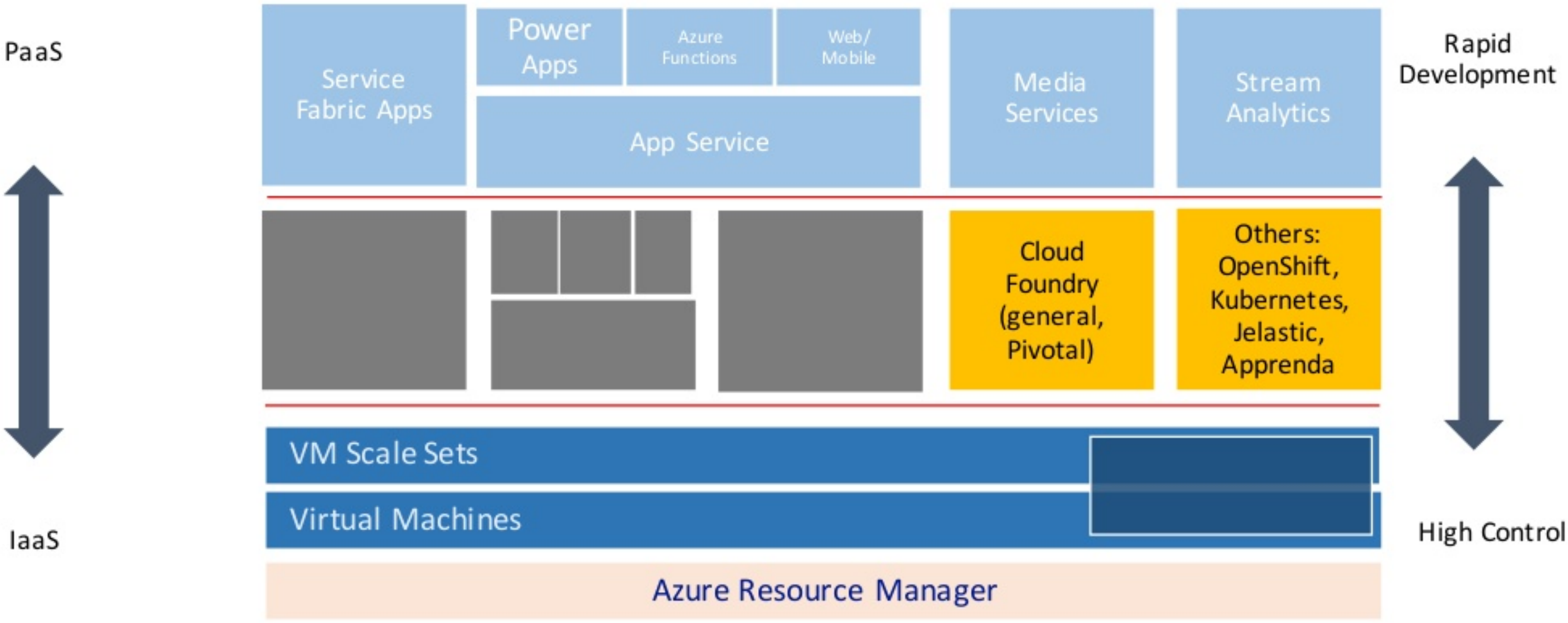
Need Microsoft driven Hybrid?

Tap into Azure’s deep and rich services

Microsoft Azure: it's your choice

- Massive array of IaaS, PaaS and SaaS services
- Focus on portability utilizing partner offerings
- Focus on portability with Azure Stack
- Focus on speed with a commitment to Azure

Azure Compute Platform – Open at all layers



DevOps

Nagios · VAGRANT · Jenkins · GRUNT · Gradle

Clients

Xamarin · APACHE CORDOVA

Management

CHEF · puppet labs · ANSIBLE · SALTSTACK · mist.io · libcloud · SCALR

Applications

Joomla! · Drupal

PaaS & DevOps

apprenda · Jelastic · CLOUD FOUNDRY

App Frameworks & Tools

php · nodeJS · Java · Ruby · IntelliJ IDEA · eclipse

Databases & Middleware

hadoop · redis · cleardb · cloudera · MySQL · mongoDB · Couchbase

Infrastructure

redhat · suse · bitnami · ORACLE LINUX · FreeBSD · docker


SECURITY & MANAGEMENT
Portal
Active Directory
Multi-Factor Authentication
Automation
Key Vault
Store / Marketplace
VM Image Gallery & VM Depot
PLATFORM SERVICES
Cloud Services
Service Fabric
Batch
Remote App
Web Apps
API Apps
API Management
Mobile Apps
Logic Apps
Notification Hubs
Visual Studio
Azure SDK
Team Project
Application Insights
Storage Queues
Biztalk Services
Hybrid Connections
Service Bus
Media Services
Content Delivery Network (CDN)
HDInsight
Machine Learning
Data Factory
Event Hubs
Stream Analytics
Mobile Engagement
SQL Database
SQL Data Warehouse
Redis Cache
Search
DocumentDB
Tables
HYBRID OPERATIONS
Azure AD Connect Health
AD Privileged Identity Mngt
Backup
Operational Insights
Import/Export
Site Recovery
StorSimple

Microsoft First Party Solutions: Azure ML Command Line Interface

- Efficiently operationalize Apache Spark, Tensorflow, CNTK or Python based ML models on Azure

- One command setup of Azure Container Service, Azure Container Registry, open source tooling…
  - `az ml env setup`

- Deploy, mange and scale both real-time and batch services
  - `az ml service [create|list|scale|etc]`

- One command to switch between local and remote environments
  - `az ml env [local|cluster]`

- See https://github.com/Azure/Machine-Learning-Operationalization

Getting started

- Demo's from this session (and more)
  - http://github.com/azure/acs-demos

- Azure Container Service
  - http://aka.ms/acs

- ACS Engine
  - http://github.com/azure/acs-engine

- Azure ML CLI
  - https://github.com/Azure/Machine-Learning-Operationalization