SAS Club 2020

SAS in der Cloud und die SAS-Microsoft Partnerschaft

Market Drivers

Cloud Adoption

- Public cloud deployments of analytics growing 10X faster (IDC, 2019)
- >60% of organizations have efforts to migrate analytic infrastructure to public cloud (SAS, Q4 2019)
- Continuously evolving, trusted advisors needed

Cloud Trends

- Containers are becoming mainstream
- ML and AI adoption in public cloud is gaining
- Hybrid cloud and multi-cloud is the reality, opening door for third party platforms such as Red Hat OpenShift and VMware Tanzu/PKS

Analytics Workloads

- Cloud is increasingly the target for new data; moving analytics to data is key to reduce expensive data movement
- Flexibility and pay-per-use of cloud is ideal target for today's analytic work
- Analytics + cloud boost digital business and customer agility

Yesterday's Portability

The SAS Multi-Vendor Architecture

MVS

OS/2

IRIX

Solaris

Windows

Tru64

AIX

HP-UX

SunOS

Linux

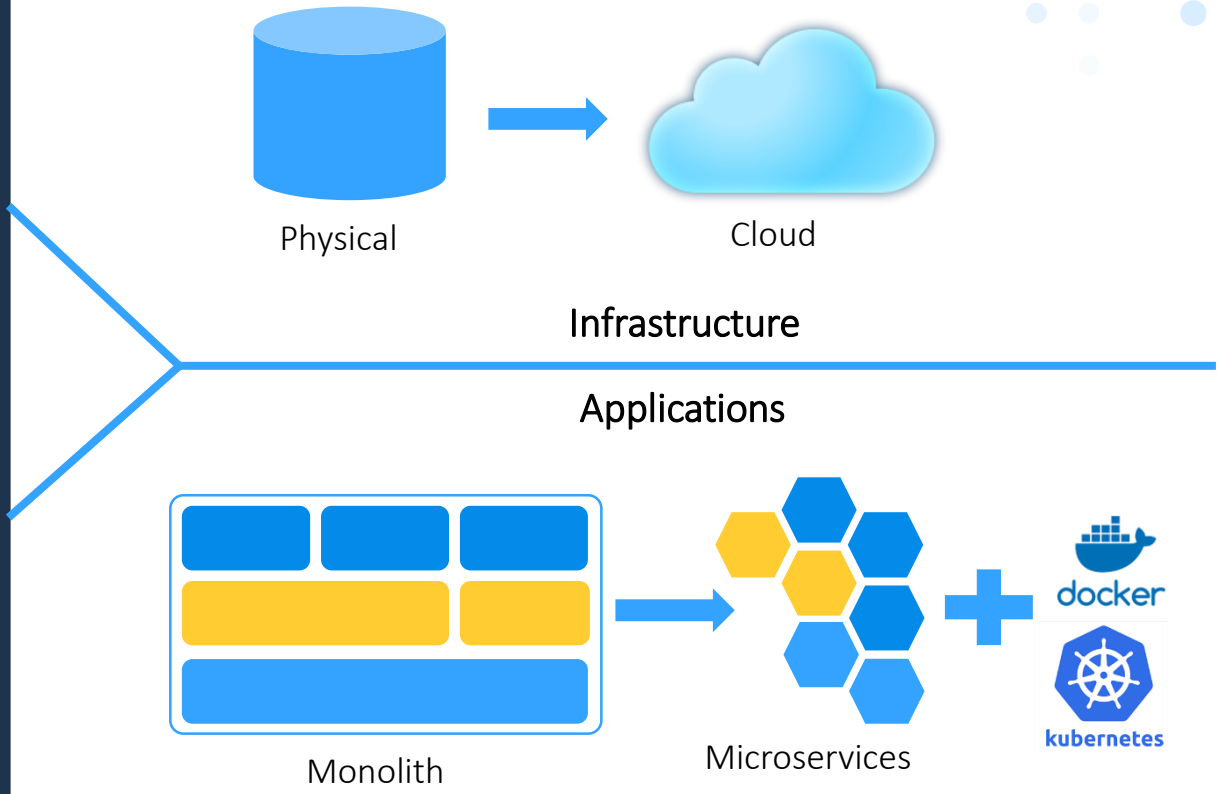
Today's Portability

Multi-Cloud Architecture

Movement to Cloud

The movement from on-premises infrastructure to the cloud parallels the changes in applications from monolithic n-tier architectures to more composable microservices as the need to build and update apps at speed and scale increases.

Digital Transformation



Key Priorities

Today

- Manage SAS workloads on Azure through hosted or remote managed services
- Migrate SAS 9 or SAS Viya 3.5 workloads to cloud (IaaS, container recipes)
- Platform integration with Azure / AWS / GCP services

Coming Soon

- The next release of SAS Viya on Microsoft Azure Kubernetes Service using cloud-native services and optimizations

Future

- Launch SAS solutions and industry offerings running on top of Viya on Azure
- Deeper product integrations with Azure
- New market-ready solutions and services across multiple industries
- Deployment on other clouds

SAS interoperates with cloud services

SAS Viya

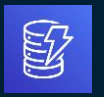

Elastic Container Service for Kubernetes (EKS)


AWS EMR


S3


Simple Queue Service


AWS RDS


DynamoDB


Google Kubernetes Engine


BigQuery


Cloud Dataproc


Cloud Pub/Sub


Cloud SQL


Cloud Datastore


Azure Kubernetes Service (AKS)


HD Insights


Azure Data Lake Services


Event Hubs


Azure DB for PostgreSQL


Azure Cosmos DB

..and many more!

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SAS Cloud

Software as a Service

CI 360

SAS Machine Learning

Managed Application Services

Hosted Managed Services

Remote Managed Services

Consulting Services

SAS Results

Advisory Services

Partnership Overview

SAS and Microsoft Strategic Partnership

SAS and Microsoft have formed an extensive technology and go-to-market strategic partnership:

- Microsoft Azure is the preferred cloud provider for SAS Cloud
- SAS and Microsoft will co-develop integrations across Microsoft's entire cloud portfolio, including Azure, Dynamics 365, Microsoft 365, and Power Platform
- SAS solutions will appear in the Azure Marketplace

Why this Partnership?

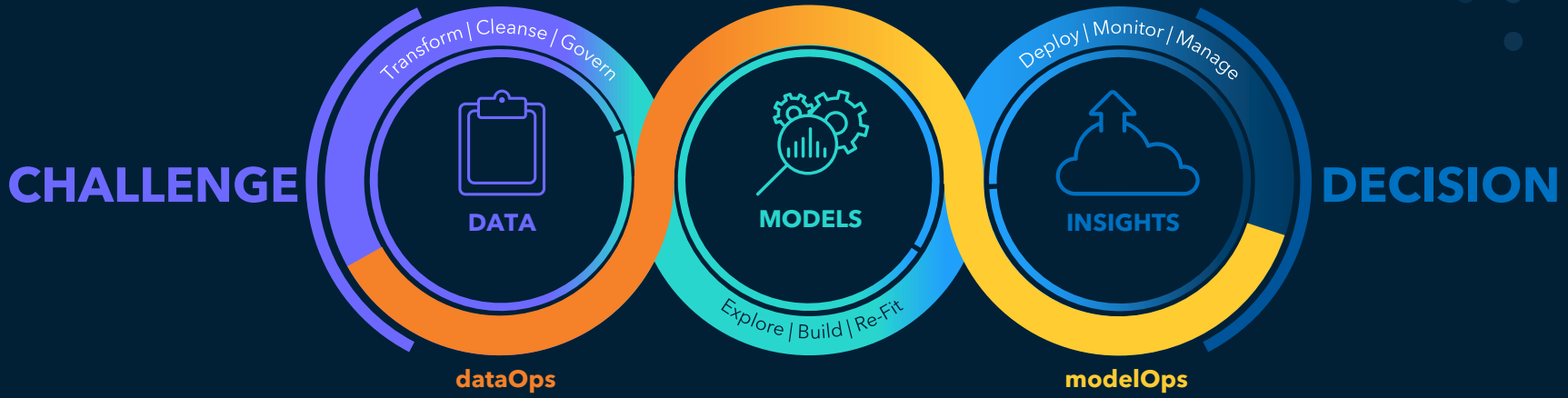
- Cloud adoption accelerating
- Public cloud providers bring reach, scale, agility to SAS and our customers
- Enriching the cloud ecosystem with SAS technology
- Analytics and AI in the cloud can shape a new operating system for digital transformation

Why Microsoft?

Several important factors:

- Cultural alignment
- Congruence of vision
- Completeness of vision
- Complementary technology
- Commercial opportunity

Combined Power of SAS and Microsoft



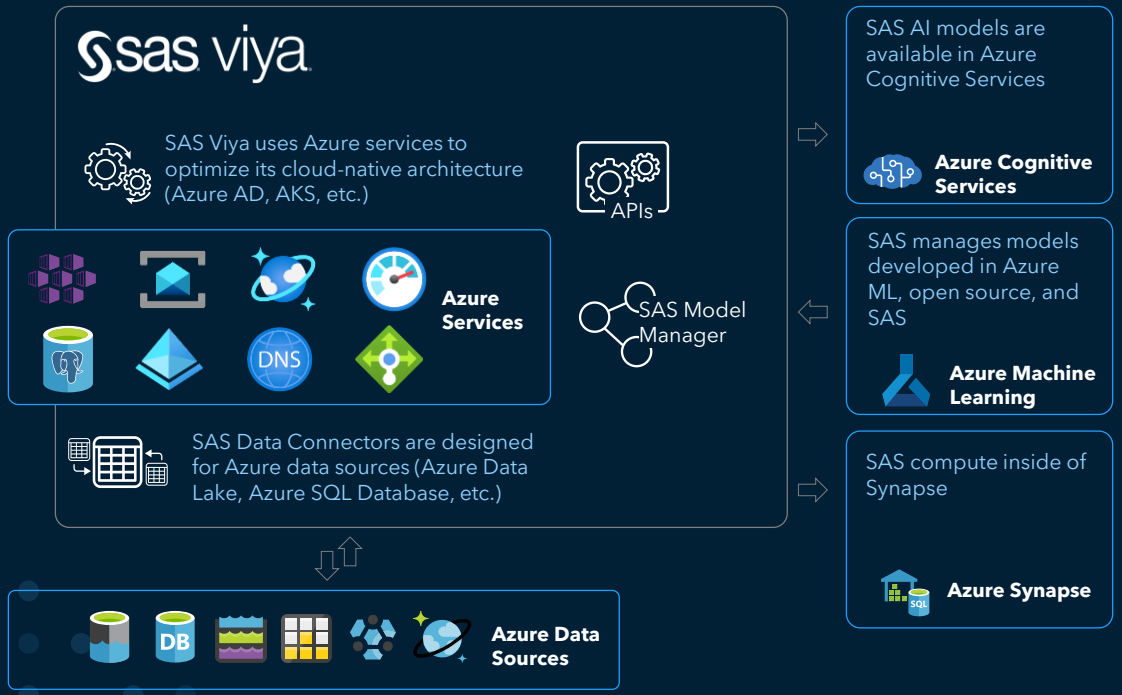
Access, integrate and enrich data from multiple sources with **SAS & Microsoft Synapse.**

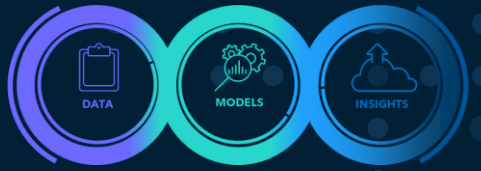
Build analytics pipelines using **SAS, ML and open source** languages with built-in automation & explanation.

Democratize and embed insights across the **entire Microsoft Dynamics and Power Platforms**.

Microsoft Azure

Technology Integration Vision*





Benefits

- **Cloud-native** integration optimized resources
- Easily **access all data**
- **Develop advanced models** with any language
- **Manage and govern** all models across all clouds
- **Accelerate** AI model development and management

* Vision statements do not constitute committed products and functionalities. All information is subject to change.

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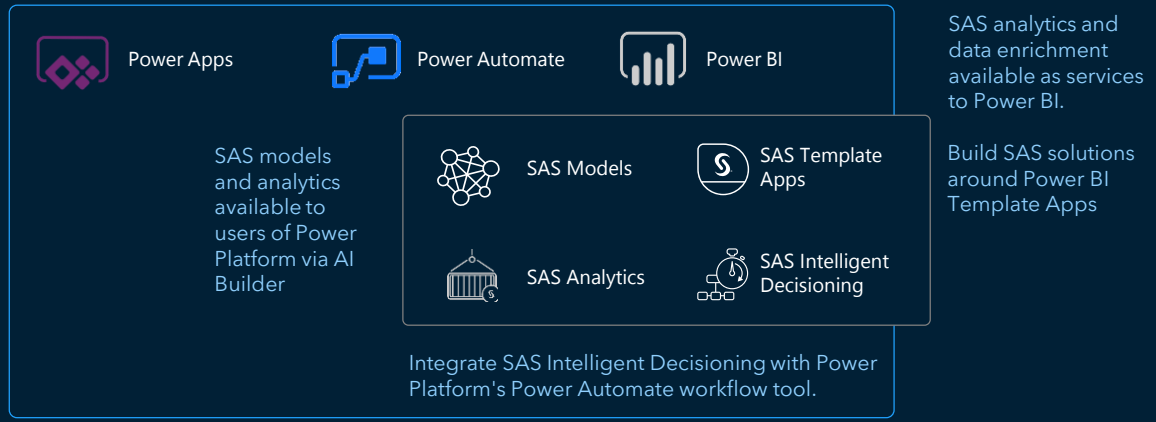
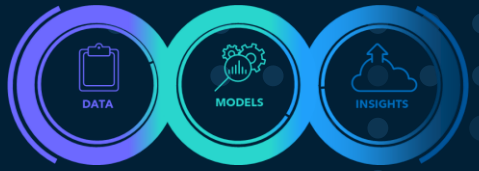
Microsoft Power Platform

Technology Integration Vision*





Benefits

- **Embed SAS models into Power Apps** for analytics behind the scenes
- **Embed SAS Intelligent Decisioning** into business workflows
- Make AI-driven decisions with **SAS AI** and analytics **behind Power BI visualizations**
- **Everyone** of every skill level using analytics to **make decisions**

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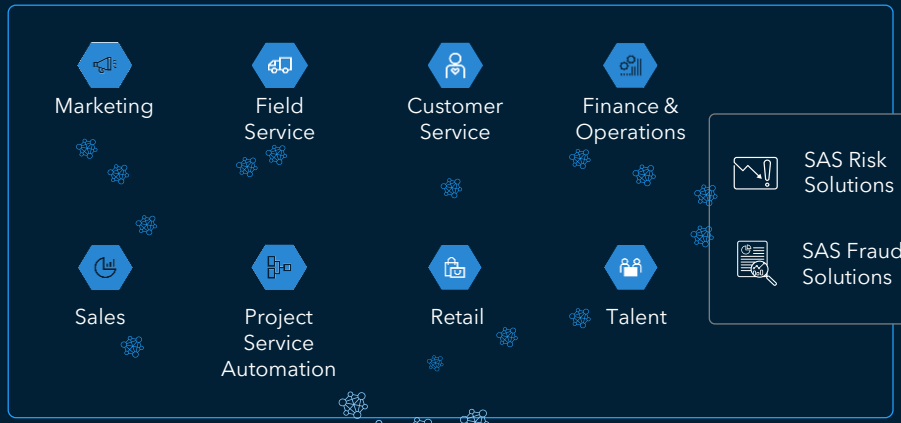
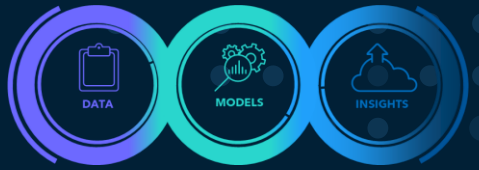
Microsoft Dynamics 365

Technology Integration Vision*



Models built by SAS are **embedded into decisions** across the Microsoft Dynamics 365 Portfolio using data from the Common Data Model.



Benefits

- SAS and Microsoft **co-engineer** new solutions
- Seamlessly move intelligence **from development to production** systems
- **Continuously monitor** and update models
- Implement **high-value use cases** quickly

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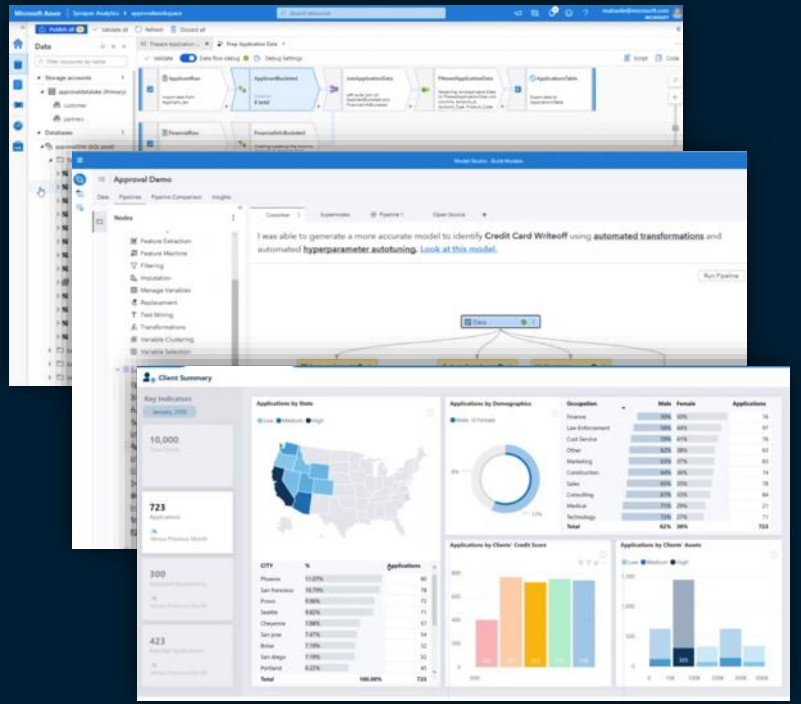
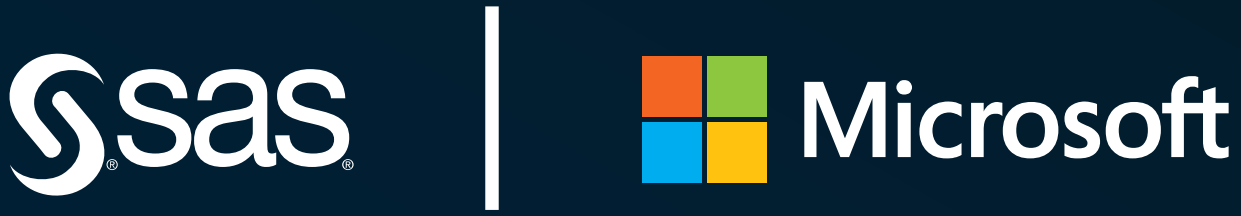
DEMO: Watch These Technologies in Action

Business Scenario: Automation of Loan Approval Using Analytics

- **Data Ingestion and Enrichment** – Using Azure Synapse, data are loaded from sources and enriched
- **Model Build** – Models are built and compared using Model Studio (included in SAS Viya)
- **Model Governance** – Model gets registered to SAS Model Manager, where comparisons with other models can be made
- **Model Deploy** – Model is exported or published to Synapse as ONNX file
- **Model Scoring** – Scoring is done in Synapse using SQL Server PREDICT function
- **Visualization** – Reporting and visualizations are done via Power BI to complete the narrative



Link to Demo Video (5 min)



Questions?

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