SAS® FORUM
RUSSIA 2017

SAS Viya, Аналитическая платформа нового поколения

(the new generation analytical platform)

Mathias Coopmans

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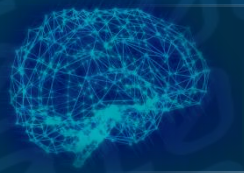
sas
THE POWER TO KNOW®

The analytics economy

Internet of Things

Artificial Intelligence

Machine Learning



Deep Learning

Cognitive Computing

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SAS® Viya™
Our digital transformation
to power the analytics economy

HPA

- Speed up highly complex algorithms
- Scheduled jobs, run in batch
- Single user

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LASR

- Repeatedly run less complex algorithms
- Interactive use of data
- Multi-user
- Hadoop integration

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SAS Viya™

- Solves use cases of HPA and LASR
- Allow processing in memory and on disk
- Deliver highly available, fault tolerant processing

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SAS® Viya™ Early adopter use cases

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Customer Use Case

ORGANIZATION

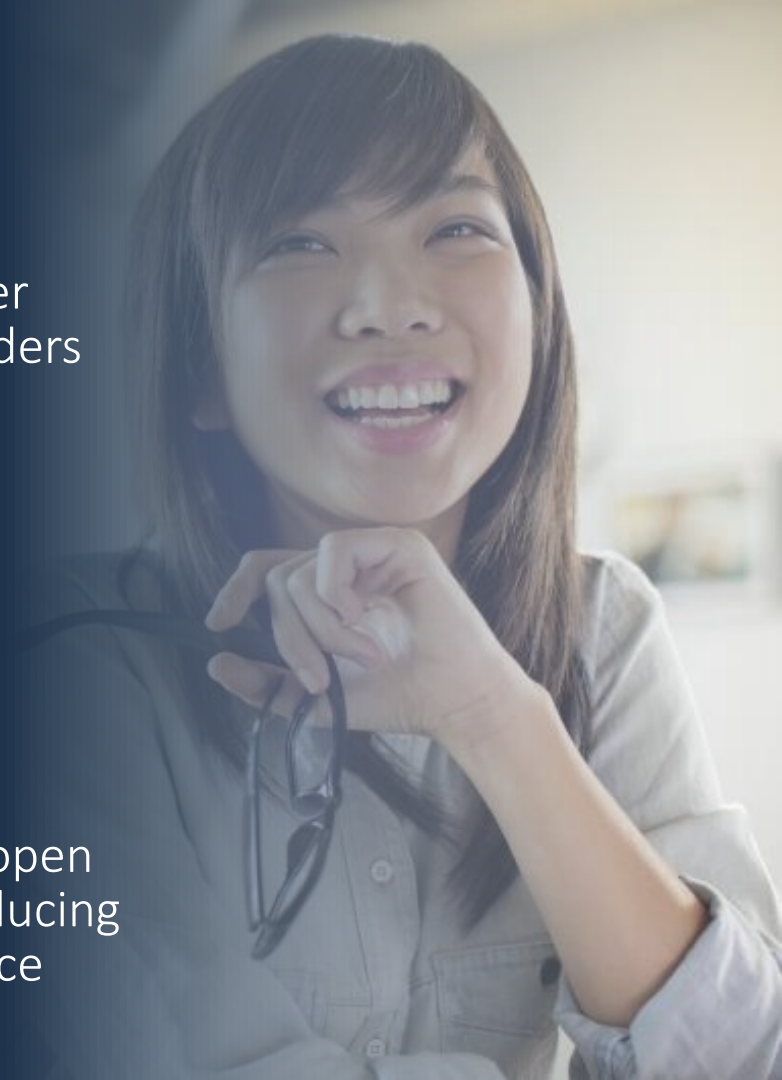
Major telco provider trying to improve customer satisfaction, reduce the occurrence of failed orders

SUCCESS

Faster and better prediction of self install success/failure over open-source model

BENEFIT

New algorithms in SAS Viya out-performed an open source model in both speed and accuracy – reducing failed orders and improving customer experience



Customer Use Case

ORGANIZATION

Technology company using predictive modelling to assist football teams with player scouting

SUCCESS

Able to scale the training of deep learning models for image analysis and push them to production faster in real-time with single platform

BENEFIT

Continue using open source tools, skills while speeding up time-to-market

Customer Use Case

ORGANIZATION

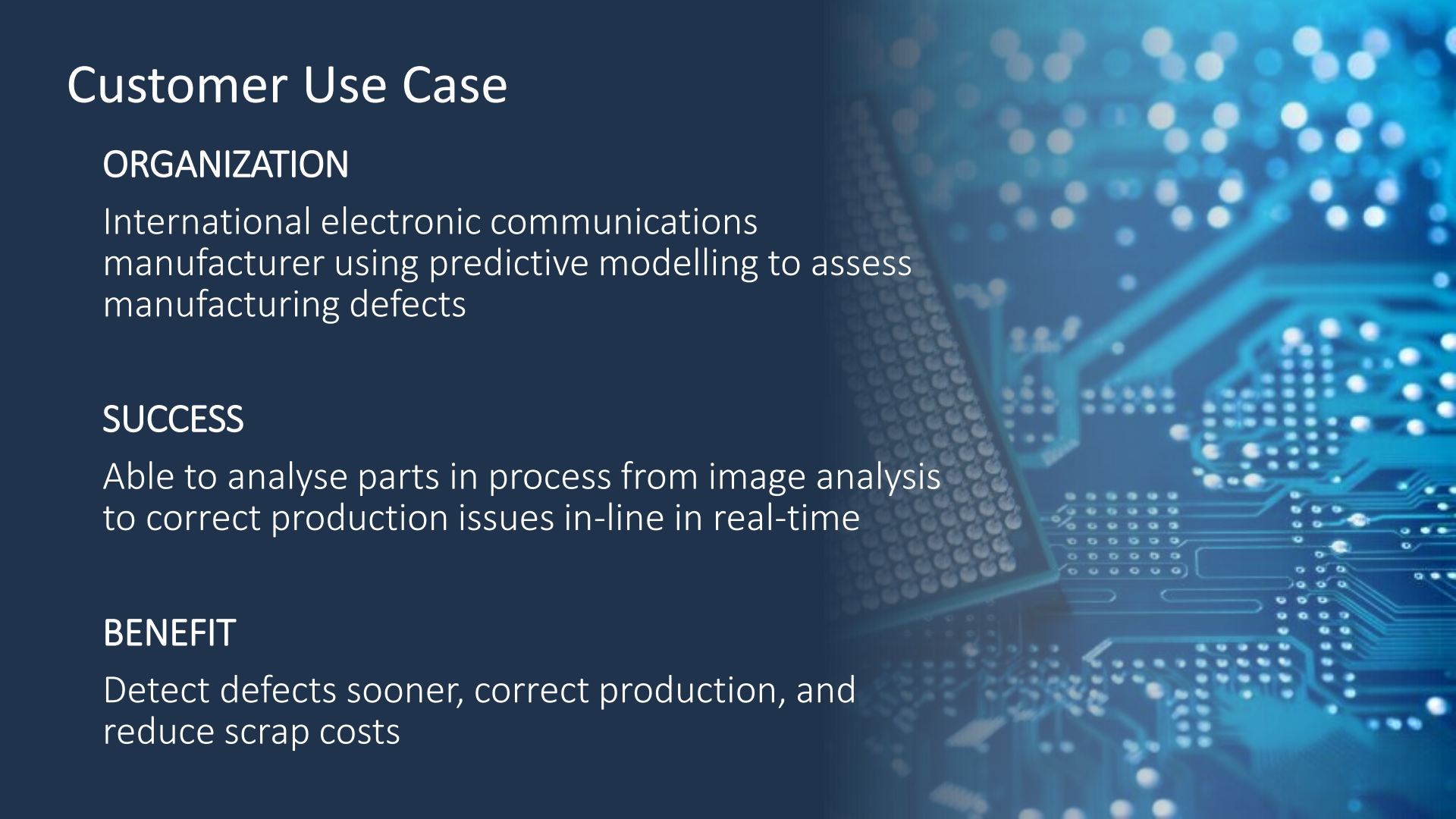
International electronic communications manufacturer using predictive modelling to assess manufacturing defects

SUCCESS

Able to analyse parts in process from image analysis to correct production issues in-line in real-time

BENEFIT

Detect defects sooner, correct production, and reduce scrap costs



SAS® Viya™ technical architecture

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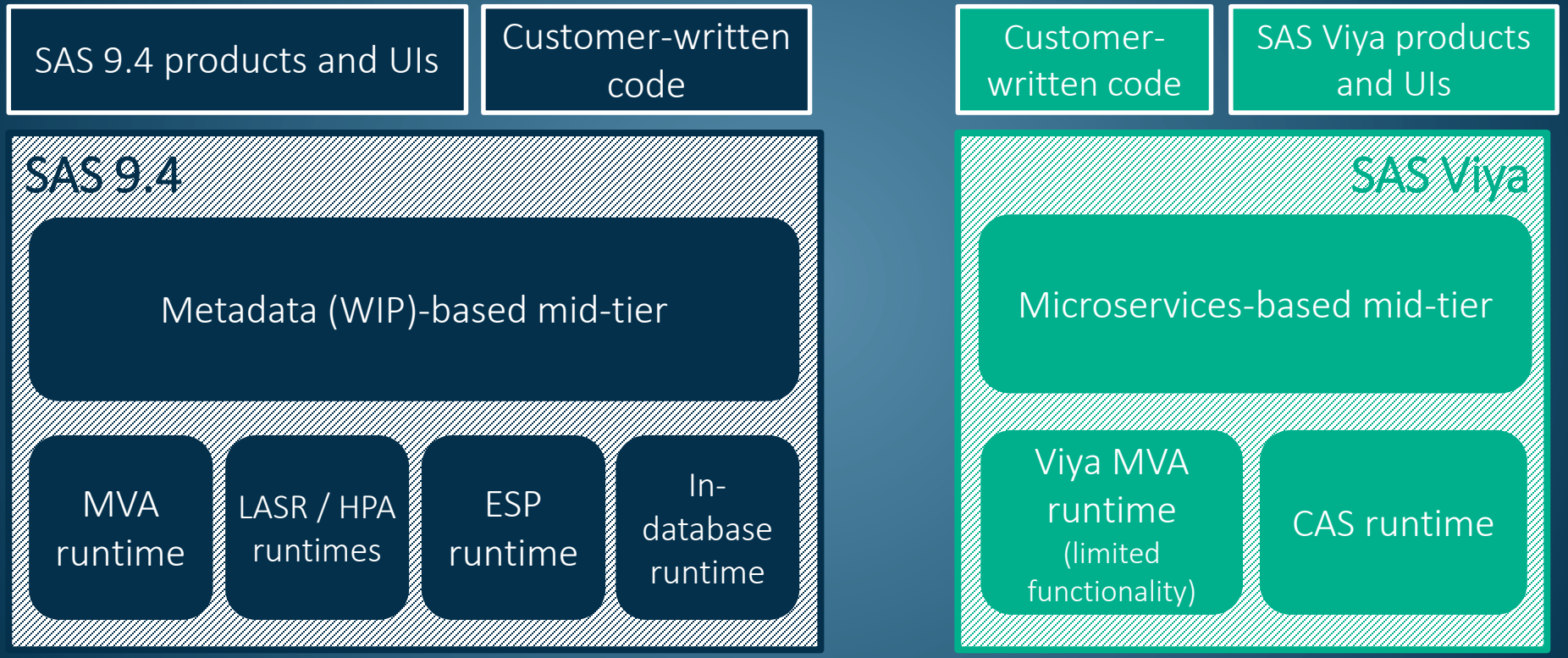
SAS 9 architecture versus Viya architecture



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SAS® Viya™

Source-based Engines

In-Stream

In-Hadoop

In-Database

Parallel & Serial, Pub / Sub, Web Services, MQs

In-Memory Runtime Engine

Cloud Analytics Services (CAS)

Microservices

UAA, Data Source Mgmt, Folders, etc..., BI GUIs, CAS Mgmt, Log, Analytics GUIs, Data Mgmt GUIs, Query Gen, Env Mgr, Model Mgmt, Audit

Solutions

- Customer Intelligence
- Analytics
- Risk Management
- Business Visualization
- Fraud and Security Intelligence
- Data Management

APIs

REST API, python, Java, R, Lua

Platform

CLOUDFOUNDRY, docker, Ci, ANSIBLE, rpm

amazon web services™, Azure, Google Cloud Platform, openstack CLOUD SOFTWARE, vmware, ORACLE CLOUD

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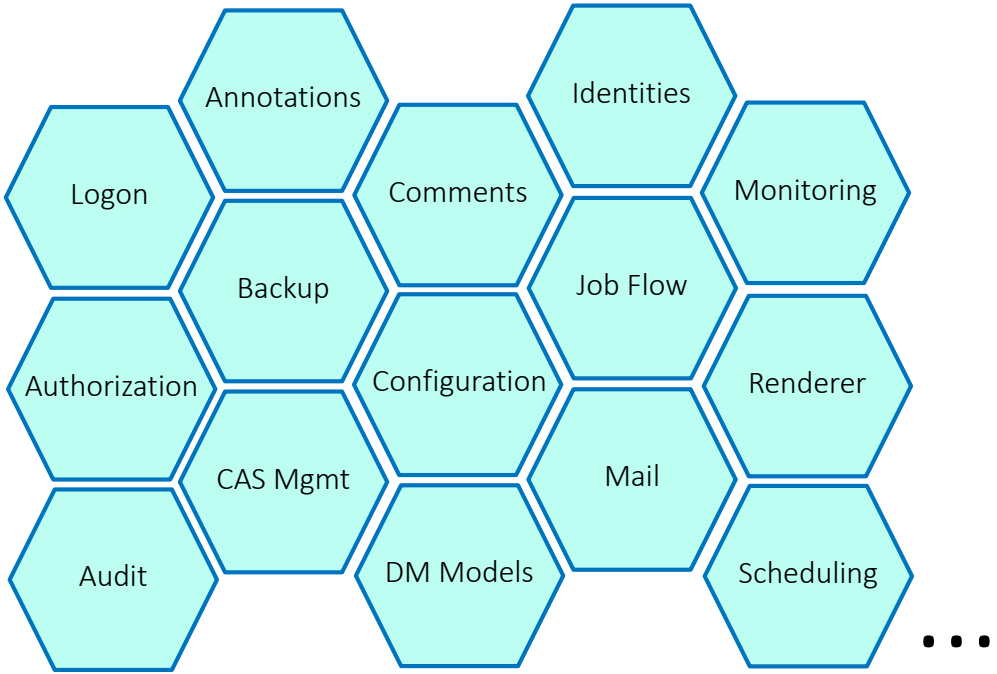
SAS® Viya™ Service Architecture

Microservice Theory and Principles

- Small in focus, if not in size
- Independently updatable



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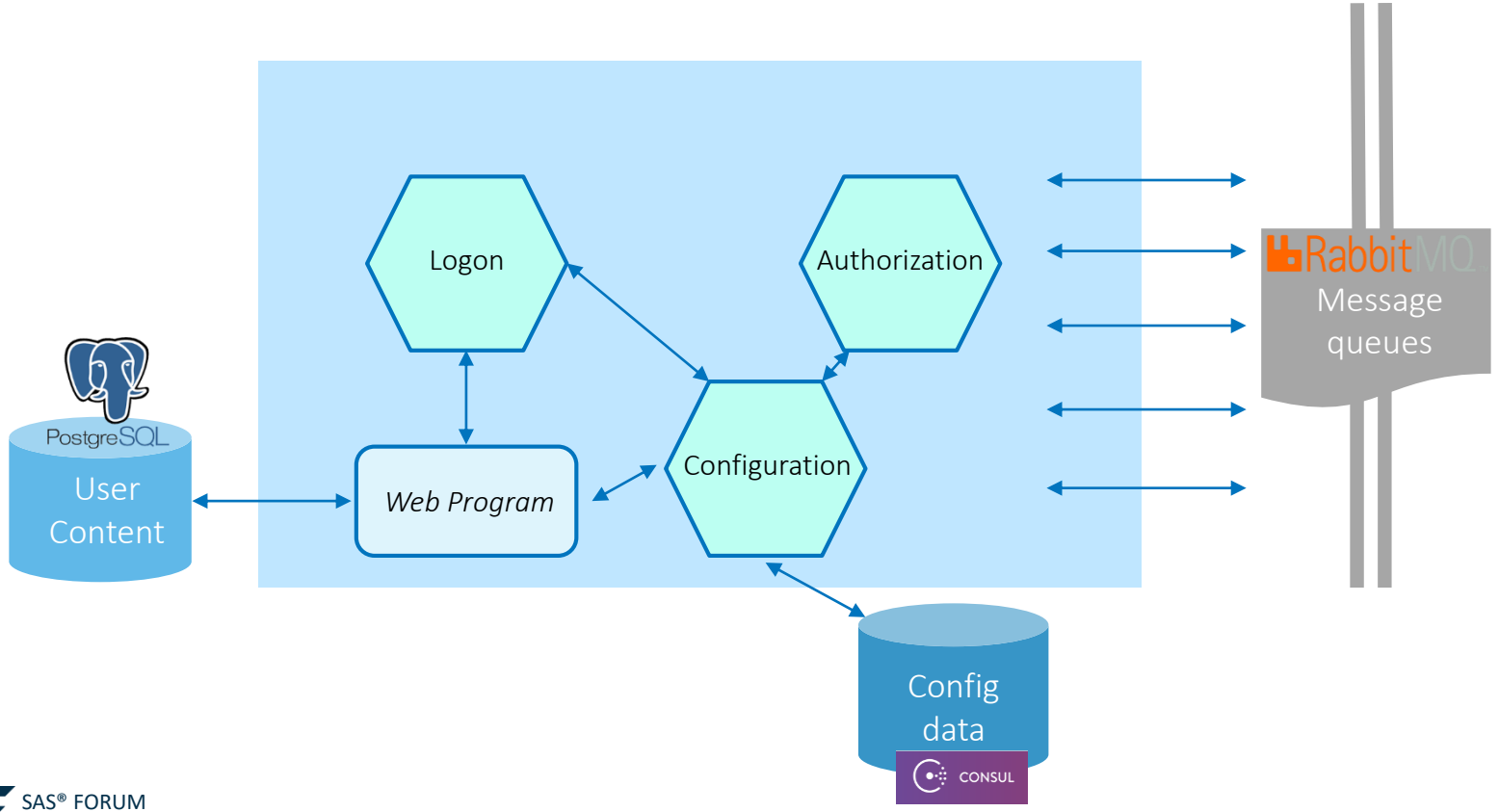
Viya Service Architecture

Persistent Data with Stateful Services



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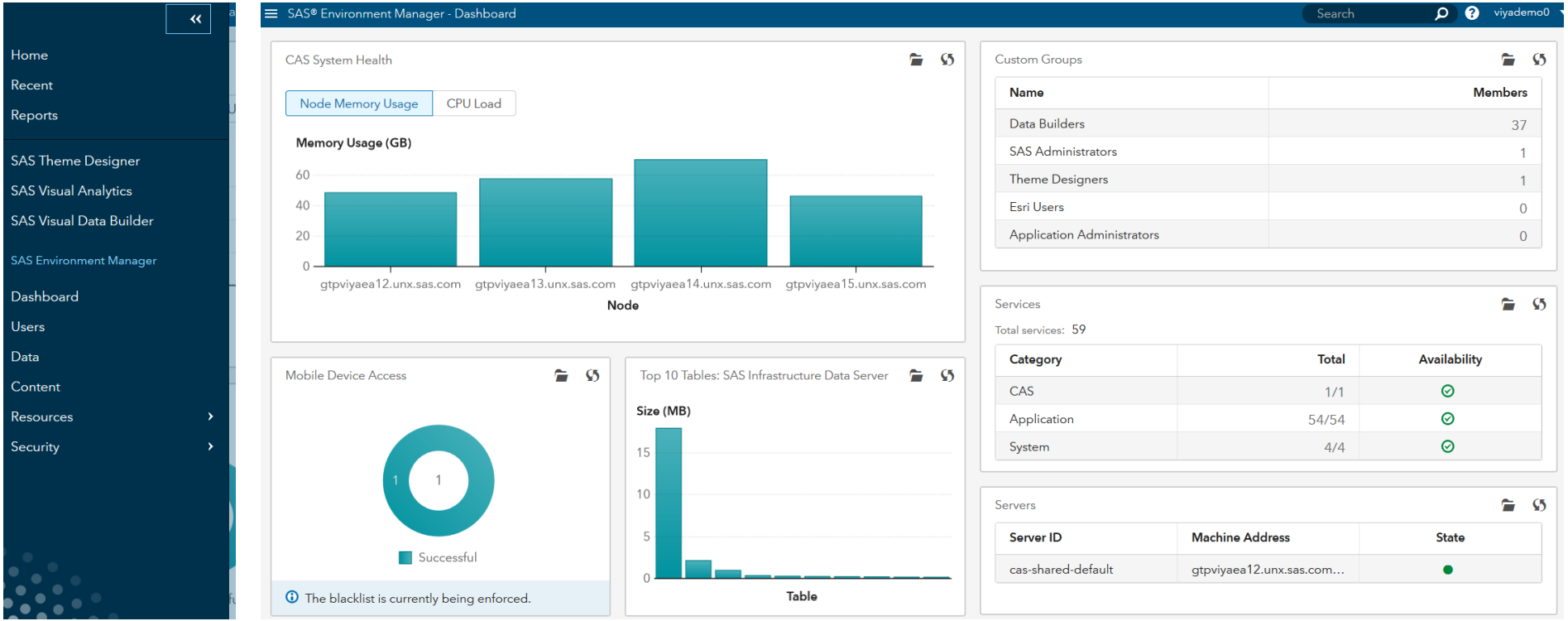
Environment Manager



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SAS® Viya™

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Solutions

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APIs

REST API, python, Java, R, Lua

Platform

CLOUDFOUNDRY, docker, Ci, ANSIBLE, rpm

amazon web services™, Azure, Google Cloud Platform, openstack CLOUD SOFTWARE, vmware, ORACLE CLOUD

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MULTIPLE INTERFACES, ONE CODE BASE

Visual Interfaces

Programming Interfaces

python

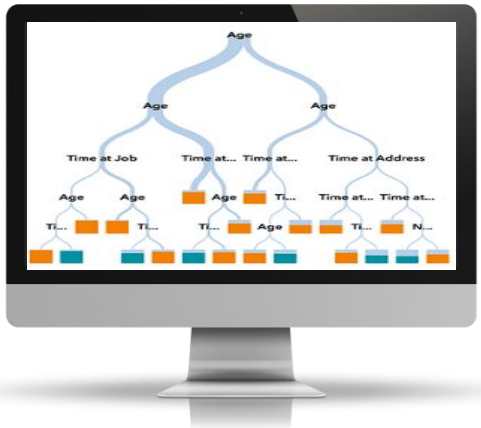
sas

Java

R

API Interfaces

REST API



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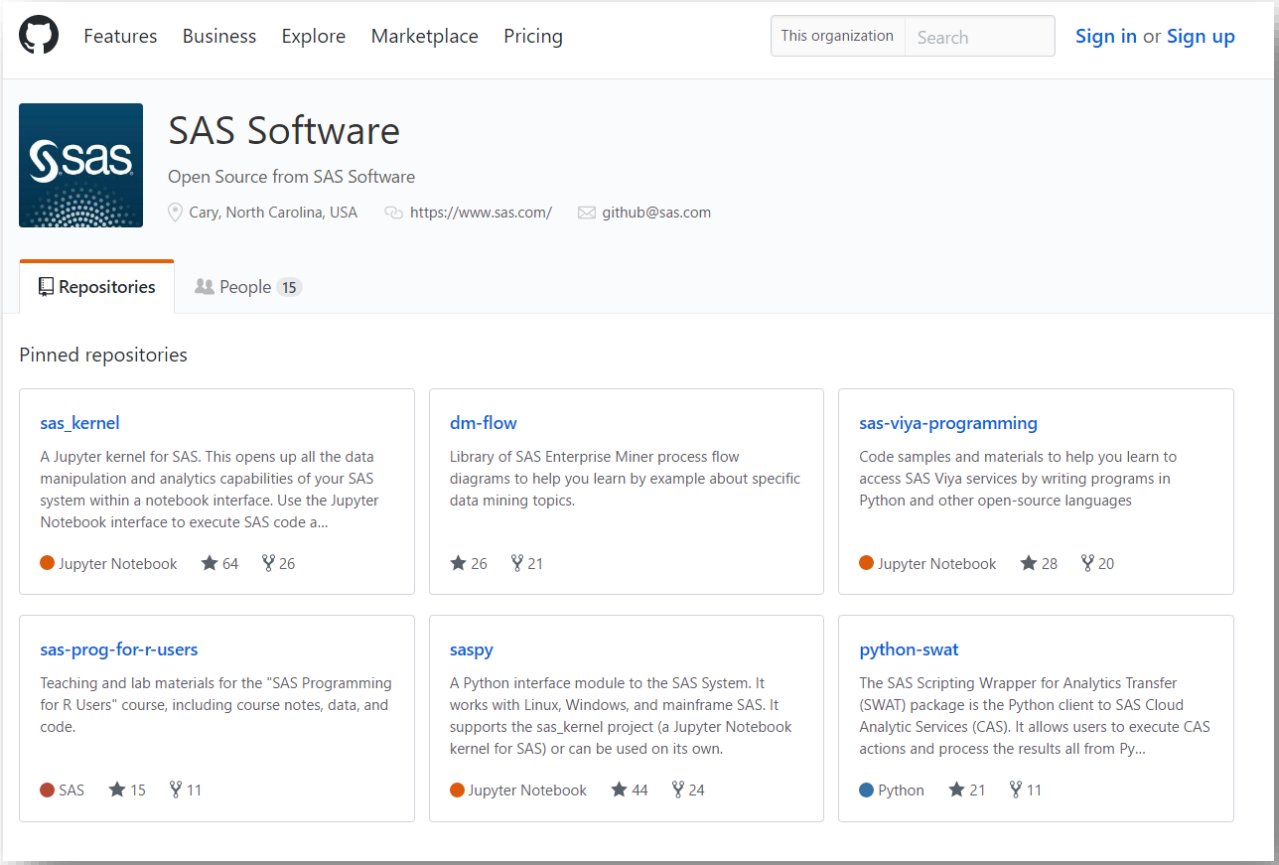
sas

Open Source Repository

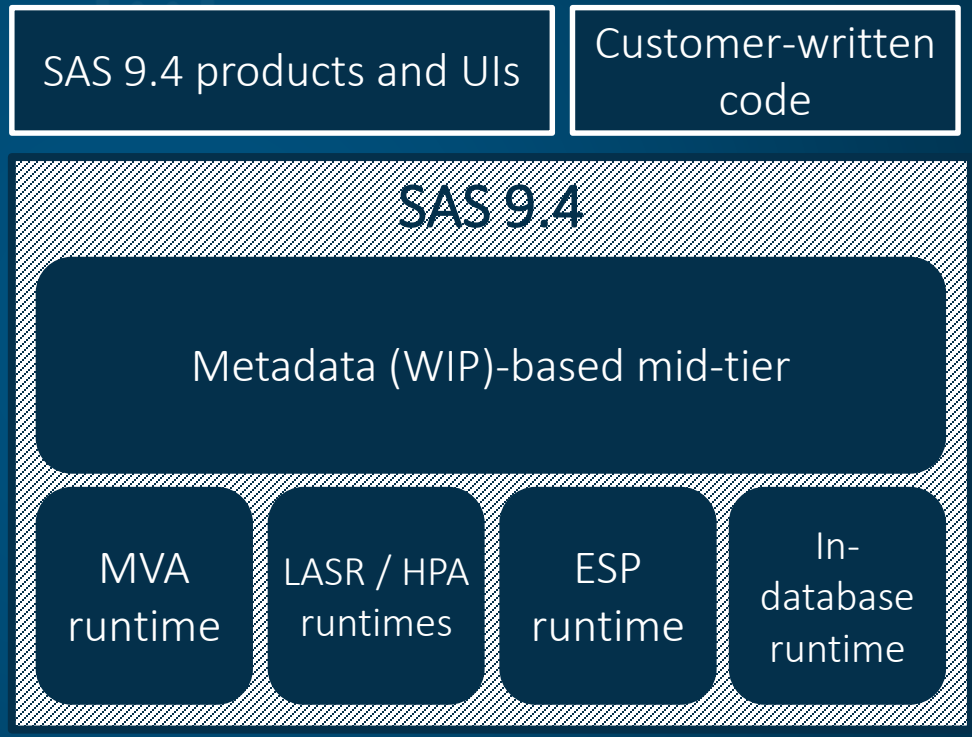
https://github.com/sassoftware



SAS platform strategy

The SAS 9.4 platform

- Support for any analytics use case
- Broad and extensive customer base in production
- Modernization needed to adapt to changing technology, business trends



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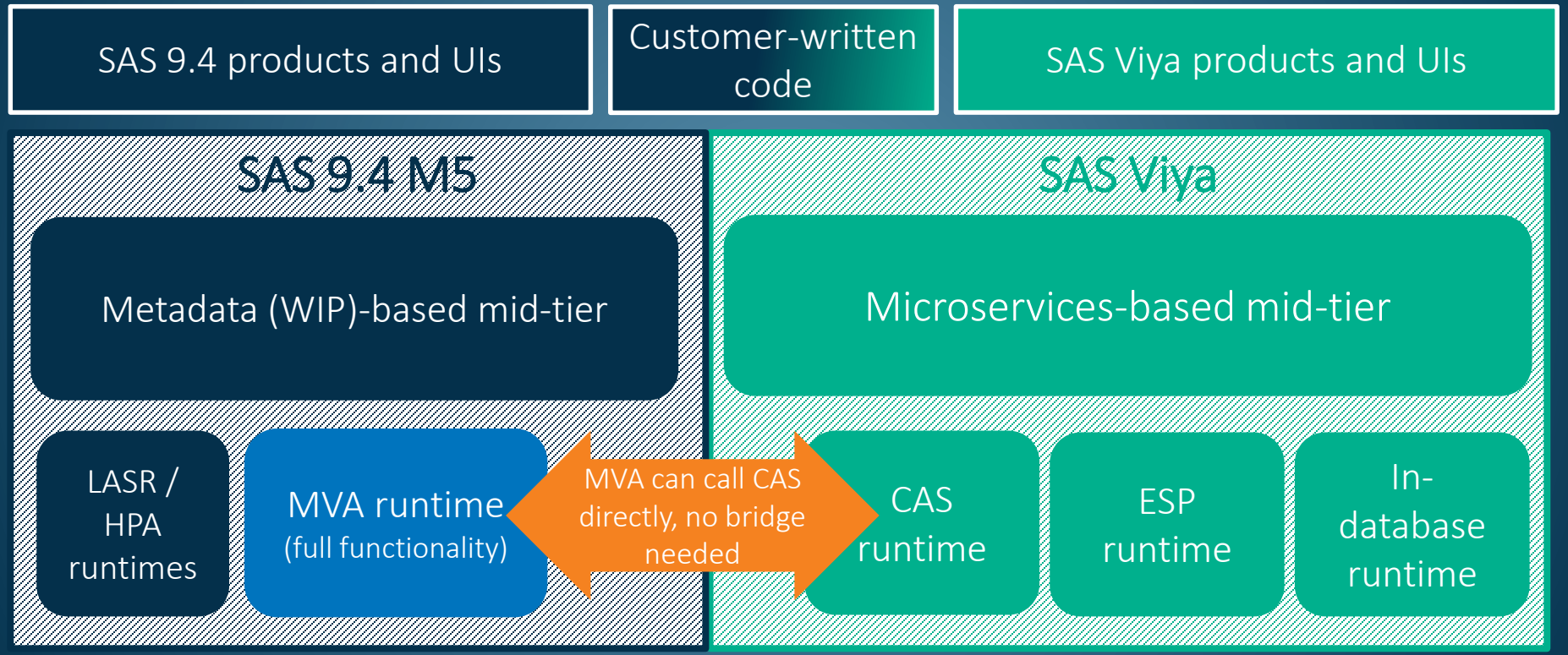
September release platform architecture



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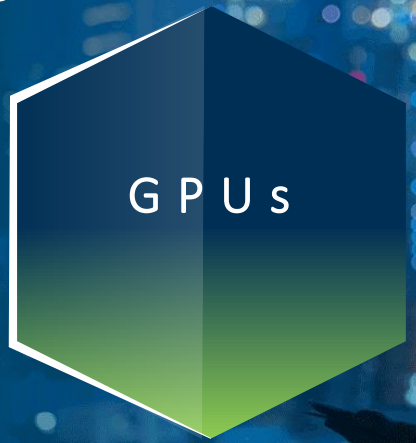
What Comes Next?

AI and cognitive computing

Intelligent automation

Networked data

Ambient analytics



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SAS® 9 and SAS® Viya™ Roadmap

Information is subject to change.

H2 | 2017

SAS 9.4 M5 (Q3)

- SAS 9 & SAS Viya interoperability
- Product releases on 9.4 M5

SAS Viya 3.3 (Q4)

- Visual product family 8.2
- Programming products 8.2
- New offerings include:
  - Visual Text Analytics
  - Model Manager
  - Data Preparation
  - Data Quality
- Visual Investigator 10.3

H1 | 2018

Releases on SAS 9.4 M5

- Small set of solutions require re-release

Viya Deployment Releases

- SuSE Linux
- Cloud automation
- Cloud Foundry update
- Scripted deployment into AWS, Oracle Cloud

SAS Viya 3.4

- Integration, Stability, Performance, Modernization, Transition, and Automation
- New product releases
- Incremental product updates

H2 | 2018

SAS 9.5

- Advanced data types
- Hardened security
- 3rd party update

Releases on SAS Viya 3.4

- Updated product versions
- New offerings

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SAS® FORUM
RUSSIA 2017

Thank you!

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