



# Are you ready for true cloud native computing? Meet SAS Viya 4

Kristoffer Nilsson

[kristoffer.nilsson@sas.com](mailto:kristoffer.nilsson@sas.com)



# SAS Platform & Cloud

## Portfolio Themes

1

**Cloud-Native** – Loosely-coupled, independent, interchangeable, scalable. All with support for continuous delivery.

2

**Open** – Standards-based integration for authentication, other services. REST APIs for interoperability. New MVA for multi-cloud.

3

**Automation** – Deployments of the SAS Platform can fit into GitOps/DevOps processes. SAS compute uses AI/ML to optimize infrastructure resource usage.

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The screenshot displays the SAS My SAS customer portal. At the top, there is a navigation bar with the SAS logo, a user profile for 'Bryan', and various utility icons. Below this is a 'My SAS' section with tabs for 'My Account Overview', 'My Services', 'My Viya 4.0 Orders', and 'My Cloud'. The 'My Viya 4.0 Orders' tab is active, showing a table of orders. The table has columns for 'Tech Support Site Number', 'Customer Site Name', 'Order Number', 'Order Date', 'Update Ready', and 'User Access'. A single order is listed with the following details:

Tech Support Site Number	Customer Site Name	Order Number	Order Date	Update Ready	User Access
70180938	Bryan H	09RN7J	May 19, 2020		

Below the table, there are two main content areas. The left area shows details for 'Bryan H', including 'SAS Viya on Linux for x64' and a table of products with their expiration dates:

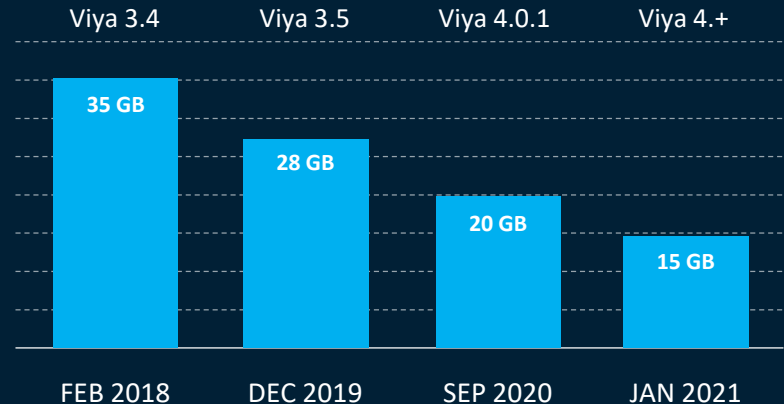
Products	Expiration Date
SAS Visual Analytics (on SAS Viya)	May 19, 2021

The right area is titled 'Order Assets' and shows the version 'Stable 2020.0.1 R/P'. It includes buttons for 'View Documentation', 'Download Deployment Assets', 'Download Certificates', and 'Download License'. At the bottom, there is a dropdown menu labeled 'Select a different version:'.

# Why Viya 4

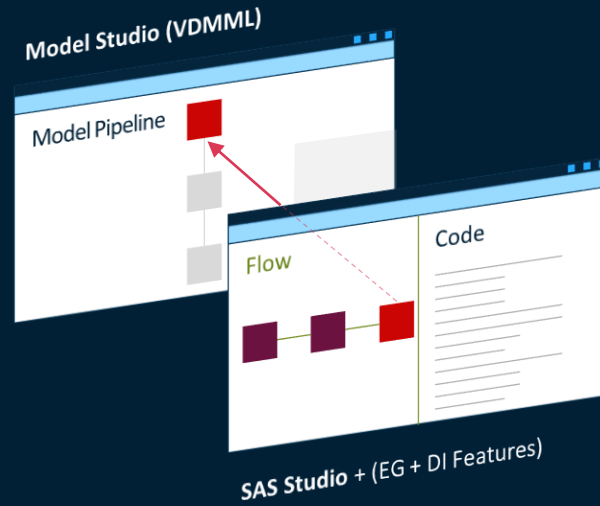
- Containerization of all Viya 4 components
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- Footprint and startup time reduction of microservices

Aggregate Memory Footprint of Viya Microservices  
(no CAS SMP or MPP memory included)



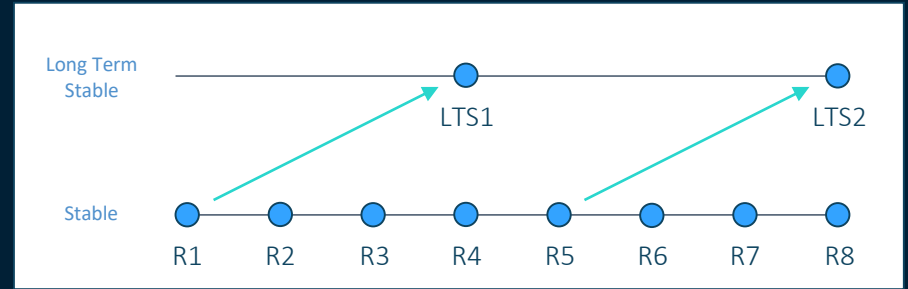
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- Seamless Migration from Viya 3.x to Viya 4
- Continuous delivery supported by all SAS teams



# CONTINUOUS DELIVERY CADENCE

	Stable releases	LTS releases
Frequency	Once a month	Every 6 months
Release includes	New features, changes to features, bug fixes, removal of features, etc.	Based on the stable release from two (2) months prior, which forms the basis of the LTS release candidate.
Support	Current stable release plus three (3) previous stable releases (or four months total)	Current LTS release plus three (3) previous LTS releases. Enables a Technical Support policy of “two years minus a day” which means customers must update at least once every two years.



# CONTINUOUS DELIVERY CADENCE (continued)

	Stable releases	LTS releases
Target customers	<ul style="list-style-type: none"><li>▪ Customers willing to always operate with the most up-to-date features and bug fixes.</li><li>▪ Customers looking to take advantage of the full value that SAS products have to offer.</li><li>▪ Software-as-a-service customers</li></ul>	<ul style="list-style-type: none"><li>▪ Customers who are not yet comfortable with SAS's continuous delivery.</li><li>▪ Customers only willing to upgrade to get new features less frequently, such as once a year.</li><li>▪ Customers who need to validate their environment(s) or who operate in a regulated domain.</li></ul>

# NAMED VERSION NAMES

LONG-TERM SUPPORT RELEASE

2020.1

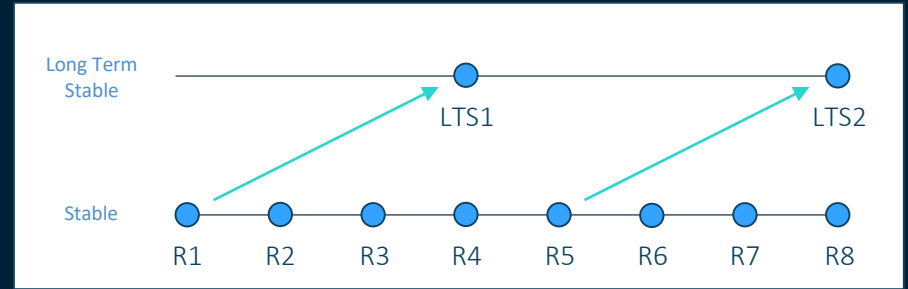
STABLE RELEASE

2020.1.1

- Year-based version name – more “calver” name than semantic number
- Easy-to-understand numbering
- **All versions are aligned.** Instead of Visual Analytics 8.4 and Model Manager 15.3, now Visual Analytics 2020.2 and Model Manager 2020.2.
- Fits into SLAs for critical fixes
- Items in roadmap become items in release notes

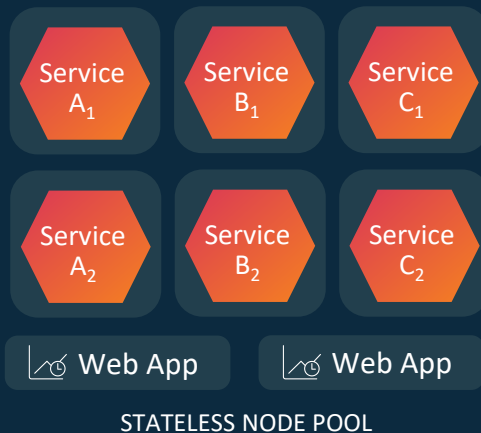
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- Seamless Migration from Viya 3.x to Viya 4
- Continuous delivery supported by all SAS teams
- Infrastructure as Code (IaC)
- Multi-tenancy as the default configuration



# SAS Viya deployed in Kubernetes

## Microservices and Web Apps



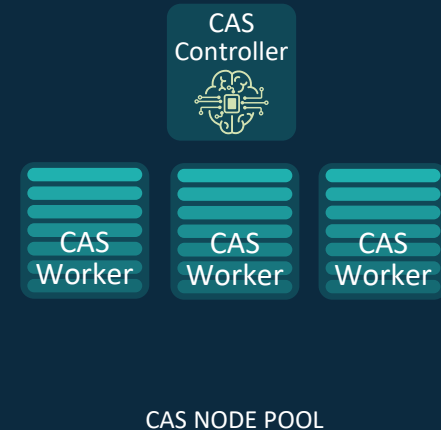
## SAS Compute Services



## Commodity Services



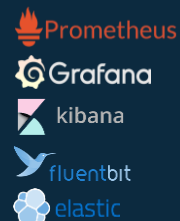
## CAS Cluster



## Ingress

SYSTEM NODE POOL

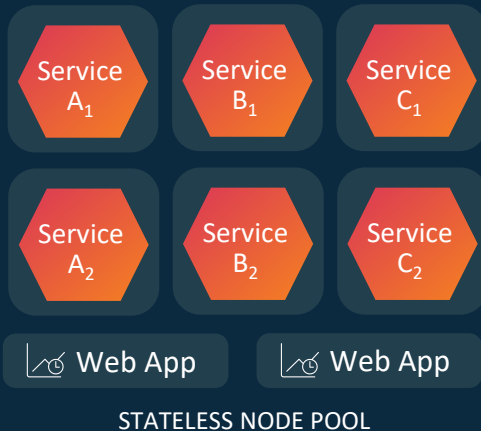
## Monitoring + Logs



OPS4VIYA



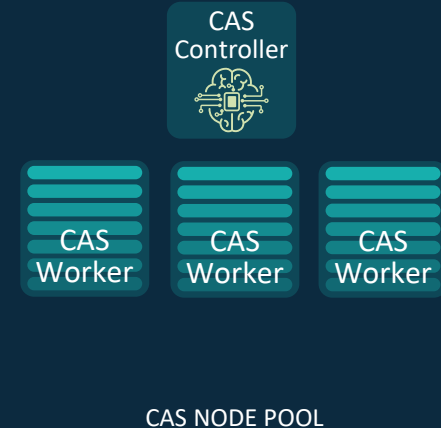
## Microservices and Web Apps



## SAS Compute Services



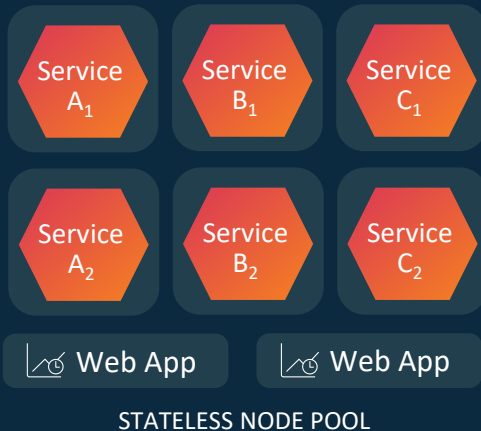
## CAS Cluster



## Azure Kubernetes Service (AKS)

-  Active AD
-  DNS
-  Load Balancer
-  Monitor
-  Service Bus
-  Cosmos DB
-  DB for PostgreSQL

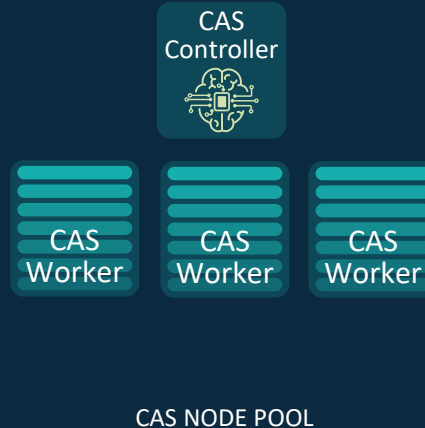
## Microservices and Web Apps



## SAS Compute Services



## CAS Cluster



Elastic Kubernetes Service (EKS)



AWS IAM



Route 53 DNS



Elastic Load Balancing



CloudWatch



Simple Queue Service



Dynamo DB



AWS RDS for PostgreSQL

## Microservices and Web Apps



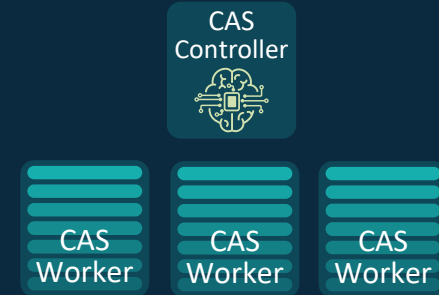
STATELESS NODE POOL

## SAS Compute Services



COMPUTE NODE POOL








## CAS Cluster



CAS NODE POOL



Google Kubernetes Engine (GKE)

-  Cloud IAM
-  Cloud DNS
-  Cloud Load Balancing
-  Monitoring
-  Cloud Pub/Sub
-  Cloud Datastore
-  Cloud SQL for PostgreSQL



**Thankyou!**