

# SAS Innovate on tour 2024

Presentation from SAS Education in the Programmer's Corner Cloud

## sas **innovate** on tour 2024

AI ist, was du draus machst: Erlebe spannende Aus-  
die neuesten Trends und faszinierende Innovationen  
und Praxis von und mit Entscheidern, Experten und

**5. Juni in Frankfurt**

Exklusiv für Anwender:

Tools & Tricks für KI-Technologie in der praktischen Anwendung

### Programmers' Corner - Cloud

Für Entwickler

■ 14:00 Uhr

#### **SAS Managed Next Gen**

*Rainer Sternecker, SAS*

■ 14:20 Uhr

#### **SAS Cloud Data Exchange**

*Markus Trunk, SAS*

■ 14:40 Uhr

#### **Learning Subscription für SAS Architektur und Deployment**

*Beate Prellwitz, SAS*



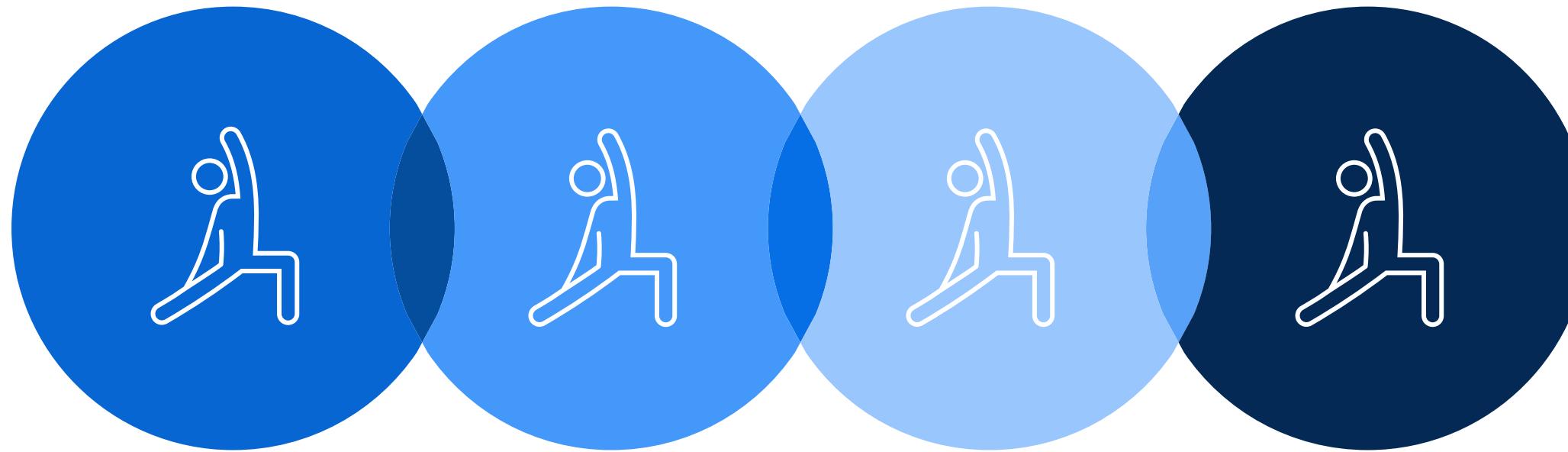
# Eure Meinung ist gefragt zu – SAS Architecture and Security Learning Subscription for Viya

Beate Prellwitz: SAS Customer Training Advisor



# SAS Cloud Exchange – Wie baue ich mein Wissen dazu auf ?

Schritt für Schritt



## 1 Überblick

Aus dem Vortrag - Summary

## 3 SAS Community Library

[SAS Cloud Data Exchange for the SAS Viya Platform](#)

## 2 Welche Ressources gibt es ?

[SAS Help Center: Cloud Data Exchange for the SAS Viya Platform: Administrator's Guide](#)

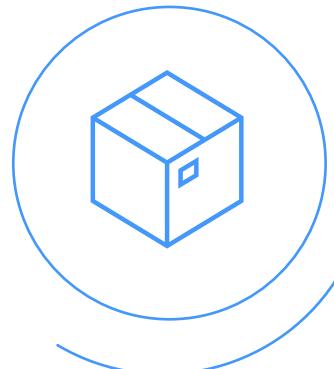
## 4 Gibt es eine Learning Subscription dazu?

[SAS Trainings Seite](#)

# Cloud Data Exchange

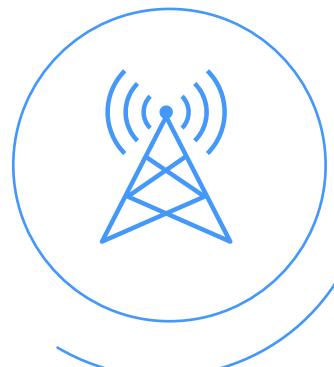
## Summary

1



### Install Remote Data Agent

- Docker (OCI) Container
- SAS Container Registry



### Configure Communication

- Certificates
- Firewalls, Reverse Proxy for RDA



### Finalize Configuration

- Define Administrators and Power Users
- Deploy RDBMS clients



### Define Connections

- CLI
- Security



### Create Libnames/Caslibs

- Type : Cloud Data Exchange
- Dynamic data access for Libname



### Use Viya as normal

- Complexity hidden from users
- CAS Action Set to move sets of data

# Resources

2

- SAS Document :

SAS Cloud Data Exchange (CDE) Administrator Guide

[SAS Help Center: Cloud Data Exchange for the SAS Viya Platform: Administrator's Guide](#)

Remote SAS Data Agents Deployment Guide

[SAS Help Center: Remote SAS Data Agent: Deployment and Administration Guide](#)

LIBNAME Engine for CDE: User's guide

[SAS Help Center: LIBNAME Engine for Cloud Data Exchange for the SAS Viya Platform: Users Guide](#)

3

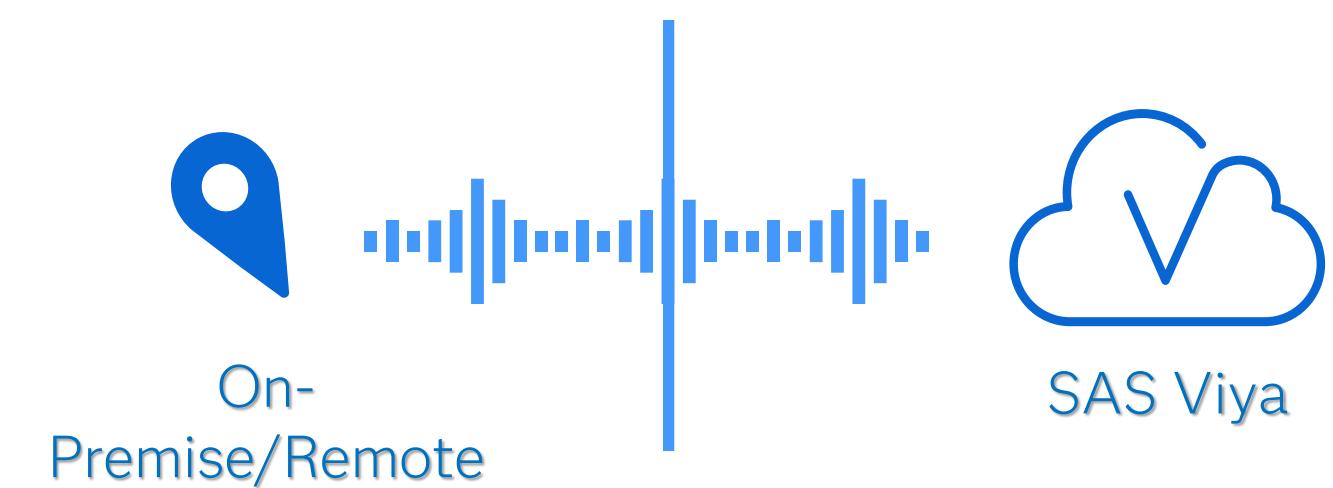
- SAS Communities Library

[SAS Cloud Data Exchange for the SAS Viya Platform](#)

4

- SAS Learning Subscription

[SAS Viya: Cloud Data Exchange \(sas.com\)](#)



[https://www.sas.com/de\\_de/training/overview.html](https://www.sas.com/de_de/training/overview.html)

Browse our catalog

The screenshot shows the SAS Training website. At the top, there's a navigation bar with links for Software, Learn, Support, Partner, and Über SAS. On the right side of the bar are icons for search, language (German), email, a grid, and user profile. Below the navigation is a dark blue header bar with a "Courses" dropdown, a search bar containing "What do you want to Learn?", and links for Overview, Programs, Corporate Training, My Training, and a shopping cart. The main content area features a large background image of a person looking at a computer screen displaying the SAS interface. Overlaid on this image is the text "SAS® Training" and "Build your career with curated learning paths designed to help you master analytics skills". At the bottom left are two buttons: "Browse our catalog" and "Choose your career path". The footer contains the copyright notice "Copyright © SAS Institute Inc. All rights reserved." and the "sas innovate on tour" logo.

SAS® Training

Build your career with curated learning paths designed to help you master analytics skills

Browse our catalog

Choose your career path

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# Learning Types

## Learning Path – SAS Content Learning Subscriptions

The screenshot shows the SAS LEARN platform interface. On the left, there is a sidebar with various filters:

- Courses dropdown
- What Do You Want to Learn? search bar
- Visual and Business Analytics dropdown
- Skills dropdown:
  - Administration
  - Advanced Analytics Professional using SAS 9
  - Advanced Machine Learning in SAS Viya
  - Advanced Programming
  - Advanced Regression
- Levels dropdown:
  - Advanced
  - Beginner
  - Fundamental
  - Intermediate
  - No level
- Learning Types dropdown (circled in red):
  - Certification Prep
  - Course
  - Learning Path (selected)
- Price dropdown:
  - Free
- Certifications dropdown:
  - Advanced Predictive Modeling
  - Advanced Programming Professional
  - Clinical Trials
  - Data Curation
  - Data Integration
- Software Products dropdown:
  - Base SAS
  - DataFlux Data

The main area displays a grid of 16 learning subscription cards, each featuring a "LEARNING PATH" icon:

- SAS 9 Data Management Learning Subscription
- SAS Administration Learning Subscription
- SAS Advanced Analytics Professional Subscription
- SAS Advanced Machine Learning Subscription
- SAS Advanced Programming Professional Subscription
- SAS Advanced Regression Learning Subscription
- SAS AI and Machine Learning Professional Subscription
- SAS Architecture and Security Subscription (circled in red)
- SAS Biostatistics Learning Subscription
- SAS Customer Intelligence Learning Subscription
- SAS Data Curation Professional Subscription
- SAS Data Engineering Learning Subscription

# SAS Architecture and Security Subscription



## SAS Architecture and Security Subscription

These architecture and security courses are designed for technical architects, administrators, and systems engineers responsible for designing and implementing SAS Viya environments that are secure and fit for purpose.

[ENROLL FREE](#)  
7-Day Trial

[Overview](#) [Courses](#) [Products](#) [Certification](#)

### About this Subscription

This learning subscription includes the training that you need to gain knowledge about the SAS Viya platform. SAS Viya is deployed within Kubernetes and can be configured in various ways. Knowing how to design and secure the environment will ultimately ensure that the person in a technical architecture or administrative/operations role will benefit from engaging with this learning subscription.

Learn how to:

- Understand the overarching technical architecture of SAS Viya.
- Identify key architecture considerations when implementing Viya.
- Identify the factors that exist within a given architecture topic.
- Identify the patterns that exist for inbound and outbound authentication for use.
- Configure Viya for each of the authentication patterns.
- Identify the patterns that exist for encryption in-motion.
- Configure Viya for each of the encryption patterns.
- Leverage SAS Workload Orchestrator to manage SAS Compute Server workloads.
- Use SAS Workload Orchestrator to specify different nodes and nodepools for general and high-performance workloads.

### Courses Included in Subscription

**Security**

1

- COURSE** Advanced Topics in Encryption on SAS Viya [SHOW MORE ↗](#)
- COURSE** Advanced Topics in Authentication on SAS Viya [SHOW MORE ↗](#)

**Architecture**

2

- COURSE** SAS Viya Architecture [SHOW MORE ↗](#)
- COURSE** Viya Integration with SingleStore: Architecture and Deployment Guidance [SHOW MORE ↗](#)
- COURSE** SAS Viya: Cloud Data Exchange [SHOW MORE ↗](#)
- COURSE** SAS Container Runtime: Architecture and Deployment on Azure Cloud [SHOW MORE ↗](#)
- COURSE** Architecture and Administration for SAS Workload Management on SAS Viya [SHOW MORE ↗](#)

# SAS Architecture and Security Subscription

## Overview - Video

### SAS Viya: Cloud Data Exchange

English

ViyaLTS2023.10

The screenshot shows the course overview for "SAS Viya: Cloud Data Exchange". The left sidebar contains a "CONTENTS" tree with sections like "Workshop Overview", "01 Introduction", and "02 Cloud Data Exchange Ecosystem". A large circular graphic in the center says "Introduction: Workshop Objectives" and has a blue "ENROLL" button. The bottom navigation bar includes tabs for "Overview", "Hands-On Lab", and "Course Materials". The overall theme is dark with teal and grey accents.

### SAS Viya: Cloud Data Exchange

Duration: 10.5 hours

The SAS Cloud Data Exchange enables SAS users to connect and access data from a co-located database or from an on-premises database. The Cloud Data Exchange enables users to securely exchange on-premises data from behind a firewall to the SAS Viya platform in the cloud. All data transfer/exchange occurs on secured standard-based communications along with sophisticated authentication and authorization. The on-premises data center requires a single port opened through the firewall to facilitate the data exchange.

THIS COURSE IS PART

# SAS Architecture and Security Subscription

## Hands On Lab – Üben in einer Lab Umgebung

The hands-on lab is preconfigured to support this course and will not support hands-on practice for all your enrolled courses.

 Hands-On Lab Reservation System

When you are planning your study time, keep in mind that the virtual lab takes 60-75 minutes to start

Before you can access the hands-on lab, please read and acknowledge that you have read the documentation.

 Documentation

**Submit**

# SAS Architecture and Security Subscription

## Course Materials



### Activities and Practices (with Solutions) for SAS Viya: Cloud Data Exchange

Course Code: DE326W, prepared date: February 6, 2024  
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#### Lesson 01

##### SAS Viya: Cloud Data Exchange

###### Lesson 01, Section 0 Exercise: 01 022 Validate Workshop Environment

#### Validate the Workshop Environment

For this SAS Viya 4 - Cloud Data Exchange Workshop, you will have access to your own SAS Viya 4 environment. The environment includes one dedicated Windows client and Linux machine on RACE and several Linux machines on Azure VM machine for AKS environment.

Your access into the environment will be through the Windows machine. From that Windows machine, you will use the browser and terminal emulation software to access the backend environment.

#### When is my Workshop Collection ready?

After you book the workshop collection in the RACE application, many steps come into play:

- RACE machines are started
- Numerous tools are being installed, including Kubernetes
- SAS Viya is then deployed, configured and customized

This takes time, usually between 60 and 90 minutes.

⚠️⚠️ Do NOT open Chrome until the collection is ready. If you open Chrome early, it will not be updated correctly. ⚠️⚠️

#### Checking the Windows Client

- Connect to the Workshop Windows Client, give it a few seconds to initialize and then check for the following background message:



# SAS Architecture and Security Subscription

## Course Materials



### Activities and Practices (with Solutions) for SAS Viya: Cloud Data Exchange

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Click on it to be directed to the appropriate Gitlab repository that contains the documents for this workshop. From this client machine you can copy+paste the instructions directly from the hands-on document.

#### Lesson 02

##### SAS Viya: Cloud Data Exchange

###### Lesson 02, Section 0 Exercise: 02 011 Update AKS NSG With Jump Server PublicIP

###### Update AKS NSG with AKS Jump Server Public Ip

- [Log In to Azure Dashboard and locate the AKS Resource Group](#)
- [Collect Public Ip of Jump VM server](#)
- [Update AKS NSG group with Public Ip of Jump VM server](#)

Purpose of this hands-on is to update the in-bound rule of AKS cluster NSG group with Jump Server Public Ip. In this workshop, Azure Jump server is considered as Remote Data Agent Server. This server will host CDE Remote Data Agent. To establish communication between Remote Data Agent and CDE, it requires the NGS update.

###### Log In to Azure Dashboard and locate the AKS Resource Group

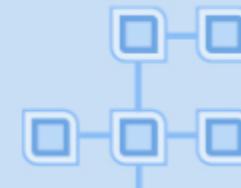


# SAS Content Subscription

1.030 Euro oder 2.060 Euro pro Person für 12 Monate

## SAS Studio Learning Subscription

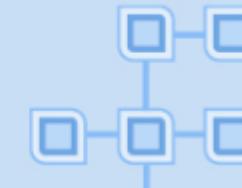
For SAS programmers, statistical programmers, and novice users who want to use SAS Studio to develop SAS code, build visual flows to process data, or perform basic statistical analysis. Novice users can use pre-defined tasks to generate SAS code.



2060 Euro

## SAS Administration Learning Subscription

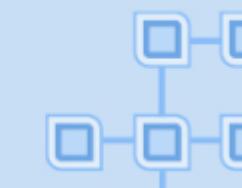
For SAS administrators responsible for installing and configuring SAS software at their company site, monitoring performance, managing employee access, and troubleshooting issues.



2060 Euro

## SAS Advanced Machine Learning Subscription

For machine learning modelers who are well versed in machine learning basics and want to go deeper. These advanced machine learning courses address many different types of models and their applications in artificial intelligence.



2060 Euro

## SAS Programming Learning Subscription

For programmers, statistical programmers, and data analysts who want to build a strong SAS programming foundation to manipulate data, perform complex queries and simple analyses, and create reports.



1030 Euro

Es gibt aktuell 28 Content Learning Subscriptions.  
Diese enthalten ca. 5 – 20 E-learnings.

# SAS Learning Subscription

4.280 Euro pro Person für 12 Monate – für alle verfügbaren E-learnings

## Learning Subscription €4280 EUR per user/year

200+ On-Demand Courses*	•
Certification Practice Exams and Prep Guides*	•
Shareable Digital Badges	•
Hands-on Lab Hours	•
Progress Reports	•

# Fragen

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