What’s New in Administration of SAS Viya 3.5: Highlights

Here are the key administrative features that are introduced in SAS Viya 3.5:

- The disk and memory footprint of SAS Viya has been reduced. Much of this has been achieved by combining microservices. In certain SAS Environment Manager views, you will see a shorter list of services.

- Promoting content from SAS Viya to SAS Viya is enhanced with a new inventory plug-in to the sas-admin command-line interface.

- A new health check service (healthcheck) is provided as a sas-admin plug-in.

- Licensed users can use the Job Flow Scheduler in the Jobs and Flows section of SAS Environment Manager to create and manage complex flows. The entry Jobs in EV becomes Jobs and Flows if you have a SAS Job Flow Scheduler license.

- Jobs for scheduling or including in a flow can be created from a SAS DATA step program.

- The contents of the Application Menu on the left have been significantly revamped.
SAS Viya supports additional import file types: Parquet and orc.

Kerberos constrained delegation restricts the services that another service can access on behalf of a user.

Okta can be configured as an OpenID Connect provider.

SAS Studio has two flavors: SAS Studio (Basic) and SAS Studio (Enterprise). SAS Studio (Basic) is used in a programming-only environment and SAS Studio (Enterprise) is used in a full environment.

Here are the Encryption for data in motion highlights.

- SAS Viya supports TLS on the Linux and Windows operating environments. SAS Viya uses Operating System libraries provided and installed on your operating system to provide encryption.
- To provide the highest level of security, SAS Viya tries to use four ciphers by default. However, depending on the operating system that you are using, SAS might need to use other secure ciphers.
- SAS Viya supports TLS on the Object Spawner.
- The self-signed certificates provided by SAS Viya now have a seven-year expiration time.

To access Esri Premium Services, SAS Visual Analytics must have an identity that can log in to the Esri server and must be able to validate the credentials. Any SAS Visual Analytics deployment that uses Esri Premium services needs to configure outbound internet access using new JVM options.

See Also

“What’s New in Administration of SAS Viya 3.5: Details” on page 2

What’s New in Administration of SAS Viya 3.5: Details

This topic provides details. A summary of highlights on page 1 is available.

Authentication


- Okta support can be enabled for OpenID Connect. See “Authentication: OpenID Connect with Okta Scenario (Linux Full Deployment)” in SAS Viya Administration: Authentication.

- To access Esri Premium Services, SAS Visual Analytics must have an identity that can log on to the Esri server and must be able to validate the credentials. Any SAS Visual Analytics deployment that uses Esri Premium services needs to configure outbound internet access using the new JVM options.
options. See “Configure the Web Data Access Service to Use a Forward Proxy Server to Allow Validation of Esri Premium Service Credentials” in SAS Viya Administration: External Credentials.

Authorization

- In the command-line interface to CAS authorization, new commands support bulk addition and deletion of direct access controls for a specified caslib or table. See “Managing Access Controls (Bulk Approach)” in SAS® Viya Administration: CAS Authorization.

- In the command-line interface to CAS authorization, you can reference a table by its source file name (for example, --table tableA.sashdat) instead of its in-memory name (for example, --table tableA). This feature is relevant for tables in path-based caslibs.

Backup and Restore

- You can cancel a backup using the Cancel button in the user interface or with the CANCEL command in the CLI.

- The accessControl.createBackup action has a new TABLES parameter. See “Create backup” in SAS Viya: System Programming Guide for more information.

Command-Line Interfaces

- You can monitor the machines and services in your SAS Viya system with the new healthcheck plug-in to the sas-admin CLI. See “Monitoring: How To (CLI)” in SAS Viya Administration: Monitoring.

- You can inventory your SAS Viya system and publish the results to a system report in SAS Environment Manager with the new inventory plug-in to the sas-admin CLI. See “CLI Examples: Inventory” in SAS Viya Administration: Using the Command-Line Interfaces.

- You can do the following with the cas plug-in to the sas-admin CLI:
  - You can create caslibs based on the following additional sources:
    - SAS Data Agent server
    - Microsoft SQL Server
    - JDBC data source
    - User-specified source
    - Note: See “Manage Caslibs” in SAS Viya Administration: Using the Command-Line Interfaces.
  - Import and load a file into CAS as a table. See “Manage Tables” in SAS Viya Administration: Using the Command-Line Interfaces.

- You can load a font directly with the fonts plug-in to the sas-admin CLI. See “Examples” in SAS Viya Administration: Using the Command-Line Interfaces.
Encryption

Here are the key administrative features for encryption for data in motion.

- SAS Viya supports TLS on the Linux and Windows operating environments. SAS Viya uses Operating System libraries provided and installed on your operating system to provide encryption. SAS Viya uses the OpenSSL implementation for TLS protocols and Microsoft Cryptography API: Next Generation (CNG) BCrypt libraries that come with the Windows operating system to provide the TLS protocols.

- To provide the highest level of security, SAS Viya tries to use the following four ciphers by default. However, depending on the operating system that you are using, SAS might need to use other secure ciphers.
  - TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
  - TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
  - TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
  - TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

- SAS Viya supports TLS on the Object Spawner. Post deployment, the administrator needs to take additional steps to configure TLS on the Object Spawner.

- In the July 2019 release of SAS Viya, the self-signed certificates provided by SAS Viya have a seven-year expiration time. In prior releases of SAS Viya, the self-signed certificates expired in one year.

Jobs and Flows

Job Flows

In SAS Environment Manager, the Jobs and Flows page enables you to create, edit, and schedule jobs flows. A job flow is a group of jobs, dependencies, and conditions that are organized in a sequence and can be scheduled as a group. Flows contain objects (such jobs, gates, and events) and connections (that define the order in which objects are evaluated in the flow).

Note: If you have a license for SAS Job Flow Scheduler, the page is titled Jobs and Flows, and you can monitor and schedule jobs and view, edit, and schedule job flows. If you do not have a SAS Job Flow Scheduler license, the page is titled Jobs, and you can monitor and schedule only jobs.

A flow can contain any of these objects:

- Job
  - Any job that is available for scheduling. A job can be included only once in a flow.

- Job flow
  - A previously created job flow

- AND gate
  - A conditional step that is met only if all of the input conditions are met. For example, if Job A and Job B are inputs to an AND gate and Job C is the output, Job C runs only when Job A and Job B successfully complete.
OR gate
A conditional step that is met if any of the input conditions are met. For example, if Job A and Job B are inputs to an OR gate and Job C is the output, Job C runs when either Job A or Job B successfully complete.

Time event
A trigger that occurs at a specified time or on a specified schedule. The event is true each time that its conditions are met, but an object connected to a time event (such as a job) runs only the first time that the conditions are met.

Command line action
A command that is sent to the operating system command line and executed as a step in the flow.

Object connections
After you add objects to the flow, you make connections to specify the order and conditions under which the objects are evaluated in the flow. Connecting two jobs creates a job dependency, in which the second job running depends on the first job completing.

After you create a flow, you can execute it right away or specify time-based triggers to execute the flow at certain times and intervals.

Creating a Job from a SAS DATA Step Program
The Jobs or Jobs and Flows window enables you to create a job from a SAS DATA step program. After you create the job, you can execute it, schedule it or include it in a flow.

Promotion
- In SAS Environment Manager, when promoting a folder for which general authorization rules (such as user or group permissions) have been defined, those authorizations are now promoted.
- Export content that does not surface in a SAS Environment Manager folder, such as SAS Visual Analytics data views or SAS Theme Designer themes, can be found under Content ➔ SAS Content ➔ Products ➔ SAS Visual Analytics ➔ Resources.

Services
- To reduce the footprint of SAS Viya some services have been merged into logical groups. For example, the CAS Proxy service and the CAS Management service have been combined into a CAS Administration service, and the Search service and Search Index service have been merged into a new Search service.
- In certain SAS Environment Manager views you will see the services listed by their new groupings, for example in logging. In other views you will still see the services broken out into their original individuals, for example in the services list.
- One way to see how services have been merged is to view them on the Availability section of the SAS Environment Manager Dashboard. When you click on an individual service instance you will see the Service listed. If this service has been merged you will also see a Host service. This host service is the name of the merged service. When starting a stopping services, use the host service name.