



Some info from Technical Support

Update License on SAS Viya 3.x with applicable SAS Solution(s)

How to contact SAS Tech Support: New video



Updating license in SAS Viya 3.x

SAS Viya provides a license in two file formats:

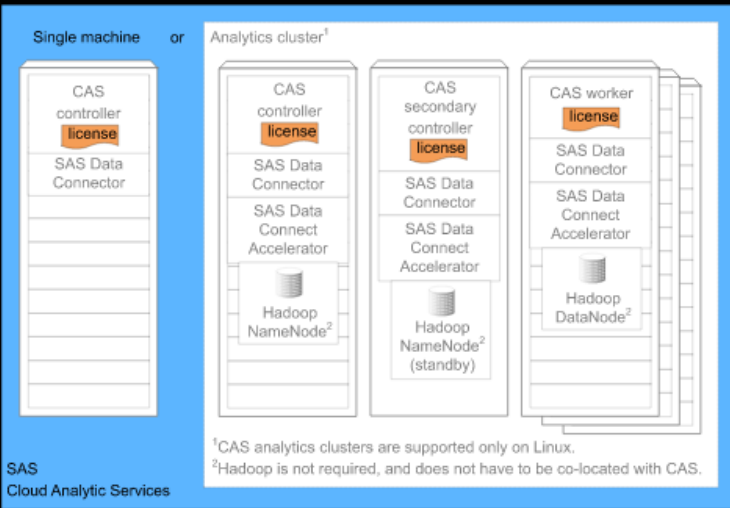
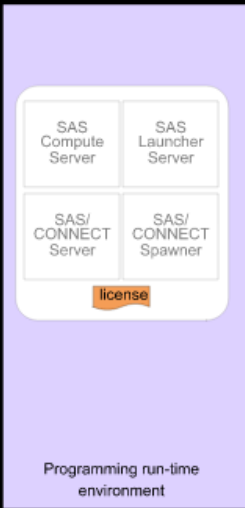
1. A traditional text file, and
2. a new JSON web token file.

The JSON file includes the **same information** as the text file, and enables additional licensing information to be provided. Some SAS Viya products use the text file format. Other products use the JSON file format. Both SAS Cloud Analytic Services (CAS) and the SAS programming run-time environment use the same license.

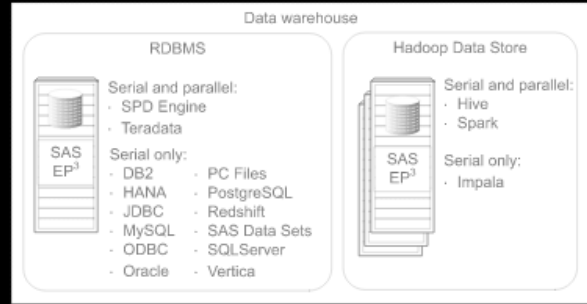
Updating license in SAS Viya 3.x

During installation, a license is applied to both the CAS in-memory compute engine and the SAS programming runtime environment. You apply a new license to enable new products or to extend expiration dates on existing products.

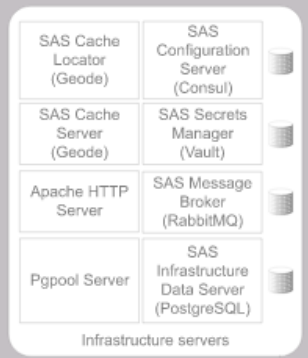
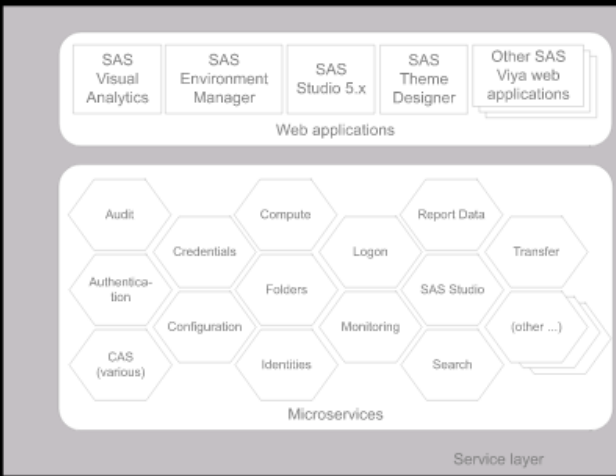
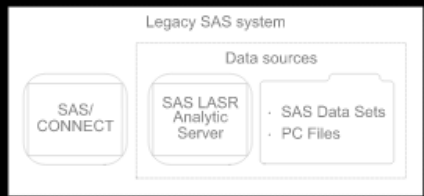
The following diagram identifies where the license file resides in SAS Viya.



¹CAS analytics clusters are supported only on Linux.
²Hadoop is not required, and does not have to be co-located with CAS.



³SAS Embedded Process is not required for serial connections.



Updating license in SAS Viya 3.x

Apply New Licenses Using Ansible

You apply a new SAS license when your current license has expired, or when you are adding new SAS products to your deployment. If your deployment was performed using Ansible, you can use Ansible to apply a new license. Ansible applies your new license to the CAS controllers—primary and backup—and also to the SAS programming run-time environment.

Updating license in SAS Viya 3.x

1. Log on to your Ansible controller machine with a user that meets the requirements in [Set Up the User Account that Deploys the Software in SAS Viya for Linux: Deployment Guide](#).
2. Move the current license files into a backup location.
Copies of your current license files should reside in your Ansible playbook directory (`sas_viya_playbook/`, by default).
The license files are named, `SASViyaV0300_order-number_site-number_Linux_x86-64.jwt` and `SASViyaV0300_order-number_Linux_x86-64.txt`.
3. SAS distributes renewal licenses to customers as file attachments in a renewal order email (ROE). Make sure that your new license files (a `.txt` file and a `.jwt` file) reside in your Ansible playbook directory.

Note: Some SAS Viya products use the text file (`.txt`). Other products use the JSON web token file (`.jwt`). Both SAS Cloud Analytic Services (CAS) and the SAS programming run-time environment use the same license.

4. Modify your Ansible playbook to point to the new license files.
Open `sas_viya_playbook/vars.yml`, locate `LICENSE_FILENAME` and `LICENSE_COMPOSITE_FILENAME`, and replace the current license filename with the corresponding new license filename.

Note: The JSON web token license file (`.jwt`) is also referred to as a composite license.

Updating license in SAS Viya 3.x

5. Run the following Ansible command for the default inventory file:
`ansible-playbook apply-license.yml`

IMPORTANT If you deployed additional CAS servers, run the `ansible-playbook` command with the `-i` option using the appropriate inventory file.

CAS sessions created after you apply the new license automatically update with license information from the new license.

6. Verify that your SAS Cloud Analytic Services license has been renewed by following the steps in [View SAS Cloud Analytic Services License Information](#).
7. Verify that your SAS programming run-time license has been renewed by following the steps in [View SAS Programming Run-Time License Information](#).
8. If you deployed additional CAS servers, then perform Step 5 – Step 6 on your additional controller and your additional backup controller machines.
9. If you deployed CAS servers in a multi-tenant environment, then use the following command for each tenant that you want to license:

```
ansible-playbook -i inventory.ini -e "@<tenantID>_vars.yml" utility/apply-cas-tenant-license.yml
```

Updating license in SAS Viya 3.x

Apply New Licenses Manually

You apply a new SAS license when your current license is about to expire, or when you are adding new SAS products to your deployment. You must apply your license to all CAS controllers—primary and secondary—and also to the SAS programming run-time environment.

- On the machine where the SAS programming run-time environment is deployed, log on as a user that meets the requirements in *Set Up the User Account that Deploys the Software in SAS Viya for Linux: Deployment Guide*.
- Move the current license files into a backup location. Your current license files reside in `/opt/sas/spre/home/SASFoundation/`. The license file is named `license`.
- SAS distributes renewal licenses to customers as file attachments in a renewal order email (ROE). Make sure that your new license files (a `.txt` file and a `.jwt` file) reside in location that is accessible from your SAS programming run-time machine. Note: Some SAS Viya products use the text file (`.txt`). Other products use the JSON web token file (`.jwt`). Both SAS Cloud Analytic Services (CAS) and the SAS programming run-time environment use the same license.
- Run the following command to apply the license to your SAS programming run-time environment (example):

```
sudo su -s "/bin/sh" -c  
"/opt/sas/spre/home/SASFoundation/utilities/bin/apply_license  
/opt/sas/installfiles/SASViyaV0300_09MMMV_70180938_Linux_x86-64.jwt" sas
```

where `path` is the location where the new license file resides. You will receive a message that your license has been applied.

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Apply New Licenses Manually

- Verify that your SAS programming run-time license has been renewed by running “PROC SETINIT; RUN;” in the code tab, and submit. Check log.
- On the machine where the CAS controller is deployed, log on as a user that meets the requirements in [Set Up the User Account that Deploys the Software](#) in *SAS Viya for Linux: Deployment Guide*. E.g. “Super user (sudo) or root access” + Appropriate permissions to create subdirectories in the directory where you saved the playbook. The recommended path is `/sas/install/sas_viya_playbook`. + A home directory.
- Make sure that your new license files (a .txt file and a .jwt file) reside on your CAS controller machine in the following directory: `/opt/sas/viya/config/etc/cas/default/`

IMPORTANT On machines that contain additional CAS servers, the path for the license file is `/opt/sas/viya/config/etc/cas/cas-instance-name`.

Updating license in SAS Viya 3.x

Apply New Licenses Manually

- Update the symbolic link for sas_license.txt to point to the new CAS license file. (This should be the .jwt file.) Here is an example:

```
cd /opt/sas/viya/config/etc/cas/default
ln -sf SASViyaV0300_09MMMV_70180938_Linux_x86-64.jwt sas_license.txt
```

Here is an example for an additional CAS server:

```
cd /opt/sas/viya/config/etc/cas/casserver2
ln -sf SASViyaV0300_09MMMV_70180938_Linux_x86-64.jwt sas_license.txt
```

CAS sessions created after you apply the new license automatically update with information from the new license file.

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Apply New Licenses Manually

- If you are running a multi-tenant deployment and have multiple CAS servers on a single machine, *a) make sure that your new license files (a .txt file and a .jwt file) reside on your CAS controller machine and b) Update the symbolic link for sas_license.txt to point to the new CAS license file as mentioned above, for each tenant instance of the CAS server (for example, /opt/sas/tenant-1/config/etc/cas/default, /opt/sas/tenant-2/config/etc/cas/default, and so on).*
- The same (*a*) and (*b*) is needed to repeat for each CAS worker node machine if you have a distributed CAS server. You also need to ensure that the user meets the proper requirements as mentioned above. Verify that your SAS Cloud Analytic Services license has been renewed by logging onto SAS and submit:

```
cas casauto;  
cas casauto listabout;
```

- Check log.
- If you deployed a CAS backup controller (also referred to as a secondary controller), then perform these step on your backup controller machine as well.
- If you deployed additional CAS servers, then perform these steps on your additional controller and your additional backup controller machines.
- Check the administration documentation for your SAS Viya product in case there are additional steps required for applying a license.

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Apply New SAS Data Agent Licenses

SAS Data Agent has special licensing instructions. Apply a new SAS Data Agent license with the following steps:

- Determine which machines are assigned to the DataAgent host group. This information is found in the `sas_viya_playbook/inventory.ini` file.
- On each of these machines, copy the new text license file to `/opt/sas/viya/config/etc/dagentsrv/default/setinit.txt`.
- Ensure that ownership of this file is `sas:sas` and Read and Write permissions are set to mode `660`.
- Restart the `sas-viya-dagentsrv-default` service.
- In multi-tenant environments, repeat these steps for each tenant to update the file at `/opt/sas/tenant/config/etc/dagentsrv/default/setinit.txt`, set the owner of the file as the tenant administrator, and restart `sas-tenant-dagentsrv-default` on each tenant.

Updating license in SAS Viya 3.x

Apply New License (Windows)

You apply a new SAS license when your current license is about to expire, or when you are adding new SAS products to your deployment. The license file is used by both SAS Foundation and SAS Cloud Analytic Services (CAS).

Log on to the SAS Viya machine as a user that is a member of the Windows Administrators group.

Move the current license files into a backup location. Copies of your current license files should reside in the directory where your SAS Viya deployment scripts were created.

The license files are named, `SASViyaV0300_order-number_Win_x64_Wrkstn_Srv.jwt` and `SASViyaV0300_order-number_Win_x64_Wrkstn_Srv.txt`.

SAS distributes renewal licenses to customers as file attachments in a renewal order email (ROE). Make sure that your new license files (a TXT file and a JWT file) reside in the same directory as your SAS Viya deployment scripts.

Updating license in SAS Viya 3.x

Apply New License (Windows)

Change to the deployment scripts directory, open the file, vars.psd1, and modify the license file names to match the new license file name. Here is an example:

```
COMPOSITE_LICENSE_FILENAME = "SASViyaV0300_09ML1N_70196364_Win_x64_Wrkstn_Srv.jwt"  
LICENSE_FILENAME = "SASViyaV0300_09ML1N_Win_x64_Wrkstn_Srv.txt"
```

- Run the following command to apply your new SAS license:

```
setup.bat -apply-license
```

CAS sessions created after you apply the new license are not automatically updated with the new license information. You must restart CAS for the new license to take effect. Note that this behavior is different on Windows and Linux.

Verify that your SAS Foundation license has been renewed.

Verify that your SAS Cloud Analytic Services license has been renewed.

How to contact/work with Technical Support

<https://support.sas.com/en/technical-support/contact-sas.html>

<https://www.youtube.com/watch?v=1cfw9Wi4R6I&t=10s>