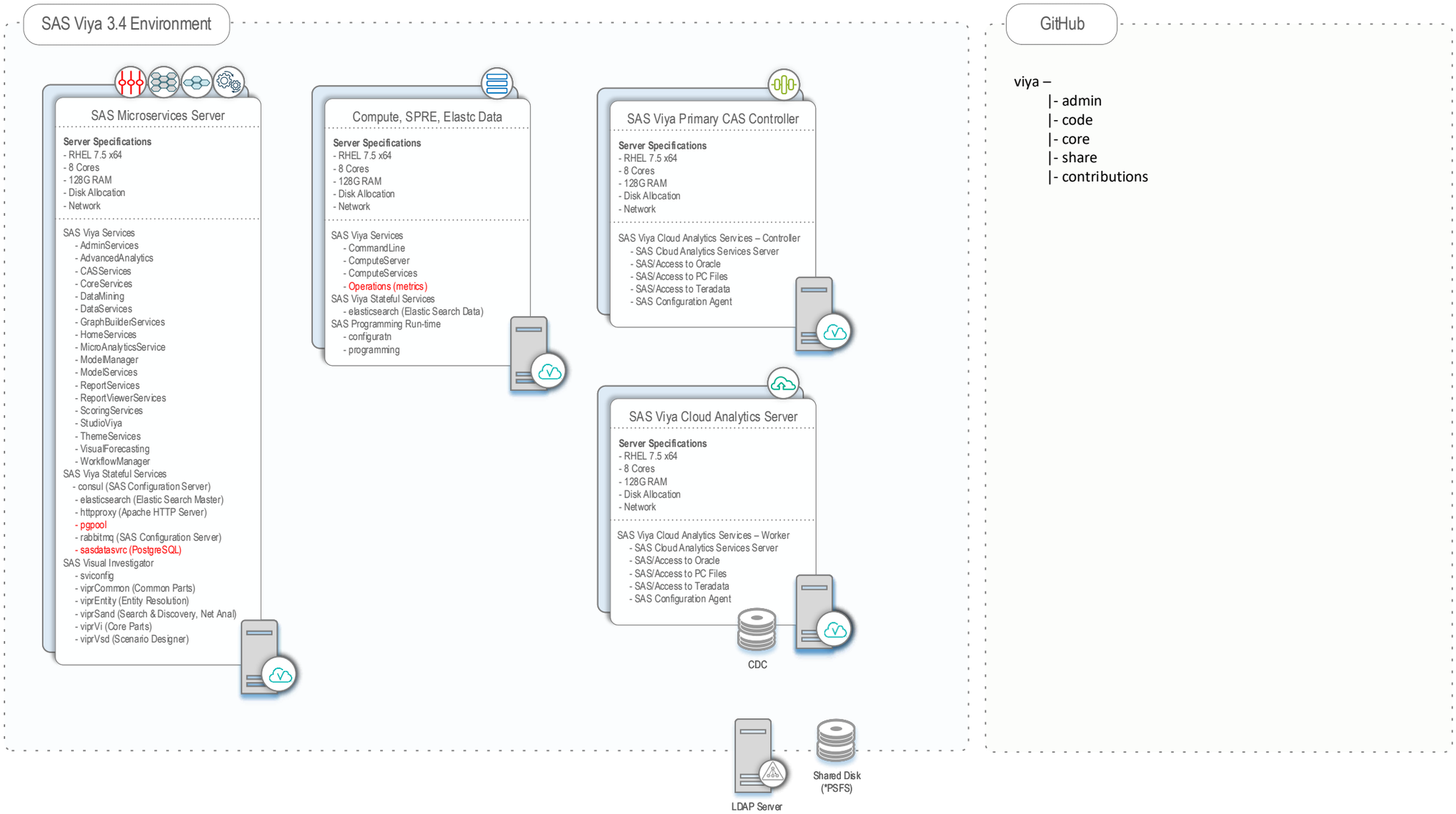


SAS Viya

- SAS CAS Controller (Primary)
- SAS CAS Controller (Secondary)
- SAS Programming Runtime
- SAS CAS Workers
- SAS Web Applications (Stateful)
- SAS Microservices (Stateful)
- SAS Stateful Services
- Ansible Controller

1 Physical Server Count
V Virtual Machine
P Physical

- CCSFS – CAS Controller Shared File System
  /opt/sas/viya/config/data/cas
- PSFS – Project Shared File System
  <share_mount>/??
- CDC – CAS Disk Cache
  <dedicated_mount>/??

Deployment

SAS Viya is deployed using Ansible scripts. An Ansible controller machine with internet access to external SAS YUM repositories and RedHat Network is required. If a separate Ansible controller is not available a controller can be installed on the SAS Viya Interface Server. If your using an internal cached YUM repository, internet access is not required.

- A static IP address and host name is required for the installation and continued operability of the environment.
- The /tmp directory must be on an executable mount.
- Sudo or root access is required.

Authentication

- LDAP is required for visual interfaces. LDAP is not required in a programming-only Viya deployment.
- SAS Viya must have read access to your LDAP Server.
- SAS Viya requires a userDN and password for binding to the LDAP server.
- If a mail attribute is specified for LDAP accounts, it must have a non-null value that is unique for each user.
- LDAPS is supported, but required certificates are not configured automatically by the Viya deployment.

Fault Tolerance

- The SAS Configuration Service (consul) requires a minimum of 3 instances to provide fault tolerance.
- Elastic Search requires a minimum of 3 master instances and 2 data instances.
- The primary and secondary CAS controllers are deployed to two separate machines for fault tolerance. Shared disk is leveraged for common configuration.
- The Apache HTTP Server and SAS Message Broker (RabbitMQ) requires a customer-provided third-party load balancer (VIP).
- PGPool is not fault tolerant and will be deployed to a single machine.
- Operations is currently not fault tolerant and must be positioned on a host that includes the programming host group.

Shared Storage

- Shared storage is required for the primary and secondary CAS controllers for data and configuration information.
- The same shared storage is ideal for all of the CAS workers if there is consistent use of SAS data sets. Having the data sets available to all nodes can provided parallel loading using the direct loadTable CAS action or PROC CASUTIL LOAD CASDATA.
- The same shared storage is occupied by the server(s) with the programming run-time and SAS Studio v4*.
- Shared storage is required by ALL servers for backups.