



Moving Existing SAS Applications to the Public Cloud

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Disclaimer

- Information discussed in this paper is based on what is available from the public clouds and SAS experience with the public clouds at the time of the writing of this paper.
- Public clouds are always enhancing their offerings.
- SAS experience in the public clouds is growing daily.

Before you Start

Why are you moving SAS to the Public Cloud?

- There is no wrong answer

Success criteria

- Just get SAS to the cloud
- SAS needs to run as fast or faster

Migration plan

- Everything at once
- A little at a time
- Upgrade SAS during the move (9.4 to Viya)

Budget

Understanding SAS Applications

Layers and components of the existing SAS jobs

- SAS 9 Content Assessment tool

Compute Resources

- CPUs – number and speed
- Memory
- Network
- IO throughput

Location of

- source data
- third-party components
- SAS clients

The SAS 9 Content Assessment



SAS 9 Inventory





SAS 9 Profile

SAS 9 CodeCheck

SAS 9 System Evaluation

[Accelerate Your Migration to SAS® Viya® - SAS Support Communities](#)

When to Use SAS 9 Content Assessment

	Benefits	Upgrade in Place SAS® 9.4	Migrate to New HW/Set Up New SAS 9.4 Environments	Migrate to SAS® Viya® 4 from SAS® 9.4	Ongoing monitoring of a SAS® 9 System
<p>SAS 9 Inventory</p> 	Provides a comprehensive view of content on SAS 9.4 systems	✓	✓	✓	✓
<p>SAS 9 Profile</p> 	Understand the details of what exists on your SAS 9 system so that you can plan for your SAS Viya migration		✓	✓	✓
<p>SAS 9 Code Check for SAS Viya</p> 	Understand compatibility of your existing SAS 9 code (.sas files) with the compute server for SAS Viya (SPRE)			✓	
<p>SAS 9 System Evaluation</p> 	Known deployment issues are identified prior to upgrade in place so they can be remedied with SAS Technical Support to ensure a smooth upgrade process	✓	✓		✓

Compute Resources

CPUs – number and speed

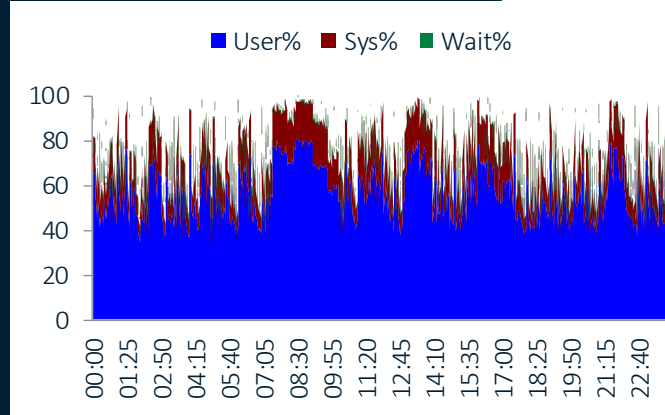
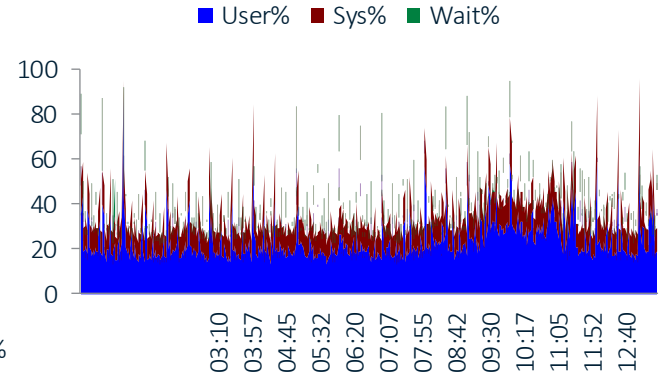
- RHEL Gather Information script

Memory

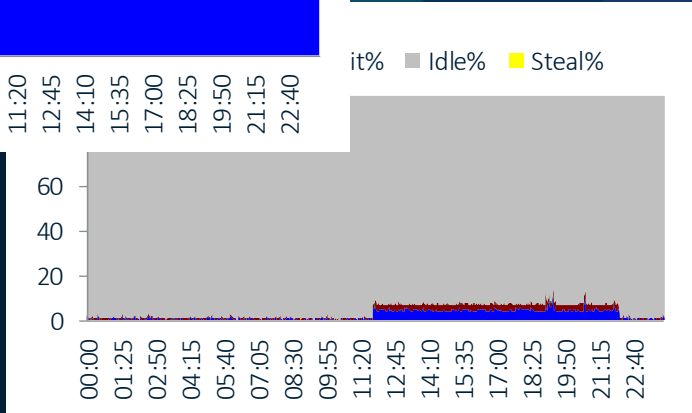
Network

IO throughput

- RHEL iotest script



it% Idle% Steal%



Which Instance Type?

SAS 9 Systems

- SAS Compute Tier (s)
- SAS Mid-tier and Metadata Servers

SAS Viya Systems

- CAS Controller and Worker Nodes
- MicroServices, Postgres, and RabbitMQ Node(s)
- SAS Programming Run Time Node(s)

[62239 - SAS® on the Public Cloud](#)

[Administration and Deployment - SAS Support Communities](#)

What Storage?

What IO throughput is needed for each area?

- Permanent SAS Data Storage
- Temporary SAS Data Storage

Is a shared file system needed?

Is encryption needed?

Conclusion

Understand

the complete workload

the expected SLAs of the workload

the budget for the workload

Know that IO throughput is limited to external storage

Access to data outside of public cloud will cause performance degradation

Instances, storage types, ... are always changing in the public clouds

[SAS Proceedings and more \(lexjansen.com\)](https://www.lexjansen.com)



Questions?

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