

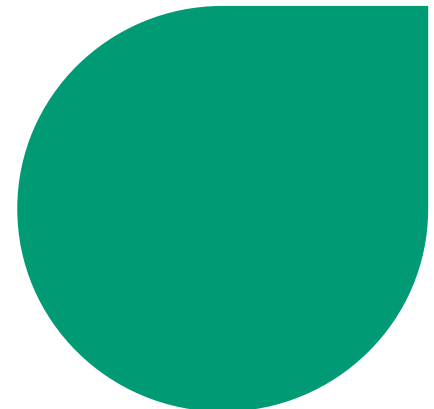
# A day in the life of a SAS Administrator

John Ballinger  
[John.ballinger@dunnhumby.com](mailto:John.ballinger@dunnhumby.com)

dunnhumby

# Who am I

- My name is John Ballinger
- I've been working at dh for nearly 2 years as a SAS Platform Administrator
- Previously I was at the DWP starting as a SAS developer in 2002
- Administration role in 2008 with SAS 9.2 and the adoption of SAS BI suite of products.  
Supporting the products, administration implementing data security.
- Since being at dh I have been involved in SAS 9.1 to SAS 9.3 upgrade and now SAS 9.3 to SAS 9.4 upgrade



# Who are dunnhumby

We analyse data and  
apply insights from more than

**400 MILLION  
CUSTOMERS**

across the globe to create better  
customer experiences and build  
loyalty. Our insights and strategic  
process help clients create  
competitive advantage and  
enjoy sustained growth.

THE WORLD'S LEADING CUSTOMER SCIENCE COMPANY

We will be an entrepreneurial  
global company that is

# **BUILDING LOYALTY FOR A BILLION PEOPLE BY 2020**

# What Does the SAS Platform Administrator do

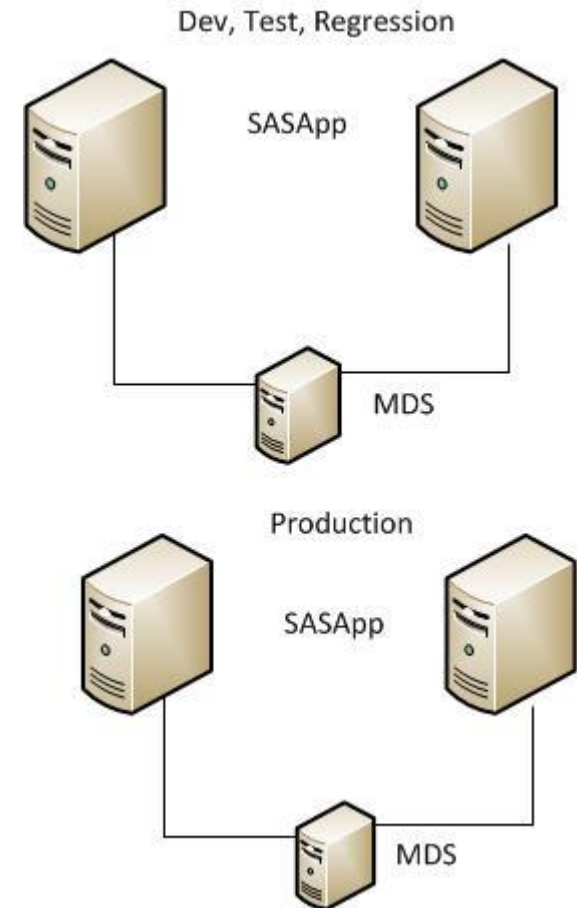
- There are 140 Different actions on this list and the SAS Administrator is responsible for all of them.
- Depending on your responsibility there maybe many more to add to this



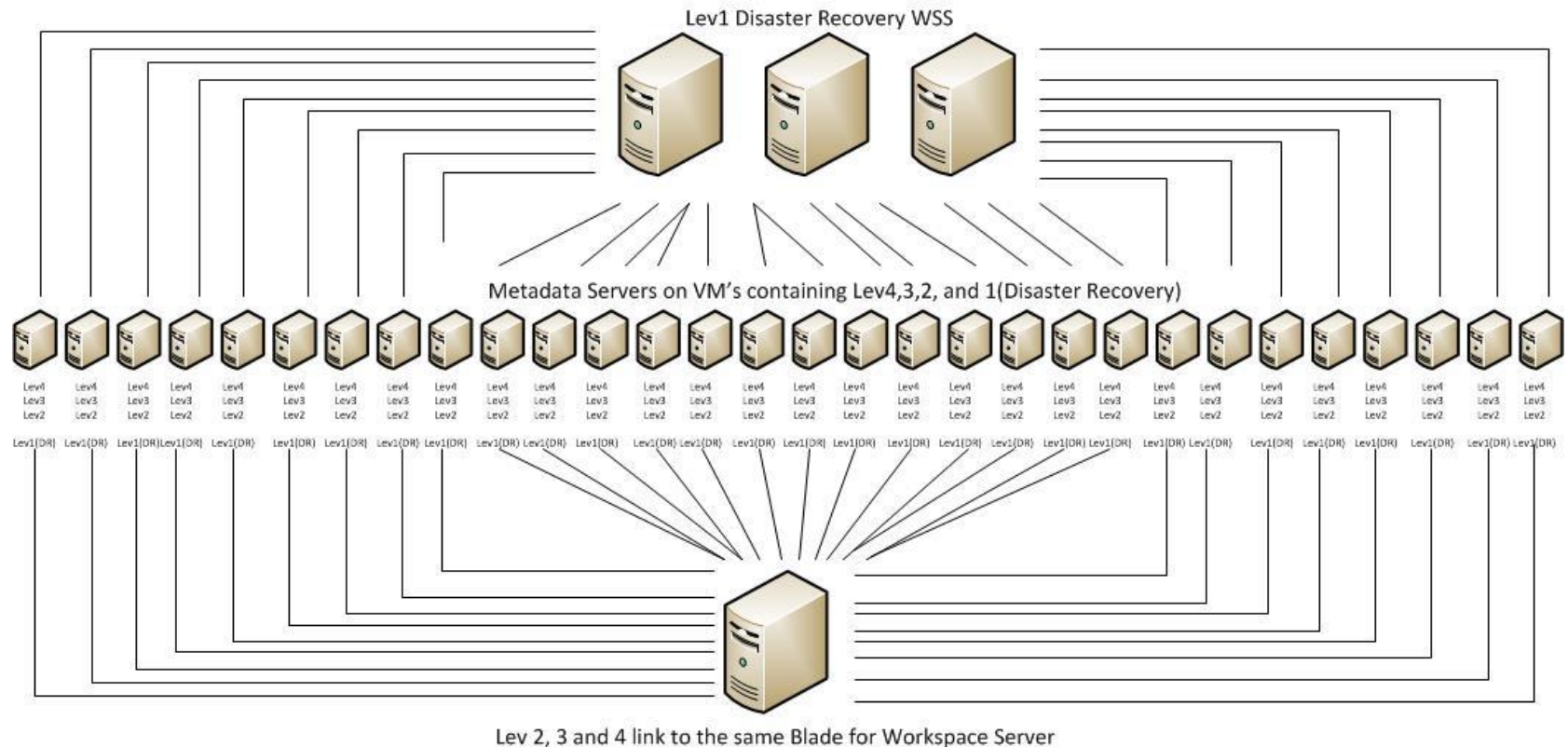
Execute Backup Plan  
Test Restore from Backup  
Automate the SAS Client Software Installation Process  
Create a Client Software Depot Subset  
Install SAS Client Applications and Software  
Register Data Source Metadata  
Assigning Libraries  
Create an OLAP Schema  
Manage SAS Folders  
Create New Metadata Repository  
Manage Project Repositories  
Promote Metadata Objects  
Reorganize Metadata to Recover Wasted Space  
Validate the Integrity of the Metadata Repository  
Create Geographic Map Services  
Define Publication Channels  
Create/Manage Report Distribution Lists  
Move SAS Processing Server  
Configuring or Deploying New SAS Components  
Enable Job and Report Scheduling  
Unconfigure SAS Components  
Uninstall SAS  
Register Batch Job Deployment Directory  
Register a User-Defined Format Library  
Register Message Queues  
Clean Up Temporary Files after Abnormal Server Shutdown  
Operate SAS Servers and Spawners (Stopping and Starting SAS Servers)  
Refresh the Object Spawner Configuration  
Quiesce the Web Applications  
Monitor SAS Servers  
Monitor the SAS Web Applications  
Configure ARM for SAS Data Integration Studio  
Adjust SAS Server Logging  
Adjust SAS Web Application Logging  
Enable SAS Comment Manager Administration  
Administer the SAS Content Server  
Develop Custom Report Styles  
Make Report Resources Available to SAS Web Report Studio Users  
Promote Portal Content  
Remove Portal (and SAS BI Dashboard) Content  
Use the Package Cleanup Utility  
Redeploy SAS Web Application  
Deploy Custom Portlets  
Register Custom Task for use in the SAS .NET Desktop Clients  
Register for TSNEWS-L  
Update Host Name References  
Customize Appearance of SAS Web Applications  
Start and Stop Web Applications  
Identify and Confirm Necessary Hostnames  
Configure Authentication  
Create a New Authentication Domain  
Manage Service Account Credentials  
Manage Credentials Stored in Metadata  
Unlock an Internal Account  
Develop Access Model  
Create and Maintain Metadata Folder Structure  
Define/Deduplicate the Repository (Default) ACT  
Administering ACTs  
Grant Permissions  
Manage Security for Portal and Dashboard Content  
Configure Encryption (passwords stored on disk)  
Configure Encryption (SAS data on disk)  
Configure Encryption (passwords over-the-wire)  
Configure SSL for SAS Web Applications  
Security Reporting: Audit Authentication Changes  
Security Reporting: Audit Usage  
Configure SAS Web Report Studio as —Highly-Secured!  
Modify Session Time-out Interval  
Define Policies for Internal Accounts  
Disable Storing Credentials in Desktop Profiles  
Restrict Trusted Peer Access  
Adjust Default Security Restrictions  
Configure Access for Unregistered and Anonymous Users  
Protect Server Metadata  
Assign User Roles  
Secure Deployed Web Services  
Add/Maintain Users and Groups  
Create SAS Administrator Accounts  
Import User Identities  
Administer Connection Profiles for SAS Enterprise Guide/AMO  
Tune Web Application Server Performance  
Apply SAS Renewal License  
Extract EAR files on JBoss Web Application Server  
Update Third Party Software Licenses  
Maintain Physical Layer Permissions  
Secure SAS Configuration Directory  
Configure User Accounts for Direct Access to OLAP Server  
Assign Windows Privileges  
Create User Accounts  
Create Launch Credential Accounts  
Set Up Web Application Server SSL Environment  
Configure Multicast Security  
Secure the SAS Web Report Studio Query Cache and Temporary Directories  
Tune SAS Metadata Server Performance  
Recover Memory for SAS Metadata Server  
Optimize SAS Performance for Host OS  
Adjust Load-Balancing for SAS Servers  
Set Up Pooled Workspace Servers  
Assist Users with Tuning  
Tune the SAS OLAP Server  
Adjust Query Cache for SAS Web Report Studio  
Tune Workspace Servers for SAS Web Report Studio  
Configure Temporary Storage for OLAP Cube Build  
Increase Java Heap Allocations  
Tweak Static Web Content Handling  
Increase SAS BI Dashboard Images Cache Size  
Configure Event Generation Framework (SAS BI Dashboard)  
Configure JDBC Connection Pooling (SAS BI Dashboard)

# The SAS Platform

In general a SAS platform in its most basic form will comprise of Metadata Servers and Workspace servers

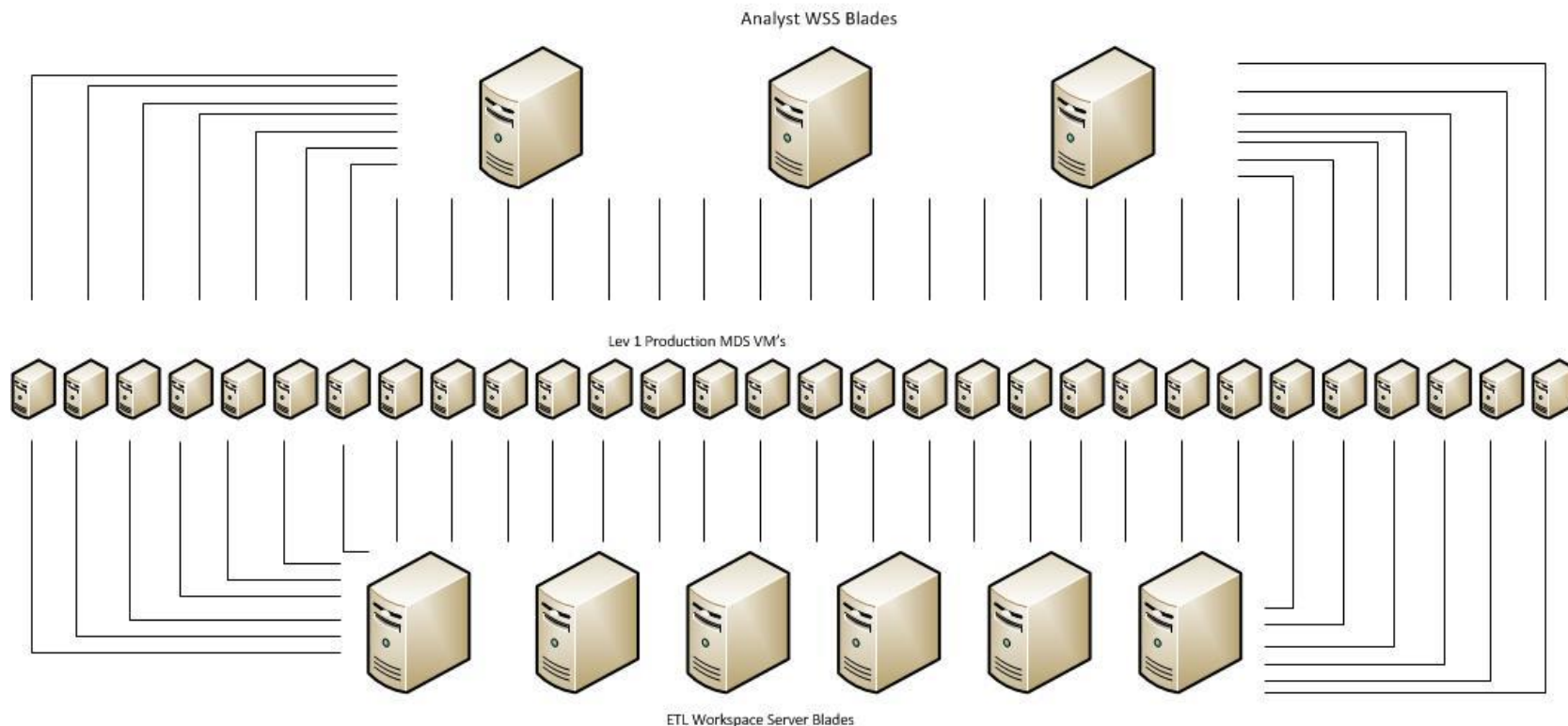


At dunnhumby every customer has their own Dev, Test, Regression and DR metadata servers and all are clustered



And they all have their own Production Metadata servers and all are clustered

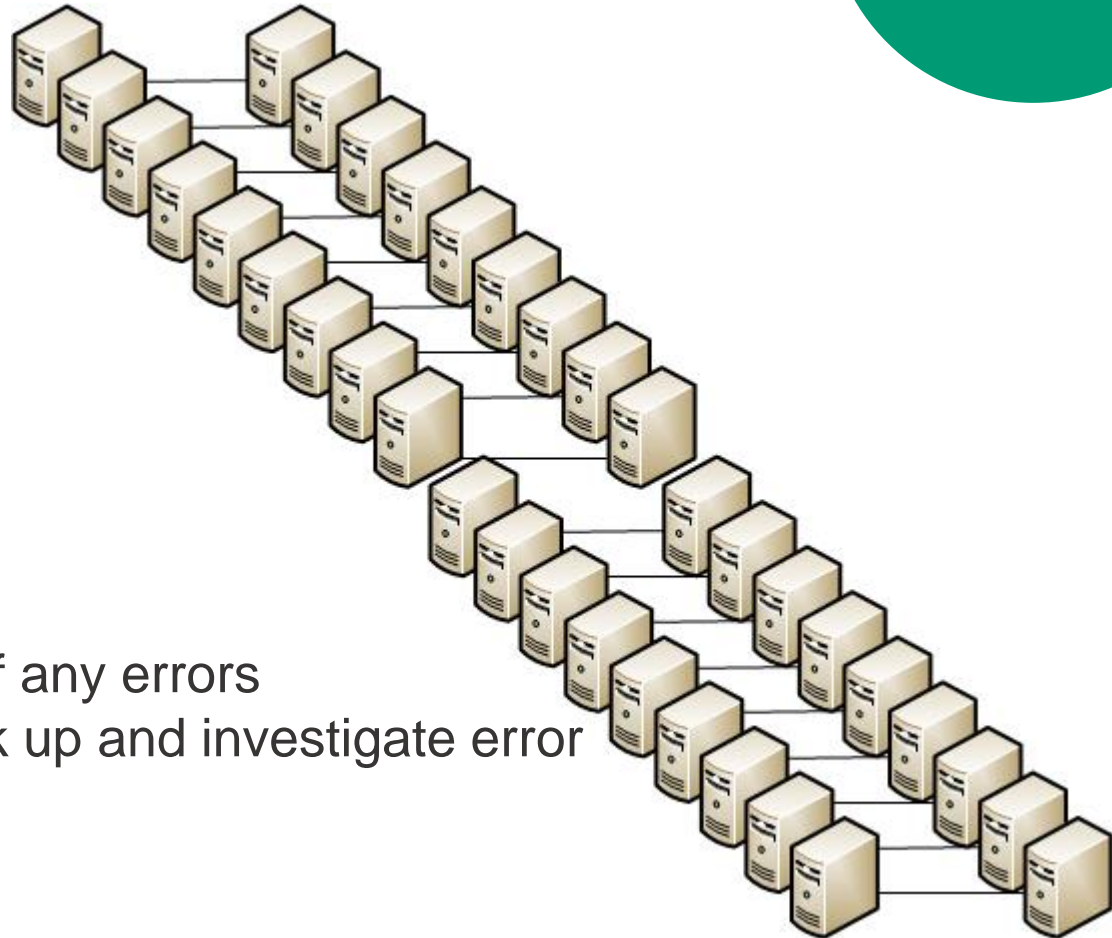
### Lev 1 Production Environment





# So.....How does my day go

- Over night backups run



- Emails received if any errors  
Run manual Back up and investigate error

# User synchronisation Scripts run

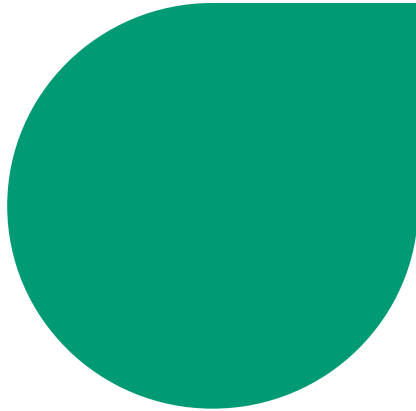
SAS-installation-directory\SASFoundation\9.3\core\sasmacro (Windows)

SAS-installation-directory/SASFoundation/9.3/sasautos (UNIX)

- User synchronisation messages throughout day
- Emails received informing of users added and removed
- Any Errors show in Emails

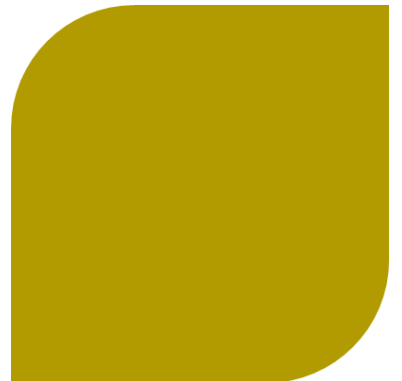
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# Long Running SAS Jobs Script

[illegible]

# A multitude of user Issues

- I cant access the data
- I cant save my Code
- My code errors
- I cant check in my work
- I lost my connection and now I cant see my work.....that I didn't save.....Where is it.
- I cant log on
- SAS doesn't work
- And on
- And on
- And on



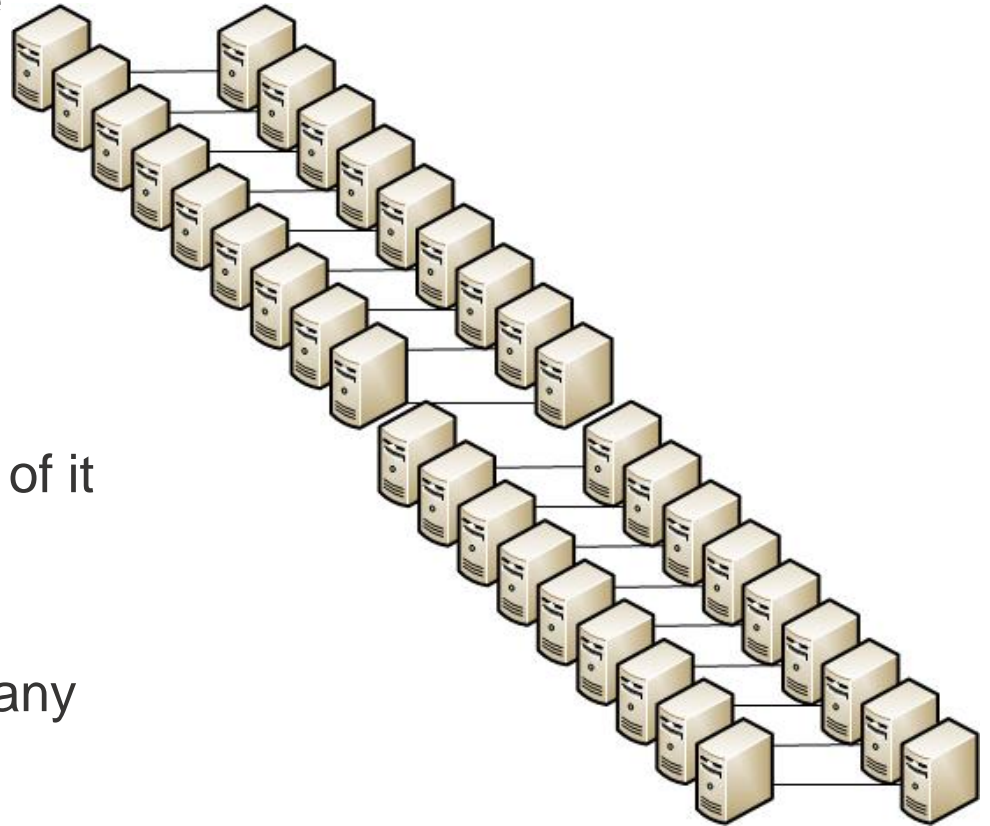
# SAS Upgrade Plan

- As we come to the end of our SAS9.1 to 9.3 upgrade we start to plan and test the migration to SAS 9.4



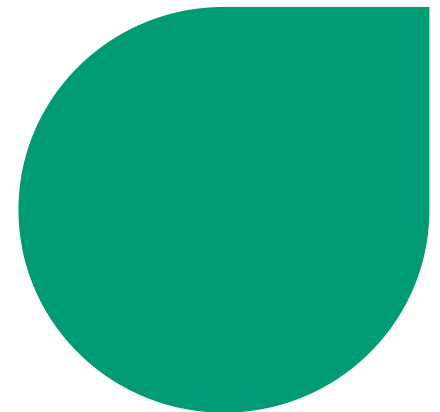
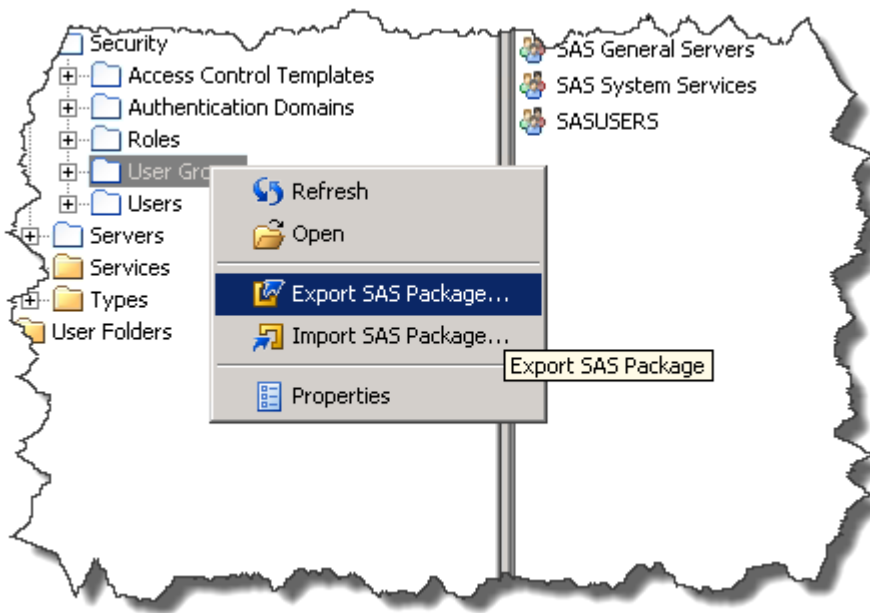
# A large platform requires lots of planning

- So its back to this and how to perform a migration to SAS9.4 on the same server keeping the same port numbers:
- The SAS SMU covers some of it but not everything.
- Install it once, configure it many times



# Many Configuration tests

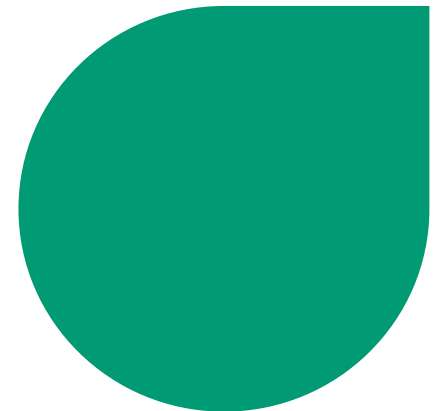
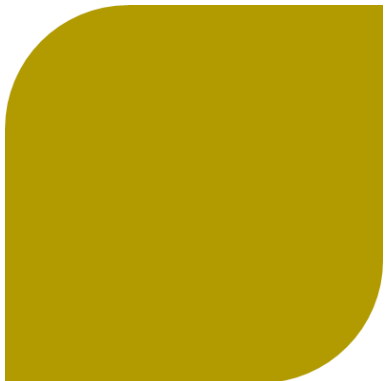
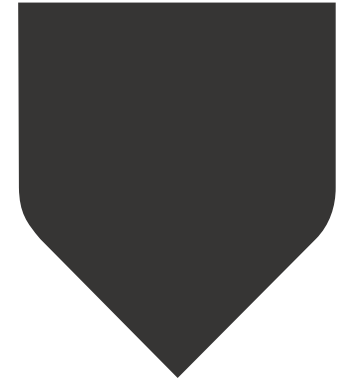
- To create using the SMU  
or
- To create and use the export/import of metadata



# Is Every Day the same?

## No

- Testing
- Upgrading
- Importing
- Exporting
- Building
- Security
- Problems
- Stopping
- Starting
- Yammer





# Is the SAS Platform Admin one person

- It can be  
BUT
  - It's really a team as at the end of the day we rely on others to make it all work and come together.

SAS  
Linux  
Windows  
Citrix  
Axway  
Cronacle  
Oracle  
Security

