

# Meeting - Manoj - SR82685

Thursday, September 03, 2015 10:45 AM

No shared SSRS servers

We have shared SSIS servers, if need SSIS package can put on SSIS server

If app needs SSRS sever, need dedicated box

Shared DB servers up to 2008 if the app DB meets the requirements 20-20-20(can not go over 20GB, cannot have more than 20 transactions per second, you can't have more than 20 concurrent users), can be put on shared resource. Plan on relaxing this criteria as move to new versions of 2012 and 2014

How long do they plan to be on 2008. Middle of migration to 12 and 14. Support will be ending soon 2008.

Ideal option is to go to 2012

SPI and NPI ... personal information. Non-personal identifying information and sensitive personal information.

Information Security Awareness Training

ANY SPI or NPI ... think of whether or not can be on shared resource.

Data needs to be scrubbed in Forest A and Forest B before moving to production

If App DB contains this, DBA doesn't know. App team knows more about the data than the DBA.

The scrubbing routines should be provided by the vendor, a scrubbing script. It reads the sensitive data and replaces it 'XXX' so when the data gets scrubbed, you won't be able to see anything sensitive in there. MANY apps going through this right now, and all apps will have to comply for this for security.

# Meeting - Manoj - App Support

Wednesday, September 16, 2015 4:47 PM

Checkmarx - no activity for the past year and a half. Started implementing 3 years back and created Forest A environment, and since still in test environment.

RTS - Return to Stock

AFO is no longer in service - need to remove from SQL CDRS

All Siebel apps have some business area that supports all of them. App support

Look at app support list for all Siebel flavors

PCU and LIFE are the largest

2008 cluster

PCU and LIFE will move to 2012 and migration will be done in Nov if not Oct

All have transaction log configuration and all have mirroring

Use secondary environment use for reporting

- With AO cluster groups, reporting directly done from secondaries

- Some archiving is done via a SP

SIEBEL - BANK ... in project

# Meeting - R22287 Weekly

Thursday, September 17, 2015 11:01 AM

Consolidated Design Approval Package extended to 10-1-15

Identifying Configuration Options (Kathy B) Configuration Item Inventory extended until 10-1-15 ... waiting on her to complete this task  
Can't move any forward until artifact is complete

Added some Admin tasks (Reji)

Questioned if Early Engagement/BP Security and IC Consulting is necessary? Checking with Abshishek is still needed

Business Impact Assessment Review Happening on Aug 26 and Sept 24

Consolidated Design Document completed by Priya

Configuration Item Inventory

Need to check with Kathy

# Meeting - Kiran - App Support

Friday, September 18, 2015 11:00 AM

## Bridger app

- Will track all persons and entities already flagged by the US treasury

- One or two tickets

- Process of upgrading APP from 2008 to 2012

  - Upgrading APP itself 4.5 from 4.1

- NPI and SPI data

  - Behind firewall

- SQL 2012

  - AG will be enabled

<Notes://NotesApp001/86257AD4005F793E/4742EB11A10620ED862575440061DC5D/2B38DAA03B68228986257AD400651009>

<notes://NotesApp001/86257AD4005F793E/4742EB11A10620ED862575440061DC5D/2B38DAA03B68228986257AD400651009>

WPSDXHSM.OPR.STATEFARM.ORG - Production

WPSDXHSN.OPR.STATEFARM.ORG - DR Mirror server

# Meeting - Melrose - SSIT

Tuesday, September 22, 2015 10:02 AM

s.f/ssit

Software Staging and Installation Tool

# Meeting - CLC Matter Mgmt

Wednesday, September 23, 2015 9:00 AM

New Index and updated stats  
Updating every night in production  
Not being done in Forest B  
Put index in Forest b, not working cause stats all messed up  
Updated and got it the right night  
Sampling vs a full scan  
Whats the issue?

Change record for Index??  
Request?  
Just put in a request  
Put it in on a weekend and test queries  
Make sure everything is OK Monday

I thought we would just update stats?  
Adding the index

Easy to back-out just in case

3565

Sat Morning to implement INDEX

# Meeting - Legal Captiva Image Capture R2287

Thursday, September 24, 2015 2:04 PM

# R21212 Meeting

Thursday, October 01, 2015 10:56 AM

can we add that instance to an existing server

LEGAL SSIS Server and Usage for LEGAL

Karen and Matt are working with it

We have not loaded an SSIS server or instance

Plan is not to

We are actually

Put SSIS in for Corporate LAW, but no longer have it. Used as a control end server. Working with other 2012 non-SQL migration efforts, and load a non-SSIS server

Some packages that we will need will not be needed

CAN plan

FileSite, Casetrack, Metastorm...NO SSIS packages for communication between those apps. Will be communication between apps, but control-M realted

Interwoven server loaded as well?

Get Greg a timeline for CLC Matter Mgmt

How much time do you need

SQL 2014 issues and sysadmin issues for CLC Matter Mgmt

Being able to run jobs partially

CLC Matter Mgmt Oct 15

Forest B server is available

Submit a change record to go to Forest B for CLC Matter Management by Oct 12 (ask Karen).

2 Weeks from Forest B to OPR (Change window



# Terence - Change Record

Tuesday, October 06, 2015 12:01 PM

## **Affected CI**

WSDB - > ESMT - Server Info -> ST LINK  
WTSD5DDW

And Governing Service  
LEGAL SYSTEMS

# Meeting - Creative Dev

Friday, October 09, 2015 10:59 AM

# Terence - Review Server Load Process

Wednesday, October 14, 2015 1:45 PM

The windows OS team has to enter the server into WSDB to create a server

SQL Server is defined in WSDB

Every server regardless if SQL or not has a SERVER TYPE CONFIGURATION IN WSDB

This brings up the load manifest and the DMS packages that are used to build the server

Shows the order in which they are run along with the REBOOT steps etc

ESR - Enterprise Server Releases ... get at least 3 a year

Every time they have the latest ESR it goes into the layer

Have a layer in blue and within each have various issuances

15.3 is the year plus the ESR release on each LAYER in the Server Type configuration

Will eventually move onto 16.1 in the first year

DMS Security groups

DPL - Dynamic Password Tool

Stored in there by security analyst

Need to use DPL powershell client in order to do that

C drive

SQL

Config

HERE are all the INI files and everytime once its loaded, we can rename the file to .bak

SQL\_CONFIG INI FILE

# Meeting - Creative Services

Thursday, October 15, 2015 2:30 PM

## Getting Logical to Physical

Give us a week - we need to review all the tables they design and put appropriate indexes in the physical model so they will be included in the ddl

If changing a schema need a change record

# Meeting - Chris Thompson

Thursday, December 17, 2015 2:20 PM

DONE End of FEB

Tasks that need to get done:

## **Disable SSL 3 Through GPO:**

Disable SSL 3 via GPO. Can't do that without fully testing. Have to go through all the Forests A.

Coordinate the testing.

Work with Rajagopal Regarajan and Matt Eggena (change GPO in Forest A). Test in Forest A and have them test all the DBA's in Forest A. 5-10 applications in State Farm using DB SSL 3 and Forest A for couple weeks or month and test. DBAs have to work with the BP to make sure they're testing to ensure that when SSL 3 is disabled that the BP and DBA's are aware. **Give them a script to check who's actually connecting** with a secure connection. **Run it against production.**

Identify who's connecting through a SSL connection. In connect string, go to management studio. Hit encrypt connection option and connects via encryption. Connect to Server and hit the Connection properties tab. Most of these have self-signed certs. Can find who can and who can't do it. Testing those who do connect and if we turn off SSL 3 and they'll get an error.

SharePoint and Bank servers

DRAFT TO CHRIS THOMPSON

## Certificate Automation:

Each server when it gets loaded gets an auto enroll cert and it gets mapped to the server name and not the DNS alias. When

SQL starts up you'll see in most error logs a generated self-signed certificate. "A self-generated cert was successfully load

for encryption." Audit people will run their audit tests and see our certificates are not up to standard.

Create an issuance

to create the new certificate.

# EUC Overview

Thursday, January 14, 2016 10:02 AM

## App owners:

Bill Williamson  
Drew Hartman  
Jason Ingram  
Johnalee Alwes  
Joyce Eimer

All of these applications are written by the business side and NOT written by Systems

All custom written apps, not vendor apps

Not as much rigor in the development side of things, more agile

BP's don't know all about SQL, some know more than others

Less than 20GBS for the DB size at start of application

Shared servers and instances dedicated to business areas

<https://sfwikis.opr.statefarm.org/sites/systems/Wiki%20Pages/C01535%20End%20User%20Computing.aspx>

## EUC DATABASE REQUEST SYSTEM:

[https://sfeuc.opr.statefarm.org/EUCDBA\\_ADMIN/Default.aspx](https://sfeuc.opr.statefarm.org/EUCDBA_ADMIN/Default.aspx)

# Mike 1 on 1

Wednesday, February 03, 2016 1:51 PM

EPR

## Mukul - CognosBI and Lotus Notes

Monday, February 15, 2016 2:04 PM

EPM – Cognos database can be sunset, as the system has been completely taken down.

The EVRepository – BI Tool Upgrade database will be sunset early (January) next year.

### COGNOSBI

Many databases. More than 50 databases. Maybe in production same amount of data, 40-50 databases.

In last year 4-5 times received requests to take backup and restore scripts on DB.

Need to provide access to their logins

Might ask to migrate DBs from 2008 - 2012 ... scheduled to migrate in 2016. But R21212 was scheduled to migrate in 2012 but now its under their project. Need to request them for hours and have 40 databases

Send email to team about personnel changes?

### Lotus Notes Archive - R22182

Project started last year this time March or April

Still going on and ONLY in FOREST B

Lotus Note application going to Hadoop but using SQL server as a medium

SVC\_ArchiveDashboard

WTS5YP6\WTS5YP601 in Forest B Dedicated Server

WTS4VYV is the shared server, but data is also housed here. They had data here but database size cannot be more than 20GB so moved to dedicated server

OPRSYS\SVC\_ArchiveDashboard - Read/write, execute

Send email to team about personnel changes? Send Mark Cluskey an email that we are the new SQL DBAs. Mike Vogel, David Kelly, Priya Sharma

HAVE MEETING WITH DAVID KELLY and DAVID FOX



Mukul  
Notes

Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth / Maxsize	Path	File Name
ArchiveExtractionDB_DATA	Rows Data	PRIMARY	13312	By 512 MB, Unlimited	F:\MSSQL\DATA\F_MP01\DATA	ArchiveExtractionDB_DATA.mdf
ArchiveExtractionDB_DATA02	Rows Data	PRIMARY	12800	By 512 MB, Unlimited	F:\MSSQL\DATA\F_MP05\DATA	ArchiveExtractionDB_DATA02.ndf
ArchiveExtractionDB_DATA03	Rows Data	PRIMARY	13312	By 512 MB, Unlimited	F:\MSSQL\DATA\F_MP06\DATA	ArchiveExtractionDB_DATA03.ndf
ArchiveExtractionDB_log	Log	Not Applicable	24180	By 256 MB, Limited to 2097152 MB	F:\MSSQL\LOGS\F_MP02\LOGS	ArchiveExtractionDB_LOG.ldf



Wed 2/10/2016 12:13 PM

Mukul Pandya

RE: R21182 - Clean SQL for Performance Testing

To: Mike Vogel; David Kelly; Priya Sharma

Cc: David Fox

Retention Policy: 15 Months - Non-Business Value Expires: 5/3/2017

Mike,

The below script has been executed on the Dedicated SQL Server - WTS5YP6 and statistics have been updated on the tables.

```
DELETE FROM cntntAtch -- (518 row(s) affected)
DELETE FROM cntntElmtCoezCt1 -- (4698 row(s) affected)
DELETE FROM cntntSubElmt -- (10662 row(s) affected)
DELETE FROM cntntElmt -- (2358 row(s) affected)
DELETE FROM cntntEvent -- (0 row(s) affected)
DELETE FROM cntntQueue -- (0 row(s) affected)
DELETE FROM cntntInv -- (197 row(s) affected)
```

Thanks,

Mukul Pandya

SQL Server DBA

Hours: M-T 7:00 - 4:30

Friday: 7:00 - 11:00

From: Mike Vogel

COGNOSBI	Mukul Pandya	Matt Arthen	Yes	1/6/2016	<p><b>1. Approved Budgets?</b> Yes</p> <p><b>2. When will any new efforts start?</b> First Quarter of the year for the upgrade for upgrade project. Migration of SQL box will occur this year along with migration of Windows app box.</p> <p><b>3. What is the work?</b> Maintenance, upgrade project, building a sandbox, and migration project: Generally not a lot of SQL DBA work done on the upgrade project. For 2016, will be building a new sandbox in the Windows 2012 sandbox database and application server testing environment. This will require some DBA work. Migration in 2016 for windows application server and DB server.</p> <p><b>4. How many hours?</b> Minimal amount of hours, maybe 20-30 hours?</p> <p><b>5. Any version changes?</b> Upgrade done this year and try to do it on annually</p> <p><b>6. How many new consumers?</b> Same base of users for Metric studio</p> <p><b>7. Data size growth?</b> Same trend of growth</p>	<p>Small foot print in SQL. We store application metric data and COGNOS metric studio. Some application area database info and some metadata. Not sure how much they are using right now. Upgrade project and try to understand the needs of SQL server DB for the application area. In 2016 no new growth just maintenance. Upgrading COGNOS to new version. Will work with app area and see if some reports if they've been used or not. COGNOS is used as a database.</p> <p>Migrate the Windows server application to Windows 2012. Whenever ready to move to SQL migration. Who will pay for the servers? SQL server 2012 upgrade Just let me and Matt know, Forest B and prod need change record and provide all the details. Regarding sandbox, need DBA help to build a SQL server box and SQL CDRS and SQL checkout. Need to create a database and check the permissions. Need that effort and some hours to DBA to perform this work.</p> <p>Maintenance includes work such need to restore DBs etc. More than two or three requests in a week may need to look into some more component hours.</p> <p>Forest A and B server are available for DB migration. App owner will try to do upgrade in 2016 along with their upgrade to the Windows Server 2012 for the application box.</p>
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# Siebel Review

Wednesday, February 17, 2016 10:30 AM

Manoj  
Kiran

Migrations  
Normal HPSM Tasks  
How often are they in contact with BP  
Meeting with Business Partner  
Who are the app owners  
Anything coming up for them  
Any special work that needs to be done during the year

## Siebel

All the same product but catering to different teams or areas of State Farm. They have six implementations of Siebel all supported by the same team. Catered to different areas. One is called Life, HRSC. Call center application ... customers call and it is an app that supports call center work. Out of the six implementations, bank is still going on. They did the final piece, still in Prod in PROJECT. They did the final piece about 2 weeks from 2/17/2016. They still have one more piece to setup the archival process on that one. They will be implementing that soon. When he means piece, totally independent set and setup a stored proc and that will be moving data from PROD box to archive database. This is something new and they have done two other implementations and this is a new piece that will be added to all the implementations.

In 2008, all the different implementations of Siebel have their own set of Forest A, B, and Prod boxes, With 2012, we have consolidated the boxes. 2008 environment, **PCU** and **LIFE** have cluster SQL servers that are active/passive cluster. The other environments are just standalone. The PCU and LIFE are biggest environments. The App team is very productive and constantly monitors the boxes and is always adding resources to the boxes, PCU team added more memory to the box like 75GB of RAM. They also added more resources to LIFE. These are the two environments to look out for. Sometimes they run some queries that take a lot of memory and one took 6GB of memory. They were running fine once they got to 75GB.

The archival piece out of the six has been implemented on two. The third one will be BANK and they have to do that on the remaining three. They will provide everything, they will give you the stored proc, and you need to setup the logins and you need to create the archival database.

This the 2008 environment. All the standalone and all the clusters ... about 30-40 servers in all and all are going to be consolidated in 2012. What's the status of the migration? There are 6 environments so possibly 18 migrations, ONLY 3 of the migrations have been done.

2 in Forest A - ISS and HRSC  
1 in Forest B - HRSC

The servers have all been setup in all the environments. We have a consolidated environment in Forest A, B and Prod. In B and Prod we are just going with three VMs that has multiple configured.

Point of contact for SIEBEL? In 2008 environment many servers, but in 2012 plan to consolidate everything? They are aware of the consolidations. Once I do migration send connection string and they do testing. Contact names are correct in SQL CDRS

**Currently on Prod the plan is that we have three servers. The fourth server will just have PCU database. This PCU database will be in an always on configuration with the third. We have a second server that will have all the remaining SIEBEL implementations on all**

separate instances. This second server instance will be in an always on configuration with the third server.

**QUESTIONS ABOUT SERVER MIGRATIONS and INSTANCES and CONFIGURATIONS.** Follow up on database configurations the migration. **WHAT IS THE SQL SERVICE ACCOUNT?** They are NOT aware of the SQL security groups and how to setup these new groups. Security may be different and in 2012 want to keep everything the same.

Take a look at SQL CDRS. Seven implementations of CDRS that have shown up (six, but the seventh one is no longer in use and still using that name as an app name associated with the name SQL server 2012 boxes). In 2012 environment and having multiple instances, not easy to associate them. **Follow up DIAGRAM with MANOJ**

HPSM - ask them to open a task for migrating the databases.

Any other work during the year? Application team updating the application. Once they are done /w their upgrade they ask the team to move forward. They open change tasks to SQL team to take DB backup prior to their update. Will see tasks coming for backing up databases. They also will be opening tasks for setting up archival processes.

They are in regular contact with you? In recent past when they have had him to make recommendations and are in regular contact. Have to tell them the queries that are run at the time and talk to the user to cancel those etc.

## CheckMarx Review

Wednesday, February 17, 2016 10:57 AM

CheckMarx

Still in Forest A, started in 2012-2013. They setup a Forest A environment and they ran out of funds.  
Nothing has been done after this. Only in Forest A.

**Follow up with application owners**

CHECKMARX	CUSTOMER RELATIONSHIP&OPP MG	Manoj Sharma	Matt Arthen	Yes	12/29/2015	<p><b>1. Approved Budgets?</b> 2016 we will continue renewing the contract for the license. Not aware and you can follow up, but there is a budget approved. Ashley Rodman</p> <p><b>2. When will any new efforts start?</b> Continue to 2016 as normal. No new efforts</p> <p><b>3. What is the work?</b> Production maintenance and upgrade versions</p> <p><b>4. How many hours?</b> Minimal - 10 a year</p> <p><b>5. Any version changes?</b> Annual upgrades only (vendor does more frequently)</p> <p><b>6. How many new consumers?</b> Just the component team</p> <p><b>7. Data size growth?</b> No data growth</p>	<p>Application CHECKMARX. Vendor app that we use to scan code (code analysis tool) that is used to scan sales force code. If you extend sales code, APEXCODE.</p> <p>CheckMARX designed to scan for security vulnerabilities. We set it up over two years ago, but there was a SALES FORCE pause. We have not been using this because not SALES FORCE development. We do keep re-newing the contract every year. Just recently (a few months) we have started using it more to do some code scans. However, there is no need from DBA side. The only time is when we update to a new version. We've had to ask for some help when we previously updated to a version.</p>
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# Meeting R22874

Wednesday, February 17, 2016 11:31 AM

## COGNOSBI Upgrade project

Upgrade products in scope:

SPSS

Cognos BI

Cognos TM1 (priority)

Not directly involved for tasks for sprint 1, don't have to attend? Tasks that are involved in would provide updates for that week.

# Meeting Lotus Notes Archive

Wednesday, February 17, 2016 1:47 PM

update stats on  
[cntntSubElmt]  
cntntElmt

Run for at least a week to see how it works.

WTSD2PCQ.UNITOPR.UNITINT.TEST.STATEFARM.ORG\WTSD2PCQ01

David Fox  
David Kelly  
Jacob Shrewsberry

Read in the data from LOTUS notes, then goes into SQL and goes to Hadoop. Is then scheduled for extraction.

WTSD4VVY.OPR.SYSTEM.TEST.STATEFARM.ORG,57801

ArchiveExtractionDB (database name)

Delete Lotus Notes From this server

Delete Logins

Request to size the MP appropriately in the future when they start to future so they don't run into disk space issues

# Meeting - COGNOSBI

Thursday, February 18, 2016 9:16 AM

Raghu Ganta  
Rocky Ayers

Provide details the users of the DB and which users are using the DB so can actively decide which DB he wants to migrate. Raghu will let us know.

Ask MUKUL

COGNOSBI - reporting and dashboards. Provide data to make decisions.

COGNOSBI - WTSD5YKP.unitopr.unitint.test.statefarm.org\WTSD5YKP01

Migrations? 100 hours?

Prod server not built yet

# VERSIONONE Review

Thursday, February 18, 2016 2:31 PM

Jason Ritthaler - QMM9

Brand new project started in April 2015  
SQL CDRS available

SQL Server 2014  
Two Forest A servers  
Two Forest B servers

CDRS is up to date.

Asked to put DB comp level to 2014 and had to change to SQL server 2012. They did it and currently in Forest B its at 120

Setup some memory ... MIN memory they'd like to setup is 20GB and MAX is 64GB  
Server memory is 64GB

SQL logins are created to the app  
Sys admin ... they have access to the box via the TEMPADMIN box

No timeline yet for Prod



FW  
VersionO...



FW  
Request S...



FW  
R22859 - ...

# Manoj - Transition for Siebel

Thursday, March 03, 2016 3:00 PM

Siebel

Sqmbm723HE?2032

Siebel has large footprint in 2008 and 2012. Not many servers.

Forest A, B, and Prod

Have done by having multiple instances on the boxes

Always on Configurations for Siebel

Another set of databases that will be used for reporting

In 2008:

Mirroring and Log shipping for reporting

In 2012:

AG and some will have synchronous and some will have asynchronous

6 types of Siebel

7th type .. Siebel AFO that will be RTS

The current environment

Siebel ISS ... migrated in Forest A

Siebel HRSC ... migrated in Forest A and B

Remaining environments haven't yet been started. Will be working with Brian Frank and Brock Boss

Currently working on upgrades and when they're done, then migrate

Servers loaded under the project and were available by Dec

Document shows which database type goes to which server

All the upgrades are done EXCEPT for LIFE (LRC).



# Checkmarx 3/8/2016

Tuesday, March 08, 2016 1:51 PM

# All Rightfax Apps

Wednesday, March 09, 2016 3:32 PM

Manoj and all rightfax applicaitons

Where are the databases located?  
Perhaps located in WEST?

Have to coordinate task with:  
Jim Cole  
Bob Staber - PRIMARY CONTACT FOR RIGHTFAX

Give login sysadmin on all the boxes to install app  
Makes connection to new DB that just got created  
Once install complete they let us know  
Then we remove the elevated access

Most of the time the application is stable and no real need for troubleshooting  
The only time I work with it is when I'm setting up new databases for their new installs

Get a hold of Manoj, Change Task to create DB shell, what sever/cluster, and then he creates a SQL account (RIGHTFAX\_INSTALL) and when we gets that change task as well as create that shell is he gives that account the elevated temp access because that's the account used for setup. It connects to RIGHTFAX DB and it pumps that schema down to the DB level to finish setup and when the setup is done he turns off the SYSADMIN on install.

SHARED BOX ... will need to be migrated  
Got it running on SQL 2008

# VerisonOne

Friday, March 11, 2016 10:18 AM

Two different servers for VERSIONONE

SQL server

For TEMP admin, do not provide sysadmin to the individual ID. We have TEMP admin group and they can add themselves to the GARF form. Once the servers are up and running they will open a TASK/REQUEST to complete the SQL checkout. You need to create all the SQL logins and all the logins for the application. After that provide sysadmin to TEMP admin

Once create DB, run the SP to create logins for all the databases

In Forest B setup some flags (CHECK MUKUL'S EMAIL), he mentioned that setup the max memory. In one of the emails you setup max memory for one of the servers. XP6 it is on the max memory settings. On both servers max memory is set. You NEED TO SETUP THE FLAG. Check with them first. PLEASE LET THEM KNOW when they do SQL checkout to provide local admin access on the box. TRACE and to keep it CONTINUE need to setup in STARTUP SERVICES and its on the FOREST B server. Once you setup flag startup parameters, RESTART the SQL services and then this will be there permanently.

CHECK WITH MUKUL!

I would suggest set temdb autogrow to 256 MB for data file and 100 MB for log file...

# Melrose - CR Meeting

Monday, April 11, 2016 2:48 PM

# Rocky Ayers - COGNOSBI

Monday, April 18, 2016 12:02 PM

SSIS Package as well on COGNOSBI

Send the DNS alias

SQL Security groups WIKI

CDC on 2012 servers....users and track

WG1956 Get password for SQL ID's for username

Create brand new DB ... create a DB shell... simple username and password. Something to use in future for some prototyping work. Create in Forest A...as we move along with the testing.

-At the time of migration. If in a hurry, will ping.

Summarize everything...

# Kathleen 4/21/16 Meeting on Casetrack/Metastorm

Thursday, April 21, 2016 9:35 AM

SFSQL\_METASTORM on FFG Archival information and want to rename to ARCHIVE and append V7.6

SFSQL\_METASTORM\_V94\_TEST

# COGNOSBI SSIS and MIGRATION

Friday, April 22, 2016 10:39 AM

service on server side  
SSIS VB integration services  
prepare package to server  
schedule

Reload the server with the SSIS feature - need to look at the SSIS package will have to be deployed too.  
Need a location on the file system. Somewhere on the F drive. Need to create another MP.  
Do you have a NOS analyst?? Reach out to the NOS analyst for server.  
PAR for the project??  
Don't support SQL Server Agent for SSIS packages  
Have to setup SSIS packages using Control - M  
Deploy SSIS package to file system on SQL server

Add a 10GB MP for SSIS packages on COGNOS

What is it going to take another mount point added. These SSIS packages, how often? Daily, weekly. What time would they run, probably after-hours.

WTSD5YKP

R21212 - Diana Sawhney (NOS)

What would it take to add another MP to the server?

SQL\ WTSD5YKP.UNITOPR.UNITINT.TEST.STATEFARM.ORG\bicogsqldmn



W2K12 SQL  
Server Mi...



FW W2K12  
SQL Serve...



COGNOSBI  
Migration...

Few items for meeting disc  
Discussions

1. Migration schedule from W2k8 to W2k12
2. DSC Changes
  - a. Cognos 3<sup>rd</sup> level need to be part of APP Admin group
  - b. Cognos team should have remote login access to SQL Server
  - c. We will need Cognos service account ability to read,write,modify access to all databases
  - d. Cognos Control-M ID should have ability to stop and start server/services

Good Afternoon,

Per our discussion yesterday, this is some of the information we need moving forward with COGNOSBI:

3. You requested an SSIS package as part of your SQL Server. My question for you is would you like a separate SQL SSIS server or would you like the SSIS package to be installed on the same servers as your SQL servers noted below. The consideration to make here is that SSIS makes heavy use of memory, which could cause performance issues. However at this point I noticed you do have 38GB of memory on your new Forest B 2014 server, while having 4GB of memory on your Forest B 2008 server **WTSDKKN**. Looking at this you should be fine if you move forward with the same amount of

cog\_audit  
cog\_content  
cogdevad1  
Cognos10\_content  
CognosZIPI  
cogperfad1  
cogperfad2  
cogperfcs1  
cogperfcs2  
cogseg0ad  
cogseg0cs  
cogseg0simzipi  
cogseg0zippi  
cogseg1simzipi  
cogseg2simzipi  
cogseg3simzipi  
cogsegperfzipi  
Content DB

cogseg2simzipi  
cogseg3simzipi  
cogsegperfzipi  
Content\_DB  
CSTATD  
CUMetrics  
DSSMetrics  
EDSMetrics  
EISMetrics  
EPMMetrics  
GOMETRIC  
GOMOBILE1021  
gosales  
GOSALES\_102  
GOSALES\_DQ  
GOSALES1021  
GOSALES10211  
gosalesdw  
GOSALESDW\_102  
GOSALESDW\_DQ  
GOSALESDW1021  
GOSALESDW10211  
ITWAMetrics  
LDMetrics  
MBDGMETRICS  
MFMetrics  
Motio\_DB  
PCUMetrics  
SampleMetrics  
SFPRMetrics  
SYSMetrics

Our second topic was about DNS aliases. We recommend use of DNS aliases so you don't have to ever physically reconfigure any connection strings in the future. [SQL Server:DNS Alias Guidance](#) will explain but you need to approve the aliases be built. You can see DNS aliases for the SQL2008 servers with the Search DNS tab of the [IP Services Tool](#). You can build new DNS aliases with the Alias Tool tab of the same page. I recommend the following DNS, please let me know if you approve: **SQLCOGNOSBIO1.UNITOPR.UNITINT.TEST.STATEFARM.ORG**

Forest A [SQLCOGBIDEV.UNITOPR.UNITINT.TEST.STATEFARM.ORG](https://SQLCOGBIDEV.UNITOPR.UNITINT.TEST.STATEFARM.ORG)

Forest B [SQLCOGBISIM.opr.system.test.statefarm.org](https://SQLCOGBISIM.opr.system.test.statefarm.org)

We need to build new security groups for the new 2012 servers. We can have Windows Security build new [SQL Server Database Access Security Groups](#) for database access outside the application. Once these are created then it is very easy for you to manage access to the SQL box via GARF, thus giving you more direct control to your data. The link gives you information on what each group is required for, and as a quick example I recommend using the following convention for your SQL groups: **SQL\_COGNOSBI\_APPADMIN\_DLG**. If you approve of this convention, I can work with security to have them created. I highly recommend that once they are created, that you first delegate the proper accounts into each group prior to migration and testing.

This is what we need to get things moving with migration. When we can confirm these details, we can begin the actual process of migration on Forest A. Once we get firmly into Forest A, then we can begin to apply the mechanisms that would allow you to view who is accessing/using the data via CDC (Change data capture per our discussion) and test that, as well as the creation of a blank DB shell as you requested.

Thanks,

Matt

WTSD5YKS	WTSD5YKS	WTSD5YKS01	COGNOSBI	OPR.SYSTEM.TEST.STATEFARM.ORG
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# Karen Cushing - CSS

Wednesday, May 04, 2016 3:48 PM

Creative Services - Erin Hanson

Arrange a meeting with him individually - works in Corp North

It got put under managed services and he doesn't all of it, has specialized interest in CS. Some are not customer facing and going outsource support of the apps. Externals supporting Infowit and scheduALL (SESHA supports), also technically support CS sites. Vendor based applications ... all small databases. All in PROD ... and scheduALL is still SQL 2008. Needs to migrate to 2014. Request from SESH to create server. Forest A SQL 2014 server and upgraded to SQL 2014 (SCHEDUALL). They are ready to go to FOREST B. MIXED MODE AUTHENTICATION SQL LOGIN IDS to LOGIN to application. Have to script logins from Forest B server. They WANT DATA COPIED FROM PROD TO B. Copy database from PROD and script logins from FOREST B 2008. STANDALONE virtual server and they were on our shared servers.

Shared servers going out of style and going to PUT UP a shared server just for CSS. These servers from KAREN'S EMAIL.

INFOWIT is on a shared server, on our component server. SHARED SQL 2012 server.

Want to migrate to SQL 2012 to SQL 2014....they're OWN server. Want to upgrade to SCHEDUALL server. Forest B server is already available.

CSSsites is the third DATABASE. That one is a SF development. INFOWITDB2 and CreateiveDB MUST BE ON THE SAME server. Must be moved together at all times. Currently on Shared 2012 server. INFOWit also Mixed mode authentication. CSSsites is all windows authentication

WINDOWS Security groups.

DNS alias for Forest B

Verify security groups are created

CR to actually move DBs

INFOWIT and CSSITES they have proper SQL 2012 security groups. SCHEDUALL doesn't have proper security groups.



FW R22452  
Forest B ...



I Creative  
Services S...

Thursday, May 05, 2016 2:03 PM

Build DNS alias  
Security groups  
CR for copying DB

4 apps for Creative Services  
Pending Service Request

Migrations:

All SCRIPTS ARE ON SQL SUPPORT SHARE (PROJECT FOLDER R22452)

Security Forest A, but check for B.

All of these will need SQL Security groups

They do DNS aliases ... CSSites and Infowit SHARE and alias. No need because they must be ALWAYS be moved together

TEIR 3 - 4 when it comes to EDD

Can you build the in EDD - Richardson

**SchuALL** - standalone, three SQL server logins(SQL ID). app the schedules their studios for making commercials and other stuff. SQL 2008 shared server in PROD. In A and B upgrading straight to 2014. They are in Forest A already for 2014

**Infowit** - SQL server logins, knows nothing about CSSites. Job tracking, work flow management. Migrated to SQL 2012 shared servers for US. The same R22452 project will upgrade to their CSS shared server. Certified by vendor for 2014. Want to get off our 2012 shared server. All migrated to A and need B, PROD not stood up yet. OLD SERVERS are still online for INFOWIT. CANT BUILD APP servers until DB servers have been built and there and available. Build DB, leave the 2008 DB online and working, build up APP server, and have us copy the DB over again. When its all done point to the new 2014 server and take the 2008 offline. They're actual go live and they have a cutover from 2008 to 2014. TWO MIGRATIONS for INFOWIT and SCHDUALL.

**CS sites** - In house development. Eric Hanson ... app that has been designed and DB designed at SF. It is hand in glove /w INFOWIT And MUST BE MOVED WITH INFOWIT. INFOWIT AND CSSITES MUST GO AT THE SAME TOO. MUST BE AWARE OF INFOWIT AND CSSITES INTEGRATION. Sitting on the shared 2012 SQL server. Will be moved to the dedicated 2014 server R22452 and again in Forest A, but moving to B. PROD not stood up yet. CSSites does know about infowit and relies on it and required to be on the same server. All in house developed code. COMPELTELY WINDOWS AUTH

**Internet web hosting** - Another in house development, Eric Hanson. DB has a model and as it changes, same thing will apply. A lot of similitaires to CSSsites but doesn't rely on infowit and completely standalone system. It is FIREWALLED because used by people outside SF. ON A DEDICATED SERVER 2014 ... Forests A, B, and PROD and all on 2014 already and all FIREWALLED. CHECK IF YOU CAN ACCESS VIA THE LINK FOR FIREWALLED SERVER to AUTHENTICATE THROUGH THE LINK. It is USING ALWAYS ... mainly 2 node AO cluster DR situation. Main server is central and the secondary is EAST, asynchronuous and in different ISC's. COMPELTELY WINDOWS AUTH ... MIGHT NOT EVEN ALLOW FOR SQL ID.

Eric is THINKING ABOUT starting a SERVICE REQUEST to make CSSITES MORE SIMILAR TO INTERNET WEB HOSTING.

Project ... upgrading 3 of them to SQL 2014 ...

Forest A and B servers have been stood up

ER STUDIO IS REQUIRED ... JERMEY HAS put one through. WILL BE USED FOR CSSITES. Eric Hanson generates the business requirements, designer changes the model, then we script it out using ER studio.



Q SQL  
CDRS - As...

Point new server to alias /w changing connection strings  
Forest A and Forest B migrations

Change DNS aliases in Forest A  
already on 2012 shared server

# COGNOSBI MIGRATION

Monday, May 23, 2016 10:49 AM

Get list of all current DBs on '08 server

Do not have access to RDP to server

COGNOS SVC ACCOUNT

Control-M Package

SQL ID ... bicogsqldmn (dbo\_owner)

5PM 5/27 for migration

# CSS MEET and Migration

Wednesday, May 25, 2016 12:03 PM

David Hessel (gnhb)

Eric Hanson (bio0)

Elaine Lyons

Include data designer?

Change with the same alias and port number

INFOWIT AND CREATIVE SITES change on the same date

Separate DNS alias for INFOWIT and CSSITES ... have to move together

Scheduall DNS alias

CR task to network addressing team

Scheduall still on SQL 2008 ... will need a new 2014 DNS\port number string

Opening up some new firewall connections from Cssites to creative app databases (internet web hosting). On a different database and server.

# Casetrack/metastorm migration - PROD

Thursday, May 26, 2016 3:45 PM

Forest b testing and overall feelings on moving

- Milan, CTI, Filesite in B and delegations

Security delegations properly applied in PROD

- No problems testing it.

pre-implementation tasks

- DBA and APP

post-implementation tasks (RTS for example, taking databases offline etc)

Prod test weekend then revert back

- For us to make sure security is good

- Insuance to point to the new server ... send to a couple machines for new DNS alias

populate security groups

schedules

- Fri night for changes ... June 24

SSIS - Control-M

July 22 PROD

# Sesha Request

Friday, May 27, 2016 7:58 AM

R22452

New Dedicated 2014 Server  
Shared - 2008 Server

InfowitDB2

Schedwin

Schdewin\_old

schudwin

Setup fresh database

SSFQL\_CREATIVE

WTSD6PJL.UNITOPR.UNITINT.TEST.STATEFARM.ORG - 2014 Server  
schedwinWIN IS THE ONLY needed

WVSDXJWM.opr.statefarm.org

# COGNOSBI SSIS P/W

Wednesday, July 27, 2016 2:19 PM

jun2016



# Adding SSIS

Thursday, July 28, 2016 11:52 AM

SD9674229 for CognosBI Forest B

Matthew,

We can do this, I worked with Terence and the NOS team to create another MP for SSIS. For my app (COGNOSBIS), 10GB was plenty and it was structured as below. Look at WTSD5YKP as an example on WSDb for what I just recently did. The hardest part is just working through getting the mount point added...

MP	F_SIS	0	07:01	LOCAL	10	NTFS	64	False	F:\MSSQL SSIS F_MP05	10%
----	-------	---	-------	-------	----	------	----	-------	----------------------------	-----

Below are the steps I followed to expand the drive:

1. You need to follow this guide and complete steps 3, 3.1, and 3.2.1 to get the MP added (<https://sfwikis.opr.statefarm.org/sites/systems/Wiki%20Pages/reqinckdisk.aspx>)
2. Basically, I submitted a ticket to get SAN approval per Step 3 to WG1678 explaining the justification for the additional mount point and the SSIS installation. You can look at my ticket here for that (IM10285336).
3. Once validated, I submitted another ticket to WG2043 (James Smith helped me) to update WSDb with the 10GB MP\_05 mount point and SSIS folder. Check IM1039820 if you need a template.
4. Once you get confirmation WSDb is updated, check yourself on your server on WSDb. If good on WSDb, you will then need to submit multiple tickets to WG4127 to perform the work below. Our work was in Forest A so there was no need for a change record and since its virtual, all of this was done dynamically without the need to reload the server. My ticket for this is IM10400089.
  - a. WG4127 will migrate the virtual machines data files to a new LUN if necessary
  - b. WG4127 will expand the virtual disks, and then expand the OS volumes
  - c. WG4127 will verify that the drive size in Windows Explorer matches the requested new size
5. Once all this work is done by 4127, I just logged into the server and checked to verify the new MP, which had successfully been added.

I'm not sure what the consensus on all this is about manual installation, but this worked for me. The above about adding the MP is important as it is used to house the SSIS packages. To install SSIS follow the below:

1. First, you must request system admin on the server.
2. Then I went to SSIT to put together a package for my server. The package I used was SQL-SRV-MP-INHERITANCE 1.0 (1.1) and I then ran SSIT on my server.
3. Once done, I manually installed the SSIS feature via the SQL Sources folder.

I'm still working on finding that SQL sources folder. Terence, can you please let me know where that is? Also, please make adjustments as necessary.

---

**From:** Matthew Albert

**Sent:** Tuesday, May 17, 2016 10:51 AM

**To:** C02475-SQL-DBA-SYS-HOME <[c02475-sql-dba-sys-home.dl2roh@internal.statefarm.com](mailto:c02475-sql-dba-sys-home.dl2roh@internal.statefarm.com)>

**Cc:** Taha Kadado <[taha.kadado.ebm8@statefarm.com](mailto:taha.kadado.ebm8@statefarm.com)>

**Subject:** Adding SSIS After Loading

Hi All,

I have been approached by a business partner that would like to get SSIS on their existing development server(s). The server(s) currently do not have SSIS installed because at the time of load it was not a requirement. Is it possible to get SSIS added to the servers without wiping the drives? If not, what are our options?

Thanks,

**Matthew R. Albert**

Database Administrator – SQL Server

**State Farm® Systems**

[matthew.albert.fe78@statefarm.com](mailto:matthew.albert.fe78@statefarm.com)

**Desk: (678) 579-1692**

**re<sub>3</sub>markable**<sup>TM</sup>

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# Infowit and SF\_Creative Migrations

Tuesday, August 02, 2016 9:37 AM

Database Name	SQL 2012 server name/ Alias	SQL 2014 server name/ Alias
InfowitDB2	WTSD3VGL.unitopr.unitint.test.statefarm.org / SQLTINFWT03.unitopr.unitint.test.statefarm.org,57801	WTSD6PJL.UNITOPR.UNITINT.TEST.STATEFARM.ORG/ SQLTINFWT04.unitopr.unitint.test.statefarm.org,57801
InfowitDB2	WTSD4VVY.opr.system.test.statefarm.org / SQLTINFWT03.opr.system.test.statefarm.org,57801	WTSD8STS.opr.system.test.statefarm.org / SQLTINFWT04.opr.system.test.statefarm.org,57801
InfowitDB2	WPSD4V60.opr.statefarm.org/ sqlpinfwt03.opr.statefarm.org,57801	WPSD9W8Q.opr.statefarm.org/ Sqlpinfwt04.opr.statefarm.org,57801

Environment	Database Name	SQL 2012 server name/ Alias	SQL 2014 server name/ Alias	Implementation (Between 6 PM and 6 AM )	Business Checkout	Comments
Forest A - Infowit	InfowitDB2	WTSD3VGL.unitopr.unitint.test.statefarm.org / SQLTINFWT03.unitopr.unitint.test.statefarm.org,57801	WTSD6PJL.UNITOPR.UNITINT.TEST.STATEFARM.ORG/ SQLTINFWT03.unitopr.unitint.test.statefarm.org,57801	Aug 4 <sup>th</sup>	Aug 5 <sup>th</sup> to 10 <sup>th</sup>	-
Forest B - Infowit	InfowitDB2	WTSD4VVY.opr.system.test.statefarm.org / SQLTINFWT03.opr.system.test.statefarm.org,57801	WTSD8STS.opr.system.test.statefarm.org / SQLTINFWT03.opr.system.test.statefarm.org,57801	TBD . Possibly by 4 <sup>th</sup> week of Aug	TBD .Possibly by 4 <sup>th</sup> week of Aug	Change tasks will be assigned to Matt and Network team( Required changes for using the same SQL alias for SQL server 2014 )
Production -Infowit	InfowitDB2	WPSD4V60.opr.statefarm.org/ sqlpinfwt03.opr.statefarm.org,57801	WPSD9W8Q.opr.statefarm.org/ sqlpinfwt03.opr.statefarm.org,57801	Sep 16 <sup>th</sup>	Sept 16 <sup>th</sup> to 19 <sup>th</sup>	Change tasks will be assigned to Matt and Network team( Required changes for using the same SQL alias for SQL server 2014 )
Forest A - CSSites	SFSQL_Creative	WTSD3VGL.unitopr.unitint.test.statefarm.org / SQLTINFWT03.unitopr.unitint.test.statefarm.org,57801	WTSD6PJL.UNITOPR.UNITINT.TEST.STATEFARM.ORG/ SQLTINFWT03.unitopr.unitint.test.statefarm.org,57801	Aug 4 <sup>rd</sup>	Aug 5 <sup>th</sup> to 10 <sup>th</sup>	-
Forest B - CSSites	SFSQL_Creative	WTSD4VVY.opr.system.test.statefarm.org / SQLTINFWT03.opr.system.test.statefarm.org,57801	WTSD8STS.opr.system.test.statefarm.org / SQLTINFWT03.opr.system.test.statefarm.org,57801	TBD . Possibly by 4 <sup>th</sup> week of Aug	TBD .Possibly by 4 <sup>th</sup> week of Aug	Change tasks will be assigned to Matt and Network team( Required changes for using the same SQL alias for SQL server 2014 )
Production - CSSites	SFSQL_Creative	WPSD4V60.opr.statefarm.org/ sqlpinfwt03.opr.statefarm.org,57801	WPSD9W8Q.opr.statefarm.org/ sqlpinfwt03.opr.statefarm.org,57801	Sep 16 <sup>th</sup> (ESS alert will be sent)	Sept 16 <sup>th</sup> to 19 <sup>th</sup>	Change tasks will be assigned to Matt and Network team( Required changes for using the same SQL alias for SQL server 2014 )

# Siebel DR meeting

Wednesday, January 18, 2017 11:02 AM

- restore script

  - backup DB

  - Script logins

  - reconfigure AAG

  - Do we really need AAG for DR?

    - Can we do standalone? Do we need reporting in DR?

- Forest B DR instead of PROD

# CISO

Wednesday, January 25, 2017 10:03 AM

# Manager Quick Star

Thursday, February 02, 2017 2:13 PM

Good afternoon Team Montgomery,

As you may know, Manager Quick Starts (MQS) are designed to help new managers build a positive working relationship with team members. The main objectives of a MQS are to:

- Identify preferred communication styles
- Discuss priorities
- Identify potential problem areas
- Focus on important tasks right away

I'll be facilitating a meeting with you on Thursday, February 2 at 1pm CT to review a series of questions (see below) in an effort to assist your team. I wanted to provide these questions in advance so you can come prepared to the meeting with some thoughts in mind. Should you have other questions regarding this session, please let me know.

Thanks in advance for your participation!

## **Manager Quick Start Questions:**

1. **What do we already know about our new Manager?**
2. **What don't we know but would like to know about our new Manager**
3. **What does our new Manager need to know about us as a group?**
4. **What do we want most from our new Manager?**
5. **What are our concerns about this person becoming our new Manager?**
6. **What are the major problems our new Manager will be facing over the next 6-12 months?**
7. **What are some specific suggestions we have for overcoming the problems we've discussed?**
8. **Is there anything else you would like to share that I haven't specifically asked you about today?**

I look forward to meeting with you all.

---

**Shemell D. Perry**, CPCU® CLU® ChFC® AINS MHRM  
Human Resources Representative – supporting IT/Systems  
☎ 972-907-7234 📠 972-907-6224  
✉ Email: [Shemell.Perry.LN62@Statefarm.com](mailto:Shemell.Perry.LN62@Statefarm.com)

**re<sub>3</sub>markable**

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For help with HR Policy, Payroll or general HR questions, contact the HRSC [online](#) or by phone at 1-877-272-1999.

For questions about your benefits, contact the State Farm Benefits Center at Aon Hewitt by calling (866) 935-4015.

It is not enough to be good if you have the ability to be better. Alberta Lee Cox

 *Please consider the environment before printing this e-mail.*

# Feb 1-on-1

Thursday, February 23, 2017 10:50 AM

WFH Monday ... bring sisters in?

April Vacation? Work extra hours and do a WFH one day?

40hrs from Gma's passing

What to expect from workshop ideas?

Hadoop stuff?

FIND EPR DOCUMENT

CROSS COLLABORATION

THREE TABLE PROCESS/TABLE IDAE

3 TIMES MONTH

APRIL

NOT ALL TECHNICAL

TEAM BASED COLLABORATION

KNOWING PPL'S BACKGROUNDS TO TACKLE CHALLENGES

GOOD IDEAS TO IMPROVE

DEVELOPER TOOLS???

Check for beavrement leave that Victor adjusted



# Reducing Server Memory

Thursday, February 23, 2017 10:50 AM

RFS for each set of servers. (Ping Zach/Paul) once request in to verify  
March 3

Reduce memory too 8192  
Use formula to reduce memory (get link)  
Reduce page file to this using such formula for 2nd level ... give them formula and all the details  
Reset server down  
Set memory to such and such  
Restart  
SQL DBA checkouts

Give RAMU the checkouts for SQL server  
Send email to BPs after servers the Monday before the change. Within change window

AAG/clustered servers?  
How do we handle these? Need to be done in sequence.  
25

Tasks:  
Find servers /w heavy memory  
Check SQL CDRS to see that they are indeed Standalone  
Mark those for the MONDAY BEFORE  
Email BP, DBA, and Terence and JErémy as well as James and NOS people. Inform that its within change window and any objections  
Create RFS and verify /w NOS team that it's good with Fri date  
Have them perform the work and create task for RAMU to checkout the servers

Please reduce the overall server memory on these Forest A and Forest B servers (see attachment) using the attachment and the formula at the given link:

<https://sfwikis.opr.statefarm.org/sites/systems/Wiki%20Pages/How%20to%20check%20page%20file%20size.aspx?mode=none>

Page file size should reflect the increase in memory using the following formula:

(Initial Size)=Memory +300mb

(Maximum Size)=Memory\*2

In this example:  $(3*1024)+300=3372$

and for Maximum Size  $(3*1024)*2=6144$

When this work is complete, please contact offshore DBA Ramu Valu to perform checkout on changed servers.

# Git Continuous Integration

Monday, May 22, 2017 1:11 PM

Write Code -- Test -- Deploy

# AG Project

Wednesday, May 31, 2017 9:34 AM

Threshold  
Columns to use:  
Synchronization\_state\_desc  
Ssynchronization\_health\_desc

Another piece in addition to above status:  
Log\_send\_queue - how many bytes queued to send. How far behind am I?  
Log\_send\_rate - would drop down to zero in event of AG failure

Redo\_rate

Whats are log\_Send\_queue

RPO - 20 min?

Only care when its sync\_commit and not sync  
OR  
ASYNCH and NOT synch

Make the log\_Send\_queue\_size/log\_send\_rate/60 = @parameter?

When ars.role = 1  
If I'm primary then run the query, if I'm not primary then don't run it. Still using  
dm\_hadr\_availability\_replica\_states

If the primary and secondary fail, how do we detect it? Because there's no data to report.  
Simulate situation on component boxes by stopping services and rebooting

Channel 9.com - AG training  
Ask Stephen about AG MS Lab and Lab queries  
DMVs /w Chris  
Document HARD DMV query

Component Servers  
Why can't I connect

Follow up /w Jose's Smartcard

Find some good AG training and DMV  
SPN

SQL Saturdays

James' SharePoint Servers

WTSDYK84, 84, 85, 86, 87, 88, 89, WTSDY4DN, and WTSDY4DP

AG Script Enabled on:

SQLWMSDYK8301  
WTSDYK83\WMSDYK8301  
WTSDYK84\WMSDYK8305

SQLWMSDYK8501  
WTSDY4DP\WMSDYK8509  
WTSDYK85\WMSDYK8501  
WTSDYK86\WMSDYK8505

SQLWMSDYK8701  
WTSDYK87\WMSDYK8701  
WTSDYK88\WMSDYK8704  
WTSDYK89\WMSDYK8707

SQLWMSDYK8702  
WTSDYK87\WMSDYK8702  
WTSDYK88\WMSDYK8705  
WTSDYK89\WMSDYK8708

SQLWMSDYK8703  
WTSDYK87\WMSDYK8703  
WTSDYK88\WMSDYK8706  
WTSDYK89\WMSDYK8709

SQLWMSDYK8502  
WTSDY4DP\WMSDYK8510  
WTSDYK85\WMSDYK8502  
WTSDYK86\WMSDYK8506

Problems with and stuck in resolving:  
SQLWMSDYK8302  
SQLWMSDYK8304

-Update description on the AG HPSM Alert /w Description and Instance name  
-Push to James' servers from rgsrv list and suppress old alert on these servers

-Check if 2016 servers are working??

SQL Log file path	status	unit	message
09/10/17 21:57:54	Open	scm_wiscz7w0_int	WSFC cluster is offline

EXECUTE AS LOGIN = 'SFSA'  
--Will Create Table  
USE [SF\_SQL\_Admin]  
GO

/\*\*\*\*\* Object: Table [dbo].[Perf\_CounterData\_AG\_State\_Monitor] Script Date: 7/25/2017 1:31:16 PM \*\*\*\*\*/  
SET ANSI\_NULLS ON  
GO

SET QUOTED\_IDENTIFIER ON  
GO  
Drop Table [dbo].[Perf\_CounterData\_AG\_State\_Monitor]  
CREATE TABLE [dbo].[Perf\_CounterData\_AG\_State\_Monitor](  
[ID] [bigint] IDENTITY(1,1) NOT NULL,  
[CollectionTime] [datetime] NOT NULL,  
[AGGroupName] [sysname] NOT NULL,  
[InstanceName] [nvarchar](256) NOT NULL,  
[role\_desc] [nvarchar](60) NOT NULL,  
[synchronization\_state] [tinyint] NOT NULL,  
[SyncState] [nvarchar](60) NOT NULL,  
[availability\_mode] [tinyint] NOT NULL,  
[SyncMode] [nvarchar](60) NOT NULL,  
[RedoRate] [bigint] NULL,  
[Redo Queue Size] [bigint] NOT NULL,  
[Database Name] [nvarchar](255) NOT NULL  
CONSTRAINT [PK\_Perf\_CounterData\_AG\_State\_Monitor] PRIMARY KEY CLUSTERED  
(  
[ID] ASC  
)WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF,  
ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  
) ON [PRIMARY]  
  
GO

--Will Create PROC

USE [SF\_SQL\_Admin]  
GO

/\*\*\*\*\* Object: StoredProcedure [dbo].[Perf\_CounterData\_AG\_State\_Monitor\_SP] Script Date: 7/25/2017 1:30:29 PM \*\*\*\*\*/  
SET ANSI\_NULLS ON  
GO

SET QUOTED\_IDENTIFIER ON  
GO

Create Procedure [dbo].[Perf\_CounterData\_AG\_State\_Monitor\_SP]

(@maxLatency INT = 60)  
AS

IF EXISTS (  
SELECT \*  
FROM sys.dm\_hadr\_availability\_replica\_states ars  
WHERE ars.ROLE = 1  
)  
BEGIN  
IF (  
SELECT COUNT(\*)  
FROM sys.dm\_hadr\_database\_replica\_states drs  
LEFT JOIN sys.availability\_replicas ar ON drs.replica\_id = ar.replica\_id  
LEFT JOIN sys.availability\_groups ags ON ar.group\_id = ags.group\_id  
LEFT JOIN sys.dm\_hadr\_availability\_replica\_states hars ON ar.group\_id = hars.group\_id  
AND ar.replica\_id = hars.replica\_id  
WHERE (  
(  
ar.availability\_mode\_desc = 'SYNCHRONOUS\_COMMIT'  
AND drs.synchronization\_state\_desc <> 'SYNCHRONIZED'  
) OR (ar.availability\_mode\_desc = 'ASYNCHRONOUS\_COMMIT'  
AND drs.synchronization\_state\_desc <> 'SYNCHRONIZING')  
)  
) > 0  
BEGIN  
INSERT INTO Perf\_CounterData\_AG\_State\_Monitor  
SELECT DISTINCT getdate() AS CollectionTime  
,ags.NAME AS AGGroupName  
,ar.replica\_server\_name AS InstanceName  
,hars.role\_desc  
,drs.synchronization\_state  
,drs.synchronization\_state\_desc AS SyncState  
,ar.availability\_mode  
,ar.availability\_mode\_desc AS SyncMode  
,drs.redo\_rate AS RedoRate  
,drs.redo\_queue\_size AS [Redo Queue Size]  
,db\_name(drs.database\_id) as [Database Name]  
--INTO Perf\_CounterData\_AG\_State\_Monitor (Use to create table in SF\_SQL\_ADMIN.  
Comment above insert, uncomment this to create table.)  
FROM sys.dm\_hadr\_database\_replica\_states drs  
LEFT JOIN sys.availability\_replicas ar ON drs.replica\_id = ar.replica\_id  
LEFT JOIN sys.availability\_groups ags ON ar.group\_id = ags.group\_id  
LEFT JOIN sys.dm\_hadr\_availability\_replica\_states hars ON ar.group\_id = hars.group\_id  
AND ar.replica\_id = hars.replica\_id  
WHERE (  
(  
ar.availability\_mode\_desc = 'SYNCHRONOUS\_COMMIT'  
AND drs.synchronization\_state\_desc <> 'SYNCHRONIZED'  
) OR (ar.availability\_mode\_desc = 'ASYNCHRONOUS\_COMMIT'  
AND drs.synchronization\_state\_desc <> 'SYNCHRONIZING')  
)  
)  
IF (  
SELECT COUNT(\*)

Find all Ags and push manually (use CDRS)  
Then disable the old alert across SCOM, including WSFC (make WSFC tickets go CONSOLE)

```
SELECT TOP (1000) [agname]
      ,b.Phys_srvr_nm
      ,[ENV_NM]
      ,[ALWYON_STTS]
      ,[AGName]
FROM [SFSQL_CDRS].[dbo].[INSTC] a
inner join DBASE_SRVR b on a.SRVR_CLSTR_NM = b.PHYS_SRVR_NM
inner join AvailabilityGroupProperties c on b.PHYS_SRVR_NM = c.ServerName
where ALWYON_STTS = 'Y' and (b.DOM_ENV_TXT like '%opr.statefarm%' or b.DOM_ENV_TXT like
'%support%')
```

SQL 2016?

WG8589

If the job fails, what do we do??

Script to grab ALL AGs  
SQLP-SCOM2012-DW

```
BEGIN
SELECT 'Set-Location "SQLServer:\SqlRegistration\Database Engine Server Group"'

UNION ALL

SELECT 'New-Item -ItemType "Directory" -Name "AG"'

UNION ALL

SELECT distinct 'New-Item -ItemType "Registration" -Name
""+replace(ManagedEntityDefaultName,'\','')+" -Path "sqlserver:\SqlRegistration\Database
Engine Server Group\AG" -Value "Servers=""+ManagedEntityDefaultName+""; integrated
security=true"'
FROM [OperationsManagerDW].[dbo].[vManagedEntity]
where ManagedEntityTypeRowId IN (2260, 2372, 2625)
;
END;
```



All AG  
Servers in...

Servers unable to connect  
WPSD11G6\WMSD5V2F03 - NO RDP - NOT IN CDRS  
WPSD4HL9\WMSD4HL901 - NO RDP - NOT IN CDRS

```
FROM sys.dm_hadr_database_replica_states drs
LEFT JOIN sys.availability_replicas ar ON drs.replica_id = ar.replica_id
LEFT JOIN sys.availability_groups ags ON ar.group_id = ags.group_id
LEFT JOIN sys.dm_hadr_availability_replica_states hars ON ar.group_id =
hars.group_id
AND ar.replica_id = hars.replica_id
WHERE (
(
ar.availability_mode_desc = 'SYNCHRONOUS_COMMIT'
AND drs.synchronization_state_desc <> 'SYNCHRONIZED'
) OR (ar.availability_mode_desc =
'ASYNCHRONOUS_COMMIT'
AND drs.synchronization_state_desc <> 'SYNCHRONIZING')
)
AND ((drs.log_send_queue_size / NULLIF(drs.log_send_rate, 0)) / 60) >=
@maxLatency
) > 0
BEGIN
EXEC xp_logevent 98766
,'SQL AG HEALTH CHECK FAILED. PLEASE SEE
SF_SQL_Admin.Perf_CounterData_AG_State_Monitor'
,ERROR;
END
END
END
GO

-----
--Will Create Job

USE [msdb]
GO

/***** Object: Job [SF_SQL_Admin Perf CounterData AG State Monitor Job] Script Date: 7/25/2017
1:32:14 PM *****/
BEGIN TRANSACTION
DECLARE @ReturnCode INT
SELECT @ReturnCode = 0
/***** Object: JobCategory [[Uncategorized (Local)]] Script Date: 7/25/2017 1:32:14 PM *****/
IF NOT EXISTS (SELECT name FROM msdb.dbo.syscategories WHERE name=N'[Uncategorized (Local)]'
AND category_class=1)
BEGIN
EXEC @ReturnCode = msdb.dbo.sp_add_category @class=N'JOB', @type=N'LOCAL',
@name=N'[Uncategorized (Local)]'
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

END

DECLARE @jobId BINARY(16)
EXEC @ReturnCode = msdb.dbo.sp_add_job @job_name=N'SF_SQL_Admin Perf CounterData AG State
Monitor Job',
@enabled=1,
@notify_level_eventlog=0,
@notify_level_email=0,
@notify_level_netsend=0,
@notify_level_page=0,
@delete_level=0,
@description=N'No description available.',
@category_name=N'[Uncategorized (Local)]',
@owner_login_name=N'sfsa', @job_id = @jobId OUTPUT
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
/***** Object: Step [Step 1] Script Date: 7/25/2017 1:32:14 PM *****/
EXEC @ReturnCode = msdb.dbo.sp_add_jobstep @job_id=@jobId, @step_name=N'Step 1',
@step_id=1,
@cmdexec_success_code=0,
@on_success_action=1,
@on_success_step_id=0,
@on_fail_action=2,
@on_fail_step_id=0,
@retry_attempts=0,
@retry_interval=0,
@os_run_priority=0,@subsystem=N'TSQL',
@command=N'exec Perf_CounterData_AG_State_Monitor_SP',
@database_name=N'SF_SQL_Admin',
@flags=0
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_update_job @job_id = @jobId, @start_step_id = 1
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_add_jobschedule @job_id=@jobId, @name=N'Every min',
@enabled=1,
@freq_type=4,
@freq_interval=1,
@freq_subday_type=4,
@freq_subday_interval=1,
@freq_relative_interval=0,
@freq_recurrence_factor=0,
@active_start_date=20170725,
@active_end_date=99991231,
@active_start_time=0,
@active_end_time=235959,
@schedule_uid=N'5c63bcf7-5ddd-40f3-b1e7-5365cd0204ee'
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
EXEC @ReturnCode = msdb.dbo.sp_add_jobserver @job_id = @jobId, @server_name = N'(local)'
IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback
COMMIT TRANSACTION
GOTO EndSave
QuitWithRollback:
IF (@@TRANCOUNT > 0) ROLLBACK TRANSACTION
EndSave:

GO
```

WPSD4HMC\WMSD4HL903 - NO RDP - NOT IN CDRS  
WPSD4HPV\WMSD4HL902 - NO RDP - NOT IN CDRS  
WPSD5V11\WMSD5V1W03 - NO RDP - NOT IN CDRS  
WPSD5V1T\WMSD5V1T01 - NO RDP - NOT IN CDRS  
WPSD5V1W\WMSD5V1W01 - NO RDP - NOT IN CDRS  
WPSD5V1X\WMSD5V1W02 - NO RDP - NOT IN CDRS  
WPSD5V2F\WMSD5V2F01 - NO RDP - NOT IN CDRS  
WPSD5V2G\WMSD5V2F02 - NO RDP - NOT IN CDRS  
WPSD6LB8\WMSD6LB801 - SMARTCARD - RTS  
WPSD6LB9\WMSD6LB802 - SMARTCARD - RTS  
WPSD6LCB\WMSD6LB803 - SMARTCARD - RTS  
WPSDPPZ6\WMSDPPZ601 - NO RDP - NOT IN CDRS  
WPSDPPZ7\WMSDPPZ603 - NO RDP - NOT IN CDRS  
WPSDY31W\WMSDPPZ605 - NO RDP - NOT IN CDRS  
WPSDY31X\_WMSDPPZ607 - NO RDP - NOT IN CDRS

WPSDYTK0\WMSDYTK004 - CAN RDP, BUT NO SSMS - SHAREPOINT LEGAL JAMES KERR  
WPSDYTK0\WMSDYTK005 - CAN RDP, BUT NO SSMS - SHAREPOINT LEGAL JAMES KERR  
WPSDYTK0\WMSDYTK006 - CAN RDP, BUT NO SSMS - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZK\_WMSDZCZK01 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZK\_WMSDZCZK02 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZK\_WMSDZCZK03 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZK\_WMSDZCZK04 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZL\_WMSDZCZK05 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZL\_WMSDZCZK06 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZL\_WMSDZCZK07 - NO RDP - SHAREPOINT LEGAL JAMES KERR  
WPSDZCZL\_WMSDZCZK08 - NO RDP - SHAREPOINT LEGAL JAMES KERR

```
EXECUTE AS LOGIN = 'SFSA'
--Will Create Table
USE [SF_SQL_Admin]
GO
```

```
/***** Object: Table [dbo].[Perf_CounterData_AG_State_Monitor]  Script Date: 7/25/2017 1:31:16 PM *****/
SET ANSI_NULLS ON
GO
```

```
SET QUOTED_IDENTIFIER ON
GO
```

```
DROP TABLE IF EXISTS [dbo].[Perf_CounterData_AG_State_Monitor]
```

```
CREATE TABLE [dbo].[Perf_CounterData_AG_State_Monitor](
    [ID] [bigint] IDENTITY(1,1) NOT NULL,
    [CollectionTime] [datetime] NOT NULL,
    [AGGroupName] [sysname] NOT NULL,
    [InstanceName] [nvarchar](256) NOT NULL,
    [role_desc] [nvarchar](60) NOT NULL,
    [synchronization_state] [tinyint] NOT NULL,
    [SyncState] [nvarchar](60) NOT NULL,
    [availability_mode] [tinyint] NOT NULL,
    [SyncMode] [nvarchar](60) NOT NULL,
    [RedoRate] [bigint] NULL,
    [Redo Queue Size] [bigint] NULL,
    [Database Name] [nvarchar](255) NOT NULL
CONSTRAINT [PK_Perf_CounterData_AG_State_Monitor] PRIMARY KEY CLUSTERED
(
    [ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
```

```
GO
```

# Analyst Development Forum

Friday, June 02, 2017 9:01 AM

What has the performance been in the role?

Conversation with your manager

Are you doing the job well

Have you been leveling up in your role and succeeding

Don't want to promote you to a level you won't be successful. Promote you to a level that you are successful at.

# Need Casetrack Server for Effort

Monday, June 12, 2017 2:13 PM

WTSD4FFF.unitopr.unitint.test.statefarm.org

New instance on server and request new spacing

100GB for DATA

Forest A implementation

SQL\_ID

Windows Auth

Creation of SQL SVC

Create SQL security accounts

Informatica - stand alone machine ... assigned DB read access to read specific tables and columns to perform extract. Runs at certain time. Load occurs on other database. WEX instance

Windows Auth

Check with Matthew Albert (DBA)

# Intern Meetings June 19 week

Friday, June 16, 2017 9:42 AM

## June 19

Review Transaction Log Training and walk thru the training as a refresher  
Check on his understanding of AG training  
AG training  
Start talking about script  
Get on component  
Break it for him  
Finalize and test the script June 19  
Show him more true Prod Ags  
Go over general  
XE - how to setup one up, then dive how to interpret for AG

## July 4 After

Small presentation/teach back to us on AGS  
You ran the script and did this stuff  
Do you really understand.  
Do you understand what you did and why you did it  
Synchronized vs Synchronizing. Resolving states  
Ansync vs Sync

## June 26

Test script  
Document test cases

Primary goal - get script on AG working and test it (July 5 should have script working)

Do Lab FIRST week that we're gone, then test script and break AG/test it  
Get on component  
DMVs  
Additional reading  
Test on component servers  
Break  
Try to fix  
Lean on James to try to fix  
When we come back see where he's at  
\*\*eventually add windows event alert to shot to SCOM for HPSM

Secondary goal - week of July 10 - backend stuff

Start /w Memory week of July 10

Next week focus on disk and CPU in July 17

OPSERVER stuff is July 10 and 17th. Analyze Memory for servers on Opserver July 10 and CPU and disk after July 17 sessions

Lean into performance in July.

Shift into backend type stuff

CPU, memory, DISK - how to interpret it

How to use perfmon and virtual I/O stats

Maxdop, max memory, how memory works, memory grants

Networking, schedulers

Performance tuning lab?

Opserver running - have him pick a few servers and have a look. Take a look and see if we have any possible issues. Look at Siebel ... analysis of an environment and come back and talk to us. After the training above is done.

Provide a bunch of queries on DMVs --- Opserver already provides some

## Tues June 20

1. Discuss through SQL plan for next few weeks and A project.
2. Discuss XE (Extended events). Quickly go through setup and how it relates to AO
3. Plan and implementation for the AO project
  1. Implement the script via a job
4. Action Item: Review transaction logs and AO training from Stairways. Do you have any questions? Review next day or throughout today and let us know if you have questions

## Wed June 21

1. Continue discussions on AG script
2. Component server walkthrough of an AG setup
  - a. Different possible configurations (Auto vs Manual, Sync vs Async etc.)

In meantime on Wed, continue to work with AG

## THE LAB WILL BE THE COMPONENT BOXES

## Thurs June 22

This is just a hold for any additional topics we need to discuss from the previous days or any questions Jose may have.

Also expectations for week of June 26

Do AG Lab

Test script on component

Document test cases

Additional reading

Break

Try to fix

Lean on James to try to fix

Etc

**IN THE DOWNTIME ... in between AG, call some DBAs and ask them about their applications. Give application list.**

## FINAL PROJECT RESULTS:

Help Jose do a write-up on his AG reports, tools he used, memory.

What did you learn, what'd you do.

At least present to the team ... his AG findings, the script, and how we plan to implement it.

If he wants, he can present to the intern people

How is this going to impact SF and our team

Cut tickets down etc

## July 25 - implementation plan for AG nodes



# Innovation/Ideation

Thursday, July 06, 2017 2:06 PM

Idea: Dashboard

STOP using email?

Since we can capture a lot of data and metrics ... short term will identify problems. A lot of problems will need to be identified to fix the dashboard.

Individual assessment

Create dashboard

Amongst both teams for how successful

Dashboard as a whole

Way to provide metrics and numbers

Status on stuff

Dashboard on how we can see stuff real-time

Servlets/PHP

Initial deployment at our level

Branch out to something later

Blueprint for other groups

End of project

See where it started and where it ended

Hold up, turnaround time...

What metrics do we want to capture?

The data is already there in HPSM?

App development

Can I get this, that or the other?

We have no baselines to show those ad-hoc requests.

Might help to track things

Submit a HPSM ticket and track that on the dashboard

Need to come to an agreement on what would be the most beneficial metrics to capture and formulate a report.

Intern innovation team to make dashboard

Nice to have ... but we need it.

Managing time

Jose ... get hack day stuff

Automate ... no one wants to do it

Queries that will pull the info already

Pull from HPSM

Can see how long the tasks take?

Where to improve?

Idea: Go to lunch and get matched /w a team that meets criteria. Match you up with the team that you want to go out with to lunch. Underlying idea is network with other teams at state farm in a way. Lunch is a good way to motivating.

Does it have to be Systems?

Less formal chalk talk ...

Idea: When Microsoft comes to talk to us about ideas, cool to have Oracle come in and discuss their features. More cross-team collaboration. When comes and talks about SQL 2017 ... be cool to see to know whats on the other side.

Technically what is there to talk about?

Post-gress conversions?

How do we manipulate data? What is the standard way.

Off-shore team notification service?

Standardized it across teams

Oracle to SQL server migrations

Make a document?

Better understanding of Oracle vs SQL server

More cross team collaboration

On-call stuff

How they manage their queue

Idea: Lets be DBAs ... take on Postgress into our unit?

# Moving CDRS to New Web Server

Wednesday, August 02, 2017 10:41 AM

CDRS code is in TFS  
Publish Forest A Opserver  
Push it in webdocs

Apppool - create a new one using a SQL ID. Elaine has the p/w

sqlrepo  
The only thing that might not be right in TFS is the web.config file.

It has to be customized when I put it out on the domain  
I have access to the Forest A web files  
I don't have access to production web files.

No production until DR exercise ... 2nd last week of August

[8/2/2017 11:16 AM] Elaine Lyons:  
**SQLCDRS\_C\_G** is a member of the UNTOPR\_SQLCDRS\_C\_DLG  
Jeremy, James, Terence and me are members of SQLCDRS\_C\_G  
[8/2/2017 11:17 AM] Matt Arthen:  
oh  
so I need to have DLG added then?  
[8/2/2017 11:18 AM] Elaine Lyons:  
Terence and Jeremy are authorizers on that group so you could get access.  
The authorizer for SQLCDRS\_C\_G is in EUC but I don't imagine they would block you.

Add this to WSDB PROD DB -- > UNTOPR\gMSA\_SQL\_CDRS\_G  
  
updating the strings in web.config also. I left the production string; just commented it out.  
so basically when we copy the code over to the PROD Opserver box  
just comment out that code  
  
I use a separate file for production. It is currently named  
webprod.config. It has the production strings. I just change the name of  
the Forest A web.config to anything else (xxxweb.config) then rename  
webprod.config to web.config and copy it into prod.

LEAVE UNTOPR\gMSA\_SQLCDRS AS HAVING ACCESS TO DATABASES:  
SQLCDRS  
WSDB  
  
Do we need to nest groups properly?  
Contact Matthew Eggena

wtsdb9hb

[8/2/2017 11:19 AM] Matt Arthen:  
ok. I'll get my self added then  
btw  
WTS9WCS\WTS9WCS01 is the Forest A DB. Do you have the p/w for that account?  
and name?  
[8/2/2017 11:20 AM] Elaine Lyons:  
The authorizer for SQLCDRS\_C\_G is in EUC but I don't imagine they would block  
you.  
[8/2/2017 11:22 AM] Elaine Lyons:  
in the web.config the connection is made with <add  
name="SFSQL\_CDRSConnectionString" connectionString="Data  
Source=WTS9WCS.unitopr.unitint.test.statefarm.org.; Initial  
Catalog=SFSQL\_CDRS;Integrated Security=True"  
providerName="System.Data.SqlClient"/>  
[8/2/2017 11:26 AM] Elaine Lyons:  
I need to research the account being used at the database.  
[8/2/2017 11:28 AM] Elaine Lyons:  
I do have a SQL Authenticated login that works on Forest A if that would  
help.  
[8/2/2017 11:28 AM] Matt Arthen:  
one of the test ones?  
[8/2/2017 11:28 AM] Elaine Lyons:  
SQL\_CDRS cdrsCDRSCDR\$123  
[8/2/2017 11:29 AM] Matt Arthen:  
oh sweet!  
thanks

There is an account on Forest A called Support\UTL\_SQLCDRS\_G. It has two  
parent groups: Support\OPR-AllowToAuth\_G and Support  
\UNTOPR-AllowToAuth\_G. I think this may be relevant to our integrated  
security. It would take someone like Matthew Eggena to fully explain how  
this all works.

# How to Manage OpServer Updates?

Wednesday, August 16, 2017 1:05 PM

Open source product

Tool shed (s.f\toolshed)

Open source tool team

For each update, go to open source team

Get latest zip file publish etc

Take new files, merge into project. Use TFS to do a DIFF to see the diff. Do a manual compare to the changes we've done to the changes they've done.

People commit changes to that GIT repository anytime.

How often to pull down software?

Quarterly

Subscribe us for OPServer Notifications Commit

As updates happen ... make appropriate changes as necessary

TFS is going the documentation

Find the Opserver changes, pull them.

# SQL CDRS DBA IIS Account

Wednesday, September 20, 2017 10:07 AM

Handle file permissions on website folders (webdocs\sqlcdrs)

Create new domain local group in UNTOPR

UNTOPR\SQLCDRS\_ACCESS\_RW (need naming convention from webtech?)

Nest our OPR global groups into this group

**OPR\SQLDBA\_IS3\_G**

**OPR\SQLDBA\_ES3\_G**

**OPR\SQLDBA\_ES2\_G**

Create two groups?

One for DBAs ....

One for non-DBAs .... Talk to Elaine? Adds aliases through the front-end?

Licensing piece of SQL CDRS app? HG administration. Talk to Elaine?

Does second level have access to SQL CDRS? Elaine question? If so, add OPR\SQLDBA\_ES2\_G

**YES, 2nd level has access to CDRS**

Talk to webtech for naming convention on file permissions for websites

Wednesday, September 27, 2017 2:37 PM

### GMSA automation

Test a server ... to try and incorporate

Timing is rest bwtn when computer account is created and GMSA account

# AGILE BASICS

Tuesday, October 10, 2017 7:58 AM

The discovery process

# Product Ownership

Wednesday, October 18, 2017 7:58 AM

Prepare - understanding stakeholder needs and organizing work with team  
Guide...

....

## Product owner

- Meant to represent the voice of the business or the customer
- Content authority for the work
- They distill the vision of where we're heading into the team
- Responsible for Product Backlog, prioritizing and accepting stories
- Defines/prioritizes stories to be included in the Sprint

## Waterfall vs Agile

Constant level of involvement necessary  
That's why you're part of the team

## Important tool is prioritization

- How do you look at it from a business perspective to get the smallest, highest value things
- Get them into production ASAP so you can get a return on it

LEAN Startup - discover what will add value when BP doesn't know what they want

Develop hypothesis of value (PLAN)

Build MVP (DO)

Evaluate MVP (CHECK)

Pivot (stop) or build additional features (ACT)

Minimum viable product - it's an experiment

Minimal Market Release - minimum amount of features I can release with a product. Lowest cost thing to validate that my idea is true or not

GARTNER Research - on any application that gets deployed ... how much of the functionality on your phone do you actually use? How much of the MS functionality products get used? Its about 20%....

## The five levels of Agile Planning

Product Vision -> Product Road Map -> Release Plan -> Sprint Plan -> Daily Plan

Product owners are involved in all aspects

Your job as a PO is to work and focus on top three layers

Release Plan - MVP, MMR, when do I want this to do to PROD? Getting stakeholders together and ... what do we need to bundle. Can we release these together or will they need to have more value?

EPIC? Epic should be created at the Director level...they craft the epic. Should be more outcome based. They are big ideas. "I want a new pocket agent app"

Product vision gets created /w PO and at business/executive level

## Vision

- You need to communicate your vision
- Not fixed and evolution is natural
- If it does change, communicate it intentionally and widely

## Examples of ways to communicate vision:

Product Box - clear, sensory rich that tells people why are we doing this? What are the main objectives/major features that we need.

Create a figurative box that represents your product

Back of the box .... Product description, features list, operating req

Front of the box - Product name, graphic, 3 -5 selling points/objectives

## Product Canvas -

- Name of the product
- Goal - the reason for creating it
- Metrics - the measures to determine if goal has been met
- Target Group - users and customers with needs
- Big Picture - desired UX ... epics, scenarios, storyboards, workflows etc
- Product details ... the goal of the next iteration with specific actionable items to reach the goal ... ordered from one to n

Post Card from the future .... The premise is that your BP/team are sending themselves a post card from the future after they have finished their outcomes

## Roadmap - how are we doing to get there?

More specific than vision

## How do you get started /w all of this?

### Inception...

- Identify Stakeholders and do some analysis
- Bring those folks together to understand the vision, roadmap, and release plan
- Figure out what type Product owner model you need to use

## The team during inception comes up with product backlog

- Describes WHAT the team is to deliver
- Changes in response to new info and changing needs
- Stakeholder/product needs get broken into features ... and from this we prioritized that and create a product backlog
- We want to invest in growing the business portion of our suite of tools
- Combined program level product backlog .... Discuss where we want to invest the money to grow/sunset ... invest people's time

Epics --> Features --> Stories --> Tasks

## What makes a well-groomed backlog?

Updated regularly

- Refine features/stories
- Reprioritize
- Add/remove
- Organized - can see the hierarchy
- Upcoming stories meet Definition of Rdy
- Clearly indicates work remaining on an item
- Indicates work targeted for the next release of functionality

#### User stories

- Expression of user needs
- Not detailed requirements or specifications
- A vertical slice of functionality for fast feedback
- Think about it from the customer's/BP's POV
- Describes functionality of value to users of a system/solution
- Simple way to capture needs of business

#### Grouping to Maximize Value

- MMF - Minimum Marketable Feature
- MMR - "" "" Release
- MVP

#### Release Planning

#### Weighted Shortest Job First (WSJF)

Prioritization model used to sequence jobs based on size and complexity (cost of delay, risk and opportunity cost). It take those and does a calculation and spits out an ordered list of here is the highest smallest value thing and that becomes number 1. The thing that take the longest and have the least value become less priority

#### Acceptance criteria

- Specific to story
- Used to write system test cases
- Used to validate functionality meets requirements

#### Burn up charts



# Rightfax

Friday, October 27, 2017 8:38 AM

## Which accounts were able to login /w WINDOWS server with?

Rightfax\_Install is the only one they logged in with  
All listed in memory were available

Only logged in as SCOM credential account

Which accounts were they able to login w/ SQL Server with?

Only logged into as UTL\_SCOM...

**LSASS.exe??** What enabled them to get the memory dump? Is that vulnerability on other servers? Or is it specific to a OS version? As sys admins, we can do this. How were they able to do it? Is it a problem across all Windows Servers? Just an 2008 servers, or 2012?

SQL dumper. Its on all SQL Server machines. Used for trouble shooting SQL. However allows you specify any process ID. Got memory ID. 2012 and 2016 have the tools built in. **2012 restricted the ability for that process other than SQL owned** process. The 2008 just like xp command shell can be enabled by a SQL admin. That was fixed in SQL server version.

Elimaintaing access to XP Command shell. In 2012 and on up, they restrict what that SQL dumper can be attached too.

**Make the SVC\_account not local admin**

**Remove SVC\_SLS from all servers Post-Load**

**Get Fireeye on server - everywhere? Servers  
Nathan Hoffman - JN7D**

**Use Jeremy's process? Harvest all the LOGINS as a starting point to see if they are in DPL.  
Get with WG1956**

[10/27/2017 10:24 AM] Quentin Rhoads-Herrera:

Correct. I know it is by default

I thought that by default though SQL Admins and SA account could re-enable it.

But I think that can be limited down to only the SA account but it has been a few years since I managed SQL lol

[10/27/2017 10:25 AM] Matt Arthen:

Gotcha, thats something I need to look into. Essentially just configuring SQL to allow only SA as opposed to any admin. I'll bring it back to our team/team lead

Matt - SQLdumper.exe is a SQL tool that is added on SQL install.

It is used to create dump files when SQL issues arise for analysis.

If not needed it can be removed.

However, you do need elevated rights to run it

[10/27/2017 10:20 AM] Quentin Rhoads-Herrera:

Also, I would work with Fireeye team for analysis on SQLDumper.exe calling LSASS

[10/27/2017 10:20 AM] Matt Arthen:

Ok thank you. And from that you were able to dump the users/pws. Just to be clear, XP\_CMDSHELL doesn't necessarily need to be enabled for that? I can be a straight admin using SUPPORT\XXXX and use SQLDumper?

[10/27/2017 10:20 AM] Quentin Rhoads-Herrera:

Yes

[10/27/2017 10:20 AM] Matt Arthen:

ok

[10/27/2017 10:20 AM] Quentin Rhoads-Herrera:

XP\_CMDSHELL is just the method they used

**I would definitely get in touch will our monitoring teams to add a rule to catch that exe calling lsass**

[10/27/2017 10:21 AM] Jason Borchardt:

We just used xp\_cmdshell to pivot from just running sql commands to actually being able to run commands on the system

[10/27/2017 10:21 AM] Matt Arthen:

Gotcha

jsut a means to get in

[10/27/2017 10:21 AM] Jason Borchardt:

Quentin, Michael and I actually already reached out to Scott Yehl, we can chat after this meeting

To catch sqldumper in the future

[10/27/2017 10:21 AM] Quentin Rhoads-Herrera:

You can leave me out of it lol. Just make sure Matt and his team are involved.

[10/27/2017 10:21 AM] Jason Borchardt:

;)

[10/27/2017 10:22 AM] Quentin Rhoads-Herrera:

Matt, if memory serves me right can't we allow XP\_CMDSHELL enable rights only to SA account?

[10/27/2017 10:22 AM] Matt Arthen:

Thanks for clearing that up. Regarding the accoutns, Rightfax\_Install is disabled and pw beign reset. All our affect credentials are being reset tonight.

<https://www.mssqltips.com/sqlservertip/2987/can-i-stop-a-system-admin-from-enabling-sql-server-xpcmdshell/>

Tuesday, March 20, 2018 10:46 AM

9-9:15

Wework accouunt

9th floor

First day of onboarding

2nd day = training on workday prep for training

4/3 - 4/6 - hsm integrations

Class starts at 830AM

Last day

Fly out on Monday 4/2

Starts tues morning at 9

Hotel?

Hotels.com

Only come back on the 6th if you can get an evening flight

If you can't get an evening flight, early sat morning

4/9 - 4/19 - virtual integrations training

Fill out I-9 forum

Passport

# Backup and Restore Script

Friday, September 04, 2015 2:14 PM

backup database DBNAME

to disk = 'H:\INCIDENTNUMBER\DBNAME\_Servername\_Request#\_COPYONLY\_COMP.BAK'

with stats = 10, copy\_only, compression

Backup path and file name : H:\IM5871223\SFSQL\_EOM\_7-29-15-FGWA-BACKUP

Backup file name should be :

DatabaseName\_SourceServerName\_Incident/task#\_COPYONLY\_COMP.BAK

For Example :

Backup database

to disk = 'H:\IM5871223\SFSQL\_EOM\_wvsdxjwh\_IM5871223\_copy\_only\_comp.bak'

with stats = 10, copy\_only, compression

SQL Server 2008

Use H drive for Backups

SQL 2012 and 2014

Use MP for backups

SQL\_F\MSSQL\BACKUP\MP

USE [master]

alter database [Upside60\_App] set offline with rollback immediate

RESTORE DATABASE [Upside60\_App]

FROM DISK = N'H:\IM6570250\Upside60\_App\_WTSC74NN\_IM6570250\_COPYONLY\_COMP.BAK'

with stats = 10, replace

GO

restore filelistonly from disk = 'H:\IM6570250\Upside60\_App\_WTSC74NN\_IM6570250\_COPYONLY\_COMP.BAK'

Notes to Ask LEGAL - DNS Alias

Tuesday, October 20, 2015 1:06 PM

Matt Arthen 12:34 PM  
Hey karen  
the corp law ppl want to arrange a meeting to create the new DNS aliases  
I'm looking at the DNS services tool  
these belong to:  
wtsdgvzl.unitopr.unitint.test.statefarm.org.  
sqltctrk01.unitopr.unitint.test.statefarm.org.  
sqltdmss01.unitopr.unitint.test.statefarm.org.  
sqltiwsa01.unitopr.unitint.test.statefarm.org.  
sqltmsap01.unitopr.unitint.test.statefarm.org.  
I'm not sure which app they belong too...  
Karen Cushing 12:36 PM  
sqltctrk01 may have been built when they had a CaseTrack database on wtsdgvzl. If they don't anymore, it may not be used. Ask them.  
sqltdmss01 is probably used for the DMS\_Staging database. We can and do set up separate aliases for each database on the server so we can move just one database to another server and repoint its alias. If two databases MUST be on the same server because the application is coded to expect that then we could just use the same alias for both databases. Ask them if this is the case.  
SQLTIWSA is probably used for the SFSQL\_Interwoven database. The comment about databases required to be on the same server may apply. Ask them.  
SQLTMSAP01 is probably used for the SFSQL\_METASTORM database. Ask them.  
Matt Arthen 12:40 PM  
ok cool  
one more thing  
wtsdg4rr.unitopr.unitint.test.statefarm.org.  
casetracksql.unitopr.unitint.test.statefarm.org.  
sqltmbpm.unitopr.unitint.test.statefarm.org.  
those are casetrack and metastorm I assume  
Karen Cushing 12:42 PM  
yes - and some are obsolete. metastorm used to be on the Legal Shared server with Interwoven. The last project I did before you joined SF upgraded the metastorm application version and moved the database to the CaseTrack server.  
Matt Arthen 12:42 PM  
ah ok  
so more cleanup to do then  
I'm gonna get a meeting /w all of them  
Karen Cushing 12:44 PM  
not really. the old dns aliases can just die when the servers are returned to stock if you don't point them to new servers. You just need to understand which ones are still used and either replace them with new ones using the DNS alias tool or get Louis to make change tasks to repoint them to SQL2014 servers

<https://sfwikis.opr.statefarm.org/sites/systems/Wiki%20Pages/SQLServerDNSAliasRequest.aspx?mode=none>

List what databases are on each server  
Compare logins between Forest A and Prod

Will the following SQL Server logins on WTSBG4RR (Forest A) still be needed for SQL Server 2014: casetrackx, ie\_reader, lbpmadmin, and lbpmuser  
QQL accounts (QQL1 and QQL5 on the forest A server)  
c00971\_cd010, c00971\_cd011, c00971\_012, c00971\_cd013, and c00971\_cd014  
  
I discussed with Karen, and there are quite a few individual ids on the server. We hope to do some cleanup during this migration with some of these if not all of these individual ids. State Farm is trying to move to security groups as it allows the application area resource authorizers to manage access rather than DBAs granting access to individuals. Cross domain access groups can be built in production for production ids that need access to forest A servers. Check out the [SQL Server Database Access Security Groups](#) wiki, as it describes the default permissions for each of the groups and where each of your individual accounts might fall into those groups. Again, going back to question 2 below, if we do re-create the security groups for WTSBG4RR, then they would like something below for CaseTrack and Metastorm respectively:

- We are offering to create new DNS aliases for SQL2012 servers if you want us to do so. Please review the information below and let me know whether you want to do this.
- The main benefit you get from using DNS aliases is to avoid changing your connection strings during the service window when we move your databases to new servers. Unfortunately, even if we keep the existing DNS aliases and point them to new servers you will still be changing your connection strings this time to include port number. Three reasons to get new DNS aliases are:
1. Building a new set of DNS aliases can be done with the DNS tool and that avoids using a change task to point the existing aliases to another server.
  2. Using new DNS aliases is not much more work since you will be changing the connection strings anyway.
  3. Using new DNS aliases facilitates rollback because the old DNS aliases would still be pointing to the old servers and don't have to be changed again.
- If you prefer to keep your existing DNS aliases and have us use a change task during the service window to point them to the new servers, we will be happy to do that.  
If you prefer to have us build new ones, we could go two ways:
1. Keep the existing numbers and use SEPM instead of SEP in the aliases so that SQLTSEPM01.unitopr.unitint.test.statefarm would point to the server that replaces SQLTSEP01.unitopr.unitint.test.statefarm.org, etc
  2. Use different numbers and keep using SEP in the alias names so you will end up withSQLTSEP03.unitopr.unitint.test.statefarm.org and SQLTSEP04.unitopr.uitint.test.statefarm.org in forest A after we return the SQL2008 servers to stock.
- Please let me know whether you want us to keep the existing DNS aliases or use one of the 2 options above to build new ones for you.

EUC - The login failed. Login failed for user  
'REDGATE\_API'. Contact DBAs

Monday, February 22, 2016 2:44 PM



RE 27428  
(EUCNET0...

Error Occurred: Cannot open database "SFSQL\_NET01195" requested by the login. The login failed. Login failed for user 'REDGATE\_API'. Contact DBAs

# Enable CDC on EUC

Monday, February 22, 2016 4:13 PM



Instructions  
to enable ...

# AG Group DR Documentation

Monday, February 22, 2016 4:15 PM



Availability  
Group DR...

# Jeremy Bulk Ping

Monday, February 22, 2016 4:18 PM



FW Ping



# How to Establish Mirroring

Monday, February 22, 2016 4:23 PM



I How to  
Establish ...

# Add .asp roles

Monday, February 29, 2016 3:43 PM

**Matt Arthen 12:59 PM:**

hey jason

**Jason Ingram 12:59 PM:**

hey

**Jason Ingram 1:01 PM:**

need something?

**Matt Arthen 1:03 PM:**

sorry ya

.net roles tables?

**Jason Ingram 1:04 PM:**

yep.

Bickford?

**Matt Arthen 1:04 PM:**

no

Breay

**Jason Ingram 1:06 PM:**

what's her problem?

**Matt Arthen 1:06 PM:**

Please add the .NET roles tables to this database.

Thank you.

**Jason Ingram 1:06 PM:**

if you run the "DatabaseSecuritySetup" proc it will create them if they don't exist

they are all the "aspnet\_" tables you see in a database

they might exist in the database already, but she can't get to them from the front end

if that's the case, when you run the setup proc, set the "ResetAspNet" parameter to True

it will nuke all the existing objects and create from scratch

## CDC Cancel/Re-enable to Make table modifications

Monday, February 29, 2016 5:01 PM

[HIST].[intake\_tblIntake\_HIST\_CDCLoad]

stops the cdc right

Jason Ingram 11:56 AM:

that will collect the data from the temporary CDC tables and enter it into the HIST.tbl..... table so no data is lost

there is a system stored proc to disable cdc on a table

here's a link to the process

<https://msdn.microsoft.com/en-us/library/cc627369.aspx>

the proc is this

```
EXEC sys.sp_cdc_disable_table
```

```
@source_schema = N'dbo',
```

```
@source_name = N'MyTable',
```

```
@capture_instance = N'dbo_MyTable'
```

```
EXEC sys.sp_cdc_disable_table
```

```
@source_schema = N'dbo',
```

```
@source_name = N'intake_tblIntake',
```

```
@capture_instance = N'dbo_intake_tblIntake'
```

```
GO
```

Matt Arthen 11:58 AM:

ok cool

so I'm just going to disable it for the tables he's trying to make the changes on

Jason Ingram 11:59 AM:

correct

Matt Arthen 11:59 AM:

cool!

think I got it

then re-enable for the tables I disabled

does hte capture ... like capture everything

Jason Ingram 11:59 AM:

you got it

yes. It checks for any transaction in the CDC table that is not in the HIST table already an insert it into the HIST table.

Thanks Matt, I would like CDC in both Dev and Prod. Here are the tables I would like to track:

Intake\_tblAdmin

Intake\_tblDivisions

Intake\_tblExternals

Intake\_tblIntake

Intake\_tblIntake\_addlRes

Intake\_tblPrograms

How difficult would it be to add tables to be tracked if I needed to in the future?

Thanks!

Scott

---

**From:** Matt Arthen

**Sent:** Monday, February 15, 2016 10:22 AM

**To:** Scott Flack

**Cc:** Matt Arthen

**Subject:** Change Data Capture (CDC) on SFSQL\_NET01289

Scott,

This is pertaining to your EUC request ID 26796: "Would like to use Change Data Capture (CDC) to track changes to records. How would I go about setting this up?"

We can set this up for you. Just please let me know the following:

1. I know you want CDC established on database SFSQL\_NET01289, but please let me know if in Prod or Forest A
2. Please provide a list of tables on which you want to setup CDC

Once I get those we can establish everything for you.

Thanks,

Matt

Hi Scott. You're trying to promote a database from EUCSQD08 to EUCSQD06. This is for Request ID EUC 26915.

This is the error: "The unique index 'IX\_PK\_ID2' on table '[dbo].[intake\_tblIntake\_addlRes]' is used by Change Data Capture. The constraint using this index cannot be dropped or disabled."

I can do this work for you. This is what I plan to do: 1. I need to run a capture for CDC between the two servers. 2. I will disable CDC temp on the tables that need to have the updates applied. 3. I will then run your script to make the comparison between the Dev and Prod Servers. 4. Once complete, I will reenable CDC on the tables that I disabled it on.

Hi Matt, I still need the data type for "intake\_tblIntake\_addlRes" fields [dStart] and [dEnd] changed to datetime, regardless of CDC. So if you can change those data types, that's what the initial request was for.

The additional fields I'll be adding will be to an existing table with CDC. This is for table "intake\_tblIntake". So that will be a different request I'll be running later. Thanks.

---

**From:** Matt Arthen

**Sent:** Wednesday, February 24, 2016 10:39 AM

**To:** Scott Flack

**Cc:** Jason Ingram

**Subject:** EUC Request 26915

Scott,

This was our last correspondence on EUC request 26915: "Hi Matt, I think I'll keep the CDC for now. Jason and I are working through some queries. I will be adding a few columns to one of the tables and will have to update the CDC for that one."

In light of this change, I'll cancel 26915. When you add the columns to the table successfully, just send a new request to EUC for CDC and we'll take care of that for you on the new table.

Thanks,

Matt

**Matt Arthen**

Database Administrator

State Farm® Systems

[matthew.arthen.fh8q@statefarm.com](mailto:matthew.arthen.fh8q@statefarm.com)

Desk: 678.579.1791

# CDC Refresh on Table

Wednesday, March 02, 2016 2:40 PM

```
select * into temp_intake_tblIntake_HIST from [HIST].[intake_tblIntake_HIST]
```

```
select * from temp_intake_tblIntake_HIST
```

```
insert into [HIST].[intake_tblIntake_HIST] (__$start_Isn, __$seqval, __$operation, __$update_mask,
Transaction_start_time, Transaction_end_time, OperationType, ID, sAliasCrt, sNameCrt, dCreated,
sReqAlias, sReqName, dRequested, sReqDept, iCatID, sExecSponAlias, sExecSponName, sTitle,
sAudience, dReqCompDate, sAttachLink1, sAttachLink2, sAttachLink3, sCustFacImpact, sFinImpact,
sOppImpact, sDivAlign, sEntGoal, sExecAppr, sMgrAlias, sMgrName, sProjLeadAlias, sProjLeadName,
dAntStartDate, dAntEndDate, dActStartDate, sProjStatus, sNPI_SPI, sSecurityLevel, sCopyrightTMRev,
sAliasUpd, sNameUpd, dUpdated, iProgID, sRetPeriod, iAn_Res, iCEI_Res, iSRC_Res, iPriScore,
iCapability, sDescription, sAudiencePri, sAudienceOth, sMarketAreas, sWorkRevReq, sReqStatus,
sExtVendorBP, iTech_Res, iTier, dActEndDate, sReqStatus_Alias, sReqStatus_Name, dReqStatus,
sExecReview, sExecReviewCond, sExecRevAction, sExecRevRelease, sExecRev_Alias, sExecRev_Name,
dExecRev_Upd)
select * from temp_intake_tblIntake_HIST
```

```
select * from [HIST].[intake_tblIntake_HIST]
```

# Make object a system object

Tuesday, March 08, 2016 11:28 AM

```
sys.sp_MS_marksystemobject <object>
```

```
sys.sp_MS_marksystemobject 'cdc.dbo_intake_tblIntake_CT'
```

# SSL Notes

Tuesday, March 08, 2016 2:08 PM

Talked to Matt Eggena

Knows what he needs to do

Early Next week

Grab some hours from SECURITY/Audit for Matthew Eggena

Server → Group policy mgmt.

Right click --> Add domain --> OPR

Talking to Terence

Apply Windows Members Server SQL for entire OU per environment

Have existing GPO that we use for SQL (tied to every SQL server OU\_SQL2K8onWS08\_SQLSupp\_v1 per domain)

Can go Forest A ties everywhere server tied to that

Hey Matt go pickup 2-3 servers, and just apply it to the servers that we believe will have issues. START with Citrix and then give it a week to test. If nothing happens then apply to the rest of servers. Apply to the servers that we know will have issues.

If we do have issues, we will have to look to have him unlink to specific boxes or create a new GPO for the servers that have issues (like CITRIX). Webtech team unrolled through production by disabling.

Early next week ping him on Monday 3/7. Give him a list of servers I'd like to apply to initially. Once these are successfully applied to the handful of servers, then ask him to apply it to the rest of the servers at OU\_SQL2K8onWS08\_SQLSupp\_v1. Do the one shared server that hosts the CITRIX app (and look at who else on DBA). Make sure the apps connect and work. Long as it makes the connection

Re-group next week after this shared server has been tested. Go over how it went and get Matthew Eggena to see how it went. 3/14 or 3/15 to get meeting with Chris and Matthew. Schedule a meeting with us three. Include Terence and Jeremy to re-group. Look at potential issues and see what we need to do moving forward and if we can apply to the rest of the servers.

# Grab securables from Server user

Wednesday, March 09, 2016 3:32 PM

```
select 'GRANT ' + permission_name COLLATE SQL_Latin1_General_CP1_CI_AS + ' ON ' + o.name + ' TO ['  
+ u.name + ']'  
from sys.database_permissions dp  
inner join sysusers u on dp.grantee_principal_id = u.uid  
inner join sys.objects o on o.object_id = dp.major_id  
where u.name = 'OPR\OPR_EUCNETSQL_00217_RW_DLG'
```

# Mirroring setup

Friday, August 05, 2016 3:11 PM

## DISABLE TRANSACTION LOG BACKUPS ON PRINCIPAL

### SETUP PRIMARY FIRST

- 1) Backup on Primary
- 2) Disable log backups
- 3) Restore DB on secondary
- 4) They do their stuff
- 5) Primary Log backup
- 6) Restore on secondary
- 7) Set up mirroring

### Windows 2012

<C:\program files\Storage\TSM\SCripts\SQL>

To Disable Log Backup

- Delete SQLTDP-log
- Rename SQLTDP-log - Copy to SQLTDP-log

## WITH NORECOVERY FOR LOG AND BACKUP

BACKUP LOG SFSQL\_METASTORM TO DISK = N'F:\MSSQL\BACKUP\F\_MP04\Mirror  
\SFSQL\_METASTORM.trn'

WITH NAME = N'SFSQL\_METASTORM-Transaction Log Backup',  
SKIP, NOREWIND, NOUNLOAD, STATS = 10, format  
GO



# RTS Process

Wednesday, October 05, 2016 10:16 AM

## **INITIATING THE RTS PROCESS IN SERVICE MANAGER 9.3**

Service Management requires that for Configuration Items (CI) to be deleted, the owners of the CI and its owning service must have formal approval to do so. Formal approval will need to be in the form of any of the three (3) methods mentioned below. These methods meet all the Service Management, auditing, and compliancy requirements, while still allowing the Server RTS team the ability to take on the responsibility of managing the server removal process. It is the responsibility of the owning service to properly initiate the Service Manager records.

The 3 methods are summarized as a Change, a Post Implementation Task, and a Request for Service. The details are described below:

### **1: Approved change record with 3 basic tasks included: (the Governing Service is responsible)**

- Task 1: Back out procedure
- Task 2: Evidence of Test (NTT is typically provided here)
- Task 3: Initiate the RTS process (this is the only task assigned to WG5361 and have a 3 day duration)

### **2: Post Implementation Task:**

If the project has an Approved Change in progress that is removing the server from the service (i.e. a migration), ITSM has determined that a Post Implementation task requesting the device to be RTS'd is acceptable. Obviously it must be a part of the change as it moves through the approval process.

- Post Implementation Task: Assigned to WG5361 and have a 3 day duration

### **3: Incident (Request for service):**

ITSM has determined this is acceptable as well, provided certain conditions are met and documented in the request:

- Requires a reference to the closed Change Record(s) used to remove the CIs from providing active support of delivery of an ITSM Service.

### **AND 1 of the following 3 must exist**

- Provide a link to the architectural requirement that prevented the initiation from a Post-Implementation Task.
- Provide a link to the project decision (authorized by both the Project Manager and Sponsor) that led to the CIs being retained past the life of the project and the project Change Record.
- Attach a statement from the SLM of the ITSM Service that governs the CI(s) in question

# Columnstore Indexes

Thursday, October 06, 2016 9:30 AM

# Extended Events

Wednesday, February 22, 2017 1:40 PM

Ring\_buffer - based on memory. Clears out when it hits the threshold. In ring overwriting if it runs out of space

# Loading FCI-AAG

Wednesday, May 10, 2017 8:43 AM

Matt,

The rest of my day is pretty fully booked. However, the process is not that complicated.

The current WSDb entry shows Cluster Type = N+1. You are ready to insert your FCI portion of the cluster.

1. Complete the SQL\_CDRS Create N+1 Cluster page (you will note the three nodes are present in the list when you retrieve the record from WSDb). This covers the first two nodes.
2. Complete the SQL\_CDRS Create N+1 Instance Page, ensuring that you enable AlwaysOn for the instance. Also make sure you properly select the Primary and Secondary servers.
3. Contact your NOS analyst. Have them modify the WSDb Cluster Type from "N+1" to "AlwaysOn." Validate the configuration before proceeding.
4. Complete the SQL\_CDRS Create Stand Alone/AlwaysOn page for the third server only.
5. Complete the SQL\_CDRS Create SA/AO Instance page, ensuring that you enable AlwaysOn for the instance. The Server Type should be listed as AlwaysOn in this case.
6. Contact your NOS Analyst.
  - a. Have them modify the WSDb Cluster Type back to "N+1" and load the first two nodes. Make sure they request a STOP before starting the third node's load process.
  - b. After validating the first two nodes properly installed the cluster instance, have them change the WSDb Cluster Type to "AlwaysOn" and start loading the third node.

This should help you through the process. If something doesn't make sense, let me know.

Thank you!

**James Kerr**  
Database Administrator  
State Farm Systems  
DIS – Data Infrastructure & Tools - SQL Server  
Soft: (309) 763-4587  
Mobile: (309) 261-1459  
[james.kerr.kzr9@statefarm.com](mailto:james.kerr.kzr9@statefarm.com)

EDCR  
WPSFD088 (WMSFD088) – Primary Node  
WPSFD089 – Failover node  
EDCO  
WPSFD2GT – AAG node

---

**From:** Matt Arthen  
**Sent:** Wednesday, April 26, 2017 11:00 AM  
**To:** James Kerr <[james.kerr.kzr9@statefarm.com](mailto:james.kerr.kzr9@statefarm.com)>; Elaine Lyons <[elaine.lyons.ltgg@statefarm.com](mailto:elaine.lyons.ltgg@statefarm.com)>  
**Subject:** FW: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

James/Elaine,

I'm not really sure how to enter this into CDRS and I had mentioned it to Terence, who told me it was a little complicated. Since this is my first of this type, would either of you have time to discuss with me the process to enter into CDRS?

Please just let me know or throw something on my calendar.

Thanks,

Matt

---

**From:** Tony Cellini  
**Sent:** Monday, April 24, 2017 10:14 AM  
**To:** Nicole Strahl <[nicole.strahl.h3dv@statefarm.com](mailto:nicole.strahl.h3dv@statefarm.com)>; Dylan Stanford <[dylan.stanford.tbhx@statefarm.com](mailto:dylan.stanford.tbhx@statefarm.com)>; Matt Arthen <[matt.arthen.fh8q@statefarm.com](mailto:matt.arthen.fh8q@statefarm.com)>; Jason Melrose <[jason.melrose.lvah@statefarm.com](mailto:jason.melrose.lvah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fsxl@statefarm.com](mailto:jeremy.behne.fsxl@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[dl-edd-migration-r22483-dbtrackcoordinators-sys-home.dlybg2@internal.statefarm.com](mailto:dl-edd-migration-r22483-dbtrackcoordinators-sys-home.dlybg2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jjo4@statefarm.com](mailto:steve.young.jjo4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

I have set up the WSDb records for the FCI-AAG cluster. Matt please add these to CDRS when you get a chance:

WTSDXJ5X – Primary  
WTSDXJ5Y – Secondary

WTSFDR2 – AAG Node

I will be opening a ticket to have the backups reconfigured. Once that's completed, the loads can start.

Thank you,

**Tony Cellini**  
Internal Cloud Solutions  
Team Supernova | IT Analyst  
Windows NOS PA - DL-ICS-iaaS-Project-WindowsOS

---

**From:** Nicole Strahl  
**Sent:** Thursday, April 20, 2017 8:16 AM  
**To:** Tony Cellini <[tony.cellini.jgcb@statefarm.com](mailto:tony.cellini.jgcb@statefarm.com)>; Dylan Stanford <[dylan.stanford.tbhx@statefarm.com](mailto:dylan.stanford.tbhx@statefarm.com)>; Matt Arthen <[matt.arthen.fh8g@statefarm.com](mailto:matt.arthen.fh8g@statefarm.com)>; Jason Melrose <[jason.melrose.lyah@statefarm.com](mailto:jason.melrose.lyah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fslx@statefarm.com](mailto:jeremy.behne.fslx@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com](mailto:DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jio4@statefarm.com](mailto:steve.young.jio4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

Okay. Sounds good. It is recommended by the vendor to have the WebSphere and database servers at the same site. Go ahead and take them down and re-load them.

Thank you.

*Nicole*  
*Access Management*  
*309-766-1459*

---

**From:** Tony Cellini  
**Sent:** Thursday, April 20, 2017 8:11 AM  
**To:** Nicole Strahl <[nicole.strahl.h3dy@statefarm.com](mailto:nicole.strahl.h3dy@statefarm.com)>; Dylan Stanford <[dylan.stanford.tbhx@statefarm.com](mailto:dylan.stanford.tbhx@statefarm.com)>; Matt Arthen <[matt.arthen.fh8g@statefarm.com](mailto:matt.arthen.fh8g@statefarm.com)>; Jason Melrose <[jason.melrose.lyah@statefarm.com](mailto:jason.melrose.lyah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fslx@statefarm.com](mailto:jeremy.behne.fslx@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com](mailto:DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jio4@statefarm.com](mailto:steve.young.jio4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

They are all in Forest B, in the corp G2 test center, as much as virtual servers can be "located". ☺

**Tony Cellini**  
**Internal Cloud Solutions**

Team Supernova | IT Analyst  
Windows NOS PA - DL-ICS-laaS-Project-WindowsOS  
State Farm Systems Department  
Cell Phone: 309-830-0569  
Work Hours: Mon-Fri, 7am – 3:30pm

---

**From:** Nicole Strahl  
**Sent:** Thursday, April 20, 2017 8:08 AM  
**To:** Tony Cellini <[tony.cellini.jgcb@statefarm.com](mailto:tony.cellini.jgcb@statefarm.com)>; Dylan Stanford <[dylan.stanford.tbhx@statefarm.com](mailto:dylan.stanford.tbhx@statefarm.com)>; Matt Arthen <[matt.arthen.fh8g@statefarm.com](mailto:matt.arthen.fh8g@statefarm.com)>; Jason Melrose <[jason.melrose.lyah@statefarm.com](mailto:jason.melrose.lyah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fslx@statefarm.com](mailto:jeremy.behne.fslx@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com](mailto:DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jio4@statefarm.com](mailto:steve.young.jio4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

I do have one question in regards to those servers. I realized I did not ask it until after the meeting. Are WTSXJ5X and Y located in the same area as WTSFCY5Y, Z, 0, and 2? I assume yes since it is test. If so, yes, they can be taken down. They are currently just sitting there doing nothing.

Thank you.

*Nicole*  
*Access Management*  
*309-766-1459*

---

**From:** Tony Cellini  
**Sent:** Thursday, April 20, 2017 8:05 AM  
**To:** Dylan Stanford <[dylan.stanford.tbhx@statefarm.com](mailto:dylan.stanford.tbhx@statefarm.com)>; Nicole Strahl <[nicole.strahl.h3dv@statefarm.com](mailto:nicole.strahl.h3dv@statefarm.com)>; Matt Arthen <[matt.arthen.fh8g@statefarm.com](mailto:matt.arthen.fh8g@statefarm.com)>; Jason Melrose <[jason.melrose.lyah@statefarm.com](mailto:jason.melrose.lyah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fslx@statefarm.com](mailto:jeremy.behne.fslx@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com](mailto:DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jio4@statefarm.com](mailto:steve.young.jio4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

Nicole,

Is it OK for me to shut down and destroy the two WS08R2 servers to prepare for reloading them as a cluster? WTSDXJX and WTSDXJY

Thank you,

**Tony Cellini**  
**Internal Cloud Solutions**

Team Supernova | IT Analyst  
Windows NOS PA - DL-ICS-iaaS-Project-WindowsOS  
State Farm Systems Department  
Cell Phone: 309-830-0569  
Work Hours: Mon-Fri, 7am – 3:30pm

---

**From:** Dylan Stanford  
**Sent:** Wednesday, April 19, 2017 1:38 PM  
**To:** Nicole Strahl <[nicole.strahl.h3dv@statefarm.com](mailto:nicole.strahl.h3dv@statefarm.com)>; Matt Arthen <[matt.arthen.fh8q@statefarm.com](mailto:matt.arthen.fh8q@statefarm.com)>; Jason Melrose <[jason.melrose.lyah@statefarm.com](mailto:jason.melrose.lyah@statefarm.com)>; Jeremy Behne <[jeremy.behne.fxl@statefarm.com](mailto:jeremy.behne.fxl@statefarm.com)>; Tony Cellini <[tony.cellini.igcb@statefarm.com](mailto:tony.cellini.igcb@statefarm.com)>; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home <[DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com](mailto:DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home.DLYBG2@internal.statefarm.com)>; David Jacobson <[david.jacobson.lns9@statefarm.com](mailto:david.jacobson.lns9@statefarm.com)>; Andrew McCoskey <[andrew.mccoskey.qbhm@statefarm.com](mailto:andrew.mccoskey.qbhm@statefarm.com)>; Srikanth Vadarevu <[srikanth.vadarevu.tuu8@statefarm.com](mailto:srikanth.vadarevu.tuu8@statefarm.com)>; Michael Hand <[michael.hand.h637@statefarm.com](mailto:michael.hand.h637@statefarm.com)>  
**Cc:** Gary Harsy <[gary.harsy.uosr@statefarm.com](mailto:gary.harsy.uosr@statefarm.com)>; Steve Young <[steve.young.jio4@statefarm.com](mailto:steve.young.jio4@statefarm.com)>  
**Subject:** RE: R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers

Good Day all,

Thanks for the quick meeting it was much appreciated.

**Notes:**

- 6/30 Migration timing for ISAM-ESSO Windows Application Servers and SQL Servers
- Tier 2
- Production build an FCI Cluster in Richardson TX, with an AAG Disaster Recovery Node in Olathe using existing sizing
- First needing to upgrade test environment from stand alone to clustered configuration

**Action Items:**

- Reload the forest B 2008 SQL Servers WTSDXJX, WTSDXJY with a 2014 clustered STC and create an SQL AAG node – Tony Cellini (R22483 NOS)
- Once servers are loaded and CDRS is completed schedule a follow up meeting for status and next steps – Dylan Stanford (R22483 DB Coordinator)

Please let me know if there are any notes or action items I may have missed or have incorrect and ill fix it up right away.

Thanks again!

Dylan Stanford  
EDD R22483 DB Track Coordinator – 100%

Note: Matt Arthen included in IM meeting the test servers below:

WTSDX J5X	WTSDX J5X	MSSQLSE RVER	Matt Arthen	FH8Q	Jason Melrose	LYAH	ISAM	OPR.SYSTEM.TE ST.STATEFARM. ORG
WTSDX J5Y	WTSDX J5Y	MSSQLSE RVER	Matt Arthen	FH8Q	Jason Melrose	LYAH	ISAM	OPR.SYSTEM.TE ST.STATEFARM. ORG

-----Original Appointment-----

**From:** Dylan Stanford  
**Sent:** Thursday, April 13, 2017 8:32 AM  
**To:** Dylan Stanford; Nicole Strahl; Matt Arthen; Jason Melrose; Jeremy Behne; Tony Cellini; DL-EDD-Migration-R22483-DBTrackCoordinators-Sys-Home; David Jacobson; Andrew McCoskey; Srikanth Vadarevu; Michael Hand  
**Cc:** Gary Harsy; Steve Young  
**Subject:** R22483 - ISAM-ESSO/SQL/NONE Requirements for SQL Servers  
**When:** Wednesday, April 19, 2017 1:00 PM-1:30 PM (UTC-06:00) Central Time (US & Canada).  
**Where:** Skype Meeting & DB Team Collab Room (R2329)

Good Day,

This meeting is to solidify the SQL requirements for the ISAM-ESSO SQL servers being built in Richardson TX.

<< Message: RE: R22483 EDD Migration - ISAM ESSO Technical Recovery Plans for future >>

.....  
→ [Join Skype Meeting](#)

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[000-800-100-9281](#) (India ONLY) (State Farm)    English (United States)  
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Conference ID: 98578450  
[Forgot your dial-in PIN?](#) | [Help](#)

.....

Fill out mentoring form



Blank\_Men

toring\_m...

What are you hoping to get out of this

What are your goals

What kind of background do you have

Any SQL Server

Identifying interests, strengths, weaknesses

Develop that first goal

Draft Personal Development Plan

Find Personal Development Plan



Personal

Inventory...

Help to develop and identify career goals



Career and

Life Goals...

Mentor - more of a learning broker, not so much a teacher

Introduce to other people and teams

Set just one goal to achieve



## Mentoring Meeting Plan and Record

### 1. Background Information:

#### **Mentee:**

Name: \_\_\_\_\_

Current Job/Organization: \_\_\_\_\_

E-mail: \_\_\_\_\_ Phone(s): \_\_\_\_\_, cell= \_\_\_\_\_

Educational and Professional/Work Background:

#### **Mentor:**

Name: \_\_\_\_\_

Current Job/Organization: \_\_\_\_\_

E-mail: \_\_\_\_\_ Phone(s): \_\_\_\_\_, cell= \_\_\_\_\_

Educational and Professional/Work Background:

### 2. Mentee's Tentative Career Plans and Ideas: (See Development Plan.)

Programming (JAVA, C#, Python), automated processes, UNIX, making a DNS  
Learning powershell...diff between command length. Intellisense  
Github ... making aliases

Scripting end of the databases. HTML CSS knowledge. SQL reporting, analysis.  
Self-help...labs. Workshops and one – on – one with each person for those workshops.

Python with Jarmal and Jose ... Oracle team project

Project Manager – for Jarmal. Have technical. Dylan Stanford PM for EDD project.  
Security project for EDD.

Mobile app development (GULED).

Jose – likes the backend type of stuff.  
Data design

Query optimization –

Oracle OEM – cut out of SQL and give to Que?

Chris Thompson – talk about query optimization

Project – give Jose some problem apps and try to have them. Query optimization

Exadata session

Backend – Operating systems – Jose

Exposure to it

Infrastructure

Vcenter

VMware

NOS

Back-end structure

Jared Broqu

Server load process

Back end process and how they get loaded, Windows PE (Jason)

Networking classes --- got to work building the subnets. Built DNS and linking the servers together.

Impt to get exposure. IP stacking with and connect that with OS. TLS, network stack.

Jarmal – Android OS

Authentication protocols with Chris

Que's side and LDAP ... windows Ex directory. Oracle

Security – Jarmal ...

Definitely want to do the back end side of things

SQL – query writing...

BOS

Data scientist/data analytics

Hadoop

Linear  
How to tie all the data together  
Back end development  
Data warehousing

SQL 2016  
Itching – R services  
Look into that analytics

Business side of State Farm  
Consolidating call centers – 1-on-1 with call center people – rely on CISCO  
Claims  
Actuary  
HR  
One – on – one with big applications and how they affect the business.

Test Analyst?  
Feedback point between SF and the agents  
Feedback on the apps they use  
Is there something we can use to discuss this, one – on – one?

3. Assistance Needed by Mentee:

- Immediate:
- Longer Term:

4. Mentor's Goals in Relationship:

5. Specific Assistance Mentor Can Provide:

6. How We'll Work Together (Meeting Frequency, Communications, etc):

7. Limits or Constraints in this Partnership:

8. How We'll Evaluate the Success of this Partnership:

9. Log of Meetings (and other activities) with Mentor:

1<sup>st</sup>: \_\_\_\_\_ (date, time, location)

Purpose/Assistance:

Comments Afterward:

Follow up Steps:

Mine:

Mentor's:

2<sup>nd</sup>: \_\_\_\_\_ (date, time, location)

Purpose/Assistance:

Comments Afterward:

Follow up Steps:

Mine:

Mentor's:

3<sup>rd</sup>: \_\_\_\_\_ (date, time, location)

Purpose/Assistance:

Comments Afterward:

Follow up Steps:

Mine:

Mentor's:

4<sup>th</sup>: \_\_\_\_\_ (date, time, location)

Purpose/Assistance:

Comments Afterward:

Follow up Steps:

Mine:

Mentor's:

# Intern ideas

Friday, May 19, 2017 10:38 AM

Morning,

These are my ideas for the intern:

-SQL Training Plan - Lite

-Make KIs/MSDs for sever loads/common incidents

-Review common incident KIs from 2<sup>nd</sup> level

-DR documentation from scratch/reviewing the DR procedures. How can we do better? Work with DBAs on MSDs?

-HPSM and CRs?

-Pick out some systems and get them to learn the system/BP/primary and secondary DBA

-Got mix or large/medium/smaller systems (EUC large)

-Have everyone submit one of their apps

-Maybe become tertiary for some applications

-Instead of one app for each person? Hand select 5 apps from each other person. Move along to others if comfortable/apps too slow?

-Monitoring the incidents

-Tickets come in. Start doing tickets?

-Writing queries and reports with Jeremy. Learn SSIS and report writing.

-Any performance counter over time

-Forecasting reports over time (forecast data growth in three month's time. We expect disk/files to be here at this time).

-Historical dynamic reports...provide date range and show me the report over time

-Learning how to write T-SQL and reporting charts using SSIS

-Interested in how data gets pulled in? SSIS package to show that

-Use of DMVs overall for all of the above

-Intern will have full Visual Studio package

-Op-Server. Depending on experience level

-Jump on a work list item that's in progress (<https://collab.sfcollab.org/sites/wss000165/SQLServer/BrettsDocuments/WorkList/SQLServerWorkList.xlsx>)

-Jason Melrose - Issuances

-Jason Page – Patches/Completed work to Enable Data At Rest Encryption for SQL server

-Matthew Albert - SQL server build checklist

-Ticket ITEM 12 on Worklist (Improve Ticket-Based SYSADMIN)

-Item 10 on Worklist (Research use of SQL 2012 Auditing Feature)

-Jacob Shrewsberry – Always Encrypted on EUC

-Validate SQL Server database and level permissions (security in general – use Jeremy's security audit report)

-Chris Thompson – Implement TFS

-Jeremy Behne – Completed work to automate system restore of databases project

Check /w Victor on SmartCard

They'll need a SUPPORT account

**Matt Arthen**

Database Administrator

**State Farm® Systems**

[matthew.arthen.fh8q@statefarm.com](mailto:matthew.arthen.fh8q@statefarm.com)

Desk: 678.579.1791

SQL Server AAG Book

SQL Server Index Tuning/Performance Book

TechLabs on OEM laptop

SQL AZURE setup

Check /w Victor MSDN

POWERSHELL – Training plan? Session /w Chris?

<https://channel9.msdn.com/>

# Additional Casetrack MP

Wednesday, June 14, 2017 9:53 AM

WTSD4FFF.unitopr.unitint.test.statefarm.org  
New instance on server and request new spacing  
100GB for DATA  
Forest A implementation

G:	SQL_G	991MB	F:\
MP	G_BACKUP	100GB	F:\MSSQL\BACKUP\F_MP04\
MP	G_DATA	100GB	F:\MSSQL\DATA\F_MP01\
MP	G_INSTALLDIR	14GB	F:\MSSQL\INSTALLDIR\F_MP00\
MP	G_LOGS	50GB	F:\MSSQL\LOGS\F_MP02\
MP	G_TEMP	25GB	F:\MSSQL\TEMP\F_MP03\

## NEED LOCAL ADMIN

### SSIT MIGHT NOT BE ABLE TO DO REBOOT

If not, build first set, then second, then third. ONLY if it can't do a reboot!

When the engine runs, it will take a while to run and will black out (25min)

INIGEN insuance is on the servers, it alrdy exists and check that it will create the INI files for the second instance. Check it will create the INI files ONLY for my second instance.

Cluster Size - Make 64K

Update DSC with this STC ([SQL2014 - WS12R2 - CORPLAW - SQL SERVER - CASETRACK - DEV-1/17/2017 12:00:00 PM](#))

Add section under folders for DSC. Add G Drive. Wherever they have F drive make equivalent of G drive. Under Shares too.

Folders	
Action:	Create
Folder Name:	%APPDIR%\Microsoft SQL Server\110
Action:	Create
Folder Name:	%APPDIR%\SQLSource
Action:	Create
Folder Name:	%DATADIR%\SQL\Config
Action:	Create
Folder Name:	%DATADIR%\SQL\Logs
Action:	Create
Folder Name:	%DATADIR%\SQL\Library
Action:	Create
Folder Name:	%DATADIR%\SQL\SF_SQL_Admin
Action:	Create
Folder Name:	F:\MSSQLDATA
Action:	Create
Folder Name:	F:\MSSQLLOGS
Action:	Create
Folder Name:	F:\MSSQLBACKUP
Action:	Create
Folder Name:	F:\MSSQLINSTALLDIR
Shares	

Under Services, should be SQLInstance2

Services	
Action:	Set Identity
Service Name:	MSSQL\$%SQLInstance1%
Service ID:	SVC_SQL_CTRK
Action:	Set Identity
Service Name:	SQLAgent\$%SQLInstance1%
Service ID:	SVC_SQL_CTRK
File Permissions	

Under file permissions, wherever they have F drive, make sure to put in another thing for G drive.

Same thing with Share Permissions

Permissions:	Full Control
Share Permissions	
Share Name:	%computername%_F
Trustee:	SQLSuppl_DLG
Ace Type:	Grant
Permissions:	Change
Share Name:	%computername%_F
Trustee:	SVC_SQLCTRK_G
Ace Type:	Grant
Permissions:	Change
Registry Permissions	
Registry Path:	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Perflib

Same with under Service Permissions, put a SQLInstance2



Service Permissions	
Service Name:	MSDTC
Trustee:	SQLSuppl_DLG
Access Type:	Grant
Permission:	Read, Start, stop and pause, Write
Service Name:	SQL Server Distributed Replay Client
Trustee:	SQLSuppl_DLG
Access Type:	Grant
Permission:	Read, Start, stop and pause, Write
Service Name:	SQL Server Distributed Replay Controller
Trustee:	SQLSuppl_DLG
Access Type:	Grant
Permission:	Read, Start, stop and pause, Write
Service Name:	MSSQL\$%SQLInstance1%
Trustee:	SQLSuppl_DLG
Access Type:	Grant
Permission:	Read, Start, stop and pause, Write
Service Name:	SQLAgent\$%SQLInstance1%
Trustee:	SQLSuppl_DLG
Access Type:	Grant
Permission:	Read, Start, stop and pause, Write
Service Name:	SQLAgent\$%SQLInstance1%
Trustee:	SVC_SQL_CTRK
Access Type:	Grant
Permission:	Read, Start, stop and pause
Service Name:	MSSQL\$%SQLInstance1%
Trustee:	SVC_SQL_CTRK
Access Type:	Grant
Permission:	Read, Start, stop and pause
WMI Permissions	

Next, go to CDRS:

Create SA|AO Instance

Find WTSD4FFF under Select Server Name

Add Instance, then add G drive for entry

New 57802 port

Still can use the same service account

2012/14/16 Add Load Config

Put in a date for original

Next go look at STC, build a deployment manifest through SSIT (SQL STC)

SQL2014 - WS12R2 5/12/2017 12:32:05 PM		WG1436
37	SQL-SRV-POWERSHELL-LIBRARY 12.0 (1.1)	WG1436
38	SQL-SRV-CODE-DOWNLOAD-ENG 12.0 (1.1)	WG1436
39	SQL-SRV-CODE-DOWNLOAD-UPDATES 12.0 (1.5)	WG1436
40	SQL-SRV-DYNAMICPORTS-RESERVE 1.0 (1.2)	WG1436
41	SQL-SRV-ADOERRLOGS 1.0 (1.1)	WG1436
42	SQL-SRV-INI-GEN 12.0 (1.3)	WG1436
43	SECCONFIG 1.0 (1.9)	WG2716
44	SQL-SRV-SET-SPN 1.0 (1.1)	WG1436
45	SQL-SRV-DB-ENGINE-INSTALL 12.0 (1.5)	WG1436
46	[REBOOT]	REBOOT
47	SQL-SRV-CONFIGURATION 12.0 (1.4)	WG1436
48	SQL-SRV-MP-INHERITANCE 1.0 (1.1)	WG1436
49	[REBOOT]	REBOOT
50	SCOM2012-AGENT-CENTRAL 1.0 (1.4)	WG1991
SQL-SF-ADMIN-TDP-SQL2014 12/2/2016 7:58:50 AM		WG1436

What will I need to build it??

SQL-SRV-INIT-GEN 12.0 (1.3)

SECCONFIG 1.0 (1.9)

SQL-SRV-SET-SPN 1.0 (1.1)

SQL-SRV-DB-ENGINE-INSTALL 12.0 (1.5)

[REBOOT]

SQL-SRV-CONFIGURATION 12.0 (1.4)

SQL-SRV-MP-INHERITANCE 1.0 (1.1)

[REBOOT]

SQL-SF-SQL-ADMIN-CONFIGURATION 1.0 (1.16) - Will reset SQL ADMIN on first instance, and 2nd will build a new one.

SQL-SF-SQL-TDP-CONFIGURATION 1.0 (1.8) - TDP config will see the first instance is configured and not worry about it then go to 2nd instance and build it for backups.

Next? In Prod ... will need to create deployable artifacts in ROVR so that SSIT will run in PROD. Will be fine in Forest A and B. Otherwise the SSIT and DMS have been written to see if these deployable artifacts exist in ROVR and if they don't they won't even run. In PROD will need a CR. Forest B CR too.

# VLFs

Monday, June 19, 2017 10:16 AM

[6/19/2017 10:16 AM] Christopher Thompson:

<https://www.sqlskills.com/blogs/paul/important-change-vlf-creation-algorithm-sql-server-2014/>

**Up to 2014**, the algorithm for how many VLFs you get when you create, grow, or auto-grow the log is based on the size in question:

- Less than 1 MB, complicated, ignore this case.
- Up to 64 MB: 4 new VLFs, each roughly 1/4 the size of the growth
- 64 MB to 1 GB: 8 new VLFs, each roughly 1/8 the size of the growth
- More than 1 GB: 16 new VLFs, each roughly 1/16 the size of the growth

So if you created your log at 1 GB and it auto-grew in chunks of 512 MB to 200 GB, you'd have  $8 + ((200 - 1) \times 2 \times 8) = 3192$  VLFs. (8 VLFs from the initial creation, then  $200 - 1 = 199$  GB of growth at 512 MB per auto-grow = 398 auto-growths, each producing 8 VLFs.)

# Siebel vlf

Wednesday, June 21, 2017 6:31 AM

shrink  
4GB

Grow LOG 4 GB

Hit 80GB Max, autogrowth off

again growth back to 1GB

trying to get 256MB VLF to create under 1000VLF

dbcc loginfo

# AG Monitoring Finalized

Tuesday, July 25, 2017 2:29 PM

Create Procedure Perf\_CounterData\_AG\_State\_Monitor\_SP

(@maxLatency INT = 60)

AS

IF EXISTS (

```
    SELECT *
    FROM sys.dm_hadr_availability_replica_states ars
    WHERE ars.ROLE = 1
)
```

BEGIN

IF (

```
    SELECT COUNT(*)
    FROM sys.dm_hadr_database_replica_states drs
    LEFT JOIN sys.availability_replicas ar ON drs.replica_id = ar.replica_id
    LEFT JOIN sys.availability_groups ags ON ar.group_id = ags.group_id
    LEFT JOIN sys.dm_hadr_availability_replica_states hars ON ar.group_id =
        hars.group_id
        AND ar.replica_id = hars.replica_id
    WHERE (
        (
            ar.availability_mode_desc = 'SYNCHRONOUS_COMMIT'
            AND drs.synchronization_state_desc <> 'SYNCHRONIZED'
        ) OR (ar.availability_mode_desc = 'ASYNCHRONOUS_COMMIT'
            AND drs.synchronization_state_desc <> 'SYNCHRONIZING')
        )
    ) > 0
```

BEGIN

```
    INSERT INTO Perf_CounterData_AG_State_Monitor
    SELECT DISTINCT getdate() AS CollectionTime
        ,ags.NAME AS AGGroupName
        ,ar.replica_server_name AS InstanceName
        ,hars.role_desc
        ,drs.synchronization_state
        ,drs.synchronization_state_desc AS SyncState
        ,ar.availability_mode
        ,ar.availability_mode_desc AS SyncMode
        ,drs.redo_rate AS RedoRate
        ,drs.redo_queue_size AS [Redo Queue Size]
    --INTO Perf_CounterData_AG_State_Monitor (Use to create table in SF_SQL_ADMIN.
    Comment above insert, uncomment this to create table.)
    FROM sys.dm_hadr_database_replica_states drs
    LEFT JOIN sys.availability_replicas ar ON drs.replica_id = ar.replica_id
    LEFT JOIN sys.availability_groups ags ON ar.group_id = ags.group_id
    LEFT JOIN sys.dm_hadr_availability_replica_states hars ON ar.group_id = hars.group_id
        AND ar.replica_id = hars.replica_id
    WHERE (
        (
```

```

        ar.availability_mode_desc = 'SYNCHRONOUS_COMMIT'
        AND drs.synchronization_state_desc <> 'SYNCHRONIZED'
    ) OR (ar.availability_mode_desc = 'ASYNCHRONOUS_COMMIT'
        AND drs.synchronization_state_desc <> 'SYNCHRONIZING')
    )

IF (
    SELECT COUNT(*)
    FROM sys.dm_hadr_database_replica_states drs
    LEFT JOIN sys.availability_replicas ar ON drs.replica_id = ar.replica_id
    LEFT JOIN sys.availability_groups ags ON ar.group_id = ags.group_id
    LEFT JOIN sys.dm_hadr_availability_replica_states hars ON ar.group_id =
        hars.group_id
        AND ar.replica_id = hars.replica_id
    WHERE (
        (
            ar.availability_mode_desc = 'SYNCHRONOUS_COMMIT'
            AND drs.synchronization_state_desc <> 'SYNCHRONIZED'
        ) OR (ar.availability_mode_desc =
            'ASYNCHRONOUS_COMMIT'
            AND drs.synchronization_state_desc <> 'SYNCHRONIZING')
        )
        AND ((drs.log_send_queue_size / NULLIF(drs.log_send_rate, 0)) / 60) >=
            @maxLatency
    ) > 0
BEGIN
    EXEC xp_logevent 98766
        , "SQL AG HEALTH CHECK FAILED. PLEASE SEE
        SF_SQL_Admin.Perf_CounterData_AG_State_Monitor"
        , ERROR;
END
END
END

--Create Table
--Create Proc
--Create Job (Make sure job is enabled)

```

# SQL Plan License Key

Monday, August 28, 2017 1:55 PM

RedGate SQL PLAN

Can't get back to servers

512-020-241559-284B

# Tracking Excel/Access Issues

Wednesday, August 30, 2017 8:58 AM

Here is the link to the tracking document for the workstations (Excel/Access):

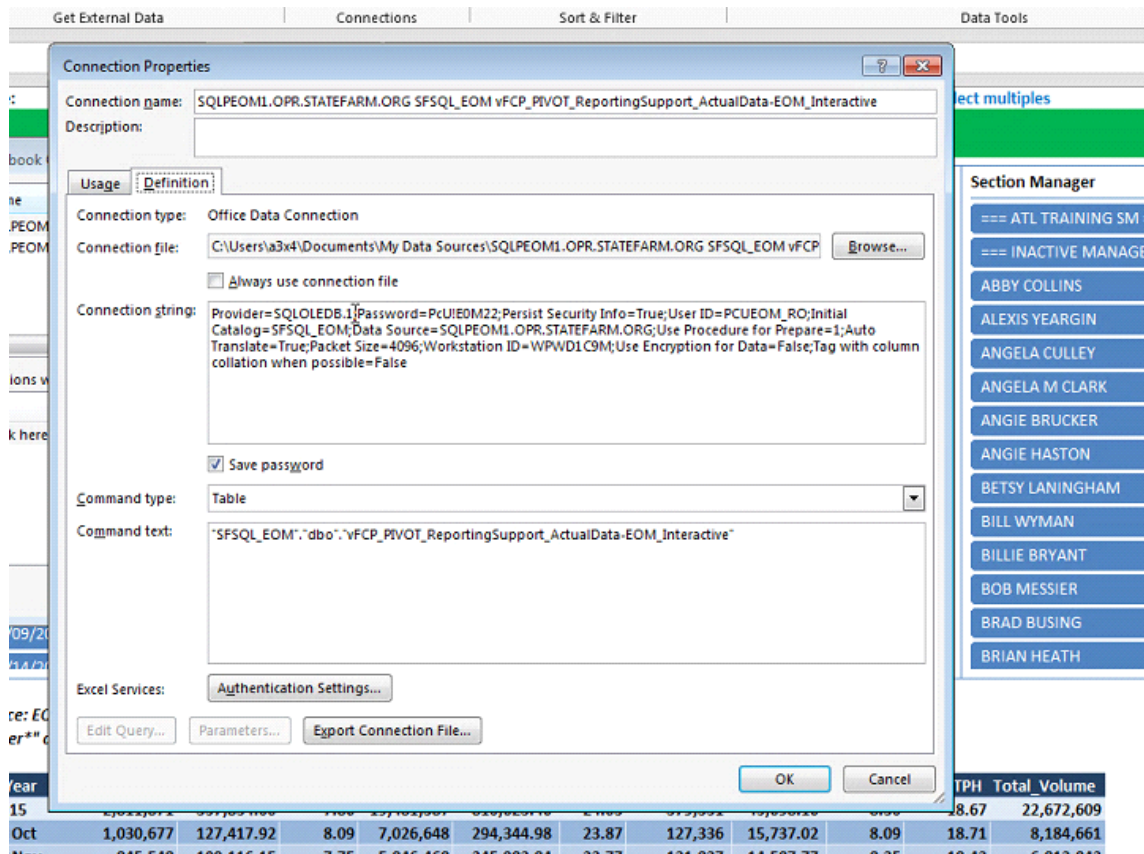
<https://collab.sfcollab.org/sites/wss000165/SQLServer/Shared%20Documents/TLS%20Workstation%20Mitigation/TLS%20Workstation%20Remediation.xlsx>

I added it to the same SharePoint folder Terence made for TLS remediation.

SQL Server: Shared Documents: TLS Workstation Mitigation: All Documents

[https://collab.sfcollab.org/sites/wss000165/SQLServer/Shared%20Documents/TLS%20Workstation%20Mitigation/Excel 2013 TLS 1.0 Server Disable.docx](https://collab.sfcollab.org/sites/wss000165/SQLServer/Shared%20Documents/TLS%20Workstation%20Mitigation/Excel%202013%20TLS%201.0%20Server%20Disable.docx)

SQLNCLI11





Year											OK	Cancel	TPH	Total Volume
15													18.67	22,672,609
Oct	1,030,677	127,417.92	8.09	7,026,648	294,344.98	23.87	127,336	15,737.02	8.09	18.71			18.71	8,184,661
Nov	845,548	109,116.15	7.75	5,846,468	245,982.84	23.77	121,827	14,587.77	8.35	18.43			18.43	6,813,843
Dec	935,646	121,319.94	7.71	6,608,271	270,295.64	24.45	130,188	15,373.38	8.47	18.86			18.86	7,674,105

# Questions on Jason M Duties

Wednesday, August 30, 2017 9:04 AM

# SSMS Tools for Workstations

Monday, September 04, 2017 8:17 PM

if you dont have it i'll send it

but it has different profile choices depending on what you need

- [DMS Package Link](#)
- This is used for Workstations to request via Enhancement Process
- **Profiles:**
  - o **Microsoft SQL 2016 Developer Tools 00005**
    - § EUC Developers request this one for WIN 7 64BIT
    - § Has Visual Studio 2015 Profile
  - o **Microsoft SQL 2016 Dev Tools WIN 10 00001**
    - § EUC Developers request this one for WIN 10
    - § Has Visual Studio 2015 Profile – our issuances are the same VS has two different packages for the different operating systems.
  - o **Microsoft SQL 2016 Tools 00005**
    - § Requested by anyone else that wants to have Report Builder, Data Tools and SSMS

that stuff

# mssqlresource workaround

Monday, September 04, 2017 8:18 PM

If you run into a server where users are being denied login or can partially login with errors, please execute the below code on the server. This should work for MOST systems. Items that might need to be changed have been highlighted in yellow.

```
DECLARE @NewPrin    VARCHAR(128)
,           @NewUserCMD    VARCHAR(512)
,           @DBUser    VARCHAR(128)
,           @DBPermCMD    VARCHAR(512)

SELECT name
INTO #srvprin
FROM sys.server_principals
WHERE
    [type] IN ('S', 'U', 'G')
    AND principal_id > 272
    AND name NOT IN ('##MS_PolicyEventProcessingLogin##')

SELECT b.name
INTO #newDBprin
FROM master.sys.database_principals a
    RIGHT OUTER JOIN #srvprin b ON b.name = a.name
WHERE a.name IS NULL

DECLARE NewUsers CURSOR STATIC FOR
SELECT name FROM #newDBprin

OPEN NewUsers

FETCH FIRST FROM NewUsers INTO @NewPrin

WHILE @@FETCH_STATUS = 0
BEGIN
    SET @NewUserCMD = 'CREATE USER [' + @NewPrin + '] FOR LOGIN [' + @NewPrin + '] WITH
    DEFAULT_SCHEMA = dbo'
    --PRINT @NewUserCMD
    EXEC (@NewUserCMD)

    FETCH NEXT FROM NewUsers INTO @NewPrin
END

CLOSE NewUsers
DEALLOCATE NewUsers

SELECT name
INTO #DBPermPrin
FROM master.sys.database_principals
WHERE
    [type] IN ('S', 'U', 'G')
    AND principal_id > 7
    AND name NOT IN ('##MS_PolicyEventProcessingLogin##')

DECLARE NewPerms CURSOR STATIC FOR
SELECT name FROM #DBPermPrin

OPEN NewPerms
```

```

FETCH FIRST FROM NewPerms INTO @DBUser

WHILE @@FETCH_STATUS = 0
BEGIN
    SET @DBPermCMD = 'USE [master]; ALTER ROLE db_owner ADD MEMBER [' + @DBUser + ']'
    --PRINT @NewUserCMD
    EXEC (@DBPermCMD)

    FETCH NEXT FROM NewPerms INTO @DBUser

END

CLOSE NewPerms
DEALLOCATE NewPerms

DROP TABLE #srvprin
DROP TABLE #newDBprin
DROP TABLE #DBPermPrin

```

# DB Design - LYNDIA.COM - From LEARNING RELATIONAL DBs

Monday, November 06, 2017 9:43 AM

## Constraints and Defaults

## PK, FK, and References

## Referential Integrity

## Normalization

### DB Design steps

1. Planning - when an org determines whether they actually have a need for a DB, what its goals should be, and the feasibility of successfully completing these goals
2. Requirement gathering - what is the database going to accomplish. All the tasks it will perform. Beyond info to be stored and the type of reports to be pulled
3. Conceptual design - translate requirements into a structure. Move to themed tables
4. Logical Design - take plan to structure of DBMS. Constraints and rules etc.
5. Physical Design - translate logical design plan
6. Construction - actually get into the building of what you outlined. Decisions on how things should be put together
7. Implementation and Rollout

TABLES SHOULD BE OPEN FOR EXTENSION AND CLOSED FOR MODIFICATION

### Resolving Multi-Valued Fields

Can't look for individual names under 'Children'

First Name	Last Name	Children	...
Lilah	Douglas	Cassidy, Gretchen	...
Karyn	Reese	Rafael	...
Chester	Levine	Sylvester, Geoffrey	...

This below is slightly better, but now have to look under Child1 and Child 2 if you have multiple kids. Also have to add columns if have more kids.

## Multivalue Fields

First Name	Last Name	Child 1	Child 2	...
Lilah	Douglas	Cassidy	Gretchen	...
Karyn	Reese	Rafael		...
Chester	Levine	Sylvester	Geoffrey	...

Need to separate the data into a new table, and reference that table somehow.

EmployeeID	First Name	Last Name	...
1	Lilah	Douglas	...
2	Karyn	Reese	...
3	Chester	Levine	...

EmployeeID	Child
1	Cassidy
1	Gretchen
2	Rafael
3	Sylvester
3	Geoffrey

Break data down into components for easier processing!

## Breaking Up Name Fields

Employee Name	...
Lilah Douglas	...
Karyn Reese	...
Chester Levine	...

### Determining Required Fields!

Make sure to use constraints and defaults to get ALL REQUIRED and COMPLETE information! Go through an example of each data and ensure that all the data is there is full as possible.

1. Who needs to provide name? Who needs to provide Product Name?
2. Make sure no attributes are missing. Mark required and ensure it is NOT NULL
3. Use constraints and defaults!

## Determining Required Fields

Additional Invoice Fields	Required?
Customer Name	Yes
Product Name	Yes
Quantity	Yes
Billing Address	
Billing Apartment	
Billing City	
Billing State	
Billing Zip	
Shipping Address	
Shipping Apartment	
Shipping City	
Shipping State	
Shipping Zip	
Credit Card Number	
Coupon Code	

### Remove Duplicates!

Remove the components that repeat over and over again and place in a diff table  
Determine which fields depend on other fields

The address isn't telling us about the invoice. About the customer. The address depends on the customer.

## Customer Purchases

Invoice Number	Customer	Address	Product Name	Manufacturer	...
116	Bread Express	349 Mesa Palms Ave	First Cold Press	Two Trees Olive Oil	...
117	Bread Express	349 Mesa Palms Ave	Basil Infused	Two Trees Olive Oil	...
118	Bread Express	349 Mesa Palms Ave	Garlic Infused	Two Trees Olive Oil	...

-Remove the dependent column

-Copy the subject column into a new table

## Customer Purchases

Invoice Number	Customer	Address	Product Name	Manufacturer	...
116	Bread Express	349 Mesa Palms Ave	First Cold Press	Two Trees Olive Oil	...
117	Bread Express	349 Mesa Palms Ave	Basil Infused	Two Trees Olive Oil	...
118	Bread Express	349 Mesa Palms Ave	Garlic Infused	Two Trees Olive Oil	...

### Customers

Customer	Address
Bread Express	57 Kimble St

### Products

Product Name	Manufacturer
First Cold Press	Two Trees Olive Oil
Basil Infused	Two Trees Olive Oil
Garlic Infused	Two Trees Olive Oil

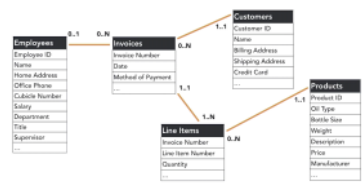
Create new customer table. Look at this new table. Can also look when you want to look at customer or make new updates are easy.

## Gathering Requirements

1. Come up with a purpose/mission statement!
  - a. Short sentences that support overarching missions statement
  - b. Describe tasks to be performed
    - Maintain information on our product selection
    - Keep a live inventory count on product availability
  - c. Provide order details to the shipping warehouse
    - Provide customers with order invoices and tracking
    - Keep customer billing information for repeat purchases
2. Review current DB system
  - a. Find ways current data is exported
    - i. Summary reports
    - ii. Transaction logs etc
  - b. What does the system NOT do
  - c. Areas of growth?
    - i. Future requirements
    - ii. Reports?
    - iii. New tasks
3. Discover actors and tasks
  - a. Identify ALL groups that need to interact /w system
    - i. Actors
    - ii. UML DIAGRAMMING ... outline tasks that will involve each task they will perform
    - iii. Develop how each actor will perform that task
4. Find SMEs and conduct an interview
  - a. Have questions to ask
  - b. Keep on topic
  - c. Ask open-ended questions
  - d. Closed questions when need a Y/N answer
    - i. Is there ever a need to know customer's middle name?
5. Understand how historical data will be dealt with?

## Conceptual Data Model

1. Understand all the entities and tables
  - a. Table diagrams .. UML
2. Develop relationships
  - a. Look at all the tables and determine if there's a relationship between (has, contains, is made up of, etc)
  - b. As you identify relationships, just draw a line
  - c. Relationships should come from mission objective
  - d. No relationship between customers and products unless they made an order
  - e. 1:1, 1:m, m:m



3. Developing lookup tables?

## Junction Tables

Two tables joined together by a many to many relationship need a junction table in the middle



## Normalizing Your Data Plan

1. Identify key fields (PK, FK)
  - a. When creating PK, identify all values dependent on PK. Customer Name, Date, Product, Price Quantity depend on PK
  - b. FK and how they reference to PK
2. Normalization
3. 1NF - all fields only include a single piece of data. REMOVE all MULTI-VALUED FIELDS
  - a. Show up as CSV sometimes

- when creating PK, identify all values dependent on PK. Customer Name, Date, Product, Price Quantity depend on PK
  - FK and how they reference to PK
- Normalization
  - 1NF - all fields only include a single piece of data. REMOVE all MULTI-VALUED FIELDS
    - Show up as CSV sometimes
    - Break out keywords into separate table
    - Still reference the original table

#### Tours

TourID	Tour Name	Tour Keywords	...
1	Big Sur Retreat	Hiking, National Parks, Big Sur	...
2	In the Steps of John Muir	Hiking, National Parks, Yosemite, John Muir, Camping	...
3	The Death Valley Survivor's Trek	Hiking, Desert, Mojave, Death Valley	...
4	The Mt. Whitney Climbers Tour	Hiking, Climbing, Backpacking, Mt. Whitney	...

#### Designing the

TourID	Tour Name
1	Big Sur Retreat
2	In the Steps of John Muir
3	The Death Valley Survivor's Trek
4	The Mt. Whitney Climbers Tour

TourID	Keyword
1	Hiking
1	National Park
1	Big Sur
2	Hiking
2	National Park
2	Yosemite
2	John Muir
2	Camping
1	Packaging
...	...

- 2NF - if all of the fields in the primary key are required to determine the other non-key fields
  - All non-key fields have to depend on PK or CK!
  - Below, you need to know the INVOICE number and PRODUCT NAME to know the quantity, so it passes. You can know the manufacturer from product name, so its not dependent on INVOICE NUMBER, so remove it

#### LineItems

Invoice Number (PK+)	Product Name (PK+)	Quantity	Manufacturer	...
116	First Cold Press	2	Two Trees	...
116	Basil Infused	3	Mary's Dipping Oils	...
117	Basil Infused	4	Mary's Dipping Oils	...
117	Mission Oil	2	Two Trees	...
117	Extra Virgin	3	Two Trees	...

Below, now each non-field column is dependent

#### LineItems

Invoice Number (PK+)	Product Name (PK+)	Quantity	...
116	First Cold Press	2	...
116	Basil Infused	3	...
117	Basil Infused	4	...
117	Mission Oil	2	...
117	Extra Virgin	3	...

#### Products

Product Name (PK+)	Manufacturer	...
First Cold Press	Two Trees	...
Basil Infused	Mary's Dipping Oils	...
Mission Oil	Two Trees	...
Extra Virgin	Two Trees	...

- 3NF - if all of the non-key fields are independent from any other non-key field. Look for fields that aren't specifically about the key, but instead dependent on another field. If you find any, move them out or remove all together.

#### Tours

TourID (PK)	Tour Name	Difficulty	Difficulty Rating	...
1	Big Sur Retreat	Medium	3	...
2	In the Steps of John Muir	Easy	1	...
3	The Death Valley Survivor's Trek	Difficult	5	...
4	The Mt. Whitney Climbers Tour	Difficult	5	...

TourID (PK)	Tour Name	Difficulty Rating	...
1	Big Sur Retreat	3	...
2	In the Steps of John Muir	1	...
3	The Death Valley Survivor's Trek	5	...
4	The Mt. Whitney Climbers Tour	5	...

Difficulty Rating	Difficulty Description	...
1	Easy	...
3	Medium	...
5	Difficult	...



Do this via a process called **decomposition**:

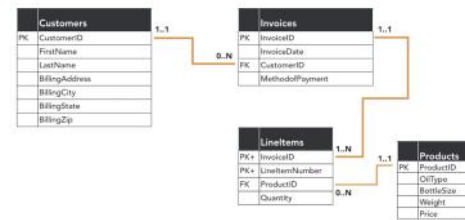
Take the PKs from both tables and create a new table with both used as a composite key  
Creates a place where each student can only take ONE course at a time

Now you can add more fields to the new table that are unique, such as final grade



Students	StudentsCourses	Courses
StudentID (PK)	StudentID (PK+)	CourseID (PK)
FirstName	CourseID (PK+)	CourseName
LastName	FinalGrade	InstructorID
701 Cassidy	701 CHEM101	Chemistry
701 Sylvester	701 PHYS101	Physics
702 Shelle	702 PHYS101	Statistics

#### Construction in SQL Server



#### How to make a column have auto-increment?

Set Identity Specification to Yes

CustomerID [ ] set ☐ ☐ ☐

Column Properties	
Full-text Specification	No
Has Non-SQL Server Subscriber	No
Identity Specification (is Identity)	Yes
Identity Increment	1
Identity Seed	1

#### What does this constraint apply?

Check Constraints

Selected Check Constraint: OK\_Invoice

Editing properties for new check constraint. The Expression property must be a valid SQL expression.

Check Constraint Expression: MethodOfPayment IN ('Credit Card', 'Purchase Order')

OK Cancel

#### Setting up relationships

# DB Design - LYNDACOM Developing MS Sql Server 2016 DBs

Monday, November 13, 2017 10:42 AM

## Ensure Data Integrity through Constraints

4. Using TRIGGERS and DML to update columns when you insert a certain number. For example, update inventory when a customer orders inventory automatically.



Tuesday, October 06, 2015 10:22 AM

```
use legalfiles
exec sp_MSforeachtable 'update statistics ? with fullscan'
go
```

# Space Free for all database files in instance

Wednesday, June 29, 2016 2:12 PM

Page and I were discussing a way to find the space free without having to do a report or get on the server.

He was able to place this script together. Works pretty good for what we need.

Thought I would share..

-----Space free for all database files in an instance

```
DECLARE @DB_FileSize TABLE
```

```
(
FileID int
,[FileGroupID] int
,[TotalExtents int
,[ExtentsUsed int
,[name varchar(50)
,[FileName] varchar(200)
)
```

```
INSERT INTO @DB_FileSize (FileID, [FileGroupID], TotalExtents, ExtentsUsed, Name,
[FileName])
```

```
EXECUTE sp_MSforeachdb 'USE [?]; dbcc showfilestats';
```

```
select DBF.Name
,[FileName]
,(TotalExtents * 64)/1024 AS SpaceReserved_MB
,(ExtentsUsed * 64)/1024 AS SpaceUsed_MB
,((TotalExtents - ExtentsUsed)*64)/1024 AS SpaceFree_MB
,Ceiling(cast(TotalExtents - ExtentsUsed AS Decimal) / CAST(TotalExtents AS
Decimal) * 100) AS Percent_Free
,FG.Name AS [FileGroup]
from @DB_FileSize AS DBF
INNER JOIN sys.filegroups AS FG ON FG.data_space_id = DBF.[FileGroupID]
WHERE DBF.NAME not in ('master', 'modeldev', 'MSDBdata', 'SF_SQL_Admin')
or DBF.name LIKE 'temp%'
order by NAME, Percent_Free
```

# AG Script - Kerr

Wednesday, June 29, 2016 2:13 PM

Everyone,

I have updated the original script that everyone has been using to restore databases on their secondary servers. As you know, we are trying to make sure that DBAs do not own databases, and Availability Groups have a lot of cases where the DBA owns the restored copies on the secondary servers. Please update your personal copies of this script with the below code.

Thanks,

James

```
SET NOCOUNT ON
```

```
DECLARE @BackupDir          VARCHAR(256)
,        @DBName             VARCHAR(256)
,        @BackupFullCMD      VARCHAR(1024)
,        @BackupLogCMD       VARCHAR(1024)
,        @RestoreFullCMD     VARCHAR(1024)
,        @RestoreLogCMD      VARCHAR(1024)
,        @AAGName            VARCHAR(16)
,        @AAGPrimaryCMD      VARCHAR(512)
,        @AAGSecondaryCMD    VARCHAR(512)
```

```
EXEC master.dbo.xp_instance_regread N'HKEY_LOCAL_MACHINE', N'Software\Microsoft
\MSSQLServer\MSSQLServer', N'BackupDirectory', @BackupDir OUTPUT
```

```
IF (SELECT COUNT(*) FROM master.sys.availability_groups) = 1
BEGIN
```

```
    SELECT @AAGName = name FROM master.sys.availability_groups
```

```
END
```

```
ELSE
```

```
BEGIN
```

```
    PRINT '**** MORE THAN ONE AVAILABILITY GROUP!!!! ****'
```

```
    PRINT '**** CHOOSE AAG NAME AND DATABASES SEPARATELY!!!! ****'
```

```
    SELECT '**** MORE THAN ONE AVAILABILITY GROUP!!!! ****'
```

```
    SELECT '**** CHOOSE AAG NAME AND DATABASES SEPARATELY!!!! ****'
```

```
    SELECT name FROM master.sys.availability_groups
```

```
    /**** CHOOSE AAG NAME HERE ****/
```

```
    SELECT @AAGName = 'SQLWMSDXKCD01'
```

```
    /**** CHOOSE AAG NAME HERE ****/
```

```
END
```

```
--SELECT @BackupDir
```

```
--SELECT @AAGName
```

```
DECLARE DBNames CURSOR STATIC FOR
```

```
SELECT name FROM sys.databases
```

```

/**** SELECT ALL DATABASES HERE ****/
WHERE name NOT IN ('master', 'model', 'msdb', 'tempdb', 'reportserver',
'reportservertempdb', 'SF_SQL_ADMIN', 'TEST_Esearch_UsageAndHealth')
/**** SELECT ALL DATABASES HERE ****/

/**** SELECT SPECIFIC DATABASES HERE ****/
--WHERE name IN ('DEV_SPC_Collab_02', 'DEV_SPC_Collab_03', 'DEV_SPC_CollabLegacy_02',
'DEV_SPC_MySites_02')
/**** SELECT SPECIFIC DATABASES HERE ****/

AND
    replica_id IS NULL
ORDER BY name ASC

OPEN DBNames

FETCH FIRST FROM DBNames INTO @DBName

PRINT '

EXECUTE AS LOGIN = 'sfsa';'

WHILE @@FETCH_STATUS = 0
BEGIN

    --PRINT @DBName

    SELECT @BackupFullCMD = 'BACKUP DATABASE [' + @DBName + ']
    TO DISK = N''' + @BackupDir + '\ ' + @DBName + '_FullDB.BAK''
    WITH
        --COPY_ONLY,
        NOFORMAT, INIT, SKIP, NOREWIND, NOUNLOAD, COMPRESSION;'

    SELECT @BackupLogCMD = 'BACKUP LOG [' + @DBName + ']
    TO DISK = N''' + @BackupDir + '\ ' + @DBName + '_TrnLog.BAK''
    WITH NOFORMAT, INIT, SKIP, NOREWIND, NOUNLOAD, COMPRESSION;'

    --PRINT @BackupFullCMD
    --PRINT ''
    --PRINT @BackupLogCMD
    --PRINT ''

    SELECT @RestoreFullCMD = '
    RESTORE DATABASE [' + @DBName + ']
    FROM DISK = N''' + @BackupDir + '\ ' + @DBName + '_FullDB.BAK''
    WITH REPLACE, NORECOVERY'

    SELECT @RestoreLogCMD = '
    RESTORE DATABASE [' + @DBName + ']
    FROM DISK = N''' + @BackupDir + '\ ' + @DBName + '_TrnLog.BAK''
    WITH NORECOVERY'

    SELECT @AAGSecondaryCMD = 'ALTER DATABASE [' + @DBName + '] SET HADR
    AVAILABILITY GROUP = [' + @AAGName + '];'

    PRINT ''
    IF (SELECT recovery_model_desc FROM sys.databases WHERE name = @DBName) !=
    'FULL'
    BEGIN
        PRINT
        '*****
        *****
        *****'
    
```

```

PRINT '***** WARNING!!!! DATABASE [' + @DBName + '] NOT FULL RECOVERY
MODEL!!!! *****'
PRINT
'*****'
*****
*****

END
PRINT ''
PRINT @RestoreFullCMD
PRINT ''
PRINT @RestoreLogCMD
PRINT ''
PRINT @AAGSecondaryCMD
PRINT ''

IF NOT EXISTS (
    SELECT
        1
    FROM
        master.sys.databases a
        INNER JOIN
        master.sys.availability_replicas b
    ON a.replica_id = b.replica_id
        AND b.replica_server_name = @@SERVERNAME
        AND a.name = @DBName
)
BEGIN
    SELECT @AAGPrimaryCMD = 'ALTER AVAILABILITY GROUP ' + @AAGName + ' ADD
    DATABASE [' + @DBName + '];'
END
ELSE
    SELECT @AAGPrimaryCMD = NULL
--EXEC (@BackupFullCMD)
--EXEC (@BackupLogCMD)
--EXEC (@AAGPrimaryCMD)

    FETCH NEXT FROM DBNames INTO @DBName
END

CLOSE DBNames
DEALLOCATE DBNames

```

# Enable/re-enable CDC

Wednesday, June 29, 2016 2:13 PM

If needed we can take the backup of CDC tables into Temporarily tables but currently below tables are showing empty. So I just followed the below steps to disable & re-enable the CDC on those tables.

Programs\_HIST & Projects\_HIST

1. Drop CDC related tables(Programs\_HIST & Projects\_HIST) under HIST schema
2. Drop CDC related SP's (Programs\_HIST\_CDCLOAD & Projects\_HIST\_CDCLOAD) under HIST Schema
3. Open up cdc.SFSQL\_NET01334 - Insert into HIST tables job and drop the below 2 steps

```
[HIST].[Programs_HIST_CDCLoad]
[HIST].[Projects_HIST_CDCLoad]
```

4. Disable the CDC on those tables

```
USE SFSQL_NET01334
GO
EXEC sys.sp_cdc_disable_table
@source_schema = N'dbo',
@source_name   = N'Programs',
@capture_instance = N'dbo_Programs'
GO
USE SFSQL_NET01334
GO
EXEC sys.sp_cdc_disable_table
@source_schema = N'dbo',
@source_name   = N'Projects',
@capture_instance = N'dbo_Projects'
GO
```

5. Re-enable the CDC on those tables

```
use msdb
GO
EXEC [dbo].[sp_sf_EUC_CDC_Setup]
@DB_Name = 'SFSQL_NET01334',
@CSVTableList = 'dbo.Projects,dbo.Programs'
```

**Jason** – Please let us know if you have any different approach to rebuilt CDC tables after DDL changes.

Thank You, ☺  
Kiran Andru

# Copy Explicit permissions

Wednesday, July 06, 2016 10:46 AM

Corrected for using windows login.

```
SELECT CASE WHEN issqluser = 1 THEN 'USER' ELSE 'ROLE' END Type,  
        state_desc + ' ' + permission_name COLLATE SQL_Latin1_General_CP1_CI_AS + ' ON ' +  
o.name + ' TO [' + u.name + ']'  
FROM sys.database_permissions dp  
INNER JOIN sys.sysusers u on dp.grantee_principal_id = u.uid  
INNER JOIN sys.objects o on o.object_id = dp.major_id  
WHERE u.name = 'apm_datareader'
```

# Index Stats per table

Tuesday, August 02, 2016 10:46 AM

```
SELECT (SELECT sqlserver_start_time FROM sys.dm_os_sys_info) LastStartUp,  
       DB_NAME(database_id) DatabaseName, o.name TableName, i.name IndexName,  
       i.type_desc IndexType, user_seeks, system_seeks, user_scans, system_scans,  
       user_lookups, system_lookups, user_updates, system_updates  
FROM siebeldbpcu.sys.dm_db_index_usage_stats ius  
INNER JOIN siebeldbpcu.sys.objects o ON o.object_id = ius.object_id  
INNER JOIN siebeldbpcu.sys.indexes i ON i.object_id = o.object_id  
AND i.index_id = ius.index_id  
WHERE ius.database_id = DB_ID('siebeldbpcu') AND ius.OBJECT_ID =  
OBJECT_ID('dbo.S_SRV_REQ') order by user_seeks desc, system_seeks desc
```

Accesses =  
SUM(UserSeeks + UserScans + UserLookups +  
 SystemSeeks + SystemScans + SystemLookups) Accesses

Updates =  
SUM(UserUpdates + SystemUpdates) Updates

Select from Perf\_IndexUsageStatistics table

Open up SSMS, go to DB, right click, custom reports, then go to report



# Read-only Routing

Tuesday, October 04, 2016 10:43 AM

```
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLX\WMSD5FLX01' WITH
(SECONDARY_ROLE (ALLOW_CONNECTIONS = READ_ONLY));
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLX\WMSD5FLX01' WITH
(SECONDARY_ROLE (READ_ONLY_ROUTING_URL =
N'TCP://WTSD5FLX.OPR.SYSTEM.TEST.STATEFARM.ORG:57801'));
```

```
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLZ\WMSD5FLX07' WITH
(SECONDARY_ROLE (ALLOW_CONNECTIONS = READ_ONLY));
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLZ\WMSD5FLX07' WITH
(SECONDARY_ROLE (READ_ONLY_ROUTING_URL =
N'TCP://WTSD5FLZ.OPR.SYSTEM.TEST.STATEFARM.ORG:57807'));
```

```
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLX\WMSD5FLX01' WITH
(PRIMARY_ROLE (READ_ONLY_ROUTING_LIST=('WTSD5FLZ\WMSD5FLX07','WTSD5FLX
\WMSD5FLX01')));
```

```
ALTER AVAILABILITY GROUP WSLD5FLX01
MODIFY REPLICA ON
N'WTSD5FLZ\WMSD5FLX07' WITH
(PRIMARY_ROLE (READ_ONLY_ROUTING_LIST=('WTSD5FLX\WMSD5FLX01','WTSD5FLZ
\WMSD5FLX07')));
GO
```

```
select * from sys.availability_read_only_routing_lists
```

```
select * from sys.availability_replicas
```

# Show details about indexes

Thursday, October 27, 2016 12:34 PM

```
select ic.key_ordinal, ind.name, col.name, ind.type_desc from sys.index_columns as ic
inner join sys.indexes as ind on ind.index_id = ic.index_id and ic.object_id = ind.object_id
inner join sys.columns as col on col.object_id = ic.object_id and col.column_id = ic.column_id
where ic.object_id = object_id('S_EVT_ACT') and col.name=('TODO_CD')
order by ic.index_id
```

Wednesday, June 22, 2016 10:42 AM

Impt Queries Page 123

# Query Tuning

Tuesday, November 15, 2016 3:14 PM

What's currently running? Blocking, active etc?

```
select WAIT_TIME, * From sys.dm_exec_requests cross apply sys.dm_exec_sql_text(sql_handle) where  
command <> 'WAITFOR' and session_ID <> @@SPID
```

```
select * from sys.dm_exec_query_resource_semaphores
```

See a bunch of waiter\_counts, waiting on memory

Work time is time on the CPU  
Total elapsed is the entire time  
Elapsed time is worker time + Wait time

# Memory Grants Siebel

Thursday, December 15, 2016 2:37 PM

```
select * from sys.dm_exec_query_memory_grants order by requested_memory_kb desc
```

```
--select * from sys.dm_exec_requests cross apply sys.dm_exec_sql_text(sql_handle) where session_id = 362
```

```
kill 752
```

```
select * from sys.dm_io_pending_io_requests order by io_pending_ms_ticks desc
```

```
select * from sys.dm_exec_query_stats where query_hash = 0x6E6B1EBC90C50141
```

```
SELECT type, name, memory_node_id  
, sum(pages_kb +  
+ virtual_memory_committed_kb  
+ awe_allocated_kb  
+ shared_memory_committed_kb) AS TotalKB  
FROM sys.dm_os_memory_clerks  
GROUP BY type, name, memory_node_id  
ORDER BY TotalKB DESC
```

```
--kill 362
```

```
select * from sys.dm_exec_query_stats where query_hash = 0xF6F609AA87E2F070
```

```
select count(*) from dbo.S_SRV_REQ where TEMPLATE_FLG != 'Y' AND INS_REC_TYPE !=  
'Communication Record' OR INS_REC_TYPE IS NULL
```

```
select session_id from sys.dm_exec_query_memory_grants where requested_memory_kb > 3000000
```

```
select session_id into #tmp from sys.dm_exec_query_memory_grants where requested_memory_kb >  
3000000
```

```
select count(*) from dbo.S_SRV_REQ_BU as [T2] where T2.SR_TYPE_CD != 'Internal' OR T2.SR_TYPE_CD  
IS NULL and T2.BU_ID = '1-R4B'
```

```
35,880,535  
joining /w  
19,000,000
```

```
select * from sys.dm_exec_sessions where session_id = 1047  
SHOWS PROCESS ID
```

```

--select * From sys.sysaltfiles

--select * from sys.dm_io_virtual_file_stats(7,null) where dbid = 7

--select * From sys.sysaltfiles where dbid = 7

--select * from sys.dm_io_pending_io_requests order by io_pending_ms_ticks desc

-- where [io_pending_ms_ticks] > 500 order by io_pending_ms_ticks desc

--select * from sys.dm_exec_requests where query_hash = 0xF6F609AA87E2F070

--select * From sys.dm_os_memory_clerks order by pages_kb desc

--select * from sys.dm_exec_query_resource_semaphores

--select * from sys.dm_exec_query_memory_grants order by requested_memory_kb desc

--select * from sys.dm_exec_requests cross apply sys.dm_exec_sql_text(sql_handle) where session_id =
362

--kill 323
--update statistics s_srv_req with fullscan

select * from sys.dm_exec_sessions where session_id = 1047

--queryplanhash 0x620E311E0C366855 this should change
--queryhash 0xF6F609AA87E2F070 should remain

```

[illegible]

# Shows you PLE

Tuesday, January 17, 2017 8:06 AM

```
select object_name, counter_name, instance_name, cntr_value as counter_value
from sys.dm_os_performance_counters
where
    (
        object_name LIKE '%Memory%'
        and
        (
            counter_name LIKE 'Target Server Memory%'
            OR
            counter_name LIKE 'Total Server Memory%'
        )
    )
or
    (
        object_name LIKE '%Memory%'
        and
        (
            counter_name LIKE 'Target Node Memory%'
            OR
            counter_name LIKE 'Total Node Memory%'
        )
    )
or counter_name = 'Page life expectancy'
```

--Give you total target and page life. Target being less than total, good from a RAM perspective. SQL can use up to a certain total and it hasn't surpassed total.

--PLE ... what's the standard. No min memory set, target memory/4 multiple by 300 ... so 9GB/4 \* 300 = 675 seconds. 15min is OK. If sitting at 300, target and total should be equal. OVER course of day





Wednesday, February 22, 2017 9:26 AM

```
select * from sys.dm_os_performance_counters where counter_name = 'Transactions/sec'
```

```
waitfor delay '00:00:05'
```

```
select * from sys.dm_os_performance_counters where counter_name = 'Transactions/sec'
```

Show diff in transactions per second

```
-----  
select * from sys.dm_os_schedulers where is_idle = 0 and status = 'VISIBLE ONLINE'  
--How busy is the server? Visible online? Is_Online and Is_idle
```

```
-----  
select * from sys.dm_os_wait_stats order by wait_time_ms desc
```

```
DBCC SQLPERF('sys.dm_os_wait_stats',CLEAR)
```

```
--If you want to capture the LAST 60 seconds of WAIT STATS when there's a LOT of problems, can use to  
CLEAR. CLEAR for 60 seconds and  
--get a live idea of what's going on
```

```
-----  
select top 10 total_elapsed_time/execution_count, * from sys.dm_exec_query_stats cross apply  
sys.dm_exec_sql_text(sql_handle) order by total_elapsed_time/execution_count desc
```

```
DBCC FREEPROCCACHE
```

```
--To clear out procedure cache to clear up the TOTAL top 10 queries.
```

```
-----  
select * from sys.dm_os_performance_counters where counter_name = 'Transactions/sec'
```

```
waitfor delay '00:00:05'
```

```
select * from sys.dm_os_performance_counters where counter_name = 'Transactions/sec'
```

```
--Show diff in transactions per second
```

```
-----  
select * from sys.dm_os_nodes
```

```
--Shows you the NUMA nodes
```

```
-----  
select * from sys.dm_os_nodes
```

```
select * From sys.dm_exec_requests
```

```
select * From sys.dm_os_memory_nodes
```

```
--Foreign_committed_kb shows crossing of memory across NUMA nodes.
```

-----  
select \* from sys.dm\_tran\_locks

--Finding hidden processes that have been requested but not showing as running

-----  
Select \* from sys.dm\_os\_memory\_clerks order by pages\_kb desc

--BUFFERCOOL, SQLRESERVATIONS, CACHESTORE SQLCP and CACHESTOREOBJCP. These should be the top

# Missing Indexes

Tuesday, March 07, 2017 1:43 PM

-- Missing Indexes for all databases by Index Advantage (Query 27) (Missing Indexes All Databases)

```
SELECT
    CONVERT(decimal(18,2),
        user_seeks * avg_total_user_cost * (avg_user_impact * 0.01)) AS [index_advantage],
    migs.last_user_seek,
    mid.[statement] AS [Database.Schema.Table],
    mid.equality_columns,
    mid.inequality_columns,
    mid.included_columns,
    migs.unique_compiles,
    migs.user_seeks,
    migs.avg_total_user_cost,
    migs.avg_user_impact
FROM sys.dm_db_missing_index_group_stats AS migs WITH (NOLOCK)
    INNER JOIN sys.dm_db_missing_index_groups AS mig WITH (NOLOCK) ON migs.group_handle =
mig.index_group_handle
    INNER JOIN sys.dm_db_missing_index_details AS mid WITH (NOLOCK) ON mig.index_handle =
mid.index_handle
ORDER BY index_advantage DESC
OPTION (RECOMPILE);
```

# Show VLF

Thursday, June 15, 2017 11:24 AM

```
--variables to hold each 'iteration'
declare @query varchar(100)
declare @dbname sysname
declare @vlfs int

--table variable used to 'loop' over databases
declare @databases table (dbname sysname)
insert into @databases
--only choose online databases
select name from sys.databases where state = 0

--table variable to hold results
declare @vlfcounts table
    (dbname sysname,
    vlfcount int)

--table variable to capture DBCC loginfo output
--changes in the output of DBCC loginfo from SQL2012 mean we have to determine the version

declare @MajorVersion tinyint
set @MajorVersion = LEFT(CAST(SERVERPROPERTY('ProductVersion') AS
nvarchar(max)),CHARINDEX('.',CAST(SERVERPROPERTY('ProductVersion') AS nvarchar(max)))-1)

if @MajorVersion < 11 -- pre-SQL2012
begin
    declare @dbccloginfo table
    (
        fileid smallint,
        file_size bigint,
        start_offset bigint,
        fseqno int,
        [status] tinyint,
        parity tinyint,
        create_lsn numeric(25,0)
    )

    while exists(select top 1 dbname from @databases)
    begin

        set @dbname = (select top 1 dbname from @databases)
        set @query = 'dbcc loginfo (' + '''' + @dbname + ''') '

        insert into @dbccloginfo
        exec (@query)

        set @vlfs = @@rowcount
```

```

insert @vlfcounts
values(@dbname, @vlf)

delete from @databases where dbname = @dbname

end --while
end
else
begin
declare @dbccloginfo2012 table
(
    RecoveryUnitId int,
    fileid smallint,
    file_size bigint,
    start_offset bigint,
    fseqno int,
    [status] tinyint,
    parity tinyint,
    create_lsn numeric(25,0)
)

while exists(select top 1 dbname from @databases)
begin

    set @dbname = (select top 1 dbname from @databases)
    set @query = 'dbcc loginfo (' + '''' + @dbname + ''') '

    insert into @dbccloginfo2012
    exec (@query)

    set @vlf = @@rowcount

    insert @vlfcounts
    values(@dbname, @vlf)

    delete from @databases where dbname = @dbname

end --while
end

--output the full list
select dbname, vlfcount
from @vlfcounts
order by dbname

```

Siebel ASR Temp DB Mods

Friday, June 16, 2017 11:03 AM

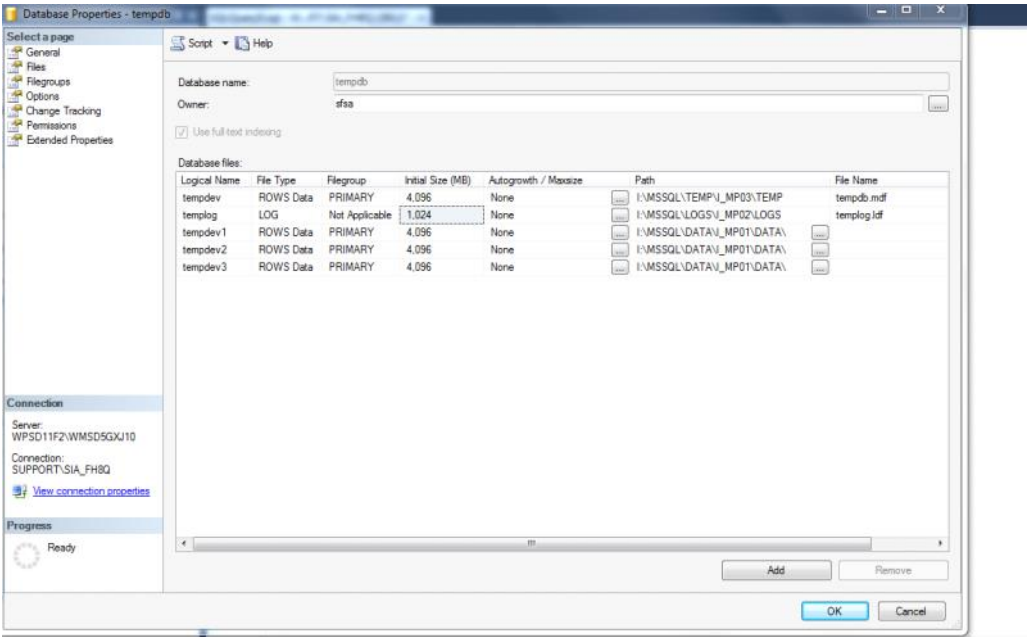
```
WPSD11F2\WMSD5GXJ10

USE [tempdb]
GO
DBCC SHRINKFILE (N'tempdev' , 4096)
GO
USE [master]
GO
ALTER DATABASE [tempdb] MODIFY FILE ( NAME = N'tempdev', FILEGROWTH = 0)
GO
ALTER DATABASE [tempdb] ADD FILE ( NAME = N'tempdev1', FILENAME = N'I:\MSSQL\DATA\I_MP01\DATA\tempdev1.ndf' , SIZE = 4194304KB , FILEGROWTH = 0)
GO
ALTER DATABASE [tempdb] ADD FILE ( NAME = N'tempdev2', FILENAME = N'I:\MSSQL\DATA\I_MP01\DATA\tempdev2.ndf' , SIZE = 4194304KB , FILEGROWTH = 0)
GO
ALTER DATABASE [tempdb] ADD FILE ( NAME = N'tempdev3', FILENAME = N'I:\MSSQL\DATA\I_MP01\DATA\tempdev3.ndf' , SIZE = 4194304KB , FILEGROWTH = 0)
GO
ALTER DATABASE [tempdb] MODIFY FILE ( NAME = N'templog', SIZE = 1048576KB , FILEGROWTH = 0)
GO
```

```
WPSD5GXJ\WMSD5GXJ01

USE [Siebeldbpcu]
GO
DBCC SHRINKFILE (N'S_Siebeldbpcu_5' , 51200)
GO
USE [Siebeldbpcu]
GO
DBCC SHRINKFILE (N'S_Siebeldbpcu_6' , 51200)
GO
USE [Siebeldbpcu]
GO
DBCC SHRINKFILE (N'S_Siebeldbpcu_7' , 51200)
GO
USE [Siebeldbpcu]
GO
DBCC SHRINKFILE (N'S_Siebeldbpcu_8' , 51200)
GO
USE [master]
GO
ALTER DATABASE [Siebeldbpcu] MODIFY FILE ( NAME = N'S_Siebeldbpcu' , SIZE = 237395968KB )
GO
```

Keep an eye on the growth.  
GET REPORTS ON HOW BIG IT GROWS





# Extract p/w

Wednesday, August 09, 2017 11:32 AM

appcmd list APPPOOL "Opserver" /text:\*

But I never sent this 😊.

---

appcmd list APPPOOL "Opserver" /text:\*

But I never sent this 😊.

# Memory

Monday, August 14, 2017 9:25 AM

/\*

## QUERY #1:

Description: This query will display the configured min and max server memory settings.

Understanding these values is important as they create a ceiling and a floor for Buffer Pool memory (SQL 2005+).

In SQL 2012, SQL CLR memory is also managed by the min/max setting.

SQL Server uses dynamic memory allocation and will grow to the max value as needed.

It will also never grow below the min setting once that it reached.

If min=max, you are effectively using fixed memory settings as the server will not drop below/above the min/max setting once reached.

Ideal Value: This setting is dependent on the type of system running and the available RAM.

If LIPM is set, then consider setting Max such that the OS will have 2-4 GB available.

Units of Measure: MB

\*/

```
select name, value, value_in_use, ((CONVERT(INT, value_in_use)/1024)/4*300) AS IdealPLE from sys.configurations where name in ('max server memory (MB)', 'min server memory (MB)')
```

/\*

## QUERY #2:

Description: This query will provide information regarding Total Physical Memory and Available Physical Memory in KB.

In addition, the query will provide a status from the OS as to whether physical memory is high or low:

Available physical memory is high

Available physical memory is low

As mentioned above, the Windows OS uses Memory API callbacks to allow applications to check with the OS to

determine if it is experiencing memory pressure. This query provides visibility into the state as perceived

by the OS. Typically, a Low notification will result in the buffer pool and other clerks trimming memory.

The SQL Server system impact due to this notification is increased IO, reduced PLE and generally reduces performance.

Ideal Value: Available physical memory is high

Units of Measure: MB

\*/

```
select total_physical_memory_kb, available_physical_memory_kb, system_memory_state_desc from sys.dm_os_sys_memory
```

/\*

## QUERY #3:

Description: This query returns Target/Total Memory (MB) and PLE in Seconds. PLE is shown as an aggregate as well as

per NUMA node. It is entirely possible for one NUMA node to have a different PLE due to the pages being used within

that NUMA node. Target/Total memory indicate ideal/current memory levels respectively. Target and Total are used by

the engine to determine when to grow or trim buffer pool and other memory clerks. Min and Max memory settings will

directly impact these counters.

Ideal Value: PLE Should be  $\geq ((\text{LESSER OF MAX\_MEMORY AND PHYSICAL\_RAM\_IN\_GB}) / 4) * 300$ .

Target is an automatically

determined value and should reflect the minimum of MAX SERVER MEMORY and TOTAL Physical Memory (or close). Total Server

Memory should ideally be as close to Target as possible. A larger the gap indicates the system just started and has

not ramped up or resources are being wasted. Ideally, you want Total to be as close to Target while Maximizing PLE.

Units of Measure: Memory = KB; PLE = Seconds

\*/

```
select object_name, counter_name, instance_name, cntr_value as counter_value
```

```
from sys.dm_os_performance_counters
```

```
where
```

```
    (
        object_name LIKE '%Memory%'
        and
        (
            counter_name LIKE 'Target Server Memory%'
            OR
            counter_name LIKE 'Total Server Memory%'
        )
    )
    or
    (
        object_name LIKE '%Memory%'
        and
        (
            counter_name LIKE 'Target Node Memory%'
            OR
            counter_name LIKE 'Total Node Memory%'
        )
    )
    or counter_name = 'Page life expectancy'
```

/\*

QUERY #4:

Description: This query will return the Lazy Writes Per Second Performance Counter. This counter is an incremental

counter, so you need to query, pause and query again to get the value in Per Seconds. The Lazy Writer thread wakes

up periodically to manage the free page list. When it determines free pages are low, it will work through the buffer

pool and add clean pages to the free page list based on a LRU algorithm. Dirty pages are also added but are flushed

before being added to the free page list. This process should not be confused with the checkpoint process which is

focused on minimizing recovery time.

Ideal Value: The ideal value for this counter is 0. Anything > 0 sustained should be looked into as it means SQL Server

is trying to flush pages to disk to make room for new pages being read into the buffer pool.

\*/

```

declare @value int
select @value = cntr_value
from sys.dm_os_performance_counters
where object_name LIKE '%Buffer Manager%' and counter_name = 'Lazy writes/sec'
waitfor delay '00:00:01'
select cntr_value -@value as lazy_writes_per_second
from sys.dm_os_performance_counters
where object_name like '%Buffer Manager%' and counter_name = 'Lazy writes/sec'

```

/\*

#### QUERY #5:

Description: This query collects counts of the pages in the buffer pool per database.

Ideal Value: There is no ideal value you here. The intent is to give you a feel as to the largest consumers of the buffer pool. If you are hitting memory limitation and cannot increase RAM, you can look into various mechanisms to reduce the number of pages consumed by one database.

\*/

```

select db_name(database_id) as Database_Name, count(database_id)/128 as Buffer_Page_MB from
sys.dm_os_buffer_descriptors where database_id <> 32767 group by database_id order by
count(database_id) desc

```

/\*

#### QUERY #6:

Description: This query provides a list of the users of memory by type (or Clerk).

Ideal Value: Ideally, MEMORYCLERK\_SQLBUFFERPOOL and CACHSTORE\_OBJCP should be in the top 3. If these are not and others are, it might indicate a need to dive deeper into the system. For example, if OBJECTSTORE\_LOCK\_MANAGER is in the top 3, you might want to dig deeper into the locking mechanism of the application if you are experiencing problems.

\*/

```

IF LEFT(CAST(SERVERPROPERTY('ProductVersion') As Varchar),2)<'11'
BEGIN

```

/\*2008\_R2 and lower\*/

```

EXECUTE ('SELECT type, name, memory_node_id
, sum(single_pages_kb + multi_pages_kb +
+ virtual_memory_committed_kb
+ awe_allocated_kb
+ shared_memory_committed_kb) AS TotalKB
FROM sys.dm_os_memory_clerks
GROUP BY type, name, memory_node_id
ORDER BY TotalKB DESC');

```

END

ELSE

/\*2012 and up\*/

BEGIN

```

EXECUTE ('SELECT type, name, memory_node_id
, sum(pages_kb +
+ virtual_memory_committed_kb
+ awe_allocated_kb
+ shared_memory_committed_kb) AS TotalKB

```

```

FROM sys.dm_os_memory_clerks
GROUP BY type, name, memory_node_id
ORDER BY TotalKB DESC');
END

```

/\*

#### QUERY #7:

Description: This query provides a historic list of the Memory Notifications from the OS.

Ideal Value: Ideally, RESOURCE\_MEMPHYSICAL\_HIGH or RESOURCE\_MEM\_STEADY should show up in all rows.

\*/

```

SELECT top 10 DATEADD(ss, (-1 * ((cpu_ticks / CONVERT(float, (cpu_ticks / ms_ticks))) -
[timestamp])/1000), GETDATE()) AS Event_Time, CAST(record as
XML).value('/Record/ResourceMonitor/Notification)[1]', 'varchar(max)') as Type, CAST(record as
XML).value('/Record/ResourceMonitor/IndicatorsProcess)[1]', 'int') as Indicators_Process, CAST(record
as XML).value('/Record/ResourceMonitor/IndicatorsSystem)[1]', 'int') as Indicators_System,
CAST(record as XML).value('/Record/MemoryRecord/AvailablePhysicalMemory)[1]', 'bigint') AS
Available_Physical_Memory_KB, CAST(record as
XML).value('/Record/MemoryRecord/TotalPhysicalMemory)[1]', 'bigint') AS Total_Physical_Memory_KB
FROM sys.dm_os_ring_buffers CROSS JOIN sys.dm_os_sys_info WHERE ring_buffer_type =
'RING_BUFFER_RESOURCE_MONITOR' AND (CAST(record as
XML).value('/Record/ResourceMonitor/IndicatorsProcess)[1]', 'int') <> 0 or CAST(record as
XML).value('/Record/ResourceMonitor/IndicatorsSystem)[1]', 'int') <> 0) ORDER BY Event_Time DESC;

```

# ESR Performance Script on Reload

Monday, August 14, 2017 9:30 AM



ESR  
Performa...

## How identified blocking resource

Thursday, August 24, 2017 11:32 AM

[8/24/2017 11:28 AM] Jason Page:

OK

getting closer

`waitresource="KEY: 7:72057594054377472 (b5120246c5d7)"`

is

schema\_name object\_name index\_name

Fact PrimaryWorkitemDaysIn PK\_PrimaryWorkitemDaysIn

[8/24/2017 11:29 AM] Matt Arthen:

that index

whats weird

is that index has never been updated

I'm trying to get it updated using the stats

[8/24/2017 11:29 AM] Jason Page:

yeah, i'll keep looking a bit more as to why maybe it's having issues

[8/24/2017 11:30 AM] Matt Arthen:

thx!

how'd you get that

like narrow it down to that index using that waitresource

[8/24/2017 11:31 AM] Jason Page:

so the wait resource is either KEY or PAGE

if it's a KEY, then you can find it with this

```
SELECT
    sc.name as schema_name,
    so.name as object_name,
    si.name as index_name
FROM sys.partitions AS p
INNER JOIN sys.objects as so on
    p.object_id=so.object_id
INNER JOIN sys.indexes as si on
    p.index_id=si.index_id and
    p.object_id=si.object_id
INNER JOIN sys.schemas AS sc on
    so.schema_id=sc.schema_id
WHERE hobt_id = 72057594054377472;
GO
```

[8/24/2017 11:31 AM] Matt Arthen:

hobt\_id

[8/24/2017 11:31 AM] Jason Page:

hobt\_id = heap or b-tree ID

[8/24/2017 11:31 AM] Matt Arthen:

hobt\_id

[8/24/2017 11:31 AM] Jason Page:

hobt\_id = heap or b-tree ID

[8/24/2017 11:31 AM] Matt Arthen:

ahh

nice!

[8/24/2017 11:31 AM] Jason Page:

hobbits!

[8/24/2017 11:31 AM] Matt Arthen:

saving this query for sure

lol yeah, almost never use it

`7:72057594054377472`

7 = database ID

`72057594054377472` = hobt\_id when it's a KEY

if it was a page

PAGE: 6:3:70133 = Database\_Id : FileId : PageNumber

[8/24/2017 11:33 AM] Jason Page:

i looked at so many deadlock reports before i finally did  
for pages

GO

SELECT

name,  
physical\_name

FROM sys.database\_files

WHERE file\_id = 3;

GO

[8/24/2017 11:34 AM] Jason Page:

6 would be the DBID, 3 would be the file\_id

then you can run this

[8/24/2017 11:35 AM] Jason Page:

here, i found a good guide to start with

<https://littlekendra.com/2016/10/17/decoding-key-and-page-waitresource-for-deadlocks-and-blocking/>  
save that link

# script to copy the users and permission in a db

Wednesday, November 15, 2017 6:29 AM

```
DECLARE c1 CURSOR FOR SELECT DISTINCT [name]
    FROM sysusers
    WHERE [name] NOT IN (
        'db_accessadmin',
        'db_backupoperator',
        'db_datareader',
        'db_datawriter',
        'db_ddladmin',
        'db_denydatareader',
        'db_denydatawriter',
        'db_owner',
        'db_securityadmin',
        'dbo',
        'guest',
        'public'
    )
    AND issqlrole=0

OPEN c1
DECLARE @DatabaseUserName sysname

FETCH c1 INTO @DatabaseUserName

WHILE (@@FETCH_STATUS =0)
    BEGIN

        SET NOCOUNT ON
        DECLARE
            @errStatement [varchar](8000),
            @msgStatement [varchar](8000),
            @DatabaseUserID [smallint],
            @ServerUserName [sysname],
            @RoleName [varchar](8000),
            @ObjectID [int],
            @ObjectName [varchar](261)

        SELECT
            @DatabaseUserID = [sysusers].[uid],
            @ServerUserName = [master].[dbo].[syslogins].[loginname]
        FROM [dbo].[sysusers]
        INNER JOIN [master].[dbo].[syslogins]
        ON [sysusers].[sid] = [master].[dbo].[syslogins].[sid]
        WHERE [sysusers].[name] = @DatabaseUserName
        IF @DatabaseUserID IS NULL
            BEGIN
```



```

SET @errStatement = 'User ' + @DatabaseUserName + ' does not exist in ' + DB_NAME() + CHAR(13) +
'Please provide the name of a current user in ' + DB_NAME() + ' you wish to script.'
RAISERROR(@errStatement, 16, 1)
END
ELSE
BEGIN
SET @msgStatement = '--Security creation script for user ' + @ServerUserName + CHAR(13) +
'--Created At: ' + CONVERT(varchar, GETDATE(), 112) + REPLACE(CONVERT(varchar, GETDATE(), 108),
':', '') + CHAR(13) +
'--Created By: ' + SUSER_NAME() + CHAR(13) +
'--Add User To Database' + CHAR(13) +
'USE [' + DB_NAME() + ']' + CHAR(13) +
'--EXEC [sp_grantdbaccess]' + CHAR(13) +
'--CHAR(9) + '@loginame = ''' + @ServerUserName + ''', ' + CHAR(13) +
'--CHAR(9) + '@name_in_db = ''' + @DatabaseUserName + '''' + CHAR(13) +

'--CREATE USER [' + @ServerUserName + ']' + 'FOR LOGIN [' + @DatabaseUserName + ']' +
CHAR(13) --+ 'GO' + CHAR(13) +
'CREATE USER [' + @DatabaseUserName + ']' + 'FOR LOGIN [' + @DatabaseUserName + ']' + CHAR(13)
+ -- 'GO' + CHAR(13) +

'--Add User To Roles'
PRINT @msgStatement
DECLARE _sysusers
CURSOR
LOCAL
FORWARD_ONLY
READ_ONLY
FOR
SELECT
[name]
FROM [dbo].[sysusers]
WHERE
[uid] IN
(
SELECT
[groupuid]
FROM [dbo].[sysmembers]
WHERE [memberuid] = @DatabaseUserID
)
OPEN _sysusers
FETCH
NEXT
FROM _sysusers
INTO @RoleName
WHILE @@FETCH_STATUS = 0
BEGIN
SET @msgStatement = 'EXEC [sp_addrolemember]' + CHAR(13) +
CHAR(9) + '@rolename = ''' + @RoleName + ''', ' + CHAR(13) +
CHAR(9) + '@membername = ''' + @DatabaseUserName + ''''
PRINT @msgStatement
FETCH
NEXT

```

```

FROM _sysusers
INTO @RoleName
END
-----
CLOSE _sysusers
DEALLOCATE _sysusers
-----
SET @msgStatement = 'GO' + CHAR(13) +
'--Set Object Specific Permissions'
PRINT @msgStatement
DECLARE _sysobjects
CURSOR
LOCAL
FORWARD_ONLY
READ_ONLY
FOR
SELECT
DISTINCT([sysobjects].[id]),
 '[' + USER_NAME([sysobjects].[uid]) + '].[ ' + [sysobjects].[name] + ']'
FROM [dbo].[sysprotects]
INNER JOIN [dbo].[sysobjects]
ON [sysprotects].[id] = [sysobjects].[id]
WHERE [sysprotects].[uid] = @DatabaseUserID
OPEN _sysobjects
FETCH
NEXT
FROM _sysobjects
INTO
@ObjectID,
@ObjectName
WHILE @@FETCH_STATUS = 0
BEGIN
SET @msgStatement = ''
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 193 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'SELECT,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 195 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'INSERT,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 197 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'UPDATE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 196 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'DELETE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 224 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'EXECUTE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 26 AND [protecttype] = 205)
SET @msgStatement = @msgStatement + 'REFERENCES,'
IF LEN(@msgStatement) > 0
BEGIN

```

```

IF RIGHT(@msgStatement, 1) = ','
SET @msgStatement = LEFT(@msgStatement, LEN(@msgStatement) - 1)
SET @msgStatement = 'GRANT' + CHAR(13) +
CHAR(9) + @msgStatement + CHAR(13) +
CHAR(9) + 'ON ' + @ObjectName + CHAR(13) +
CHAR(9) + 'TO ' + @DatabaseUserName
PRINT @msgStatement
END
SET @msgStatement = ''
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 193 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'SELECT,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 195 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'INSERT,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 197 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'UPDATE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 196 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'DELETE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 224 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'EXECUTE,'
IF EXISTS(SELECT * FROM [dbo].[sysprotects] WHERE [id] = @ObjectID AND [uid] = @DatabaseUserID
AND [action] = 26 AND [protecttype] = 206)
SET @msgStatement = @msgStatement + 'REFERENCES,'
IF LEN(@msgStatement) > 0
BEGIN
IF RIGHT(@msgStatement, 1) = ','
SET @msgStatement = LEFT(@msgStatement, LEN(@msgStatement) - 1)
SET @msgStatement = 'DENY' + CHAR(13) +
CHAR(9) + @msgStatement + CHAR(13) +
CHAR(9) + 'ON ' + @ObjectName + CHAR(13) +
CHAR(9) + 'TO ' + @DatabaseUserName
PRINT @msgStatement
END
FETCH
NEXT
FROM _sysobjects
INTO
@ObjectID,
@ObjectName
END
CLOSE _sysobjects
DEALLOCATE _sysobjects
PRINT 'GO'
END

FETCH c1 INTO @DatabaseUserName
END
CLOSE c1

```

DEALLOCATE c1

# Blocking

Tuesday, February 27, 2018

11:23 AM

```
select blocking_session_id, wait_time, wait_type, last_wait_type, * from sys.dm_exec_requests
```

```
select * from sys.dm_exec_connections where session_id =54
```

```
select * from sys.dm_exec_sessions where session_id = 54
```

```
select * from sys.dm_os_tasks where session_id = 54
```

```
select * from sys.dm_exec_connections where session_id =21
```

```
select * from sys.dm_exec_sessions where session_id = 21
```

```
select * from sys.dm_os_tasks where session_id = 21
```

```
sp_who
```

```
kill 54
```

2015

Monday, November 02, 2015 2:48 PM

Sell yourself

Add verbage

Focus more on verbs

Helped to install security patches during the night for seven hours on each Friday

R21212

ARGUS installation and setup

Became Primary

Patch cycle (won't help)

Will get lost of questions. I did blah blah blah on the patch cycle

Specific tasks

Actions you take

The specific results of those actions

Write down what I did and the verb part

What quantifiable part came from that verb

How many patches/servers

this a project I worked on and what did I do on that project. Loading of servers and migration.

Coordination between

people, SQL CDRS entries, load failure, handling the actual migrations. DN

New projects. Argus application and Legal Captiva. I did this and I did that.

Primary on CLC Matter management. Got rid of those jobs big sys admin jobs and indexing

Patching

Rightfax upgrade

training

Bullet points of what you ACTUALLY did

Look for ERP document - ask Mike if you can't find it

each of the three goals

looking at those three goals and match to what you did according to those three goals

should have about 3-5 per goal

Established a strong relationship with LEGAL people to discuss DB needs

Its about you, I did this and I learned this from that.

What I contributed to the project and what I took from the project. Talk high-level about the effort

Need:

Bulleted list of accomplishments before Dec

What you took away and what you provided

Goal is to make sure everything you know

One paragraph each

RE3 4712 Data Analyst-DBA and DBSA

1. Works independently on complex assignments and acts as a **mentor for other data analysts**
  - a. I continue to work on complex query tuning assignments for multiple applications. These require close coordination with the business area to identify troublesome queries and overall tuning to improve overall server performance and reduce consumption of resources. See 6 for further info.
  - b. Frequently conduct complex implementations independently of new applications in the Forests A, B and Production environments. Examples include the Siebel implementation of 6 Availability Groups across 3 servers and 13 instances of SQL.
2. Applies depth or breadth of knowledge of departmental strategies and processes to consult with business partners on data and/or database issues and design solutions
  - a. This is a frequent part of my daily duties in that my knowledge of State Farm processes applies directly in how SQL database solutions are implemented and issues are resolved. For instance, in order to deliver high quality results to customers, I frequently have to work with other Systems business partners. This requires an understanding of the other Systems business processes, such as NOS, security, STC, and WSDDB, that our customers have very little information about. Therefore, with this total understanding of these business processes I can then translate them to customers in the form of requirements to implement their product or solve any type of database issues. Examples include implementations on Version One, Siebel, Legal etc.
3. **Demonstrates sound judgment in making decisions with respect to matters of moderate to high complexity and importance**
4. Participates in and/or leads vendor product reviews, evaluations, demonstrations, proofs of concept and implementations, as required
  - a. I frequently conduct product implementations, evaluations, demonstrations etc. For instance, I am required to assist the Siebel, Legal, and Version One on weekend implementations of their applications. Work required includes examples such as backing up their databases and implementing a number of vendor scripts to the database. In addition to implementations, I have assisted in product evaluations and demonstrations in the Forest A environment with the IBM CDM application. Continued evaluations and demonstrations of the product with the business area actually proved that the application wouldn't be sufficient for State Farm; as a result, the project was cancelled.
5. **Applies broad-based knowledge of database concepts with in-depth/specialized knowledge of at least one database management system to perform daily tasks**
  - a. I support all instances and versions of SQL server here at State Farm, as well as the applications that reside on these servers.
6. Completes SQL performance tuning and query optimization to reduce CPU consumption and response time
  - a. For CLC Matter Management, a rather involved effort on performance tuning and eventual index rebuilds and implementations that were put into production cut query/job runtime down from minutes to seconds.
  - b. Siebel was undergoing serious performance issues on Siebel PCU that would consume 100% of CPU usage requiring app area to restart services. I worked with the Siebel team closely to analyze performance over the course of a few weeks. Results showed that there were several indexes that needed to be implemented on the databases, as well as a large number of databases that weren't used that needed to be disabled. I implemented the fixes into all the environments and eventually PROD. Recent performance analysis has shown that all our works has worked with CPU usage steady around 10%.
7. Conducts SQL reviews to ensure efficient database access, and troubleshoots data integrity and replication issues
  - a. I conduct weekly and monthly reviews of database access and roles to the SQL applications I own, ensuring that sufficient database access has been provided to the necessary business partners and service accounts. Also during these reviews I work to make sure that the principle of least privilege is adhered to and no "extra" and unnecessary access is provided to anyone.
  - b. I would frequently troubleshoot replication issues on applications I would own. For instance, Siebel would consistently have replication issues on their SQL 2008 PCU server with transaction log shipping. The secondary reporting server would run out of sync with the primary PCU server and I would have to work on the SQL server to re-sync the databases. Also with move to SQL 2012 for Siebel, I own 13 instances of SQL across three servers and 6 Availability Groups. Frequently I have to administer and manage these servers to ensure replication is maintained across all servers.

8. Keeps abreast of business and data industry trends and best practices to meet changing needs and influences the direction of solutions
  - a. I have continued to mentor with senior members of the DBA team. During the week of Chris Thompson's (Microsoft SQL Server PFE) to Atlanta, we dedicated time to SQL server training. I was able to grasp a much deeper understanding of many complicated SQL server topics. In turn, I directly apply this training in my maintenance and performance tuning and implemented a number of new SQL server technologies, positively affecting their overall performance and in turn State Farm.
  - b. I spent a week attending the Microsoft Ignite conference in Atlanta, GA in September. During this time I went to a number of lectures that would help further my understanding of SQL server (and the team's), especially the upcoming 2016 SQL Server and how it would help better the SQL team and State Farm as a whole. I have introduced these technologies to the team and how we can use them in our future implementations of 2016 to improve overall application performance across the enterprise (Query store, Column store index, In-Memory OLTP).
  - c. Personally I continue to develop my overall skills by reviewing SQL server websites such as SQL Server Central, as well as daily collaboration with more skilled members of the team, such as Chris Thompson, Terence Gilbert, Charles Barnett, and Jeremy Behne. I also continue to develop my personal relationships with my business partners as I work to provide them the best service possible.
9. May lead or contribute to strategic work (e.g. cross departmental or enterprise initiatives)
  - a. As part of the still continued effort to disable SSL 3.0 and weak ciphers on State Farm's SQL servers, I believe I have accomplished this. First, I was actively working to improve the overall security of the company by ultimately closing a security vulnerability within State Farm's environment. In fact, while working with security to identify and test those servers that would need to have the older security protocol disabled across all SQL servers, it was discovered by security that this was something that should be applied to the entire enterprise. Security agreed to take on the Enterprise implementation of the GPO, and once implemented should help State Farm avoid 30,000-50,000 (10,000 servers \* 3-5 hours per server) man hours over the next few years as well as providing a more secure environment.
  - b. As part of the R21212 project to migrate SQL servers from 2008 to 2014, I have been able to consolidate SQL servers across several applications. Several such instances include Siebel, LEGAL, and Creative Services. By consolidating from expensive physical machines to virtual clusters, I have been able to reduce costs and created an opportunity to be more efficient, but while also improving overall performance through the implementation of new technologies (SQL Server Always On Availability Groups and Query Store)
  - c. I was the primary DBA on call for the June disaster recovery exercise, working on a large number of package failures for servers late at night, as well as database system and application restores. I also participated directly in the August DR which had my primary application Version One in scope. For this I also was responsible for looking at package failures and database and application restores. I also worked with Terence and the network team as the smart cards for the DR servers were failing. With close collaboration and testing between our teams, we were able to get the smart cards working on the DR through a fix.
  - d. The continued EDD and SQL Host Group licensing project directly reflect these goals. I will be working with DBAs and other business partners to consolidate SQL servers and licensing host-groups across the different State Farm data centers. Tasks I have performed and will continue include building of servers, further SQL database migrations across SQL instances, and checkouts/validation of SQL server after host-group migrations. This overall effort will greatly reduce costs for State Farm while also improving application performance, security, and availability.



## SBR

Thursday, January 19, 2017 10:29 AM

Metrics - time reduced, savings, hours saved

People/rolls engaged - AVPs, directors, architects - can engage people at diff levels including diff BPs. Language use to talked

**Can discuss the result - clearly defined**

My contributions to the work that was done.

SBR - Targeting one individual thing

# AG Training

Tuesday, November 03, 2015 10:04 AM

RTO - Recovery Time Objective

If I have an outage what will be my downtime

RPO - Recovery Point Objective

Difference is the amount of data loss

Other common SQL solutions:

FCI

Mirroring

Quiz - Bill - Transaction Logs, Locking, and Deadlocking

Thursday, November 19, 2015 4:28 PM

hardening of a transaction

You have a transaction log. It splits into different VLF's. An active transaction can run over the separated VLF's. An active transaction that goes over a VLF, and when this happens the VLF cannot be cleared by a backup. Therefore it's still an active VLF. Once there are no more active transactions we go ahead and backup the transaction log and clear the VLF and move the VLF forward to create more space. This creates a rolling transaction.

VLF - separates it into different logs

VLF - you can only clear out the transaction logs that are NOT active

hardening/blocking/locking  
when more than one person wants to do something to the same row. For example, when one person wants to update the address and

Backing up the log file is the only way to clear the log

Rolling log = backup committed

By running the backup we are able to zero out one of the virtual logs.

Locking -  
You want this resource, which is in this case a bucket. You access the bucket and you want to pull out an apple or something. That is Locking...while you are using that resource no one else can.

Blocking - is locking twice. User is accessing another object and only he can use it at a time. Operator one in blue and operator one in black. Black has an operator and wants to use blue's resource. He can't use it and is in locking. This is normal locking and is queued. At point 2 black wants to access blue bucket (all one big transaction), and at point 2 blue wants to access black bucket. The only way to take care of this is kill one of the user's request. When it identifies a deadlock it kills one and rollback one of the transactions. So this is DEAD LOCKING vs. blocking.

Deadlocking happens like in the diagram. When you have two users trying to access the same resource. For example when a person is trying to access a SP to remove from savings then add to checking, but at the same time a person is trying to access a SP to add to checking and then remove from savings. BECAUSE each has a lock on the table, and then one transaction is waiting for the other to finish, you run into a DEADLOCK. An infinite lock is created because it will never finish and they're all locked. What you do then is possibly kill one of the transactions to stop this, rollback and complete.

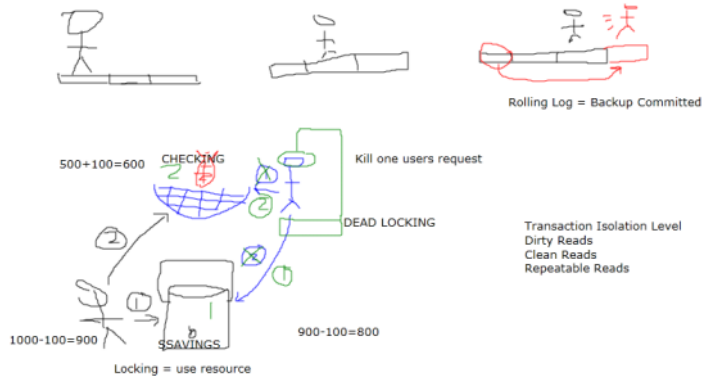
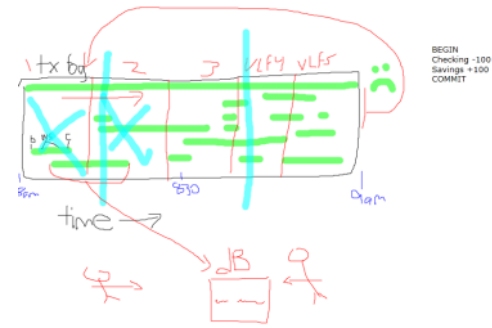
Another way is to redesign the SP where things can only happen in a specific sequence. For instance, you can only access savings, then checking. In this occasion if a user accesses savings, then checking and another person is trying to run that same SP, BECAUSE THEY RUN IN A VERY SPECIFIC order, then what happens is that SP1 will run and complete its order of things, and when it completes it will commit and SP2 will be able to run its same transaction in the same order. ITS RUNS into a lock situation which is a GOOD thing. But that's it...

It's a good thing because you want a lock. If you have someone who removes 1000 from checking and then adds it to savings, and at the same time the same process tries to access the same row. WITHOUT locking then the 1000 will still be seen because it hasn't been committed, and the bank loses money in this situation. Only when you commit the transaction at which time the row is locked can you remove the money, avoiding dirty reads.

They both have to do it the same order!

Transaction isolation levels (Read up!):

- Dirty Reads
- Clean Reads
- Repeatable Reads



# Quiz - Bill - SPN

Tuesday, November 24, 2015 11:32 AM

server name  
service account  
=  
SPN

The SPN becomes a trusted entity that Kerberos is allowed to work within.  
We take SQL server A and make SQL SPN A  
Make SQL SPN B

These are two now trustable in AD  
If you run

Kerberos - the communication protocol used to pass security tokens around  
It has the ability to be trustworthy even when it's not.  
It is essentially a white list  
It is the communication protocol that allows a whitelist to exist

Get to act like the AD controller and accept authentication.

READ:

CROSS - DOMAIN TRUSTS

&

KERBEROS

How does AD third party authentication work

How does AD authentication work, how does the client get into domain

How does Kerberos work in a cross domain trust

NO TEST ENVIRONMENTS to PROD

SUPPORT IS MIDDLE DOMAIN

ONE - WAY TRUST - SUPPORT CAN GET INTO ALL, but not VICE VERSA

# Quiz - Bill - Indexes

Wednesday, November 25, 2015 2:02 PM

B-Leaf indexes

# PowerShell Training - Day 1

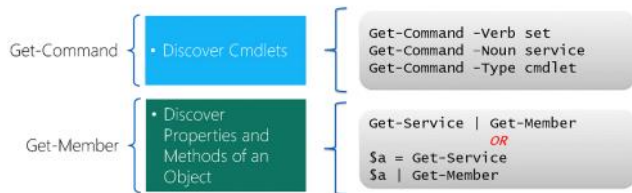
Tuesday, October 03, 2017 9:29 AM

## Get-help \*sql\*

This will give you all of the different commands for SQL  
Dbatools module  
Tons of different modules  
AWS modules

## Get-help get-sqlcredential

Can show you all the attributes related to a command and how to use it



## Important Cmdlets for SQL Server (2)

- Below is list of key SQL Server CmdLets you should be familiar with:



## Get-alias

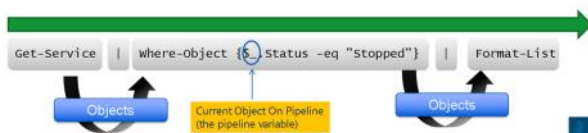
Important as it shows all the aliases in a script

The screenshot shows a PowerShell console window with the command `Get-alias` executed. The output lists various aliases such as `cat`, `cd`, `chdir`, `clear`, `clear-host`, `clear-item`, `clear-itemproperty`, `clear-variable`, `connect-psession`, `compare-object`, `copy-item`, `copy-itemproperty`, `curl`, `convert-path`, `disable-psbreakpoint`, `del`, `diff`, and `dir`.

## Pipelines

### Introduction to Pipelines

- "|" pipes (or sends) output from left to a command on the right
- Passes an object not text
- Can be used for filtering, formatting, outputting and many other things
- Can use multiple pipes on one line



## Operators – Utilized for Comparison -

- Compare values (such as text or numbers)
- Test conditions (with where-object)
- Case-insensitive by default (precede with 'c' to make case-sensitive)

### 13 Comparison Operators

-eq	-ne	-gt	-ge	-lt
-le	-like	-notlike	-match	-notmatch
-contains	-notcontains	-replace		

Go over Exercise 3.3 on Lab 3  
Using Regular Expressions

Review this:

```
Get-Service | ?{($_.displayname -like "*sql*")} -and ($_.status -eq "Running")
```

Page 29 of Lab 3

## Operators – Logical and Bitwise -

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## Operators – Logical and Bitwise –

Join multiple operations

Check for compound conditions

True/False

### Logical Operators

-and	-or	-xor
-not	!	

# PowerShell Training - Day 2

Wednesday, October 04, 2017 9:08 AM

## Scripting

### Parameter Attributes

Review MODULE 8 and 9

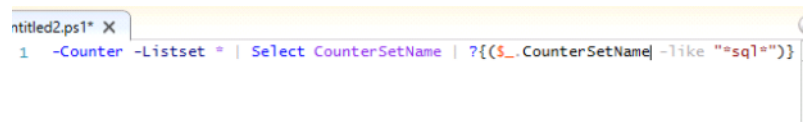
### Param Attributes (2)

Parameter Attribute	Acceptable Values	Purpose
Position	0..n	This is to define the solution you are expecting a input when user does not supply the parameter with -ParameterName
Mandatory	\$true, \$false	In order for script to execute user must supply the value.
Type	int, string, char, etc.	Standard types supported by PowerShell, by hard binding it you are limiting the value ranges that can be supplied. Therefore minimizes the validation required.
Switch	--	Specifies the parameter is a switch, therefore does not accept a value. However if supplied value is set to \$true, if not supplied value is set to \$false.



# PowerShell Training - Day 3

Thursday, October 05, 2017 9:08 AM



```
ntitled2.ps1 X  
1 -Counter -Listset * | Select CounterSetName | ?{($_.CounterSetName -like "sql*")}
```

Construct a pipeline to show the CounterSetName that contains key word SQL

Review Module

Exercise 10.2: Add-SqlTable, Out-DataTable & Write-DataTable

# Blocking on Reports

Tuesday, February 27, 2018 11:15 AM

```
select * from sys.dm_exec_sessions where session_id = 54
select * from sys.dm_exec_sessions where session_id = 54
select * from sys.dm_exec_sessions where session_id = 54
select * from sys.dm_exec_sessions where session_id = 21
select * from sys.dm_exec_sessions where session_id = 21
select * from sys.dm_exec_sessions where session_id = 21
select * from sys.dm_exec_sessions where session_id = 21
```

session_id	login_time	host_name	program_name	host_process_id	client_version	client_interface_name	security_id	login_name	nt_domain	nt_user_name	status
54	2018-02-26 15:07:34.557	WPSPGDKS	Qlik Sense	12960	7	ODBC	05E315A2D207B484A348C3A9A7D	PCU_IRO		runner	running

```
select * from sys.dm_os_tasks where session_id = 21
sp_who
```

spid	ecid	status	loginame	hostname	blk	dbname	cmd	request_id
14	0	background	sfas	0	master		BRKR TASK	0
15	0	background	sfas	0	NULL		DB MIRROR	0
16	0	background	sfas	0	master		TASK MANAGER	0
17	0	background	sfas	0	NULL		UNKNOWN TOKEN	0
18	0	background	sfas	0	master		CHECKPOINT	0
19	0	sleeping	sfas	0	master		TASK MANAGER	0
20	0	background	sfas	0	master		BRKR TASK	0
21	0	background	sfas	54	sebelidpou		DB STARTUP	0
22	0	sleeping	sfas	0	master		TASK MANAGER	0
23	0	background	sfas	0	NULL		HADR_AL_MGR_NOTI	0
24	0	background	sfas	0	master		UNKNOWN TOKEN	0
25	0	background	sfas	0	NULL		HADR_AL_MGR_NOTI	0
26	0	background	sfas	0	master		BRKR EVENT HANDL	0
27	0	background	sfas	0	master		BRKR TASK	0
28	0	background	sfas	0	master		BRKR TASK	0
29	0	background	sfas	0	master		BRKR TASK	0
30	0	sleeping	sfas	0	master		TASK MANAGER	0
31	0	background	sfas	0	master		UNKNOWN TOKEN	0
32	0	background	sfas	0	master		BRKR TASK	0
33	0	sleeping	sfas	0	master		TASK MANAGER	0
34	0	sleeping	sfas	0	master		TASK MANAGER	0

```
select * from sys.dm_exec_connections where session_id = 54
select * from sys.dm_exec_sessions where session_id = 54
select * from sys.dm_os_tasks where session_id = 54
select * from sys.dm_exec_connections where session_id = 21
select * from sys.dm_exec_sessions where session_id = 21
select * from sys.dm_os_tasks where session_id = 21
```

session_id	most_recent_session_id	connect_time	net_transport	protocol_type	protocol_version	endpoint_id	encrypt_option	auth_scheme	role_authority	num_reads	num_writes	last_read
54	54	2018-02-26 15:07:34.557	TCP	TSQL	1946157060	4	FALSE	SQL	0	5	466	2018-02-26 15:07:34

session_id	login_time	host_name	program_name	host_process_id	client_version	client_interface_name	security_id	login_name	nt_domain	nt_user_name	status
54	2018-02-26 15:07:34.573	WPSPGDKS	Qlik Sense	12960	7	ODBC	05E315A2D207B484A348C3A9A7D	PCU_IRO		runner	running

task_address	task_state	context_switches_count	pending_io_count	pending_io_byte_count	pending_io_byte_average	scheduler_id	session_id	exec_context_id	request_id	worker_address
0x000000002E4A20	SUSPENDED	75379	131382	0	0	2	54	0	0	0x00000000416160

session_id	login_time	host_name	program_name	host_process_id	client_version	client_interface_name	security_id	login_name	nt_domain	nt_user_name	status	context_info	cpu_time	mem
21	2018-02-26 01:14:56.523	NULL	NULL	NULL	NULL	NULL	05E315A2D207B484A348C3A9A7D	sfas	NULL	NULL	sleeping	0	0	0

task_address	task_state	context_switches_count	pending_io_count	pending_io_byte_count	pending_io_byte_average	scheduler_id	session_id	exec_context_id	request_id	worker_address
0x000000002E4C408	SUSPENDED	31455810	1739836	0	0	6	21	0	0	0x000000002F9E160