

Lotus knows.

Smarter software for a Smarter Planet.

BOOT103: Running with Scissors Sharpen Your Skills for a Pain-free IBM Lotus Domino 8.5 Upgrade

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Agenda

Speaker Introductions

Before:

- Selling the Upgrade
- Inventorying your environment
- Performing a Health Check
- Deciding what Features you Need
- Creating your Upgrade Plan
- Setting up your Lab

During:

- Upgrading Servers and Determining Order
- Upgrading clients

After:

- Key Points to Keep in Mind

Speaker Introductions

- Marie Scott, Virginia Commonwealth University
- Franziska Tanner, MartinScott Consulting
- Gabriella Davis, The Turtle Partnership
- Combined 42 years experience working with Notes and Domino
- Versions 3 – 8.5.x
- 10 – 100'000 user sites
- Combined 21 certifications across Domino, Websphere and Workplace products, including Instructor certifications

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- Coexistence and 3rd party apps
- What to upgrade in which order

After:

- Key Points to Keep in Mind

So you're going to upgrade – NOW WHAT?

- How do you engage users who may be change adverse?
- How do you motivate help desk staff to “help”?
- How do you involve other IT staff areas?
- How do you insure that senior managers are “warm and fuzzy” about the upgrade?
- How are you going to communicate your plan and estimate your training needs?

You've managed upgrade projects before...

- And there was so much angst about the upgrade that the users don't want any change.
- Senior management doesn't want anything touched on their desktop.
- IT Staff think they know everything and know this project will fail.
- Here are ten steps for more user-oriented upgrade that will help make all your users wonder why they were the least bit worried about moving to 8.5.1.

Step One: “Be a census taker!”

- Know your users.
- Roaming or “stay at homes”
- What Domino applications are in use?
- I'm a Mac and I'm a PC
- Firefox/IE/Safari/Chrome or Browser Unknown?
- The more you know about your user environment, the more you can tune and control!

Step Two: Who is the “first line of defense?”

- Help Desk 911 or “who ya gonna call?”
- Train, Train, Train!
- Who provides desktop support?
- Document, Document, Document!

Step Three: “Know where the 'mine fields' are located.”

- Is there a particular group of users that is more vocal about change?
- Are there groups within your organization that are 'anti-Notes'?
- Are there 'high visibility' Domino applications that need to be available 24x7?
- Who are your “high maintenance” user groups? Who generally babysits them?
- Who is most vocal about an email outage?

Step Four: “Keep your friends close and your users closer.”

- Create “Hero teams” - those first user groups who will be the first to use the new client and act as 'ambassadors' for other staff.
- Create “IT Advisory Team” - include other IT areas – network, desktop support, security. Include them in planning sessions and allow them to have some input.
- Nurture the help desk staff! - ask them about typical user questions and solicit their input in the upgrade methodology.
- Set up training sessions for these three groups!

Step Five: “A-ticket a-tasket a little yellow basket...Marketing!”

- Develop a marketing strategy!
- What do you think will be most important to your users? Pick a few features?
- Remember that server storage performance is not something a user generally cares about. But if you 'spin' DAOS as the reason why a user won't need to archive as often, they'll think it's fabulous!
- Use your in-house talent. You don't have to spend lots of money to build a marketing/advertising campaign to spread the word to your users. And you probably DON'T WANT TO! Keep it simple!
- Utilize the web, PDFs, simple graphics.
- Set up a blog or wiki with daily updates. What is new, what is coming...build up anticipation!

Step Six: “Choose your initial targets”

- Despite any request, don't deploy the upgrade to the president of your company in the first wave. Big mistake!
- Select those user groups who have expressed interest in the upgraded client.
- As a pre-deployment group – upgrade the help desk team, IT advisory group, and heros group. Setup a mechanism for them to submit feedback during the process (blog or wiki).

Step Seven: “Full speed ahead!”

- Set up a schedule for your deployment. Make sure it meets everyone's approval, and publish it.
- Take into consideration any other company projects or deadlines (fiscal end of year, building moves, etc.).
- Set up senior staff as a 'concierge service' install. Offer special assistance for all senior staff (despite what they say). You don't want to shoot yourself in the foot if a Senior VP attempts to upgrade himself – and it goes badly!

Step Eight: “Adjust, adjust, adjust”

- For the first few weeks check in with the user groups on a daily basis.
- Check with help desk staff to monitor any user reported upgrade or usability issues.
- Adjust upgrade schedules accordingly if you need to modify an install kit or documentation.
- Publish information about updated schedules, and information about why the schedule has changed. Remember to keep the 'spin' as positive as possible.

Step Nine: “Get on the Bus, the Training Bus!”

- Publish daily user tips.
- Send out updated information to users who have upgraded.
- Publish classroom training, web training modules, PDFs, and 'ambassador' contact information.
- Remind users about how they may report any issues and obtain help.
- Set up onsite targeted training sessions – calendar/scheduling or mail only sessions.

Why is training so important?

Training is critical to any upgrade project.

Train users, help desk staff, administrators, and developers (and not necessarily in that order).

Offer multiple training options (online, onsite, one-on-one) if possible in order to fit busy work schedules.

Ask for preferences, users love to provide input.

Include any inhouse training resources (as you may have skilled trainers onsite).

Training Resources:

Harness the power of XPages in Lotus Domino Designer - <http://www.ibm.com/developerworks/edu/ls-dw-ls-ddxpages.html>

Education Offerings on IBM Lotus Notes Domino 8/ 8.5 - <http://www-01.ibm.com/software/lotus/training/n8deducationofferings.html>

Self-paced Virtual Classroom Offerings -

[www-304.ibm.com/jct03001c/services/learning/ites.wss/zz/en?
pageType=tp_search_results&rowstart=0&rowstoreturn=20&sortBy=&search
string=lotus&sear.x=54&search.y=13&countrygeo=&provider=ibm&freefee=
&offerintype=e-learning](http://www-304.ibm.com/jct03001c/services/learning/ites.wss/zz/en?pageType=tp_search_results&rowstart=0&rowstoreturn=20&sortBy=&searchstring=lotus&sear.x=54&search.y=13&countrygeo=&provider=ibm&freefee=&offerintype=e-learning)

TLCC Lotus Training Courses - <http://www.tlcc.com>

The View Developer and Admin Training events - <http://www.eview.com/>

LEOnline training for users, developers, administrators - <http://www.leonline.net/>

Lotus Notes and Domino Application Development wiki - <http://www-10.lotus.com/ldd/ddwiki.nsf>

Lotus Administration (sort of) wiki - <http://www-10.lotus.com/ldd/dominowiki.nsf>

WareSource training - [http://waresource.com/kurchak/ka1.nsf/viewforms/
BlankPage-R8Courses](http://waresource.com/kurchak/ka1.nsf/viewforms/BlankPage-R8Courses)

And take your training to the next level...

Relay the roll-out schedules and training resources via intranet sites, internal blog, wiki's or electronic newsletter.

Take advantage of new sidebar technology in 8.5 – training applications and help documentation.

Create power user groups and mentoring programs.

Available to assist users with issues, tips or tricks.

Create video clips or record remote training sessions to make them available via the intranet anytime for any user

Set up an email account or blog to solicit feedback or act as a suggestion box.

Provide updates as roll-out progresses.

Step Ten: “Mop it all up!”

- Communication is essential! Get the word out!
- Review your 'census records' and confirm if there are still users/ departments that haven't upgraded. Determine if it's a timing or hardware/software issue.
- Work out any remaining usability issues.
- Set up a regular schedule for training and meeting with your heros, IT advisors, and help desk teams.
- Solicit feedback from all groups. What worked and what didn't? How could the next upgrade be more successful? Remember always 'spin' in the positive direction!

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Inventorying your Environment

- Before you know what to change, you need to know what you are working with
 - Your features, client choice and MSI package depends on this information
- Servers are relatively easy to inventory but clients are more complicated
 - 3rd party apps are HUGEY helpful here
- Don't forget about templates, customization's and 3rd party applications
 - All these will go on your test environment later on

Inventorying your Servers

- Unless you're already fully documented, start with a new database
 - A document library works well here
 - Even if you're fully documented it may help to start from scratch
- Collect Domino and FP version and OS information
 - Categorize appropriately and create one document per server
- Get a replication and mail routing diagram of your servers
 - Shows how data moves across your environment
- Get a network diagram as well
 - So you can maximize the fastest connections for things like SmartUpgrade
- Setup messaging, server, security and replication DDM probes to further understand what's going on in your environment today

Inventorying your Servers

- Collect program documents to see how data is maintained
 - Don't forget about ServerTasksAt= information in the notes.ini
- List running tasks and include transaction logging information
 - This is hugely important for some features such as DAOS
- Make a list of 3rd Party Applications running on your Domino server
 - You'll use this to verify compatibility later on
 - Capture what is running and when
- Collect the notes.ini from each server and list running tasks
 - Compare tasks in notes.ini with what's actually running on the server
- Understand access method of clients
 - Notes vs. web makes a big difference

Inventory Application Sample

Document Library

Domino Analysis

with Recommendations

Trash

All Documents

Create Document

Edit Current Document

Delete Document

Close

Title
Person Documents and Mail Files
▼ 2 Group Documents
Group Documents
▼ 3 Mail-In Databases, Rooms and Resources
Mail-In Databases, Rooms and Resources
▼ 4 Clusters
Clusters
▼ 5 Certificates and ID Security
Certificates and ID Security
▼ 6 Policies
Policies
▼ 7 Server Documents
Server Documents
▼ 8 Domino Named Networks
Domino Named Networks
▼ 9 Notes.ini
▼ 10 Configuration Documents
Configuration Documents
▼ 11 Program Documents
Program Documents
▼ 12 Connection Documents
Connection Documents
▼ 13 Domain Documents
Domain Documents
▼ 14 ACL Standards
ACL Standards
▼ 15 System Databases and Templates
System Databases and Templates
▼ 16 Server Build
Server Build
▼ 17 SPAM Solution

Inventorying your Clients

- Create a new database for client inventory
 - A Spreadsheet like format works as well but is harder to keep updated
 - Once you have the tools and methods to do this for your upgrade, maintaining it is easy
- Get OS, disk space and memory information
 - Use login scripts if possible to collect information
- Validate which 3rd party applications and login scripts are running
 - If the anti-virus application is setup incorrectly now, your users aren't going to be happy once you install the upgraded Notes client
 - Ironically enough, you'll need a 3rd party app to do this efficiently
- What is your users' primary access method?
 - If only web access or no web access, your test plan will look different

Inventorying your Clients

- Collect current notes install version, types, and multi-user info
 - This will determine the different MSI kit types you'll need later
 - If you have a past SmartUpgrade tracking reports application, that will go a long way here
 - Notes client type and release can easily be acquired from views/person documents in the Domino Directory
 - If you can, collect the clients' notes.ini
- InstallType=2 All clients install, Admin and Designer
- InstallType=6 Notes client only
- KitType=1 Workstation install
- KitType=2 Server install
- KitType=8 Nomad install
- Gather information about key strength
 - Listed in each person document in your Domino Directory

Inventorying your Clients

- What Addins are installed
 - Extmgr_Addins line in the notes.ini
 - NSF_HOOKS line in notes.ini
- What 3rd party apps and login scripts are being run
 - Gather version and what they're doing, ensure compatibility
 - This is a MAJOR contributor to lag time, make sure AV apps are setup to exclude Notes
- From an operational perspective, who has which calendars delegated
 - This is always tricky as “access and delegation doesn't tell you about who is actually using delegation
 - Knowing delegation will help you set the upgrade order for your users
- Is anyone using Notes in a “home grown” multi-user
 - Unless you have a sophisticated way to scan for this, user surveys may have to do here

Inventorying your Applications

- Use the Files tab in your Admin client to understand:
 - Template, ODS and size information
 - Transaction log status and compression information
 - Master templates on the server

MARTINSCOTT Domain - Vienna... DDM on Vienna01/MSC X

People & Groups Files Server... Messaging... Replication Configuration

Server: **Vienna01/MSC**
Build V851_03242009NP on Windows/2003 5.2 Intel Pentium

Show me: Databases

Filename	Title	Is Logged	File Forma	Physical Size	Template	Max Size	Quota	Warning	LZ1 Compression	Resp
support.nsf	Support	No	R6 (43:0)	165,412,864		No limit	0	0		
storedev.nsf	Store	No	R6 (43:0)	19,922,944		No limit	0	0		
store.nsf	Store	No	R6 (43:0)	218,890,240		No limit	0	0		
struturo_new.nsf	Struturo New	No	R6 (43:0)	14,680,064	Struturo 1.69	No limit	0	0		Yes
struturo.nsf	Struturo	No	R6 (43:0)	40,632,320	Struturo 1.69	No limit	0	0		Yes
webadmin.nsf	Domino Web Admin	No	R6 (43:0)	7,340,032		No limit	0	0		
webspheresupersearch	WebSphere SuperSearch	No	R6 (43:0)	5,767,168		No limit	0	0		
webctr50.nsf	Web Center 5.0 (Full)	No	R6 (43:0)	3,145,728		No limit	0	0		
testthc.nsf	TestThc	No	R6 (43:0)	589,824		No limit	0	0		
testdisc.nsf	TestDisc	No	R6 (43:0)	1,617,920	StdR7Disc	No limit	0	0		
web.nsf	Domino Web Navigator	No	R6 (43:0)	2,883,584	StdR50WebNav	No limit	0	0		
tmssnapconfig.nsf	TMSSnap Config	No	R6 (43:0)	524,288	TMSSnapConfi	No limit	0	0		
clsupersearch.nsf	Classifier SuperSearch	No	R6 (43:0)	1,572,864		No limit	0	0		
cppfbws.nsf	CPFBWS	No	R6 (43:0)	663,552		No limit	0	0		
conflicts.nsf	Conflict Manager	No	R6 (43:0)	8,650,752		No limit	0	0		
certific.nsf	Certificate Admin	No	R6 (43:0)	2,359,296	StdNotes50SSL	No limit	0	0		
catalog.nsf	Domain Catalog	No	R5 (41:0)	5,767,168	StdNotesCatalo	No limit	0	0		
certsrv.nsf	Server Certificate Admin	No	R6 (43:0)	1,216,512	StdNotes50SSL	No limit	0	0		
certlog.nsf	Certificate Log	No	R6 (43:0)	524,288	StdNotesCertifi	No limit	0	0		

Inventorying your Applications

- Setup application code and database DDM Probes to gain a thorough understanding of your current applications
- Review the ID file encryption strength
- Use application - design synopsys to dig deeper or export your ACL's

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Health Checking Your Environment

- Standard Domino server functionality needs to exist before you can make changes
 - If AdminP isn't working properly for example, you're not going to get very far with policies
- If you don't fully understand your current environment, you can't perform an upgrade and minimize risks
 - If clustering routing isn't working as expected, your upgrade will suffer

Environment Health Check - AdminP

- Is replication happening reliably, both ways
 - One way replication will bring AdminP to a crashing halt
- Do all mail files have the proper Admin server listed
 - Admin server should be their home server
- Do all Domino Directories and Admin4.nsf have the proper Admin server listed
 - All should be set to the environments' admin server
- Is the AdminP task running on all servers
 - You might be surprised

Environment Health Check - Replication

- Validate that the environment replicates as intended
 - Use the previously collected map to verify
 - DDM replication probes and custom events will help alert you if this is not working properly
- Are changes made to names.nsf propagating to all spokes
 - Validate ACL's on critical applications

Potential issues on your servers

- Duplicate replica ID's
 - Will create issues even after you've validated proper replication throughout the system
 - Check your catalog.nsf for duplicates and resolve before upgrading
- More than one template claiming to be the master template
 - Will change the design of all applications based on this, to change overnight
 - If you've ever had your mail files turn German overnight, you'll know what is meant here
- Current corruption
 - check your program documents, make sure updall and compact are scheduled
 - don't allow maintenance tasks to collide, this will create corruption
 - Check your notes.ini's on each server to make sure ServerTasksAtx= don't interfere

Potential issues on your clients

- Insufficient rights to the local names.nsf on clients
 - Difficult to pro-actively check for
- Insufficient rights to the OS/data to overwrite current templates
 - during the upgrade pubnames.ntf gets installed on your users' workstation
- Policies aren't being applied or working
 - Keep in mind that you can't un-set settings with policies
 - Clients have to communicate with the server in order for policies to get pushed
 - This can happen at startup, replication or when you open an application

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Putting the horse before the cart

- It seems redundant to discuss what features you will use before you have the system in place
- However knowing what features you are going to use drives everything
 - Your architecture
 - Your hardware configuration
 - Your rollout plan

Deciding Features

- Not all features need to be decided up front
- Some affect purchasing decisions
- Some affect your planning and order of upgrade
- Some affect what you can promise users and when

Before Decisions

- Ones that affect your purchasing or configuration choices
 - Disk sizes / RAID and disk configuration
 - SAN configuration
 - Network cards / switches
 - Client OS / Memory / Disk

Servers

- New or Use Existing
- Upgrade OS
- Upgrade Hardware

Start With The OS

- Where are you now and what are your options?
 - Windows 2003 and 2008 (32bit & 64bit)
 - SUSE 10 & 11 (32bit & 64bit)
 - Red Hat 5.x (32bit & 64bit)
 - Solaris 10 (32bit Domino only)
 - AIX 5.3 & 6.1 (32bit & 64bit)
- 32bit Domino on 64bit OS?
- Why 64bit at all?

Will Your Hardware Do?

- 8.x introduced 'significant' compression improvement for design and data reducing disk requirements
- Performance improvement on disk I/O, memory and Network utilisation as well
 - especially with network compression
- So in theory if your server is healthy on v6 or v7 it should support 8.5.1

However

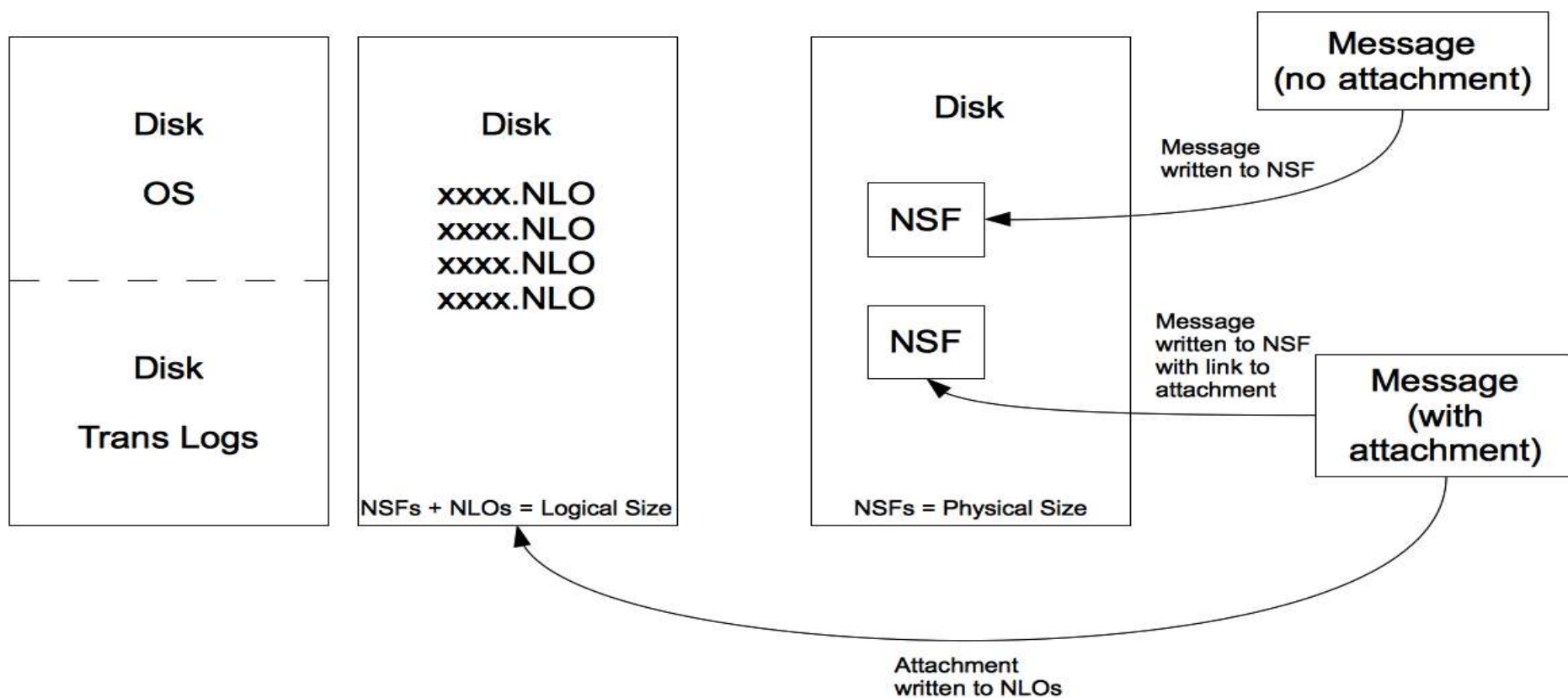
- More services require more resources
- Data is continually increasing, so are db sizes and that impacts performance
- User numbers go up increasing demand
- An upgrade is a good opportunity to review your server resources

Feature: DAOS

- Domino Attachment Object Service
- Separates attachments from their documents and stores them in encrypted 'NLO' files outside of the database structure
- Links within the documents point to the existing NLO files

How It Works

Domino Server



Why DAOS?

- It saves on disk, avoiding duplicate storage space for attachments sent to multiple people
 - Works for all messages
 - Optional on a server by server and database by database basis
- Smaller db sizes mean improved performance and faster maintenance
- Attachments that already exist on a destination server in a cluster are not sent again, reducing network traffic

DAOS Estimator

- Free tool downloadable from IBM
 - <http://www-01.ibm.com/support/docview.wss?rs=463&uid=swg24021920>
- Runs against any version of Domino (v6.x and later are tested) and produces a report of
 - how each database would be size logically and physically if DAOS were enabled
 - Logical disk size is how it is 'seen' by Domino
 - Physical disk size is actual disk capacity
- For more info about DAOS – DAOS training module:
 - ftp://ftp.software.ibm.com/software/lotus/demos/domino/intro_to_daos/intro_to_daos_viewlet_swf.html

DAOS Estimator Results

Summary: TESTSERVER		
Total DB's analyzed:	1814	
Total DB's skipped due to errors:	0	
Total Size of NSF's Examined:	200.7 GB	
Total Attachments found:	750168	
Total Duplicate Attachments found:	430195	57.35%
Estimated Size of DAOSified NSF's:	70.7 GB	56%
Estimate Size of DAOS dir:	53.4 GB	44%
Total Disk Savings:	76.6 GB	38%

Disk Decisions and DAOS

- It uses different disk than that used by the data directory
 - So even if you use the same hardware you will almost certainly need to reconfigure the disks
- Use DAOS Estimator to calculate disk reconfiguration
 - 30% - 55% in upgrades done so far
- It requires you to use transaction logs which use local disk
 - Don't use transaction logs on SAN disk
- DAOS Disk doesn't need to be as fast as Domino data

SAN (Storage Area Network) Configuration

- Many people move Domino data to a SAN as part of an overall upgrade
- Domino data stored on SAN requires very specific configuration
 - dedicated LUN
 - no other applications sharing that disk
 - offload the rebuild activity and transaction logs to local disk
- So you will always need a small amount of local disk

After Decisions

- Ones that effect your processes
 - Database Structure
 - Backups
 - Security
 - Client Experience

Advanced Properties DB

- To take advantage of latest performance improvements in db structure the ODS needs to be 8.5.1
 - set config create_r85_databases=1
 - ODS51 (compact -c)
- Some features aren't available if you aren't on ODS51
- The client version can be any, it's the host server that counts

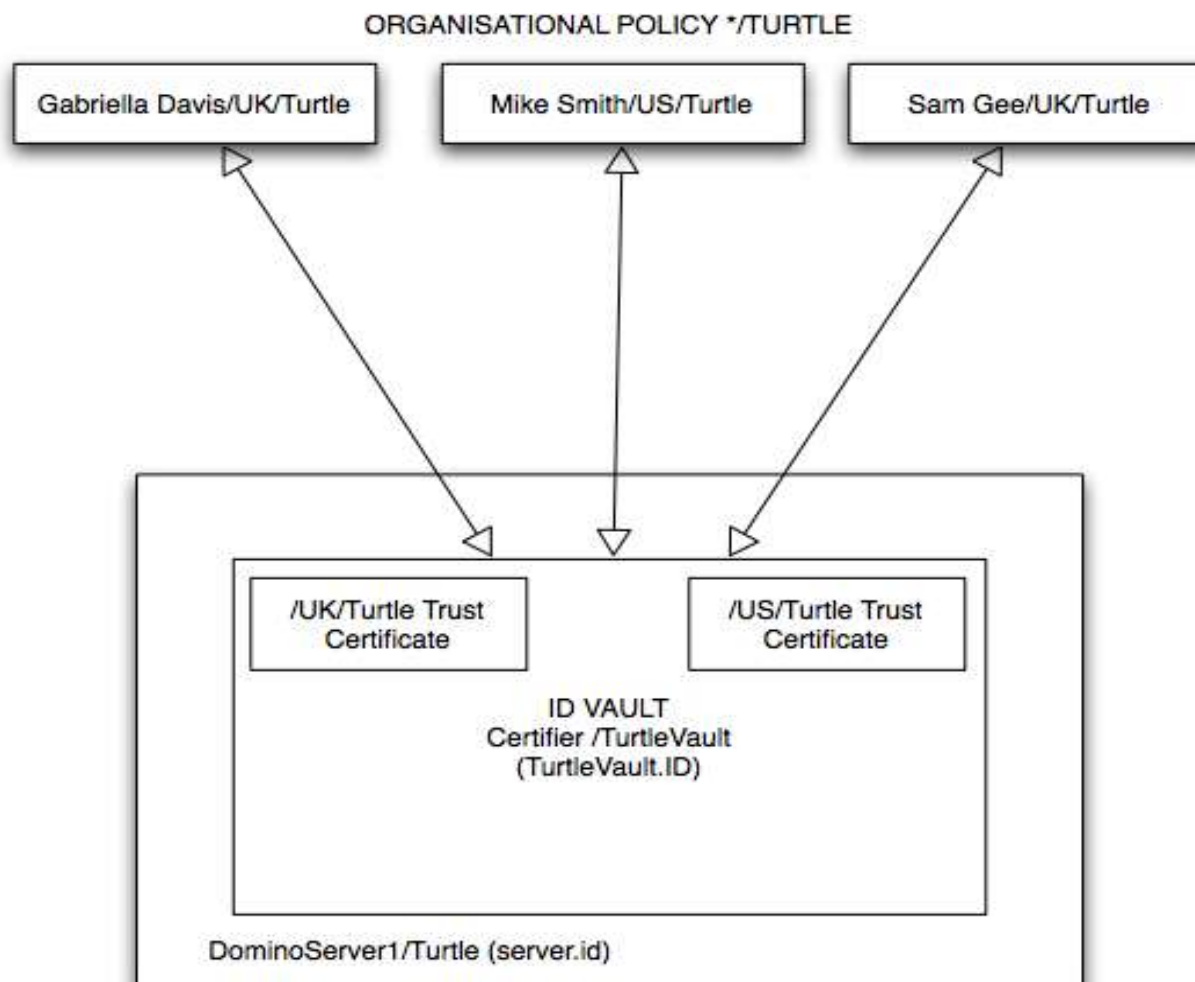
Backups

- If you are using DAOS you will need to modify your backups
 - Now you have to backup the data directory and the NLO files stored on separate disk
 - Similarly you need to plan for restoring NLOs alongside databases if they have been purged from the file system

Security: ID Vault

- Secure storage for IDs
- Enables secure password change of Notes IDs by helpdesk staff with little Domino security and no administration rights
- Allows users to reset their own Notes ID passwords
- Downloads ids automatically to the client machine
- No more storing backup ids “just in case!”

ID Vault: How it works



Why Does It Impact Upgrade?

- It will reduce support and make resetting passwords easier
- You have to design and plan where your ID Vaults will go and who will be able to reset passwords
- If an ID is stored on multiple servers you can't guarantee which one the user will be directed to
 - Each client should have an accessible ID vault on a server they connect to

Security: Notes Single Logon

- NSL doesn't synchronise your AD password with your Notes ID
 - it removes the password from your Notes ID and encrypts it instead with the Windows credentials
 - The user doesn't get prompted for a Notes password
 - But that id will only work if a user logs in to AD with those credentials
- It ties your client ID security to the AD security entirely
- It's not viable for remote workers who don't login to AD

Client Experience: Out of Office Service

- Changes out of office from a scheduled agent to a real time router task
- Reduces server load and activity on agent manager
- Messages are responded to in real time
- Can be scheduled for as little as 1hr

Why does it impact upgrade?

- You choose via the server configuration document whether that server uses the traditional 'agent' or the new router 'service'
- The 'service' only works if the server is 8.5 or higher and the mail files are 8.5 or higher templates
- All servers in a cluster must use the 'service' option if one is
 - Otherwise multiple OOO replies will be sent by different servers (one service and one agent)
- You can't enable the feature until your entire cluster has been upgraded

Client Experience: Policies

- Don't use policy settings for 8.5 against older clients !
 - Use a client specific template to create policies for older clients and then paste them into the directory
 - Mail policies don't exist prior to v8
 - Dynamic groups don't exist prior to 8.5x
- Once all your clients are upgraded to 8.5x you can use them

Client Experience: Roaming

- Domino server roaming was expanded in 8.5x to include all feed data and plugin data but that doesn't apply to earlier clients
- File server based roaming is only available for clients 8.5x
 - Roamed files are stored on a file server and only optionally downloaded to the client, they can be accessed as linked files instead

Reviewing Features

- Make decisions on which features you are going to want in the short and medium term
- It helps you build your environment and increases the chance of implementing them later
- It allows you to set user expectations and make promises you can keep

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A plan's secret identity

- It looks like it's for THEM but really it's for YOU

Priority Plan - Or “the wishlist”

- What are your priorities
 - What is critical for a successful project
 - What features would you like to implement immediately
 - What features are you planning to implement at a later stage

Priority Plan: Your plan should contain:

- What are you key measures of success for this project
 - Implementing DAOS?
 - Getting every server onto a supported version?
 - Improving security across the board?
- Whatever they are , they should be clear enough for everyone involved to understand
 - You want buy in to these measure of success by everyone involved
 - That's what drives your priorities and justifies your costs
- Some things are 'nice to have' but are not priorities
 - They can be addressed later
 - Overcommitting is a distraction

Test Plan - Or “am I kidding myself”

- What will work and what won't
- What can be done in the short term and what can't
- Setting expectations for your environment

Trying to prove if the project is even feasible

- Building of an isolated test environment
 - Using copies of your data and configuration
 - Using mixed clients against upgraded servers
 - Using existing applications
- Server Testing of new configurations and features
 - Updated ODS, DB Properties, New Security Settings you intend to apply
 - Using existing client versions and new client version
- Client Testing
 - New client versions against existing servers and applications
 - Existing client versions against new servers and new databases
- Since the test plan is a proof of concept it would usually only involve a small technical team

Pilot Plan - Or “this is going to be easy”

- Having set expectations can you deliver on them
- Isolates problems early and allows you to build those into your design
- Allows you to model the work and extrapolate out more accurate timings
- Gives you data to model a rollout plan against

Trying to spot bear traps and estimate time

- Using more real applications, data, configuration and even users from your live environment
- Legoland! Build each aspect of your infrastructure in 'miniature'
- Create a test plan so you know everyone is performing the same tests
- Test (and get pilot users to test) usage against the upgraded environment
- Monitor for performance issues
- Measure time taken to complete each upgrade piece
- **Try and break it**

You can't hope to discover all the upgrade issues that will be unique to your environment but a good Pilot plan will help you organise better and set realistic expectations

- Create a pilot group who are enthused about the upgrade and able to feed back

Rollout Plan - Or “the one that delivers”

- What happens in what order and when
 - aligned to your priority plan
- Define milestones that are critical to moving forward
- **Rollback Plan - Or “the one that rescues me when things go wrong”**
 - ‘Forks’ from each milestone in your rollout plan
 - Identify strategies for rolling back if milestones can’t be reached
 - Manage downtime and promises to customers

Rollout Plan: Not doing everything at once

- What to do and when
 - Milestones which are discrete points along the plan when a piece has been completed
 - Milestones are often dependencies of each other but not always
 - Milestones are the perfect place to
 - **TEST, REVIEW, ROLLBACK**
 - Server then Clients?
 - What order is each stage executed and if a stage has to be delayed, what comes next
 - How long should each stage take
 - What are the critical measurements for success

Rollback Plan: Never start an upgrade without one

- Continual transitory backup and documentation as you work
- Schedule for what gets backed out and how far
- Estimate of time taken to Rollback
- Point at which rollout plan is picked up again

Sounds like a boatload of planning?

- A plan can be anything from a single page to hundreds of pages
 - You can do this without any planning at all
 - But you better hope you've thought of every possible thing that could go wrong
 - and that nothing does go wrong
- It's worth the time invested in planning to ensure
 - You don't end up with unplanned downtime
 - You don't end up having to pull ideas out of thin air
 - You don't end up trying to call IBM support at 2am on a Sunday morning
- The bigger risk the more time you want to spend on planning
- Planning keeps everyone focussed and a project on track

It's also your very best friend

Agenda

Speaker Introductions

Before:

- Selling the Upgrade
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- **Setting up your Lab**

During:

- Upgrading Servers and Determining Order
- Upgrading clients

After:

- Key Points to Keep in Mind

Setting up Your Test Environment

- Set up OS test environment to match production.
- Survey your template modifications (especially names.nsf)
- Document and create new copies (not replicas) of essential applications and templates to be tested.
- Review third party applications and auxiliary software (antivirus, antispam, backup software). Are they ready for 8.5.1?

Keep those test ponies in the corral!

- Change the replica ids on the new server templates before you bring up the test servers (or rename them)
- Include the notes.ini parms in order to control tasks and database design update yourself
 - SetupLeaveServerTasks=1
 - Server_Upgrade_No_Directory_Redesign=1
 - Create_R8_Databases=0
 - Create_R85_Databases=0
- Do not replicate the test servers with your production environment if they are in the same Domino Domain!
 - Before starting the servers turn off replication with the admin client.
 - If testing clustering, don't include the test servers as an active cluster buddy of a production cluster.

Test to avoid those database upgrade headaches

- Create copies of your largest user mail databases and databases with complex folder structures
- Test folder upgrade process and ODS upgrades (especially if coming from R6 or earlier).
- Make a copy of senior staff db's and run tests on the copies.

Think NASA pre-launch check lists

- Create your master check lists
- No upgrade list is too detailed – better to be safe than sorry, but have a deadline for completion of testing.
- Involve end-users in server testing – especially in 'mixed' server and client environments.
- Don't underestimate the need for printing – users still want to print!
- Third party vendors sometimes are behind with their software updates, so plan accordingly.
- Once the pre-launch check is complete...LAUNCH!

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Upgrading Servers

- Roadblocks!
- Admin server
- Critical system templates
- Database rebuild and maintenance tasks
- Mail servers
- Mail file templates
- Out of Office service
- Other applications

Roadblocks!

- 3rd Party applications not being compatible for 8.5x can stop your rollout in its tracks
- Make sure these are tested and you apply them to the server prior to the initial upgrade and before you do anything else
 - Virus Protection software that runs as an add-in task to Domino
 - BES from RIM
 - Data Integration tools
- Checklist for understanding the order of server upgrade:
 - <http://bit.ly/7wPoRN>

Admin Server

The Administration server of names.nsf

Responsible for running the adminp commands that manage your environment

Don't be tempted to change your Admin server

That way lies much pain

Critical System Databases

When launching a server for the first time you will be prompted to upgrade the design of the Directory

It's better to upgrade the design whilst the server is down

Go to the data directory and run ndesign from the program directory with the command
`<programdir>\ndesign -f names.nsf` (-f passes a single filename to upgrade)

Ensure localdomainservers (or actual servers) does not have Designer access to the system databases such as names and admin4

Or the nightly design task may refresh the design back to an older version which will replicate around

The upgraded server will also want to upgrade admin4, events4, etc and will do so automatically when started for the first time

You may want to keep users off the server by setting the notes.ini command `server_restricted=1` during this and subsequent steps

Set config `server_restricted=1` still allows access via remote administrator client

Set config `server_restricted=2` is persistent through server restarts

Applies to both client and server access so will prevent replication to the server but not replication from the server

Database Rebuild and Maintenance Tasks

Whilst the server is still offline you can run the additional maintenance tasks

Compact -B (creating an in place copy of a database with a new DBIID and fixing low level database errors)

Running Compact whilst the server is down (by calling the ncompact file from the program directory) prevents databases being locked for access

On mail servers running compact whilst the server is up can tie up delivery threads

Cluster awareness will think the database is available because the server is up and won't redirect users

Updall -R (rebuild of all existing view indexes)

Updall -X (rebuild of all existing full text indexes)

Running updall whilst the server is up can take up a lot of resources so you may wish to set `server_restricted` during this process

It helps if you have a cluster for users to failover to

Database Properties

To benefit from new database properties such as design compression or DAOS you will need to upgrade the ODS (on disk structure) to a version that supports that property

This doesn't happen automatically when you upgrade a server

It doesn't affect which client versions can access the database or the server

In fact it won't happen at all unless you force it

First you need to tell the server that it is creating databases in 8.5x format from now on

Set config create_r85_databases=1

New databases created on that server will now use ODS51 (the 8.5 ODS) and will have new database properties available to them

Existing databases need to be compacted with -c before the ODS will be changed

Examples of compacts

Load compact mail -c will convert all mail dbs to ODS51

Load compact mail -c -DAOS ON will convert them to ODS51 and enable them for DAOS

Load compact mail -ZU -n -v -C will turn on design, data and LZ1 compression

Mail Servers

Upgrading a mail server doesn't mean you have to upgrade the mail templates immediately

The Lotus Notes client using the mail file should be the same or later version than the template applied to the mail file

Your R6 clients can still access a R8.5x mail server and use mail so long as their mail file designs haven't been upgraded beyond R6

Web access users are fine

There is now just one template for mail and web (mail85.ntf) so upgrading a mail file for web use will also upgrade it for Notes client use

Use the server command "Convert" to convert a mail file to the latest template

Load convert [filename] [existingtemplate] [newtemplate] eg

Load convert mail\gdavis.nsf * mail85.ntf

Can be passed parameters for upgrading folders and a text file of NSF's for example

Plan to upgrade 'teams' together especially if they share or delegate calendars

Out of Office

New OOO service replaces the OOO agent in 8.x

The service runs as part of the router task instead of as a scheduled agent

- Immediate

- Reduced server load

- Doesn't require user's to be able to disable / enable an agent or run an agent

- Can be scheduled for as little as 1hr

Use of the service is determined by the server configuration document and applies to any mail files with design 8x or higher on the entire server

- Mail files using older templates will still use the OOO agent

Tell Router OOO shows all mail files enabled for OOO

When enabling OOO service for the first time make sure no 8.x mail files have the OOO agent enabled

Clusters

Cluster servers don't have to be identical but if you are upgrading designs you need them to both be able to use the upgraded versions

Upgrade all servers in a cluster on the same schedule

- As soon after each other as possible

- Otherwise make sure the non upgraded server isn't 'rolling back' the designs nightly on its 2am schedule

In a cluster or if databases are replicated it's critical that the OOO service is enabled on all servers or on none

- Otherwise Domino will use the OOO service on one server and attempt to run the agent on another

Upgrading R&R Database

- Depending on which Domino version you're coming from, involves:
 - Domino 8.5 template - resrc8.ntf
 - The RnRMgr task on the server
 - Several new agents that have to be activated
 - Naming convention limitations
- If you upgrade the resources file itself you will find that older clients can't access it directly
 - So if you have users who manage resources directly in the resource database they need to be upgraded too
- Error: 'Resource names cannot contain special characters' when renaming resource after upgrade
<http://www-01.ibm.com/support/docview.wss?rs=899&uid=swg21251010>
- How to upgrade the R&R database from a Domino 6 to a 7 or 8 release
<http://www-01.ibm.com/support/docview.wss?rs=899&uid=swg21363903>

Other Applications and Servers

- Out of the Box Domino templates such as the Discussion Database or MS Office Library have also been upgraded
 - The clients who use these databases will need to be on 8.5x before you can upgrade the database templates themselves
- Internet Site Documents for handling TCPIP protocols
- Custom and bespoke applications
 - Verify the server settings for HTTP for possible performance improvements

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Upgrading Clients

- Methods
- Smartupgrade & components
- Installshield Tuner
- Client Architecture
- Tips & tricks
- Useful Resources

Upgrading Clients - Methods

- Lotus native SmartUpgrade
 - Requires Power User rights or above and appropriate OS write privileges
 - SuRunAs.exe can help grant full rights to SmartUpgrade
 - Needs user interaction to launch but can be made to upgrade silently after initialization
 - Does not require Admin rights to the computer via built in SuRunAs.exe program
- 3rd Party Software Distribution Tools
 - Depending on the tool, can do anything from user initiated to fully automated upgrade
- Upgrade-by-Mail
 - Only for Notes client users, provides users with a button to launch the install

SmartUpgrade Components

- Smart Upgrade Database
 - Based on smupgrade.ntf template
 - Smart Upgrade kit documents for each of your client configurations
- Server Configuration document
 - Listing the Smart Upgrade database and limiting concurrent downloads
- Desktop policy settings document
 - Although not required, this makes it easy to roll out to specific users or groups
 - Also provides for an automated way to upgrade mail templates as users upgrade their client
 - Allows you to get notified of upgrades and force many other client settings
 - Requires the proper home mail server to be set in the location document
- Notes install kit *.msi file
 - SuRunAs executable if clients don't have admin rights to their computers

Install Shield Tuner Transform MSI's

- Different installs require different MSI's
 - Single user
 - Multi-user
 - All clients
 - Standard
 - Basic
 - Symphony
- Typically you'd create MSI's for the most common configurations
- Understand that MSI's only affect the Notes piece of the Eclipse based client architecture

Detour: Notes Client Architecture

- MSI's only address Notes components
- Be sure to use SELECTINSTALLFEATURES= in your install command for eclipse features such as Sametime or Activities



Upgrading Clients – Tips and Tricks

- Single user installs can now be upgraded to multi-user installs
- When adding eclipse features, use either
SELECTINSTALLFEATURES=Sametime, Activities... or edit the install
manifest INSTALL.XML
- Always un-install beta software before installing new client
 - 2/3 presenters also prefer uninstallation when going from a non-eclipse based version to eclipse
- Almost anything can be customized in your transform file from the
install directory location to icons and other options

Useful Resources – Technotes and Help

- Using a Desktop Policy to set notes.ini and Location parameters
<http://www-01.ibm.com/support/docview.wss?uid=swg21196837>
- Lotus Notes pre-installation checklist
 - <http://bit.ly/4CU8IE>
- Automating client installation using a silent install
 - <http://bit.ly/4sVGBF>
- Tips and tricks for troubleshooting Notes Smart Upgrade issues
 - <http://bit.ly/5prwuU>
- Information on rights and permissions related to Notes installs, Smart Upgrade, and SURunAs
<http://www-01.ibm.com/support/docview.wss?rs=899&uid=swg21393963>

Useful Resources

Blog Entries:

- Making Notes 8.x (including 8.5 beta) in Eclipse feel much faster
<http://www.thenorth.com/apblog4.nsf/0/BB5DDB03611B2BB1852574D7005FF852>
- Notes/Domino Database Compression (Client and Server)
<http://andybrunner.blogspot.com/2009/03/notesdomino-database-compression-client.html>
- Dynamic Policies - the dirty little secret of Domino 8.5
<http://www.pmooney.net/pmooney/pmooneynet.nsf/d6plinks/PMOY-7QQQSU>

SPR's:

- IBM Notes Domino Fixlist
<http://www-10.lotus.com/ldd/r5fixlist.nsf/Notices?OpenView>
- 'Unable to load frame's content: Formula Error' when viewing inbox
<http://www-01.ibm.com/support/docview.wss?rs=899&uid=swg21383920>
- Considerations for coexistence
http://www-10.lotus.com/ldd/dominowiki.nsf/dx/UC1_coexist.htm

Notes.ini Database

- Tranquility/Turtlepublic (lotusphere.turtleweb.com) notesini.nsf

DAOS Teaching Module

ftp://ftp.software.ibm.com/software/lotus/demos/domino/Intro_to_DAOs/intro_to_daos_viewlet_swf.html

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Key Points to Keep in Mind

Assess all parts of your Lotus environment

Including people skills and corporate culture

- **Plan your upgrade**
 - What features to select
 - Test environment setup
- **Inform all involved**
 - What is going to happen, how and why
 - Who is in the pilot program
 - Where can users go for help
- **Train**
 - Users, support staff, admins, developers

Useful 3rd Party Applications

- Ldap Browser by Softerra
 - Free download at <http://www.softerra.com/download.htm>
- NotesConnect (Nping) by IBM
 - Free download at <http://www-10.lotus.com/ldd/sandbox.nsf/ecc552f1ab6e46e4852568a90055c4cd/4a60b6779e52c19c8525679100832651>
- Jconsole by Sun
 - Free download at <http://java.sun.com/developer/technicalArticles/J2SE/jconsole.html>
- AdminP checker by MartinScott Consulting.
 - Free at <http://martinscott.com>, tells you difference in document count, ACL and such
- MarvelClient & Analyze by panagenda
 - Free trial at <http://www.panagenda.com>
- Workplace Control for Lotus Notes by Aedificomm
 - Free trial at www.workplacecontrol.com
- Installpump
 - <http://www.installpump.com/>
- Symantec Altiris
 - <http://www.symantec.com/business/theme.jsp?themeid=altiris>

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 - Blog: <http://www.bleedyellow.com/blogs/crashtestchix>

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