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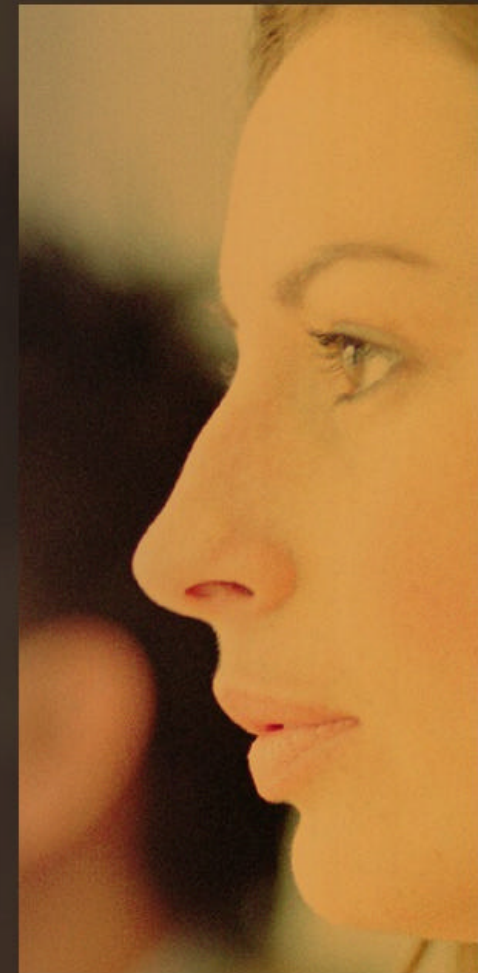
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# BP107 Best Practices with the Lotus Notes/Domino Administration Client

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Technologies

**Lotus** software

NORTHERN  
**Collaborative**  
TECHNOLOGIES



# BP107 Agenda

- Who am I, Why are we here, and other big questions
- Set it up right for it all to work
  - ▶ the administration process
  - ▶ the certificate authority
  - ▶ administration access control
  - ▶ the Server Controller
- Performing Everyday Tasks Faster & Better
  - ▶ user management
  - ▶ database management
  - ▶ server management

# About this Presentation

- A “Best Practices” session is different
  - ▶ This is not a list of product features
  - ▶ This is a practical ‘field guide’ to using the tools
- Designed for re-use
  - ▶ These are not empty bullet points
  - ▶ The details you need are in this text

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# Who am I, Why are we here, and other big questions



## ▶ Andrew Pollack

- President, Northern Collaborative Technologies
- 2003 IBM Lotus Beacon Award Winner
- Administrator & Developer since version 2.0
- Member of the Penumbra Group
- Firefighter - Engine 1 – Cumberland, Maine!
  - In firefighting, just like Server Administration – its all in the planning

## ▶ Why We're Here

- To learn and grow, not just as administrators, but as human beings
- The new administrative tools rock
- The didn't always rock so much
- Its finally time to adopt all this new stuff

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## Part 1. Set It Up Right

The Administration Process  
The Certificate Authority  
Administration Access Control  
The Server Controller

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# The Administration Process

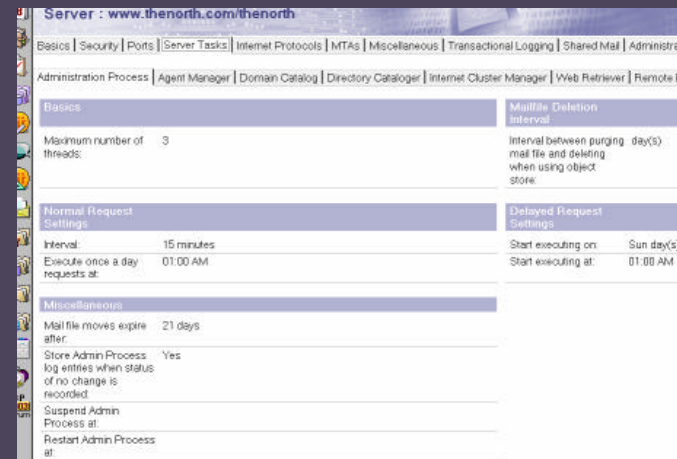
- Why you need it
  - ▶ It carries out the instructions you give the Administration Client
  - ▶ It does the work that takes a long time if you do it yourself
    - Create replicas, move mail files
  - ▶ It does a more complete job – most of the time – than you can
    - Renaming or removing users
  - ▶ Its also a required part of the Certificate Authority

# Administration Process Configuration Checklist

- The Administration Database
  - ▶ Named ADMIN4.NSF
  - ▶ Updated with the Current Version Template
  - ▶ Replica on Each Server
  - ▶ Verify Replication
  
- The Administration Task
  - ▶ In the Notes.INI
    - Tasks = ..., adminp, ...

# Administration Process Configuration Checklist

- Review Sever Document in the Domino Directory
  - ▶ Server Tasks Tab, Administration Process Tab
  
- Determine The Administration Server
  - ▶ The Administration Server is the server listed as the administration server of the Domino Directory
  
  - ▶ Set this in the advanced tab of the Access Control List dialog box for the Domino Directory





# The Certificate Authority

- Why you need it
  - ▶ Required if you plan to use the Web Administrator client to register Notes users
  - ▶ Administrators can manage both Notes and Internet certifiers through the CA process
  - ▶ Does not require administrator access to the certifier ID and ID password in order to register users and servers.
    - Allows administrators to delegate these tasks without potentially compromising the certifier.
  - ▶ Issues Internet certificates that are compliant with security industry standards

# Setting Up the Certificate Authority

- First, make sure you've got the Administrative Process set up and running correctly
- Migrate at least one certifier to use with the Certificate Authority
  - ▶ From the Domino Administrator, click Configuration
  - ▶ On the Tools pane, choose Certification - Migrate Certifier
    - Make sure to specify both the people who can use the certifier, and the server!
- Start the Certificate Authority Task
  - ▶ load ca
  - ▶ Notes.INI -- Tasks = ..., CA, ...
- The Certificate Authority adds newly-created certifiers when it refreshes, which takes place every 12 hours

# You Don't Really Have To Wait

- At the server console, simply type:
  - ▶ tell ADMINP process all
  - ▶ tell ca refresh
- To see if the new certifier has been added:
  - ▶ tell ca stat



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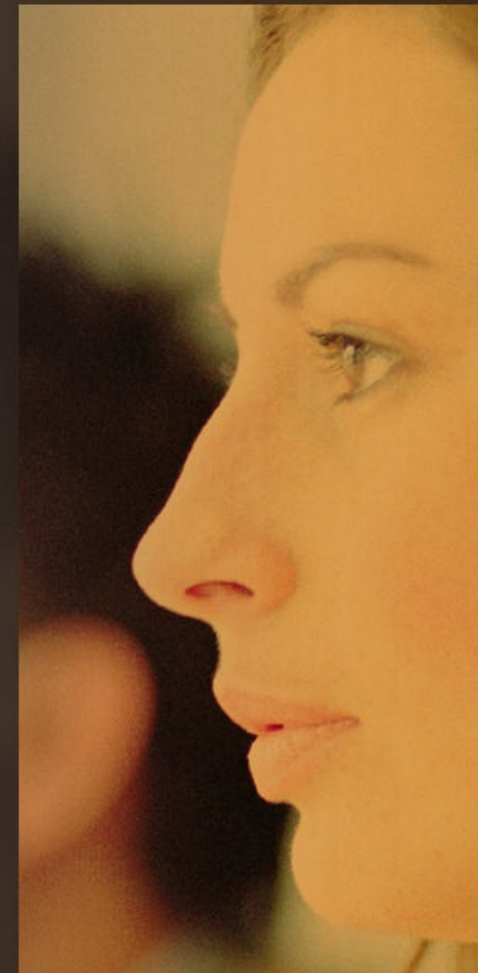
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## Domino Server statistics & Events

“There are Lies, Damn Lies, and  
Statistics”

Winston Churchill

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# Setting up Domino's Statistics & Events

- The Event Task & Database
  - ▶ EVENTS4.NSF – Yes, even in version 6
  - ▶ Notes.INI – Tasks = ..., event, ....
  
- The Statistics Task & Database
  - ▶ STATREP.NSF
  - ▶ Notes.INI – Tasks = ..., stats, ...
  
- The ISPY Task
  - ▶ Tests and gathers statistics on mail routes
  - ▶ Load runjava ispy
  - ▶ Tell runjava quit
  - ▶ Notes.INI – Tasks = ..., runjava ispy, ...

## Domino's Statistics & Events – For more information



- JMP109 Monitoring and Managing Your Lotus Domino Infrastructure
- AD105 Who is Misbehaving? Monitoring Lotus Domino Server Agents
- BP104 Best Practices for Managing, Monitoring and Balancing Your Servers
- ID203 Lotus Domino Monitoring Capabilities -- Now and Future
- ID201 Lotus Domino 6.5 Administration and Beyond

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## Not All Administrators are Created Equal

At least not any more, if you set up your environment right

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## Controlling Administrator Access via the Server Document

### ■ Full Access Administrators

- ▶ Manager access to all databases
- ▶ Runs with All roles in all databases
- ▶ Access to all documents
  - Beats Reader fields like paper covers rock!
- ▶ Leaps tall buildings in a single bound!

Great tool – but be careful, these guys own your server!

Once Enabled via the menu in the admin client, Full Administrator Access is enabled in the Client, Designer, and Administrator!

### ■ Practices for Managing Full Access Administrators

- ▶ Disable via NOTES.INI
  - `SECURE_DISABLE_FULLADMIN = 1`
- ▶ Create an Event Handler in EVENTS4.NSF to notify key people when activated



# Controlling Administrator Access via the Server Document



## ■ Administrators

- ▶ Basically, Everything but override ACL's and Reader Names as a Full Access Administrator
  - Manager access to the Web Administrator database
  - Create, update, and delete folder and database links
  - Create, update, and delete directory link ACLs
  - Compact and delete databases
  - Create, update, and delete full text indexes
  - Create databases, replicas, and Master Templates
  - Get and set certain database options
    - in/out of service, database quotas
  - Use message tracking and track subjects
  - Issue any remote console command
    - Including shell commands to the operating system

Can delete any database on the server without being in the ACL!

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# Controlling Administrator Access via the Server Document



## ■ Database Administrators

- ▶ Create, update, and delete Folder and Database links
- ▶ Create, update, and delete directory link ACLs
- ▶ Compact and delete databases
- ▶ Create, update, and delete full text indexes
- ▶ Create databases, replicas, and Master Templates
- ▶ Get and set quotas, database in/out of service flags

## ■ Database Administrators DO NOT get:

- ▶ Automatic manager access to databases
- ▶ Any rights to use the Web Administration Database
  - They cannot perform their tasks via browser

Can delete any database on the server without being in the ACL!

“Administrator”  
vs.  
“Database Administrator”

It sounds like a fine distinction at first – but it is critical.

This allows control over the files & data but not the configuration and most of the performance settings on the server.

# Controlling Administrator Access via the Server Document



- Full Remote Console Administrators
  - ▶ Can use the remote console without restriction
  
- View-Only Administrators – Show, but not Tell
  - ▶ Can execute remote console commands that display information
    - Show Tasks, Show Server
  - ▶ Cannot execute remote console commands that take action
    - Load, Tell, Replicate, Route, ...
  
  - ▶ In my opinion, this should not be used

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# Controlling Administrator Access via the Server Document



- System Administrators
  - ▶ Can issue Remote Server Console Commands to the operating system
  - ▶ Use the “\$” symbol before the command
  - ▶ Use the “#” symbol before commands to the server controller
- Restricted System Administrators
  - ▶ Same as above, but limited by the field below
- Restricted system commands
  - ▶ Lists the specific Server Controller and Operating System Commands available to Restricted System Administrators

## WARNING:

The “\$” and “#” prefixes only work if you have started the server with the server controller.

## BIGGER WARNING:

In many environments, you can get around this with the “Load” command, to load a system shell with a command parameter. For Example:

Load cmd /c shutdown /l /y /c

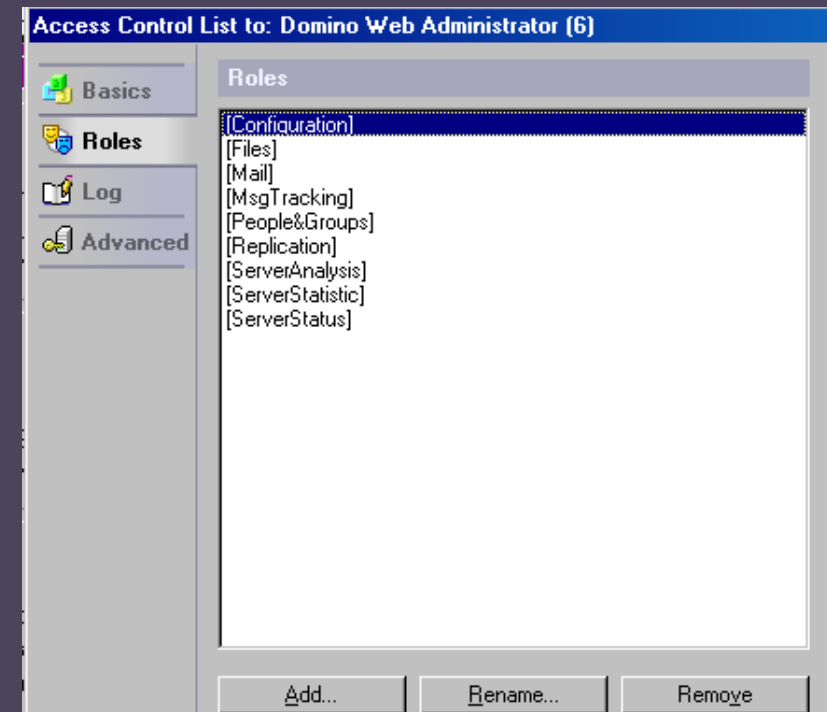
Will shut down most Win32 Servers (add /r to reboot!)

# Controlling Administrator Access via the WebAdmin ACL



- You can manually manage the WEBADMIN.NSF database directly with its ACL & Roles
- This is a “Best Practices” Session, so I can say:

**DO NOT DO THIS**  
**IT IS NOT A BEST PRACTICE**



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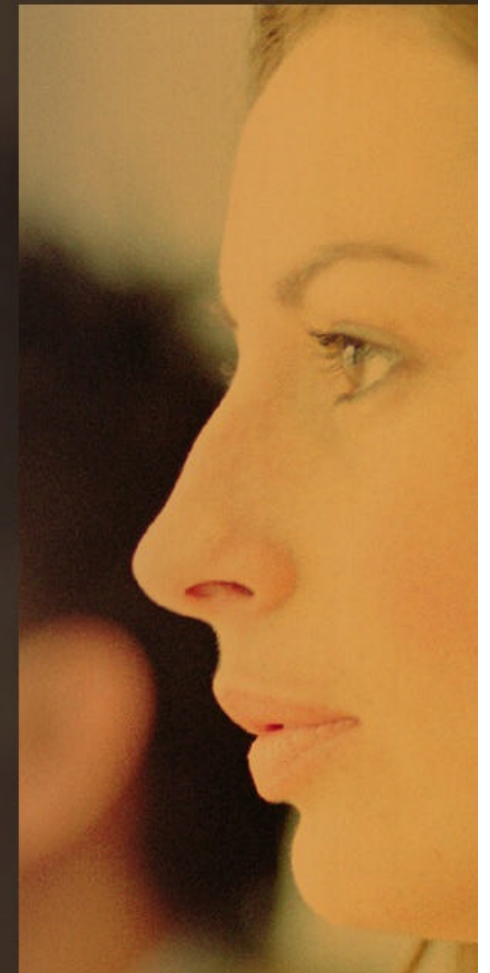
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## The Server controller

The best kept secret in the world of  
Administration – Really!

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# What is the Server Controller?

- A Java Application that loads 'in front' of the Domino Server
- Enables the Java Console (JCONSOLE)
  - ▶ WAY better console access
- Enables the Java Console in the Web Administration Client
  - ▶ Super Cool
- Allows Remote Crash Recovery

## Starting the Server with the Server Controller

- Just add “-jc” to the command line to start the server
  - ▶ Example: `nserver -jc`
  - ▶ Works in Unix / Linux environments as well
  
- For Windows Servers
  - ▶ Use the “SC” tool from the resource kit:
    - `Sc config "Lotus Domino Server (LotusDominoData)" binPath="=c:\lotus\domino\notes.ini -jc"`
  
  - ▶ Edit the Imagepath in the registry
    - `HKEY_LOCAL_MACHINE / System / CurrentControlSet / Services / LotusDominoServer(notesdata)`





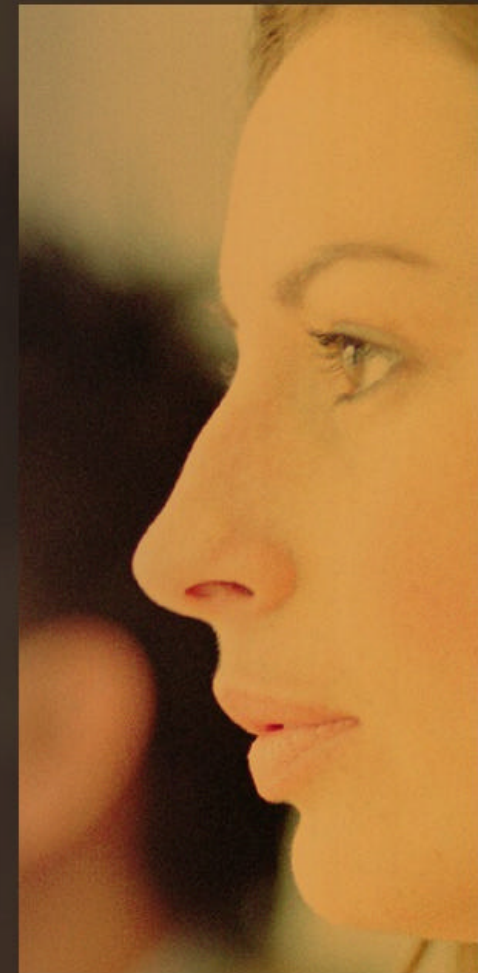
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## The Domino Console

The other half of the best kept secret in  
the world of Administration – Really!

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# What is the Domino Console?

- A slick remote console – Better than sitting at the server
  - ▶ Not as cold as the server room!
- The same remote console available in the Web Administration Database
- Does not tied up, or get tied up, by your Notes Client and Designer threads
- Works even after a server crash to allow recovery & restart
- Schedule console commands, or repeat commands at intervals
- Store your commonly issue command strings for reuse!

# Starting & Running the Domino Console

- Just run “jconsole” from the Notes or Domino program directory
  - ▶ or anyplace if that directory is in you path
- Run on any server or client operating system except Macintosh
  - ▶ Provided either the Server or the Admin client is installed



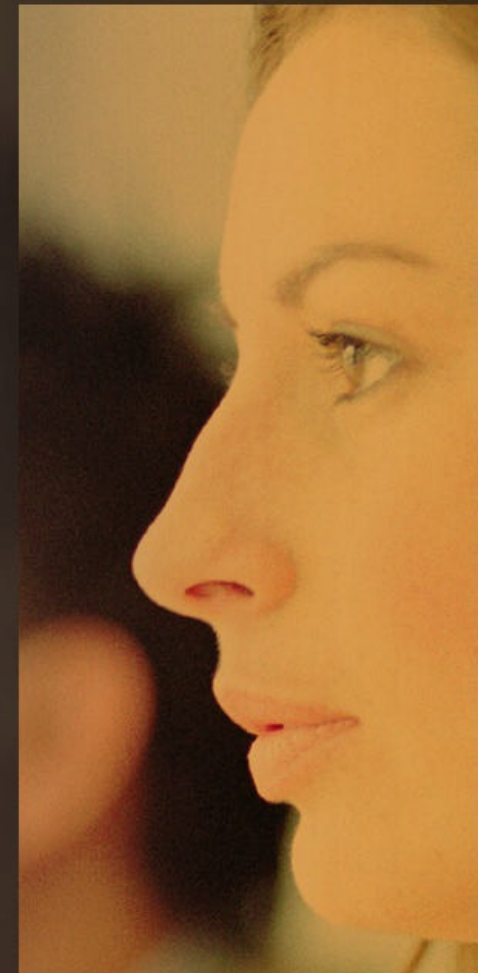
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Demo Time!

Using the Domino Console to manage  
a remote server!

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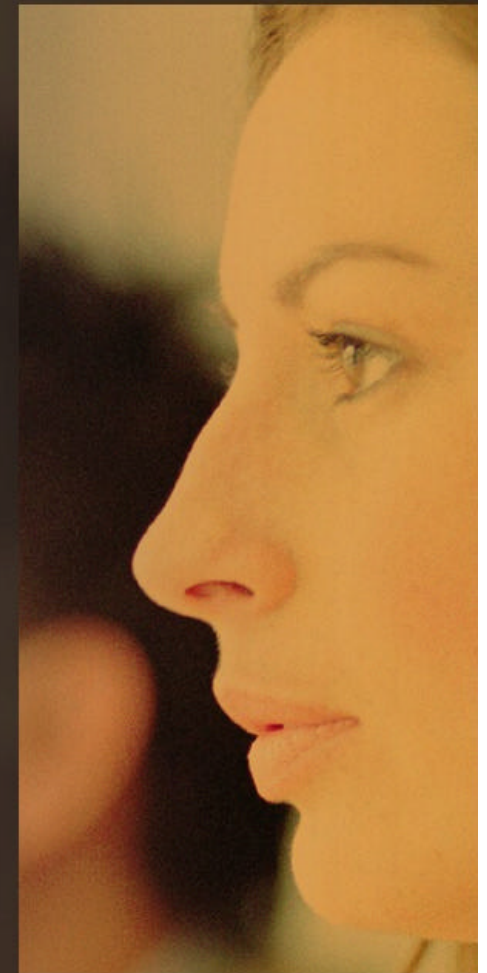
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## Part 2. Performing Everyday Tasks Faster & Better

This part of the talk is largely live demonstration – Screenshots are included for those playing the home game

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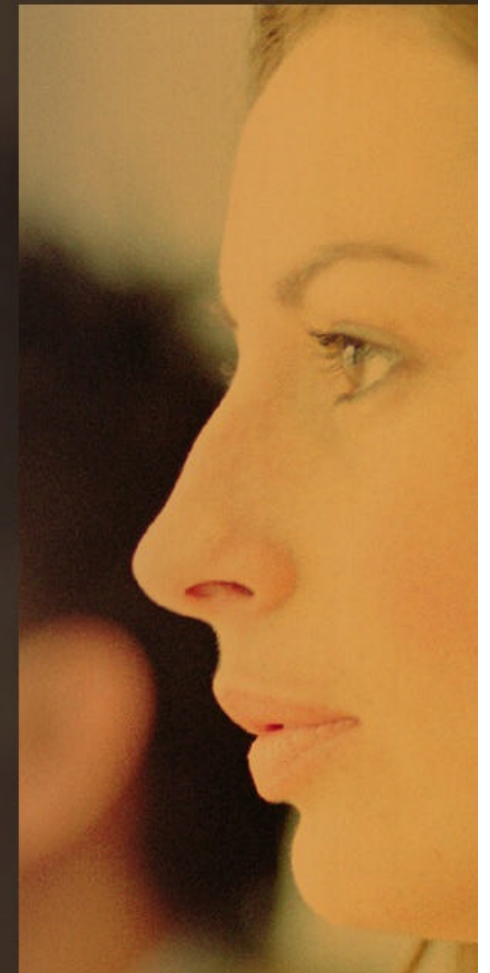
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# User Management

It's all about the people

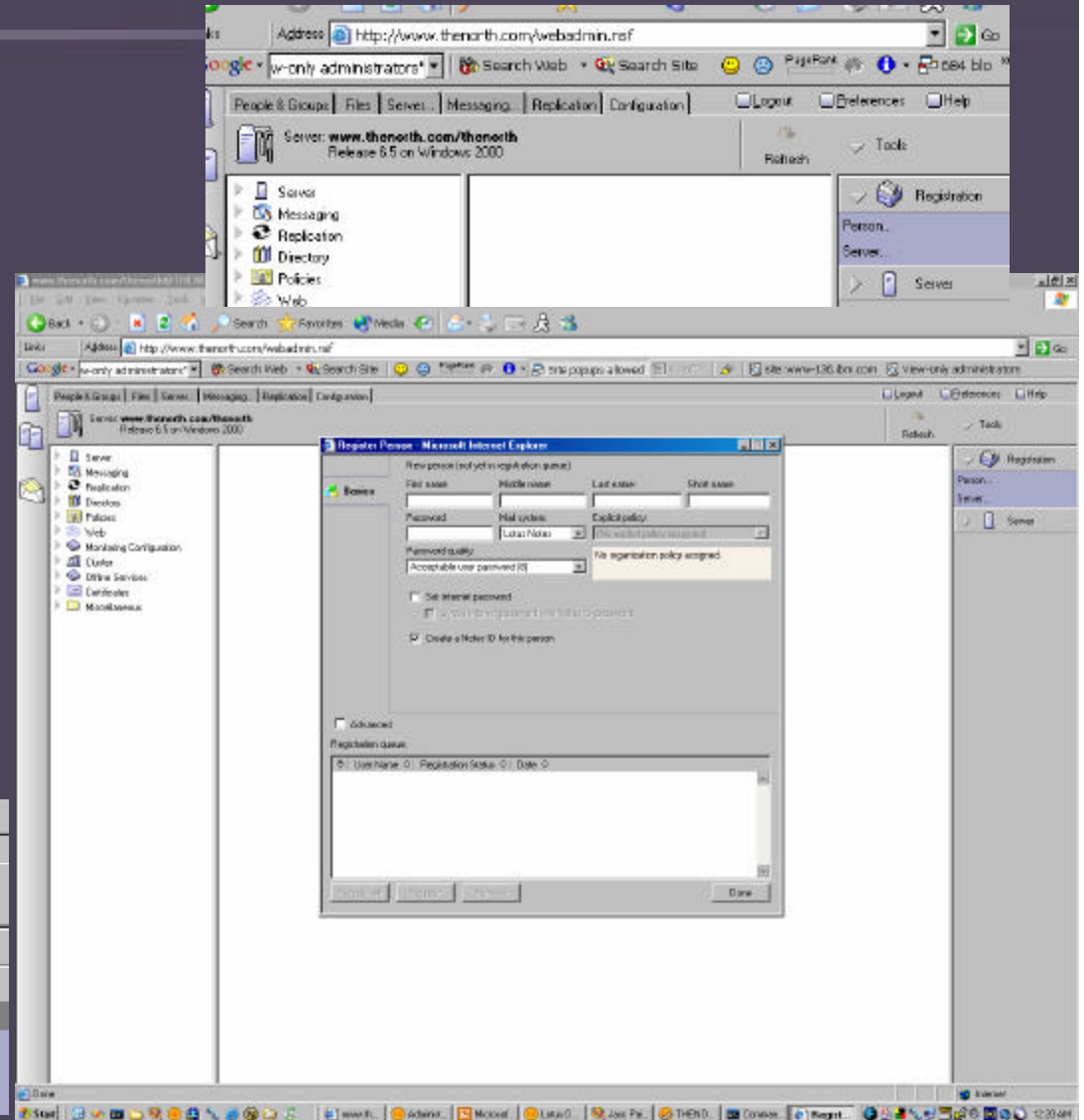
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# Register a new user

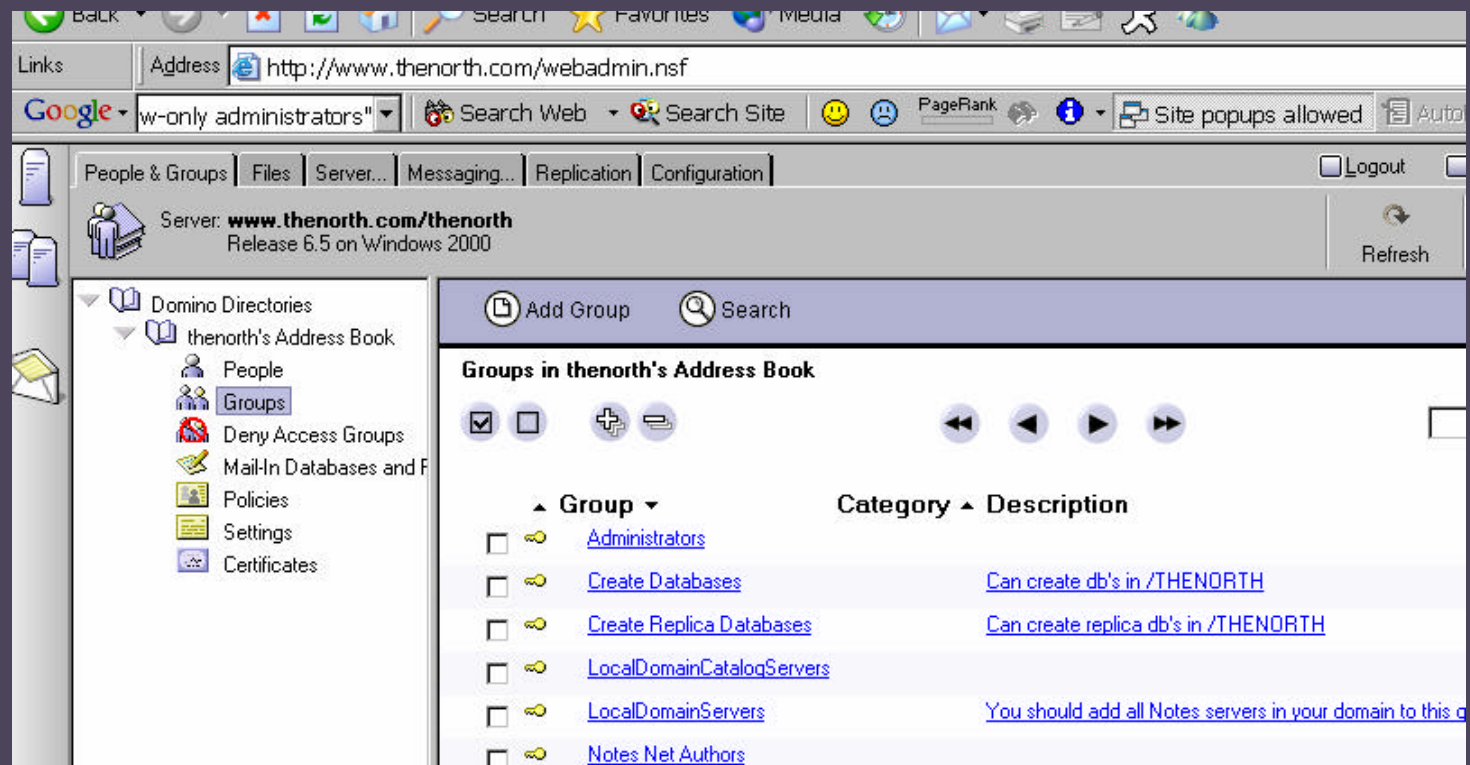
If you've set the Certificate Authority up correctly, it looks the same!

A common mistake is to set up the certifier without making the server a certificate authority



# Group Management

- Just as easy as opening the address book from the Notes Client like we've been doing for years





# Set User Roaming Status

THENORTH Domain

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

Server: **www.thenorth.com/thenorth**  
Release 6.5 on Windows NT 5.0

Tools

Domino Directory

thenorth's

People

by C

Group

by

Mail-In

Policy

Setting

Certific

Alt Lan

Deny A

Add Person | Edit Person | Delete Person | Copy

Name	Telephone
Armstrong, Barb	

**Assign Roaming Profiles**

Use this tool to modify the roaming user options for people in the selected Domino Directory.

Selected: thenorth's Address Book (names.nsf) on  
For: 1 selected users to upgrade

Where should the users roaming files be stored?

Store on user's mail server

Roaming Server... www.thenorth.com/thenorth

Store user ID file in personal address book

Users personal roaming folder:

Base folder:

Sub-folder format:

Example: ..\roaming\smith1\...

If folder exists:  Skip person  Generate folder name

Client clean-up option:

People

- Register...
- Move to Another Server...
- Rename...
- Delete
- Recertify...
- Set Internet Address...
- Validate Internet Address...
- Roaming...
- Assign Policy...
- Create Replica(s)...
- Find User(s)...
- Policy Synopsis...
- Upgrade...
- License Tracking...
- Open Fault Reports...

Groups

Home Office - THEN...



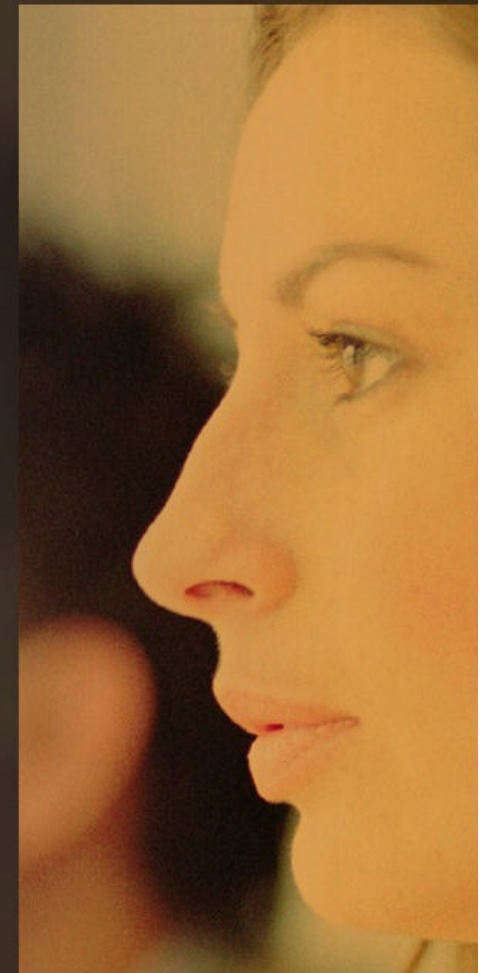
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## Database Management

Ever waited while your Notes client made a replica from one server to another?

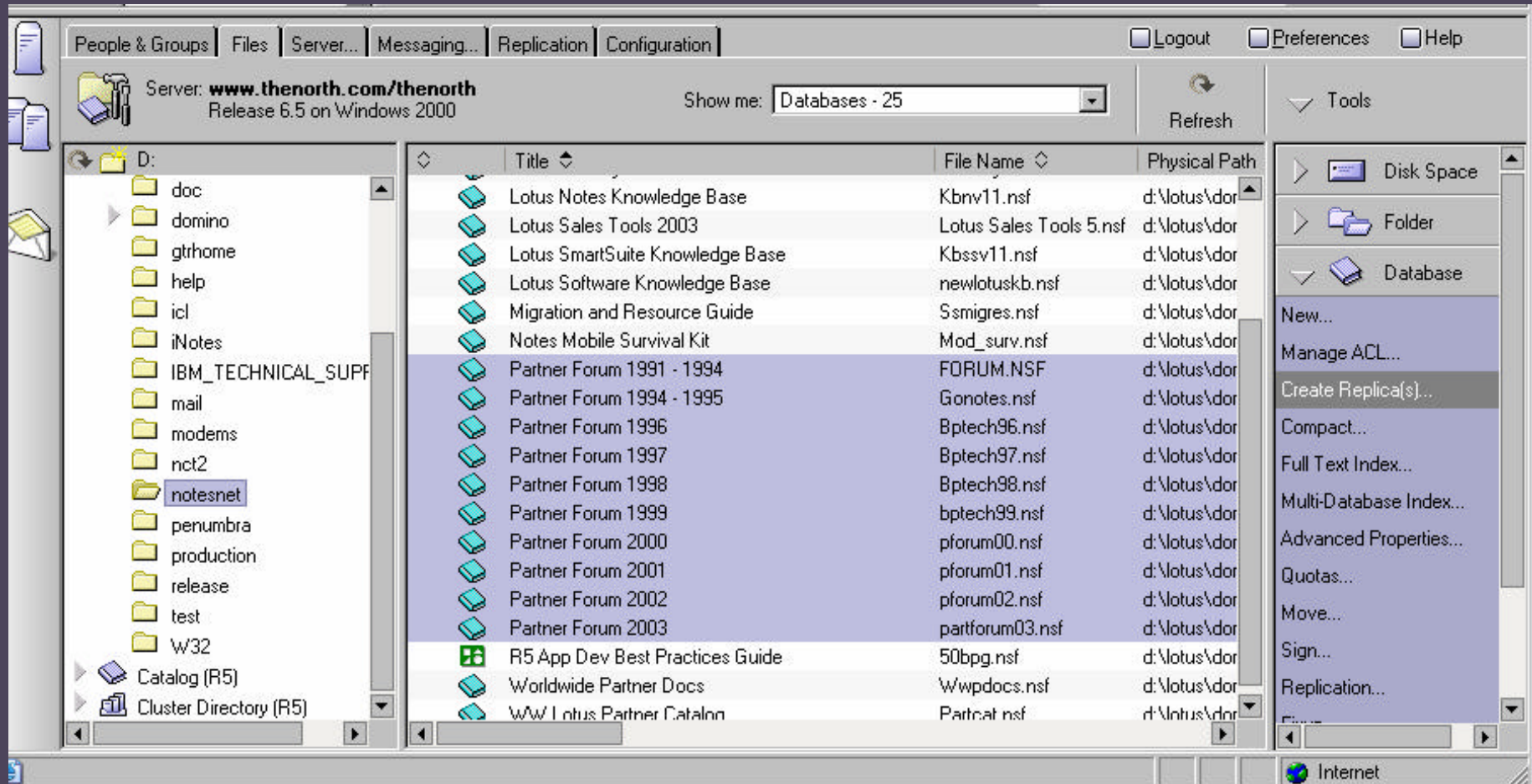
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# Create New Replicas

Yes, this is the web administration database!

- Step 1 – Select the files you want to create new replicas for



# Create New Replicas

- Step 2 – Select one or more target servers

**Create Replica(s) - Microsoft Internet Explorer**

Use this tool to create replicas on multiple servers automatically in the background via the Administration Process.

Selected: 10 Databases

Create replicas on these servers:

- Demo/thenorth
- Igloo/thenorth
- www.thenorth.com/theno

Buttons: Add --> Remove

Show me only cluster members

Destination database and server:

Destination server	Destination filename	Copy ACL	Create FT
Igloo/thenorth	notesnet\Bptech96.nsf	✓	✓
Igloo/thenorth	notesnet\Bptech97.nsf	✓	✓
Igloo/thenorth	notesnet\Bptech98.nsf	✓	✓
Igloo/thenorth	notesnet\bptech99.nsf	✓	✓
Igloo/thenorth	notesnet\FORUM.NSF	✓	✓
Igloo/thenorth	notesnet\Gonotes.nsf	✓	✓
Igloo/thenorth	notesnet\partforum03.nsf	✓	✓
Igloo/thenorth	notesnet\pforum00.nsf	✓	✓
Igloo/thenorth	notesnet\pforum01.nsf	✓	✓
Igloo/thenorth	notesnet\pforum02.nsf	✓	✓

Destination file path: notesnet\FORUM.NSF

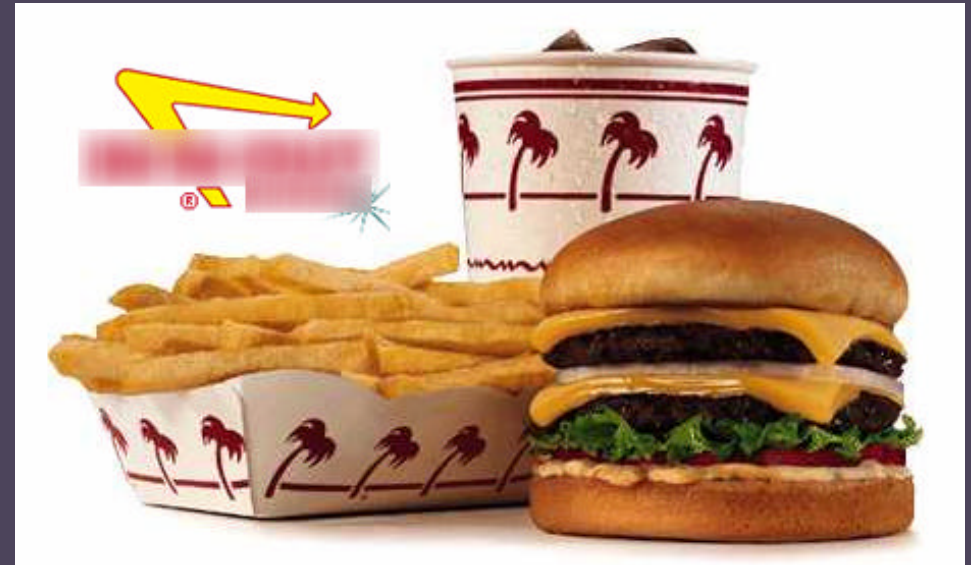
Copy Access Control List

Create full text index for searching

Buttons: OK Cancel

# Create New Replicas

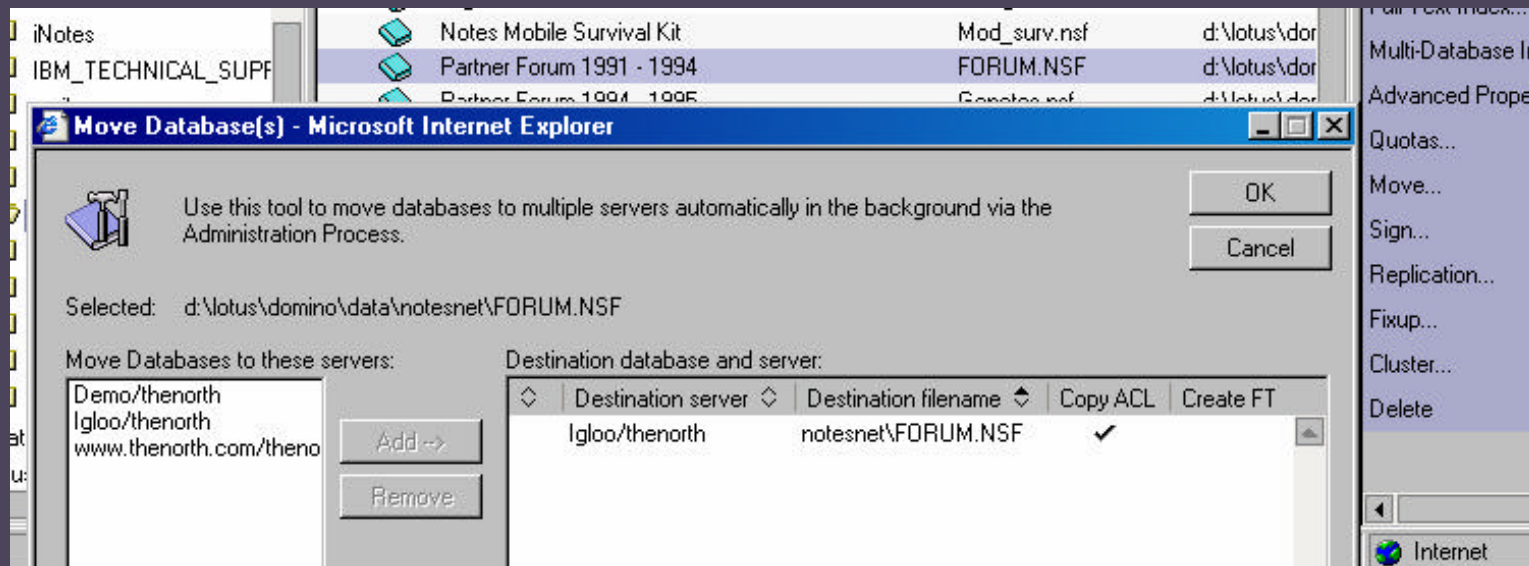
- Step 3 – Go to Lunch!
- The Administration Process Takes over
- A replica stub is placed on the target server
- Replication fill in the data
  - ▶ In a cluster, its even faster



Even if the target server does not directly replicate with the source, the target server replicates the database as part of its normal replication schedule

# Move A Database

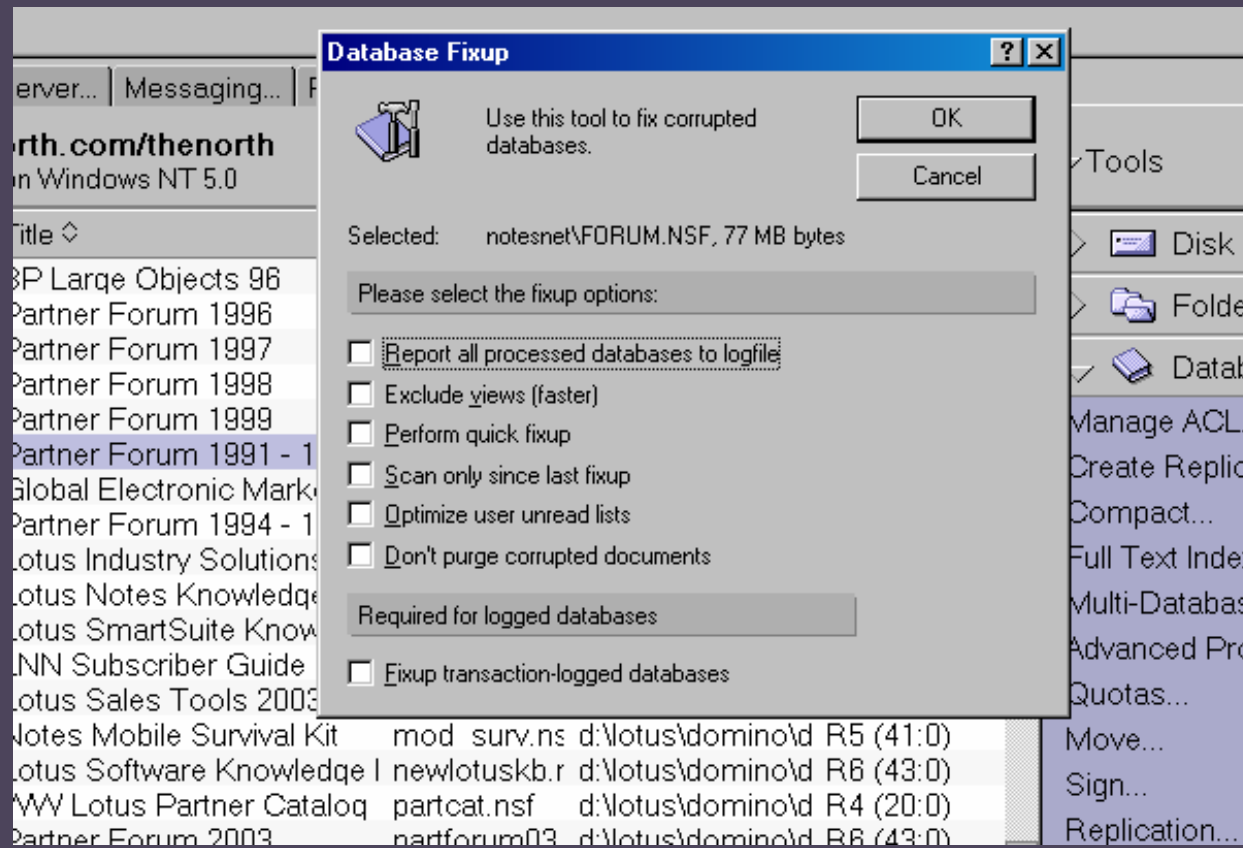
- Let the Administration Process Handle it while you play Doom 3



Yep, still the web administration database!

# Fix, Compact, or Full Text Index A Database

Nope, this is the Windows Admin Client – Did I get you?



# Delete a Database – Or all replicas of a database everywhere

The screenshot shows the Lotus Notes Web Client interface. The top navigation bar includes 'People & Groups', 'Files', 'Server...', 'Messaging...', 'Replication', and 'Configuration'. The server information is 'www.thenorth.com/thenorth' (Release 6.5 on Windows 2000). The 'Show me:' dropdown is set to 'Databases - 25'. The main area displays a file explorer view of the 'D:' drive, with a list of databases. The 'notesnet' folder is selected, and the 'Mod\_surv.nsf' database is highlighted. A confirmation dialog box titled 'Confirm Database Delete - Microsoft Internet Explorer' is overlaid on the interface. The dialog asks: 'Are you sure to permanently delete database 'd:\lotus\domino\data\notesnet\Mod\_surv.nsf' on server 'www.thenorth.com/thenorth'?'. There is an unchecked checkbox for 'Also delete replicas of this database on all other servers'. The dialog has 'OK' and 'Cancel' buttons. A note at the bottom of the dialog states: 'If you choose to delete all other replicas, an administration process request will be submitted and need to be approved by an administrator (check the administration process database for pending database deletions).'

Title	File Name	Physical Path
Lotus Notes Knowledge Base	Kbnv11.nsf	d:\lotus\dor
Lotus Sales Tools 2003	Lotus Sales Tools 5.nsf	d:\lotus\dor
Lotus SmartSuite Knowledge Base	Kbssv11.nsf	d:\lotus\dor
Lotus Software Knowledge Base	newlotuskb.nsf	d:\lotus\dor
Migration and Resource Guide	Ssmigres.nsf	d:\lotus\dor
Notes Mobile Survival Kit	Mod_surv.nsf	d:\lotus\dor

Finally, back to the Web Client – Its enough to make you think a web browser might some day be a decent place to work





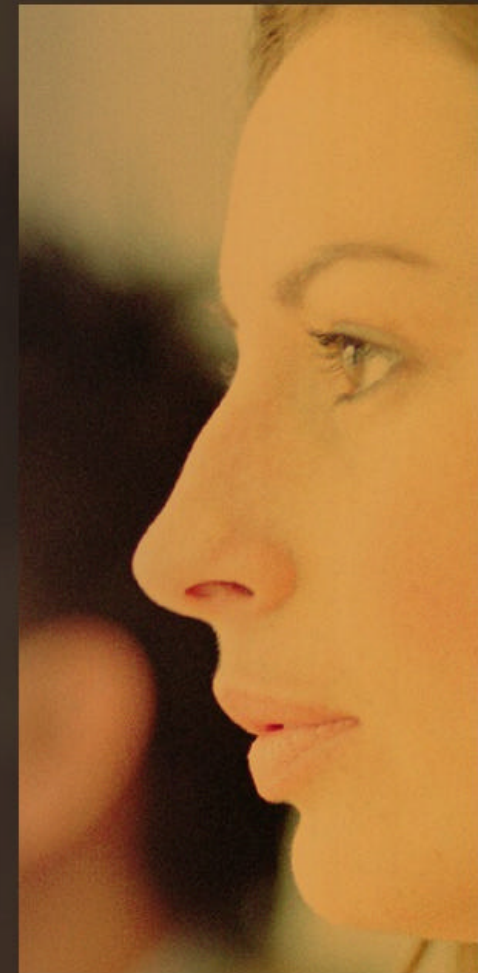
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## Server Management

Things you've been going to the cold, noisy server room to do that you could be doing from the Administration client

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# Changing the NOTES.INI file

- Who would have thought the easiest way to change the NOTES.INI would be through a Web Browser?

The screenshot shows a web browser window with the address bar set to `http://www.thenorth.com/webadmin.nsf`. The browser's address bar also contains the text "w-only administrators". The page content displays the administration interface for a Lotus Notes server. The server name is `www.thenorth.com/thenorth`, and it is noted as "Release 6.5 on Windows 2000". The interface includes a navigation pane on the left with a tree view showing folders like "Server", "Current Server Document", "All Server Documents", "Configurations", "Parameters", "Connections", "Programs", "External Domain Network In", "NOTES.INI file" (which is selected), and "Cleanup script file". The main content area shows the configuration for the selected "NOTES.INI file" with the following settings:

```
[Notes]
Directory=d:\lotus\domino\data
log_sessions=1
KitType=2
SetupDB=Setup.nsf
UserName=Andrew Pollack
CompanyName=Northern Collaborative Technologies
PhoneLog=2
Log=log.nsf, 1, 0, 7, 40000
Passthru_LogLevel=0
Console_LogLevel=2
```

# Viewing Windows Services & Logs

The screenshot shows the Lotusphere 2004 interface for a server named 'www.thenorth.com/thenorth'. The interface includes a navigation pane on the left with categories like 'All Server Tasks', 'Notes Users', 'Database Users', 'Internet Users', 'Quick Console', 'Live Console', 'HTTP Statistics', 'Schedules', 'Operating System', 'Platform Statistics', 'Services', and 'Processes'. The 'Services' category is selected, displaying a table of running services.

Status	Service Name	Startup Type	Log On As
Running	Alerter	Auto	LocalSystem
Running	pcAnywhere Host Service	Auto	LocalSystem
Running	Computer Browser	Auto	LocalSystem
Running	Distributed File System	Auto	LocalSystem
Running	DHCP Client	Auto	LocalSystem
Running	Logical Disk Manager	Auto	LocalSystem
Running	DNS Server	Auto	LocalSystem
Running	DNS Client	Auto	LocalSystem
Running	Event Log	Auto	LocalSystem
Running	COM+ Event System	Manual	LocalSystem
Running	GBPoll	Auto	LocalSystem
Running	Internet Authentication Service	Auto	LocalSystem
Running	IIS Admin Service	Auto	LocalSystem

The interface also features a top menu bar with 'People & Groups', 'Files', 'Server...', 'Messaging...', 'Replication', and 'Configuration'. On the right, there are buttons for 'Logout', 'Preferences', and 'Help'. Below the menu bar, there are tabs for 'Status', 'Analysis', and 'Statistics'. The server information section shows 'Server: www.thenorth.com/thenorth' and 'Release 6.5 on Windows 2000', along with 'Refresh' and 'Tools' buttons. The status bar at the bottom shows 'Done' and 'Internet'.

# Mail Trace from the Administration Console

The screenshot shows a Microsoft Internet Explorer browser window displaying the Lotus Notes Administration Console. The address bar shows the URL `http://www.thenorth.com/webadmin.nsf`. The browser's search bar contains the text "w-only administrators". The console interface includes a top navigation bar with tabs for "People & Groups", "Files", "Server...", "Messaging...", "Replication", and "Configuration". Below this is a "Mail" section with a "Tracking Center" sub-tab. The main content area shows the server information: "Server: www.thenorth.com/thenorth" and "Release 6.5 on Windows 2000". A left-hand navigation pane lists various mail-related tasks and statistics. A "Send Mail Trace" dialog box is open in the foreground, allowing the user to specify the recipient and the type of trace report to generate.

Address: `http://www.thenorth.com/webadmin.nsf`

Search: w-only administrators

Navigation: People & Groups | Files | Server... | Messaging... | Replication | Configuration

Mail: Tracking Center

Server: **www.thenorth.com/thenorth**  
Release 6.5 on Windows 2000

Left Navigation Pane:

- Mail Server Tasks
- Mail Users
- Routing Mailboxes
- WWW.THENORTH.COM M
- Shared Mail
- Mail Routing Schedule
- Mail Routing Statistics
- Mail Retrieval Statistics
- Mail DNSBL Statistics
- Mail Destination Statistics
- Mail Routing Events

Send Mail Trace - Microsoft Internet Explorer

This tool allows you to trace the mail delivery path from your home server to the recipients home server.

To:

Subject: Mail Trace Message

Send me a trace report from:

- Each server on the path
- Last server only

Buttons: Send, Done

Right Panel: Tools, Task, Messaging, Send Mail Trace..., Route Mail...

# Forcing Replication

www.thenorth.com/thenorth,Release 6.5 - Lotus Domino Console

File Edit View Help

User: andrewp  
 Platform: Windows/NT 5.0 Intel  
 Server: www.thenorth.com/thenorth,Release 6.5

01/12/2004 01:38:31 AM Agent printing: SJ-EXEMPTED! andrewp@thenorth.com, ID: <0F8D4E77BB.DF4AA197-0N85256E19.002...>  
 01/12/2004 01:38:31 AM Router: Message 00247C3B, 00247A23 delivered to Andrew Pollack/thenorth from Andrew Pollack

!show schedule -  
 !show stat Platf  
 !show tasks -xml

01/12/2004 01:39:04 AM  
 01/12/2004 01:40:08 AM  
 01/12/2004 01:41:29 AM  
 01/12/2004 01:41:29 AM  
 01/12/2004 01:41:29 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:30 AM  
 01/12/2004 01:41:31 AM  
 01/12/2004 01:41:31 AM  
 01/12/2004 01:41:31 AM

SMTP Server: sw74-100-70.adsl.seed.net.tw (211.74.100.70) disconnected. 0 message[s] receive  
 SMTP Server: sw74-188-76.adsl.seed.net.tw (211.74.188.76) disconnected. 0 message[s] receive

Paused

**Server Commands**

Select a server command:

- Full
- Push
- Replicate**
- Route
- Set Config
- Set Secure
- Show Cluster

Initiate a pull-push replication with a specified server

OK Cancel

Domino Command: Replicate [ServerName] <database> Send Commands...

# Related LotusSphere Sessions

- **BOF304 Lotus Domino in a Multi-Directory World**
  - ▶ **Speaker:** Kevin Lynch
  - ▶ Y&B Cape Cod C - Tuesday 6:15pm - 7:30pm
  
- **BOF103 Domino Administration - Meet the Developers**
  - ▶ **Speaker:** Art Thomas
  - ▶ Y&B Hampton - Tuesday 7:00am - 8:00am
  
- **JMP109 Monitoring and Managing Your Lotus Domino Infrastructure**
  - ▶ **Speakers:** Tim Speed, David Byrd
  - ▶ SW 10 - Sunday 1:30pm - 3:30pm
  
- **ID201 Lotus Domino 6.5 Administration and Beyond**
  - ▶ **Speakers:** Robert Carter, Brendan Crotty
  - ▶ DL N. Hemisphere A-C - Monday 5:00pm - 6:15pm
  
- **ID203 Lotus Domino Monitoring Capabilities -- Now and Future**
  - ▶ **Speakers:** Robert Carter, Gilles Carrier
  - ▶ DL S. Hemisphere I-II - Monday 1:30pm - 2:45pm

# Thank you for playing!

- We're all administrators here, please ask your questions so others can here the answers
- You may also contact me directly if you like
- Please fill out your evaluations
- The latest copy of this presentation will also be available at my website: <http://www.thenorth.com>
- For those playing the home game, direct questions & comments to:

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