We love Domino V10

Ben Menesi - Ytria

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Ben Menesi – Head of Products at Ytria

10+ years of IBM solutions experience

Focused on

- IBM Domino Dev. & Admin. Since version 6
- Cybersecurity consulting & reviews (CEH)
- IBM Champion since 2014
- Speaker at IBM and Microsoft Events around the globe

Good to know

- Avid traveler, security enthusiast, amateur golf player
- … and beer lover.

IBM CHAMPION

Christoph Adler – Senior Consultant at panagenda

18 years of IBM solutions experience

IBM CHAMPION

Focused on

- IBM Notes Client Management
- Analysis and Optimization of ICS Infrastructures
- Cloud onboarding
- Application Modernization

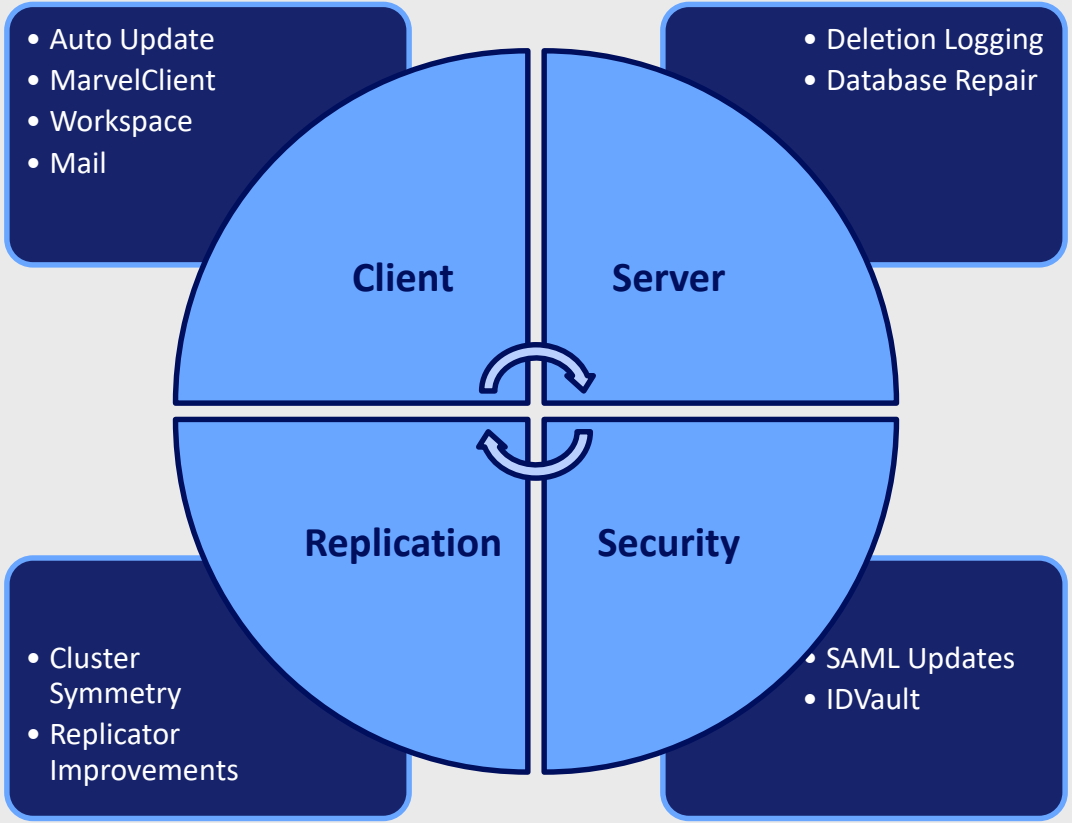
Good to know

- From Germany
- Bass player
- Geek, Husband, loves Football (Soccer) and Beer
- Don’t give energy drinks → squirrel mode

About the speakers

Sorry – new clickers

Agenda


• Auto Update
• MarvelClient
• Workspace
• Mail
• Deletion Logging
• Database Repair
Client
Server
Replication
Security
• Cluster Symmetry
• Replicator Improvements
• SAML Updates
• IDVault

Before we start …

1. Title correction:
   15 New Domino Admin Features Sure to Spark a Lasting Love Affair with Domino 10 ~~and 11~~
2. Fasten your seatbelts → we ~~only~~ have ~~40 minutes~~ 90 minutes
3. Here you can find the latest version of this slide deck
   https://www.slideshare.net/christophadler50

Enjoy the show ☺

Notes Auto Update (AUT)

- Only IBM Notes 10.0.1 or later clients on Windows can be upgraded
- Execution based on DCC (using Desktop Policy)
- Uses the “IBM Auto Update Service” => system level
- Round-robin DNS used for distributing client update requests to multiple AUT servers in a Domino domain
- Configuration via AUT catalog database
- IBM Notes on Mac is currently **not** supported for upgrades

More information:
https://www.ibm.com/support/knowledgecenter/en/SSKTMJ_10.0.1/admin/inst_aut_overview.html

MarvelClient Essentials – included in IBM Notes/Domino 10.0.1

- Makes it easier, faster and cheaper to upgrade to IBM Notes 10.x
- Provides valuable insights into Notes client landscapes for Notes 9.x and beyond
- Helps reduce helpdesk tickets, support, client maintenance and upgrade efforts
- Runs on all Notes client platforms supported by IBM (Intel Mac 64 bit, Windows, Citrix, VDI)

  Runs on all IBM Domino platforms supported by IBM
- Best of all: **it's included in IBM Notes and Domino 10.0.1 and it's FREE**

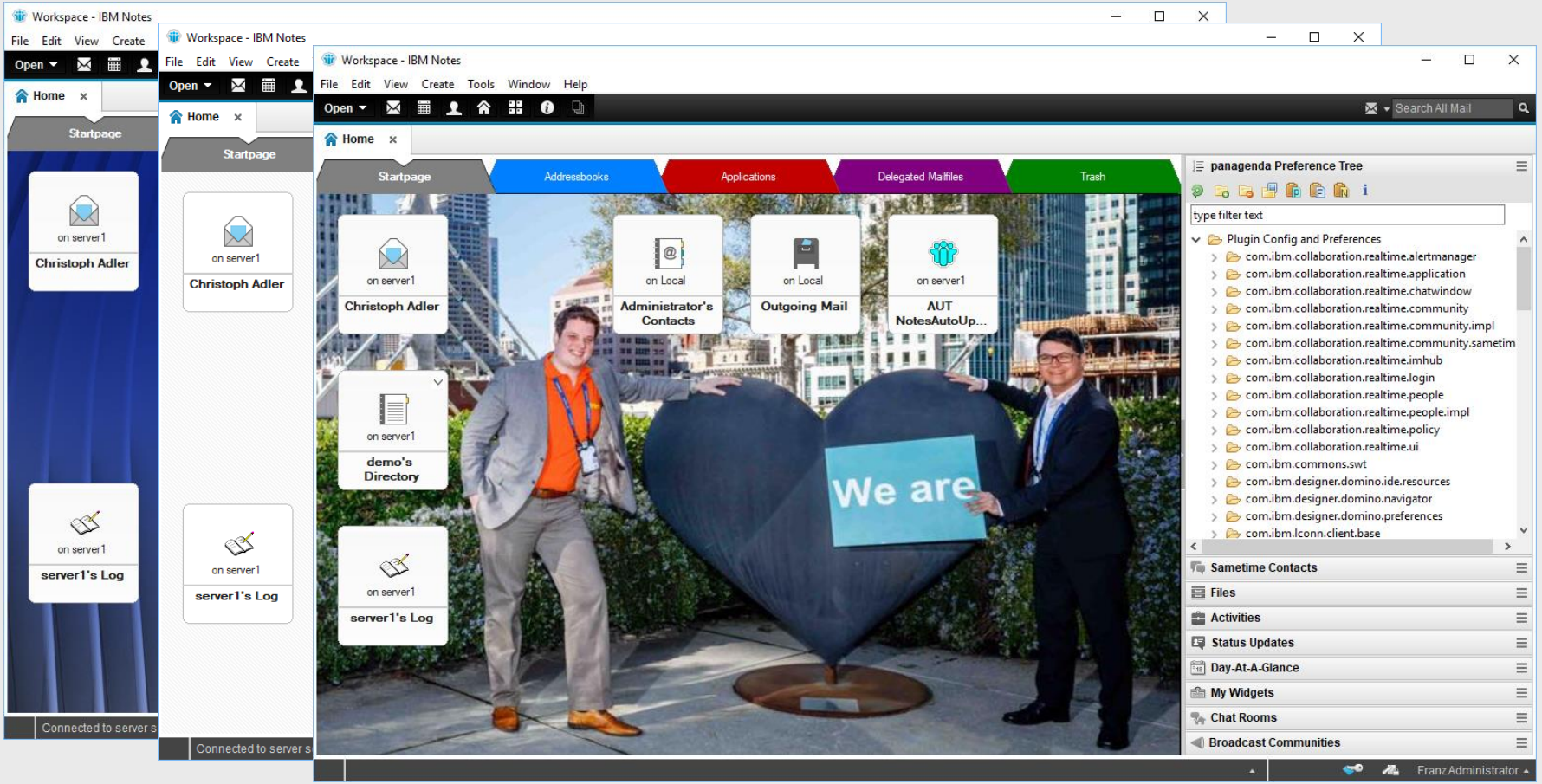
MarvelClient Essentials – included in IBM Notes/Domino 10.0.1 (2)

- If you are not on IBM Notes and/or Domino 10.0.1 now, you can get MarvelClient Essentials here: https://www.panagenda.com/essentials/

- MarvelClient Upgrade Free to Notes 10.0.1 FP1 (including language packs): https://www.panagenda.com/free-upgrade

More information:
https://www.ibm.com/support/knowledgecenter/en/SSKTMJ_10.0.1/admin/wn_marvelclient_essentials.html
https://www-01.ibm.com/support/docview.wss?uid=ibm10737079
https://www-01.ibm.com/support/docview.wss?uid=ibm10737079&aid=1

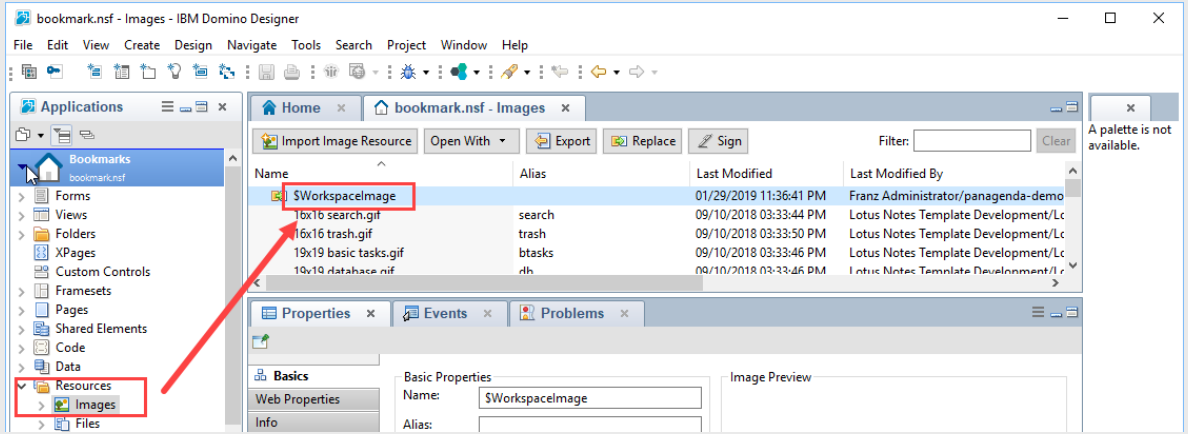
IBM Notes 10.x – Workspace



IBM Notes 10.x – Workspace (2)

- This will be controlled by a notes.ini parameter:
  V10_WORKSPACE_BACKGROUND_MODE=0 → default (blue)
  V10_WORKSPACE_BACKGROUND_MODE=1 → classic (grey lines)
  V10_WORKSPACE_BACKGROUND_MODE=2 → customized

- If you choose for “2”, make sure you have an image resource in your local bookmark.nsf named “$WorkspaceImage”

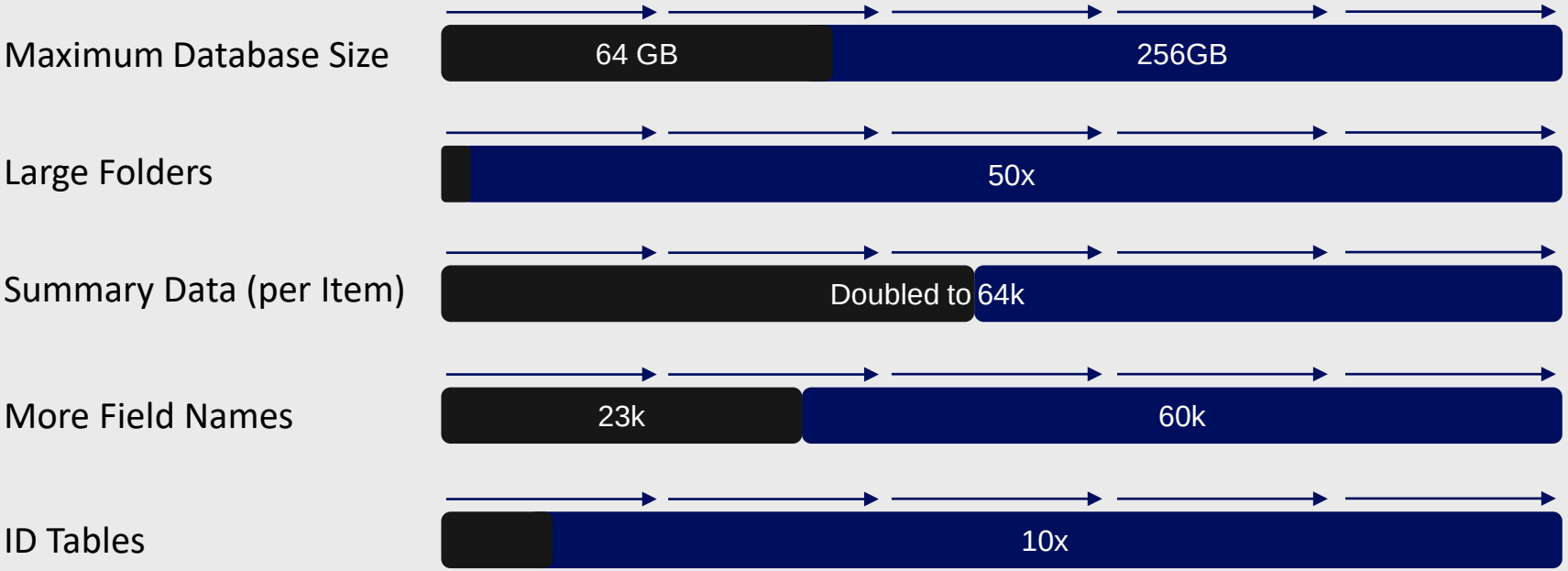


IBM Notes 10.x – Workspace (3)

- To enhance the Touchscreen user experience, Notes 10 by default adds extra spacing to make touch experience easier and it is controlled by the notes.ini parameter touchmode
  touchmode=0/1

More information:
https://www-01.ibm.com/support/docview.wss?uid=ibm10735557

ODS53 – Breaking NSF Boundaries



More information:
https://www.ibm.com/support/knowledgecenter/SSKTMJ_10.0.0/admin/wn_ods_53_supports_larger_databases_and_folders.html

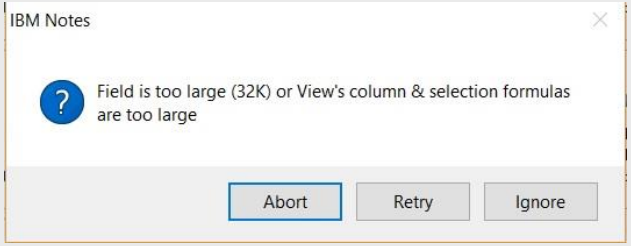
ODS53 – Database Size

- Previously: you could surpass 64GB by using DAOS:

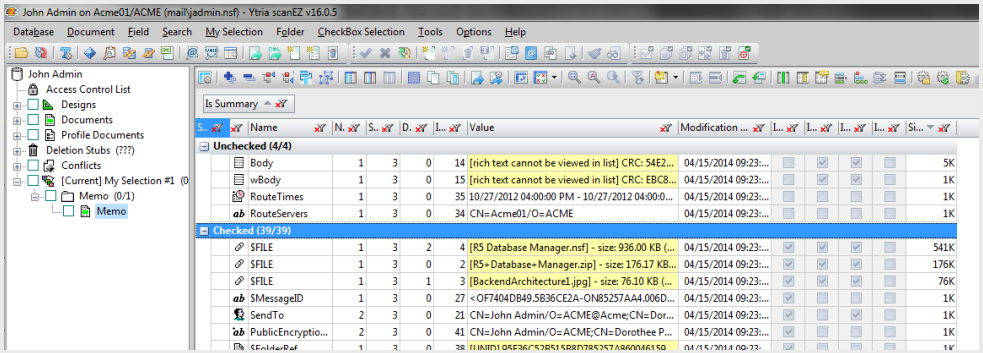
- Now: You can go up to 256GB BUT!
  - To replicate a DB like that you need:
    - Domino Server 10.x
    - Notes client 10.x
    - ODS 53
      - …or else it won’t work.

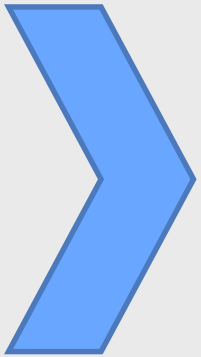
ODS53 – Summary Data

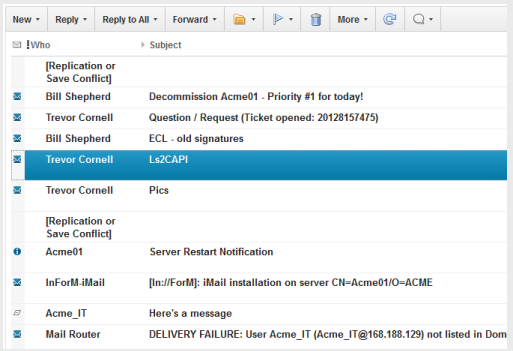
- We all know this – right?
- What is summary data?



1.) Summary: document meta-data accessible from views.







ODS53 – Summary Data: Limits

- Previously 2 limits (both resulting in the same 32k error):

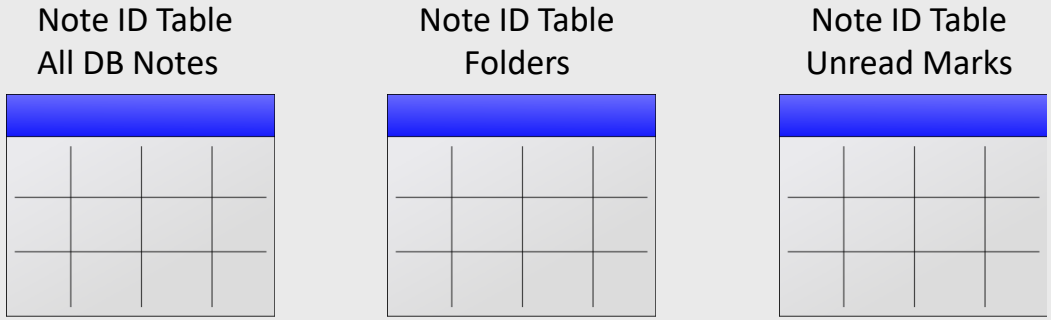
	Summary size for a single item	Aggregated summary metadata size / doc.
Previous Limit	32KB	64KB
Fixed in	Version 10.x	Version 9.0.1 FP8
New Limit	64KB	16MB

- **Important! For these to work you need to enable LargeSummary using:**

  >_load compact <dbpath> -LargeSummary

ODS53 – ID Tables

- ID Tables: 10x in size. AWESOME! What impact does this have?
  - ID Tables in a Notes Database: NoteID collections (NoteIDs are 1/4th the size of UNIDs)
- What are these tables used for?



- Benefits: Note ID table limit, folder sizes, etc.

ODS53 – Update your existing Databases

- ODS53 needs to be enabled (new default is now ODS52 instead of ODS43 → *w00t*) using notes.ini parameter

  CREATE_R10_DATABASES=1

- Update – Client:

  Use notes.ini parameter **NSF_UpdateODS=1** for a one-time upgrade of most local dbs

  NOTE: USE WITH EXTREME CARE IF YOUR DATA DIRECTORIES ARE ON A NETWORK DRIVE!

  NOTE: End users can't access databases during compact OR databases will be ignored if in use

- Update – Server:

  DBMT –ods –ct 4

  NOTE: Some databases with internally hard coded older ODS might still need

  compact -upgrade

SAML – Updates

- Domino 10 supports:
  ADFS 4.0
  SP Initiated Flow
  Any SAML 2.0 compliant IDP
  (there will be test solutions, but all standard SAML 2.0 installations should work)

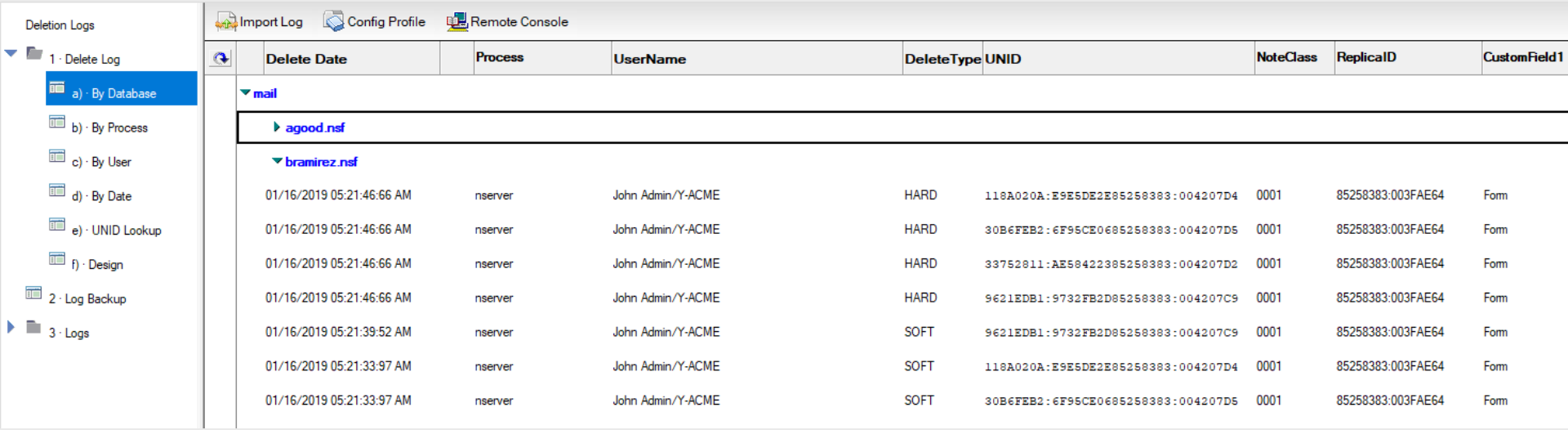
- Optimized dialogs and configuration flow

Deletion Logging – Introduction

- Previously: work with Deletion stubs & combine info with user activity to find out who delete what.
- Deletion Logging: now you can see who deleted what, and more
- New feature logs deletions to the IBM Technical Support Directory Including:
  - User who deleted the note
  - UNID, note class, Deletion type
  - Up to 4 fields of your choice
- Note: fields very important. Mail files,

Deletion Logging - Log Parser DB

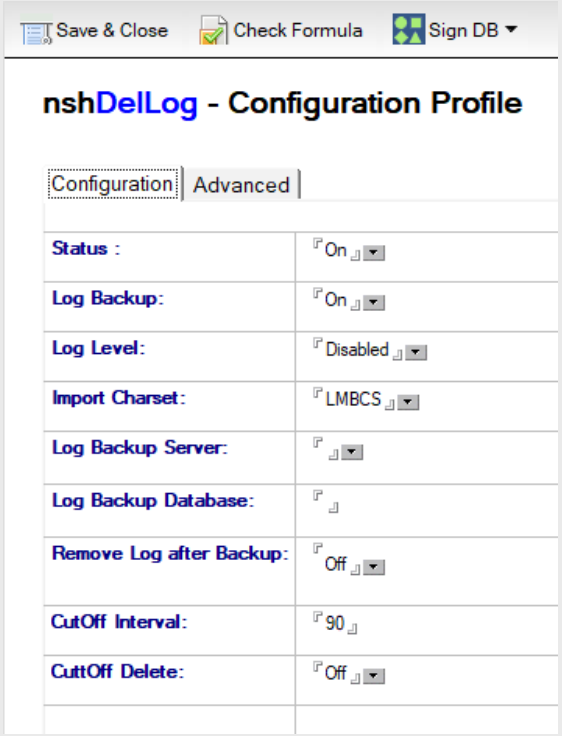
- Daniel Nashed's Log Parser Database: http://blog.nashcom.de/nashcomblog.nsf/dx/domino-v10-deletion-logging-explained.htm



Deletion Logging – Setting it up

1.) Make sure your server uses transaction logging
2.) Use compact –dbpath> -dl on “field1, field2, field3, field4” to enable
3.) Download Daniel’s log parser
4.) Sign the template, create the NSF and set up your configuration

- **Note:**
  - Deletion Log Settings replicate
  - You’ll need to rely on deletion stubs to find out where the deletion took place



Cluster Symmetry – what's it all about

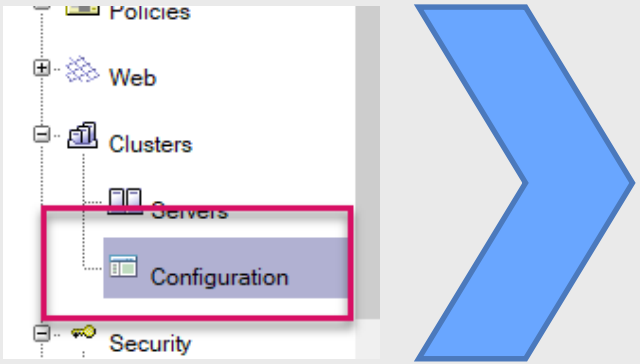
- If you didn't use clustering before, you'll want to
- Streaming Cluster Replication (SCR) monitors folders and repairs databases automatically to ensure symmetry (including creating databases!)
- Automates NSF and NLO (DAOS) Symmetry using high speed file transfer
- NLOs: even encrypted NLOs are repaired:

  Encrypted NLO > Decrypted by server > Repaired > Encrypted by target Server

- Check out Kim Greene's presentation from Collabsphere on Domino 10's self-healing capabilities: https://www.slideshare.net/KGCI/self-healing-capabilities-of-domino-10-108188426

Cluster Symmetry – how to set it up

1. Create your cluster
2. Create your cluster configuration



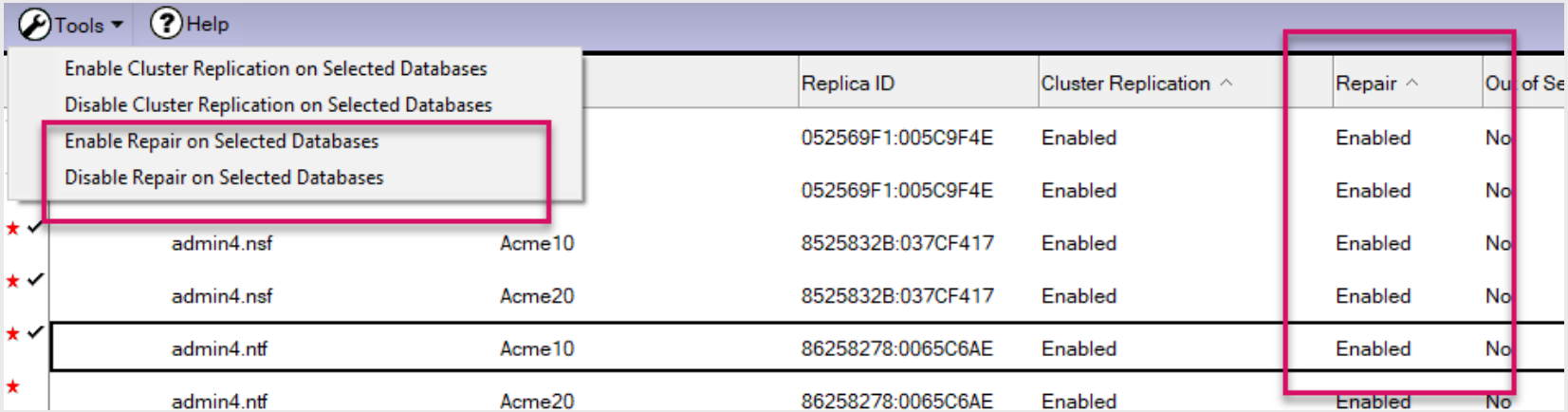
Cluster Configuration: Y-ACME Cluster

Basics | Symmetry | Tuning | Administration

Maintain symmetry:	○ All folders ◉ Specified folders
Folders:	app mail ytria
Automatic repair:	◉ Fix missing files ○ List damaged or missing files in the log ○ Disabled
Scan interval:	15 minutes
Damaged files:	◉ Fix damaged files ○ Disabled
Remove damaged files after:	28 days

Cluster Symmetry – how to set it up

3. Add the D10_ENABLE_REPAIR=1 Notes.ini line to ALL cluster mates
4. Review your CLDBDIR:



5. Add the AutoRepair task to all cluster mate's ServerTasks notes.ini line

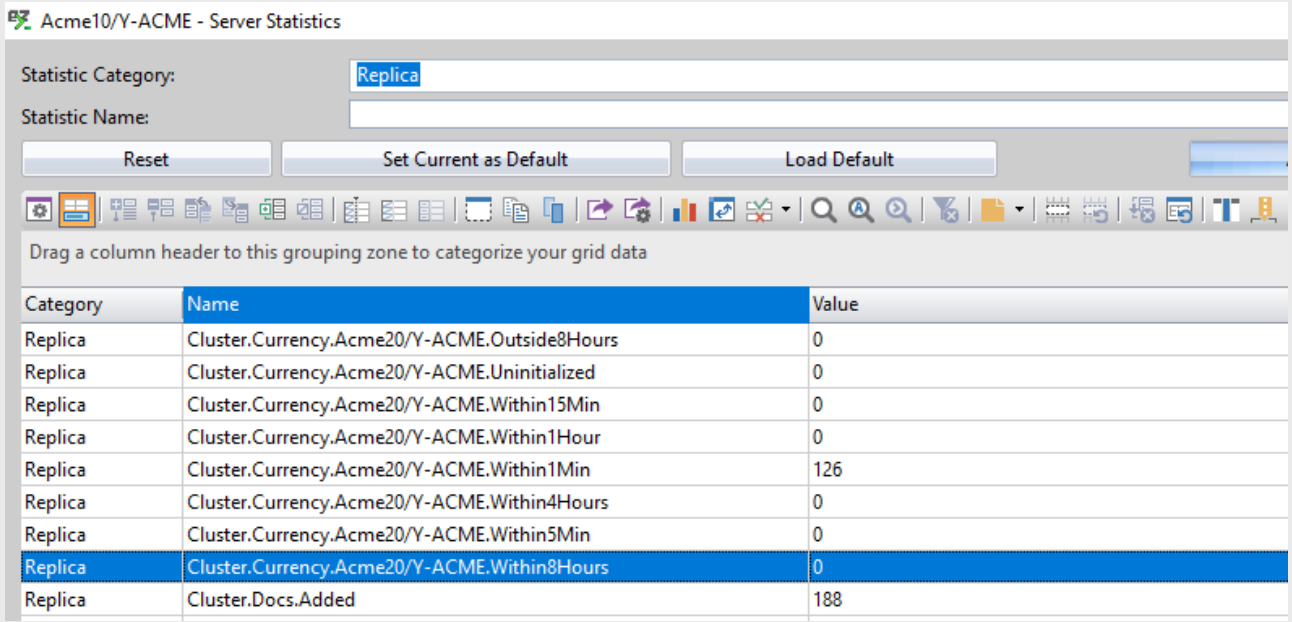
Cluster Symmetry – how to manage

- Use the ‘Repair’ console command to manage the AutoRepair feature:
  >_ Repair List Files / Missing / Enabled / Disabled
  >_ Repair All
  >_ Repair show config / jobs
- **Gotcha!** Domino security still applies! ACLs must allow replication and disabled replicas won’t replicate:

```
> repair list missing
[030552:000007-00007F483EE78700] Missing files for server CN=Acme20/O=Y-ACME
[030552:000007-00007F483EE78700] mail/TestMail.nsf,  85258384:0037D1A1  [Missing]
> repair all
[030552:000007-00007F483EE78700] Queued repair request for mail/TestMail.nsf
[030552:000007-00007F483EE78700] REPAIR: 1 file(s) queued for repair
> [030552:000042-00007F483C46D700] REPAIR: Job-00001.1 *Copying* - mail/TestMail.nsf from CN=Acme10/O=Y-ACME
[030552:000042-00007F483C46D700] REPAIR: Job-00001.2 *Copying* - Repair copying /local/notesdata/mail/TestMail.nsf from donor CN=Acme10/O=Y-ACME
[030552:000042-00007F483C46D700] REPAIR: Job-00001.3  - Repair end copy /local/notesdata/mail/TestMail.nsf : You are not authorized to perform that operation
[030552:000042-00007F483C46D700] REPAIR: Job-00001.4 *Repair Failed* - File mail/TestMail.nsf cannot be repaired [You are not authorized to perform that operati
on]
```

Cluster Symmetry – new statistics

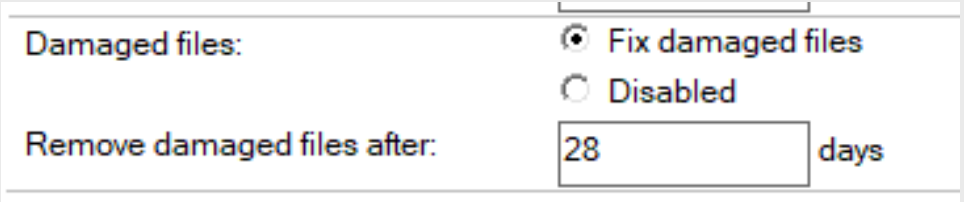
- Bunch of new stats now available: show stat replica.cluster.symmetry



Category	Name	Value
Replica	Cluster.Currency.Acme20/Y-ACME.Outside8Hours	0
Replica	Cluster.Currency.Acme20/Y-ACME.Uninitialized	0
Replica	Cluster.Currency.Acme20/Y-ACME.Within15Min	0
Replica	Cluster.Currency.Acme20/Y-ACME.Within1Hour	0
Replica	Cluster.Currency.Acme20/Y-ACME.Within1Min	126
Replica	Cluster.Currency.Acme20/Y-ACME.Within4Hours	0
Replica	Cluster.Currency.Acme20/Y-ACME.Within5Min	0
Replica	Cluster.Currency.Acme20/Y-ACME.Within8Hours	0
Replica	Cluster.Docs.Added	188

Database Repair

- Replaces previously used DBCapture Tool (had to be enabled via DATABASE_CAPTURE_ENABLED=1)
- Upon encountering damaged databases & NLOs, runs fixup
  - If fixup fails, takes replica offline and replaces it with healthy replica
  - Bad replica kept on server according to cluster configuration



  - Enable by adding ’repaircleanup’ to servertasks notes.ini

Database Repair

- Gotcha: Database Repair currently doesn’t support encrypted databases!

Replication – what about non-clustered replication?

- New Replication diagnostic tools for standard replication:

  >_ replicate <server> <dbpath> -F: clean replication without purging replication history

  >_ replicate <server> <dbpath> -l: log replica differences but don't actually replicate

- Note: when performing replicate –F: no default logging
  - Use REPL_SYNC_VERBOSE=1

Replication – what about non-clustered replication?

- Example using the –l switch:

```
NoteRepl: UNID 4B005A2F:526DAB9E:85258026:00364450 Cls 1
    Src: NID 2056 SN 5 ST 09/23/2016 06:45:56 AM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID 59219E94:A9797967:85258026:00364451 Cls 1
    Src: NID 205A SN 5 ST 09/23/2016 06:45:56 AM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID AAD45BB2:F3F42DA5:85258026:00364452 Cls 1
    Src: NID 205E SN 5 ST 09/23/2016 06:45:56 AM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID 747F12D6:C0E64647:85258026:00364453 Cls 1
    Src: NID 2062 SN 6 ST 09/23/2016 06:45:56 AM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID 824E3A52:745B4B20:85258026:00364454 Cls 1
    Src: NID 2066 SN 5 ST 09/23/2016 06:45:56 AM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID 1B4E3E3D:C6355E66:85258026:00364455 Cls 1
    Src: NID 206A SN 9 ST 05/22/2017 07:31:38 PM Mod: 01/16/2019 05:31:38 AM
    Dest: NID 0 SN 0 ST  Did not repl
NoteRepl: UNID F2BA0FE0:F0569D12:85258026:00364456 Cls 1
```

IDVault – Synchronization

- **Domino 9.0.1**
  IDVault stops synching if an outdated/old ID file is in use (using an old/different password)
- **Domino 10.x**
  After 7 days in this state, the ID file in the Vault will be archived (renamed to ~<username>) automatically and the currently used ID file will be pushed into the vault → synching restarts

  Activate this by using notes.ini parameter
  ENABLE_AUTORECOVERY_FROMBADPASSWORD=1
- Administrators can reset passwords on archived ID files for recovery

More information:
https://www.ibm.com/support/knowledgecenter/en/SSKTMJ_10.0.1/admin/vault_automatic_restart_id_sync.html

IDVault – Monitoring

- The new Query Vault (**qvault**) command scans ID Vault(s) and updates Person Document for each user with “VaultName” and “LastSyncTime”
  Activate this by using notes.ini parameter **IDV_Enable_Vault_Scan=1**

- To query and update IDVault info for all users → run **load qvault** on Server Console
  Scans all IDVaults found on the server under the IBM_ID_VAULT folder

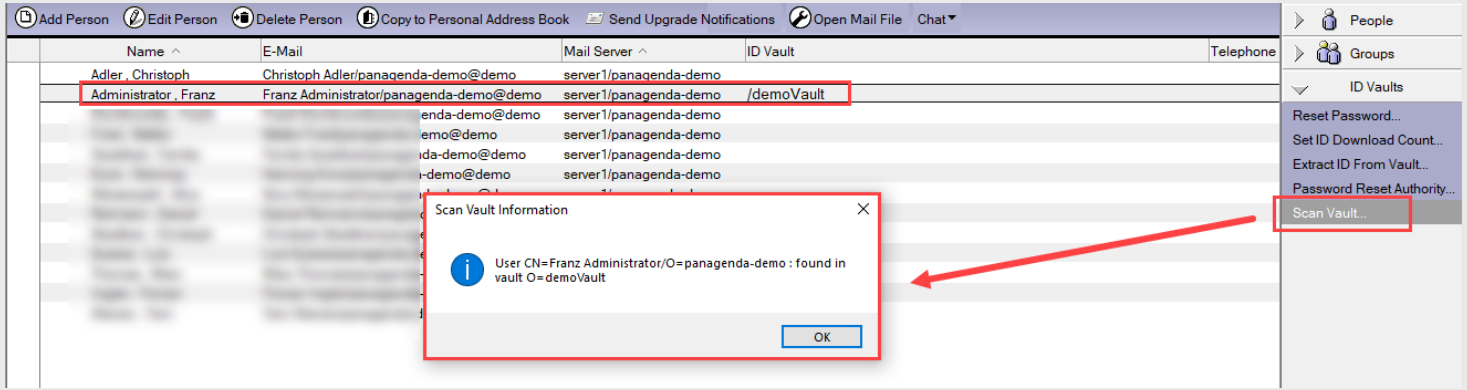
- Additional arguments/switches can be used to scan/update a specific vault and/or user

More information:
https://www.ibm.com/support/knowledgecenter/SSKTMJ_10.0.1/admin/vault_qvault_command_to_monitor_id_sync.html

IDVault – Monitoring (2)

```
load qvault

[05A8:0002-0568] QVR: Vault O=demoVault
[05A8:0002-0568] QVR:  User CN=Franz Administrator/O=panagenda-demo
[05A8:0002-0568] QVR:   Updated user CN=Franz Administrator/O=panagenda-demo
```



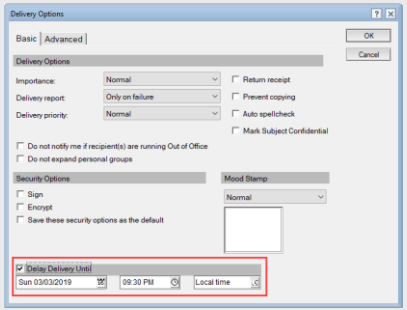
More information:
https://www.ibm.com/support/knowledgecenter/SSKTMJ_10.0.1/admin/vault_qvault_command_to_monitor_id_sync.html

Mail features – Scheduled Messages

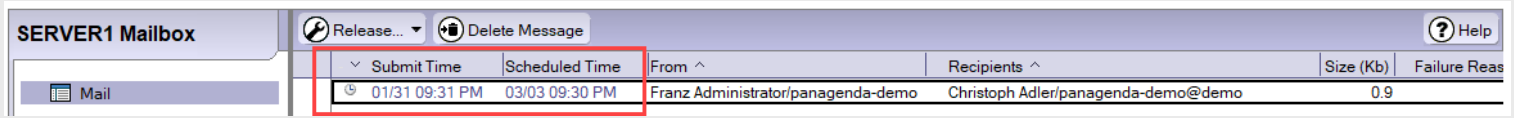
- Configured via Mail Policy

Delivery Options		How to apply this setting:	Inherit from parent policy:	Enforce in child policies:
Allow users to schedule when messages are delivered:	☑ Yes	☐ Don't set value	☐ Inherit	☐ Enforce

- Set using “Delivery Options”



- Mail remains in mail.box on Server until “scheduled time” is reached

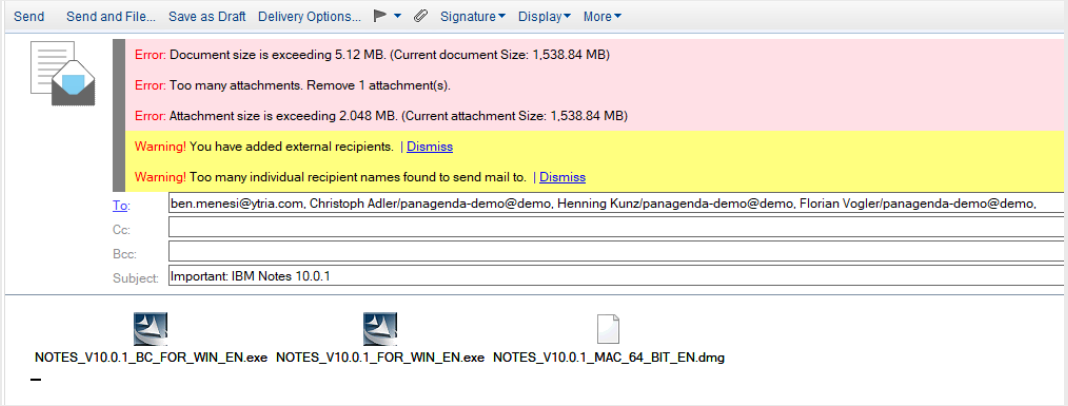


Mail features – Limits for sending mail

- Configured via Mail Policy

Set outgoing limits:	☑ Yes
Maximum document size:	5120 KB
Maximum number of attachments:	2
Maximum combined size of attachments:	2048 KB
Maximum number of individual recipients:	3
Internal domains:	

- Warnings and limits will be shown when the user clicks on “send”



Bonus

Why your Domino servers might have been using 30% more CPU recently – and how to fix it

- A new feature added in Notes 9.0.1 FP9 (still exists in V10) called “Delegated mail files are refreshed automatically“
  Even though the documentation states “Ask your administrator to enable this feature.”, the functionality is turned on by default

- When an end-user opens another user’s calendar, IBM Notes will automatically add some notes.ini entries
  DELEGATED_MAIL_FILE1=Christoph Adler_server1/panagenda-demo!!mail\cadler.nsf_1/31/2019
  DELEGATED_NEWMAIL_SEQNUM1=7

- Result:
  IBM Notes opens many different user mail files upon client startup and regularly thereafter

- Fix:
  Remove all **DELEGATED_*** entries in notes.ini
  Add **DEBUG_DISABLE_AUTO_REFRESH_DELEGATED_INBOX=1** to notes.ini to disable the feature

More information:
https://www.panagenda.com/2019/01/why-your-domino-servers-might-have-been-using-30-more-cpu-recently-and-how-to-fix-it/

Q & A

You can find the latest version of this slide deck here:
https://www.slideshare.net/christophadler50

Thank you!

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