

## Administration

### Inbox maintenance

- Server document or mail policy document
  - “Maintain inboxes based on policies”
- Server document overrides mail policy settings document
- Mail template mail8.ntf
- “Start executing inbox maintenance on” --> No day specified – not enabled
- “Start executing inbox maintenance at” --> default 00:01 am
- “Remove documents older than X days”
- “Maximum number of documents to remove per cleanup:” (def. 500)
- “Do not remove unread documents from Inbox”
- ADMINP\_VERBOSE\_POLL\_TASK = 1 --> Logging
- *tell adminp process mb*
- “Maintain inboxes for only these selected users on this home server”

### Out of Office

- Server configuration document / “Router/SMTP Advanced” --> “Out of office service type”
- type Service
  - after server and user mail rules are applied
  - after “before mail delivery” agents
  - prior “after mail delivery” agents
  - min. 1 hour
- type Agent
  - after server and user mail rules are applied
  - prior “before mail delivery” agents
  - executes 4 times a day

- delegate must have rights to sign agents in behalf of others in the Server document
- min. 1 day
- *tell router o*

### IBM CommonStore Archive Services (ICAS)

- casconfig.nsf --> created during ICAS installation process
- integrates through events4.nsf
- ICAS Web administrator URL --> aut. Added
- integrated with Domino administrator

### Web administrator Server Bookmarks

- Administrator – Add Server To – Web Administration Bookmarks
- Fields
  - Server name
  - Administration URL
  - Type of administration

### Domino and Portal Server federated administration

- Domino 8.0 & WebSphere Portal Sever 6.0 / 6.0.0.1 admin --> Portal Server administration interface (UI)
- embedded
- Install
  - Portal 6 Update Installer ( PUI ) tool
  - iFix patch ( in webadmin.nsf)
  - Enable the Portal server for federated administration
  - addfederation.xml
- Prerequisites

- SSO between Portal 6.0 and Domino 8

## Administration process

### Special purpose threads for specific administration requests

- Can be specified for a class of administration request / specific administration request
- Administration request's class is the request's time frame
  - immediate
  - interval
- Adminp threads
  - General purpose (“maximum number of threads” in Server document)
    - max 10
  - Special purpose (notes.ini, only for immediate or interval, NOT for daily, delayed or batched)
    - max. 10
    - ADMINP\_IMMEDIATE\_THREAD = X
    - ADMINP\_INTERVAL\_THREAD = X
  - 1 request dispatcher thread (1 and unmodifiable)
  - 1 polling thread for mail policy processing ( 1 an unmodifiable)

### Redefining time interval default for administration request

- notes.ini (preference over Server document, Config doc. in admin4.nsf, default settings)
  - ADMINP\_IMMEDIATE\_OVERRIDE = X,X,X
  - ADMINP\_INTERVAL\_OVERRIDE = X,X,X
  - ADMINP\_DAILY\_OVERRIDE = X,X,X
  - ADMINP\_DELAYED\_OVERRRIDE = X,X,X

## Administration preferences

- File – Preferences – Administration preferences
- “Automatically run in live console mode”
- “Open specific databases”

## Client Installation

### Customizing Notes installation using the install manifest

- deploy directory
  - INSTALL.XML (install manifest that list the Eclipse features to install)
    - determines the features the user sees on the installation process
  - “<installfeature”
    - default
    - required
    - show
    - id – not checked
    - name
    - version
  - PLUGIN\_CUSTOMIZATION.INI (set some Eclipse preferences)
  - updateSite (zipped)
    - SITE.XML ( registry of features that you want to expose for install )
    - features subdirectory – feature JAR files
    - plugins subdirectory – plug-in JAR files
- All features / plugins in an UPDATESITE.ZIP must be packaged in JAR files ( 1 per each)
- Published feature IDs must reside in SITE.XML

### Adding new features to the Notes install kit using a command line tool

- addtokit.exe

### Signing custom or third-party features and plug-ins for install and update

- Signed with a trusted certificate
- JAR signing
  - JAR signer tool in JDK
  - Plugin development Environment (PDE) in Eclipse
- Install time provisioning
  - UPDATESITE.zip
  - trust is based
    - Java keystore in “deploy” directory ( IBM code signing certificate )
- Runtime provisioning
  - trust is based
    - Notes keystore
- Signing and adding new features to the kit
  - Control
    - PLUGIN\_CUSTOMIZATION.INI
    - Security policy settings
    - keystore  
deploy\keystore.JCEKS.IBM\_J9\_VM.install  
( use KeyTool to modify)
    - .KEYSTORE is the only file that contains the IBM code signing certificate

### Using the PLUGIN\_CUSTOMIZATION.INI file to verify trust

- com.ibm.rcp.security.update/EXPIRED\_SIGNATURE\_POLICY = PROMPT
- com.ibm.rcp.security.update/UNSIGNED\_SIGNATURE\_POLICY = PROMPT
- com.ibm.rcp.security.update/UNTRUSTED\_SIGNATURE\_POLICY = PROMPT
- com.ibm.rcp.security.update/TRUST\_CERTIFICATE\_AUTHORITIES = true
  - used to trust CA in “JRE CACERTS” file
- ALLOW / PROMPT / DENY

### Using Domino policy to trust

- Policy takes precedence over plugin\_customization.ini
- options
  - ask the user

- never install
- always install

### Installing and updating custom and third-party features and plug-ins

- Options
  - Using the supplied manifest and update site
  - Using a traditional third-party installer after Notes installation
  - Enabling user-initiated update after Notes installation
  - Using a composite application and/or Notes update site after Notes installation.

### Enabling user-initiated update

- Activates *Eclipse Update manager*
  - File – Application – Install
- how
  - using policies
    - desktop policy settings
  - using PLUGIN\_CUSTOMIZATION.INI
    - com.ibm.notes.branding/enable.update.ui=true
    - overridden by desktop policies

### Creating and using a traditional third-party installer

- rcplauncher tool --> to prepare deploy/install.xml with the new feature

### Creating and using an NSF-based update site

- UPDATESITE.NTF
  - Actions
    - Import Local Update Site (used to import local Eclipse Update site/s)
    - Import Features (used to import individual features)
      - a new feature updates an old one or is a new one if name and version are different
    - Import database

- Update URL references ( for databases with content )

## Clusters

### Improving server availability in a cluster

- Server\_Cluster\_Default\_Port=*portname*
  - *if not included all ports are tried*
- Server\_Cluster\_Auxiliary\_Port=*portname*
  - *blank*
  - *\**
  - *list of ports separated by a comma*

### Streaming cluster replication

- Only R8 environment
- SCR activated
  - Activated when a db is open twice
- Don't send open db info
- SCR don't works one-to-one
- latency is immediate

## Databases

### Don't allow simple search

- Prevents full-text searches
- Database advanced properties

### About composite applications

- Components communicate each other
- Lotus components
  - View, Frameset, document
- Hosted
  - Domino 8
  - WebSphere Portal 6.0.

- Local
- Can be bookmarked
- NSF-based composite application support --> Lotus Notes apps ONLY
- Domino web apps --> DAP Domino application Portlet on WebSphere Portal
- Composite application Editor ( CAE )

### Configuring component update for composite applications

- Updated as Eclipse-based features
- Options
  - NRCP ( ONLY Domino 8)
  - HTTP/HTTPS ( Domino or other)
- Editing a Composite Application's feature requirements update site URL
  - Using the Composite Application Editor (CAE) RECOMMENDED
    - Actions – Edit application...
    - It modifies CA.XML
  - Configuring a composite application to specify and update site
    - Using Domino Designer
- Retrieving composite application definitions ( CA.xml) from Domino
  - NRPC://<server-hint-or-host>/<replica-id>/composite.xml?<param>=<value>
  - Websphere portal and composite applications
    - Using *Home Portal Account* in Notes
  - *WebSphere Portal composite application support for Lotus Domino* on the WS Portal Server

### Preventing incorrect system time changes

- Notes.ini
  - Last\_Domino\_Time=
    - Shutdown time
    - Restart time
    - Manual updating
    - Automatically updated
    - If deleted, no problem restarting
  - Restart\_Time\_Interval=
    - default 3600

- Restart\_Time\_Action=
  - 1 – cancel restart
  - other -normal start. OS time used
- Reset\_Time\_Interval=
- *Set System time*
  - Overrides Reset\_Time\_Interval

### Redirecting client references to databases

- .nrf
- Redirects used by
  - workspace
  - bookmarks
  - replicator
  - resource links
- Redirect NOT used by
  - LS
  - Open application dialog
- Database redirect without references
  - client deletes the reference

### Allowing database design compression

- Enabled by default in MAIL8.NTF
- Use compact copy style to compress
  - load compact -c filename
- ODS 8
  - Create\_R8\_Databases = 1

## Domino Directory

### Limiting directories to authentication-only lookups

- DA document
  - "Group authorization" - Yes
  - "Use exclusively for Group Authorization or Credential Authentication" - Yes

# Domino Domain Monitoring

## Server Probes

- Subtypes
  - Administration
    - Monitor whether selected administration request run ( selected by the admin)
    - report requests that fail
  - WebSphere Services
    - monitor protocol request are being processed by a WS server

## Directory probes

- New LDAP Search Response type

## Administration probe

- Automatic Report Closing subtype
  - "Number of days remaining"

## Resolving an event

- [ExecuteCA]
  - see the corrective action
  - access the link associated with the corrective action

## Event -related documents

- Modular documents
  - Probable cause
  - Possible solution
  - Corrective action

## Using the Server and Adding Task Event document

- Information in the Server and Addin Task Event document stored as (in EVENTS4.nsf)
  - Lotus entries ( new in R8 to replace Stock Entries)

- Custom entries
- Stock entries
  - pre-Domino 8 entries

# Messaging

## Setting up message recall

- **Router** makes the recall at the original recipient's mail server
  - Using server ID
- Any domain
- Server Configuration document
  - "Do not allow recall of messages older than "
  - only unread / both read and unread
  - weeks / days / hours / minutes
- Mail policy document
  - overrides Configuration document values
- Default values
- Recall reports
  - recall request time and date
  - number of responses received
  - doc link
  - table summary
    - intended recipient name
    - recall status
    - server name
    - failure reason / message status
- Mail trace report ( pre Domino 8 servers )

## Specifying a reverse-path setting for forwarded messages

- User mail route "send copy to"
- Configured
  - Configuration settings document
    - Set reverse-path to null (default)
    - Preserve existing value
    - Use recipients Internet Address
    - Construct non deliverable return address
      - nobounceusuario@domino.com
- NOTES.INI

- RouterUseRuleForwardReversPath

## Defining the maximum error limit before a connection is closed

- 421 SMTP service not available, closing transmission channel.
- Configuration settings document
- "Inbound Connection Controls" section - "Error limit before connecting is terminated"
- NOTES.INI
  - SMTPErrorLimit = n (number of protocol errors allowed)

## Resolving directory lookups containing ambiguous names or group names

- NOTES.INI
  - SMTPDenyNotUniqueRcpt=
  - SMTPDenyMailToGroups=
- Configuration settings document
  - Inbound Intended Recipient Controls section - "Verify that local domain recipients exist in the Domino directory"
    - Reject ambiguous names
    - Deny mail to groups
- Error 554 returned

## Using mail journaling to determine intended message recipients

- Message journaled (before group expanding takes place)
  - contents of SendTo, CC, BCC captured
  - message recipients not captured
- recipient Journaling feature
  - expands groups
  - multiple copies of the same message journaled
  - \$JournalRecipients -> original recipients
  - \$JournalExpandedRecipients\_n --> group expanded recipients
- Configuration settings document
  - "Journal Recipients" --- Enable

- Delivery Status Reports are also journaled

### Defining when to send transfer and delivery delay reports

- Server Configuration – Router/SMTP – Restrictions and controls – Transfer Control Tab - “Delay notifications”
- For high and normal priority
- def. 4 hours, to be count for PENDING mail
- not exactly as defined , but overridden by “Expired message purge interval”
- router restarted, several delay messages could be sent per message / per recipient
- Not sent if
  - another delivery status notification is pending ( success, failure, relay)
  - SMTPOriginator is <>
  - message is a TraceReport
  - message is a Return receipt
  - DeliveryReport setting is set to “N”
  - SMTP client requests Failure / Success report explicitly
  - DeliveryStatusReport item exists and its value is different from “D”. ( N for never, SF for success or failure )

### Converting TNEF file attachments to Notes file attachments

- Transport Neutral Encapsulation Format (TNEF)
- winmail.dat – the Exchange server sends the RTF content encapsulated
- TNEF converter runs on a Domino SMTP Server
- TNEFEnableConversion = 1
- S/MIME signed messages not processed by default ( and only clear signed messages)
  - TNEFBreakSMIME = 1
- S/MIME encrypted messages cannot be processed
- extracts contents and attaches them to the RTF

### HTML rendering for mail

- only for reading
- IE in Windows

- Mozilla in Linux
- Safari in Mac
- BrowserRenderDisable = 1
- applicable through desktop policy

### Enabling SMTP outbound authentication to relay hosts

- Configuration settings – Router / SMTP basics - “Use authentication when sending messages to the relay host”
  - Required
  - Enabled
  - Disabled
- Configuration settings doc. must be encrypted

## Domino Web Access

### Registering IBM Lotus Domino Web Access Users

- “Domino Web Access Mail” option on registering a user
- Doesn't create an ID file by default
- Set a mail quota to enable “Mail Usage Indicator”

### Using policies with Domino Web Access

- Security policy settings applied to Domino Web Access users
- Options
  - Allow users to change Internet password over HTTP
  - Update Internet Password when Notes Client Password changes
  - Enforce password expiration
    - recognized by HTTP, but not by POP or LDAP
  - Required password quality
  - Use length instead
  - Change password on First Notes Client Use
  - Warning period

### Enabling RSS feeds for Domino Web Access

- Activable for Inbox folder

- User name and password feed
- If form-authentication is enabled --> Feed readers won't be able to access
- Notes.ini
  - Type of protocol
    - iNotes\_WA\_Feeds=rss / atom / rss,atom
  - Protocol used
    - iNotes\_WA\_FeedsSecured = 1 (default) --> only HTTPS
      - 0 --> HTTP
  - Protocol used if iNotes\_WA\_FeedsSecured = 0
    - iNotes\_WA\_FeedsProtocol=http
    - iNotes\_WA\_FeedsProtocol=https
    - iNotes\_WA\_FeedsProtocol= (default)
  - Authentication for feeds
    - iNotes\_WA\_DisableForceBasicAuthForFeeds= 1
    - iNotes\_WA\_DisableForceBasicAuthForRSS=1
    - iNotes\_WA\_DisableForceBasicAuthForAtom= 1

### Setting Domino Web Access with Sametime

- Domino 8 -> new Contact List instead of Sametime Connect
- iNotes\_WA\_SametimeProtocol
  - to determine the protocol that DWA will use to connect to Sametime
- Configuration settings document – Domino Web Access tab – Instant Messaging
  - “Prefer DWA Contact List”
- SSO needed

### Event handler notification methods

- New notification method. “Forward event to Tivoli Enterprise Console”
- Configuration settings document
  - Tivoli Enterprise Console Settings
    - Enable logging to Tivoli Enterprise Console
    - IP
    - Port: 5529

## Monitoring

### Forwarding an event to Tivoli Enterprise Console

- Event handler must Send to Tivoli Enterprise Console
- Configuration settings document must enable logging to Tivoli Enterprise Console
- Event task must be active
- Tivoli configuration
  - tec.baroc
  - DOMINO.baroc

## Policies

### Controlling individual desktop and mail policy settings using the How to Apply setting

- in Desktop and Mail policy settings documents
- All policies are deployed dynamically but Mail policies (administration process)
- “How to apply” options
  - Don't set value
  - Set initial value
  - Set value whenever modified
  - Set value and prevent changes

### Creating an activities policy settings document

- Activities server URL
- Activities server port
- SSL encrypt username and password
- SSL encrypt all Activities data

### Creating a productivity tools setting document

- Allow users to run macros
- Allow IBM Productivity tools
- Open MS Office templates with IBM productivity tools
- Open SmartSuite Templates with IBM Productivity tools

### Setup policy settings documents

- Absorbed by desktop policy settings document

### Replication settings

- Included in Desktop policy settings document

### Security policy settings document

- Some of the options are supported by DWA
- Options
  - Passwords
  - customized password policies
  - Password lockout
  - set up key rollover
  - administration ECLs
  - Signed plug-ins
  - Home portal server
- New
  - Internet Password lockout settings
    - “Override server's Internet lockout settings ?”
    - Maximum tries allowed (def. 5)
    - Lockout expiration (min / hours / days ) 0--> no automatic expiration
    - Maximum tries interval (min / hours / days )
      - Longer protection strength for greater security
  - Enabling OCSP checking ( used by the client on S/ MIME signature verification and encryption)
    - Default OCSP responder
    - Allowable clock skew
    - Permitted Certificate Status
    - Level of detailed in the client Log
  - Configuring signed plug-ins
    - Installation of plug-ins that are expired or not yet valid
    - Installation of unsigned plug-ins
    - Installation of plug-ins signed by an unrecognized entity
  - Configuring Portal Server settings
    - Home portal server
    - Authentication URL (used for J2EE Form)

- Authentication type
  - J2EE Form
  - HTTP, for web based authentication

## Security

### Certificate authority key rollover

- New set of public and private keys can be assigned to a CA
- New type of certificate: rollover certificate
  - Issued by an entity to itself
  - Single name + two subject keys
  - When a key is rolled over --> 2 rollover certificates are issued
    - 1 signed by the old key
    - 1 signed by the new key
  - Necessary for limiting the expiration dates of certificates issued to the older keys.
- The process
  - Affects all the organization
    - all user IDs , server IDs , cross-certificates
  - Top down process
  - Needs R8 clients
  - Steps
    - Assign a new key pair to the certifier
    - roll over server ID
    - roll over user ID
    - re-certify cross-certificates

### Internet password locking

- Threshold value for Internet password authentication failures
- subject to DoS attacks
- Don't affect DOLS
- Only affects HTTP
- If the password is in a LDAP server it works
- For SSO , IPL must be enabled in the sever that issues the single sign-on key

- inetlockout.nsf
  - created automatically on startup and feature
  - lockout status + number of failed attempts + user name
  - DDM maintains login failures
  - If changes, NOT need to restart HTTP
  - Views
    - Locked Out Users
    - Login failures
      - Fields: Server name, user name, locked out , failed attempts, first failure time, last failure time
  - Record deletion unlocks user
  - No automatic cleanup
  - Replication disabled by default
  - always same ID on all databases
- Server configuration settings document – Security – Enforce Internet Password lockout
  - Log Settings: Lockouts / Failures
  - Default maximum tries allowed
  - Default lockout expiration ( if 0 not lockout will expire automatically )
  - Default maximum tries interval ( time password attempts are retained before they can be cleared by a successful authentication. 0 --> every successful login clears all failed password attempts)
  - Overridden by Security policy settings doc.

## Encryption

- 4096-bit RSA keys for Lotus Notes & Internet certifiers
- 2048-bit RSA keys for user and server certificates
- 128-bit symmetric keys for S/MIME & SSL

## Recertifying or renaming users Ids by organization

- Certification Expiration view
  - Actions
    - Recertify selected people
    - Rename selected people
      - Upgrade to hierarchical
      - Change the user common name
      - Request to move to a new certifier

- Add Internet certificates

## Support for LTPAToken2 format

- Introduced in WS server 5.1.1
- Improves security for SSO deployments

## Server

### Updating the design of an enabled agent

- in R8 no disabled nor stopped
- Preserves the identity of the agent owner in the “On behalf” field and re-signs the agent with the server ID
- Enabled status preserved if
  - original agent owner has rights
  - agent is scheduled to run on the server where the design update happens (-any server- option disables the agent)
- if not --> server console //DDM error message

### Using the Domino Server with a trial evaluation license

- 60 days

### Running the Domino Portal Integration wizard

- Domino Portal Integration (DPI)
- Integrates Domino 7.x > with Portal Server
  - Domino & Extended Products Portlets
  - Common Mail
  - Common Calendar
- Prerequisites
  - WS Portal 6.0
    - With Domino LDAP - Not clustered
  - Domino LDAP server configured for WS Portal 6.0
  - Behind same Internet Security Firewall – same Internet Domain – same Domino domain (for Domino servers)

- To run DPI wizard, be Administrator in NAMES.nsf where LDAP is enabled
- Actions
  - Creates a new Web SSO
- Running DPI wizard
  - dpiwiz.bat
  - logs -> dpitasks.log

## Domino and DB2

### Setting and enabling a default DB2 user ID for use with query views

- Used for query views accessing --> instead of DB2 User mapping
- When used Domino verifies
  - the default user name is not the same as the Domino server user name--> Error and user mapping used
- If several notes users are mapped to the same DB2 user name --> Error
- Server document – DB2 tab - “Default user for query views”
- Tools – DB2 Server – Edit Db2 Default User
  - User name
  - Use default query view on this server
  - Restart server or wait to adminp process to do its job

### Moving a DB2 container to another disk

- “Move container” feature enabled when a DB2 Group is selected
- If remote configuration --> DB2 Access server must be installed
- Tools - DB2 Group – Move Container

### Recreating links to DB2 enabled Notes databases

- reconnect DB2 enable databases to the Domino Catalog
- create a link for DB2 enabled db in the DB2 tablespace
- updates Groups table

- verifies that the entries in the catalog exist in the tablespace
- removes entries not found in the tablespace
- Select group & Tools – Database -Recreate links to NSFDB2 databases
  - “This tool will reconcile NSFDB2 databases stored in the group with the Domino catalog. Do you want to continue ?”

### Compacting DB2 groups

- lo compact -g <filename> // ncompact -g <filename> (.ind file can contain a list of directories)
- lo compact -G <groupname>// ncompact - G <groupname>
- -g
  - copy-style compact on a DB2 group associated to the filename
  - new DB2 group and new DB2 tablespace container
  - compacts the data
- -G
- idem
- -B
  - could also be used -> no copy-style

## Server commands

### DB2 console commands

- DB2 Access Authname <user name>
  - tells the user name used to execute Query Views
- DB2 Group Runidxstats <Group Name> [Table Name]
  - Updates index statistics
- DB2 Group Runstats <Group Name> [Table Name]
  - Updates tables statistics
- DB2 Group <Group Name> [Table Name]
  - lists the physical storage allocated to tables in the group
- DB2 Group Summary <Group Name> [Table Name]
  - lists the physical storage allocated to tables in the group
- DB2 Group Tables <Group Name>
  - list all the tables associated with the DB2 Group
- DB2 Test
  - Creates a connection with the domino server DB2 user

### New Domino console command enhancements

- Show stat platform ( for W32)

- per-process virtual memory statistics
- new disk i/o statistics
- Show stat vm ( for W32)
  - monitors performance of physical and virtual memory

### Other commands

- tell adminp process mb
- tell adminp server restart
- tell router O

## Web Server

### HTML generation options

- To control the behavior of the Domino Web engine
- \$\$HTMLOptions

### Improving performance for upload of file attachments

- DominoMultiPartPostBufferSize=<n>
  - numbers of MB to allocate to the memory buffer