
Migration to Domino for AS/400

Topics for Consideration

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Chapter 1

Introduction

Purpose

The purpose of this document is to provide considerations and planning information for a smooth, successful migration to Domino for the AS/400 from other Domino servers or other office systems. Since each migration is unique the topics covered are not intended to be an all inclusive list.

It also is not the intent of this document to:

- w Discuss reasons why one should consider a Domino for the AS/400 implementation.
- w Differentiate between different types of Domino servers.
- w Provide performance information.
- w Address price competitiveness of AS/400 versus other implementations.
- w Address new installation of Domino servers when no office system or Domino/Notes server previously existed.

Terminology

There are several terms which are used in both the Domino and AS/400 worlds but mean quite different things. I would like to clarify those here.

Term	AS/400	Notes
Application	Often thought of in terms of Line of Business solution.	Often used synonymously with database.
Database	Relational or structured fields, rows, columns, files.	Collection of related unstructured information which can be viewed in various ways via various forms.
Document	Text which can include images such as logo, signature, graph and merge with AS/400 data.	Collections of text, images, files, voice, video clips, screen cams, doc links to other databases or web sites which are included in the rich text area of documents.

Maintenance	Hardware support.	Software - new versions/releases. New Lotus nomenclature is Software Subscription.
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Major Migration Considerations

Skills

A skill set in multiple areas is invaluable in order to facilitate the migration. Strong familiarity in both the hardware platform to be migrated **from** as well as the hardware platform migrating **to** will be most helpful in addition to the following skills:

- w Domino Server Administration.
- w Notes application development.
- w TCP/IP.
- w AS/400 system functions.
- w Integrated PC Server (IPCS), if part of the present installation.

General Questions

- w AS/400 capacity to absorb the server workload or system upgrade in plan?
- w Changes in the organization's skill needs due to migration?
- w Differences in administration due to migration?
- w Consolidated administration due to potential reduction in number of servers to manage?
- w New functions available on Domino for AS/400 server that weren't available on other stand alone servers?
- w Use of IBM, Lotus, or Business Partner Services for migration and/or application development or re-engineering ?

Chapter 2

Migration Project Management

General Comments

Good Project Management guidelines apply to a migration to Domino for AS/400. Completing a smooth, successful migration with minimal disruption will not happen overnight and probably not over a weekend. Large multi-site organizations may plan in terms of months or years.

The following are general recommendations:

- w Ensure the project has Executive Sponsorship.
- w Request a full time or dedicated Project Manager.
- w Develop and document the Project Plan with entire Project Team.
- w Plan for the unexpected (Change Management).
- w Communicate the progress to the organization.
- w Train the support staff and users.
- w Celebrate the completion.

Sponsorship

Independent studies of Project Management successes and failures indicate that lack of Executive Sponsorship is the number one cause of projects that fail. The Project Team should include Corporate decision makers, Administrators, Architects, Support Staff, Trainers, and perhaps key Users.

Project Manager

Second only in importance to Executive Sponsorship for a successful and timely migration is a full time Project Manager. The Executive Sponsor should understand the importance of this role and agree to this commitment for the duration of the project.

There may not be sufficient resources in house to fill the role of a dedicated Project Manager. If not, a qualified IBM Project Services person or Business Partner should be engaged to fill this role.

Project Planning

Develop the plan with the entire Implementation Team, or at the least, representatives from each group. Doing this encourages critical “buy-in” to the project as well as gaining first hand information necessary to the project..

The plan will be driven by either or both of the following:

- w Time (deadline by which migration must be completed).
- w Money (allocated to project or savings to be achieved).

Each migration has some unique qualities. The items that follow are not in any way to be construed to be a complete or all inclusive list. However, they are items that should be considered in order to determine if they fit into the current migration project plan.

Scope

Make sure the plan has a start and end time, and outlines a definitive, measurable goal to be achieved.

Coexistence Plan

Migration of a large number of users to Domino for AS/400 most certainly will require a coexistence strategy between the present environment and Domino for AS/400 for some period of time. Questions that beg answers are:

- w Between what?
- w For how long?

Domino’s SMTP MTA may be sufficient to facilitate mail exchange during coexistence. However, a Gateway or Switch may be required depending on the answers to these questions and the volumes encountered.

If mail is being sent between OV/400 and Domino for the AS/400, the Anymail framework routes the mail internally (OV<->SMTP/MIME MTA <-> Notes). To send or receive mail via the Internet or POP3 users, this MTA also will be required.

Consolidation of Servers

If there are a number of Domino servers in existence on other platforms (personal computers or IPCS, for example), consolidation of these servers onto a Domino for AS/400 server or servers may be advantageous. Consolidation of Domino servers onto the AS/400 should substantially reduce the network workload for replication because of fewer copies of the data. However, appropriate sizing of the AS/400 must be part of the plan.

If the decision is to consolidate small servers into one or more larger server, duplicate databases and duplicate user ids should be identified and appropriate changes or deletions made prior to migration.

If the decision is to migrate multiple servers and keep much of the administration identical to the previous environment, consider taking advantage of the partitioning function available as part of the Domino for AS/400 Advanced Services. The AS/400 will support up to 16 partitions. If the migration is from other Domino servers that support partitioned servers, the use of the partitioned servers on the AS/400 might be the logical choice.

Duplicate Databases

If there are multiple Domino servers already installed and to be migrated, the following questions need to be considered:

- w Are there duplicate databases?
- w Are there duplicate database names?
- w Do the potential duplicate databases contain identical information?

If all copies of a database are identical, replication of one of the duplicate databases is all that is required. If the data is different, options are to:

- w Rename the duplicate databases and change all the associated applications.
- w Use the partition server function of Domino for AS/400 and replicate each external server to the AS/400. The AS/400 accommodates configuration of up to 16 partitions. Thus, 16 servers could be moved to the AS/400, 1 for 1.
- w Modify the replication details.

Duplicate User Ids

Just as in preparation for a household move, sorting out what is no longer used prior to moving is much more efficient than moving everything; then performing cleanup. When consolidating servers, elimination of duplicate names, user ids and group names prior to the migration is recommended.

If there are 2 John Jones or Mary Millers, changing one of their names requires changing entries in Name and Address books, cross certification, database access, and mail folders, so they may have access to everything they are authorized and accustomed to using.

Redundancy

If you are migrating only one Domino server to Domino for AS/400, redundancy is not a migration consideration unless you have the same data in DB2/400 and a Notes.nsf file. If this is the case, consider whether you want to leverage the direct access to DB2/400 data that Domino for AS/400 provides through the LS:DO interface or Application Programming Interfaces. If you choose to take advantage of this type of interface, duplicate data in the .nsf database may be eliminated by updating Notes applications that use this database.

Changes or enhancements to applications such as this can be done as part of Phase 2 or a later phase of the migration plan. Coding examples of LS:DO interface are in a Redbook entitled "Lotus Notes Release 4.5: A Developer's Handbook

(SG24-4876). For more information on HiTest, C, C++, APIs or LSX, see the Lotus Developer Central Web Site (<http://www.lotus.com>). Click on Communities and then Developers.

Redundancy may be a design feature of the Migration Plan for purposes of backup, safety net, or 24 hour access.

Distributed Environment

Another point to consider is whether all previous Domino server databases should be moved to Domino for AS/400. Quite possibly the plan may need to encompass a mix of Domino servers. Domino databases that integrate with DB 2/400 data and the Domino master Name and Address database could reside on the Domino for AS/400 server while databases unique to a location or users' mail files might be loaded on other geographically placed servers.

Protocols

Domino for AS/400 requires that TCP/IP be configured on the AS/400. (TCP/IP is included at no additional charge in OS/400 .) If the Domino server environment being migrated uses TCP/IP, then protocols will not be a migration consideration. If the Domino server environment being migrated uses other than TCP/IP protocols, consider building your new server domain using TCP/IP.

Moving Notes clients all at one time would be ideal but probably not possible. Coexistence temporarily or indefinitely in a multi-protocol environment may be accomplished by using a passthru server. The role of this passthru server is to move mail and replicate between servers using different protocols.

Server protocols supported by platform:

- w AS/400 - TCP/IP.
- w S/390 - TCP/IP
- w OS/2 Warp - TCP/IP, NetBIOS, Netware IPX/SPX, X.PC, AppleTalk, Banyan VINES.
- w UNIX and AIX - TCP/IP, NetBIOS, Netware IPX/SPX, X.PC.
- w Windows 95 - TCP/IP, NetBIOS, Netware IPX/SPX, X.PC, Banyan VINES.
- w Windows NT - TCP/IP, NetBIOS, Netware IPX/SPX, X.PC, AppleTalk.
- w Macintosh System 7 - MacTCP, Appletalk.

Tools

Tools are generally unique to each software platform on which Domino and Notes runs. The AS/400 provides a rich set of tools with its operating system which are unique to the AS/400. NT has its own performance monitoring tool. Microsoft's SMS administration tools distribute updates to clients on a scheduled basis. Each installation plan needs to map its existing tools being used to the tools available on the AS/400.

Event Logging

Event logging is important in migrating servers to Domino for AS/400 only in that one has to use the event log from the server being off-loaded to understand the current status of replication and event failures at the time of migration. Event logging enables one to verify that databases are current through replication and ensures that an "up to date" database is replicated to the AS/400.

From an administration standpoint, one must understand that each platform has its own place to log messages and status. For example, NT logs its status to an NT Event log. If the base operating system is monitoring the platform's file for events, that system or user application needs to be updated for the AS/400 implementation.

Changes and Communication

Changes to the plan may result in delays. Proactive communication may save needless phone calls and ill feelings. Most people will accept the news of a delay without complaint, if they understand the reason.

Keeping the organization abreast of the plan's progress is an excellent strategy for a successful migration. Users impatient to migrate or apprehensive about using a new system will appreciate knowing the status and will feel more a part of the plan rather than a victim of it.

Be certain to build some empty time slots into the plan to accommodate these unexpected changes or minor setbacks. Ensure that the Corporate Sponsor agrees with the project timeline. Avoid being pressured into unrealistic objectives involving either time or money.

Training

Critically important to any migration project is appropriate training of all types of users to any new programs, applications, functions, or roles. The Domino Administrator has a key role and needs to have adequate AS/400 system management skills as well as strong Domino Server Administration Skills.

If the migration is from other Domino servers, differences will be minimal and primarily in the area of Administration and Application Development. Former Notes users may not perceive any difference.

Administrators will be able to manage more users from a single server from either the AS/400 screens or from Operations Navigator screens that interface with Domino.

Notes application developers can take advantage of more direct access to DB2/400 data files. AS/400 application developers can take advantage of graphical, client server presentation of AS/400 data. Data will flow bi-directionally, if required, between Notes and AS/400 easier than with the IPCS implementation. IPCS uses Data Propagator to shadow from AS/400 to Notes and provides an exit to allow a custom program to be written to send data from Notes to the AS/400. LS:DO and

APIs such as HiTest, C, or C++ enable “real time” access to AS/400 data. SQL imbeds can be put into a document in a Notes database.

For users migrating from other office systems such as OfficeVision/400 or JustMail, “Just in Time” training would be desirable. Decisions regarding how to deliver training, when, and by whom need to be worked into the project plan. Training for Domino/Notes Administrators and Application Developers will be much more extensive than for Notes users. The Project Team may need to develop handbooks or reference guides specific to the organization, department, and/or type of Notes client. These handbooks might include instructions on using Lotus Notes databases or applications specific to the user’s own department.

Training may be selected from one or more of the following:

- w Lotus Certified Business Partners .
- w Lotus Certified in-house staff.
- w Computer Based Training .
- w Video or audio.
- w Self study manuals .

Training needs to be tailored to the type of Notes client as well as the group:

- w Designer (can develop Notes applications or databases - includes using applications, mail and calendar)
Note System Administrators and Support or Help Desk staff typically will use Designer clients although their primary roles will not be development of applications.
- w Desktop (can use applications - includes mail and calendar) .
- w Mail (mail and calendar only - no application databases) .
- w Browser (mail and calendar only) .
- w e-Suite (Network Computer or Server Based Java implementation of Notes).

Celebrate

Rather than waiting to celebrate the completion of the entire project, it is recommended that “milestones” or target points be set in the plan. Celebration of the completion of a department’s migration or an application launch are examples. Migration can become a tedious, lengthy process. As the saying goes, it’s much easier to eat an elephant if you bite off small chunks at a time. Break up the plan into manageable pieces to avoid the sense of an enormous, ominous, and overwhelming effort.

Chapter 3

Migration from ? to Domino for AS/400

OfficeVision/400

OfficeVision/400 to Lotus Notes Migration Tool

A Migration Tool for OV/400 users has been developed by IBM to transfer the user's primary folder and calendar, directories, nicknames, and distribution lists to Lotus Notes. The OfficeVision/400 to Lotus Notes Migration Tool is used by the Migration administrator to migrate users in batches that can range from a single person to thousands of users. When invoked it retrieves a control record from the Domino Migration Engine which defines which users have been registered and are ready for migration.

The administrator can modify the record to stage the migration in phases that suit the organization. In addition the administrator can restrict the amount of data being migrated for both document and calendar items by start and end dates.

Using the features of OS/400, the operation of the IBM OV/400 Migration Tool for Lotus Notes can be scheduled to run off prime shift and unattended, if desired. The Migration Tool can be installed on an NT or OS/2 PC server, the IPCS server, and late 1998 on Domino AS/400 server.

The Migration Tool uses the Domino Migration Engine common to the other OfficeVision platforms (OV/VM and OV/MVS) as well as some other host messaging environments such as MEMO. The administrator manages the migration process which:

- w Sets up a migration information database in the Notes environment which will hold information about users being migrated, the migration schedule, and status.
- w Exports user identity data from the OfficeVision/400 environment and imports it into the migration information database and into the organization's name and address book database in the Notes environment.
- w Performs a Notes user registration of each OfficeVision user, sets up the following databases for each user:
 - P Incoming Mail includes the user's primary calendar and folder as database "views".

- P** Outgoing Mail.
- P** Personal address book.
- w** Imports each OfficeVision user's primary mail and calendar contents, distribution lists, and nickname lists into the appropriate Notes databases (after the administrator has exported these items from the OfficeVision/400 environment).

They map to Notes in the following way:

- w** Primary folder only (no sub folders) to Notes mail as ascii flat text.
- w** Primary calendar only to Notes calendar view in Notes mail database.
- w** Directory entries to Notes Local Name and Address Book as person documents.
- w** Nicknames to Notes Local Name and Address Book as aliases.
- w** Distribution lists to Notes Local Name and Address Book as groups.

Enhancements to the OV/400 Migration Tool under discussion and/or development:

- w** Migration of sub folders.
- w** Migration of resource calendars.

Migration of OV/400 RFT documents to AS/400 Domino.doc storage.

Migration Tool Considerations

Determine whether the Migration Tool for AS/400 will move the required data or will some OV/400 user ids have to be retained for a period of time until comparable functions can be developed or enabled on a Notes desktop. The biggest differentiators probably are in the Word Processing and Calendar functions. Understand whether any of these OV/400 word processing capabilities are employed:

- w** What is stored in the user's primary folder (usually the same name as the person's user id)? Is it where the mail is located or is the primary folder storing word processing documents? At this time the tool migrates the documents only in the user's primary folder, and they come over as ascii text files.
- w** Must some provision must be made for migrating OV/400 word processing documents to Notes or a Personal Computer word processor (preserving as many of the formats as possible)? There are several business partners listed here with their web sites who do document conversions:
 - P** ReSoft (KEYpak, KEYview) --
<http://www.re-soft.com/product/convertr.htm>

P Pembroke (Notes: ID, Document Transform Server, Document Conversion Manager) -- <http://www.pembroke-int.com>

P Inventive Designers (EverGreen/400) -- <http://www.inventivedesigners.be>

Note Another consideration may be to make the OV/400 documents accessible to the Notes users. Another business partner provides this solution :

P Typex (Bluenotes) -- <http://www.typex.com>

- w Do documents use OV/400 power instructions such as set variables, conditional text, include, and/or merge with files or queries? If so, the alternatives are to keep enough OV/400 userids to continue using them and/or re-engineer them in Notes, if appropriate, utilizing SQL imbeds, NotesPump, etc.
- w Are Form Field documents being used? They will be a problem during coexistence. Notes provides a workflow template that lends itself easily to design forms to route for approval. However, the OV/400 form cannot be utilized by the Notes user; nor can the Notes form be utilized by the OV/400 user, when one is sent (routed) to the other.
- w Is OV/400 being used to store large documents of manuals or procedures? These are excellent candidates for a Notes database. However, plan how you will keep the 2 formats in sync during coexistence.
- w Are company "Bulletin Boards" being created with OV/400? Again, a good Notes application candidate, but plan for the coexistence period.
- w Is there any integration of OV/400 with business applications, such as "mail enabled" applications? An example would be that from an accounts payable screen the operator selects an Option or PF key that automatically generates a letter based on the account information with which they are working. Notes can provide input to or receive input from AS/400 applications, but re-engineering will be required. NotesPump may be a great help.
- w Is Facsimile Support/400 in use, so that the user has the OV/400 option to fax a document or note, as well as print or send it? If so, it is possible to fax to/from Notes using Facsimile Support/400, but some setup will be required. Step by step instructions are in Appendix A of the AS/400 Installation , Configuration, Administration redbook (IBM order number SG24-5181/Lotus Part Number AA0964.

Lotus Calendar Connector for OfficeVision (LCCOV)

During the period of migration from OV/400 to Notes, there may be a need to schedule meetings with groups or individuals on the dissimilar calendars. IBM/Lotus developed Lotus Calendar Connector for OfficeVision (LCCOV) to facilitate calendar coexistence. LCCOV might best be described as a calendar gateway. From either OV/400 or Notes, one can initiate a free time search of a mixture of IBM's OfficeVision and Notes users' calendars.

LCCOV, when installed on an NT or OS/2 PC server, can provide free time search scheduling not only between OV/400 and Notes, but also Time & Place/2 (LAN), OV/VM and OV/MVS calendars. Late 1998 or early 1999 LCCOV will be installable on Domino AS/400. However, the AS/400 implementation will provide interoperability only between OV/400 and Notes calendars.

If the organization is using the OV/400 calendar in any of the following ways, it may be desirable to retain these functions on OV/400 until an adequate alternative is available .

- w Resource scheduling of conference rooms, company cars, projects, Audio Visual equipment. Notes has some resource scheduling capabilities which will become more robust in a future release of Domino/Notes. LCCOV is not yet equipped to resolve Resources on multiple platforms. Resources should reside all on OV/400 calendars or all on Notes calendars for the coexistence period.
- w Running jobs without manual intervention from programs on OV/400 calendar.
- w Setting up User Defined Functions to be accessed from the calendar. (Look at these as the first candidates to be moved to Notes agents type of functions.) Examples are linking to a To Do list from the calendar or calling a program that puts stated holidays (updated yearly in a file) onto the calendar for the current year. User defined functions are found on the “More Calendar Tasks” screen.

SLNC, a Migration/Coexistence Tool for OV/400

OfficeVision support for Lotus Notes Client (SLNC) first was designed as a self migration tool but might be considered more of a transitional solution. The primary differentiators between the Migration Tool for OV/400 and SLNC for OV/400 are:

- w OfficeVision/400 becomes the quasi Domino/Notes server for this client.
- w LAN connection is not required between OfficeVision/400 and Notes Client.
- w Multiple folders may be downloaded to the Workstation Notes Client.
- w Mail and calendar items still exist both on the Workstation and in OV/400 until after the migration occurs and files are purged or archived off of the AS/400.
- w SLNC provides OfficeVision/400 support for the disconnected or mobile user.
- w No batch processing for the actual migration.
- w Other Domino/Notes application databases may be accessed by a SLNC Client. Requirements are:

- P An additional location document to switch to when accessing these application databases.
- P LAN connectivity between the SLNC Client and a Domino server.

The Notes client of choice is installed on the user's workstation. SLNC code is then installed on the workstation, and a piece is file transferred to the AS/400. Two new location documents are added to the user's workstation. One is called OV400 (connected) and the other OV400 Disconnected.

When using the Connected location, the user's mail and calendar items are downloaded from OV/400 to his Notes Mail where work can continue either connected or disconnected. SLNC enables OV/400 to be the user's mail and calendar server using these special connection documents.

Once mail is transferred to Notes, a copy is archived into an AS/400 folder, so that it is possible to view mail from either a non-programmable terminal or Notes as long as the user knows the name of the archive folder.

Calendar items are kept in sync in both places. If changes, additions, or deletions are made to the calendar while disconnected, the two locations will synchronize upon the next connection.

Using the Disconnected location provides support for the mobile or traveling user who may work with mail and calendar items. When reconnected via dial, token ring, ethernet, or twinax, new mail is downloaded and calendar adds, deletes, or changes are synchronized. Deleting mail on the user's copy does not delete mail from the AS/400's copy in the user's "archive" folder.

The user is exposed to the Notes "experience" while the administrator is getting accustomed to managing users in a new environment, taking Domino System Administration Education, or installing a LAN if not previously in place. At any time, a Notes application may be added to the users' desktops. However, Notes databases (applications) must be accessed on a Domino Server of some type by clicking another Domino/Notes location document. Notes application databases cannot be opened from either the SLNC Connected or Disconnected location documents.

When the user is ready to leave OV/400 completely, the administrator sends the user a package containing a button called "Migrate Me". When this button is selected, the user's Notes mail (and calendar) which already has been downloaded to their PC, replicates to a real Domino server. It is a very simple and user directed process.

Points to consider for SLNC implementation

- w SLNC current version is 1.1.1
- w SLNC requires TCP/IP on AS/400 and workstation.

- w SLNC is supported on Windows 3.1, 3.11 (16-bit client) and Windows 95 (32-bit client), but not Windows NT.
- w SLNC may also be used with JustMail/400. However, JM/400 has no calendar.
- w SLNC users may be connected via twinax as well as ethernet or token ring.
- w SLNC is available for CISC or RISC systems.
- w SLNC is supported on these versions of OS/400: V3R2, V3R6, V3R7, V4R1, V4R2, and V4R3.
- w SLNC is supported using these versions of Notes clients:
 - P Both 16 and 32 bit clients - V4.5.2, V4.5.4, V4.5.5
 - P 32 bit client only - V4.6.1 with intent to support 5.0 in the future

Migration from SLNC to Domino for AS/400 checklist

Domino Server Administration education or experience is key to a successful migration experience .

- w Administrator:
 - P Prepares new migration note template, server connection document, and registration profile.
 - P Registers the user on the Domino server.
- w User:
 - P Downloads mail and calendar just prior to migrating.
 - P Pushes the "Migrate Me" button.
 - P De-installs SLNC client code.

JustMail/400

JustMail is a subset of OV/400. Considerations applicable to OV/400 would be the same for JustMail/400 except much less complex, because its functions encompass only the mail, directories, nicknames, and distribution lists. There is no word processor to create documents nor is there a calendar available to a JustMail user.

JustMail/400 and OV/400 are mutually exclusive. They cannot be installed on the same AS/400, but it would not be uncommon to find a mix of the two types of users in a large enterprise. A large AS/400 at a headquarters location might have OV/400 power users while remote locations might be running JustMail/400 on smaller AS/400s.

Notes Mail users migrated from JustMail/400 will gain a calendar. This will fulfill a frequent request by many organizations who said, "I just want mail and calendar for my users; not word processing."

JustMail users can become SLNC Notes Clients, but having no calendar on the AS/400 with which to synchronize, only mail would be downloaded. However, they would have a calendar within their Notes Mail template which they may use as a personal calendar or with other Notes users.

Integrated PC Server - IPCS (formerly known as FSIOP)

IPCS Implementation of Lotus Domino/Notes

Understanding the current environment and the features presently being used will form the framework for the key migration considerations.

- w Is there a mix of types of servers installed (NT, RS/6000, HP, Sun, Apple)?
- w Is the International or North American version of Notes being used or a mix?
- w How will former servers be utilized after the migration?
 - P Firewall.
 - P Additional user workstation.
 - P Retained as additional server, such as a Mail server.
- w What are the requirements for integration of AS/400 data with Notes or access to AS/400 data from Notes?
- w Is ADSM, Adstar Distributed Storage Management, (part of optional Enhanced Pak for IPCS) or some other specific backup/recovery plan in use?
- w Are there any clustered or partitioned servers to be migrated?

AS/400 Unique Features

A few features are unique to AS/400's implementation of Domino/Notes. The following chart compares how each is implemented on the AS/400 .

FEATURE NAME	DOMINO AS/400	IPCS
System Distribution Directory relationship to Notes Name and Address Book	Bi-directional synchronization	IPCS to Notes only Directory Shadowing
Central point of administration	X	X
Mail interoperability between OfficeVision, JustMail, Notes, POP3	X	X

AS/400 Data propagation to Notes applications preserving security	NotesPump	Data Propagator
Backup/Recovery of Domino databases	AS/400 Integrated File System (IFS)	AS/400 Adstar Distributed Storage Management (ADSM)
Reliability including RAID-5, Mirroring	X	X

Note Data Propagator won't be required with Domino for AS/400 but still may be used, if desired. Alternative methods of data integration that Domino for AS/400 will employ are:

- P** NotesPump
- P** Hi Test or C APIs
- P** @db functions
- P** LS:DO
- P** SQL import

Note ADSM is no longer required but may still be used for more granular backup and recovery. Domino for the AS/400 can take advantage of normal AS/400 procedures since it is part of the Integrated File System.

Migration from IPCS to Domino for AS/400 steps

Migrating from Domino IPCS to Domino for AS/400 is very similar to migration from any Domino server to another Domino server.

1. Load the Domino Code onto the AS/400.
2. End the IPCS Domino server and Vary Off the External port
3. Add a new TCP/IP interface to your AS/400 TCP/IP configuration.
4. Configure Domino on your AS/400.
5. Copy Domino data files.
6. Start the Domino server on AS/400.

Note Step by step help detailing the actual migration process can be found on the AS/400 web site under the Technical Studio section entitled "Migrating from the IPCS to Native Domino for AS/400":
<http://www.as400.ibm.com/tstudio/index.htm>

cc:Mail

Why move?

Some of the motivating factors to upgrade from cc:Mail to Domino/Notes are:

- w Client/Server messaging.
- w Integrated Internet Access.
- w DB6 cc:Mail not Year 2000 compliant.
- w Calendaring and Scheduling.
- w Scalability and reliability .

There are several migration philosophies commonly used in upgrading cc:Mail users:

1. Rip and Replace - easiest, least expensive, most unpopular
2. Partial Upgrade - move everything except archive files, bulletin boards, private directories.
3. Move Everything - all data preserved, easiest to plan, requires most disk space.

cc:Mail Migration Tool

The best way to upgrade from cc:Mail is to use the cc:Mail to Notes Release 4.5x Migration Tool available from Lotus or to engage a Business Partner with this area of expertise. There is a "cc:Mail to Notes Upgrade Cookbook" available from Lotus.

The Lotus tool upgrades directories, messages with attachments, and folders to the Notes environment. The tool upgrades data as follows:

- w cc:Mail Directory to Domino Server Directory.
- w Messages with attachments to Notes Mail documents.
- w Private directory to user's Personal Address Book.
- w cc:Mail archive to Notes Mail archived database.
- w Private folders to Notes Mail folders.
- w Public mailing lists to Groups in the Domino Server Directory.
- w Private mailing lists to Groups in the user's Personal Address Book.
- w Bulletin Boards to Notes Discussion Databases.
- w Read/Unread marks on mail messages to Read/Unread marks on Notes Mail documents.
- w Organizer comment information to Personal Address Book Organizer attributes.

Note Read and unread marks are upgraded but are readable only if the user logs into Domino with the same ID file that was created when the cc:Mail account was converted to Domino. If you use a different user ID, those messages previously marked as read will not yet have been read by the user trying to log in.

Note Private mailing lists upgraded by the administrator are automatically moved to a mail message that is sent to the user in Notes. The user must copy the contents of the message to their Personal Address Book.

Note cc:Mail Mobile users must be connected to a LAN during migration.

The following list denotes which cc:Mail information is not converted to Domino:

- w Contents of the Trash folder.
- w Rules.
- w Location profiles (mobile user).
- w Contents of the Outbox (mobile user).
- w Contents of the Session Log (mobile user).
- w Bulletin board messages on a mobile post office.

The cc:Mail MTA plays an important role in the coexistence stage of the migration effort. Its dual backbone allows for coexistence of both cc:Mail Post Office and Notes Mail traffic.

Considerations

The following items form the basis for information that will be helpful in forming a migration and coexistence plan for cc: Mail to Domino for the AS/400. The list is not intended to be all inclusive.

- w Is the cc:Mail MTA in use?
- w How many Post Offices?
- w Is an application development environment connected to cc:Mail? If so, how is propagation handled?
- w What are the naming conventions?
- w Are there Bulletin Boards to be migrated?
- w Are Name and Address Books cascaded?
- w What is the message retention length?
- w Will passwords be compatible?
- w Any gateways?

Chapter 4

Migration of Data or Not

General Considerations

Application development time in Notes is relatively short . Rewriting the applications will enable the applications to run in a heterogeneous environment and may offer improved use when integrated with Domino capabilities such as Workflow.

Some applications will be naturally suited to become Notes applications. Human Resources, Help Desk, Forms Routing for Approval applications are some of the most obvious and frequently utilized Notes databases. There are almost as many pre-written Notes applications and Business Partners as there are Business Partners with pre-written AS/400 applications. Find a Notes application that matches 80% of the requirements and adapt the remaining 20% to a particular situation or need.

Decide which applications, if any, must be converted to Domino/Notes applications prior to the Migration start. Work those critical ones into the Project Plan and convert the other applications in due time. An additional benefit in a multiple server environment is that Notes applications are self deploying via Domino's Replication mechanism.

AS/400 Applications

Most AS/400 applications are written in RPG or Cobol. Notes does not readily support these languages. Coexistence is one answer. However, one could either chose to front-end these applications with Notes or rewrite them. APIs being put in place give RPG applications access to the Notes environment. Also provided is the capability for Notes to get to DB2/400 data. As mentioned previously, some of the interfaces between Notes and AS/400 data that might be utilized are:

- P** NotesPump
- P** Hi Test or C, C++ APIs
- P** @db functions
- P** LS:DO
- P** SQL import

Java

Java is rapidly becoming an application migration consideration as more Java applications appear in the marketplace. Visual Age for Java is IBM's premier development tool for Java. Borland's Jbuilder and Obsydian are a couple of other s.

The AS/400 will deliver Java applets to enable running Java on the IBM Network Station as well as personal computers.

Some applications that will require more consideration are those which require Java to run in a Java Virtual Machine at the server. Beta test for a Java Virtual Machine on AS/400 is in process with general availability probably mid 1998.

Chapter 5

Migration Methodologies

Two major migration methodologies when migrating from one Domino server platform to another are:

1. Add the new Domino server to the existing Domain (There may be one or more existing servers in the Domain.) and use Replication to migrate/create a near duplicate server.
2. Install the new Domino server and use off load media (tape, diskette, CD-ROM) to transfer all the Domino/Notes Name and Address books, Database files, Applications, etc. onto the receiving server.

Adding Domino Server to Domain

Major migration steps in migrating existing Domino servers to Domino for AS/400 server are basically the same from all platforms.

1. Install and configure Domino for AS/400 server on AS/400.
2. Replicate Name and Address Books to AS/400.
3. Replicate Notes Databases to AS/400.
4. Recompile Notes applications on the AS/400, making any coding changes necessary.
5. Remove old stand alone server from Domino Domain, if required.
6. Connect Notes Clients to AS/400.
7. Update addresses in Name and Address Books to reflect new server name.
8. Update Domino server documents for replication with other servers in Domain (if any).
9. Reuse stand alone server(s) elsewhere in organization.

Note This works well if TCP/IP protocol is already in use, else:

- w Change existing server(s) to use TCP/IP before migrating, if platforms support it.
- w Or, install a passthru server temporarily during the migration and co existence period.

Using Off load Media

One of the obvious keys to using this methodology is having compatible media between the platforms being migrated **from** and **to**.

Chapter 6

Migration Assistance

Services

IBM and Lotus offer a comprehensive and integrated set of service offerings to customers migrating to Domino/Notes. IBM Global Services and Lotus Consulting Services offer on-site services for environment analysis, strategy development, migration implementation and project management.

In addition to telephone support, including 24 x 7 operation, IBM and Lotus Customer Support provide migration services which are designed to enable customers to successfully manage their own migrations.

IBM Education, Lotus Education, and Lotus authorized Education Centers use innovative task based curricula to train administrators and application developers on Domino, Notes and Domino for AS/400. Additionally, Lotus Education now offers Access Value Method (AVM) seminars. AVM teaches participants to develop Notes systems that deliver strategic value. For anyone migrating between platforms, these migration assistance opportunities may be helpful.

IBM/Lotus Integration Centers

The IBM/Lotus Integration Centers in Westlake, Texas, and Boeblingen, Germany, offer presale technical support via briefings and training as well as information and assistance regarding migration and coexistence between Domino/Notes and many mail/messaging systems on a wide range of platforms from host based to LAN. The Centers are equipped with major hardware and software platforms to provide customers and Business Partners with hands-on experience and methodology training. The centers support OfficeVision MVS, VM, 400 and migration to Domino Notes on all platforms.

Specifically the centers have the mission to:

- w Promote customer business solutions based on migration to Domino/Notes.
- w Support coexistence of Domino/Notes with OfficeVision in the areas of messaging, calendaring, directory, and document processing applications.
- w Facilitate the migration of OfficeVision and other LAN messaging systems and applications to Domino/Notes.
- w Provide links to appropriate Lotus, IGS, or Business Partner resources for complete solutions.