

MINIMIZING THE COST AND DISRUPTION OF LOTUS NOTES APPLICATION MIGRATION

How to rationalize a Lotus Notes
environment for maximum business
benefits

INTRODUCTION

The myriad legacy applications built on your IBM Lotus Notes platform have likely evolved into a complex environment, with unused applications sitting on the Domino server, multiple custom templates, little central oversight and governance, unknown application ownership, and a dearth of development documentation. Sound familiar? If so, you probably believe the idea of moving Lotus Notes applications to an alternate platform like Microsoft SharePoint is costly and significantly disruptive.

It is possible to avoid excess cost and disruption through planning. A thorough assessment of your Lotus Notes applications and infrastructure will help you understand technical detail and business requirements. It also helps you make informed decisions about what content to move and how to prepare your environment accordingly, and it allows for accurate estimation of scope and cost.

This perspective describes key differences in the approaches commonly used by migration vendors to perform a Notes application assessment. Our objective is to help you determine which approach will best deliver the information you need to ensure smooth, predictable, and cost-effective migration.

THE LOTUS NOTES ASSESSMENT: OBJECTIVES

A Lotus Notes application assessment is intended to capture technical and business detail for the purposes of scoping, effort estimation, and initiative planning. The cost of migration relates to the number and complexity of applications chosen, along with the business impact (for example, downtime) imposed by a migration schedule. In general migration, cost and business disruption can be minimized by:

- Analyzing application usage and size characteristics to determine (with the goal of minimizing) the number of applications to migrate.
- Grouping applications with common designs and/or business workloads and minimizing the number of application types created on the target platform. While complex application designs may still be necessary, a majority of application types will fall into standard groups, thus helping future-state platform governance through standardization.
- Bundling applications by type and business group on a migration schedule to increase transition efficiency as data and users move to the new platform.
- Working with application owners to streamline the migration process, while setting initial expectations (and excitement) about future-state technologies. Early communication and collaboration is critical in making the transition smoother and faster for people as they participate in user acceptance testing and online training.

A successful application assessment will help customers realize that only a limited set of Lotus Notes applications can and should be migrated. If the applications serve a Lotus administrative function, if they are seldom used (for example, a task database for a short-term project), have a limited useful lifespan (for example, in budget planning), or are used by a very small group of people (who could simply move data manually)—they may not be important enough to migrate. Chances are it would be easier and less expensive to replace the application with something similar on the new platform. Experience has shown that people often abandon old applications (and the content) and move over to the new platform on their own.

COMMON ASSESSMENT METHODOLOGIES: BENEFITS AND TRADEOFFS

This section compares traditional approaches for assessing Lotus Notes applications and infrastructure and discusses a recommended approach to maximize the value of application assessment.

Over the years, we have seen and used four methodologies for assessing Lotus Notes applications in context of migration. They differ in the effort and related cost to perform each type of assessment and the level of impact on the overall migration estimate and your ability to subsequently achieve economies of scale during migration. Reuse of migration jobs, application design components, and migration hardware are good examples of economies of scale. These efficiencies can be gained post-assessment through careful upfront planning. Understanding different approaches, along with comparative costs and benefits, will help you determine the best path to meet your IT, business, and financial objectives. The following table summarizes these four methodologies.

Methodology	Cost of Assessment	Potential for Post-Assessment Economies of Scale	Migration Estimate Total
Assessing applications individually	High	Low	High
Assessing applications by complexity	Low	Possible	High variance, unreliable
Assessing applications by type	Moderate	High for some applications, low for others	Accurate for some applications, unpredictable for others
Assessing applications by archetype and complexity	Moderate	High	High accuracy

ASSESSING APPLICATIONS INDIVIDUALLY

This approach includes close inspection of each Lotus Notes application with the purpose of creating detailed requirements documentation. The application owner is also interviewed or surveyed to ensure that his/her input is considered to better understand how the business functions work. This methodology often considers all applications to be equally important, and evaluates each with the same level of attention and detail. Technical and business features and functions are very well-defined for each individual application, but overall business needs are often missed. Assessment cost can be very high because it can take eight or more hours to inspect and analyze a single application. The result of this approach often includes a comprehensive plan that maximizes individual application fidelity, at a significant overall cost. Reuse and other economies of scale are often missed because applications are treated individually in a like-for-like manner.

ASSESSING APPLICATIONS BY COMPLEXITY

This approach groups applications by level of complexity. Technical details such as Lotus Notes database properties, access control list (ACL), usage history, design elements and properties, and application code are captured and documented. This is typically done using automated scanning tools, which can be licensed from a migration tool vendor. Business details must also be captured, ideally by an analyst assigned to review application characteristics and to interview select application owners. This detail is summarized and used for further analysis. The scanning tool and/or an analyst will assign each application a complexity value (a low score means low complexity and cost, a high score means higher complexity and cost).

This approach also considers all applications to be equally important. However, because it evaluates groups of applications, it does not define individual features and functions. Time spent performing technical and business analysis is kept to a minimum, and the cost of the assessment effort is very low. While some economies of scale may be realized by grouping applications, estimates generated using this methodology are subject to significant variance based on a limited understanding of application workload and usage patterns.

ASSESSING APPLICATIONS BY TYPE

Assessing and organizing applications by archetype helps provide an understanding of common business workloads (for example, workflow), design, and potential future-platform architectures. The challenge, however, is that while it is easy to use an automated scanning tool to assign applications to common archetypes (like discussion databases, document libraries, or team rooms), it is difficult to properly assign custom applications to archetypes. Possible approaches include grouping custom applications into one of two categories—with workflow and without workflow—or by target solutions such as general lists and/or .NET applications.

Unlike the first two methodologies previously described, this methodology does not consider all Lotus Notes applications to be equally important; the level of effort is higher for analysis of custom applications and lower for common applications.

Using this approach, the cost of migrating applications is based on the archetype to which they are assigned. Economies of scale can be achieved for applications assigned to common archetypes but are difficult to achieve for those supporting custom workloads (such as line-of-business operations). Migration estimation is quite accurate for common archetypes as the migration process will be fairly repeatable. Unfortunately, estimation and classification accuracy is error prone for custom-built applications based on the amount of programmed logic and design sophistication. As a result, this methodology is most suitable for customers who have primarily template- or pattern-based applications, but less so where highly custom applications are prevalent.

ASSESSING APPLICATIONS BY ARCHETYPE AND COMPLEXITY

Best results can be achieved through a combination of the last two methodologies previously described to understand your Lotus Notes applications and plan migration. This approach uses a scanning tool that automatically identifies and assigns applications to a standard set of archetypes (like those listed). A business analyst analyzes collected information to identify and assign all custom applications to custom archetypes, and subsequently maps the search types to application templates on the target platform.

Common Application Archetypes

Employee Training, Scheduling, and Materials	Expense Reimbursement and Approval
Product and Marketing Requirements Planning	Help Desk
Request for Proposal	Inventory Tracking
Timecard Management	Project-Tracking Workspace
Absence Request and Vacation Schedule Management	Room and Equipment Reservations
Bug Database	Sales Lead Pipeline
Call Center	Discussion Databases
Change Request Management	Document Libraries
Contacts Management	Team Rooms
Event Planning	

Although all applications in this approach are considered equally important, the level of effort (and associated cost) differs for analyzing standard and custom applications. The automated scanning process can easily and quickly set the archetype for standard applications. In contrast, the level of effort for assessing custom applications is dependent upon the number of applications, the experience of the business analyst, and time related to deliverable production. This approach is most comprehensive and yields the best possible understanding of an application portfolio in the context of migration.

An experienced business analyst (who ideally should have knowledge of Lotus Notes, Microsoft SharePoint, and other application platforms), coupled with a well-defined migration methodology, will provide the most reliable migration estimate possible, subject to a lower degree of variance than other methodologies.

MINIMIZE YOUR MIGRATION

The cost of Lotus Notes application transition is based on a number of factors, including:

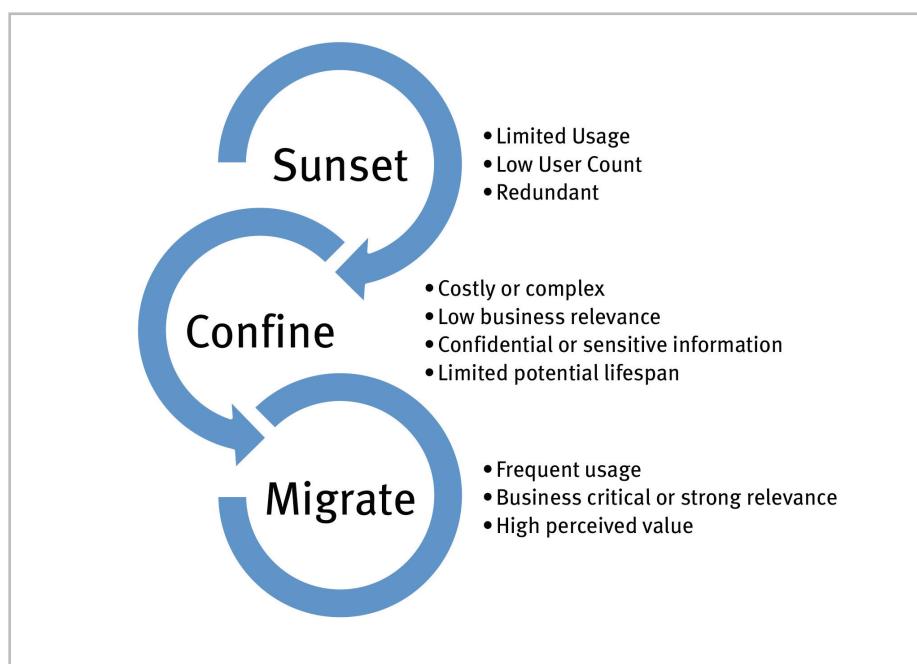
- The number of applications migrated
- The archetype group to which they belong
- The level of complexity within each application
- The amount of data in each application

You can modify the scope of your migration plan to achieve further economies of scale once your total migration has been estimated.

By filtering the selection of applications by name, archetype value, level of complexity, amount of data, and recent usage, you can make educated decisions about which applications you must migrate, which you might migrate, and which do not need to be migrated. (Should you choose to not migrate any Contact Management applications, for example, you can remove these applications from the estimate—and reduce your overall migration cost.) Remember—not every application can or should be migrated.

EMC recommends that customers classify applications using three primary strategies: 1) Sunset, 2) Confine, and 3) Migrate.

- Sunset applications considered irrelevant, or those with infrequent use, through archiving or deletion
- Confine applications with a limited useful lifespan to a coexistence environment for a set period of time
- Migrate only frequently used applications with high business relevance



While actual cost and duration of migration depends on many factors, EMC believes that an aggressive strategy that moves only applications with high business relevance and usage is most effective to minimize cost and ensure value. The information discovered as part of the application assessment will help determine strategy classification. Historically, most customers have used a combination of application usage (frequency and number of users), size, and archetype, together with qualitative techniques like surveying and interviewing, to make appropriate selections.

SUMMARY

Each of the assessment methodologies described in this paper has unique advantages based on the nature of your Lotus Notes applications infrastructure. Assessing your applications by archetype and complexity—using an automated assessment tool and engaging an experienced business analyst—is the most effective way of rationalizing your environment in the context of migration. This methodology:

- Enables you to accurately and cost-effectively define the types of business applications that are in use today and identify what future platform architectures and/or templates can be used and what effort will be necessary.
- Enables you to save migration costs by selecting applications that are frequently used and/or used by many users.
- Enables you to evaluate which applications must have content migrated to a platform like Microsoft SharePoint and which can have their data archived.
- Maximizes standardization by moving to standard application templates and/or reused components to help with governance and future maintenance, making it easier to build, test, and deploy useful features.
- Yields reliable migration plans and estimates because they are based on a combination of automated scanning and manual business analysis.

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