TRANXITION

Desktop Migration Best Practices

White Paper

INTRODUCTION

Desktop migration projects will stress enterprise IT departments and service providers like few other projects can. All the hard work and effort to build a positive "brand" for IT can be lost during a PC or Windows Migration.

One IT provider recently said:

> *"We work with a company for three years building our brand and then a migration project happens. Three years of brand-building goes out the window."* – Desktop Service Provider

To counter the business risks, disruption and expense of desktop refresh projects, best practices are essential. And managing user personas is an *essential* element in those best practices.

A user persona captures past productivity on the part of the user *and IT*, preserving it through the desktop refresh cycle. If a user is provisioned a new system without their persona (both data and files), IT and the user are left to **re-customize** the environment, which can take many hours over the course of a few months – if those settings can be remembered and recovered at all.

A migration project that is properly engineered to take user personas into account has certain characteristics that are worth exploring. The bulk of this white paper describes the best practices that can make a desktop refresh project smooth, cost-contained, and effective *from the end user's point of view.*

SIX PHASES

There are six main phases in a desktop refresh project:

1) an analysis phase to understand the current environment and to identify a proposed solution set for the migration
2) A test phase to identify in detail what should be migrated and to test those details in a lab setting;
3) The pilot phase where the vetted solution is tested in a real-world scenario on a representative sample of machines;
4) A training phase where all desktop refresh participants work with the solution set and understand its nuances;
5) A production rollout of the solution; and
6) A reporting phase where the lessons and results of the migration can be understood and incorporated into later projects.

Let's now discuss some of the elements that are typically encountered.

ANALYSIS PHASE[1]

[1] If your environment includes a desktop management suite such as BMC Footprints or FrontRange DCM or other solutions, many of the steps described below are included as functions of these software solutions. Additionally, functionality in some products will go beyond the basic steps described here.

This phase involves looking at the devices, networks and servers that will be involved in the migration. First, look at the device configuration:

1. Operating system
2. Standard commercial applications
3. Custom or legacy applications
4. Images applied to the device

For the network, there are a number of factors to consider:

1. LAN – total and available bandwidth
2. WAN segments and impact on business performance
3. Security and IAM settings
4. Network shares and other network components such as printing
5. Active directory configuration

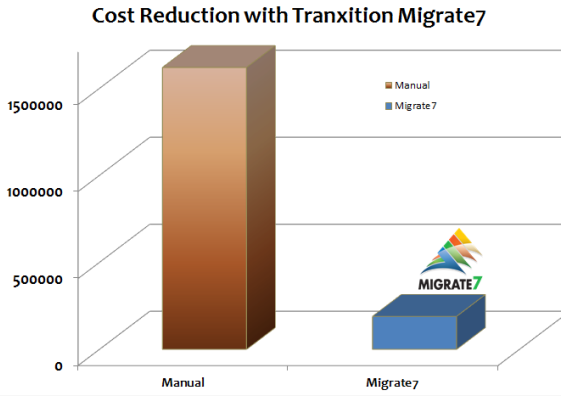

Figure 1 - Comparative Cost of Migration Methods

For the servers and NAS, the most important question is whether enough storage is available for the total number of personas to be captured. Because Migrate7 and other user state tools capture only the settings, the size of the total application storage used on each desktop does not factor into the storage calculation during the migration, only the user's data files if stored locally.

Business Considerations

In parallel to the technical analysis, the project manager for a migration also needs to consider the current cost, time and labor involved in a migration project. When user state capture is factored into a migration scenario, the financial benefit of capturing and migrating it is often so high that IT managers think the analysis is flawed. Research and verified empirical data demonstrate that almost $2M can be saved on just a 10,000-seat migration with user state management during a migration.[2][3]

Persona (User State) Migration ROI Calculator

Enter your burdened TECHNICIAN labor rate here:	$110.00
Enter your burdened END USER labor rate here:	$78.00
Enter the NUMBER OF COMPUTERS to be migrated:	150
Projected Cost of Manual Migration:	$105,075
Projected Cost of Migrate7 Migration:	$66,792
PROJECTED SAVINGS USING MIGRATE7:	$38,283

Manual Migration Process	Burdened Rate	Typical Hours	Cost
TECHNICIAN DUTIES			
Erase and format disk on new PC	$110.00	.10	$11.00
Load standard OS image	$110.00	.10	$11.00
Load additional applications	$110.00	.50	$55.00
Test OS and applications	$110.00	.30	$33.00
Back up user's settings & applicat	$110.00	1.00	$110.00
Replace old PC with new PC	$110.00	.20	$22.00
Restore major settings (email, ne	$110.00	.25	$27.50
Restore user's personality setting	$110.00	1.50	$165.00
Restore user's data files	$110.00	.50	$55.00
Test system	$110.00	.50	$55.00
User downtime (during previous 6	$78.00	2.00	$156.00
END USER DUTIES FROM SHEET 2 (add burdened rate to one only)			
Manually restore personality	$78.00	6.95	700.50
		Total cost per PC:	$700.50

Migration Process Using Migrate7	Burdened Rate	Typical Hours	Cost
TECHNICIAN DUTIES			
Erase and format disk on new PC	$110.00	.10	$11.00
Load standard OS image	$110.00	.10	$11.00
Load additional applications	$110.00	.50	$55.00
Test OS and applications	$110.00	.30	$33.00
Extract user's settings & application data	$110.00	.20	$22.00
Replace old PC with new PC	$110.00	.20	$22.00
Inject major settings (email, network, etc.)	$110.00	.00	$0.00
Inject user's personality settings	$110.00	.01	$1.10
Inject user's application data	$110.00	.50	$55.00
Test system	$110.00	.50	$55.00
User downtime (during previous 6 steps)	$78.00	1.41	$109.98
END USER DUTIES (After technician leaves)			
Manually restore remaining old personality	$78.00	.50	$39.00
Test system	$78.00	.40	$31.20
		Total cost per PC:	$445.28

Figure 2 - Manual Process versus User State Process

Additional factors to consider are:

1. Current cost, time and labor

[2] Accompanying this document is a spreadsheet that enables desktop refresh project managers to calculate realistic time and cost estimates for the migration.

[3] Data from Dow Corning presented to Tranxition after a migration.

2. Goals and requirements for the migration
3. Preparation of ROI analysis
4. Items to be included in first management report
5. Test phase preparation

"Migrating the User State saved us a lot of time and hassle. What surprised us was how much policy it captured and transferred." – Jeff, IT manager

6. Management report

TEST PHASE

The goals of the test phase are to identify exactly what elements of each system can be migrated, and then to test those elements in a lab setting. Here are some factors to consider in planning the test phase:

1. Common Operating Environment (see below)
2. Migration requirements
3. Settings (both end user and IT policy)
4. Data files and file rules
5. Migration scenarios (how will the migration be performed?)

Common Operating Environment (COE)

The more consistency from machine to machine, the more smoothly the desktop refresh project will go. For this reason it's best to have a solidly established COE prior to beginning the process. A well-designed COE will include:

1. Image management plan
2. Operating platforms plan
3. Application suites plan
4. Hardware platform plan
5. Personas:
    a. Settings
    b. Data files

Preparation of a Preproduction Test

Given the magnitude and impact of a desktop refresh project in just about any commercial environment, the test phase must be carefully and thoroughly planned in order to pave the way for a smooth rollout. The following is a list of factors that should be considered in assembling most test plans.

1. Scope
2. Location
3. Testers
4. Checkpoints
5. Measurement parameters
6. System selection

7. Analysis of extraction system
8. Preparation of injection systems
9. Analysis of results logs
10. Tester reports
11. User reports
12. Statistics
13. ROI measurement
14. Management report
15. Management sign-off for production

PILOT PHASE

In the pilot phase, a representative sample of machines from the actual "live" population is chosen, and the migration solution is tested in a real-world scenario on these machines. Note that this phase occurs only after the previous test phase has been completed with no critical errors or problems.

TRAINING PHASE

Every member of the desktop refresh team works with the migration solution in a supervised setting and learns all of its nuances, including error conditions and the specific steps to take when encountering a problem.

PRODUCTION ROLLOUT

The migration solution is rolled out to the entire network, and the desktop refresh project is carried out according to the plan specified in advance.

Every environment is different, of course, but here is a sequence of steps that would commonly be included in the rollout process:

1. Scope
2. Schedule
3. License Agreement Analysis
4. Maintenance Agreements Terms and Conditions
5. Management Report
6. Management Signoff
7. Procurement
8. Schedule
9. Actual Rollout

REPORTING PHASE

After the rollout is complete and enough time has elapsed to note and address any problems lingering after completion, members of the desktop refresh team compile a report outlining those aspects of the process that

were successful, those that needed improvement, and lessons learned over the course of the project. The goal of the reporting phase is to document the process and incorporate any learning into subsequent projects.

CONCLUSION

Any experienced IT professional knows all too well that no desktop refresh project should be entered into lightly. The process must be carefully planned and controlled in order to minimize problems and ensure end user satisfaction. Most importantly, the surest path to a smooth rollout and high end user satisfaction lies in the integration of user state management into the process.

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