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"Leading the Conversation"

The Definitive Guide™ To

Vista Migration

sponsored by

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and Nelson Ruest

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Chapter 10: Finalizing the Project

The project is almost complete. Two phases of the QUOTE System are left. The Transfer phase will focus on the manufacturing activities of the project, running through the pilot project, and then migrating all systems to Vista. The Evaluate phase will focus on project closure, running through the hand off to internal support teams, performing the project post-mortem, and preparing for system evolution.

In order to complete these phases, you need to run through a series of activities which include (see Figure 10.1):

- Oversee administrative activities to ensure that each aspect of the process that will support the deployment is ready for prime time.
- Run the pilot project which will include more than the proof of concept (POC) that was run at the end of the Organize phase. While the POC focused on the technical activities to ensure every engineering process was ready to roll, the pilot project's goal will be to bring both administrative and technical processes together for a complete end to end test. Then, it will aim to report on each aspect of the deployment process to make sure all is ready. If changes are required, then, the project team needs to perform required modifications before they can proceed.
- Once all is deemed ready, the massive deployment begins and the project enters a manufacturing mode where it runs through the repetitive processes required to migrate each system. If the organization has opted to use a forklift migration—migrating each system in one fell swoop—then, this process runs until all systems are deployed. If the project has opted to use attrition—migrating systems through their hardware refresh program—then, the deployment will only affect those systems that are upgraded this year. It will also need to prepare for migration recurrence: re-running the migration processes each year until all systems are running Vista.
- Once the mass production is complete, a hand-off to internal support teams must be performed before project mechanisms are integrated into every day operations.

Project mechanisms should not be completely dismantled because the migration of systems is an everyday task that must be integrated into normal operations.

- A project post-mortem must be completed to ensure that project wins are captured and project failures are trapped. This helps ensure that projects of this type keep improving as the organization runs them.

The very final phase of this project is the preparation for system evolution. Each migration project can only take on a certain amount of work, aiming to get the best quality based on available resources. But, once all systems are migrated, the organization can begin to invest more fully into the benefits inherent in the new OS and add functionality to its deployment as operations teams begin to master the elements that make up the overall solution.

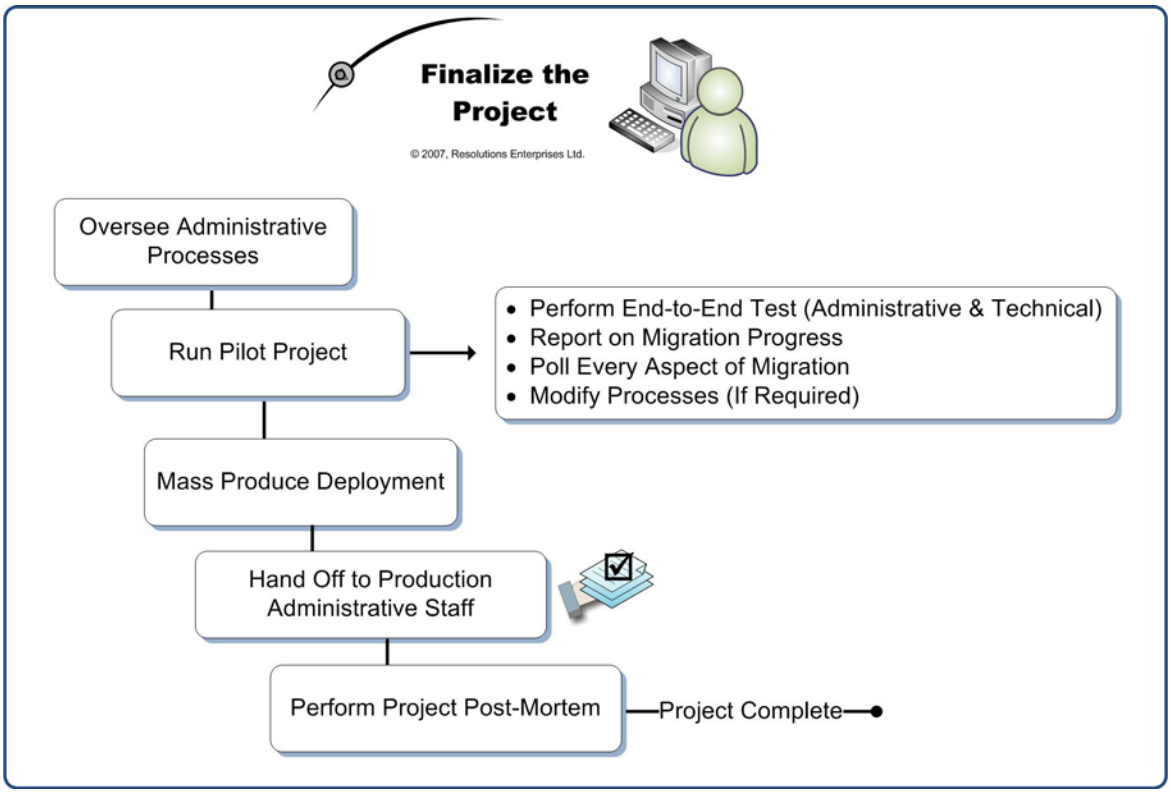


Figure 10.1. Running Final Project Phases

Closing the Organize Phase

At the end of the Organize phase of the project, the engineering team has been working feverishly to close off all of the technical aspects of the solution. Meanwhile, the administrative team has also been at work. Their goals were to finalize several other aspects of the process the project will use to actually perform the deployment.

End user representatives have been working directly with the end users themselves to validate inventories and prepare final user and PC datasheets—datasheets that will handed off to the release manager and used by the deployment team to build new PCs. Training coordinators have been working with operational teams to make sure they have the appropriate technical training in time for the deployment. Trainers have been working to finalize the end user training programs, be they either simple presentations of new features or complete programs covering each and every new feature.

Support teams have been assisting users to convert their documents and applications for operation with the new PC environment. They have also been working to finalize the support program that will be put in place to back the deployment and ensure everything works as expected as far as the end users are concerned.

> ☞ Document the official support program for the deployment. This will make it easier for everyone involved as everyone will know exactly what they can expect from it.

Communications teams have been working at continuing the promotion of the new PC environment to create a feeling of good will towards the project. They have also worked at preparing the communications that will be used to inform users during the deployment itself. These communications will be critical since users must know when and how they will be affected as well as how they can expect to continue business as usual during the deployment process.

The fear of change is probably the biggest obstacle the project will face. In the ideal project, everyone will be ready for the coming of new technologies, but, as you know, there is no such project. Everyone—IT personnel, end users, managers, support teams—fears change to some degree. While some hide it well, others do not and, in extreme cases, will do everything in their power to stop or even block the coming change. This is why the good will communications program is so important. Given this, it is hard to understand why it is so often forgotten or even worse, cut from the project. If you want to make this project a success, you will invest in an appropriate change management program—a program that will foster desire for change through the identification of solutions to ongoing issues your organization faces at all levels because of the system you are currently using. When change has been properly positioned, people will still fear it, but will be more comfortable with it because they will at least understand how it will affect them.

The project management team has been working at finalizing the actual deployment strategy and preparing the actual deployment plan—the detailed plan that identifies each user to be migrated and how many users are to be affected each day. In addition, they have had to prepare mitigation strategies—strategies that identify what will be done in the event that prospective users are not available the day they are to be migrated. This strategy is critical to the success of the project otherwise the project will not be able to meet its production goals of deploying a given number of users per day. Finally, the project team has launched the final acquisition program required to obtain the systems that will be used to seed the deployment.

Acquisitions are an essential component of the deployment of a new operating system. If you are relying on attrition to migrate to Vista, then you will need to acquire new systems to begin the deployment in your organization. If you decided to perform a forklift migration, then you also need to use acquisitions to create a seed pool of systems that will be used to support the deployment. In either case, you will want to identify who will be migrated and how you will allocate these new computer systems. In attrition deployments, you will already have an identification program since you will already know who will receive the new systems. In forklift deployments, you will use the new acquisitions to start a rotation program, cascading newer, more powerful systems throughout the organization and eventually replacing PCs for each and every user.

If you use a cascading rotation program, make sure you clean each PC case, keyboard, mouse and screen as they run through the migration process. This will give each user in the organization the impression of acquiring a new, more powerful PC than the one they had before. Cleaning programs of this type buy enormous amounts of good will and greatly assist with the success of the project.

Running the Transfer Phase

The Transfer phase is the phase that runs the mass-production deployment operations (see Figure 10.2). By now, everything should be in place to run the actual deployment. Your staging areas should be complete, the technical solution is fine-tuned, your support mechanisms are in place and your administrative processes are ready. You'll begin with the pilot project and then when you've collected information, analyzed the results of this full end-to-end test, and made appropriate modifications, you'll be ready to perform the actual deployment.

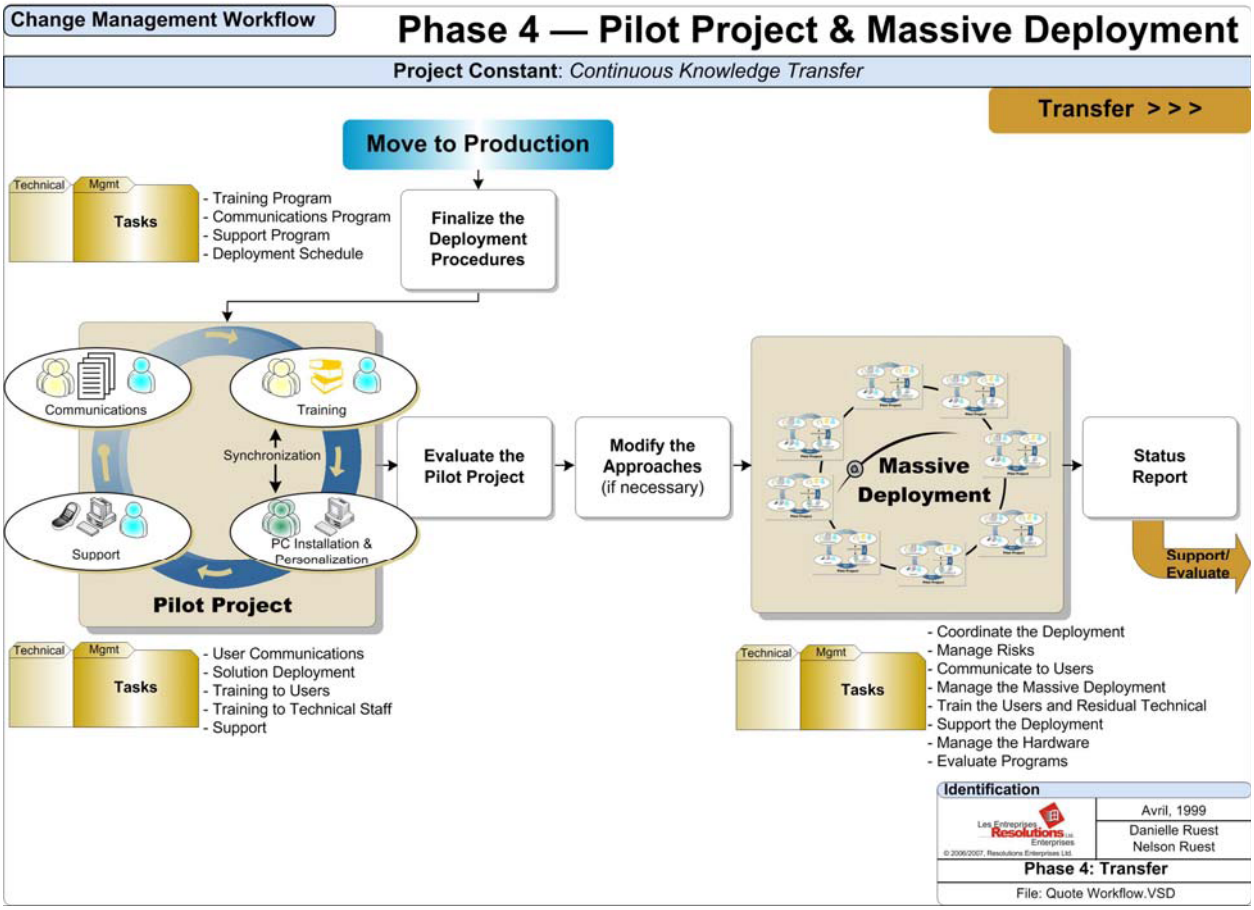


Figure 10.2. The Activities of the Transfer Phase

Run the Pilot Project

The actual deployment begins with the Pilot Project which is a complete simulation of every step of the deployment. Everything, that is everything, must be tested. You'll need to preselect pilot project users, run the pilot, and thoroughly analyze the full operation of the process. One goal of this project is to do everything right so that you do not need to redeploy the pilot population when it is time to perform the actual deployment. The only way to achieve this is to be as ready as possible. If too many things go wrong, you'll have to return to the drawing board and then, when you're ready for the actual deployment, begin with the pilot population.

Begin by selecting the users for the pilot project.

Identify Pilot Users

Pilot users should be actual users as well as your own project team. The pilot population should represent about 10 percent of the population of your organization. Include both central and regional users if you have them. Include users from as many different levels in the organization as possible. Include users that require only the OS kernel to operate as well as users requiring role-based application groups. Include novice as well as experienced users.

Consider choosing users who will not be available during the deployment as well. This is one situation that must be planned for as it occurs quite often during the actual deployment. This will let you test the administrative process you put in place to replace users on the fly when they make themselves scarce the day of the deployment.

Basically, the pilot population should represent as many aspects of the actual deployment as possible so that you won't be caught unawares when you're doing this for real. One aspect which may be different is the actual number of deployments you will begin with. Many organizations decide to start small and build up to a production schedule. For example, if your goal is to deploy 100 PCs per day, your pilot project could start with 10 per day for the first couple of days, move up to 20 when you feel ready and gradually bring up the production to expected levels.

Many users will be happy to participate in the pilot project while others will be reluctant to do so. Users must be made aware that there is risk involved in participating in this aspect of the project. There are also many advantages, the least of which is the delivery of your new solution to pilot users before it hits the general population of your organization. If you've done your homework right, people will flock to this aspect of the project just to obtain the pre-delivery of your new OS. If this is the case, you might have to be very selective when choosing users. Make sure you select the right mix of users.

Build a Deployment Schedule

One of the key aspects of the deployment and one which will prove to be a major contributing factor to its success is the deployment schedule. This schedule lists each system to be deployed, its configuration, the target user, the actual location of the system, hardware upgrades if required and any other detail that will make the deployment a success. Several techniques are used for deployment schedules. Some organizations rely on a building by building, floor by floor approach, deploying to users based on their geographical location. Others rely on departmental groupings, deploying to each user within a specific department. Often a combination of both is the best approach.

Ideally, users to be deployed will be regrouped physically in the same area. In addition, if they all belong to the same department, then the deployment is that much easier because each system is very similar in configuration. Organizations will often keep the most complex and demanding users for the very end of the project because by that time, the deployment team is fully experienced and ready to handle even the most difficult situations.

This schedule must be managed by a person with very strong coordination skills as their job is to make sure the project continues to meet its rate of production—so many PCs per day—even if the target users are not available the day of their scheduled migration. One good support tool for this situation is the preparation of a pool of 'spare' users that can be migrated at any time with little warning. When someone is not available for deployment, you just pull a name from the pool of spare users and therefore maintain your production rates.

Initiate Communications to End Users

Once the schedule and all other project aspects are ready, you can begin the pilot project. Remember, this is a full end-to-end test so it must be just as if you were doing an actual deployment. You can cut some corners, but try to keep them to a minimum.

Just as your deployment project will begin with initial user communications, your pilot should begin with a communication to the target user. Rely on the deployment schedule to identify which users to communicate with. User communications should begin well ahead of the actual deployment date. In many cases, you give each user at least one month's notice as they will be responsible for tasks on their own before they are ready to be deployed. Then you can remind them each week as the deployment approaches.

While users will have their own responsibilities during the project, you can expect that a good number of them will **not** perform them beforehand. Make sure you are ready for this eventuality in your project processes and infrastructure requirements.

This will let you give them the opportunity to clean their files before you migrate their system. Depending on the strategy you used to protect their files, you may or may not offer them a backup system for files that will not officially be recovered. This way users can back up personal files on their system and restore them on their own once the system is migrated.

A typical user communication would include a description of the deployment process in laymen terms as well as a description of the activities the users will be responsible for (see Figure 10.3). The description of user activities should be as detailed as possible to make it as easy as possible for users to protect their data.

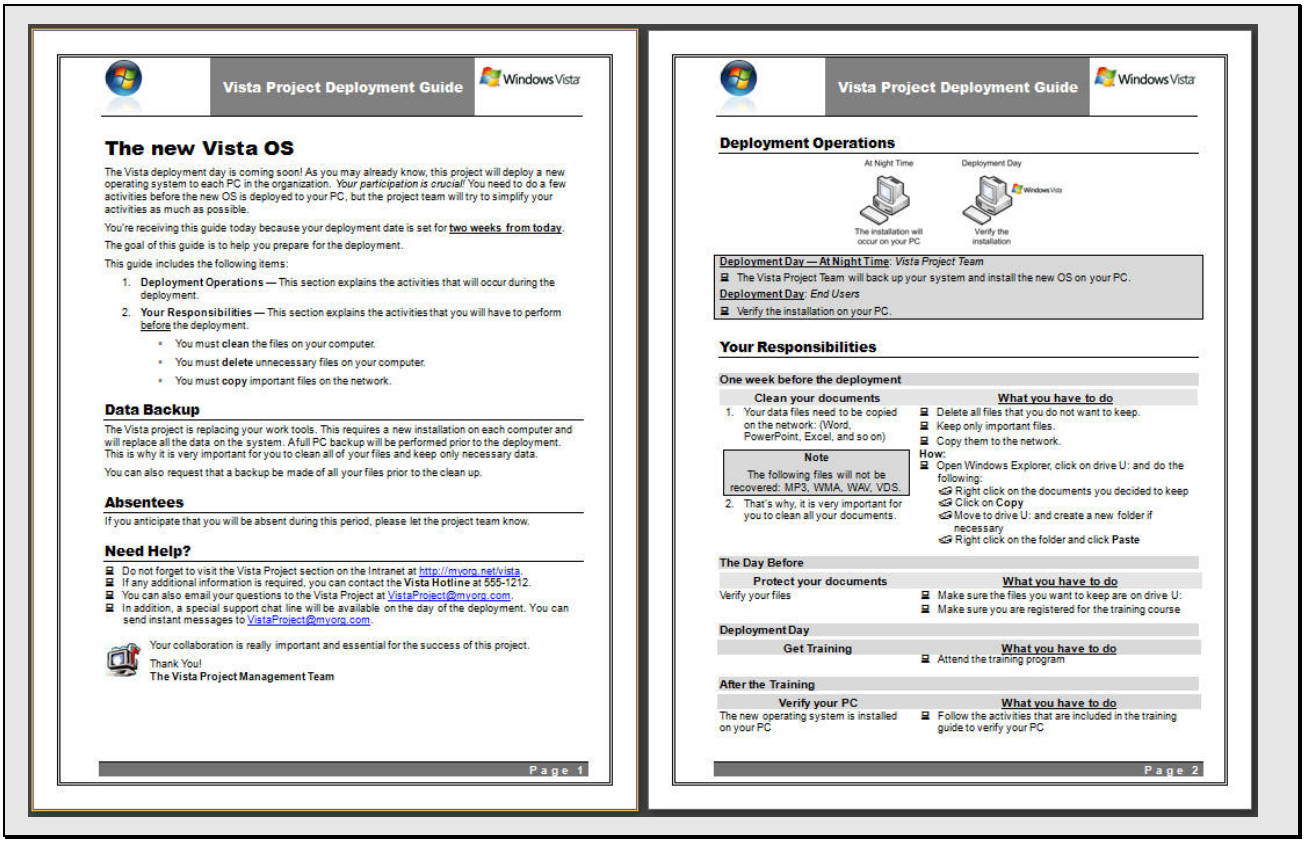
There are several different types of training programs available for end users. One of the most efficient programs is one that consists of a presentation that focuses on the changed features of the OS. It should provide demonstrations of each new feature and should include a course book users can take away with them. If you marry this program with the actual deployment, this frees the user's PC for deployment operations. While the user is in training, you can perform deployment activities on the PC with no interference from the user and no disruption to their work.

Many organizations are moving to online training. This has extensive value and Microsoft has made the Enterprise Learning Framework (ELF) available with this purpose in mind. More information on the ELF can be found at http://technet.microsoft.com/en-us/library/bb456408.aspx. In fact, you should strive to rely on online resources as much as possible. Many of these are already available for your project through the Windows SharePoint Services Team Site the project has been relying on. Using target audiences, you can easily create a version of this site that provides public information on the project.

But consider this. The actual training program you will use for the deployment will depend on your deployment strategy. If you choose to deploy during the daytime when users are away from their desk, then you should use a live presentation that is provided in a conference room of some sort. This has several advantages. You have full access to the user's PC while they are away; the user is regrouped with peers they can rely on to assist in the learning process; and the user begins their move to Vista as soon as they enter the training room since they will have Vista on their PC when they return to their desk.

If you choose to deploy at night without classroom training, then you should include logon instructions for Vista in the user communiqué and then a link to the online training that pops up once the first session is open by the user. This approach is more demanding of users, but can also provide good results.

At the very least, you should have an online resource center for users moving to Vista and you should make sure users are fully aware of it. You should also include printable tip sheets that will help users make the move to Vista.



Vista Project Deployment Guide

Windows Vista

The new Vista OS

The Vista deployment day is coming soon! As you may already know, this project will deploy a new operating system to each PC in the organization. *Your participation is crucial!* You need to do a few activities before the new OS is deployed to your PC, but the project team will try to simplify your activities as much as possible.

You're receiving this guide today because your deployment date is set for **two weeks from today**.

The goal of this guide is to help you prepare for the deployment.

This guide includes the following items:

1. **Deployment Operations** — This section explains the activities that will occur during the deployment.
2. **Your Responsibilities** — This section explains the activities that you will have to perform before the deployment.
   - You must **clean** the files on your computer.
   - You must **delete** unnecessary files on your computer.
   - You must **copy** important files on the network.

Data Backup

The Vista project is replacing your work tools. This requires a new installation on each computer and will replace all the data on the system. A full PC backup will be performed prior to the deployment. This is why it is very important for you to clean all of your files and keep only necessary data.

You can also request that a backup be made of all your files prior to the clean up.

Absentees

If you anticipate that you will be absent during this period, please let the project team know.

Need Help?

- Do not forget to visit the Vista Project section on the Intranet at http://myorg.net/vista.
- If any additional information is required, you can contact the **Vista Hotline** at 555-1212.
- You can also email your questions to the Vista Project at VistaProject@myorg.com.
- In addition, a special support chat line will be available on the day of the deployment. You can send instant messages to VistaProject@myorg.com.

Your collaboration is really important and essential for the success of this project.

Thank You!
The Vista Project Management Team

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Vista Project Deployment Guide

Windows Vista

Deployment Operations

At Night Time — The installation will occur on your PC

Deployment Day — Verify the installation

Deployment Day — At Night Time: *Vista Project Team*
- The Vista Project Team will back up your system and install the new OS on your PC.

Deployment Day: *End Users*
- Verify the installation on your PC.

Your Responsibilities

One week before the deployment

Clean your documents	What you have to do
1. Your data files need to be copied on the network: (Word, PowerPoint, Excel, and so on)	▪ Delete all files that you do not want to keep. ▪ Keep only important files. ▪ Copy them to the network.
Note: The following files will not be recovered: MP3, WMA, WAV, VDS.	**How:** ▪ Open Windows Explorer, click on drive U: and do the following: ◦ Right click on the documents you decided to keep ◦ Click on **Copy** ◦ Move to drive U: and create a new folder if necessary ◦ Right click on the folder and click **Paste**
2. That's why, it is very important for you to clean all your documents.	

The Day Before

Protect your documents	What you have to do
Verify your files	▪ Make sure the files you want to keep are on drive U: ▪ Make sure you are registered for the training course

Deployment Day

Get Training	What you have to do
	▪ Attend the training program

After the Training

Verify your PC	What you have to do
The new operating system is installed on your PC	▪ Follow the activities that are included in the training guide to verify your PC

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Figure 10.3. A Typical Pre-deployment User Communiqué

> On site assistance is also a very good way to make the deployment smoother. By providing assistants that 'walk the floor' of deployed areas to provide direct assistance to users, you can buy enormous good will and make the transition to Vista even easier.

Perform the Deployment

When D-Day comes, the deployment team will migrate the PC. This involves running the engineering tasks—user data protection, OS installation, application deployment, user data restore, and so on—on the user's PC. Once again, the actual tasks will depend on the migration strategy you selected. For example, if you decided to perform a forklift migration and are replacing each PC through a general cascade of more powerful systems to each user, then you will be using a staging area for the preparation of the PCs. This means moving each PC from its present location to the staging area and back. In regions, this will mean having a mobile staging area that can go from site to site. If you are doing an attrition migration, then you will migrate only those PCs that are upgraded this year. Your pilot project will need to take this into account.

> If you are using a forklift migration, then you will rely on a pool of systems to start the process. When you deliver this initial pool, it will liberate more systems and rebuild the pool. This means you can build systems beforehand in a staging area and when it comes time to deliver them, your team only needs to replace the systems at user's desks, making it quick and efficient.

Ideally, whether you will be migrating all PCs or only a portion of them, you will be using remote deployment strategies to simplify the migration. Test each aspect of this process during your pilot project. Make sure you get full reports on the progression of the migration. These reports of migrations in progress, completed migrations, systems still to go and so on will be essential for the proper coordination of the project when the full deployment is in operation.

You'll also need to test your support strategy to make sure your support team is ready for anything and can respond to emergency situations with a minimum of disruption to end user operations.

Don't forget the regular team meetings. These are essential because they provide direct feedback on the actual performance of the project and they offer opportunities for pep talks and mutual feedback.

Collect Pilot Data

Pilot users are lucky because they get an early release of the new system, but there is a payment involved. Each pilot user must fill out an evaluation of their pilot experience. But they're not the only ones. Every other person that is involved in the pilot, from technicians to trainers to communicators, must fill out the pilot evaluation as well. You must evaluate each and every aspect of the project including:

- Initial user communications
- Deployment schedule
- Project management
- Technical installation and deployment
- Personality protection
- End user training
- Technical training
- Support process
- Overall solution design
- Desktop presentation and look & feel
- Risk management strategy

And anything else that makes up this end-to-end test. The more information you collect, the more feedback you will get.

Since the pilot is a complete test of all processes both administrative and technical for the deployment, it is important to obtain information about each step of the process and from each one of the people involved in the delivery and operation of the solution. Basically, you need to poll every aspect of the pilot project. Once again, the project's team site is by far the best location to both collect and process this data.

Perform the Pilot Evaluation

The project must first have taken the evaluation period into account—this is usually a period of two weeks—so that there is ample time to collect and evaluate the feedback provided by both the project team and the end users of the solution. In addition, pilot users should be given another two weeks to test and use their new systems.

Much of this feedback has already been collected throughout the proof of concept, but since most of the people providing feedback during this process were technically-savvy personnel, it often tends to be more technical in nature. It is often possible for these highly trained teams to overlook some things that seem totally obvious to a normal end user. Therefore, this is the type of information the project team should concentrate on during the evaluation of the pilot.

It does sometimes happen that some technical component goes wrong at this stage. This is often due to improper testing techniques and/or improper simulation of the production environment. Hopefully, this will not happen to you and your project, but if it does, the buffer time zone you created in the project plan to perform the evaluation may need to be extended, depending of course, on the complexity of the issue you need to deal with.

If modifications are extensive enough, you may have to redo the pilot. This is usually performed at the very beginning of the deployment and requires input into the deployment schedule. Most likely, you will be able to create a system update or patch that can be deployed with little impact to each pilot system.

If any issues are found, they must be dealt with thoroughly. This means performing any required corrections. They may range from simply rewriting the end user communications to rethinking the actual deployment process. Most likely the modifications will be minor. You should still take the time to make each one to ensure you have a product of the highest quality.

Then, when all modifications are completed, you need to get a sign off from upper management or project sponsors on the overall solution. Once this sign off is obtained, you can hand off the complete process to the deployment team and give the go ahead for the production deployment to begin.

The impact of using an attrition program is that your operations staff will need to support multiple PC OSes during a long period of time. This is expensive and cumbersome. There is no better way to provide top quality support than when you have a completely homogeneous PC environment. Make sure you consider this additional cost in your budget evaluations and in your long-term project strategy.

Performing the Final Deployment

Once you've completed the pilot project to everyone's satisfaction, you can move on to the meat of the project, the actual deployment. Everything you've done up to now has been leading to this point. Now, you'll focus on deployment coordination. This is perhaps the trickiest part of this operation: making sure that the deployment meets its performance goals and ensuring that every deployment experience is a good deployment experience. This is where deployment reporting will be crucial to the operation. Proper reports need to provide detailed information on the status of each installation, the number of installations per day, the number of remaining installations and the installation progression. These will prove to be invaluable planning and management tools as you progress through the deployment (see Figure 10.4).

Commercial tools such as Altiris Deployment Solution can provide comprehensive information at any time in your deployment. For example, Figure 10.4 displays a combination of both pre- and post-Vista migration reports through custom Web parts (not to be confused with SharePoint Web parts) in a quick glance dashboard view. As you can see, it shows you the entire migration job from beginning to end in one single dashboard. The first Web part shows the mix of machine types in an environment, including the processor architectures (Win32 versus Win64). The next Web part on the lower left shows the count of computers by operating system. The next Web part in the upper right shows a pre-assessment report, including computers that need to be upgraded and the costs associated with the upgrade. The next shows the most popular software installed, again, from the pre-assessment report. The final part on the lower left shows the real-time data from Deployment Solution and which migration jobs have completed along with any failures.

Reporting is closely tied to inventory and relies on the inventory solution you implemented or relied on to obtain your assessments before the migration program was launched. This solution should include canned reports that tell you how many computers are running the new OS, how many are still waiting for applications, the status of personality restores on each system, and the overall status of the deployment itself. Web-based reports are often the best because everyone who needs them has access to them without special tools and you can link them to the team site hosting your project's information.

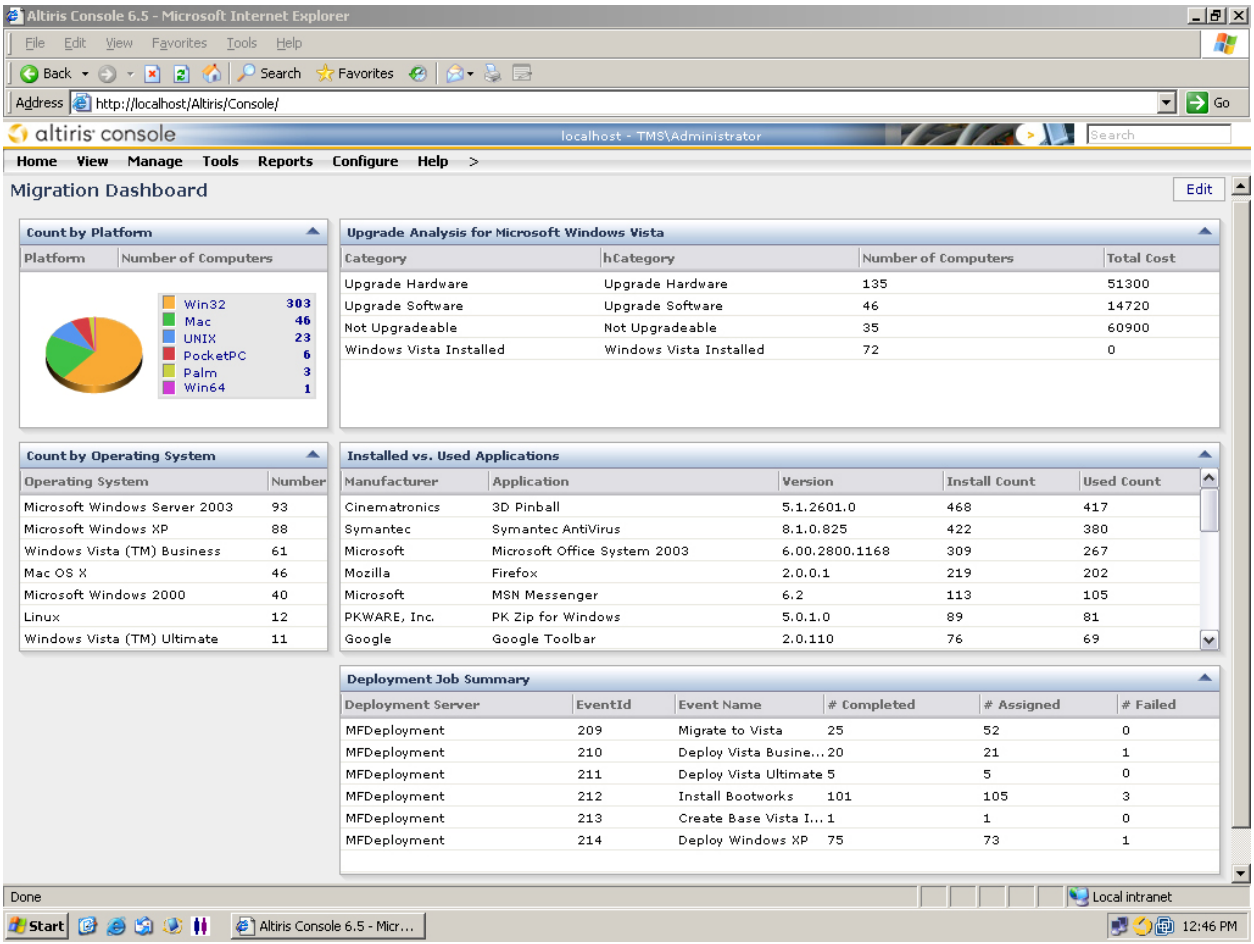

Figure 10.4. Altiris Deployment Solution provides comprehensive reporting in real time

As mentioned earlier, you should have a risk management strategy in place to ensure that you have sufficient numbers of users and PCs to deploy each day so you can meet production goals. After that, everything is nothing but a series of repetitive tasks that run over and over again until the deployment—whether forklift or attrition—is complete.

In the meantime, you can complete the technical training program to operations staff, bringing them up to speed on both the actual solution you are deploying and the general features of Vista and Office 2007 if you've elected to deploy a new productivity suite along with the OS. This general training program should address each and every technical professional in your organization, making sure they are all up to speed on the solution. You can marry this training program with the deployment and train operators as they are migrated to the new OS. This way, they can apply their knowledge as soon as possible. Training operators too early can lead to poor retention of new skills.

> Make sure you use focused technical training programs. Most technical training programs cover every feature that is available in a product. But your solution does not. This means you need to have trainers review the contents of your solution and modify training programs to remove anything that you did not implement. This will reduce training times and make it much more practical for your staff.

You'll also want to include a hardware disposal program in the deployment. If you are replacing hardware through an attrition program, then you can rely on your normal disposal program. If you are cascading all systems and re-issuing them into production through a forklift migration, then you'll only need a disposal program for those systems that are completely obsolete. Make sure you wipe the disks appropriately through either low level formats or actual wipe operations. It's amazing what hackers can find on disks that have been wiped improperly.

> Disk wiping programs abound and don't require you to put a spike through the hard drive. Many provide completely secure disk wiping. Some are free and others are not. Just search for 'disk wiping' as the key words in your favorite online search engine to locate the program you need. But, if you want completely compliant wiping, then look to Symantec Ghost which supports secure system retirement that is compliant with the Department of Defense requirements or Altiris Deployment Solution which also includes similar capabilities.

Finally, your deployment will take some time, perhaps months. Because of this, you need to have the proper infrastructure in place to allow you to manage updates and patches for deployed systems as well as updating the OS image itself. You'll want to make sure that all systems are up to date at all times. These tools will also verify that your systems stay pristine as per your original goals. Since you've aimed for a complete system lock down according to industry-standard best practices, you'll want to monitor each system to make sure it stays this way.

The deployment portion of the Transfer phase will take longer than the deployment itself. That is because of the project's support policy which needs to run its length after the final PC has been deployed. You can still move on to the next phase of the QUOTE System while this support program is running its length (see Figure 10.5).

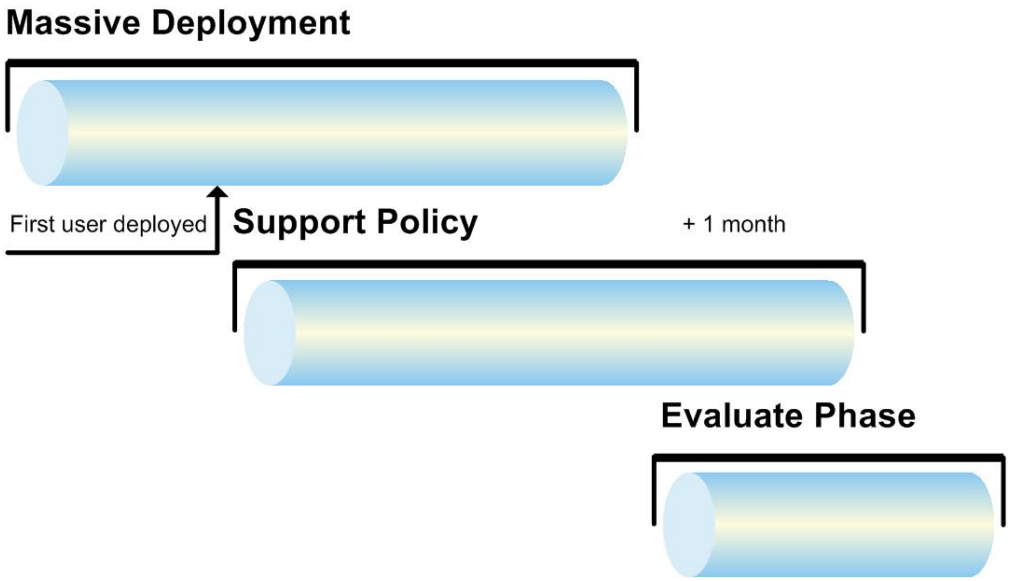

Figure 10.5. The Deployment Timeline

Running the Evaluate Phase

The Evaluate phase—the last phase of the project—is used to close off the project and pass each activity on to recurring operations (see Figure 10.6). In fact, it focuses on three key operations:

- Handoff to ongoing operations staff
- Project post-mortem analysis
- Preparation for solution evolution

Each requires special care to make sure the project is as complete a success as possible.

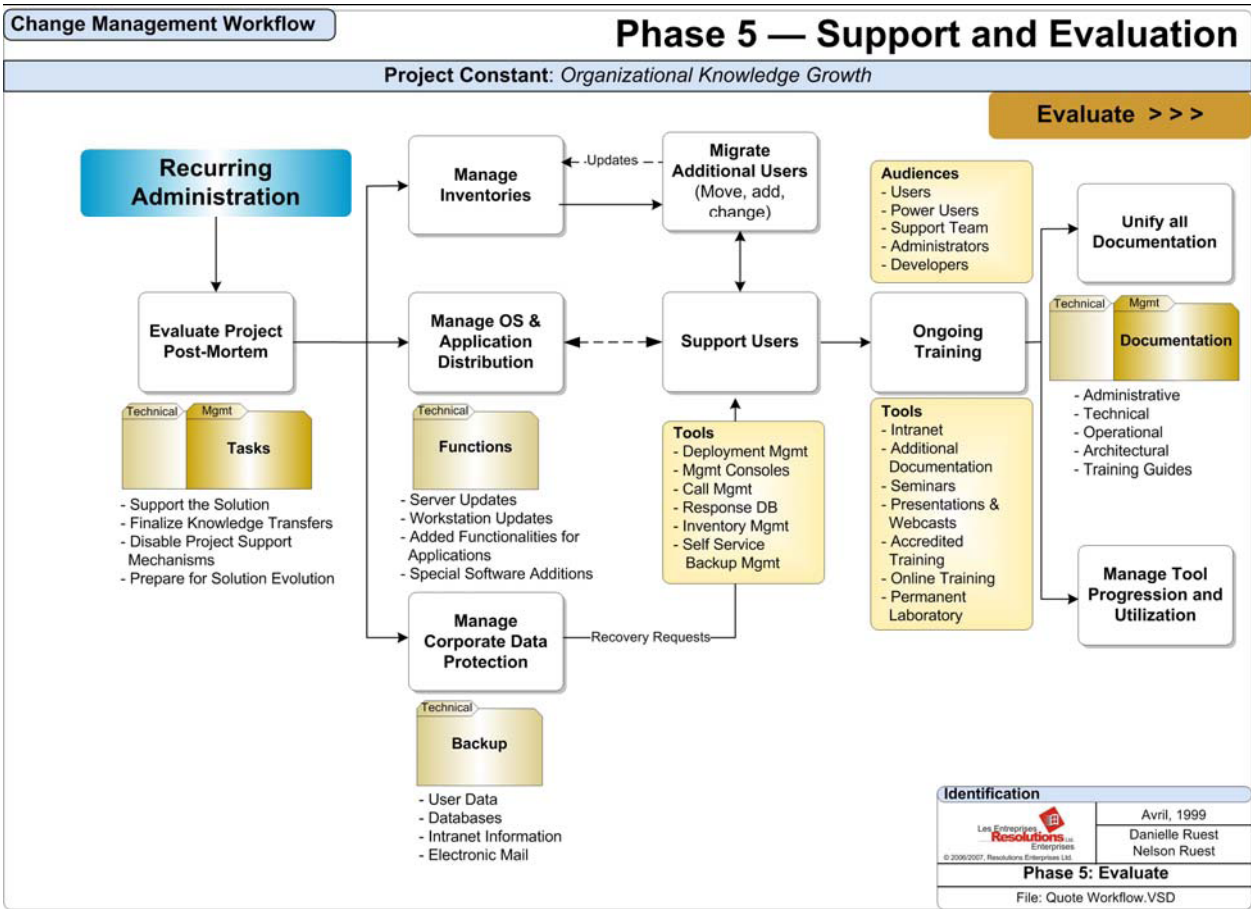

Figure 10.6. The Activities of the Evaluate Phase

Project Handoff to Operations

When the project is closing down, it needs to hand off all of its internal processes to ongoing operations. This usually involves three key activities:

- Final documentation delivery
- A final transfer of knowledge to operations staff
- Deactivation of project support mechanisms

The first portion of the handoff to operations is the finalization and delivery of all project documentation. Technical documentation should be provided to operations staff while project documentation will be handed off to your organization's project management office. Technical documentation should be customized to include the details of the solution you implemented. The delivery should also include an update program and schedule for each document. Each time a portion of the solution is modified or updated, the documentation should be updated as well.

> Technical documentation is often one of the most difficult deliverables to obtain. For some reason, technical staff members don't like to write. But it doesn't have to be complicated. Many technical resources on Vista exist already and are available from Microsoft at http://www.microsoft.com/windows/products/windowsvista/default.mspx. Since your documents are for internal publication only, you can use this information as a starting point and retain only those elements you included in your solution. In addition, you can use tables and spreadsheets to document the features you implemented. Several of the links provided throughout this book pointed to resources you can use as sources for your own documentation. Don't make the mistake of providing too little documentation. And, worse, don't wait until the end of the project to begin your documentation.

It is best to identify an owner for each of the documents in this delivery. If owners are not identified, then documentation falls by the wayside and quickly becomes out of date. Then, you have a corresponding loss of connection to the state of your systems and structure of your network. Make sure you don't fall into this trap: maintain your documents at all time.

The second portion of this handoff is usually delivered in the form of a custom training program that relies on a presentation format and open discussion between operations staff and project staff. The presentation should focus on the deviance registry—the bug tracking system used by the project—to cover the most common situations faced by support teams during the preparation of the technical solution and those faced throughout its delivery to end users. It should also identify the solutions used to resolve these issues as well as the tools used during the project support program to ensure that the systems were up to date. This training should also provide a map to all of the documentation delivered by the project, identifying where each deliverable fits into the solution as well as when and how it should be applied.

Depending on the type of technical training that was provided to operations staff, this handoff training program can take as little as one day per training group. If, however, operations staff did not receive a full complement of technical training covering every aspect of the solution, then your handoff program will need to be more complete and will require a longer time to deliver.

The third portion of the handoff deals with the support mechanisms put in place for the deployment. Just like the mechanisms for actual deployment, the support mechanisms shouldn't be dismantled at all. Instead, they should be merged into ongoing support mechanisms. Remember, new PC installations, PC re-installations and personality protections are ongoing operations that organizations must master at all times. Since you've gone through the trouble of putting all of these technologies together for the deployment, don't make the mistake of getting rid of everything just because the deployment is complete.

Operations staff will now be responsible for constant inventories, operating system and software deliveries and updates, as well as maintaining user data protection mechanisms. In addition, if you implemented a locked down environment as we recommended, then your staff will be responsible for monitoring the steady state of this lock down. Because of this, they will need to protect high privilege accounts and make sure they are secure at all times. If this is the first time they do this, they will need to be even more vigilant just to make sure your systems stay protected. This is a significant change for your staff. They can no longer ask for user passwords and must use proper security practices both in their own work and when they deal with end users. This will take some time before it becomes a habit.

This is one very good reason for using your own internal staff for the project as much as possible. This way, they begin to get used to the new technologies as they work through project activities. This makes for a much better transfer of knowledge.

Project Post-Mortem

Once the deployment is complete, upper management will want to evaluate the completeness and effectiveness of the rollout. How many machines in total are up and running on the new OS? Or, perhaps more importantly, which machines have not yet been successfully transitioned and what is being done about them?

In addition, you can rely on application metering tools to confirm an efficient use of all software licenses. Confirm that licenses have been allocated efficiently and take the time to calculate the percent improvement in ratios of what has been deployed versus what is in use for each application. This type of report will go a long way towards buying and maintaining good will with your management.

You should also review each of the project structures you put in place and identify which worked well and which didn't. This will let you identify which processes you can improve and where your strengths lie. It is also a very good idea to perform an actual costs versus projections analysis to see how you did overall in project budgeting. Finally, you should examine your projected timelines with actual deliverables to see how your projections fared. All of these are elements you need to review to make sure your projects constantly improve. Include each of these findings in your standard project start up guide.

Don't be a statistic. Make sure your projects are delivered on time and under budget. And in the end, you'll be able to build a set of customized best practices—practices that can make all of your future projects profitable and timely.

Rely on the QUOTE System for future projects. Now that you understand how the QUOTE System works, make it your change management strategy. It will help with IT projects of all types.

Calculating Return on Investment (ROI)

You might also consider the value of conducting a formal return on investment (ROI) study based on the project. What were your costs for rolling out an OS before this project? Which tools provided the best help to automate the process? How much did you save in terms of hard dollars and reduced deployment resources using these tools? How did application virtualization help? Are the issues you identified at the beginning of the project resolved?

In a standard environment, IT staffs spend much of their time dealing with the deployment of new machines, operating systems and applications. If you remember Figure 1.10 from Chapter 1, you'll remember that according to research firm Gartner, organizations implementing a well-managed PC platform can reduce costs by up to 40 percent. Did your savings match or even beat this projection? Creating an official ROI report is another way to generate positive visibility throughout your organization for the project you just completed.

Future Systems Evolution

The project is coming to a close as you finish the final phase of the QUOTE System. Now that Vista is deployed on all of your systems, you can begin the move towards systems evolution. You should first identify if you've met your systems management goals. Use the following strategies.

- **Review support calls:** Identify if the number of calls has been reduced or if their nature has changed. The number of calls should be significantly smaller and calls should be focused on usage tips, not system problems.
- **Poll users:** Are they satisfied with the level and quality of IT service? Were they satisfied with the deployment?
- **Review procedures:** Are IT staff using standard operating procedures and has it reduced the number of incidents they need to deal with on an ongoing basis?
- **Manage change:** Is your organization now ready to manage IT change on an ongoing basis?

The implementation of a project of this magnitude isn't an easy process, but with the principles and practical examples of this guide along with industry best practices, you will be able to put in place a complete continuous change management process for PCs within your organization.

Change is an ongoing process. It is the very nature of IT and anything technical in nature, especially computer technology. Vista is only the beginning. Next, you'll want to deploy Windows Server 2008 to take advantage of even more of Vista's feature set. Many of the practices and strategies you used here will be reusable for that process.

> 🕮 For more guidance on migrating to Windows Server 2008 and taking advantage of its new operating system virtualization capabilities, look for **Windows Server 2008: The Complete Reference** by Ruest and Ruest from McGraw-Hill Osborne, ISBN-10: 0-07-226365-2, ISBN-13: 9780072263657 which should be available in bookstores by November 2007.

But change is something that can be controlled as you've seen throughout this project (see Figure 10.7). There are a number of different drivers for change, but if you apply structured practices and risk management, you will be able to move from point A to point B without too many disruptions to your organization. That's because now that you have a structured systems management strategy, you'll always know where you are starting from. With your new inventory systems, you should have and should always maintain proper information on your current situation. Change management starts at the current situation, reviews new product features, identifies industry and manufacturer best practices, identifies modifications to existing standards and potential problems and uses these elements to perform the change in a structured manner.

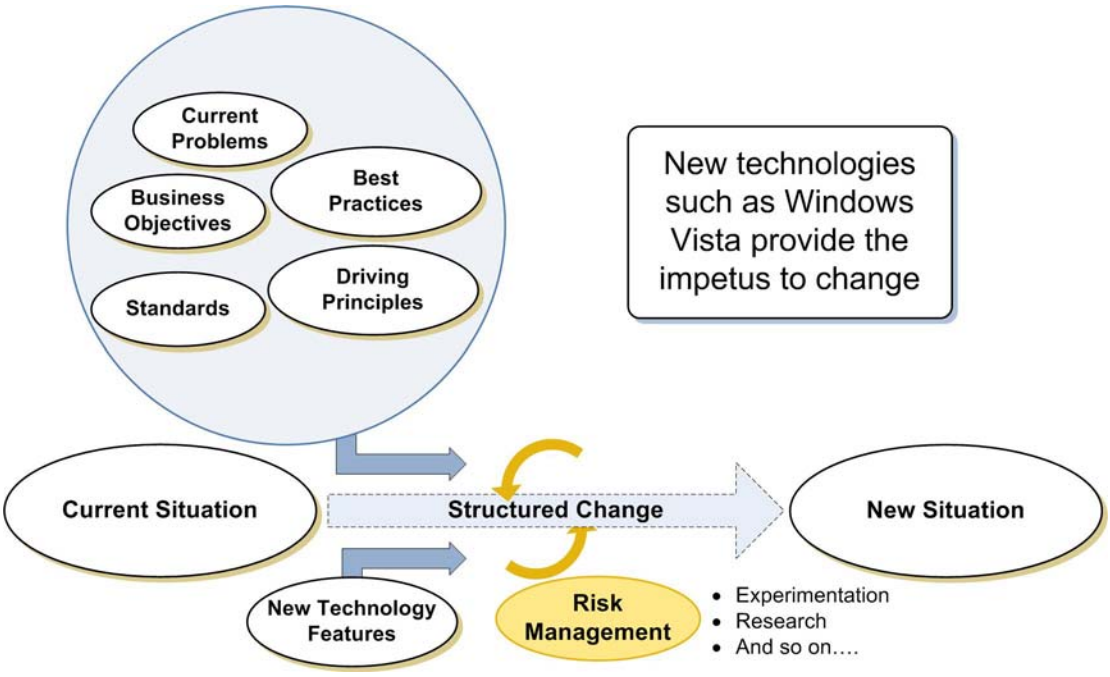

Figure 10.7. The Change Management Process

Taking Baby Steps

As you've seen, the QUOTE System is a cycle—a cycle that begins again once it is complete. The goal of your project has been to implement a single standard operating environment. Now that it is in place, you can add functionality and capability, as you need it, and at the pace you need it (see Figure 10.8).

Many organizations see the move to Windows Vista as a major undertaking. And such it is. But if you take it in stride and design your initial implementation project with more reasonable objectives, you can take smaller steps towards the migration. How do you do this? It's simple.

Windows Vista includes a host of new and improved features. You don't need to put them all in place at once! Design your initial project with the objective of putting in place half or less of the new feature set. Then, once the new technology is in place, scale your network by introducing specific features through mini-projects.

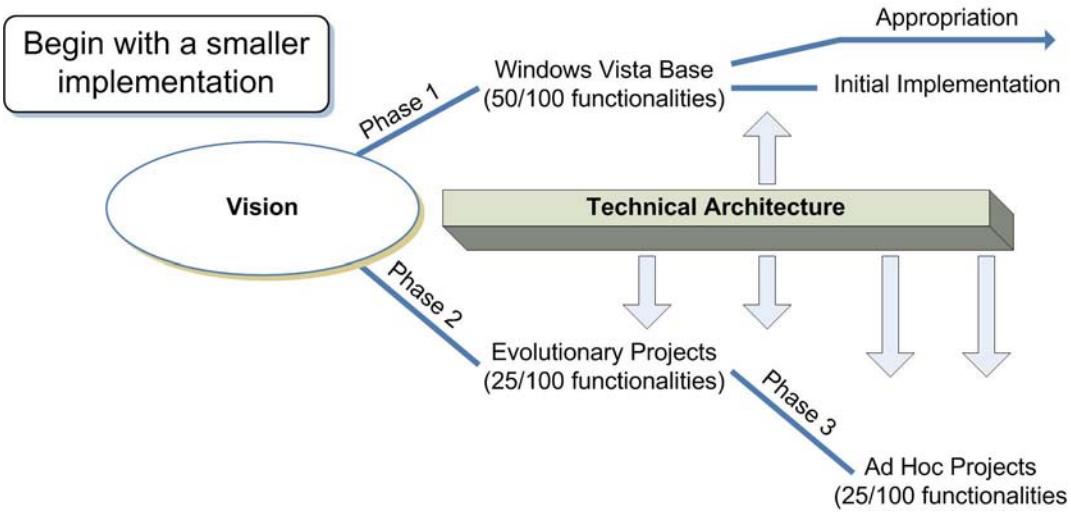

Figure 10.8. Taking Baby Steps towards a Migration

> The ancient Chinese philosopher, Sun Tzu, stated in **The Art of War** one of the world's most famous proverbs: 'Divide and conquer.' This is exactly what you should do when implementing major technological change. Divide it into smaller pieces or 'baby steps'. It will be much easier to conquer.

Taking small steps is just what the QUOTE System is all about. In this guide, you use the QUOTE to perform your initial implementation of Windows Vista. Then, you use the Evaluate Phase to begin systems evolution. It is at this point that you begin to recover and re-use your migration investments by starting to add functionalities to the network environment. And since you now have a controlled IT environment, the changes you bring to your new network should no longer disrupt business operations. In fact, you begin a new QUOTE each time you start a mini-project to add new functionality.

Lessons Learned

During this project, you learned quite a bit of information about yourself and your organization. Here are a few final tips to assist your new evolutionary phase.

1. Be sure you have clear objectives. And if you use teams that include both internal personnel and external consultants, be sure that these objectives are completely clear to both teams. Ensure that each team's own objectives are identified and communicated to the other.
    a. Be sure to make it clear to your internal team what 'project mode' means. Often, external project teams are in project mode while internal teams are still in recurrent management mode. Project mode means deadlines, deliverables, acceptance processes and accountability. You can't put everything off until tomorrow when you are in project mode.
    b. Your internal team may be disturbed by the external team because they will not necessarily have the same objectives or work at the same pace. It may be a very good idea to ensure that internal teams have a small 'project management' course at the beginning of the project to ensure the smooth integration of both teams. This should be part of the Project Welcome Kit.

2. If your internal teams have specific objectives that may not necessarily be covered by the project, make sure that these are identified at the very beginning of the project. If there can be any synchronicity between these specific objectives and the project's own, map it right away.
3. Make sure you design and use Project Welcome Kits for each project you implement. These are seldom created yet they can provide so much help because, at the very least, they clearly identify everyone's roles and responsibilities.
4. Make sure that your current situation analysis provides a summary report. The current situation is the starting point for any change. If you don't have a complete summary of the situation, it will be very hard for external consultants to be able to grasp the complexity of your environment. The summary will also provide a clearer picture of your organization to internal team members.
5. Make sure you have regularly scheduled update meetings during your implementation project. Communications is the key to both change and risk management. These updates are crucial to the complete success of your project. Also, don't forget communications to users. Good will generation is part of every change project.
6. When you design the operational mode of your project, document it and make sure everyone sticks to it. If deliverables have a set timeframe for acceptance, accept them within this set timeframe. If escalation procedures work in a specific manner, use them in this manner. Do not deviate from set practices unless it becomes critical to do so.
7. Make sure you have a very tight grasp on project activities. Slippage can put the project at risk. It's up to your team to make sure this doesn't happen and if it does, that you're ready for it.
8. Select the right project manager and technical architect. These roles are probably the most critical in the entire project.
9. Learn to delegate! Too many projects use key internal personnel for every single critical activity. If you find yourself in this situation, learn to identify what is the most important to you and delegate other tasks. Many projects put themselves at risk by relying on the same persons for every critical activity. This is one good way to burn out and fail.
10. Once you have rationalized technologies within your network, make sure department managers stick to the rationalization processes. Make them understand the dollar value or extra expense associated with their acceptance of non-standard products.
11. If you use external consultants, make sure you team them up with internal personnel. Ask them the right questions and have them document their answers. Make sure you make the most from the knowledge transfer process.

12. Learn to recover and re-use your investment in your migration project by continuing to scale your IT environment once it is completed.
13. Once you've implemented systems management practices, don't lose them! Systems management is an ongoing process. Ensure that you follow its growth and learn to adapt it to changing business needs and technological environments.
14. Don't forget that the first time is always the hardest time. Practice lets you learn from your experiences.
15. One final recommendation: in your implementation, don't try to adapt people to technology, adapt technology to people. That's what it's made for.

This project involved a lot of activities, but the results make up for them. Managed systems are about increased productivity, reduced support costs and constant evolution. They are about constantly being up to date in terms of the technology you use in your network. They are about using IT as a strategic business tool. But, to do so, you need to provide continuous learning environments for continued increases in people skills. You also need structured change management practices.

Make the project team site evolve. It can easily become the source for a continuous learning center for Vista and other technologies. Evolution doesn't stop with the end of the project. Make sure you continue to foster knowledge and advanced usage of the technologies you took so much time to implement.

Relying on technology is about three factors—People, PCs and Processes—interacting in your own IT environment to the profit of your organization. Make the most of it now that you control your PC assets.

Moving on to other QUOTEs

We finish the QUOTE for Vista with a move to other feature implementations and, eventually, other migration projects. But now, they should be considerably easier to perform. You will determine the success of your own implementation. The value you place on IT will help determine the level of benefits you will draw from the systems you use. Technology is an asset that you control, not the other way around.

This guide brings together the sum of our experience with migration projects. We've tried to make it as useful as possible, but there is always room for improvement. If you find that there are links missing or even if you have comments on its contents, don't hesitate to communicate with us at VistaGuide@Reso-Net.com. Good luck with your migration!

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