

Taking the stress out of roll-out

From my experience, both as a consultant & technical project manager overseeing many roll-outs of varying size and complexity for a number of different companies, there is a common denominator that distinguishes the roll-out project from any other, the 'user factor'.

While the introduction of new line-of-business applications, e-mail, upgraded hardware and so on, may fail to capture the imagination of users, there is nothing like blitzing someone's treasured desktop and replacing it with a different environment, new applications and potentially tighter restrictions on their capability to modify and customise settings, to awaken their interest and stir anti-IT sentiments.

Because of the importance of the user factor in a successful roll-out, this article addresses these considerations as well as the technical issues surrounding such an undertaking.

Project team size and structure

Every project will need to have a project team structure that is individual to the set of circumstances and parameters for the particular customer that is considering the roll-out. Often, these factors fall into two broad categories, organisation factors and technical issues. Note that I am only considering the deployment aspects of the project here, not design or development.

The organisational factors include site distribution, out-of-hours working necessity, roll-out heartbeat, administrative support provided by the customer, accuracy of audit information, availability of username, mailboxes, and so forth.

Among the technical issues are migration of existing environments,

LAN/WAN performance, customers' technical support skills, hardware performance/compatibility and complexity of integration with legacy systems.

As a general rule, however, the following team structure can often be advocated:

- **project sponsor** is a representative from the customer organisation who is tasked with championing the project and being the principal interface for any external company charged with undertaking any sub-contract work. The project sponsor role is exposed to the severest political wrangling and should only be assumed by someone with strong interpersonal and organisational skills.
- **technical project manager** is effectively the project leader and takes on the day-to-day responsibility for smooth execution of the project and ensures that focus is not lost from the business reasons for doing the work. The TPM will manage project risks and any technical issues that arise. The TPM would often need to be of MCSE status with at least three years experience of such projects.
- **project coordinator** is largely an administrative role, responsible for locating users, coordinating and updating audit information, direct communication to end users and so forth. The project coordinators would not need any significant IT skills.
- **implementation technicians** will be responsible for the customer-facing role of deploying the operating system, software and any application/hardware re-configuration. The technicians would normally need to be of MCP calibre with a minimum of two years experience in NT support and administration.
- **user IT representatives** are the real make or break potential heroes of the project. The role of the user ▶

CASE STUDY

David M Wozny, technical project manager, Lynx Technology, considers one of the most stressful challenges that any IT professional could ever have to face, the 'roll-out'

IT representative is to be a single point of contact for a discrete group of users, the principal focus for liaison between 'the project' and the user community. Often the 'power users' within a department appear to be the most appropriate user representatives, but this can be a difficult call as they are habitually difficult to control and may have their own agenda.

A motivated organiser/busybody with a good IT awareness (not necessarily particularly IT skilled) often makes the best candidate for this role. With a number of enthusiastic and committed IT reps on-side, a roll-out project has a good chance of success. With poor IT reps a project can lurch from one setback to another.

Technical considerations

The technical influences on a project are far too widespread to cover in any significant detail in this article. Instead, I will present some of the most frequent obstacles that I've encountered and discuss how they can be addressed.

Design for simplicity – not complexity

Far too many roll-out projects are hindered rather than enhanced by overly elaborate design goals. Trying to make every aspect of a user's configuration roam, especially for 16-bit and non-Microsoft 32-bit applications, is unrealistic. Trying to establish a single configuration for the entire organisation is similarly an often-unattainable goal; having a small number of managed configurations is not a sin. In summary, keep it simple.

Implement adequate change control procedures

Technical developments and changes to build configurations should be to design decision/recommendations – not to the whims of developers. Carefully controlled and effected changes are the only way to ensure that consistent updates are applied and design/development ownership is maintained. Make these controls

workable. If they are not they will only be by-passed and you will have wasted your effort. Beware the cost of non-conformity!

Ensure accurate inventory/freeze on PC movements

Obtaining current/accurate audit information is always problematic. Generating a workable deployment schedule to fit this static information is often a difficult enough challenge. Add PC movements into the mixing pot and stir. What you now have is an impossible moving target you just can't reach. Ensure the project sponsor is doing everything in his or her power to get the backing necessary to freeze movements during the duration of the project.

Hardware sizing & compatibility issues

Be realistic about minimum specifications for PCs. Those Pentium 90s with 32MB RAM may just about boot the NT4 O/S, but remember a poor user then has to operate that PC and fire up Word and perhaps Outlook. That PC will probably produce many support calls, hugely increasing its cost of ownership. Replacement costs should be vigorously justified against this increase in ownership cost.

Rapid deployment practices

After many years of burying their heads in the sand and threatening to refuse support to anyone who utilises disk/partition cloning deployment methods, Microsoft now acknowledges, supports and endorses this valid technique. SID generation issues were part of the reason why Microsoft wanted us all to avoid using cloning, but now it has produced the 'SysPrep Tool' which works with third-party disk-cloning tools such as Norton Ghost or PowerQuest Drive Image Professional to overcome the SID problem.

Note Microsoft only supports computers deployed with its own SysPrep SID generator; it does not support third-party product generated SID changes. When designing your images bear in mind that software components will inevitably change due to fixes,

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enhancements and simply due to new requirements.

Do not get paranoid about making changes; just make sure you do them in a controlled manner – and remember, the change controls are there to help, not hinder you, so make sure that they are workable and not overly bureaucratic.

Documentation

This is the 'boring' bit that always gets left until the end of the project when systems are operational and there seems little point in doing it. Wrong! I once heard a quote along the lines of 'the proof of understanding is the ability to explain', and I believe project documentation observes this characteristic – if you can't adequately document it, you probably don't really know it. Don't get hung up about beautifully formatted pages with sectioning and numbering that would do a legal practice proud; we are talking practicality and usability. Any documentation that ends up curled at the edges, smudged, torn and scribbled on has probably hit the spot. Documentation that sits pristine in a project folder and never sees the light of day has failed.

The future

Windows 2000 will change the way roll-outs will be conducted forever, for the better. It has excellent deployment tools built in – especially the support for remote installation services (RIS) that will make many of the technical aspects of managing a roll-out easier. Network interface cards supporting the Pre-boot eXecution Environment (PXE) enabling connection to servers without boot disks and client software will be a huge leap forward.

However, it will probably be more important than ever not to lose sight of the fact that technical excellence in itself will not deliver a successful project – it is still people and the organisation that will make the difference between a project being viewed as a winner or a loser.

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