

# Best Practices White Paper How to Solve The Migration Puzzle

Open Text Connectivity Solutions Group March, 2010

#### **Abstract**

Rapidly advancing technologies and increasing pressure for better return on investments are constantly driving changes to desktop software. Terminal emulation software is one of the most deployed desktop solutions in the IT world, connecting countless users to legacy green screen applications running on Mainframes and AS/400s. That is why any change to the terminal emulation solution, whether it is upgrading from an older version or standardizing terminal emulation, must not be regarded lightly.

As an industry expert in the terminal emulation market, Open Text has developed a Change Management Cycle methodology that has successfully helped organizations replace over half a million seats of terminal emulation software.

#### Highlights:

- Review reasons for changes in the terminal emulation market
- Identify stakeholders in a terminal emulation standardization project
- Propose an easy 7-step methodology to manage the project



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### Introduction

Change is good--if it is controlled. Many of us have been trapped dealing with the chaotic aftermath of uncontrolled change when "a little change" was all that was supposed to happen. Not surprisingly, these situations seem to occur more frequently in the IT world, where ever-changing technologies and the increasing pressure for return on investment are key drivers.

On the list of potential chaos generating IT projects are those related to the replacement of desktop software. By nature, desktop software is meant to be deployed on hundreds or thousands of machines, possibly impacting the work of every employee in an organization. The good news is that thanks to this, risk is spread over the entire employee population, and it is less likely that a problem on one user's desktop will paralyze everyone as is the case when dealing with server software. On the other hand, if this particular user's title happens to start with a capital C, such as CEO, COO, CFO, CIO, or CSO, this could be as paralyzing as halting every user's productivity. Terminal emulation software falls into this category.

The main function of terminal emulation software is to do what its name suggests; offer the same functionality as a hardware terminal. Organizations that use terminal emulation software usually have legacy green screen software installed on mainframes, AS/400, or UNIX machines. One of the reasons why they still have this kind of software in the age of Web 2.0 is that these applications are critical to running their businesses. Besides, the cost of their replacement would far outweigh the potential gain that such a replacement could bring. Unbeknownst to the users of MySpace and FaceBook there are still tens of millions of individuals around the world who need to access a green screen terminal interface to accomplish their work.





# Winds of change

There are many reasons why a company would consider changing their terminal emulation software, and all of them eventually come down to return on investment. While exploring these reasons, the following categories surfaced:

**Technology:** Migration from SNA to IP-based communication, or a change in operating systems (XP to Vista for instance), or a shift in the IT paradigm from desktop to thin client computing, are often potent triggers that force organizations to review which software solutions are most compatible with the new platform or infrastructure.

Economics: Strategic choices, such as acquisitions and mergers, organizational realignments, and cost reduction plans always translate into deep changes at the tactical level. These types of changes lead departments to reconsider their budgeting decisions and, therefore, their software purchases.

Commercials: Not all terminal emulation vendors are made equal; many vendors are guilty of customer adverse policies, unfriendly channels, and a lack of focus on their core business. Combined with declining revenue, these issues have put a lot of pressure on some vendors over the last 10 years and have led customers to reconsider their choices.

Regulations: Government and industry regulations, such as SOX, HIPAA, Gramm-Leach-Bliley, and Basel II, and industry standards such as FIPS 140-2 and PCI Data Security, have also prompted businesses around the world to perform thorough assessments of their IT infrastructure in order to reach the required compliance levels. Quite often, these assessments have resulted in reviewing previous software or hardware decisions.

# Striking the right balance

Terminal emulation software replacement projects are often handled by two types of stakeholders in any given company: the economic buyers and the technical buyers. Both parties involved must collaborate effectively by managing the different aspects of the project to ensure a successful outcome. While economic buyers are worried about reducing direct and indirect costs, technical buyers are motivated by ease of deployment and impact on project deadlines.

Cost of acquisition is often a poor indicator of which vendor should be chosen. Instead, an effective selection strategy consists of collaborating with the technical buyer to determine the overall time required to migrate from the previous product, as well as the ongoing resources needed to support the software in the future, and integrating these costs into the ROI and TCO calculations.

Besides verifying a vendor's reputation and track record on the market, economic buyers should also consider the services the vendor can offer in managing





licenses. A flexible license policy and a guaranteed level of service are often overlooked but remain critical pieces in the overall success of a terminal emulation replacement project.

Technical buyers, on the other hand, encounter different challenges starting with the constant pressure of the many projects they're handling and their dramatic deadlines. When it comes to terminal emulation software, the issues are complicated by the fact that many technical employees are not mainframe experts. They've grown up in a personal computer world and are often desktop support managers and not legacy system specialists. For this reason, software that is simple to use and deploy is their top priority.

Key technical aspects that should be considered involve deployment methods, macro conversion, legacy API support, infrastructure impact, and security requirements.

# The Magnificent Seven

This section details the Open Text Change Management Cycle, an easy sevenstep methodology that should allow most organizations to identify the scope of and manage their terminal emulation replacement projects successfully.

#### Listing your requirements

Putting a few stakes in the ground may sound simple, but let's face it, few organizations do it. If they realized how powerful it is to gather a few people in a room and ask them what they need, they would never skip this vital step. At this stage, you should also start building expectations by establishing goals, setting up cost and resource limits, and defining measurable criteria that will help you monitor the success of the project. Running an internal audit and working with inhouse emulation "experts" will also save you a lot of future headaches.

### 2. Evaluating offers

The next step is to formalize the call for submission. Calling your reseller and asking for evaluation copies of every terminal emulation solution available is not enough; you need to document your findings from day one. Perform some online due diligence and gather a multi-disciplinary team to review your findings. It could be a good idea to involve those that will use, deploy, support, and pay for the software. Start a quick technical check by installing the evaluation copy and performing a couple of basic tasks, such as connecting to your host, navigating inside applications, and calling a few function keys.

### 3. Recreating the environment

This step is a critical phase of your replacement project. It may seem obvious but whenever you change desktop software, you need to ensure that the new product





offers, at minimum, the same functionalities as the old one. Begin by checking basic emulation settings such as protocols, keyboards, colors, terminal settings, printing, and file transfer. Then, organize user groups and ask the vendor's system engineers to help you architect the environment. Always favor products that allow you to heavily customize user interface elements such as toolbars, menus, and context menus.

#### 4. Migration and conversion

As the years have passed, your users have not only accumulated habits with the previous terminal emulator, they've also customized it to their own personal tastes; colors and keyboards for the less adventurous and macros for the power users. Since you can't manually recreate every single user preference manually, look for conversion tools that automate the migration of user profiles and macros. Some of these tools not only convert macros automatically but also offer the same development environment as their competitors. Pay extra attention to APIs and third-party applications that can use your emulator as a gateway to mainframes. Not many terminal emulation solutions offer strong compatibility between the various HLLAPI, EHLLAPI, and WINHLLAPI flavors that are on the market.

#### 5. Security

As omnipresent as it can be, security is often considered synonymous with encryption in the world of terminal emulation. Encryption is certainly a key element of security, and every organization replacing their terminal emulation software should be aware of the risks of running clear-text protocols on their network. A simple way to mitigate this risk is to ensure that your next emulation solution supports authentication and encryption standards such as SSL, Secure Shell, or Kerberos. However, security also depends on your ability to operate the software in a locked-down desktop environment and customize the product to restrict user access to necessary features.

### 6. Deployment

Deployment is the last milestone before the software hits the user's desktop. It is extremely important to understand that application delivery is a detail, not a product choice. You may have a group of users who needs a feature-rich desktop solution and another group that needs to access green screen applications through a web portal, but it does not mean you need multiple software packages to satisfy your requirements.

You should favor solutions that will allow you to give both traditional desktop and thin client users access to the same software, with the same power and support the same set of APIs. It shouldn't matter whether the terminal emulation session is delivered via CD or a web browser, users should still be able to run the same macro, use the same toolbar, and have the same user experience.





This type of solution gives companies the ultimate control on deciding what features their users need, and let the software take care of the deployment details.

#### 7. Support and maintenance

Now that you've successfully audited, evaluated, re-created, converted, secured, and deployed your solution, you need to make sure that all of your efforts don't fall into oblivion over the life of the product. This is where technical support and patches are key. When it comes to technical support, try to obtain customer testimonials. This should be easy to do and guarantees that the vendor you choose pays attention to customer satisfaction. On the patching front, make sure that patches come in two fashions: hot fixes for emergency situations, and update packs, which cumulate all previous fixes. Finally, make sure your maintenance contract includes access to the latest version.

# **Final Thoughts**

Changing terminal emulation software is not rocket science, but it requires a fair amount of planning to do it correctly. There are many terminal emulation vendors out there, but few can stand up to all the levels of scrutiny described in this methodology. If you are currently using terminal emulation software in your organization, take a few minutes to call up Finance and find out how much it costs you per year. Many organizations take this software for granted and some vendors exploit that situation, overcharging customers for maintenance and providing them with lousy service. Make sure you're not one of these organizations.





#### **About Open Text Connectivity Solutions Group**

Open Text's leading Connectivity Solutions connect people, data and applications in mission-critical environments through a complete line of remote application access and data integration solutions. With 90 percent of Global 2000 companies relying on its award-winning solutions for over 20 years, Open Text understands the financial and operational challenges that most organizations face, whether they are multiple systems, disparate data sources, or geographically dispersed teams.

#### **About Open Text**

Open Text is a leader in Enterprise Content Management (ECM). With two decades of experience helping organizations overcome the challenges associated with managing and gaining the true value of their business content, Open Text stands unmatched in the market.

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It is this knowledge that gives us our unique ability to develop the richest array of tailored content management applications and solutions in the industry. Our unique and collaborative approach helps us provide guidance so that our customers can effectively address business challenges and leverage content to drive growth, mitigate risk, increase brand equity, automate processes, manage compliance, and generate competitive advantage. Organizations can trust the management of their vital business content to Open Text, The Content Experts.

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