

Delux Velocity System

For

Neshamkin French Architects

Phase I

Phased Plan Upgrade

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Prepared By, Nicholas R. Iandolo, Project Manager

Table of Contents

Introduction..... 3
Current Network Status for NF Architects 3
Phase I – Server Migration and Network Infrastructure Redesign Part I 5
 Overview..... 5
 Equipment Required 6
 Statement of Work 6
 Cost Analysis Matrix: 7
 Detailed Analysis 7
Phase II – Network Infrastructure Redesign, Part II: Overview 8
 Summary 8
Phase III -- Network Infrastructure Redesign, Part III & Integrated Backup Solution: Overview 8
 Summary 8
Phase IV – Network Enhancements: Overview 9
 Summary 9
Phase V – Final Cut-Over, Diagnostic Tests, and Evaluations..... 10
 Summary 10
Phase VI – Software Management..... 10
 Summary 10
Conclusion 11

Introduction

VelocityDomain Network Solutions is proud to present our proposal for Phase I of our new Delux Velocity System exclusively designed for Neshamkin French Architects, Inc. (NF Architects). It is the goal of VelocityDomain to provide its clients with a high quality of service in providing specialized solutions for each organization. In this regard, we would like to introduce our model of a highly robust and competitively priced Phased Plan Upgrade for NF Architects.

Welcome to VelocityDomain Network Solutions, your gateway to project management results on a corporate scale. VelocityDomain's proprietary solution packages are both ubiquitous across industry standards and custom fit for your organization's exacting needs. Whether you're looking for an Online Workflow Integration System, Proprietary Network Enhancements, Phased Plan Proposals and Industry Research Documents, or a Remote Access POS System (to name a few), we manage the projects that help you succeed.

Current Network Status for NF Architects

All user workstations (with the exception of a few that will be decommissioned in the near future) have been upgraded to Windows XP Professional Edition for efficiency and stability. No future workstations should be integrated in the NF Architects' network environment that are running anything less than Windows XP Professional Edition or higher.

Networked printers should be removed from workstation control and moved directly on the network via a high-capacity print server. Without this upgrade option, continual printer issues will arise necessitating the services of IT consultants/administrators to address these issues on a routine basis. The back end server is inappropriately utilized as a low-capacity print server for some of these printers, thereby causing printer access problems (as evidenced in the VDNS Action Report, separately submitted to NF Architects). Furthermore, the back end server and primary domain controller, running Windows NT Server with Service Pack 6a, needs to be upgraded to Windows 2003 Server edition (with appropriate licenses, and the latest service packs) and **re-purposed**. A new more capable back-end server running the Windows 2003 Server operating system (with 25 client access licenses or CALs) needs to be integrated into the NF Architects domain and directly connected to a robust new backup system. If this is not done, compatibility issues will arise when joining new workstations and software upgrades to the domain. Ultimately the system may exhibit an unrecoverable failure if this upgrade is not performed, causing a drastic loss in productivity and revenue.

The back end server has no viable backup solution. Currently, all pertinent files are manually backed up by copying them to a local user workstation. If the system goes down and is unrecoverable, and the aforementioned user workstation is inaccessible, there will be no way to restore these precious files. Multiple hardware and system failures are not uncommon in a networked environment. Furthermore, there is no guarantee that these backups are current and viable. What is required here is a "dedicated" backup solution that takes the risk management out of the hands of one user and his or her workstation and puts it where it should be: in the hands of the appropriately designed system and the network administrator.

The existing Software Management is currently antiquated and should be redefined for efficient use and setup for new and existing users. All software should be kept in a secure location, be fully licensed, and

installers should be located on the network or as a ghosted image (or both). The rationale for this is simply that should any key piece of software on disc be lost, stolen, or damaged, there is a viable way to restore access to it (NF Architects is paying large amounts of money for this software and should be assured that it is safe, sound, and accessible). Furthermore, network installs (and ghosted image installs) make setting up new users extremely efficient and help to track licensed usage much more reliably.

The existing cabling system is currently **unmanageable**. Hazards to network operations will occur more frequently as more demands are put on the system. All Ethernet cables need to be taken off the floor of the office and a comprehensive professional cabling job must be implemented.

In conjunction to the cabling upgrade necessity, all network routing equipment (DSL Router, 8-port HUBs, and print server appliance) **need** to be lifted off the floor and out from under the user workstation where it currently resides. The potential for disruption to network operations by keeping these devices in such a hazardous environment is almost as great as the cabling issues. These devices should be kept in a telecommunications (telco) closet or in a secured server room and rack-mounted where they can be easily administered. Furthermore, the existing 8-port HUBs are virtually “maxed out” and should be replaced with at least a 48-port 10/100/1000 Bit switch, linked to a patch panel (with appropriate networking connections integrated into system).

Finally, network security needs to be considered. All related networking and back end server equipment should be located in a secured location where only the network administrator and executive staff should have access. Policies for: software usage and licensing, tracking equipment usage, and usage of network resources should also be drafted in order to ensure a seamless and tightly integrated workflow with the highest efficiency standards. The internal network environment should also be protected against attacks from outside sources via the Internet through the use of more powerful routing appliance with built-in firewall, VPN and network security systems. This will allow convenient remote administration and secured access to the internal network for greater productivity. The potential for sabotage by a disgruntled employee, ex-employee, or by a competitor, along with various disasters from Acts of God or nature, could result in NF Architects losing vast amounts of data, productivity, revenue, and industry reputation.

This overview is designed to illustrate where improvements are imperative in ensuring a stable, robust, expandable, and secure network environment for NF Architects day-to-day operations and for their future expansion needs. The following sections will detail how these tasks will be accomplished in a six phase/six month plan that compliments ongoing operations with little or no disruption.

Achieving the proceeding improvements, detailed in the following sections, will undoubtedly save NF Architects protracted costs and lost productivity that will benefit the organization well into the next decade. VelocityDomain will introduce and discuss the most **cost-effective** means to accomplish these goals under its proprietary DELUX VELOCITY SYSTEM tailored for NF Architects specific needs.

Phase I – Server Migration and Network Infrastructure Redesign Part I

Overview

This phase will take place over a period of one month mostly during off hours. Essentially, NF Architects will purchase the necessary equipment and software via VelocityDomain's purchasing agreements with third-party vendors to be implemented into their networked environment.

The existing Windows NT Server will continue to function as the company's primary file and printer server while a parallel installation of a new rack-mounted server running Windows 2003 Server will be installed. Furthermore, a new small foot print dedicated rack-mounting enclosure will be installed in an appropriate location that will begin the process of Network Infrastructure Redesign. This can be done over a weekend with little or no disruption to NF Architects' operations. A **full backup** of all data will be performed and certified on multiple media formats (tape backup, user workstation backup, optical disc backup, etc.) before any upgrades begin. All compatibility issues would be researched ahead of time and a conference with Microsoft technical support will be conducted in order to pre-address any issues that might come up before, during, and after the upgrade.



When the new server and enclosure (see picture inset) has been completely installed and the system has been tested and functions satisfactorily, a full migration of data from the Windows NT server to the Windows 2003 server will begin. New file structure hierarchies and naming conventions will be adopted as per the industry standards of NF Architects. Finally, the old server will be temporarily decommissioned for later upgrading and re-purposing in Phase IV. VelocityDomain will then move to the next part phase: Network Infrastructure Redesign, Part Two

Equipment Required

APC NetShelter Wall-Mount Enclosure with Glass Door 13U

Dell PowerEdge 2650 rack mountable server, pre-installed with Windows 2003 Server (25 user licenses)



Statement of Work

The workflow of installation of these components will begin as follows:

1. Off-hours evaluation meeting to chart out location of new components.
2. Off-hours installation of APC NetShelter Enclosure provided by proprietary VelocityDomain subcontractor
3. Off-hours installation and configuration of Dell PowerEdge 2650 server provided by proprietary VelocityDomain subcontractor. This will include rerouting network services to access new server.
4. Evaluation and Work in Process meeting(s) to discuss new industry standards to set for data management (hierarchies, naming conventions, et al.), as well as setting disaster recovery plan in place before final server migration.
5. Off-hours data migration and integrity assurance tests provided by proprietary VelocityDomain subcontractor.
6. Off-hours server system cut-over, client workstation reconfiguring, and network services tests (file and print sharing, and Internet access) provided by VelocityDomain Services Team.
7. Real-time On-hours live system tests and final phase evaluation.

Cost Analysis Matrix:

Equipment	Cost
APC NetShelter Enclosure	\$500
Dell PowerEdge 2650 (fully configured)	\$5000
Windows 2003 Server 20 CALs (CAL upgrade)	\$1000
Consolidated Operations Costs (different for each phase):	\$3458
ESTIMATE TOTAL FOR PHASE I:	\$9958

Detailed Analysis

Costs are based on availability of equipment, factory configuration of components, and installation and configuration estimates. Furthermore, taxes, licensing fees, research time, and proposal drafting are also factored into this cost analysis matrix. VelocityDomain has endeavored to keep costs down to a minimum while working within the cost structure and time frame verbally agreed upon between VelocityDomain representatives and NF Architects representatives.

The overall scale of the project is monumental: time, experience, and detailed work are required to successfully reach the projects' goals. The costs that are factored in are based on real-world implementations of similar systems with as much efficiency as possible. This is why VelocityDomain has developed the Delux Velocity System product package in order to maximize both time and cost effectiveness of integrating a robust new system into an existing environment. Our solution (this phase and the succeeding five others) are comprehensive and complete and **can not** be broken up into smaller denominations—to do so would compromise the integrity of the system and defeat the whole project's expected goals.

These and future phase costs include (but are not limited to): installation and configuration labor and fees, troubleshooting issues as they arise, documenting of all work either onsite or back at VelocityDomain, and retainer fees that are required before any work is to proceed. Furthermore, any incidental costs such as: wiring and networking components, miscellaneous hardware (e.g. DLT tape backup media), diagnostic and utility software, travel expenses and software/hardware purchasing (including price guarantees) are also included under Consolidated Operations Costs (for each phase). All of the above costs include our guarantee of functionality and reliability. In order for NF Architects' network topology to be running cleanly and efficiently a substantial investment in time, money and commitment up front must be made in order to see this project through to completion—saving the organization from even greater costs in the future.

When compared to other Project Management offering in the industry of network solutions, VelocityDomain is confident that we are providing our clients the best Quality of Service for their money.

Phase II – Network Infrastructure Redesign, Part II: Overview

Summary

NF Architects will subcontract out to VelocityDomain to begin rerouting existing cables along the walls with temporary mountings and terminations. Installation in the new NetShelter Enclosure of a new 48-port HUB and patch panel (see inset picture below) alongside the existing DSL Router and print server appliance will take place. A proprietary VelocityDomain subcontractor will be brought on board to reroute high-speed Internet data line to location of new NetShelter Enclosure in preparation for Phase III's full scale re-cabling operation.

This operation will run parallel with existing setup in order to provide minimal disruption of operations. At an appropriate time (off-hours), the VelocityDomain Services Team will cut over all network nodes to the new HUB to provide better network stabilization and prepare for Part III of the Network Infrastructure Redesign.



Phase III -- Network Infrastructure Redesign, Part III & Integrated Backup Solution: Overview

Summary

This phase should be considered high priority. The cables that run through out the organization are the arteries and veins of the entire network; if they are not immediately reorganized, secured, and upgraded, the network could suffer from a catastrophic failure that will require many hours, at great cost, for recovery.

What is needed to carry out this operation is a firm commitment from NF Architects' executive management to undertake re-cabling the entire office environment. This cannot be done in a half-hearted manner. VelocityDomain will contract with partner organization to implement a new comprehensive re-cabling effort for the entire organization. This will be done in a cost effective manner, and in such a way that cabling will not be an issue from this point forward as the company expands its operations.

Not only will the cabling to all existing and future network nodes and user workstations be carried out, but a back-end cabling process will also be conducted in order to bring online the new HUB/patch-panel combination that will make it a "one-step process" to move a user's workstation from one location to another and allow dynamic network connections for visitors and new network devices.

In addition to the re-cabling effort, it cannot be stressed enough that a **new reliable and external backup solution** needs to be implemented in this highly active networked environment. A compatible and integrated DLT tape drive with autoloading tape capacities will provide a sufficient means of

backing up vast amounts of data, keeping it current and viable. A program of tape rotation will be devised and configured automatically on the administrative and software side of the solution.

The image below represents the next stage in the evolution of the Network Infrastructure Redesign.



Phase IV – Network Enhancements: Overview

Summary

With the back end systems upgraded and properly maintained, the focus on the front end systems can now be addressed. This includes getting the printers off the workstations and on to the network directly via dedicated print server.

All non-network ready printers would be attached to companion/compatible client bridges (separate small appliances that allow the printers to be seen directly on the network). The former now

decommission Dell pressed back into service at own version of Windows ready to handle the plethora currently plague network via workstations invite a lot that can take a long time to Action Report separately

Re-purposing the server eliminates the troubleshooting printer along with setting up new general. Furthermore, print jobs can be easily monitored and assigned priority depending on the needs of the office and current “crunch-time” project. And most importantly, re-purposing this equipment will save the company money.



PowerEdge 2300 server will be that stage. Newly upgraded with its 2003 Server, it will be more than of intense printing jobs that operations. Using shared printers of “access and privileges” problems resolve (as evidenced in the VDNS submitted to NF Architects).

aforementioned server as a print previously stated issues and make problems a lot easier and efficient; users to access the printers in

Finally for this phase, the inclusion of a newer more robust and reliable network router will be installed in the new NetShelter Enclosure (see inset image above) to complete the pre-packaged back-end system

that NF Architects needs to be competitive in the future of modern corporate operations. This new router will have network security features, and remote access capabilities that will enhance user productivity and remote administration. This is the way of the future for Internet and eventually Extranet operations that NF Architects will find a need to participate in.

Phase V – Final Cut-Over, Diagnostic Tests, and Evaluations

Summary

This phase will involve all of the cut-over work required to get the entire organization up and running on their enhanced network infrastructure. There will be many hours of diagnostic work in order to ensure the stability and smooth operation of all new systems. Also, installation of new network security and monitoring software will be installed in order to protect NF Architects from unwanted computer viruses, spam email, and hackers. This software component compliments the previous phase's hardware installations.

Furthermore, during this phase evaluation meetings will be conducted to discuss system changes, future tasks, and administrative policies (such as software usage) will be conducted in preparation for the final and equally important phase of Software Management.

Phase VI – Software Management

Summary

Finally, with the back-end solutions in place and running smoothly the software management component of this phase can begin. This involves gathering all **original** software install media and licenses and securing them in a safe location. Site licenses of this software will be purchased for each piece of software that is used (and will be used) on a daily basis. This will make the network installs much easier. Network installs of these software packages can then be created and tested. Once these installs are running smoothly, any new user workstation, or a battery of new user workstations, can be easily and reliably setup in a fraction of the time. Ghosting image software such as, Symantec's Ghost Corporate Edition will make this process even easier. The benefits outweigh the costs of having to pay a consultant by the hour to come in and setup each new user, over and over again. Implementing such measures will save NF Architects much time and money immediately, and over a long period.

NF Architects will standardize on certain equipment such as Dell workstations (along with all user data being backed up externally on a regular basis). The benefit of this is that new computers can be setup from scratch with a pre-approved image in less than two hours. This is also beneficial should an existing user's machine terminally malfunction for whatever reason. They will be back up and running in almost no time!

Furthermore, new remote administration policies and procedures will be developed (now that the hardware infrastructure will be in place) that will allow VelocityDomain to continue to provide off-site service for NF Architects unimpeded by scheduling conflicts and geography.

Conclusion

As is evident from the above summaries of each phase of VelocityDomain's Delux Velocity System, our complete package of development, implementation and service support is by far the most comprehensive solution available at a competitive price. We are offering a robust combination of "off-the-shelf" software and hardware fully licensed and supported by manufacturer's warranties, in conjunction with our own expertise in designing and developing a customized solution to your exacting specifications.

Should NF Architects decide to implement this product proposal, VelocityDomain is ready and eager to help work with this organization to bring to completion a robust new network that is scalable, stable, interactive, secure, and able to meet both the current and future needs that Neshamkin French Architects, Inc. will have as they expand their operations far into the future.

The next step will be to sign a comprehensive contract between the two parties and receive complete payment for Phase I in advance. A work schedule will be created including prep time and equipment arrivals. Work will then proceed on Phase I. As each Phase is about to get underway, advance payment (based on individual plans, like this one, and cost analyses) will be remitted and work will proceed.

We are confident that your organization will not find a more comprehensive, satisfactory and competitive Value Added Quality of Service offering from any other provider. VelocityDomain Network Solutions is the ideal candidate for this project.

Sincerely yours,

Nicholas R. Iandolo

Project Manager

VelocityDomain Network Solutions