

# Engagement Agreement

## Norton City Schools

<b>CUSTOMER Legal Name (“Customer”, “You” or “Your”)</b>	<b>Avvenire Solutions (Avvenire Solutions)</b>
Norton City Schools	Avvenire Solutions
<b>CUSTOMER Address</b>	<b>Avvenire Solutions Address</b>
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<b>CUSTOMER Contact</b>	<b>Avvenire Solutions Contact</b>
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	<b>Project Number</b>
	SG120913-04

### ***Project: Novell to AD Migration***

**Project Over view:** In order to improve network performance and reduce administrative costs, Norton City Schools has a requirement to migrate from on premise Novell NDS server authentication to NEOnet hosted Active Directory. The current Novell environment consists of a single file server that hosts approximately 172 GB of file share data. The approximately 300 faculty/staff users already have a NEOnet hosted AD account which is used in addition to their local Novell logon account to provide authentication for NEOnet hosted Exchange email. This SOW covers the tasks required to migrate the approximately 2,600 student accounts, 950 PC’s and approximately 90 network printers from Novell authentication to NEOnet hosted AD. **NOTE:** Student accounts will be used for authentication only and will not have Exchange mailboxes (students currently use Google Docs and Google Mail). A Planning Phase will be required to gather the information needed to determine which accounts already exist and which need to be created from scratch.

Avvenire Solutions will provide the technical resources to architect the migration procedures for AD objects, PCs, member servers, printers and logon scripts/group policies. These procedures will be tested and documented by Avvenire. All AD migration tasks will be performed by Avvenire with the exception of the PC workstation migrations (a combination of re-imaging and manual Novell client removal/joining new AD domain). The PC Workstation migration procedures (both re-imaging for XP PCs and manual processes) will be tested and documented by Avvenire who will provide training to the Norton City Schools IT staff. Avvenire will then provide Level 2 and Level 3 support as needed to the Norton City Schools IT Migration Team who will be responsible for migrating the remainder of the workstation PCs.

#### **Project Requirements:**

1. Phased migration to start after 2013-2014 school year and completed prior to the start of the 2014-2015 school year.
2. Eliminate current multiple authentication requirement (Novell for local network and AD for Email). AD will become the single source of authentication for all network resources (single ID and PW).
3. Reconfigure wireless authentication so that Radius points to AD for authentication (currently points to Novell NDS).

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4. Test and document imaging and manual procedures for migrating approximately 950 workstation PCs to the NEOnet AD forest (new OU structure under existing NEOnet OU for Norton City Schools).
  5. Develop scripts for re-imaging PCs to automate placing PCs in the correct OU when they are joined to the domain and naming the PC with a standard naming convention (TBD).
  6. Perform a pilot migration on 25 PCs and train local IT staff on the procedures.
  7. PC Imaging done by EMG using FOG. Avvenire will prepare the base image and present to EMG.
  8. Review existing Novell Logon scripts and local PC group policies
    1. Replicate Novell drive mappings on AD File Shares
    2. Replicate Novell security groups and share permissions on AD File Shares
    3. Create new GPOs as per Norton City Schools for PC lockdown (may require 3<sup>rd</sup> party add-on's TBD during planning phase)
    4. Create AD print server for all network printers so they can be managed from AD
    5. Create site-based GPO's to map network printers based on logon location (subnet)
  9. Deploy 2 new AD READ ONLY domain controllers at Norton City Schools location(s). These can be physical or virtual servers (one of each recommended) and can be centrally located in the Norton City Schools datacenter or separated across two building for maximum fault tolerance. These DC's will replicate with the existing NEOnet DC's and improve logon performance by keeping authentication traffic local for Norton City School users. A minimum of two local DC's is recommended to provide fault tolerance.
  10. Create new AD accounts in NEOnet AD for Norton City Schools (scripted)
  11. Local Application Servers – 4 application servers will need to be joined to the AD forest as member servers.
  12. Include a solution for PC/Server patch management (i.e. NEOnet provided WSUS. Must include the ability for Norton City Schools to review all patches and approve/schedule when they are deployed.
  13. NEOnet will enforce MS Endpoint protection as standard AV client – will need to be included with the PC images.
  14. NEOnet will take care of training local IT staff on AD Admin tools.
  15. Phases 1 – 3 completed by June 6, 2014. Note: This would require Phase 1 to start by no later than May 1, 2014.
  16. Phase 4 completed by July 1, 2014 (unless Norton City Schools chooses to delay pilot).
  17. Weekly status/budget reports provided each Monday for the previous week's activities. A weekly conference call to review will also be conducted to review the status report, discuss upcoming tasks and identify any potential issues (date/time TBD by Norton City Schools).

### ***Phase 1 – Migration Planning & Discovery:***

1. Define AD Forest DNS namespace
2. Identify existing Norton City Schools objects in the current NEOnet AD forest. Determine changes required for these objects (i.e. home drive, group membership etc.)
3. Run reports on existing Novell File Server (tree reports and security reports)
4. Run report on existing Novell logon script (to be replicated as GPOs in AD)
5. Run report to determine user profile size and local data storage (not all users currently use their network home drives to store data – this must be identified and moved to either Novell shares or Google Docs prior to any re-imaging of workstation PCs)
6. Copy Novell data from file server to NEOnet provide storage and synchronize using scripts
7. Identify all workstation devices to be migrated (identifying Windows XP and Windows 7 PCs)
8. Identify all member servers to be migrated

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9. Identify all network printers to be migrated and their current location. Work with Norton City Schools IT to determine default printer for each user (based on their location)
10. Identify GPO requirements including PC lockdown requirements
11. Identify OWA and full Outlook users
12. Finalize PC naming convention
13. Configure and test Office 365 Lync for IM/Presence/Video/Desktop Sharing

***Phase 1 Estimate:***

55 Hrs.

***Phase 2 – Develop and Test Workstation Migration Procedures:***

1. Determine which PCs will be re-imaged and which will be manually removed from the Novell network and manually joined to the AD network
2. Test and document procedures for running User Profile Wizard to auto join PC to NEOnet domain and convert local profile to domain profile. This step will need to be done prior to imaging the PC.
3. Develop procedures and end-user instructions for moving of local data to network shares or Google Docs (TBD)
4. Assist Norton City Schools with the creation of up to 5 new Windows 7 workstation images. NOTE: Norton City Schools will be using their current vendor EMG for managing Windows 7 images using FOG. Images will include:
  - a. Local installed applications
  - b. Utilities
  - c. Settings
  - d. Antivirus client (for AV protection – TBD and provided by NEOnet)
  - e. MS Office (version TBD by Norton City Schools – Avvenire recommends the latest version possible)
  - f. Lync client (part of Office 365)
5. Test deploying image on test PCs (provided by Norton City Schools)
6. Test and document procedures for manual migration of workstation PCs
  - a. Verifying that local data/profile information is backed-up to network location
  - b. Removing the Novell client
  - c. Renaming the PC (to new standard convention)
  - d. Joining the PC to the AD domain
  - e. Verifying GPOs are applied
    - i. Logon scripts
    - ii. Printers
    - iii. Drive Mappings
7. Obtain Norton City Schools sign-off on procedures and PC images and lock
8. Provide training for Norton City Schools IT staff on both procedures
9. Work with Norton City Schools to determine PC migration schedule

***Phase 2 Estimate:***

80 Hrs.

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### ***Phase 3 – AD Migration Prep***

1. Create AD subnets, DNS entries and DHCP scopes in NEOnet AD (under existing Norton City Schools AD OU)
2. Create password policy for Norton City Schools OU
3. Create logon script for Norton City Schools OU
4. Create site-based GPOs for Norton City Schools OU subnets (i.e. to map default printer based on location)
5. Configure DFS on NEOnet shares
6. Create AD security groups and assign membership
7. Create print server and create network printer queues
8. Configure file shares/security on all migrated data
9. Script creation of all user Home Drive shares
10. Configure NEOnet WSUS to manage MS patches for Norton City Schools servers and PCs (NEOnet provided SCCM services will be deployed at a later date)
11. Configure MS Endpoint Protection Antivirus solution
12. Perform P2V migration on existing application servers and move to NEOnet hosts OR keep local application servers as local servers and join to AD forest (TBD)
13. Join virtual application servers to the NEOnet AD domain
14. Create/test scripts for auto-joining newly imaged PCs to the AD domain and renaming
15. Configure locally hosted DNS and DHCP services on our current virtual server DC as a backup to NEOnet-provided services.

### **Phase 3 Estimate:**

42 Hrs.

### ***Phase 4 – AD Pilot Migration***

1. Perform production migration for 25 PCs (mix of re-imaged PCs and manually migrated PCs)
2. Verify GPOs are working properly for:
  - a. Passwords
  - b. Printer mapping
  - c. Drive mapping
  - d. Security
  - e. Network Resource Access
3. Provide post-pilot migration support
4. Train local Norton City Schools IT staff on all migration procedures

### **Phase 4 Estimate:**

22 Hrs. (assumes all pilot migrations performed during regular business hours)

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***Projected Project Timeline:***

1. Phase 1 – Migration Planning & Discovery (1.5 resources)
  - a. Start: 05/05/14
  - b. Complete: 05/09/14
2. Phase 2 – Develop and Test Workstation Migration Procedures (2 resources)
  - a. Start: 5/12/14
  - b. Complete: 5/16/14
3. Phase 3 – AD Migration Prep (1 resource)
  - a. Start: 5/19/14
  - b. Complete: 5/23/14
4. Phase 4 – AD Pilot Migration (1 resource)
  - a. Start: 6/09/14
  - b. Complete: 6/20/14 (not consecutive days)

***Project Cost Summary:***

Phase	Hours	Cost
Phase 1 – Migration Planning & Discovery	55	\$6,875.00
Phase 2 – Develop and Test Workstation Migration Procedures	80	\$10,000.00
Phase 3 – AD Migration Prep	42	\$5,250.00
Phase 4 – AD Pilot Migration	22	\$2,750.00
<b><i>TOTAL (with Pilot Migrations performed during business hours):</i></b>	<b><i>199</i></b>	<b><i>\$24,875.00</i></b>

***OPTIONAL: Phase 5 – Migration of Remaining Workstation PCs***

1. Avvenire will provide desktop migration resources upon request at a discounted hourly T&M rate of \$60 per hour to perform the migration tasks for the remaining approximately 900 Norton City Schools workstation PC's.
2. Estimates per PC are as follows:
  - a. Manual removal of Novell Client and Joining to AD domain and setting up of resources – 45 minutes per PC (\$45.00 per PC)
  - b. Re-imaging of PC (verify data backup, re-image PC, and setup of resources – 1 hour per PC (\$60 per PC)
3. Norton City Schools will determine the breakdown of the type of migration required and how many of each they want Avvenire to manage. Avvenire will present a formal quote upon request after this information has been provided.

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4. All migration tasks will take place during regular business hours. If Norton City Schools requires any tasks to be completed after-hours, the work will be pre-approved and billed at 1.5 the regular hourly rate.

**Optional Phase 5 Estimate:**

TBD – NOT INCLUDED WITH THIS SOW

***Server Requirements for Local Read Only Domain Controllers:***

[http://technet.microsoft.com/en-us/library/cc771030\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc771030(v=ws.10).aspx)

Physical Read Only DC

CPU's – 1

RAM: 8GB Min.

Disk Space: 100GB (RAID 5 or RAID 1 preferred)

OS: Windows Server 2008 R2 Standard 64-bit or Windows Server 2012 Standard 64-bit

Virtual Read Only DC (VMware)

Virtual CPU's – 2 Cores

RAM: 8GB Min.

Disk Space: 100GB (Direct LUN SAN storage preferred)

OS: Windows Server 2008 R2 Standard 64-bit or Windows Server 2012 Standard 64-bit

***Project Notes & Assumptions:***

1. All work performed on a time and materials basis at a rate of \$125.00 per hour during business hours and \$187.50 for after-hours tasks. Initial project not to exceed amounts listed above without approval from customer. NOTE: Optional Phase 5 resources will be billed at a rate of \$60.00 per hour (\$90.00 per hour for after-hours tasks).
2. Customer must select an option for Phase 5 and also whether or not the migration tasks will take place during business hours or after-hours before a formal quote can be provided.
3. All work will be performed during regular business hours of 8AM – 5PM Monday – Friday. Any scheduled work performed outside of regular business hours will be pre-approved by customer and will be billed at 1.5 the regular hourly rate.
4. Travel expenses are not included with this estimate. No travel expenses are anticipated for this engagement. Avvenire does not charge for any travel expenses for customers within a 50 mile radius of our Brecksville HQ.
5. Customer will provide all necessary hardware, software, licenses, and access to complete the required tasks.
6. Avvenire invoices monthly during the first week of each month for all hours worked the previous month. Terms are 60 days from the Invoice Date.

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Additional items may be added to this project through Avvenire Solution's "Change of Scope" document and procedures. Please note that Changes to scope may affect project timing and cost.

SIGNATURE BELOW BY YOUR AUTHORIZED REPRESENTATIVE IS YOUR CONSENT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT

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Customer Approval

\_\_\_\_\_

Date

\_\_\_\_\_

Print Name / Title



\_\_\_\_\_

Avvenire Solutions Approval

03/17/14

Date

Steven J. Golden

Print Name