

# **PULSE 4.0 – INSTALLATION GUIDE**

This document provides guidance on installing Pulse. Its purpose is to provide step-by-step instructions for a successful Pulse installation

*Installing Pulse*

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## Overview

This document provides guidance on the initial installation and configuration of a Pulse server in a two node environment. It will walk you through each of the steps necessary for a successful Pulse installation. This document will also provide recommended configuration settings and options that may be custom to your environment.

## At A Glance

The Pulse installation consists of the following steps:

Note: Please make sure Rabbit MQ is installed and configured prior to running the Setup Application.

1. Meet Minimum Hardware Requirements
2. Meet Minimum Software Requirements
3. Install Rabbit MQ
4. Execute the Pulse Setup application to setup the Web Server Role
5. Create a database using the Database Settings page
6. Configure your Queue
7. Configure Active Directory synchronization
8. Configure Inbound Email Settings
9. Configure Outbound Email Settings
10. Optional: Install and configure Encoding Server
11. Optional: Install Pulse for Sharepoint and configure My Sites
12. Optional: Install and configure Pulse for Dynamics CRM

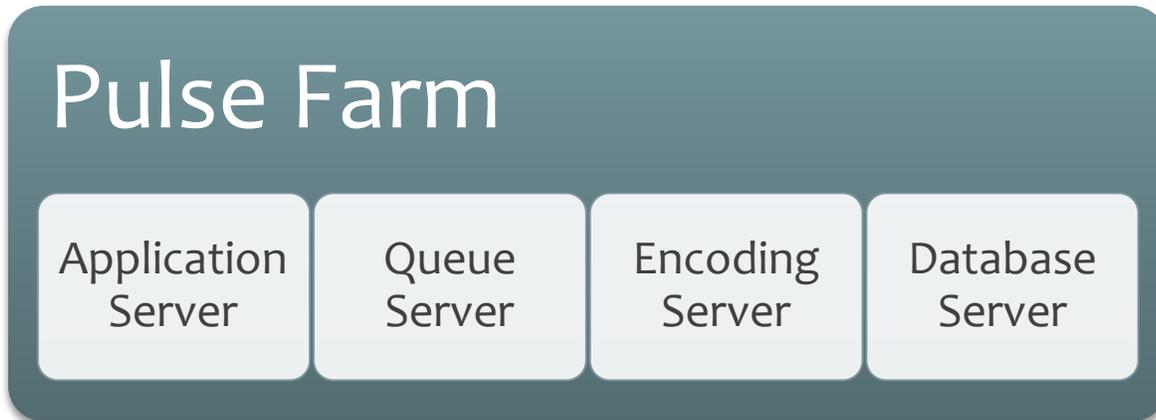
After a successful installation your Pulse server will be ready to accept users.

## Minimum Hardware Requirements

While Pulse is extremely lightweight and we recommend a minimum hardware configuration. The following sections describe the various server roles that participate in a Pulse deployment.

### The Pulse Farm

Neudesic Pulse consists of a series of logical software assets that can be deployed across one or more servers (physical or virtual). The following lists the roles required by Neudesic Pulse 4.0



### Application Server

The Application Server consists of an IIS 7 hosted web application and a Windows Service that executes various scheduled jobs. The web application responds to various user requests for Pulse information such as rendering the user interface for web browsers and providing REST services that are used by mobile applications.

The Pulse Service manages the execution of various schedule jobs such as sending notifications and emails, and delivering post to recipients.

### Minimum Hardware Requirements

Component	Minimum Requirement
<b>Processor</b>	<ul style="list-style-type: none"><li>• 32 BIT, 4 Core for Pilot</li><li>• 64 BIT, 4 Core for Production</li></ul>
<b>RAM</b>	<ul style="list-style-type: none"><li>• 2 GB for Pilot</li><li>• 4 GB for Production</li></ul>
<b>Hard Disk</b>	80 GB for system drive Maintain at least twice as much free space as memory

### Queue Server

The Queue Server is primarily responsible for managing the delivery of Direct Messages and is required to ensure consistent delivery of these messages to one or more parties participating in the messaging session.

The recommendation is to leverage your Application Server’s for this role for up to 20,000 users. For more than 20,000 users we recommend configuring a Queue farm. For more information please review the documentation at <http://www.rabbitmq.com/clustering.html>

## Encoding Server

The Encoding Server is used to process videos as they are uploaded to optimize the format of the video, the size of the video, and the viewing quality of the video

Since the Pulse Encoding Server is a server leveraging Microsoft’s Expression Encoder the hardware requirements are based on Microsoft recommendations.

### Minimum Hardware Requirements

Component	Recommended Requirement
<b>Processor</b>	2 Proc (4 core) Intel Xeon 5400 Series
<b>RAM</b>	8 GB for Production
<b>Hard Disk</b>	120 GB for system drive Maintain at least twice as much free space as memory

### High-End Hardware Requirements

The following hardware requirements are directly from Microsoft’s recommendation for a high end encoding server. For more information please review <http://www.microsoft.com/expression/GPUencoding/>

Component	Recommended Requirement
<b>Processor</b>	24-core Dual Xeon X5670
<b>RAM</b>	32 GB for Production
<b>Hard Disk</b>	1 TB SAS Array
<b>Video(GPU)</b>	2 x NVIDIA Tesla C2050

## Database Server

The Database Server is used to store all Pulse information including user profiles, posts, files, videos, images, authentication providers and more. It is also responsible for executing various SQL jobs for data management. The Database Server role is responsible for all backups and disaster recovery capability.

The following are the minimum hardware requirements:

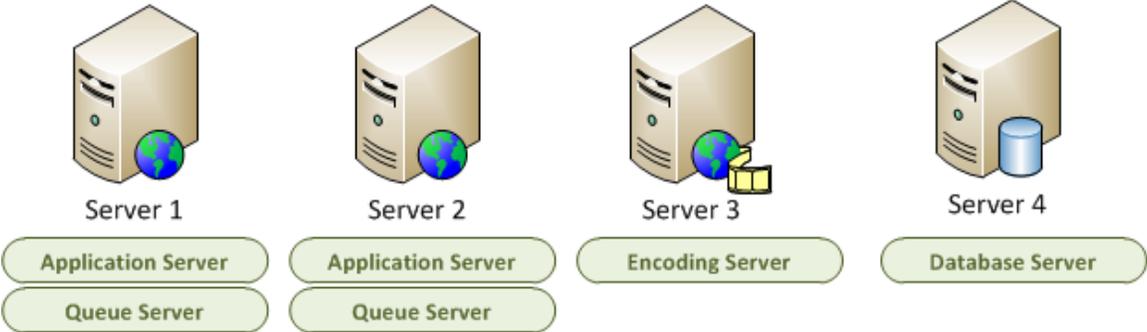
### Minimum Hardware Requirements

Component	Minimum Requirement
<b>Processor</b>	<ul style="list-style-type: none"> <li>32 BIT, 4 Core for Pilot</li> <li>64 BIT, 4 Core for Production</li> </ul>
<b>RAM</b>	<ul style="list-style-type: none"> <li>4 GB for Pilot</li> <li>8 GB for Production</li> </ul>

<b>Hard Disk</b>	100 GB for data drives 80 GB for system drives Maintain at least twice as much free space as memory We recommend 100GB per 1,000 users per year
<b>Features</b>	Full Text Indexing

### Deployment of Server Roles

The various Server Roles within Pulse can be deployed to servers in various configurations. For small deployments of Pulse all Server Roles can be deployed to a single server (virtual or physical). The exact deployment of Server Roles to physical servers is directly related to desired **performance, availability, and fault tolerance**. The following diagram represents the recommended isolation of Server Roles to servers for a 10,000-user deployment



This configuration provides adequate performance, availability, and fault tolerance for each of the Server Roles within the Pulse Farm. Server 4 is a SQL Server and while not included it is highly recommended that you establish some form of fault tolerance via clustering or other technology such as database mirroring.

### Supported Mobile Devices

Pulse has dedicated Mobile Applications for Windows Phone 7, BlackBerry, Android and iPhone. To download, head to your phone’s app market place and search for the “Neudesic Pulse” app. Your user name and password are the same as the web app. For the server use the URL of your companies pulse instance. Ex. <https://www.pulse.mycompany.com>

### Environment Configuration

Prior to installation there are a series of decisions to make related to the use of Pulse within your environment. The following lists these as questions with recommendations.

- Do you have Rabbit MQ installed?

Make note of the hostname where rabbit is installed since you will need it when setting up pulse.

Pulse requires Rabbit MQ to be installed and running. For more information about Rabbit MQ see **Deploying Rabbit MQ**

- What account will the Pulse service and Web Application Pool run as?

Recommendation: Create a **PULSE** domain account that is a local **administrator** on the SQL Server, Pulse Web Server, and has read access to Active Directory. Ensure this account has a valid **Email** account as well and the password **NEVER EXPIRES**

- What is the URL that users will connect to?

Recommendation: Create a DNS entry that resolves to your Pulse Web Server, or relevant load balancing device, using a fully qualified name. For example, **pulse.mycompany.com**.

- Who has access to Pulse?

Recommendation: Create a domain group called **Pulse Employees**. This will allow you to control access to Pulse from Active Directory

- Who are the administrators of Pulse?

Recommendation: Create a domain group called **Pulse Administrators**. This will allow you to control access to Pulse from Active Directory

- Are you going to allow customers to access Pulse? If not, be sure to leave the Pulse Customers setting blank in the Authentication Provider section

Recommendation: Create a domain group called **Pulse Customers**. This will allow you to control access to Pulse from Active Directory

- What user should perform the installation?

Recommendation: Login to the server as the PULSE domain account

- What is the SMTP Relay?

For example, smtp.mycompany.com

- What is the Database Server name

For example, mysqlserver

- Will you support Reply To email capability and if so,

- a. Option 1: POP3

- i. What is the POP3 Host, for example, mail.mycompany.com

- ii. What is the username for a valid POP3 account, for example, corp\pulse.notifications

- iii. What is the password

- b. Option 2: Exchange Account

- i. What is the URL to the Exchange Web Services. For example,  
<https://mail.neudesic.com/ews/exchange.asmx>
- ii. What is the Domain, Username, and Password of the Exchange account. For example  
CORP, PULSEEMAIL, password

## Walkthrough: Installing Pulse in a Two-Server Environment

The first step in the installation of Pulse is the execution of the setup application. The setup application will install the application dependencies, copy files, create a web application and configure the Pulse services.

### Before Your Begin

Before you begin deployment, do the following

- Review the **Environment Configuration** section to ensure you have complete the pre-deployment tasks
- Ensure that you have installed **RabbitMQ**. For instructions on installing RabbitMQ please refer to Walkthrough: Deploying RabbitMQ
- Ensure that you have met all minimum hardware and software requirements
- Ensure you are prepared to set up the required accounts with required permissions

### Install Neudesic Pulse 4

To install and configure Neudesic Pulse 4, follow these steps:

1. Run the Neudesic Pulse Setup to install the Web Server Role
2. Create a database using the Database Settings page
3. Configure your Queue
4. Configure Active Directory synchronization
5. Turn on Account Synchronization
6. Configure Inbound Email Settings
7. Configure Outbound Email Settings
8. Configure Email Notifications
9. Optional: Install and configure Encoding Server
10. Optional: Install Pulse for Sharepoint and configure My Sites
11. Optional: Install and configure Pulse for Dynamics CRM

### Run Setup

The following procedure installs the binaries for the Neudesic Pulse 4 Web Server role. After running the setup you will continue the deployment process by creating the Pulse database.

#### To run Setup:

1. While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or Setup32.exe for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
2. On the Welcome screen click **Next**
3. Agree to the EULA and click **Next**
4. On the Select Pulse Server Role, select **Web server role**

5. On the Configure Pulse service user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
6. On the Configure Pulse Web UI App Pool user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
7. On the Configure Pulse Web UI, select **Create a new web site**. Input the desired URL in the Host Header. For example pulse.mycompany.com
8. Click **Next**
9. Click **Install**

## Create a database using the Database Settings page

The first time you access Pulse you will be required to perform some general configuration tasks the first of which is the creation of a Pulse database used to store all Pulse content. To begin configuration, perform the following actions:

To create you Pulse database, perform the following steps:

1. Click Start... **All Programs... Pulse... Pulse**
2. You will presented with the **Settings/Database** page
3. In the **Database Server**, input the hostname of a valid SQL Server
4. In the **Database Name**, input the name you would like to use for your Pulse database. Note: The database will be created using the default locations for DATA and LOG files as specified in the SQL Server configuration
5. In the **Authentication Type**, select either **Windows Login** or **SQL User Login**.
6. If you select **SQL User Login**, input a **SQL Login**, and **SQL Password**
7. If you select **Windows Login**, the current user will be used
8. In the **Admin Username**, input a valid Active Directory account name that has Administrator credentials on the SQL Server
9. In the **Admin Password**, input the password for the account input previously
10. In the **Admin Domain**, input the Active Directory domain for the previously input account
11. Click **Create Database**
12. On the **Congratulations** dialog click the red “x”

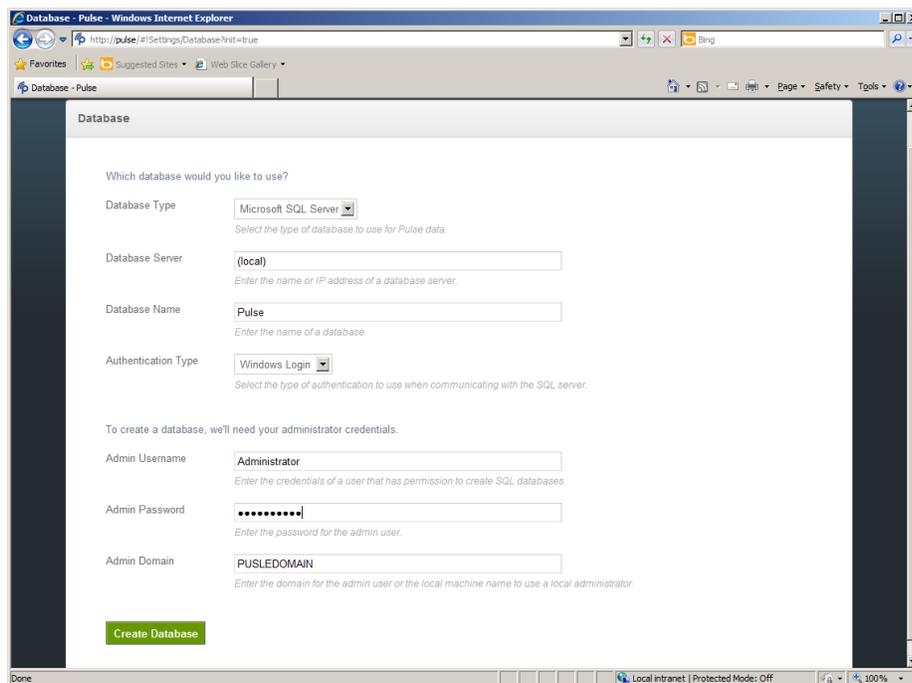


Figure 1: Example Database settings



Note:

If you are using the Network Service account you will need to provide explicit permissions for this account on your SQL Server. **To grant database access to the Network Service account**

1. Create a SQL Server login for the Network Service account. If your database is on a separate server, create the login for the ***domainName\WebServerMachineName\$*** identity.

## Login to Pulse

Once you have created the database you will be asked to login to Pulse. Use the following settings

1. Email Address: PulseAdmin
2. Password: pass@word1

The screenshot shows a web form for logging into Pulse. At the top, there is a dark grey header with the 'pulse' logo in white. Below the logo, the text 'Pulse Account Login' is displayed, followed by a smaller link: 'Don't have a Pulse Account login?'. The main form area is white and contains the following elements from top to bottom: an email address input field with 'PulseAdmin' entered; a password input field with masked characters (dots); a checkbox labeled 'Keep me signed in' which is checked; a grey 'Login' button; and a blue link that says 'Forgot your password?'.

## Configure your Queue

To configure the Queue in most scenarios perform the following actions. For more information on each setting see below

1. Input the host name of the machine for the Queue Server. For example, PulseQueue
2. If your Queue server has a Username & Password input here otherwise leave blank
3. Input the **Admin Username**. This is a domain account that has Administrator permissions on the local machine
4. Input the **Admin Password**
5. Input the **AdminDomain**. For example, CORP/
6. Click Save

Queue

Which queue would you like to use?

Queue Type  Select the type of queue to use for Pulse communication.

Queue Server  Enter the name or IP address of a queue server.

Use mirrored queues  Check to enable mirrored queues on a queue server cluster.

Username

Password  Enter the password to use when accessing the queue.

To store the queue connection information, we'll need your administrator credentials.

Admin Username  Enter the credentials of a user that has permission to create registry keys.

Admin Password

Admin Domain  Enter the domain for the admin user or the local machine name to use a local administrator.

## Input License

You are required to have a license. To input your license

1. Click Administration... **Settings...License.**
2. Paste in your license key
3. Click **Activate**

## Configure Active Directory Synchronization

Pulse leverages Windows security to authenticate and authorize users. The **Account Providers** page allows you to configure Pulse for your environment. To configure an Account Provider to synchronize with Active Directory, perform the following actions:

The screenshot shows the 'Authentication' dialog box. It has a sidebar on the left with 'Account Providers' and 'Authentication Key'. The main area contains the following fields and their values:

- Account Source: Windows - Active Directory Domain (dropdown menu)
- User Name: Pulse
- Password: [Masked]
- Domain: AWSDEMO
- Administrator Groups: Pulse Administrators
- Employee Groups: Employees
- Customer Groups: Pulse Customers
- Name: Launch Corp

At the bottom of the dialog are 'Ok' and 'Cancel' buttons.

1. From Pulse, click **Administration... Settings... Authentication**
2. Click **Add a Provider**
3. Select **Windows Active Directory Domain** to use Active Directory as the source for accounts.
4. In the **User Name**, input the name of a user that has permissions to read from Active Directory. It is recommended that you leverage the previously created PULSE domain account
5. In the **Password**, input the password for the account previously specified.
6. In the **Domain**, input the fully qualified domain name. For example corp.mycompany.local
7. In the **Administrators Groups**, input the name of an Active Directory group that contains the accounts that should be administrators of Pulse. For example, Pulse Administrators
8. In the **Employee Groups**, input the name of an Active Directory group that contains the accounts that are standard users of Pulse. For example, Pulse Employees

9. In the **Customer Groups**, input the name of an Active Directory group that contains the accounts that should be given Customer access. Customers are only allowed to access Groups that they are explicated invited to
10. In the **Name**, input a friendly name that will be displayed to the user. For example, Launch Corp
11. Click **OK**

 Note:

- Select Local Windows Accounts to use accounts created on a specific machine. This is intended for development environments only as it requires further account maintenance outside of Pulse
- For Administrators Groups, Employee Groups, and Customer Groups you can specify multiple groups by separating them with a “,”. For example, “Pulse Administrators, Domain Admins”
- **Any changes made to Authentication Providers should be followed by resetting the Pulse AppPool and the Pulse Service**

## Turn on Account Synchronization

To begin synchronizing accounts, perform the following steps

1. Logged in as PulseAdmin, click **Administration... Settings**
2. Click **General**
3. Locate the **Account Sync Period**
4. Set the value to **15**
5. Click **Save**
6. Reset the PulseAppPool via Internet **Information Services(IIS) Manager**
7. Reset the Pulse Service via the **Service Control Manager** application in Windows

## Configure Outbound Email Settings

To ensure that Pulse can send outbound emails follow these instructions. For more detailed information on each option please refer to the section General... Outbound Emails Settings.

1. Logged in as PulseAdmin, head to the **General Settings**
2. Input your companies **SMTP Host**. For Example, mail-internal.mycompany.com
3. Input your Companies **SMTP Port**. For Example, 25
4. Check or uncheck the **SMTP Enable SSL** button. We recommendation, leaving it unchecked
5. Input the proper **SMTP Username**. For example, Pulse@mycompany.com
6. Input the corresponding **SMTP Password**.
7. Input the **Notification Email Address**. For example, notifications@mycompany.com
8. Input the **Notification Email Display Name**. We recommend, Pulse Notifications.

## Configure Inbound Email Setting

Setting up inbound emails for Pulse is different depending on which type of email service you use. Pulse supports Pop3, Exchange Web Services, and Poll the local SMTP drop folder. For more detailed information on each email option please refer to the General Settings Section... Inbound Email Settings

### To configure Inbound Email Settings using Pop3:

1. Logged in as PulseAdmin, head to the **General Settings**.
2. Choose **Pop3** as your Incoming mail server type.
3. Input the Pop3 **Host**. For example, pop3.gmail.com
4. Input the Pop3 **Username**. For example, user name of a valid account
5. Input the Pop3 **Password**. For example, corresponding password
6. Choose a **Poll Task Frequency**. We recommend, 1
7. Choose whether you want to enable SSL. We recommend, leaving it unchecked.

### To configure Inbound Email Settings using Exchange Web Services:

1. Logged in as PulseAdmin, head to the **General Settings**.
2. Choose **Exchange Web Services** as your Incoming mail server type.
3. Input the **EWS URL**. For example, https://mail.mycompany.com/ews/exchange.asmx
4. Input the **EWS Domain**. For example, PulseDomain
5. Input the **EWS Username**. For example, username of an account that has an Exchange Inbox. This account should not be a real user's account.
6. Input the **EWS Password**. For example, password
7. Input a **EWS poll Task Frequency** in Minutes. We recommend 1 minute.

### To configure Inbound Email Settings using Poll the local SMTP drop Folder:

1. Logged in as PulseAdmin, head to the **General Settings**.
2. Choose **SMTP Drop Folder** as the incoming mail server type.
3. Input the **SMTP Drop Folder**. For Example, C:\inetpub\mailroot\Drop.
4. Choose a **Folder Poll Task Frequency** in minutes. We recommend, 1 minute.
5. Reset the Web App in IIS, along with the Pulse Windows Service in the Service control manager.

## Configure Email Notifications

Pulse supports three types of email notifications; Static, Domain and Plussing. Static, for a single email address that doesn't change, and no support for posting to a group via email. Domain, if you have a whole domain you'd like Pulse to control. Plussing, if you have one email address you'd like Pulse to manage but would like to be able to post to groups via email.

### For Static Notifications:

1. Logged in as Pulse Admin, head to the **General Settings**.
2. Choose **Static** as your Email notification type.
3. Input the **Notification Email Address**. For example, notifications@mycompany.com

4. Input the **Notification Email Display Name**. We recommend, Pulse Notifications.

#### For Domain Notifications:

1. Logged in as PulseAdmin, head to the **General Settings**.
2. Choose **Domain** as your Email notification type.
3. Input the **Notification Email Domain**. For example, pulse.mycompany.com
4. Input the **Notification Email Display Name**. We recommend, Pulse Notifications.

#### For Plussing Notifications:

1. Logged in as PulseAdmin, head to the **General Settings**.
2. Choose **Plussing** as your Email notification type.
3. Input the **Notification Email Address**. For example, notifications+stringSuppliedByPulse@"CustomGroupName"
4. Input the **Notification Email Display Name**. We recommend, Pulse Notifications.

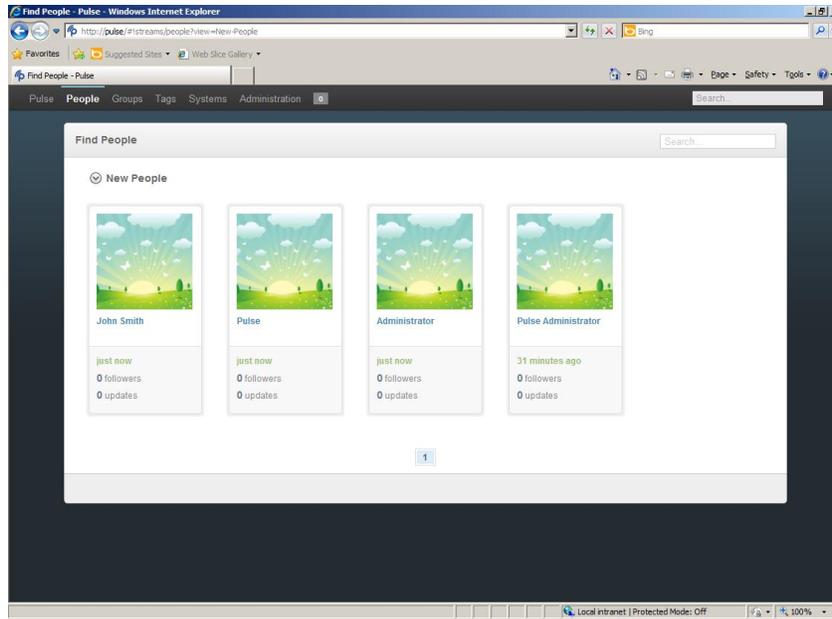


Note:

- To allow Groups to receive email you must use Domain or Plussing
- To use Plussing your email server must support Plussing
- To use Plussing on Exchange you must install the Exchange Transport Agent. Refer to the document PulseTransportAgentHelp.txt for more information
- To use Domain, you must setup a separate domain and install the Exchange Transport Agent. Refer to the document PulseTransportAgentHelp.txt for more information

### Verifying Your Installation

Once you have completed the above and the sync has taken place users from the Administrators and All Users groups will appear in the **People... New People** capability



## Installing Additional Web Servers

If you are installing on multiple web servers that are load balanced, perform the following steps on each additional server:

### Before you begin

1. Ensure you have the DatabaseConnectionString, and QueueConnectionString value located in the registry of the first Web Server Role. These are located at HKEY\_LOCAL\_MACHINE\SOFTWARE\Neudesic

### To run Setup

1. While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or Setup32.exe for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
2. On the Welcome screen click **Next**
3. Agree to the EULA and click **Next**
4. On the Select Pulse Server Role, select **Web server role**
5. On the Configure Pulse service user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
6. On the Configure Pulse Web UI AppPool user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
7. On the Configure Pulse Web UI, select **Create a new web site**. Input the desired URL in the Host Header. For example pulse.mycompany.com
8. Click **Next**
9. Click **Install**

### To connect the Web Server to the correct Database and Queue

1. Open Registry Editor
2. Navigate to HKEY\_LOCAL\_MACHINE\SOFTWARE\Neudesic
3. Add a String Key named **DatabaseConnectionString** and set its value to the DatabaseConnectionString on the first Web Server
4. Add a String Key named **QueueConnectionString** and set its value to the QueueConnectionString on the first Web Server

## Walkthrough: Setting up a Content Distribution Network

If you would like to use a Content Distribution network for files and videos then configure a CDN source and set the type to the source you created. After setting up your CDN through Cloud Front Amazon Web Services follow these steps:

Note: Amazon provides all the information you need to set this up after your CDN is configured with them.

1. Logged in as PulseAdmin, head to the **Content Distribution Network** page
2. Click **Add a CDN**
3. Input a **name** for your CDN. For example, Pulse CDN
4. Make sure **AWS** is selected as your “CDN Type”
5. Input your **AWS Access Key**. For example,
6. Input your **AWS Secret Key**. For example,
7. Input you **AWS S3 Bucket Name**. For example,
8. Input your **AWS Cloudfront Domain Name**. For example,
9. Input your **AWS Cloudfront Private Key (PEM)**. For example,
10. Input your **Cloudfront Key Pair ID**. For example,
11. Set the **AWS Cloudfront Link Expiration**. We recommend, 1 hour.
12. Click **OK**
13. Next, Go to the **Set CDN Type** tab.
14. Set the CDN for Files and videos
15. Click **Apply**

Note: If you wish to disable your CDN just check the disable box.

## Walkthrough: Integrating Pulse with Microsoft Lync Server 2010

This section walks you through the installation and configuration of several components required to leverage Pulse's integration with Microsoft Lync 2010.

### Prerequisites

- A fully-patched and domain-joined Windows Server 2008 R2 virtual machine
- Microsoft Lync Server
- What is the fully qualified name of your Pulse Server. For example, **myPulseServer01.mydomain.com**
- What is the fully qualified name of your Domain Controller. For example, **DC.mydomain.com**
- What is the fully qualified name of your Lync Server. For example, **myLyncServer01.mydomain.com**

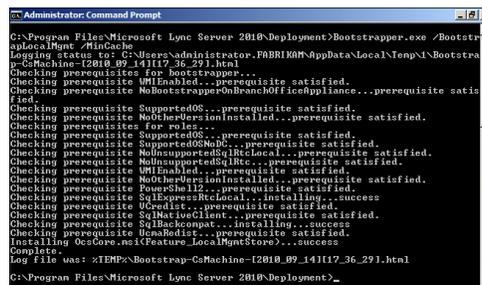
### Install the UCMA 3.0 SDK on your Pulse Server

1. Download the UCMA Runtime at <http://www.microsoft.com/en-us/download/details.aspx?id=20958>
2. Run **UcmaRuntimeSetup.exe**. The installer verifies that you have all the required prerequisites. Click **Install**
1. The installer also installs the **Windows Media Format Runtime** and prompts you to reboot before continuing.
2. Install the SDK to the default location and continue.

### Install Lync Server 2010 Core Components on Pulse Server

The Lync Server 2010 Core Components are available on your Lync Server 2010 installation media.

1. Run **OSCCore.msi** from the **Setup\amd64\setup\** folder
2. From the deployment folder on the installation media, run `Bootstrapper.exe /BootstrapLocalMgmt /MinCache` to install the local management store components and database on the server.



```
Administrator: Command Prompt
C:\Program Files\Microsoft Lync Server 2010\Deployment>Bootstrapper.exe /BootstrapLocalMgmt /MinCache
Logging status to: C:\Users\Administrator\AppData\Local\Temp\Bootstrap-CsMachine-[2010_09_14]17_36_291.html
Checking prerequisite for bootstrapper...
Checking prerequisite UMLEnabled...prerequisite satisfied.
Checking prerequisite NoBootstrapperOnBranchOfficeAppliance...prerequisite satisfied.
Checking prerequisite SupportedOS...prerequisite satisfied.
Checking prerequisite NoOtherVersionInstalled...prerequisite satisfied.
Checking prerequisite for roles...
Checking prerequisite SupportedOS...prerequisite satisfied.
Checking prerequisite SupportedOSNoDC...prerequisite satisfied.
Checking prerequisite NoUnsupportedSqlRtcLocal...prerequisite satisfied.
Checking prerequisite NoUnsupportedSqlRtc...prerequisite satisfied.
Checking prerequisite UMLEnabled...prerequisite satisfied.
Checking prerequisite NoOtherVersionInstalled...prerequisite satisfied.
Checking prerequisite Powershell...prerequisite satisfied.
Checking prerequisite SqlExpressRtcLocal...installing...success
Checking prerequisite UCredist...prerequisite satisfied.
Checking prerequisite SqlMaxIoClient...prerequisite satisfied.
Checking prerequisite SqlBackcompat...installing...success
Checking prerequisite IcmRedis...prerequisite satisfied.
Installing OcsCore.msi{Feature_LocalMgmtStore}..success
Complete.
Log file was: %TEMP%\Bootstrap-CsMachine-[2010_09_14]17_36_291.html
C:\Program Files\Microsoft Lync Server 2010\Deployment>
```

### Create a New Trusted Application Pool

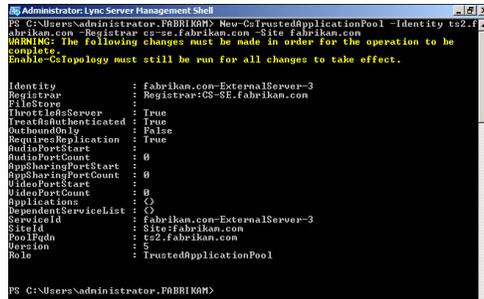
1. First reboot your server
2. Make sure you are logged in as a Lync Admin
3. Open the **Lync Server Management Shell**.
4. Run `Get-CsSite` to get the SiteId.
5. Run `Get-CsService -Registrar` to get the name of the Registrar.

6. Run the following PowerShell to create the trusted application pool:

```
New-CsTrustedApplicationPool -Identity -Registrar -Site
```

For example:

```
New-CsTrustedApplicationPool -Identity myPulseServer01.mydomain.com -Registrar  
myLyncServer.mydomain.com -Site mycompany
```



1. As prompted, run `Enable-CsTopology` to complete the operation.
2. Run `(Get-CsTopology -AsXml).ToString() > Topology.xml` and examine its contents to see the new trusted application pool in the Lync topology.

## Configure CS Management Store Replication

1. Run the following PowerShell command to enable the Replica service on the new server:

```
Enable-CSReplica
```

2. Reboot your Pulse Server
3. The Replica service is enabled, but hasn't done anything yet. This can be verified by running the following PowerShell command to check the replication status for the various servers in the topology:

```
Get-CSManagementStoreReplicationStatus
```

You can see in the screenshot below that the **UpToDate** property of the new server is still **False**

```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator_FABRIKAM> Enable-CsReplica
PS C:\Users\Administrator_FABRIKAM> Get-CsManagementStoreReplicationStatus

UpdateDate      : True
ReplicaPqdn     : CS-Edge.fabrikam.com
LastStatusReport : 9/14/2010 5:48:08 PM
LastUpdateCreation : 9/14/2010 5:48:05 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : cs-gms.fabrikam.com
LastStatusReport : 9/14/2010 5:48:10 PM
LastUpdateCreation : 9/14/2010 5:48:05 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : CS-SE.fabrikam.com
LastStatusReport : 9/14/2010 5:48:09 PM
LastUpdateCreation : 9/14/2010 5:48:05 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : ts.fabrikam.com
LastStatusReport : 9/14/2010 5:48:07 PM
LastUpdateCreation : 9/14/2010 5:48:05 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : False
ReplicaPqdn     : ts2.fabrikam.com
LastStatusReport :
LastUpdateCreation : 9/14/2010 5:52:05 PM
ProductVersion  :
PS C:\Users\Administrator_FABRIKAM>

```

1. Run the following PowerShell command to force the replication to run:

**Invoke-CsManagementStoreReplication**

2. Run `Get-CsManagementStoreReplicationStatus` again to verify that the new service is now up to date:

```

PS C:\Users\Administrator_FABRIKAM> Get-CsManagementStoreReplicationStatus

UpdateDate      : True
ReplicaPqdn     : CS-Edge.fabrikam.com
LastStatusReport : 9/14/2010 9:54:08 PM
LastUpdateCreation : 9/14/2010 9:54:06 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : cs-gms.fabrikam.com
LastStatusReport : 9/14/2010 9:54:08 PM
LastUpdateCreation : 9/14/2010 9:54:06 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : CS-SE.fabrikam.com
LastStatusReport : 9/14/2010 9:54:09 PM
LastUpdateCreation : 9/14/2010 9:54:06 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : ts.fabrikam.com
LastStatusReport : 9/14/2010 9:54:08 PM
LastUpdateCreation : 9/14/2010 9:54:06 PM
ProductVersion  : 4.0.7457.0

UpdateDate      : True
ReplicaPqdn     : ts2.fabrikam.com
LastStatusReport : 9/14/2010 9:57:06 PM
LastUpdateCreation : 9/14/2010 9:57:06 PM
ProductVersion  : 4.0.7457.0

```

## Request and Set a New Certificate

3. Request a new certificate from the domains CA and assign it to the server.
4. Run the following PowerShell command to request a new cert:

**Request-CsCertificate -New -Type default -CA -Verbose**

**Example:** `Request-CsCertificate -New -Type default -CA dc.mydomain.com \CertServ -Verbose`

5. Setting the `-Verbose` switch outputs the certificate's thumbprint into the console, you will use this in the next step.

```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator\FABRIKAM> Request-CsCertificate -New -Type default -CertificateThumbprint CE2B6EEC9832AC8E67800AE03160852300FB95C3 -Verbose
VERBOSE: Creating new log file
"C:\Users\Administrator\FABRIKAM\AppData\Local\Temp\2\Request-CsCertificate-d13978a6-dda8-4fbc-be55-49942bf9c937.xml"
VERBOSE: Create a certificate request based on Lync Server configuration for this computer.
Issued thumbprint "CE2B6EEC9832AC8E67800AE03160852300FB95C3" for use "Default" by "ts.fabrikam.com\FabrikamCA".
Issuer          : CN=FabrikamCA
NotBefore      : 9/13/2012 10:09:02 PM
NotAfter       : 9/14/2010 10:09:02 PM
SerialNumber   : 16A6897C000000000000
Subject        : CN=ts.fabrikam.com
Thumbprint     : CE2B6EEC9832AC8E67800AE03160852300FB95C3
Use            : Default

VERBOSE: No changes were made to the Central Management Store.
VERBOSE: Creating new log file
"C:\Users\Administrator\FABRIKAM\AppData\Local\Temp\2\Request-CsCertificate-d13978a6-dda8-4fbc-be55-49942bf9c937.html"
VERBOSE: "Request-CsCertificate" processing has completed successfully.
VERBOSE: Detailed results can be found at
"C:\Users\Administrator\FABRIKAM\AppData\Local\Temp\2\Request-CsCertificate-d13978a6-dda8-4fbc-be55-49942bf9c937.html".

```

6. Run the following PowerShell command to set the certificate:

```
Set-CsCertificate -Type Default -Thumbprint
```

```

Administrator: Lync Server Management Shell
PS C:\Users\Administrator\FABRIKAM> Set-CsCertificate -Type default -Thumbprint CE2B6EEC9832AC8E67800AE03160852300FB95C3
The following certificate was assigned for the type "Default":
Default: CE2B6EEC9832AC8E67800AE03160852300FB95C3 ts.fabrikam.com 09/13/2012 CN=FabrikamCA 16A6897C000000000000
PS C:\Users\Administrator\FABRIKAM>

```

## Create a UCMA 3.0 Trusted Application

Fire up the **Communications Server Management Shell**. Use the **New-CsTrustedApplication** cmdlet to create a trusted application, for example:

```

New-CsTrustedApplication
-ApplicationId "PulseNotifications"
-TrustedApplicationPoolFqdn "myPulseServer01.mydomain.com"
-Port 10607

```

Where:

- **ApplicationId** is a unique name for your UCMA 3.0 application.
- **TrustedApplicationPoolFqdn** is the fully qualified domain name of your trusted application pool.
- **Port** is the port that Lync Server 2010 will listen for your application on.

```

Administrator: Communications Server Management Shell
PS C:\Users\georged> New-CsTrustedApplication
cmdlet New-CsTrustedApplication at command pipeline position 1
Supply values for the following parameters:
ApplicationId: My0C14app
TrustedApplicationPoolFqdn: ts.fabrikam.com
Port: 10607

Identity          : ts.fabrikam.com/urn:application:myuc14app
ComputerName     : ts.fabrikam.com
ServiceName      :
ApplicationId     : urn:application:myuc14app
TrustedApplicationPoolFqdn : ts.fabrikam.com
Port             : 10607
LegacyApplicationName : myuc14app

PS C:\Users\georged>

```

Note that to run these PowerShell cmdlets, the user you are logged in as needs to be a member of **RTCUniversalServerAdmins**, and also a local administrator on the server.

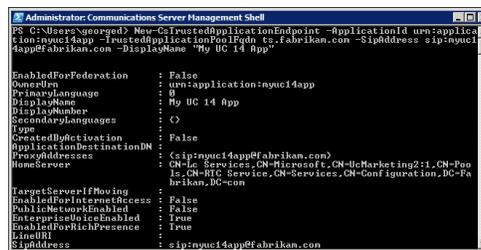
## Create an Application Endpoint

To interact with your UCMA 3.0 trusted application, you need an application endpoint – or contact. Use the **New-CsTrustedApplicationEndpoint** cmdlet to create an application endpoint, for example:

```
New-CsTrustedApplicationEndpoint
-ApplicationId "urn:application:pulsenotifications"
-TrustedApplicationPoolFqdn "myPulseServer01.mydomain.com"
-SipAddress sip: pulse.notifications@neudesic.com
-DisplayName "Pulse Notification"
```

Where:

- **ApplicationId** is the id of trusted application created in the previous step – in the format **urn:application:applicationid**.
- **TrustedApplicationPoolFqdn** is the fully qualified domain name of your trusted application pool.
- **SipAddress** is the Sip address that you would like to assign to the application endpoint – in the format **sip:username@domain.com**.
- **DisplayName** is the display name of the application endpoint that shows up in Communicator.



```
Administrator: Communications Server Management Shell
PS C:\Users\georged> New-CsTrustedApplicationEndpoint -ApplicationId urn:application:pulsenotifications -TrustedApplicationPoolFqdn myPulseServer01.mydomain.com -SipAddress sip:pulse.notifications@neudesic.com -DisplayName "Pulse Notification"
EnabledForFederation : False
EnabledForInternetAccess : False
EnabledForRichPresence : True
EnterpriseVoiceEnabled : True
LineURI :
SipAddress : sip:pulse.notifications@neudesic.com
ApplicationId : urn:application:pulsenotifications
TrustedApplicationPoolFqdn : myPulseServer01.mydomain.com
SipAddress : sip:pulse.notifications@neudesic.com
DisplayName : Pulse Notification
```

## Install Pulse Lync Application Role

The final step is to install and configure you Pulse server to run as the Lync application role.

### To install the Lync server role

1. While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or **Setup32.exe** for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
2. On the Welcome screen click **Next**
3. Agree to the EULA and click **Next**
4. On the Select Pulse Server Role, select **Lync server role**

### To finalize Pulse configuration

1. Connect to Pulse as an Administrator and click **Adminstration... Settings... General**
2. In the Lync Application Name input the value of ApplicationId used in the Create an Application Endpoint step. For example: `urn:application:pulsenotifications`

## Checklist: Setting up Pulse to receive incoming email

Your Pulse servers can be configured to process incoming emails to allow users to send emails that automatically get posted to Pulse Groups. One possible configuration is to use the SMTP features of IIS and configure the appropriate drop folders. The following checklist can be used to configure Pulse to receive and process emails:

### Install and Configure SMTP

- ✓ Use Server Manager to install the SMTP server feature on Windows Server.
- ✓ Ensure the "Simple Mail Transfer Protocol (SMTP)" startup type is Automatic.
- ✓ Once SMTP is installed, you should have a shortcut in Administrative Tools for "Internet Information Services (IIS) 6.0 Manager". Open this and expand the local server, then virtual server #1, then domains. Right click on the only item in the list in the right pane and choose Rename. Rename the domain to a valid subdomain. For example, "pulse.mycompany.com".

### Configure Firewall Rules

- ✓ Ensure that port 25 is open through Windows Firewall.

### Configure DNS MX Records

You should already have a DNS A record configured. You will need to create a DNS MX record. The following is an example of the DNS records you should have

Type	Name	Value
A	Pulse.mycompany.com	10.10.10.199
MX	Pulse.mycompany.com	1 pulse.mycompany.com

### Configure Pulse

Now that's done, you'll want to configure Pulse. Go to Pulse on your web browser and login with some admin credentials. Click on Settings and choose General.

- ✓ Ensure that "Incoming mail server type" is set to "Poll the Local SMTP drop folder"
- ✓ Ensure that "SMTP drop folder" is set to C:\inetpub\mailroot\Drop
- ✓ Ensure that "Folder Poll Task Frequency in Minutes" is set to 5
- ✓ Ensure that "Notification Email Type" is set to Domain
- ✓ Ensure that "Notification Email Domain" is set to pulse.transwestern.net
- ✓ Ensure that "Notification Email Display Name" is set to Pulse Notifications

Also, ensure that SMTP Host, SMTP port, SMTP Enable SSL, SMTP Username, and SMTP password on this page are configured to use the correct settings to contact your organizations' SMTP server for outgoing mail. The local SMTP server is configured to deny relay, so you can't use it for this unless you specifically configure it otherwise. Be careful when configuring an SMTP server for relay, as you don't want to allow spammers to use it

for relay, just authorized users. It's probably easier to use an SMTP server that the rest of your organization is already using for sending email, if one exists.

## Walkthrough: Deploying Rabbit MQ

RabbitMQ is required for Neudesic Pulse 4. The section provides a walkthrough of performing a basic installation of RabbitMQ

Before you begin

- Ensure you have met the minimum hardware and software requirements for RabbitMQ
- Download the latest version of ERLANG at <http://www.erlang.org/download.html>
- Download the latest version of RabbitMQ at <http://www.rabbitmq.com/download.html>

## Installing Erlang

To install Erlang perform the following steps on each server running RabbitMQ

1. Execute the Erlang setup application. For example `otp_win32_R15B01.exe` using **Run as administrator**
2. Click **Next** on the Choose Components screen
3. Click **Next** on the Choose Install Location
4. Agree to the license agreement and click **Install**

## Installing RabbitMQ

To install RabbitMQ, perform the following steps

1. Execute the RabbitMQ setup application. For example `rabbitmq-server-2.8.1.exe` using **Run as Administrator**
2. Click **Next** on the Choose Components screen
3. Click **Install**



Note:

RabbitMQ has many installation configurations. For more information please review the following RabbitMQ documentation.

- For more information about **Server Configuration**, <http://www.rabbitmq.com/configure.html>
- For more information about **Server SSL**, <http://www.rabbitmq.com/ssl.html>
- For more information about **Server Management**, <http://www.rabbitmq.com/management.html>
- For more information about **Server Clustering**, <http://www.rabbitmq.com/clustering.html>
- For more information about **Server High Availability**, <http://www.rabbitmq.com/ha.html>



## Walkthrough: Configuring a Two Node RabbitMQ Cluster

A common task in Pulse server farms is to provide high availability of queues using RabbitMQ's clustering capabilities. The following walks you through creating a two node RabbitMQ cluster.

Before you begin

- Ensure you perform the installation of RabbitMQ as the same user on each node
- Install RabbitMQ on both servers
- Make note of the exact host names for each server in the cluster.
- For more details see <http://www.rabbitmq.com/clustering.html>

### Assumptions

This walkthrough assumes a server named **SERVER\_ONE** and a server **SERVER\_TWO**. These commands are case sensitive.

### Copy .erlang.cookie

For RabbitMQ server's to communicate they must share the same cookie file. The cookie file is located in the user's directory for the user who performed the RabbitMQ installation. For example, if installed as Administrator the cookie would be located at C:\Users\Administrator\.erlang.cookie.

1. On **SERVER\_ONE**, copy the file C:\Users\Administrator\.erlang.cookie to **SERVER\_TWO** **C:\Users\Administrators\.erlang.cookie**. You should overwrite the existing file
2. On **SERVER\_TWO** copy the same .erlang.cookie to C:\Windows\.erlang.cookie. You should overwrite the existing file

### Configure Cluster from **SERVER\_TWO**

Next step is to configure the cluster from **SERVER\_TWO**. Perform the following actions on **SERVER\_TWO**

1. Click Start... Administration Tools... **Services**
2. Locate **RabbitMQ** service, and click **Stop**
3. Click Start... All Programs... RabbitMQ Server... **RabbitMQ Server Command Prompt(sbin)**
4. Run the command **rabbitmq-server**. You should see the following

```

Administrator: RabbitMQ Command Prompt (sbin dir)
starting auth mechanism plain           ...done
starting statistics event manager       ...done
starting logging server                  ...done
starting exchange type direct           ...done
starting exchange type fanout           ...done
starting exchange type headers          ...done
starting exchange type topic            ...done
-- kernel ready
starting alarm handler                   ...done
starting node monitor                   ...done
starting cluster delegate                ...done
starting guid generator                  ...done
starting memory monitor                  ...done
-- core initialized
starting empty DB check                  ...done
starting exchange, queue and binding recovery ...done
starting mirror queue slave sup         ...done
starting adding mirrors to queues       ...done
-- message delivery logic ready
starting error log relay                 ...done
starting networking                     ...done
starting direct client                   ...done
starting notify cluster nodes           ...done
broker running

```

5. Open another RabbitMQ command prompt via Click Start... All Programs... RabbitMQ Server... **RabbitMQ Server Command Prompt(sbin)**
6. Run the following commands
  - i. `rabbitmqctl stop_app`
  - ii. `rabbitmqctl reset`
  - iii. `rabbitmqctl cluster rabbit@SERVER_ONE rabbit@SERVER_TWO`
  - iv. `rabbitmqctl start_app`
7. Run the following command to verify the cluster is running
  - i. `Rabbitmqctl cluster_status`. You should see something similar to this?

```

Cluster status of node 'rabbit@SERVER_TWO' ...
[{"nodes", [{"disc", ["rabbit@SERVER_TWO"]}, {"ram", ["rabbit@SERVER_ONE"]}]}],
 {"running_nodes", ["rabbit@SERVER_TWO ", "rabbit@SERVER_ONE"]}
...done.

```

8. Terminate the other SBIN from step 4 by doing **CTRL+C**
9. From Service Control Manager start the **RabbitMQ Service**
10. Run `Rabbitmqctl cluster_status` to verify the cluster is running

## Walkthrough: Deploying the Video Encoding Server Role

To use encoding in Neudesic Pulse 4 you need to run the Pulse setup application on a server running Microsoft Expression Encoder. The Neudesic Pulse Encoding Server is a Windows Services that is installed on a separate server.

Before you begin

- Ensure Microsoft Expression Encoder is install on the server you are installing the Video Encoding Server Role

### To install the Video Encoding Server Role

To install the Neudesic Pulse Video Encoding Service on a separate server:

1. While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or **Setup32.exe** for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
2. On the Welcome screen click **Next**
3. Agree to the EULA and click **Next**
4. On the Select Pulse Server Role, select **Video encoding service role**
5. On the Configure Pulse service, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
6. Click **Next**
7. Click **Detect**
8. Input the **URL** to your Pulse instance. For example <https://pulse.mycompany.com>
9. Input a **Username** that has Administrator rights to Pulse in the format DOMAIN\UserName. For example, CORP\Administrator
10. Input a correct **Password**
11. Click **OK**
12. The program will detect the settings. If not you can access the Web Server role and locate the settings in the registry under SOFTWARE\NEUDESIC\Pulse

### To configure the Video Server Encoding Role

1. Create two directories in a location with significant storage space. For example, D:\PulseEncodingOutput, and D:\PulseEncodingWorking. Ensure that the account you used during installation has **Full Control** to these directories
2. From registry editor, add 2 registry keys: **VideoEncodingOutputDirectory**, **VideoEncodingWorkingDirectory**.
  - For x64 machine add the Keys to **HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Neudesic\Pulse**
  - For x86 machine add the Keys to **HKEY\_LOCAL\_MACHINE\SOFTWARE\Neudesic\Pulse**
3. Set **VideoEncodingOutputDirectory** to D:\PulseEncodingOutput
4. Set **VideoEncodingWorkingDirectory** to D:\PulseEncodingWorking
5. From Services control manager, restart **Pulse Video Encoding Service**

## To configure Pulse to use the Video Encoding Server

1. Connect to Pulse as PulseAdmin
2. Click **Administration... General**
3. Location **Use Video Encoding.**
4. Click **Save**

Note: Pulse video encoding service is a 32bit process

To Troubleshoot: Use debug view on the video encoding machine OR go to the log table in the database and run some queries on there to see what the problem could be.

## Walkthrough: Disable Active Directory Group Import

When Pulse imports users, it attempts to determine all of the AD Groups the user is a member. This allows administrators and others users to easily use AD Groups within Pulse for setting security on Groups, Systems, and Tags. In certain highly complex AD environments you may have to disable this capability to ensure consistent user synchronizations. To do this perform the following actions

1. Open RegEdit from a command prompt by typing regedit.exe
2. Navigate to HKEY\_LOCAL\_MACHINE\SOFTWARE\NEUDESIC\Pulse
3. In the same area as DatabaseConnectionString, right click **New... String Value**
4. Name it **EnableGroupSync**
5. Set the value to **false**

## Walkthrough: Install Pulse for On Premise SharePoint

The first step in integrating your SharePoint environment with Pulse 4 is to deploy a setup of web parts for SharePoint. To Install Pulse 4 for SharePoint, follow these steps

- Run Setup
- Create a System Hub for SharePoint
- Generate a Certificate
- Configure Farm Settings
- Configure My Site Web Parts
- Optional: Configure Host Site Url for SharePoint Users
- Optional: Customize Masterpage
- Optional: Customize Person.aspx
- Optional: Modifying PersonContent.aspx
- Optional: Modifying Thoughts.aspx
- Optional: Modifying MyContactLinks.aspx
- Optional: Create a File Source to upload to SharePoint

Before you begin

- Ensure you have generated a root certificate for Pulse using the **Settings... Certificate... Generate New Root Certificate**. Only do this if a Root Certificate does not exist

- Ensure you have created an Email account that will be used by SharePoint to send messages to Pulse. For example, create an account `PulseSharePointEvent@mycompany.com`
- Ensure you have the value for you Pulse Authentication Key found at **Settings... Authentication... Authentication Key**

#### Run Setup

1. Right click **PulseSharePointSetup.exe**, click **Run as Administrator**
2. On the Welcome screen click **Next**
3. On the **System Check** screen ensure all test pass
4. Click **Next**
5. Select the Site Collection you wish to deploy the web parts to. You should at minimum deploy the web parts to you My Site host.
6. Click **Next**

#### Create a System Hub for SharePoint

To create a System Hub for SharePoint, perform the following steps

1. Login to Pulse as PulseAdmin
2. Click **Systems...Create System**
3. In the name input, **SharePoint**
4. Click **Create System**

### Generate a Certificate

1. From the SharePoint System Hub previously created, click **Settings**
2. Under Basic settings click, **Generate Certificate**
3. Download the certificate by clicking the blue unique identifier

### Configure Farm Settings

Using Central Administration you will point SharePoint to your Pulse instance. For more information on the specific settings refer to Administration Settings... SharePoint Settings

1. From SharePoint Central Administration, click **System Settings**
2. Under Neudesic Pulse, click **Manage farm settings**
3. Input your **Pulse URL**
4. Input the **Pulse e-mail address**. This should be a service email address only used for Pulse

5. Under the Certificate section, click **Browse** and select the certificate file(.pfx) create previously
6. Under Authentication Settings, select **Enable single sign-on**.
7. For **Single sign-on mode**
  - a. If using Active Directory select **SID**
  - b. If using Forms or Claims Authentication select **Email**
8. For **Authentication Key** copy and paste the value found in **Settings... Authentication... Authentication Key**
9. Click **OK**

## Configuring SharePoint My Sites

To enhance your My Site experience to leverage Pulse, perform the following actions

- Edit Default.aspx to include the Dynamic Pulse web part
- Update Person.aspx in include the Specific User Feed web part
- Optional: Configure Host Site URL for SharePoint Users

### Edit Default.aspx

In this step you will add the Pulse Activity Stream to your default My Newsfeed

1. From the My Site home page, click **Site Actions, Edit Page**
2. In the top zone click **Add a Web Part**
3. In the group **Pulse For SharePoint Sites** select **Dynamics Pulse Content**
4. Click **Add**
5. In the top zone click **Add a Web Part**
6. In the group **Pulse For SharePoint Sites** select **Navigation Bar**
7. Click **Add**
8. Save and stop editing the Page

### Update the Person.aspx

In this step you will add the User Wall to the My Profile Page

1. Navigate to My Profile
2. Click Site Settings... Edit Page  
Click Add a web part
3. Select Pulse for My Sites... Specific User's Feed
4. In the top zone click **Add a Web Part**
5. In the group **Pulse For SharePoint Sites** select **Navigation Bar**
6. Click **Add**

7. Save and stop editing the Page

### Optional: Configure Host Site URL for SharePoint Users

If you want SharePoint to be the primary access point for all Pulse activity you will want to the **Host Site URL** setting associated with a specific Group. Using this setting will allow you to ensure that all social interaction is done via SharePoint.

### Configure the Host Site URL for SharePoint users

Perform the following steps to configure the Host Site URL for a specific group of SharePoint users

1. Login to Pulse as PulseAdmin and click **Settings... Groups**
2. Click **Add a Group**
3. For **Name** input SharePoint Users
4. Type in SharePoint Users in the **Select a group to manage**
5. Select SharePoint Users
6. Click **Manage Group**
7. Click **Membership**
8. Select the users that should be in SharePoint mode
9. Click **Advanced**
10. Input the complete URL to the default.aspx of your My Site Host. For example  
`https://intranet/my/default.aspx`
11. Click **Save**

### Customize Masterpage

In most deployments you will want to hide the Contact Card that is provided by SharePoint. To do this you can either edit your My Site master page or create a Content Editor web part. The following CSS will hide the contact card...

```
<style type="text/css">
.ms-contactcardtext3 {
    DISPLAY: none
}
</style>
```

If you want to hide the “tabs” on the profile include the following...

```
<style type="text/css">
```

```
.ms-profilepageheader {  
    DISPLAY: none  
}</style>
```

Additionally, included in the **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\pulse** directory is **MYSITE.MASTER** that can be used in place of the out of the box Master Page.

### Modifying the Person.aspx

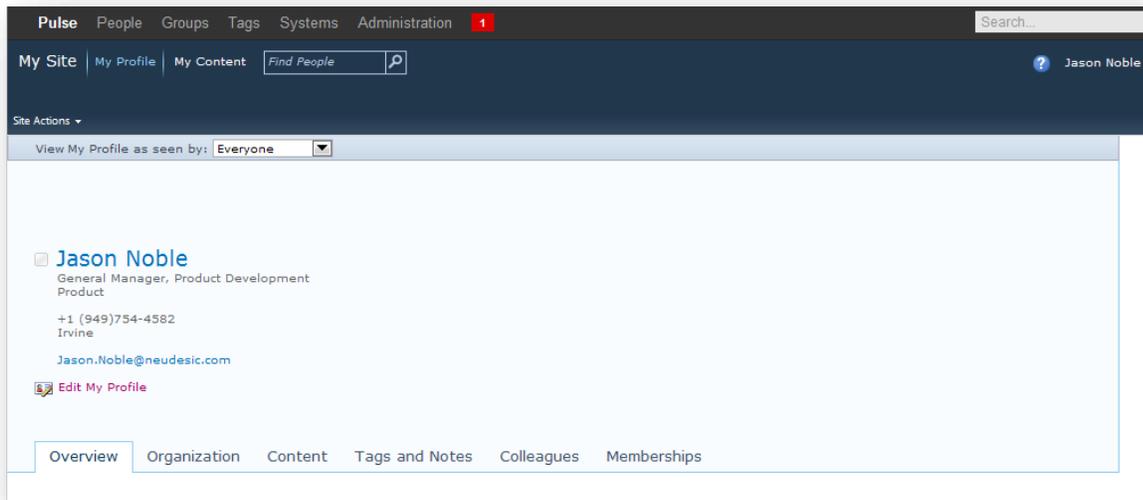
We recommend you modify the Person.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **Person.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

6. Click Save

You should now the user's profile information displayed as follows:



## Modifying the PersonContent.aspx

We recommend you modify the PersonContent.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **PersonContent.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Modifying the Thoughts.aspx

We recommend you modify the Thoughts.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **Thoughts.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Modifying the MyContactLinks.aspx

We recommend you modify the MyContactLinks.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **MyContactLinks.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Create a File Source to upload to SharePoint

You can configure Pulse to prompt users to upload files to a specific SharePoint using Files Sources. To add a File Source, perform the following steps

1. Logged in to Pulse as PulseAdmin, click **Administration... Settings**
2. Click **File Sources**
3. Click **Add a File Source**
4. Input a Name. For example, "Upload To SharePoint"
5. In the URL input the URL to a SharePoint site and add `"/_layouts/pulse/assetbrowser.aspx"`. For example `http://intranet/_layouts/pulse/assetbrowser.aspx`

 Note:

- In you only what this File Source to appear when embedded on a SharePoint site, input **Web** in the Limit to Entity Types
- In you only what this File Source to appear when embedded on a SharePoint List Item, input **Item** in the Limit to Entity Types
- In you only what this File Source to appear when embedded on a SharePoint Lists, input **List** in the Limit to Entity Types

## Walkthrough: Install Pulse on Office 365

Neudesic Pulse supports Office 365 in several scenarios. You can follow the steps above to modify your Office 365 My Site experience in the exact same way. This section walks you through the initial deployment and configuration of a Site Collection that is a basic Team Site but it is important to note that you can modify your Office 365 My Sites as well. Perform the following steps to deploy Pulse to Office 365

- Configure Resource Usage Quota
- Upload and Activate Pulse Solution in Solution Gallery
- Create a System Hub for SharePoint
- Generate a Certificate
- Configure Site Settings
- Configure My Site Web Parts
- Optional: Configure Host Site Url for SharePoint Users
- Optional: Customize Masterpage
- Optional: Customize Person.aspx
- Optional: Modifying PersonContent.aspx
- Optional: Modifying Thoughts.aspx
- Optional: Modifying MyContactLinks.aspx

### Before you begin

- You must download and compile a custom Sandbox solution available at <https://github.com/NeudesicPulse/PulseO365.git> . Following the README to build your Sandbox Solution
- Ensure you have administrator access to <http://portal.microsoftonline.com>
- Ensure you have created an Email account that will be used by SharePoint to send messages to Pulse. For example, create an account [PulseSharePointEvent@mycompany.com](mailto:PulseSharePointEvent@mycompany.com)
- Ensure you have the value for you Pulse Authentication Key found at **Settings... Authentication... Authentication Key**

### Configure Resource Usage Quota

For Neudesic Pulse to execute you must allocate Resources using the Site Collection administration capabilities in Office 365. To connect to the administration portal go to <http://www.office365.com>. You must login as a Global Administrator that has access to manage SharePoint Online

From the Office 365 Admin home perform the following actions

1. Click **Admin**
2. Under Microsoft Office 365, **SharePoint Online**, click **Manage**
3. On the **administration center** home page click, **Manage site collections**
4. Click the Site Collection that you are deploying Neudesic Pulse

5. Click **Resource Usage Quota**
6. Specify an initial value of **300**. Note, that you may experience timeouts are you user volume increase. Increase this over time.
7. Use the **Send Email** capability to be notified as your resources are being used
8. Click **Save**

**Note:** You must repeat the resource allocation process for each site collection that will use Neudesic Pulse

## Upload and Activate Pulse Solution in Solution Gallery

1. Logged into SharePoint as a Site Collection Administrator, click **Site Actions... Site Settings**
2. Under Galleries, click **Solutions**
3. On the ribbon click, **Solutions**
4. Click **Upload Solution**
5. Click **Browse** and select the file Neudesic.Pulse.SharePoint.Sandboxed.wsp
6. Click **OK**
7. Click **OK**
8. Click **Activate**
9. Click **Close**

## Create a System Hub for SharePoint

To create a System Hub for SharePoint, perform the following steps

1. Login to Pulse as PulseAdmin
2. Click **Systems...Create System**
3. In the name input, **SharePoint**
4. Click **Create System**

## Disable Embed Signing

1. From the SharePoint System Hub previously created, click **Settings**
2. Under Basic settings click, ensure **Require Embed Signing** is unchecked

## Configuring SharePoint My Sites

To enhance your My Site experience to leverage Pulse, perform the following actions

- Edit Default.aspx to include the Dynamic Pulse web part
- Update Person.aspx in include the Specific User Feed web part
- Optional: Configure Host Site URL for SharePoint Users

## Edit Default.aspx

In this step you will add the Pulse Activity Stream to your default My Newsfeed

1. From the My Site home page, click **Site Actions, Edit Page**
2. In the top zone click **Add a Web Part**

3. In the group **Pulse For SharePoint Sites** select **Dynamics Pulse Content**
4. Click **Add**
5. In the top zone click **Add a Web Part**
6. In the group **Pulse For SharePoint Sites** select **Navigation Bar**
7. Click **Add**
8. Save and stop editing the Page

### **Update the Person.aspx**

In this step you will add the User Wall to the My Profile Page

1. Navigate to My Profile
2. Click Site Settings... Edit Page
3. Click Add a web part
4. Select Pulse for My Sites... Specific User's Feed
5. In the top zone click **Add a Web Part**
6. In the group **Pulse For SharePoint Sites** select **Navigation Bar**
7. Click **Add**
8. Save and stop editing the Page

### **Optional: Configure Host Site URL for SharePoint Users**

If you want SharePoint to be the primary access point for all Pulse activity you will want to the **Host Site URL** setting associated with a specific Group. Using this setting will allow you to ensure that all social interaction is done via SharePoint.

#### **Configure the Host Site URL for SharePoint users**

Perform the following steps to configure the Host Site URL for a specific group of SharePoint users

1. Login to Pulse as PulseAdmin and click **Settings... Groups**
2. Click **Add a Group**
3. For **Name** input SharePoint Users
4. Type in SharePoint Users in the **Select a group to manage**
5. Select SharePoint Users
6. Click **Manage Group**
7. Click **Membership**
8. Select the users that should be in SharePoint mode
9. Click **Advanced**
10. Input the complete URL to the default.aspx of your My Site Host. For example  
<https://intranet/my/default.aspx>
11. Click **Save**

## Customize Masterpage

In most deployments you will want to hide the Contact Card that is provided by SharePoint. To do this you can either edit your My Site master page or create a Content Editor web part. The following CSS will hide the contact card...

### Hide Contact Card

```
<style type="text/css">
.ms-contactcardtext3 {
    DISPLAY: none
}
</style>
```

If you want to hide the “tabs” on the profile include the following...

```
<style type="text/css">
.ms-profilepageheader {
    DISPLAY: none
}</style>
```

Additionally, included in the **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\pulse** directory is **MYSITE.MASTER** that can be used in place of the out of the box Master Page.

### Add Pulse Navigation

To add the Pulse navigation to each My Site page add the following control to the MySite.master

#### Register Control

```
<%@ Register TagPrefix="Pulse"
Namespace="Neudesic.Pulse.SharePoint.WebParts.NavigationBar"
Assembly="Neudesic.Pulse.SharePoint, Version=1.0.0.0, Culture=neutral,
PublicKeyToken=d39377c7abdd15ca" %>
```

#### Add Navigation Control

Next locate the following code

```
<WebPartPages:SPWebPartManager id="m" runat="Server"/>
```

And insert the follow code right below it

```
<Pulse:NavigationBar runat="server" id="navbarwebpart1"/>
```

## Modifying the Person.aspx

We recommend you modify the Person.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **Person.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

6. Click Save

## Modifying the PersonContent.aspx

We recommend you modify the PersonContent.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **PersonContent.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Modifying the Thoughts.aspx

We recommend you modify the Thoughts.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **Thoughts.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Modifying the MyContactLinks.aspx

We recommend you modify the MyContactLinks.aspx page using SharePoint Designer to remove specific capabilities that Pulse replaces. To do this, perform the following actions while connected as a Site Collection administrator

1. Click Site Actions... **Edit in SharePoint Designer**
2. On the left hand navigation click **All Files**
3. Locate **MyContactLinks.aspx** and double click.
4. In the ribbon under Editing click **Advanced Mode**
5. Locate the control with an table with an ID of **ZoneTable**.
6. Remove the following entry

```
<SPSWC:StatusNotesControl runat="server"/>
```

7. Click Save

## Walkthrough: Install Pulse for Dynamics CRM

The first step in integrating your Dynamics CRM environment with Pulse 4 is to install the Pulse 4 for Dynamics CRM solution. To Install Pulse 4 for Dynamics CRM solution, follow these steps

- Import Pulse 4 for Dynamics solution package to CRM
- Create a System Hub for CRM
- Generate a Certificate
- Configure Pulse settings in CRM

### Before you begin

- Ensure you have the Microsoft Dynamics CRM Activity Feeds Solution installed
- Ensure you have generated a root certificate for Pulse using the **Settings... Certificate... Generate New Root Certificate**. Only do this if a Root Certificate does not exist
- Ensure you have created an Email account that will be used by CRM to send messages to Pulse. For example, create an account `PulseCRMEvent@mycompany.com`
- Ensure you have the value for you Pulse Authentication Key found at **Settings... Authentication... Authentication Key**

### Import Pulse 4 for Dynamics solution package to CRM

1. On the left CRM navigation bar click **Settings**, click **Solutions** under the Customizations group
2. Click **Import** in the center of your screen
3. Click **Browse** and browse for the solution package (ex. NeudesicPulseCrm\_3\_0\_0\_0\_managed)
4. Click **Next**
5. Click **Next**
6. Check the **Post Import Actions** check box
7. Click **Next**
8. Click **Finish**

### Create a System Hub for CRM

To create a System Hub for Dynamics CRM, perform the following steps

1. Login to Pulse as PulseAdmin
2. Click **Systems...Create System**
3. In the name input, **CRM**
4. Click **Create System**

## Generate a Certificate

1. From the CRM System Hub previously created, click **Settings**
2. Under Basic settings click, **Generate Certificate**
3. Download the certificate by clicking the blue unique identifier

## Configure Pulse Settings in CRM

Using the Pulse Configuration entity in CRM you will point CRM to your Pulse instance. To begin follow these steps:

1. Under the System group on the left navigation in CRM, click **Pulse Certificates**
2. Click **New** on the top ribbon
3. Name the Pulse Certificate
4. Click **Save**
5. Attach the Generated Pulse System Certificate file to this Pulse certificate record by:
  1. Clicking the **Add** tab
  2. Then click **Attach File**
  3. Click **Browse**
  4. Select the **Generated Pulse System Certificate** file
  5. Click **Attach**
  6. Click **Close**
6. Under the System group on the left navigation in CRM, click **Pulse Configuration**
7. Click **New** on the top ribbon
8. Fill out the Required information under the **Communication and Authentication** section

Setting	Description	Recommendation
<b>Name</b>	Any display name	Default
<b>Pulse URL</b>	The absolute URL to your Pulse instance	http://pulse.mycompany.com
<b>CRM URL</b>	The absolute URL to your CRM instance	https://mycompany.crm.dynamics.com
<b>Pulse E-mail</b>	The email address that receives events that occur on CRM.	pulsecrmevent@mycompany.com
<b>E-mail From</b>	A user in CRM to use as “From party” when sending email	Choose a user from the list provided when you click 
<b>Impersonate Admin</b>	The administrator account that Pulse will impersonate	Choose an Admin user from the list provided when you click 
<b>Pulse Certificate</b>	The certificate file that is associated with a System Hub that is access from the Settings of the System Hub.	Choose the certificate we created earlier after you click 
<b>Single Sign-on</b>	This option determines whether you would like Single Sign on turned on or off. This also determines what mode (Off, Login, or E-mail).	E-mail

<b>Authentication Key</b>	Used in conjunction with Enable Single Sign On. This value is found in the Pulse Administration... Authentication... Authentication Key	(example:BgIAAACkAABSUoExAAQAAAEAAQAJAUbmUIKMNWF8FqjZ2kL9zveSGvbSNCPwf9K1MaGm5aVl4eK5Cdf8Zazu4ovXrRQBGeQNAooOdyfjM18KcoIdTWaaUO5XrLq7CsBe7XSU2Z8vSr/ox7V9+6Y6kmjPcpUJSe+Y5x/3NcywdmVygXpe7oZO2UhBQsQ==)
---------------------------	---	---

9. Click **Save and Close**

## Walkthrough: Upgrading to Pulse 4

Pulse 4 supports upgrading from Pulse 3.2 and higher. To perform an upgrade of Pulse 3.2 or higher, perform the following steps on one Web Server role

### Before you begin

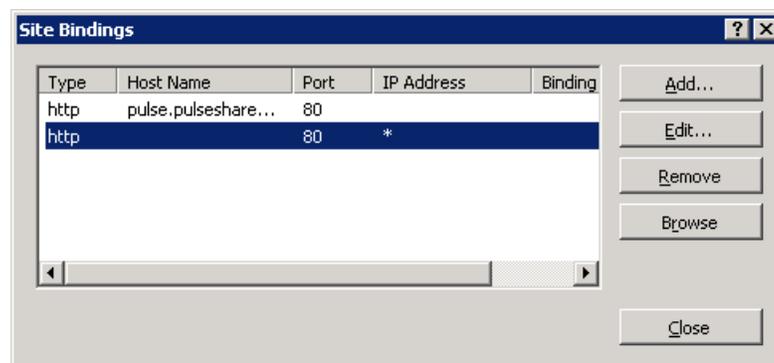
- Ensure you have complete a Complete Backup of the Pulse database from SQL Server
- Ensure you have installed Erlang and RabbitMQ
- Ensure you have taken note on how your Account Providers are synchronized. You must manually configure the Authentication Providers so knowing the previously synchronize Active Directory Groups is critical to a successful upgrade.

### To perform the upgrade on the first Web Server

- While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or Setup32.exe for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
- On the Welcome screen click **Next**
- Agree to the EULA and click **Next**
- On the Configure Pulse service user, input the correct Password for the account specified
- On the Configure Pulse Web UI AppPool user, input the correct Password for the account specified
- On the Database backup screen, if you have created a backup, select Skip, and click **Next**
- Click **Install**

### Verify Web Site Bindings

- During an upgrade a BLANK IIS Binding is created. Remove this by performing the following steps
  - From IIS Manager, select Sites... Pulse
  - Click **Bindings**
  - Select the binding that does not have a HOST HEADER for Port 80 and click **Remove**



### Connect To Pulse

- Connect and Login to Pulse as an Administrator. For example, PulseAdmin

- You will be prompted for **Queue** settings.
  - Input the host name of the machine for the Queue Server. For example, PulseQueue
  - If your Queue server has a Username & Password input here otherwise leave blank
  - Input the **Admin Username**. This is a domain account that has Administrator permissions on the local machine
  - Input the **Admin Password**
  - Input the **AdminDomain**. For example, CORP/
  - Click Save

## Generate a Root Certificate

- Click **Administration... Settings... Certificates**
- Click **Generate New Root Certificate**
- **Critical:** If you receive a dialog “Are you sure you want to replace your existing root certificate? All existing system certificates will become invalid and must be regenerated and reinstalled in your external systems”, click **Cancel**. You do not want to generate a new Root Certificate if one exists.

## Configure Authentication Providers

- Click **Administration... Settings... Authentication**
- For each Active Directory Authentication provider you must provide the following settings
  1. Administrator Groups. For example, Pulse Administrators
  2. Employee Groups. For example, Pulse Employees
  3. Click Save

## Enabled Authentication Providers

- Click **Administration... Settings... General**
- Change **Account Sync Period** to a value such as 5
- Click **Save**



### Note:

- If you receive an error prior to configuring your Queue, ensure you AppPool security settings are correct

## To perform the upgrade on the subsequent Web Servers

1. Uninstall Pulse 3.2 or higher

2. While connected to the destination server execute **PulseSetup64\_Enterprise.exe** for 64bit servers or **Setup32.exe** for 32bit servers. Be sure to run the application using the **Run As Administrator** option.
3. On the Welcome screen click **Next**
4. Agree to the EULA and click **Next**
5. On the Select Pulse Server Role, select **Web server role**
6. On the Configure Pulse service user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
7. On the Configure Pulse Web UI AppPool user, select **Custom**. It is recommended that you use the PULSE domain account previously created as defined in Environment Configuration
8. On the Configure Pulse Web UI, select **Create a new web site**. Input the desired URL in the Host Header. For example pulse.mycompany.com
9. Click **Next**
10. Click **Install**
11. Open Registry Editor
12. Navigate to HKEY\_LOCAL\_MACHINE\SOFTWARE\Neudesic
13. Add a String Key named **DatabaseConnectionString** and set its value to the DatabaseConnectionString on the first Web Server
14. Add a String Key named **QueueConnectionString** and set its value to the QueueConnectionString on the first Web Server

## Walkthrough: Automatically Logging on Windows Users

You can use this capability to automatically log people into Pulse based on their Windows Credentials. This works based on IP Ranges. For example, if you want all machine on your network to attempt to connect with the Windows Credentials, perform the following steps

Before you begin

- Ensure you have a valid list of internal IP addresses only

To specify a range of IP address that will attempt to auto-login using Windows credentials

1. Logged into Pulse as PulseAdmin, Click **Settings... General**
2. Locate **Windows Auto Login IP Ranges**
3. Input 10.0.0.0-10.255.255.255

 Note:

You can also limit the range to specific ranges or multiple ranges by separate the ranges by commas. For example:

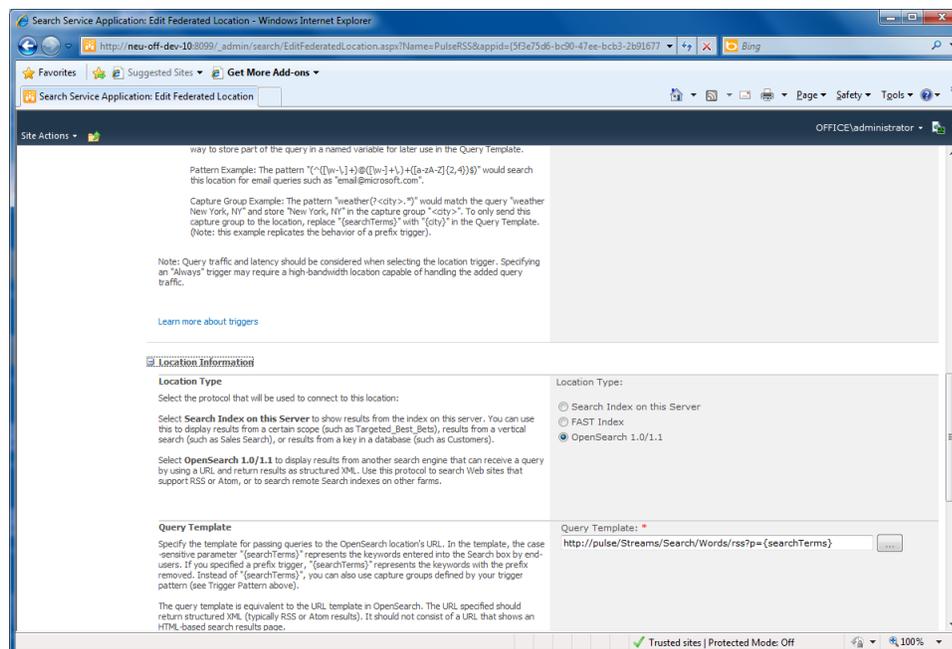
- 1.1.1.1-1.1.1.2,2.1.1.1-2.1.1.2



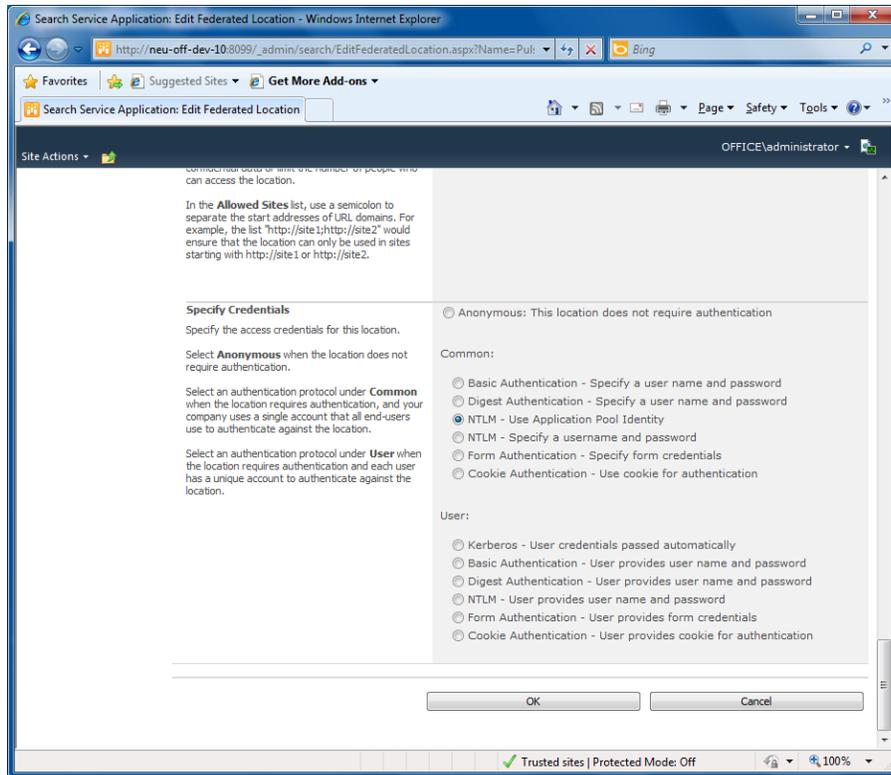
# Walkthrough: Using the Neudesic Pulse Federated Results Location

Neudesic Pulse includes a .OSDX file that can be used to support Federated Search Results in SharePoint. To configure a new Federate Location for Pulse, perform the following actions

1. From Central Administration, click **Application Management**
2. Click **Manage service applications**
3. Click you search service application, for example **Search Service Application**
4. Click **Federated Locations**
5. Click **Import Location**
6. Click **Browse**
7. Navigate to C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\pulse
8. Select **PulseRSSFederatedLocation.OSDX**
9. Under **Location Information**, change the **Query Template** to point to the correct Pulse server. Replace YourPulseServer with the correct server



10. Under **Restrictions and Credential Information**, select **NTLM – Use Application Pool Identity**



11. Important: You will also need to use the **Windows Auto Login IP Ranges** found in the Settings page

## Walkthrough: Using Content Editor Web Parts to display Pulse in SharePoint 2007

If you want to host a Pulse conversation inside of SharePoint 2007 you will use the Content Editor Web Part. Here are the steps you will need to take.

1. Create a document library named “pulse” in the site that will host the conversation. For example, <http://intranet/pulse>
2. Upload `xd_pulse.html`(see below for code) to that library
3. Use the Content Editor to create an embed.
  - a. For more information refer to the REST API document on at [http://products.neudesic.com/pulse/assets/resources/neudesic\\_pulse\\_api.pdf](http://products.neudesic.com/pulse/assets/resources/neudesic_pulse_api.pdf)
  - b. Here are some example DWP file. Note you will have to modify these for your instance
    - i. Pages
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Pages.dwp>
    - ii. People
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/People.dwp>
    - iii. Systems
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Systems.dwp>
    - iv. Current User
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Current%20User.dwp>
    - v. Questions
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Questions.dwp>
    - vi. Specific User Feed
      1. [http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Specific %20User%20Feed.dwp](http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Specific%20User%20Feed.dwp)
    - vii. Timeline
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Timeline.dwp>
    - viii. Tags
      1. <http://www.neudesic.com/what/products/pulse/Pages/assets/downloads/Tags.dwp>
4. Once you drop the web part on the page click edit web part... in the source for the content... there is a value of <http://neuportal.neudesic.com> that should be changed to the root url for your site

### Hard-Coded Example(`xd_pulse.html`)

```
<html><body>
<script src="http://YOUR.PULSE.SERVER/scripts/sdk/xd_comm.js"
type="text/javascript"></script>
</body></html>
```

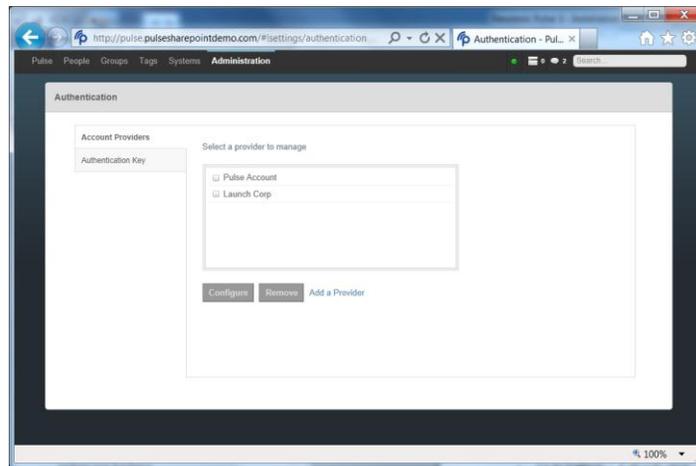


## Administration Settings Reference

This section provides a detailed description for each of the settings available in the Pulse Administration section. The purpose is to provide guidance on the various settings available in Neudesc Pulse 4.

### Authentication

The Authentication settings are used to configure how you would like Pulse to authenticate your Users. You have three options of how you would like to do such. Choose between Active Directory, Windows Live or an authentication key.



### Authenticating with Active Directory

Choosing to authenticate using Active Directory will prompt Pulse to synchronize users based on the Administrator Groups, Employee Groups, and Customer Groups that you choose. For more information review the Walkthrough above

### Authenticating with Windows Live

Authenticating with Windows Live will allow Pulse users to log in using Windows live ID's.

### Authentication Key

The Authentication Key is used for single sign on with external systems. When enabling Single sign on with external systems this authentication key is required.

Queue

The following table explains each Queue related settings and the recommend defaults

Setting	Description	Recommended Setting
Queue Type	RabbitMq is currently the only supported queue type.	RabbitMQ

<b>Queue Server</b>	The hostname of the server that is running the RabbitMQ server. If you are using load balancing, you will want to setup a DNS entry(ie. PulseQueue) that points to the load balancer. This only needs to resolve internally	
<b>Use mirrored queues</b>	Select this option is rabbit is clustered	
<b>Username</b>	If you configured RabbitMQ to use secured Queues you will need to have a username and password that can access the Queue.	
<b>Password</b>	See previous	
<b>Admin Username</b>	A windows admin account.	Administrator
<b>Admin Password</b>		<<admin password>>
<b>Admin Domain</b>	Domain of the Admin Username	<<admin domain>>

#### Database Settings

Settings	Description	Recommended Setting
<b>Domain Security Source</b>	The type of source where domain security is stored.	Microsoft SharePoint
<b>Site Collection URL</b>	URL of the Site collection in SharePoint.	Dependent on company. Example, http://mycompany.sharepoint.com
<b>User Name</b>	The user name of the SharePoint Admin.	Administrator
<b>Password</b>	Corresponding password	
<b>Domain</b>	Domain of the SharePoint Administrator	Example, Corp
<b>Name</b>	Friendly display name to identify.	

#### Embed Security

#### Add a New Policy

This is a deprecated feature that is used for backwards compatibility.

#### Domain Security Providers for SharePoint

Settings	Description	Recommended Setting
<b>Domain Security Source</b>	The type of source where domain security is stored.	Microsoft SharePoint
<b>Site Collection URL</b>	URL of the Site collection in SharePoint.	Dependent on company. Example, http://mycompany.sharepoint.com
<b>User Name</b>	The user name of the SharePoint Admin.	Administrator

<b>Password</b>	Corresponding password
<b>Domain</b>	Domain of the SharePoint Administrator Example, Corp
<b>Name</b>	Friendly display name to identify.

### Domain Security Providers for CRM

Settings	Description	Recommended Setting
<b>Domain Security Source</b>		Microsoft Dynamics CRM
<b>Organization Service URL</b>	The URL of the CRM Organization service.	Examples, http://[mycrm]/[myorg]/XRMServices/2011/Organization.svc (On Premise) https://[myorg].api.crm.dynamics.com/XRMServices/2011/Organization.svc (Online)
<b>User Name</b>	The user name of the SharePoint Admin.	Administrator
<b>Password</b>	Corresponding password	
<b>Domain</b>	Domain of the SharePoint Administrator	Example, Corp
<b>Name</b>	Friendly display name to identify.	

#### General Settings

Setting	Description	Recommended Setting
<b>Site Url</b>	This setting should show the URL you would use to get to Pulse, certain things like email will be effected if the URL is not correct. In most cases this area will be prepopulated after setup.	http://pulse.mycompany.com
<b>Lync Application Name</b>	Here you will need to provide the name of the provisioned Lync application	urn:application:pulsenotifications
<b>Restricted Word List</b>	Restricted words list restricts users from using certain words in Post. Simply comma separate the words you don't want used.	Personal Opinion
<b>Enable Customer Groups</b>	If you want external users check the box. If not don't check	Checked

### Outbound Pulse Emails

If you want your Pulse environment to send outbound emails, such as notifications and email messages you need to configure the correct SMTP email settings. You are going to need the following SMTP information:

Setting	Description	Recommended Setting
<b>SMTP Host</b>	IP address or name of the SMTP host you want to send mail.	mail-internal.mycompany.com
<b>SMTP Port</b>	The port number of the SMTP mail server	25 (dependent on your environment)
<b>SMTP Enable SSL</b>	If you require SSL on your SMTP port make sure this is checked.	NOT CHECKED
<b>SMTP Username</b>	For SMTP Username, input a user name that has a valid account on the SMTP relay. For example, <b>pulse@mycompany.com</b> . It is a best practice to use the same email account for all settings.	pulse@mycompany.com
<b>SMTP Password</b>	For SMTP Password, input the password for the email account provided.	

## Incoming Mail Server Type

If you want pulse to be able to process incoming emails, such as email replies then you need to configure incoming mail server settings. Depending on which of the incoming service you choose pop3, EWS, or SMTP fill out the corresponding information.

### Pop3

Setting	Description	Recommended Settings
<b>Host</b>	The Post Office Protocol version 3 (POP3) Server is the incoming mail server used to collect your domain email till you open your email program and download the incoming mail. Your domain host is usually your POP3 service provider.	10.10.18.222
<b>Username</b>	The Account Name is usually how your name appears in emails sent from this email configuration.	newmail.net\pulse.notifications
<b>Password</b>	The Password that corresponds to the Username.	
<b>Poll Task Frequency in Minutes</b>	The Poll Task Frequency determines how often incoming mail is pulled.	1
<b>Enable SSL</b>	This options determines whether SSL is turned on or off	Dependent on company policy

## Exchange Web Service

Setting	Description	Recommended Settings
<b>URL</b>	This is the URL of the Exchange Web Services endpoint.	mail.emea.mycompany.com
<b>Domain</b>	The Domain of the Exchange Web server.	Example: Corp
<b>Username</b>	The Account Name is usually how your name appears in emails sent from this email configuration.	YourName
<b>Password</b>	The Password that corresponds to the Username.	
<b>Poll Task Requency in Minutes</b>	The Poll Task Frequency determines how often incoming mail is pulled.	1

## Poll the local SMTP drop folder

Settings	Description	Recommended Settings
<b>SMTP Drop Folder</b>	Enter the path of the local SMTP server folder (by default C:\inetpub\mailroot\Drop). This must exist on ALL web server nodes.	C:\inetpub\mailroot\Drop
<b>Folder Poll Task frequency in Minutes</b>	The Poll Task Frequency determines how often incoming mail is pulled.	1

## Notification Email Type

Pulse supports three types of email notifications; Static, Domain and Plussing. Static, for a single email address that doesn't change, and no support for posting to a group via email. Domain, if you have a whole domain you'd like Pulse to control. Plussing, if you have one email address you'd like Pulse to manage but would like to be able to post to groups via email.

## Domain

Setting	Description	Recommended Setting
<b>Notification Email Domain</b>	This option allows pulse to control the whole domain of the group email. Also allows	Pulse.mycompany.com

	users to set custom emails for groups.	
<b>Notification Email Display Name</b>	The “sender” name you want to appear in Pulse Notifications	Pulse Notifications

### Static

Setting	Description	Recommended Setting
<b>Notification Email Address</b>	This is a single email address that doesn’t Change. This option does not support Group Email	myname@mycompany.com
<b>Notification Email Display Name</b>	The “sender” name you want to appear in Pulse Notifications	Pulse Notifications

### Plussing

Setting	Description	Recommended Setting
<b>Notification Email Address</b>	If you have one email address you'd like Pulse to manage but would like to be able to post to groups via email.	myemail+client@gmail.com
<b>Notification Email Display Name</b>	The “sender” name you want to appear in Pulse Notifications	Pulse Notifications

### Message Archiving

Setting	Description	Recommended Setting
<b>Message Archive Task Frequency in Days</b>	Tells the system how often to check for messages that are the “max message age” and archives them.	0 (off)
<b>Message Archive Task Max Message Age in Days</b>	Tells the system how old the messages that should be archived should be.	180

### Account Sync

Setting	Description	Recommended Setting
<b>Account Sync Period</b>	Time in minutes of how often the authentication providers will sync with Pulse.	5 minutes

### Using SSL

Setting	Description	Recommended Setting
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<b>Always use SSL</b>	Checking this box will ensure that Pulse will redirect from “http://” to “https://”	Dependent on company policy.
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## Auto Login Settings

Setting	Description	Recommended Setting
<b>Windows Auto Login IP Ranges</b>	Sets a range of IP addresses that will auto login to Pulse. If outside this range you will be asked for credentials.	Dependent on company IP ranges. Example, 0.0.0.0-10.10.10.10,192.168.0.0-255.255.255.255

## User and Site Redirects

Setting	Description	Recommended Setting
<b>User Profile URL</b>	A redirect for when a user profile is clicked.	None
<b>Host Site URL</b>	A redirect for the entire Pulse site.	None

## SSO URL

This is a deprecated feature that is used for backwards compatibility.

## Default Language

Right now the only language that is fully supported is English. But, Pulse can support custom languages.

## Video Encoding

Setting	Description	Recommended Setting
<b>Use Video Encoding</b>	If you have an encoding server set up click this checkbox. If checked, Pulse will give you options for specific devices.	Checked, if encoding server is setup
<b>Encoding Options</b>	We offer video encoding for iPhones, iPads and Android devices.	Choose the devices your company uses

## Content Distribution Network

If you would like to use a Content Distribution network for files and videos then configure a CDN source and set the type to the source you created. All the information you need to set up your CDN in Pulse can be gathered from Amazon Web Services after your CDN has been configured with them.

## Suggested Feeds

Suggested Feeds are how administrators can tell the users of their Pulse environment who and what is important to follow. To add a suggested Feed:

1. Go to the Suggested Feeds option in the Administrator Settings

2. Click **Add a Suggtion List**
3. Here you can name it, decide if this should be an automatic follow, and the audience you want to suggest it to.
4. Lastly, choose the People, Groups and Tags you want to suggest.
5. Click **OK**

## Users

### Adding a User:

1. Go to the **User** page under the Administration Settings
2. Click **Invite a User**
3. Fill out the information asked for and assign him/her to a group. Ex. Employees, Customers, Administrators
4. **Send Invite**

### Deleting a User:

1. Go to the **User** page under the Administration Settings
2. Under the **Manage Users** tab type the name of the person you would like to delete
3. Check the box next to their name and click **Next**
4. Click **Delete**

### Importing Users:

Note: This function is rarely needed when syncing with Active Directory

Importing users is used to bulk import people into the system using a CSV file.

## Entities

Entities are classification of feeds.

### Add an Entity Type

Setting	Description	Recommended Setting
<b>Name</b>	Singular description of the entity type.	Lead
<b>Plural Name</b>	Plural form of the Name	Leads
<b>Code</b>	Unique identifier of the entity type.	lead



## File Sources

File sources allow you to store or link documents from other location outside of Pulse. For example, SharePoint Document Libraries.

### Adding a File Source

Setting	Description	Recommended Setting
<b>Name</b>	A description of the file source or location. This should be a name that can be recognized by end users.	Example: SharePoint Document Library
<b>URL</b>	Location of the page that initiates the file uploads.	<a href="https://mycompany.sharepoint.com/_layouts/pulse/assetbrowser.aspx">https://mycompany.sharepoint.com/_layouts/pulse/assetbrowser.aspx</a>
<b>Limit to Entity Types (optional)</b>	Allows you to restrict the availability of the file source to certain entity types. Enter a comma delimited list of entity codes.	Web, list, item

## Certificates

Pulse generates its own certificates to securely communicate with other systems. These certificates use the certificate on this settings page as their root certificate.

**Warning:** Changing the Root Certificate will shut down communication between Pulse and all external systems that use Pulse certificates. All existing system certificates will become invalid and must be regenerated and reinstalled in your external systems.

## **Reports**

Pulse offers a series of 16 administrator reports, such as Overall Activity, Most Active Users, Most Liked Activity's and many more!

## Profiles

The Profiles section allows you to customize and configure the skills, profiles properties, and various feature settings.

### Skills List

Pulse users can self-declare any of the Skills you input in the Skills List. A great place to start your Skills List is LinkedIn and other industry specific web sites. Each Skill must be assigned to a Skill Category so make sure you create a Skill Category first. To add one or more skills click the **Add Skills** link. The resulting dialog allows you to input multiple Skills by placing them on a new line.

### Skill Categories

Skill Categories are used in Pulse to make locating and grouping skills easy. Some good Skill Categories are things like Human Resources, Legal, or Information Technology. Think about people's job roles and departments for ideas on Skill Categories

### Skill Requests

When Pulse users are editing their Skills they can request that a new Skill is added if it doesn't already exist. These Skill Requests are collected here. You should check this list often to ensure Skills are added in a timely manner.

### Profile Properties

Your User Profiles can be customized to include any number of ways. Pulse supports profiles properties that map to Active Directory properties as well as Custom Properties.

#### Creating profile properties that read from Active Directory

Pulse can automatically read information from your Active Directory. By default, Pulse configures First Name, Last Name, Email, Location, Phone, and Cell to map to their respective Active Directory properties so you are already setup.

#### Creating a Custom profile property

Creating custom profile properties is a great way to add business relevant information to your profiles. For example, if you want to help people find each other based on availability you could create a Custom profile property that stores this information. If the information comes from an external system like Exchange or a Time and Billing system, you can use the Pulse API to automatically update this value.

To create a Custom profile property:

1. Click **Add Property**
2. Input a **Name** and select **Custom** for the **Type** option
3. Under **Custom Type** input a unique name. You can use this value later if you plan on updating the value via the Pulse API
4. If you want your users to be able to change the value set the **Editable** option

5. Use the **Searchable** option to determine if you want this property to show up on the Advanced Search option on the People Finder
6. If you want your users to select from a drop-down menu, select the **Predefined Values** option and input all the values that are valid
7. Click **Save**

## Adding Sections to your Profile

Adding Sections to your Profile makes the content more readable. You might want to have a Section named Contact Information and Interests so help users read the information on a person's profile.

To add a Section to a profile, perform the following actions

1. Click **Add Property**
2. Input a **Name** and select **Section Header** for the **Type** option
3. Click **Save**

You can now go back to your Profile Properties list and add existing properties to this Section

## Allowing users to change profile properties

You can choose to allow your users to edit these values but keep in mind that these are not written back to Active Directory. A very common usage for this is to allow users to edit their First name because they are not often referred by their given name.

To allow users to Edit a profile property, perform the following actions:

1. Select it from the list, click **Configure**,
2. Ensure the **Editable** checkbox is selected
3. Click **Save**

## Making profile properties searchable

When creating your profile you should think about how people will want to discovery others within the enterprise. For example, will they want to find people who know a certain language or live in a particular country? All of these decisions are critical to making your profiles useful. Another important decision is determining if you want a particular property to be searchable from the Advanced Search capability.

To make a property **Searchable**, perform the following actions:

1. Select it from the list, click **Configure**,
2. Ensure the **Searchable** checkbox is selected
3. Click **Save**

## Disabling Certifications, Education, or Past Experience

Sometimes you might not want to have employees input their Past Experience or maybe Certifications are not relevant to your company. You can disable any of these sections

To **Disable Experience, Education, or Certifications**, perform the following actions

1. Click **Profile Features**
2. Select the option next to the capability you would like to disable
3. Click **Save**

## Customizations

Pulse allows you to customize the functionality and look and feel using the Customizations section. Here are a few scenarios that you might want to perform

- Customize the color scheme
- Remove the File upload capability
- Remove the Task app
- Add a new section to the home page
- Remove a menu item
- Add a Who's Viewed Your Profile capability

All of these scenarios are possible using a combination of CSS and Javascript. While the scope of this document is not on the specifics of how to do this, there are other resources available to help you.

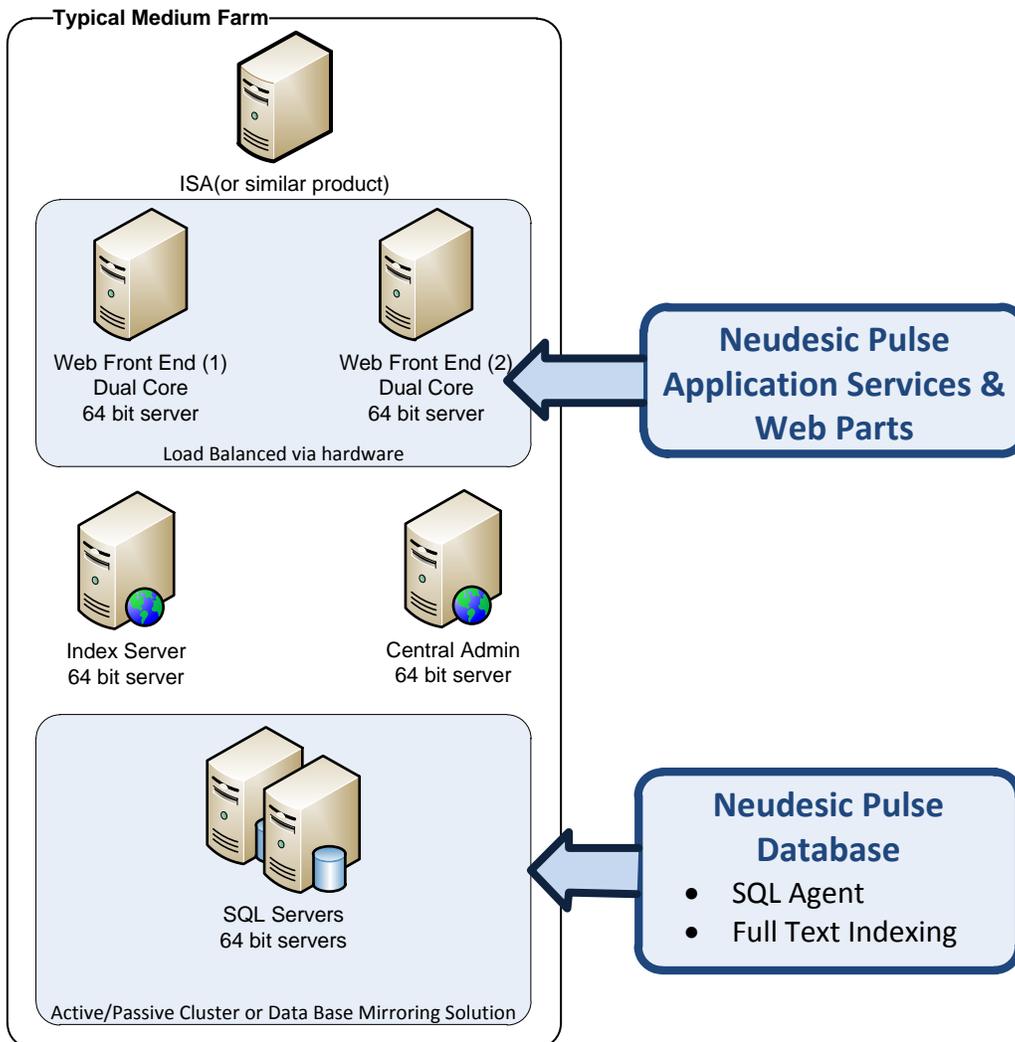
Your custom CSS and Javascript can be hosted anywhere and they will run in the context of the Pulse web application. The easiest place to host these files is on the Pulse web server but you are not limited to this

## SharePoint Integration Reference

Neudesic Pulse extends and enhances SharePoint's social capabilities by adding enterprise microblogging, enhanced profiles, expert identification, and much more. This capability is primarily provided via a set of web parts that can be placed on any site. The section provides an overview of how Pulse integrates with Sharepoint.

### Logical Architecture

Neudesic Pulse communicates with SharePoint using an embedding technology that communicates with a Pulse server to render the user experience. The following diagram represents how Neudesic Pulse fits into an enterprise SharePoint deployment:

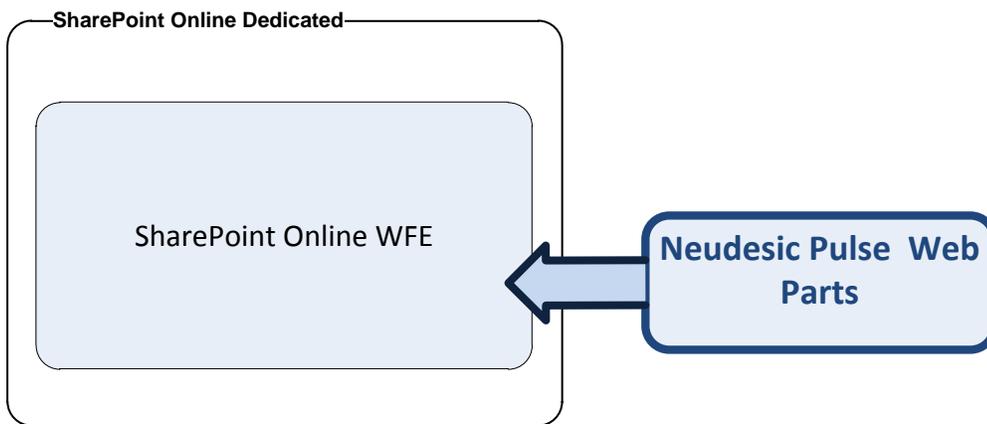


Neudesic Pulse is best deployed to the Web Front Ends in your SharePoint farm. This ensures that you take advantage of the load-balancing that you have likely established for SharePoint.

In a similar respect, your Neudesic Pulse database is best deployed to the same SQL Server that you are using to host SharePoint content. Once again to take advantage of the existing hardware and support investments you have made.

### Office 365 and BPOS-D

When Neudesic Pulse is used with cloud based services such as Office 365 or BPOS-D the physical deployment of assets is altered in that the Neudesic Pulse Web Services are not deployed to the hosting(Office 365/BPOSD) environment. In this deployment model the Neudesic Pulse Web Services are deployed to a separate server farm and reference by the Neudesic Pulse Web Parts. The following is a typical physical deployment in this environment:



### SharePoint Integration Settings

The following table provides details on each of the integration settings found in Farm settings and via the configuration page for Office 365.

Setting	Description	Example
<b>Pulse Url</b>	The absolute Url to your Pulse server	<a href="http://pulse.mycompany.com">http://pulse.mycompany.com</a>
<b>Pulse Email Address</b>	The email address that receives events that occur on SharePoint list items. This is only required when using you want to have update in SharePoint lists to result in Pulse posts.	<a href="mailto:pusleevents@mycompany.com">pusleevents@mycompany.com</a>
<b>Custom CSS</b>	An absolute Url to a CSS file that will be used to customize the look and feel of the Pulse web parts. This is an optional setting	<a href="http://www.someurl.com/mycss.css">http://www.someurl.com/mycss.css</a>
<b>Certificate</b>	The certificate file that is associated with a System Hub that is access from the <b>Settings</b> of the System Hub.	
<b>Pulse Authentication Key</b>	Used in conjunction with Enable Single Sign On. This value is found in the Pulse Administration... Authentication... Authentication Key	

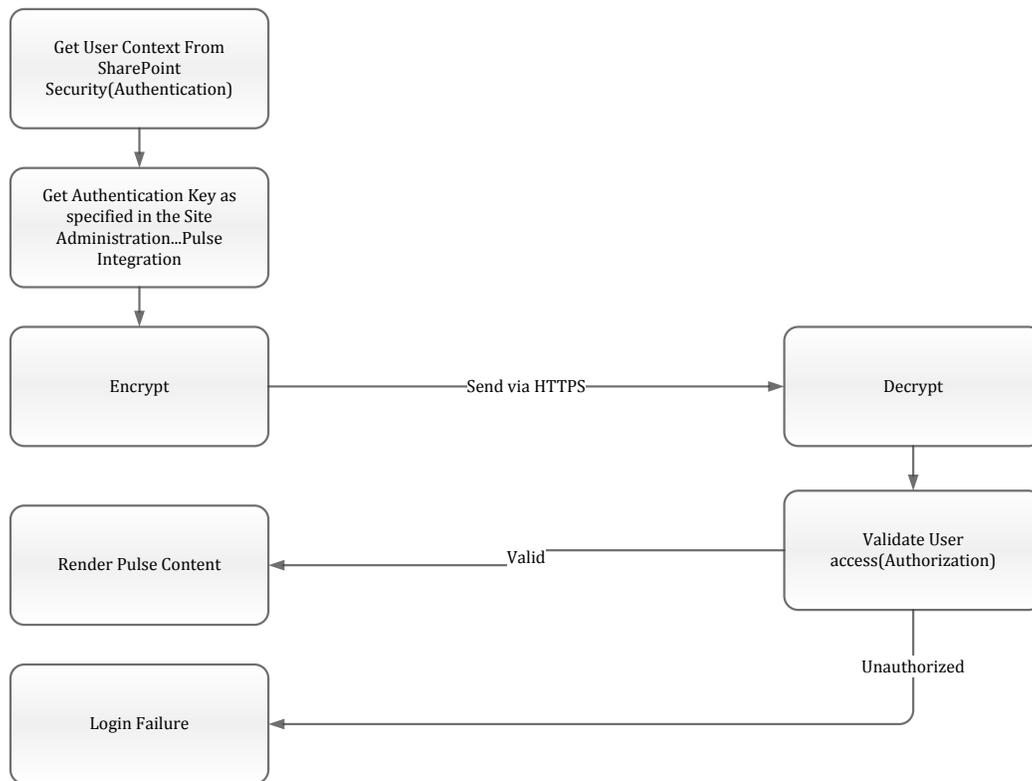
<b>Enable Pulse Single Sign On</b>	Use this in scenarios where you want to use the SharePoint user context to valid the current user
------------------------------------	---

## Security

Neudesic Pulse leverages Active Directory for all authentication and authorization. This means that the common integration point for SharePoint is Active Directory. Pulse also supports custom authentication providers which means that any authentication providers used in SharePoint can be ‘shimmed’ for Neudesic Pulse.

## Single Sign-On

Pulse supports single sign-on for SharePoint users meaning, if a user logs into SharePoint they will not be required to login to Pulse. This is accomplished by the Pulse web parts running under the context of the current user and requesting content from Pulse as that user. The following flow represents the authentication process:



## Pulse Web Part Reference

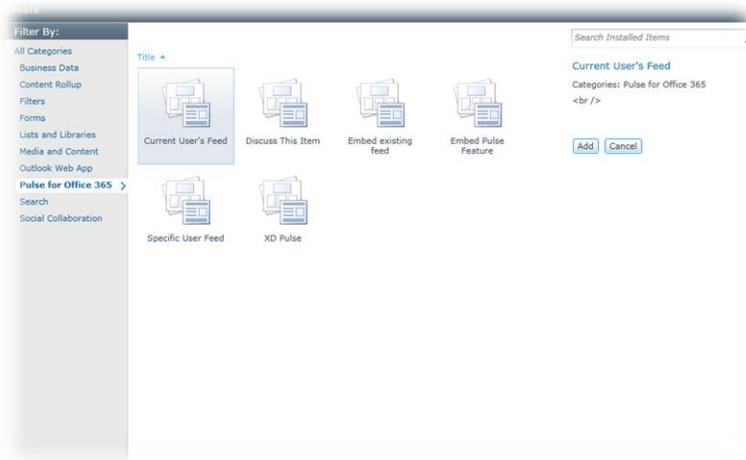
Neudesic Pulse provides a series of web parts that can be used on any site within SharePoint. For on-premise installation the web parts are deployed at the farm level which means they can be made available to every site. The sandboxed web parts are deployed at the site collection level which means that they will have to be deployed to each site collection that you want to provide Pulse capability in. This section covers the specifics of using the Pulse Web Parts for Office 365 and SharePoint on premise. There are slight differences when browsing for web parts but the configuration is the same.

## Current User's Feed

The Current User's Feed displays the currently logged in users feed and is intended to be used on pages such as an Intranet home page. It does not include the “left and right” column features such as Filters and Suggestions so it requires less web page real-estate.

To add the Current User's Feed to an existing SharePoint page, perform the following actions while logged in as a Site Administrator:

1. Click **Site Actions... Edit Page**
2. While in Edit Mode, click **Insert**
3. Click **More Web Parts**
4. In the **Filter By**, select **Pulse for Office 365**
5. Select **Current User's Feed**



6. Click **Add**
7. Click **Save & Close**
8. In the web part you will be prompted to Log In, in this release, make sure to **Uncheck Remember Me**

## Discuss This Item

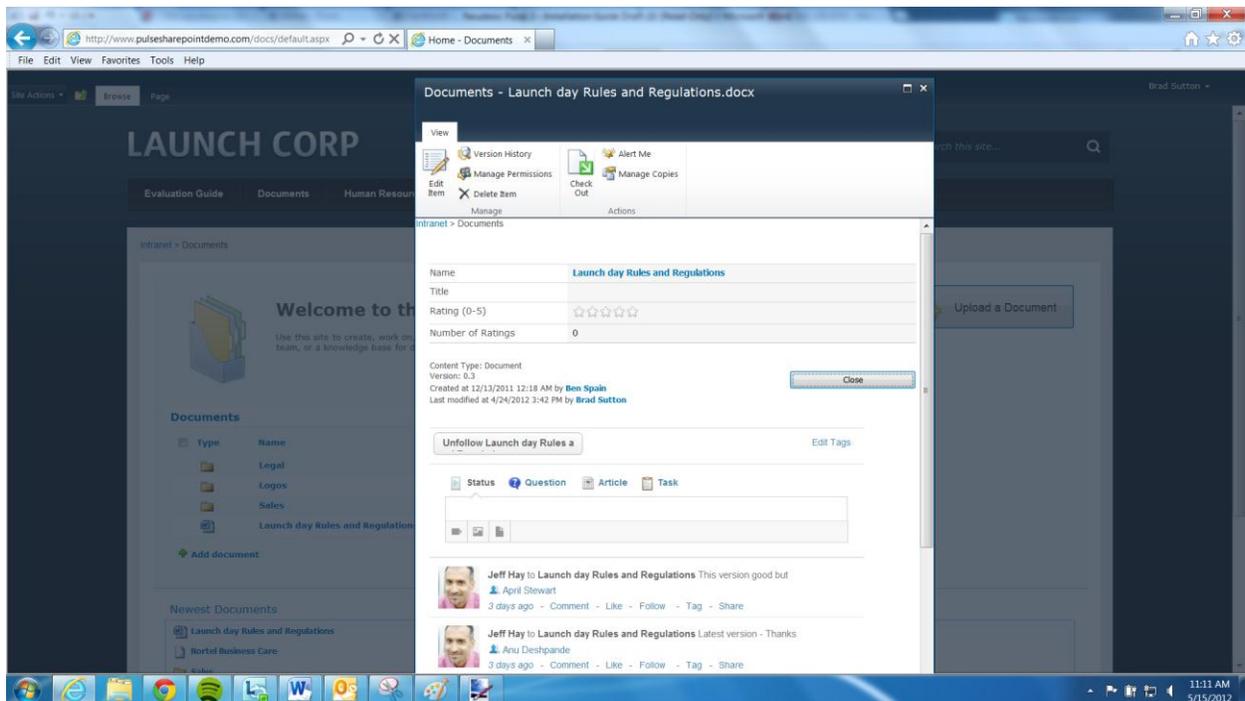
The Discuss This Item web part can be used to provide conversations on any SharePoint item. This includes Documents, Tasks, Issues, and custom list items. The leverage this web part you will drop it onto the Default Display Form and Default Edit Form for the items you want to have conversations. The following example adds conversations to a standard SharePoint Task list but can be used on any SharePoint list.

To add Pulse micro-blogging to a SharePoint Task list, perform the following actions while logged in as a user with appropriate permissions:

1. Navigate to your Tasks list
2. Click the **List** Ribbon tab
3. Under **Customize List** click the drop down on **Form Web** Parts and select **Default Display Form**.
4. Click **Add a Web Part**
5. In the **Categories**, select **Pulse for SharePoint Sites** or **Pulse for Office 365**
6. Select **Discuss This Item**
7. Click **Add**
8. Click **Save & Close**
9. **Repeat steps 1-8** but at **Step 3**, select **Default Edit Form** instead of Default Display Form

## What You Should See

After you have added the Discuss this Item Web part, the next time you click **View Properties** or **Edit Properties** from your Task item you should see the following.



## Discuss This Site

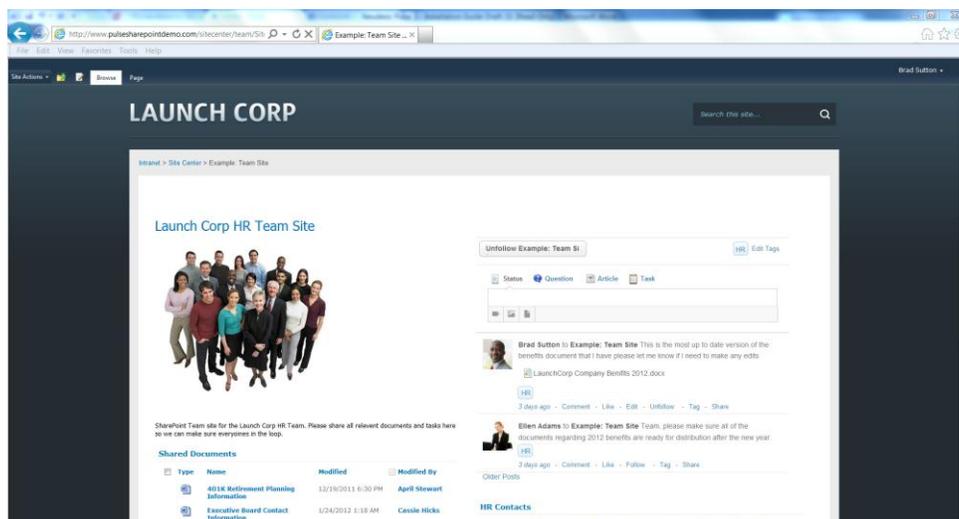
The Discuss This Site web part can be used to provide conversations on any SharePoint Site. This allows you to have a common micro-blog that can be added to multiple Pages within your site. It is very common to create a SharePoint Site Template that includes the Discuss This Site web part on the home page.

To add Pulse micro-blogging to a SharePoint Site, perform the following actions while logged in as a user with appropriate permissions:

1. Navigate to your Site Home Page
2. Click **Site Actions, Edit Page**
3. While in a content area on your page, click the Insert ribbon
4. Under Web Parts, click **Web Part**
5. In the **Categories**, select **Pulse for SharePoint Sites** or **Pulse for Office 365**
6. Select **Discuss This Site**
7. Click **Add**
8. Click **Save & Close**

## What You Should See

After you have added the Discuss This Site web part to your home page you should see the following



## Dynamic Pulse Content

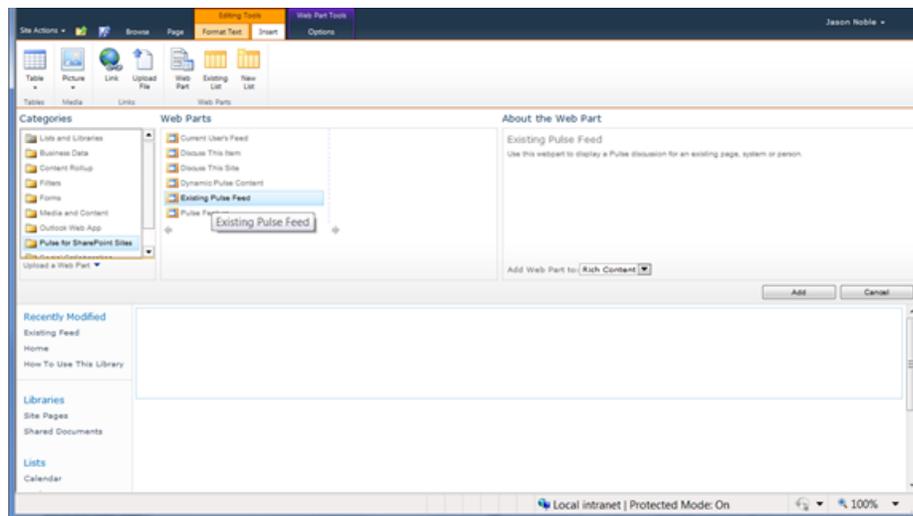
The **Dynamic Pulse Content** web part is meant to be used when SharePoint will be the primary host for all Pulse related user experience. For example, if you want your SharePoint My Site to be the home page for Pulse you will use the Dynamic Pulse Content web part to create a SharePoint Page that will be used to display every Pulse request. This is most commonly realized when a user clicks on a notification email from Pulse. The links in the email will be directed to a page that contains the Dynamic Pulse Content web part. This is used in conjunction with the **Host Site Url** setting. Please refer to the **Host Site URL** section above for more information.

## Existing Pulse Feed

The **Existing Pulse Feed** web part allows you to display any Pulse feed. The most common usage of this web part is in situations where you already have a Pulse page that you want to display in SharePoint. The key to using this web part is setting the **Existing Pulse Feed Url**

The following walks you through the creation of a SharePoint Page that displays the feed for an existing Pulse page. Perform the following actions logged in as a Site Administrator:

1. Click **Site Actions... New Page**
2. While in a content area on your page, click the Insert ribbon
3. Under Web Parts, click **Web Part**
4. In the **Categories**, select **Pulse for SharePoint Sites** or **Pulse for Office 365**
5. Select **Existing Pulse Feed**



6. Access the Web Part Properties pane by clicking the drop down on the web part and click **Edit Web Part**
7. Under **Miscellaneous**, input the URL to an existing Pulse feed. More information is provided below
8. Click **OK**
9. Click **Save & Close**

## How do I get Existing Pulse Feed URL

Basically, every Pulse feed has a unique URL. How you go about determining the URL is effected by when or not you are using the **Host Site Url** setting in conjunction with the **Dynamic Pulse Content** web part. The following are the 2 approaches to determining the Existing Pulse Feed Url

### **NO, I am NOT using the Host Site Url**

In this case you simply need to navigate to the Pulse feed you are interested in and copy the URL from your address bar. For example, if you have a Pulse Page called **Sales**, simply navigate to the

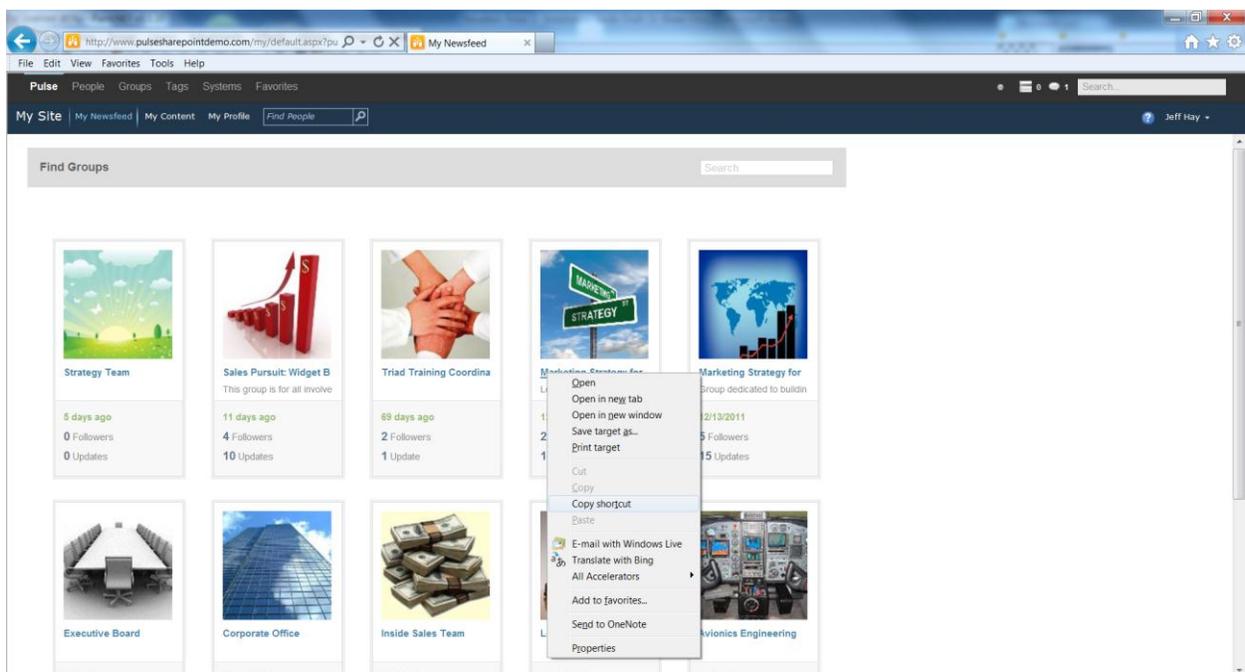
page, copy the URL, and paste it into the **Existing Pulse Feed URL** property. The following is an example of a typical Pulse Feed URL

```
http://pulse.pulsharepointdemo.com/#!streams/2972419e-a7a9-491e-be8b-1de13f447352/activities
```

### YES, I am using the Host Site Url

In this case you will need to leverage the browse or search capability of Pulse to determine the correct URL. For example, if you want to embed the feed for an existing Pulse Page named *Pulse and SharePoint* you would

1. Navigate to the **Groups** feature, click **Search**.
2. Input a criteria to filter the results, for example, SharePoint
3. Once the desired page is displayed in the results, right click and select **Copy Shortcut**



The Result of your Copy should look something like this:

```
http://pulse.pulsharepointdemo.com/#!streams/2972419e-a7a9-491e-be8b-1de13f447352/activities
```

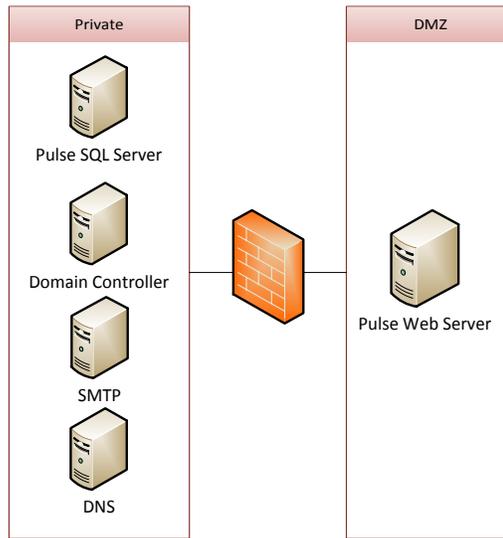
## Pulse Feature

The Pulse Feature web part allows you to embed an enhanced experience inside SharePoint that include additional left and right side UI elements. For example, the section above that discusses extending Sharepoint's My Site capability, takes advantage of the Pulse Feature web part to transform the My Site experience. The most common usage scenarios for the Pulse Feature web part are found within the

extension of your My Site environment because it is through the Pulse Feature web part that we are able to add the Questions, Pages, and Systems capability within your My Site. The following example demonstrates how you can embed the Pulse Questions capability into a SharePoint site.

## TCP/UDP Port Reference

The following diagram represents a basic infrastructure for placing Pulse servers in a DMZ that will allow for mobile access.



Protocol	Port	Inbound/Outbound	From	To	Reason
HTTP	80 TCP	Inbound	Internet	Pulse Web Server	Will display friendly error to use HTTPS instead of HTTP
HTTP	80 TCP	Outbound	Pulse Web Server	Internet	Needed to download updates for ForeFront, Windows, etc. Also needed for System Feeds that access the Internet
HTTPS	443 TCP	Inbound	Internet	Pulse Web Server	Access Pulse
LDAP	389 TCP/UDP	Outbound	Pulse Web Server	Domain Controller	Used for client authentication (NTLM)
DNS	53 UDP/TCP	Outbound	Pulse Web Server	Domain Controller	DNS to resolve customer DCs
SMTP	25 TCP	Outbound	Pulse Web Server	SMTP Relay	
SQL Server	1433(typical)	Outbound	Pulse Web Server	SQL Server	