**PopMedNet CNDS Build:**

Building PMN and CNDS for Development and Deployment

## 

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# PopMedNet-CNDS Architecture

The PopMedNet application is composed of 3 web components:

1. Portal – This covers the UI and supports the legacy PMN components.
2. API – This is the web service that supports all PMN functionalities. (Also known as DNS API.)
3. CNDS API – This is the web service that supports all CNDS functionalities.
4. Resources – This contains the shared files and scripts. In theory, this can be shared by multiple PMN instances with the same version, but it has not been put in practice.

# Minimum Tool and Framework Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **Tools and Frameworks** | **Ideal** | **May Work** | **Note** |
| Visual Studio | 2017 | 2015 |  |
| Web Server (IIS) | 8.5 or newer  or use Visual Studio built-in IIS Express | 7.5 | 1. You will need a wildcard SSL certificate for your domain. (\*.YourDomain.com)    * This is because there will be multiple sites that intercommunicate. 2. You will need to add the following Roles and Features to the webserver: |
| .NET Framework | 4.6.1 | 4.6.1 |  |
| Entity Framework | 6 | 6 |  |
| Razor Generator |  |  | Install I<https://github.com/RazorGenerator/RazorGenerator> |
| TypeScript | 2.1.5 | 2.1.5 | https://www.typescriptlang.org |
| ASP.net MVC 4 |  |  | https://www.microsoft.com/en-us/download/details.aspx?id=30683 |
| WIX Toolset | 3.11 | 3.11 | http://wixtoolset.org/releases/ |

## Database Server

|  |  |  |  |
| --- | --- | --- | --- |
| **Tools and Frameworks** | **Ideal** | **May Work** | **Note** |
| SQL Server | 2012 | 2008 R2 | 1. You will need to enable the Filestream and Common Language Runtime features.    * How to enable Filestream: <http://msdn.microsoft.com/en-us/library/cc645923.aspx>    * How to enable CLR: <http://msdn.microsoft.com/en-us/library/ms131048.aspx> 2. We recommend using [Transparent Database Encryption](https://msdn.microsoft.com/en-us/library/bb934049.aspx) ***if*** you have “encryption at rest” requirements. |

# Building the Web Portal

To build a complete PopMedNet-CNDS deployment package, you need to build the PMN Web Portal and the DataMart Client.

The Web Portal consists of 4 components. Using Visual Studio, set the Build Configuration to Debug or Release:

1. Resources: Open and build Lpp.Pmn.Resources solution
2. CNDS: Open and build Lpp.CNDS.sln
3. API: Open and build Lpp.Dns.Api solution
4. Portal: Open and build DistributedNetworkSolution solution

Visual Studio deposits the binary executable in the “bin” folder of the respective solution.

At this point, you can run PopMedNet-CNDS locally within Visual Studio assuming that you have proper PMN and CNDS databases and that the connection strings are setup properly. Use the ConnectionStrings.config-template in Lpp.CNDS, Lpp.Dns.Api, and Lpp.Dns.Portal (DistributedNetworkSolution) to create ConnectionStrings.config files.

# Building the DataMart Client and Adapters

The DataMart Client consists of the DataMart Client Core and the Adapter Packages. Using Visual Studio, set the Configuration to Debug or Release:

1. Open Lpp.Adapters solution
2. Build Lpp.Adapters
3. Execute the /Build/PackageAdapters.ps1 script which will zip all the adapters and place them in the /Lpp.Dns.Api/App\_Data Folder

# Building the DataMart Client Installer

1. Open Lpp.Installers solution
2. Build Lpp.Installers

# Deploying PopMedNet to IIS

The 4 components of the PMN Web Portal are built to their respective “bin” folder. The Adapter packages are built, packaged, and deployed directly to Lpp.Dns.Api/App\_Data on successful build of each adapter project. The DataMartClient installer folder should have been copied to Portal/DataMartClient.

To deploy PopMedNet, publish the following:

1. Resources: Right click on Lpp.Pmn.Resources and select Publish
2. CNDS: Right click on Lpp.CNDS.API and select Publish
3. API: Right click on Lpp.Dns.Api and select Publish
4. Portal: Right click on Lpp.Dns.Portal and select Publish
5. DataMartClient Installer: Open the Lpp.Installers and compile, then go to the bin folder and copy the MSI to the published location of the Portal and place it in a folder called DataMartClient

Select Custom and create Profile in each case. You can choose to deploy directly to IIS or to a local folder.

After deploying Edit the Web.Configs for the following values

1. Portal
   1. CurrentTheme
   2. ContactUsEmail
   3. NotificationSubjectLine
   4. NetworkMessageSubjectLine
   5. NetworkMessageSignoffFrom
   6. ServiceUrl
   7. ResourceUrl
   8. Log4Net Configurations
2. API
   1. ResetPasswordUrl
   2. CNDS.URL
   3. Log4Net Configurations