

This document outlines the architecture of reporting system and the deployment process.

Technical Architecture

The entire architecture consists of 3 separate tiers:

- 1) Database Tier – which is the SQL server which does not expose the data tables directly but only through SQL procedures
- 2) API Tier – which is a .NET core web application. It exposes APIs for website to be consume and communicates with Database via SQL procedures
- 3) Web Tier – which is a static HTML/CSS/Javascript website. It provides the web interface for end-users to consume reports and communicates with the API Tier via exposed APIs. It does not communicate with database tier directly.

The API tier and web tier reside together on the same server. Specifically, the website source code is in the /web folder of the API source code. The API tier acts as a simple hosting server to route HTTP requests to the website. This design is chosen so that we don't have to setup another hosting server for the web tier and makes deployment easier. However, this also means that the website and API must be on the same server.

Deployment Process

The deployment process in this document covers the API tier and Web tier. It does NOT cover the deployment of the database tier.

Pre-requisite:

- 1) Database tier is deployed
- 2) Database login credentials (host, name, user login, user password)
- 3) API server is setup with IIS installed with dotnet-hosting-3.1.2-win
- 4) Domain or IP address of the server to deploy Web and API
- 5) App.zip bundle which contains the Web and API app

Deployment steps:

- 1) Upload App.zip to the API server
- 2) Unzip App.zip to the publishing folder (eg. C:\inetpub\wwwroot\
Make sure you don't create any additional folder.
- 3) Open the file web.config, and search for the tag <add> with the key "databaseConnection" and update the value attribute with the database login credentials (eg. <add key="databaseConnection"

value="Data Source=10.92.2.32,1433;Initial Catalog=SCRPT;User
ID=srpt;Password=b3@mUP018" />)

- 4) Open the file web/ip.js, and change the value of window.API_URL to the API server domain name or IP address. Note that you MUST have trailing slash (eg. window.API_URL = '<https://newdomain.com/>')
- 5) Deployment is completed. Please test that all functionalities are working properly.