Project : Single Sign On Service

**Problem Statement**

To develop a feature of Single Sign On so user can login to multiple sites without prompting for login once authenticated in any one of the site.

**Project Detail**

Developing a feature of Single sign-on (SSO) which is a session/user authentication process that permits a user to enter one name and password in order to access multiple applications. The process authenticates the user for all the applications they have been given rights to and eliminates further prompts when they switch applications.

**Technology Used**

1. Asp.Net Framework 4.6
2. WCF Services
3. SQL Server 2014

**Project Architecture**

The project is divided into 6 layers as mentioned below:

1. Business Layer (BAL.Layer) – For all the business logic
2. Database Layer (DAL. Layer) – For all the database operation logic
3. Entity Layer (Entities. Layer) – For all the domain entities like datatable and properties
4. Authentication Module (Class Library) – For managing the web service call, create and delete the cookies etc.
5. WCF Service Layers( Service and Contract) – For managing the database call
6. WebSites (Site1 and Site2) – Presentation Layer

**Project Flow**

Site 1

Site 2

Authentocation Module

(WCF Service)

Database

1. Site1 and Site2 try to login into the system and to do so they pass the parameters and call the Authentication Module.
2. Authentication module check the data and then connect to the database and retrieve the data and response back to the respective site.
3. If Login successful then that site write COOKIE (username) in the client browser and redirect to the default page.
4. When the same user try to login to another site say Site 2 , Site 2 first track the Cookie and fetch the username and compare with the database table and check if that user is logged in or not. If yes then redirect to the default page else on login page.

As we have make a hardcoded Mapping Table which contains the Username and Site (assigned) data. If the site don’t have permission to access the site then it will not be able to login.

Let say Site1User (username) have access to Site1 and Site2 and Site2User (username) have access to Site2 only so Site1User able to login to Site1 and Site2 but Site2User only able to login to Site1 only. (This feature should come under UI based permission module)

**Proposed Solution**

The current approach we have used can be better by managing the following way:

1. In the current project we are writing the cookie in the client browser via Login page instead we need to create a separate Authentication Site which do authentication as well write the Cookie on the client browser because it’s not the job of Login page to do so.
2. Architecture can be more flexible by adding the Token based user authentication to verify the cookie.
3. After registration to the site there should be a centralized permission module were user map to the respective site.
4. Connection String should be managed by Authentication Site not by individual Site.