

EPI INFO™ WEB SURVEY MANAGER SERVICE DEPLOYMENT WITH SSL

Version 1.0
12/16/2015

VERSION HISTORY

| Version # | Implemented By | Revision Date | Comments |
|------------------|-----------------------|----------------------|-----------------------------|
| 1.0 | Sachin Agnihotri | 12/16/2015 | Version 1.0 of the document |

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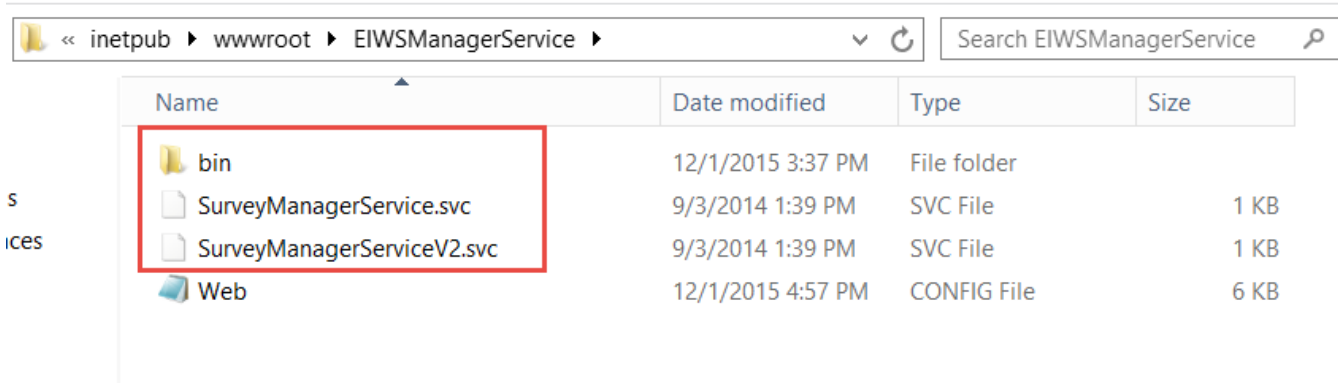
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1 EIWS MANAGER SERVICE CONFIGURATION

1.1 CONFIGURING EIWS MANAGER SERVICE AS AN SSL SITE

The section below describes steps involved in configuring Epi Info Web Survey Manager Services with SSL.

1. Configure EIWS Manager Service as an independent site by creating a site using the build for Survey Manager Service namely “SurveyManagerService_SSL”



2. Update the value of connectionStrings in web.config file to match the on EIWS site

```
<connectionStrings>
  <add name="EIWSEntities" connectionString="encrypted connection string"/>
</connectionStrings>
```

3. Update the value of following setting to match the setting on EIWS site

```
<add key="URL" value="http://SERVER_NAME/APPLICATION_NAME/Home/" />
<add key="AdminKey" value="Encrypted admin key" />
```

SERVER_NAME refers to the name of the server where EIWS site is deployed
APPLICATION_NAME refers to the name provided to EIWS site. This should be EIWS if default configuration has been performed

4. Update the value of ResponseURL by replacing the value of “SERVER_NAME and “APPLICATION_NAME”. Both the values should match the value provided in Step 3.

```
<add key="ResponseURL" value="http://SERVER_NAME/APPLICATION_NAME/Survey/" />
```

5. Authentication mode is set to “Forms” in web.config file

```
<authentication mode="Forms">
```

6. The behavior is updated to handle https

```
<serviceBehaviors>
  <behavior name="">
    <serviceMetadata httpsGetEnabled="true" />
    <serviceDebug includeExceptionDetailInFaults="false" />
  </behavior>
</serviceBehaviors>
```

7. Configure HTTP Basic binding to use transport security.

```
<security mode="Transport">
  <transport clientCredentialType="None" />
</security>
```

8. Mex endpoint should use mexHttpsBinding

```
<endpoint
  contract="IMetadataExchange"
  binding="mexHttpsBinding"
  address="mex" />
```

9. Remove node for ServiceHostingEnvironment if present

```
<serviceHostingEnvironment multipleSiteBindingsEnabled="true" />
```

10. Configure endpoint for all the Manager Service Version as separate endpoints.
Endpoint can be configured using any of the options provided below.

a. Can leave the address empty for the services

```
<service
  name="Epi.Web.WCF.SurveyService.ManagerService"
  behaviorConfiguration="MyServiceTypeBehaviors">
  <endpoint
    address=""
    binding="basicHttpBinding"
    contract="Epi.Web.WCF.SurveyService.IManagerService"
    bindingConfiguration="BasicHttpBinding_IService"/>
  <endpoint
    contract="IMetadataExchange"
    binding="mexHttpsBinding"
    address="mex" />
</service>
<service
  name="Epi.Web.WCF.SurveyService.ManagerServiceV2"
```

```
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
        address=""
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerServiceV2"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
        binding="mexHttpsBinding"
        address="mex" />
</service>
<service
        name="Epi.Web.WCF.SurveyService.ManagerServiceV3"
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
        address=""
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerServiceV3"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
        binding="mexHttpsBinding"
        address="mex" />

</service>
```

- b. If option (a) doesn't work then the address can be left empty and a base address specified

```
<service
        name="Epi.Web.WCF.SurveyService.ManagerService"
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
        address=""
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerService"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
        binding="mexHttpsBinding"
        address="mex" />

    <host>
        <baseAddresses>
    <add baseAddress="https:// SERVER_NAME/APPLICATION_NAME
/SurveyManagerService.svc" />
        </baseAddresses>
    </host>

</service>
<service
```

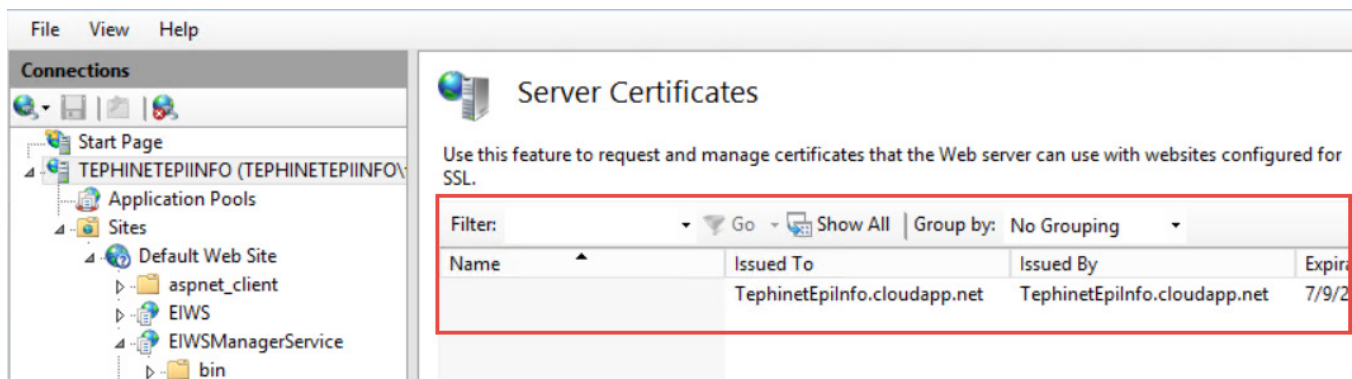
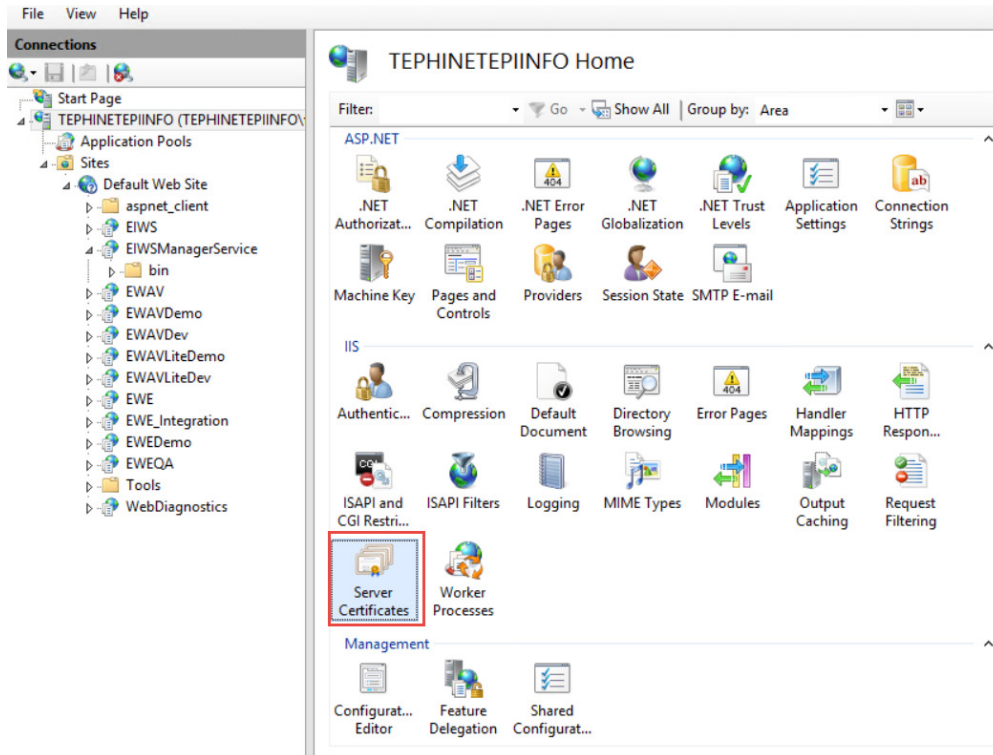
```
        name="Epi.Web.WCF.SurveyService.ManagerServiceV2"
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
        address=""
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerServiceV2"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
        binding="mexHttpsBinding"
        address="mex" />
    <host>
        <baseAddresses>
    <add baseAddress=" https:// SERVER_NAME/APPLICATION_NAME
/SurveyManagerServiceV2.svc"/>
        </baseAddresses>
    </host>
</service>
<service>
        name="Epi.Web.WCF.SurveyService.ManagerServiceV3"
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
        address=""
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerServiceV3"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
        binding="mexHttpsBinding"
        address="mex" />
    <host>
        <baseAddresses>
    <add baseAddress="https:// SERVER_NAME/APPLICATION_NAME
/SurveyManagerServiceV3.svc" />
        </baseAddresses>
    </host>
</service>
```

c. If option (b) doesn't work then specify the value of the address

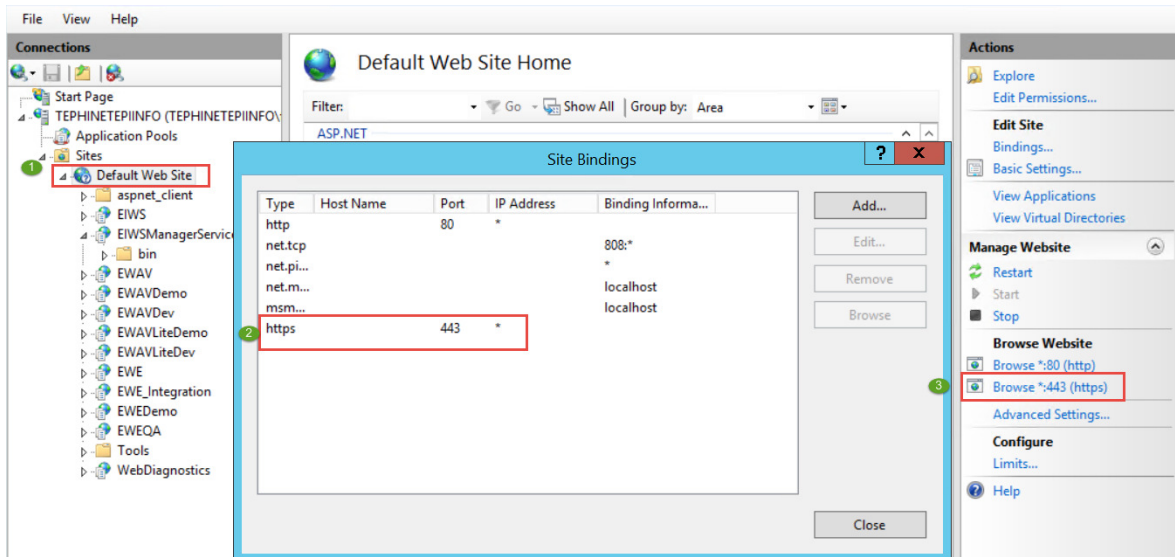
```
<service
        name="Epi.Web.WCF.SurveyService.ManagerService"
        behaviorConfiguration="MyServiceTypeBehaviors">
    <endpoint
address=" https:// SERVER_NAME/APPLICATION_NAME /SurveyManagerService.svc"
        binding="basicHttpBinding"
        contract="Epi.Web.WCF.SurveyService.IManagerService"
        bindingConfiguration="BasicHttpBinding_IService"/>
    <endpoint
        contract="IMetadataExchange"
```

```
        binding="mexHttpsBinding"
        address="mex" />
    </service>
    <service
        name="Epi.Web.WCF.SurveyService.ManagerServiceV2"
        behaviorConfiguration="MyServiceTypeBehaviors">
        <endpoint
            address=" https:// SERVER_NAME/APPLICATION_NAME /SurveyManagerServiceV2.svc"
            binding="basicHttpBinding"
            contract="Epi.Web.WCF.SurveyService.IManagerServiceV2"
            bindingConfiguration="BasicHttpBinding_IService"/>
        <endpoint
            contract="IMetadataExchange"
            binding="mexHttpsBinding"
            address="mex" />
    </service>
    <service
        name="Epi.Web.WCF.SurveyService.ManagerServiceV3"
        behaviorConfiguration="MyServiceTypeBehaviors">
        <endpoint
            address=" https:// SERVER_NAME/APPLICATION_NAME /SurveyManagerServiceV3.svc"
            binding="basicHttpBinding"
            contract="Epi.Web.WCF.SurveyService.IManagerServiceV3"
            bindingConfiguration="BasicHttpBinding_IService"/>
        <endpoint
            contract="IMetadataExchange"
            binding="mexHttpsBinding"
            address="mex" />
    </service>
```

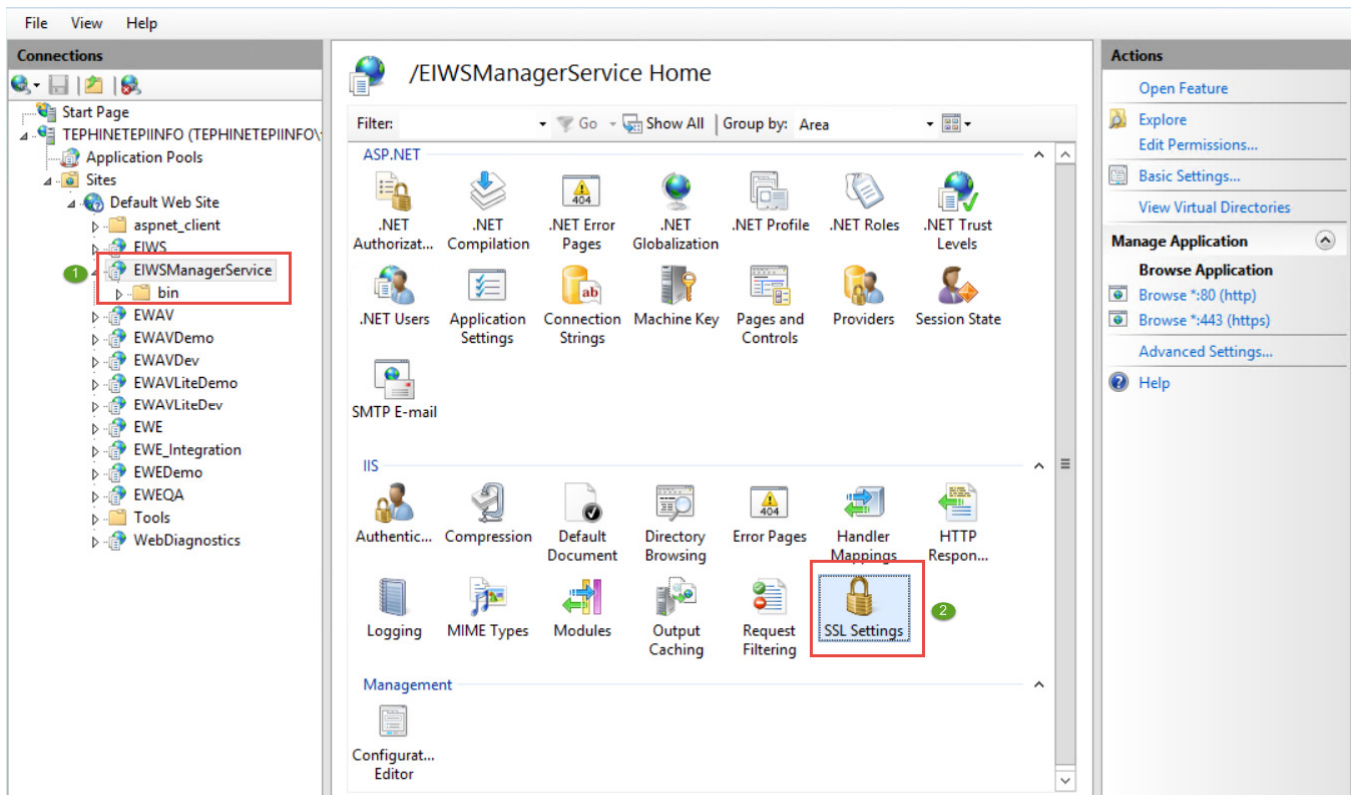
11. Register SSL Certificate with IIS

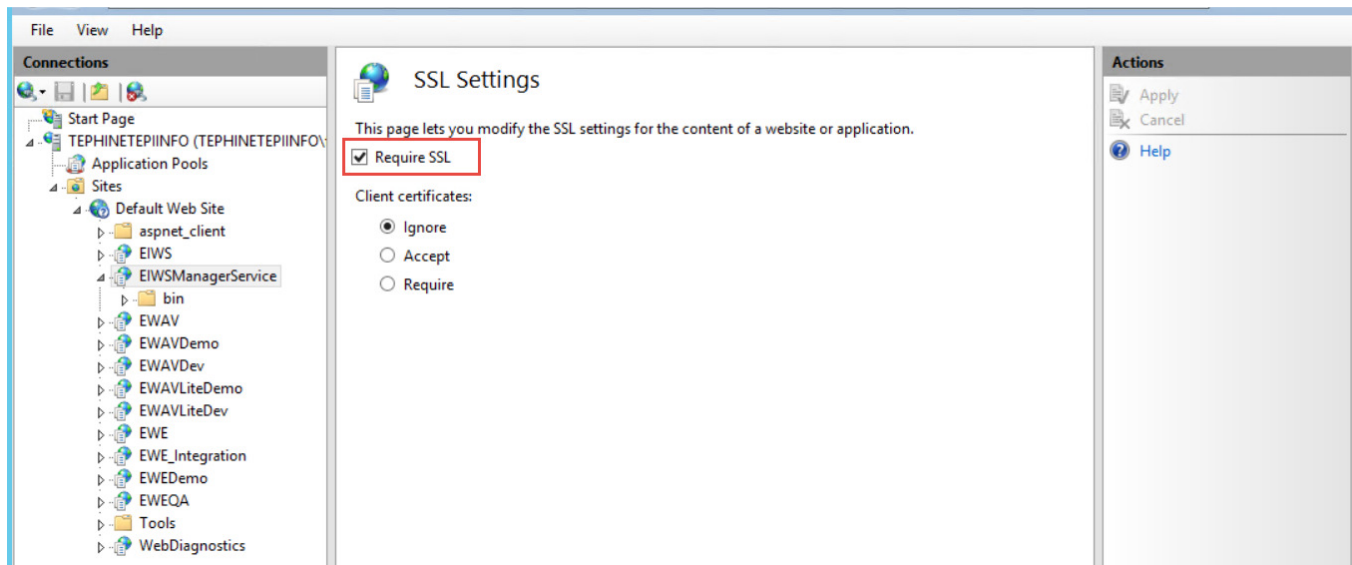


12. Add an SSL binding to the web site



13. Configure the web site's authentication properties





14. Make sure the TCP port 443 is opened on the server for web traffic

1.2 COMMUNICATION WITH MANAGER SERVICE CONFIGURED WITH SSL

1. App.config on the client should have

```
<security mode="Transport">  
  <transport clientCredentialType="None" />  
</security>
```

2. If proxy is created using code then following two lines need to be added where the proxy is being created for basicHTTP binding:

```
Binding.Security.Mode = System.ServiceModel.BasicHttpSecurityMode.Transport;  
Binding.Security.Transport.ClientCredentialType = System.ServiceModel.HttpClientCredentialType.None;
```

3. Add a handler to the ServicePointManager's ServerCertificateValidationCallback on the client side right after instantiating the Service Client. This is needed for self-signed certificate during development. This may not be required for certificate issued by Verisign and is not recommended to be included in production code.

```
System.Net.ServicePointManager.ServerCertificateValidationCallback +=  
  (se, cert, chain, sslerror) =>  
  {  
    return true;  
  };
```