Tetherfi User Session Manager

DEPLOYMENT GUIDE

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Version History

Version	Implemented	Revision	Approved	Approval	Description of Change
Number	Ву	Date	Ву	Date	
1.0	Ajit	05/10/2018			Initial Draft
1.1	Shreyas K R	31/03/2020	Prathik	03/04/2020	Updated Configuration Keys, TUserSessionManager Service Setup and Setting up Securing endpoints. Added Certificate Binding section.



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1. Introduction

Tetherfi User Session Manager (TUserSessionManager), a component to maintain logged in user session handles timeout and provide the same for any application.

TUserSessionManager, exposes WCF service as well as REST API interface to interact with Tetherfi application.

To integrate using WCF service, the application can use TUserSessionManagerClient.dll file as it is a wrapper for the TUserSessionManager WCF service.

2. Deployment

2.1 Release Details

Before starting deployment of TUserSessionManager, checkout the build from SVN repository as shown below. Take the build from base release folder which will have latest version of TUserSessionManager

svn://repo.tetherfi.com/InterLink/Products/TUserSessionManager/Release/Base Binaries

svn://repo.tetherfi.com/InterLink/Products/TUserSessionManager/Release/ReleaseNotes.xlsx

Кеу	Description	Possible Values
Log4NetConfigFile	Log4Net Config File path.	E:\InterLink\Products\TUserSes
		sionManager\TUserSessionMan
		ager\Libs\Log4Net.config
ConnectionString	Kms Encrypted Connection String.	Data
		Source=xx.xxx.xxx\SQLEXPRE
		SS,xxxxx; Initial
		Catalog=OCM;User ID=abc;
		Password=xxxxxxx
KmsEnabled	Is Kms Enabled.	0 or 1
KmsUrl	Kms Url.	https://xxx.xxxxxxx.com:xxxxx/
		kms/
KmsCert	Kms Certificate.	5dxxxxxxec3b928846xxxxxxxe
		5a8ecab
AppTimeout	Application Timeout in minutes.	20
RestApiEnabled	Rest Api Enabled.	0 or 1
SyncUserSessionEnabled	Sync User Session Enabled.	0 or 1
UserSessionManagerSyncSer	User Session Sync Servers Count.	2 (server count)
verCount		

2.2 Configuration



TmacAuthServerEnabled	Tmac Auth Server Enabled.	0 or 1
RemoveOldSessionOnNewSe ssion	Remove old Session on New Session recieved for same user.	0 or 1
SsIVersion	Version for Ssl.	Tls12

2.3 TUserSessionManager Service Setup

Create the service using Command Prompt as Administrator with below command:

sc create service_name binPath=" full path of TUserSessionManager.exe

Eg: sc create PrimaryTUserSessionManagerbinPath="E:\PrimaryUserSessionManager \TUserSessionManager.exe"



2.4 Setting up TUserSessionManager Service (HA)

Configure the service by following the above step and do the below config file changes in this service:

- The high availability of TUserSessionManager service is achieved by installing more than one instances of service with proper config changes
- The concept used here is that Service1 and other Service instances (Service2 and Service3) are internally connected and referenced by service endpoints in config with respect to base addresses.
- When one service stops, one of the other services listening will start execution
- The number of service instances to be installed are to be configured with respect to main Service created (Service1).
- This is configured with "UserSessionManagerSyncServerCount" key value as below. If value
 of the key is 2, meaning along with main service running, two other instances are to be
 created so totally 3 services will be running simultaneously listening to each other's
 endpoints.

<! -- User Session Sync Servers Count-->

<add key="UserSessionManagerSyncServerCount" value="1"/>



- The service endpoints to be configured as below:
- The config for main service with base address as "..../PrimaryTetherfiUserSessionManager" in service end point (as highlighted below)



 The config for main service (*PrimaryTetherfiUserSessionManager*) listening to another service (*SecondaryTetherfiUserSessionManager*) client as UserSessionManagerServer1

 Similarly other service with base address as "..../SecondaryTetherfiUserSessionManager" listening to another service (PrimaryTetherfiUserSessionManager) client as UserSessionManagerServer1

2.5 Setting up WCF REST service

REST API can be enabled by below key

```
<! -- Rest API Enabled -->
```

<add key="RestApiEnabled" value="1" />

Configure the base address for RES API as below

2.6 Creating a certificate and enabling the Https settings to use the certificate

• Go to IIS home directory and double click on Server Certificates option.

<u>E</u> ile ⊻iew <u>H</u> elp		
Connections		Actions
創		Manage Server
TETHERFI (TETHERFI\Shreyas) Application Pools	Filter: • 🍞 💁 - 🖕 Show All Group by: Area - 🎬 -	C Restart
> - Sites	FTP ^ ^	Stop
	FID	View Application Pools View Sites
	Authentic Authorizat Browsing Support Address a Attempt R Messages Filtering Settings	Change .NET Framework Version
		Get New Web Platform Components
	FIF User Isolation	🕜 Help
	A	
	🔒 🧟 🚥 🦿 💧 🕅 🔝 🐴 🕋	
	ASP Authentic CGI Compression Default Directory Error Pages FastCGI Handler HTTP Document Browsing Settings Mappings Respon	
	🖏 🍈 🍺 🛋 🖗 😂 🧔	
	ISAPI and ISAPI Filters Logging MIME Types Modules Output Request Server Worker CGI Restri Caching Filtering Certificates Processes	
	Management	
	Configurat Feature Shared Editor Delegation Configurat	



• Create Self-Signed certificate.

Internet Information Services (IIS) N	anager	- 0 ×
← → Image: A state of the state		📅 🖂 🏠 i 🔞 -
<u>F</u> ile <u>V</u> iew <u>H</u> elp		
Connections	Server Certificates Use this feature to request and manage certificates that the Web server can use with websites configured for SSL.	Actions Import Create Certificate Request Complete Certificate Request
Sites	Filter: • 🐨 💁 • 🕞 Show All Group by: No Grouping • Name Sued To Sued By Expiration Date Certificate Hash	Complete Certificate Request Create Domain Certificate Create Self-Signed Certificate. Enable Automatic Rebind of Renewed Certificate

 Enter Friendly Name for certificate (i.e. TUserSessionManager) and Select Personal as Certificate store.

?	\times
	?

- Created certificate Successfully.
- Double click on the created Server certificate.

Server Certificates Use this feature to request and manage certificates that the Web server can use with websites configured for SSL.			
Filter: • *	🖉 💁 👻 🖓 Show <u>A</u> ll 🛛 Group by:	No Grouping 🔹	
Name	Issued To	Issued By	Expiration Date
			,
TUserSessionManager	Tetherfi	Tetherfi	01-04-2021 05:30:00
1			

• On Clicking **Details**, you will find the **Thumbprint** field.



ections	R Certificate	×
TETHERFI (TETHERFI\Shreyas) Polication Pools Sites	General Details Certification Path Show: <all></all>	n use with websites config rouping •
	Field Value Public key RSA (2048 Bits) Public key parameters 05 00 Rey Usage Key Encipherment, Data Enc. Rey Thanced Key Usage Server Authentication (1.3.4) Subject Alternative Name DNS Name=Tetherfi Priendly name TUserSessionManager 7ef 334e12fdd417fbb730f0ab474876f1ed3156 Edit Properties Copy to	ed By Ihost erfi erfi s b y File OK

2.7 Bind certificate using command line

To bind the certificate using command line follow the below steps:

 Run command prompt as Administrator and run command as: "netsh http add sslcert ipport=0.0.0.0:8085 appid={41dc026f-440e-4f67-88ef-4921779e6c0c} certhash= 7ef334e12fdd417fbb730f0ab474876f1ed31589" where 'sslcert ipport' is the port, 'appid' is the GUID of the service and 'certhash' is the Thumbprint of the created certificate. On successful run, the message 'SSL Certificate successfully added' will be displayed.



2. To show the bound certificate. Use the following command: "netsh http show sslcert ipport=0.0.0.0:8085"



🚾 Administrator: Command Prompt			
Microsoft Windows [Version 10.0. (c) 2019 Microsoft Corporation.	18362.720] All rights reserved.		
C:\Windows\system32>netsh http s	C:\Windows\system32>netsh http show ss]cert inport=0.0.0.0:8085		
SSL Contificato hindings			
IP:port			
Certificate Hash	: /et334e12td041/tDD/30tv0ab4/48/6t1e031589		
Application ID	: {410C020T-440E-4T07-88ET-49217/9E0C0C}		
Varify Client Cartificate De	: (null)		
Vanify Revocation Using Cash	vocalion : Endoireu		
Usage Check			
Revocation Freshness Time			
URL Retrieval Timeout			
Ctl Identifier	(null)		
Ctl Store Name			
DS Mapper Usage	Disabled		
Negotiate Client Certificate	: Disabled		
Reject Connections	: Disabled		
Disable HTTP2	: Not Set		
Disable QUIC	: Not Set		
Disable TLS1.2	: Not Set		
Disable TLS1.3	: Not Set		
Disable OCSP Stapling	: Not Set		
Enable Token Binding	: Not Set		
Log Extended Events	: Not Set		
Disable Legacy TLS Versions	: Not Set		
Enable Session Ticket	: Not Set		
Extended Properties:			
PropertyId	: 0		
Receive Window	: 1048576		
Extended Properties:			
PropertyId	: 1		
Max Settings Per Frame	: 2/96/202		
Max Settings Per Minute	: 429496/295		

3. This will now bind certificate to OCM TUserSessionManager successfully.

2.8 Setting up Securing Endpoints

To enable the SSL over Http protocol, follow the below steps:

1. For REST Service, under **binding** -> webHttpBinding enable security mode **Transport**.

2. For WCF Service, under **binding** -> **basicHttpBinding** enable security mode **Transport**.

```
<basicHttpBinding>
<binding name="basicHttps">
<security mode="Transport">
<transport clientCredentialType="None"/>
</security>
</binding>
</basicHttpBinding>
```

3. Add/change httpsGetEnabled behavior in the config for REST and SOAP and httpGetEnabled can be removed or set false.



```
<serviceBehaviors>
   <behavior name="soap">
        <serviceMetadata httpsGetEnabled="true"/>
        <serviceDebug includeExceptionDetailInFaults="False"/>
        </behavior>
        <behavior name="rest">
            <serviceMetadata httpsGetEnabled="true" />
            <serviceMetadata httpsGetEnabled="true" />
            <serviceDebug includeExceptionDetailInFaults="False"/>
            <serviceBehavior>
        </behavior>
        </serviceBehavior>>
</serviceBehaviors>
```

4. Change all host base address http to https.

3. Testing TUserSessionManager

• To test the service use Soap UI, import the below project xml:



• To test the service use Postman, import the below collection:

