

MPASSTM

mPass Help Document

Title Installation Manual for mPass Server

Version 1.0

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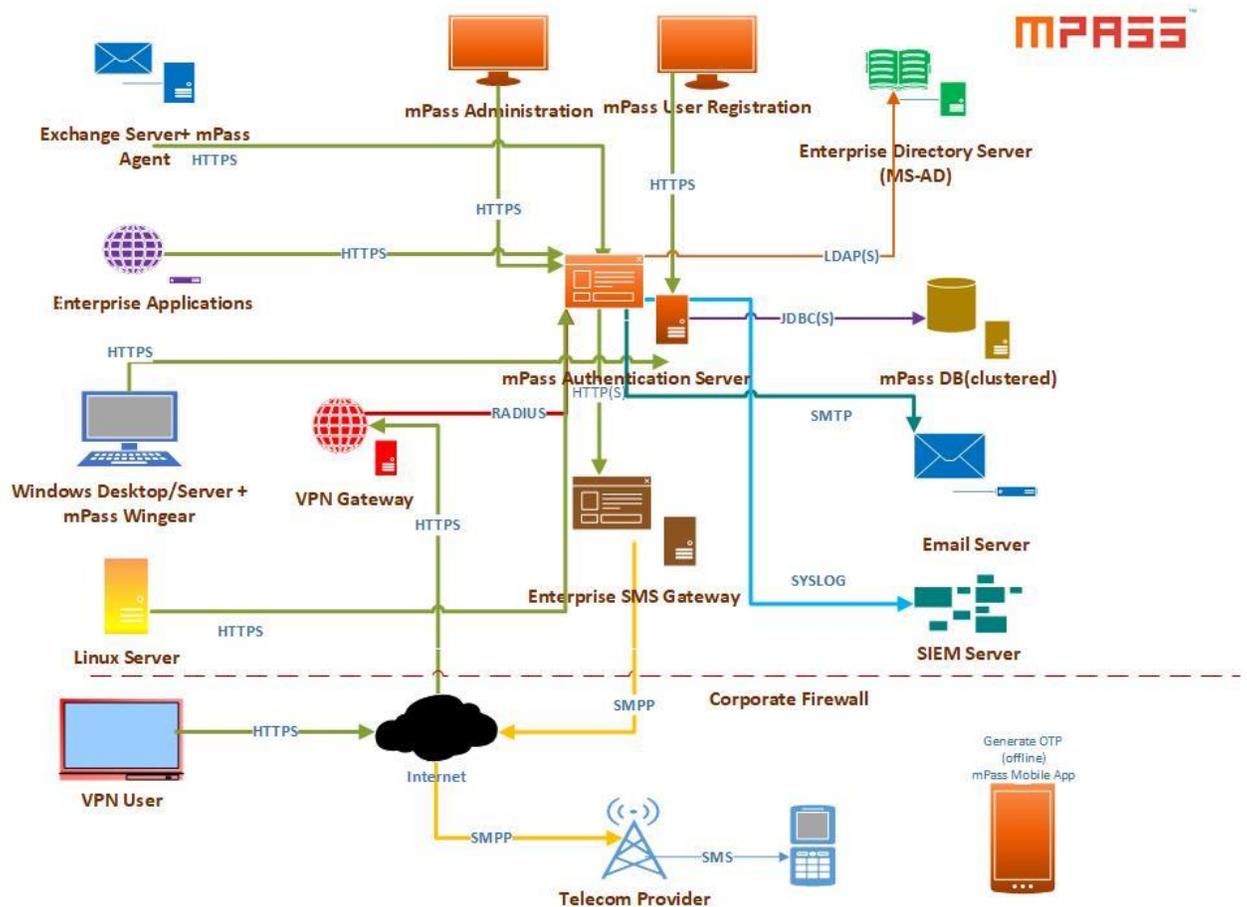
1. Introduction

The mPass authentication server is an OATH compliant comprehensive solution for enabling multi-factor authentication for enterprise applications such as VPN Systems, Outlook Web Access (OWA), Windows Servers/Desktops and SSO such as Active Directory Federation Services ADFS or any in house developed applications.

1.1 Purpose

The purpose of this document is to help technical personnel to install mPass authentication server and configure on windows platform.

2. Typical Setup Architecture



3. Pre-requisites for Installation

3.1 Hardware and Software requirements

Server Type	Purpose	Quantity	Software	Hardware
mPass Application Server	Server to deploy mPass Authentication Server	1	Windows Server 2012 R2 64-bit edition or higher	<ul style="list-style-type: none"> • 4 CPU • 8 GB Memory • 100 GB Storage
mPass DB Server	Database Server to store mPass server data.	1	Windows Server 2012 R2 64-bit edition or higher MS SQL Server 2012 or higher with SQL Server Management Studio.	<ul style="list-style-type: none"> • 4 CPU • 8 GB Memory • 200 MB storage

3.2 License Requirements

1. IP Address of the mPass Application Server
2. MAC address of the mPass Application Server

3.3 Network Requirements

Req #	Source	Destination	Protocol	Port	Description
1	mPass Application Server	mPass DB Server	TCP/IP	1433	To retrieve and store data
2	mPass Application Server	Enterprise AD	TCP/IP	389	To validate user credentials

3.4 Database Requirements

Requirement	Parameters
Server Information	<ol style="list-style-type: none"> 1. IP 2. Port 3. Database Name 4. SQL Instance Name
User Credentials	<ol style="list-style-type: none"> 1. Username and Password (Local Authentication) 2. Domain Username (if using Integrated Authentication)

3.5 Active Directory Requirements

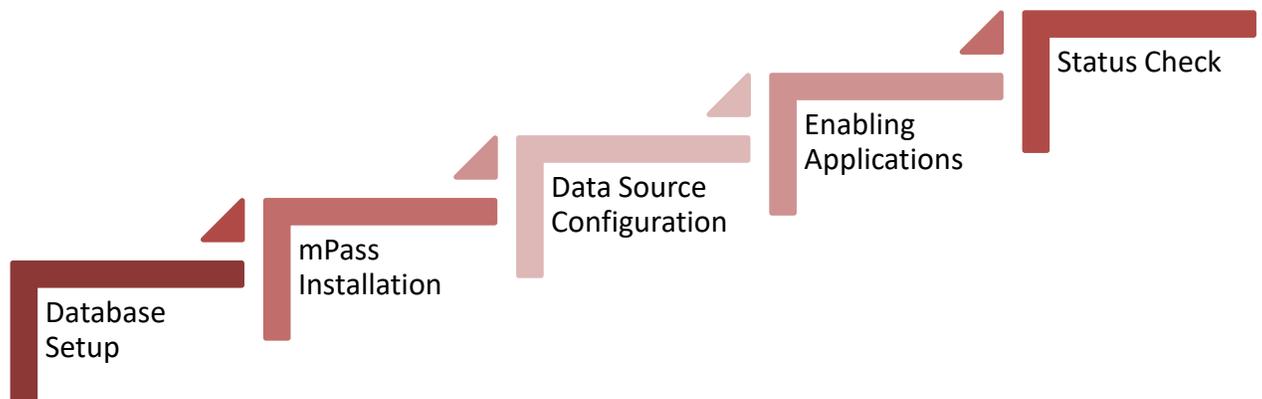
Requirement	Parameters
Server Information	<ol style="list-style-type: none"> 1. IP 2. Port 3. Domain name 4. UPNSuffix (should be the same as domain name if not different) 5. Mobile number attribute field name
Service Account (Required to read mobile number or other attributes form AD)	User name and password

3.6 Required Setup Files and associate files

S.No	mPass File Name	Description
1	mPass Setup v 2.0.exe	Executable file which installs mPass authentication server
2	01_ddl.sql	DB Schema definition file
3	02_inserts.sql	DB Initial scripts
4	license.dat	License file of the server which contains the IP, MAC and validity date and time
5	Tokens.xml	Tokens license file

4. mPass Setup

4.1 Installation Process Overview



4.2 Detail Process

4.2.1 Database Setup

Note: This operation should be performed on the Database server

Connect to the required SQL Server instance using the SQL Server Management studio installed.

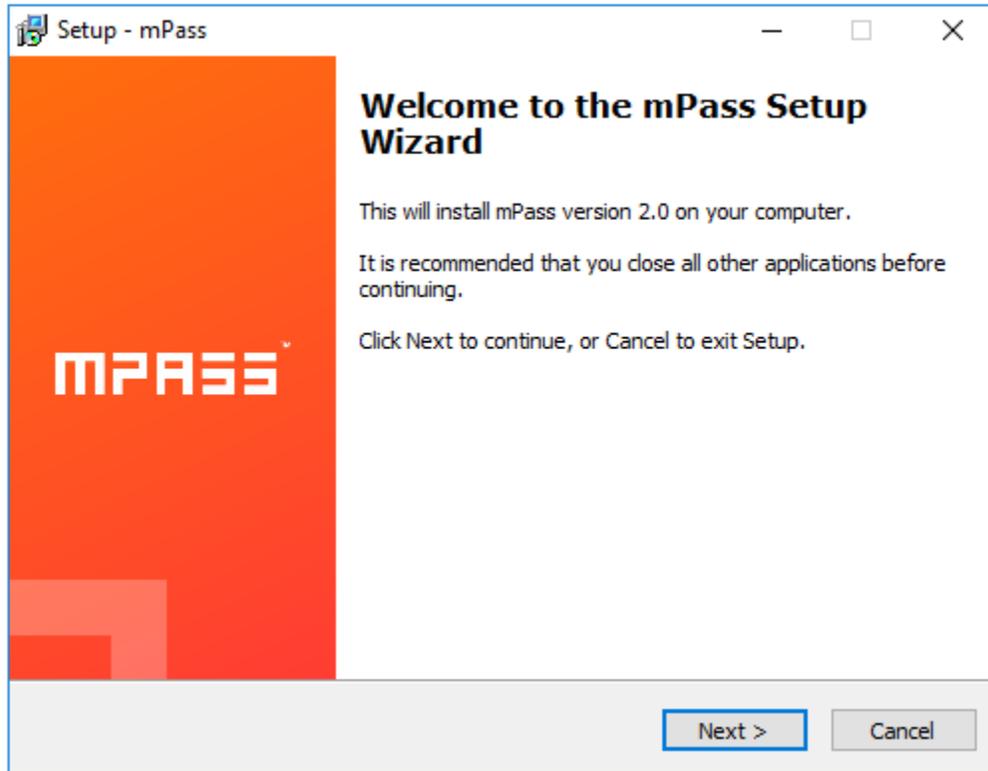
4.2.2 mPass Installation

Note: This operation should be performed on the mPass Application server

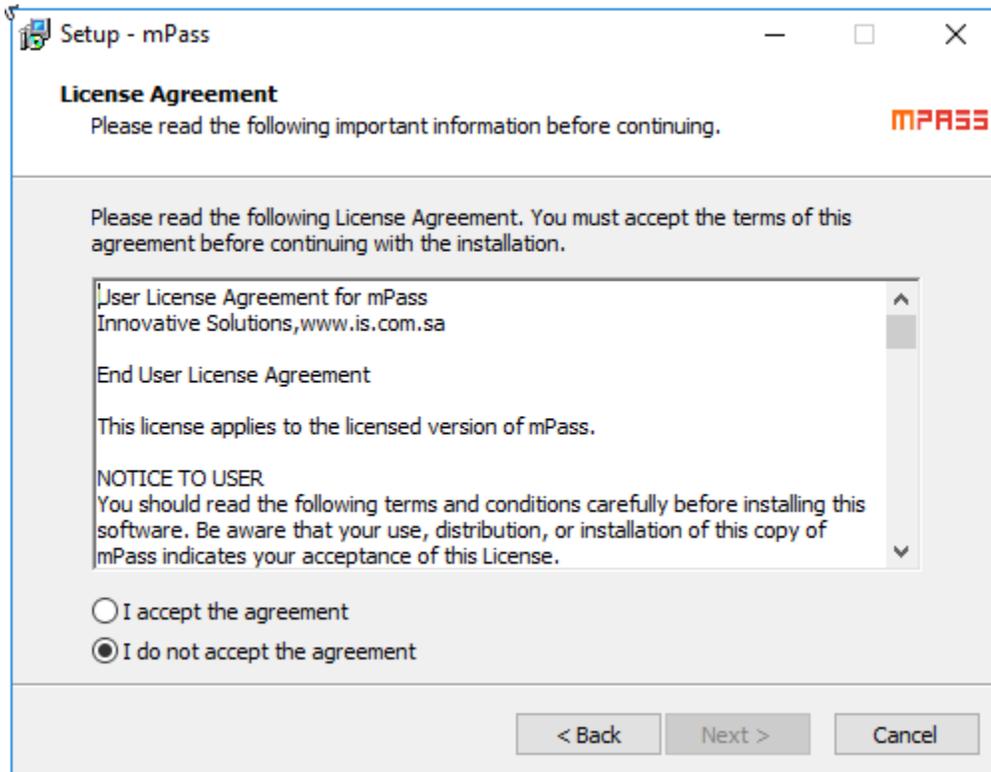
This is the first step of the installation of the mPass authentication server. After copying the provided setup files to the target Windows server, the administrative privileged user should execute the mPass Setup v 2.0.exe.

 mPass Setup v 2.0.exe

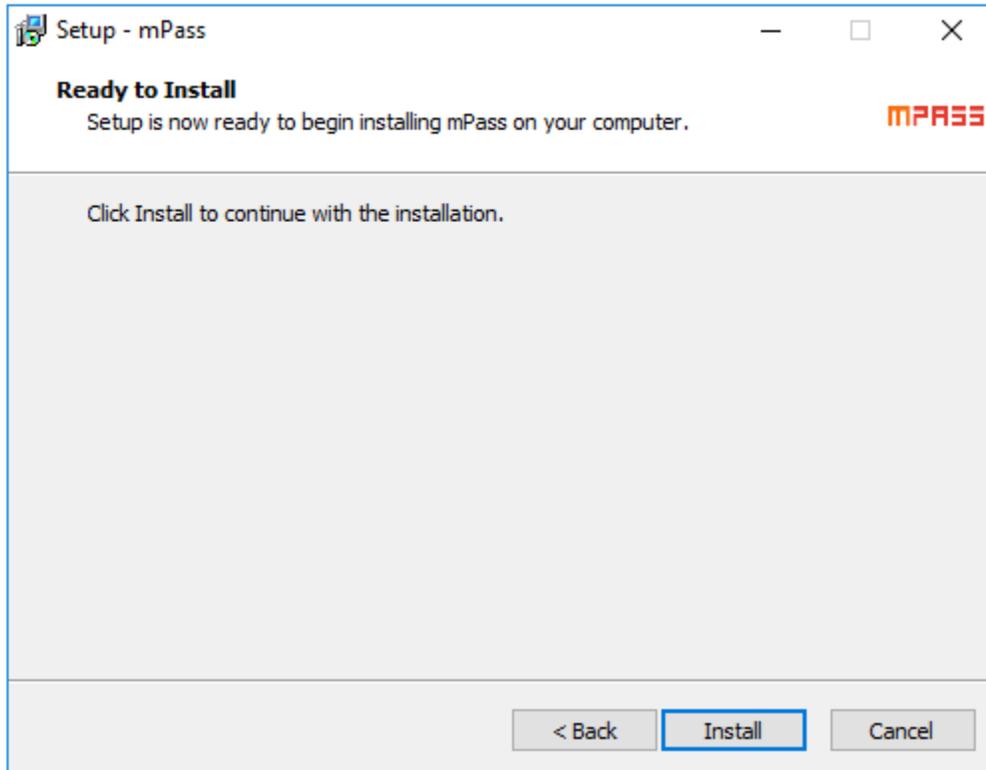
Following wizard is displayed on the screen.



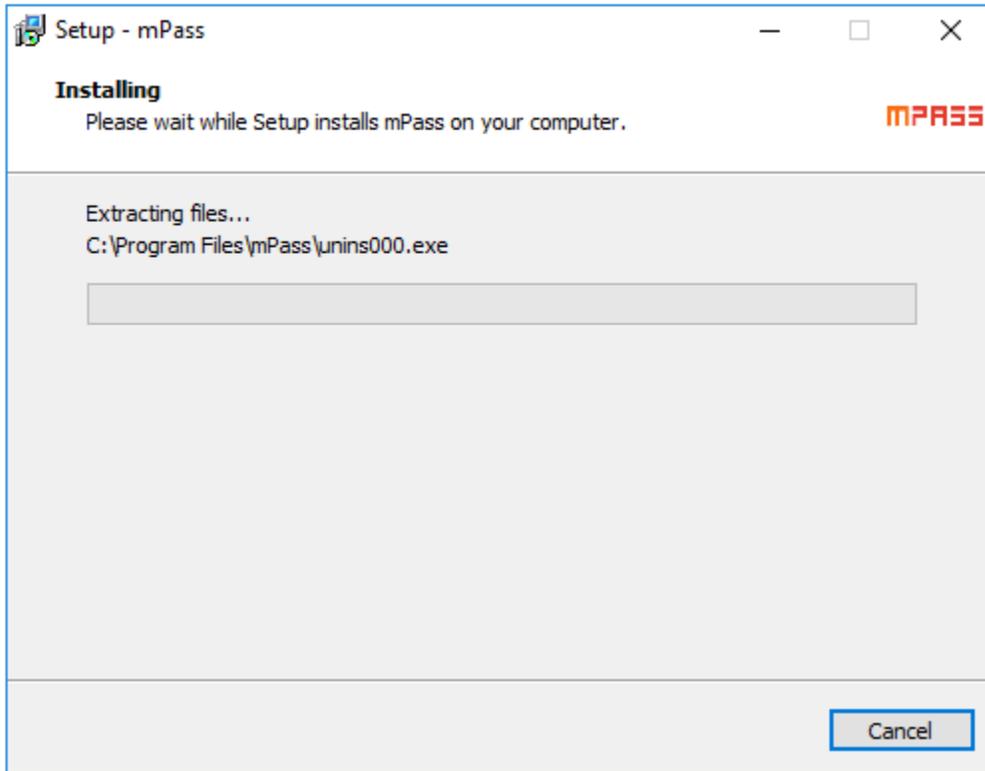
Please click the Next button in the above screen.



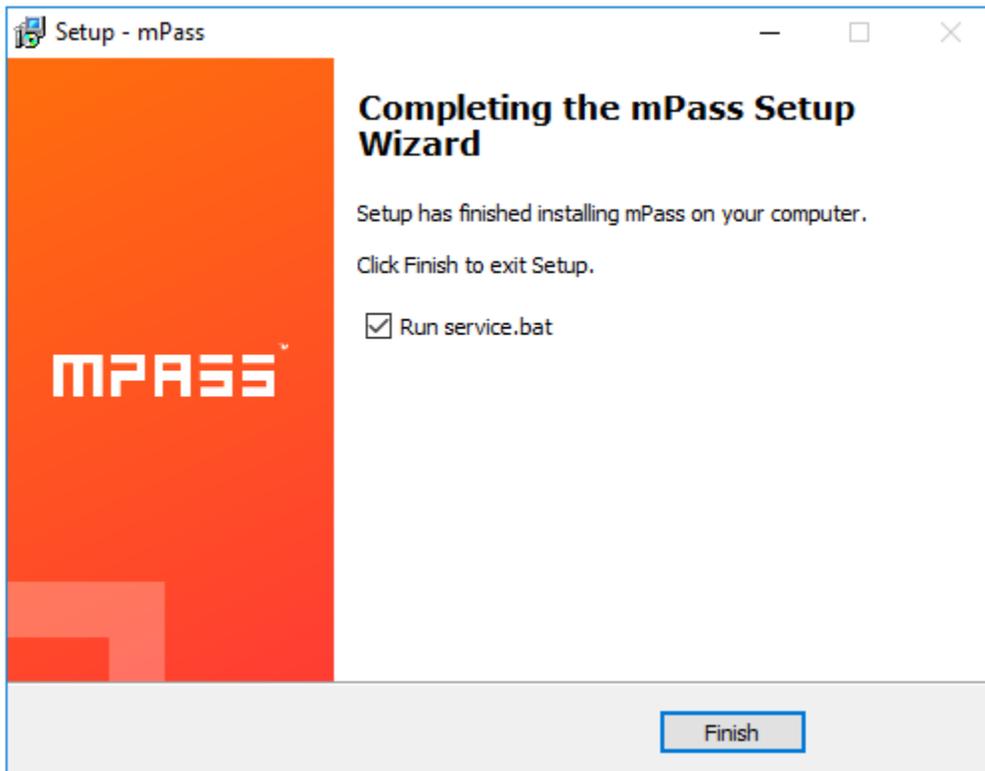
After reading the license terms, click the radio button before the 'I accept the agreement' and click Next button.



Click the Install button in the above screen.

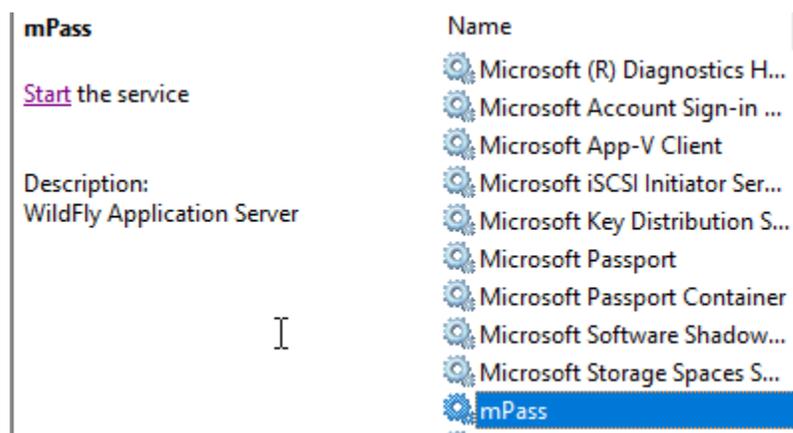


It requires few minutes to extract and copy the required files to the destination locations.

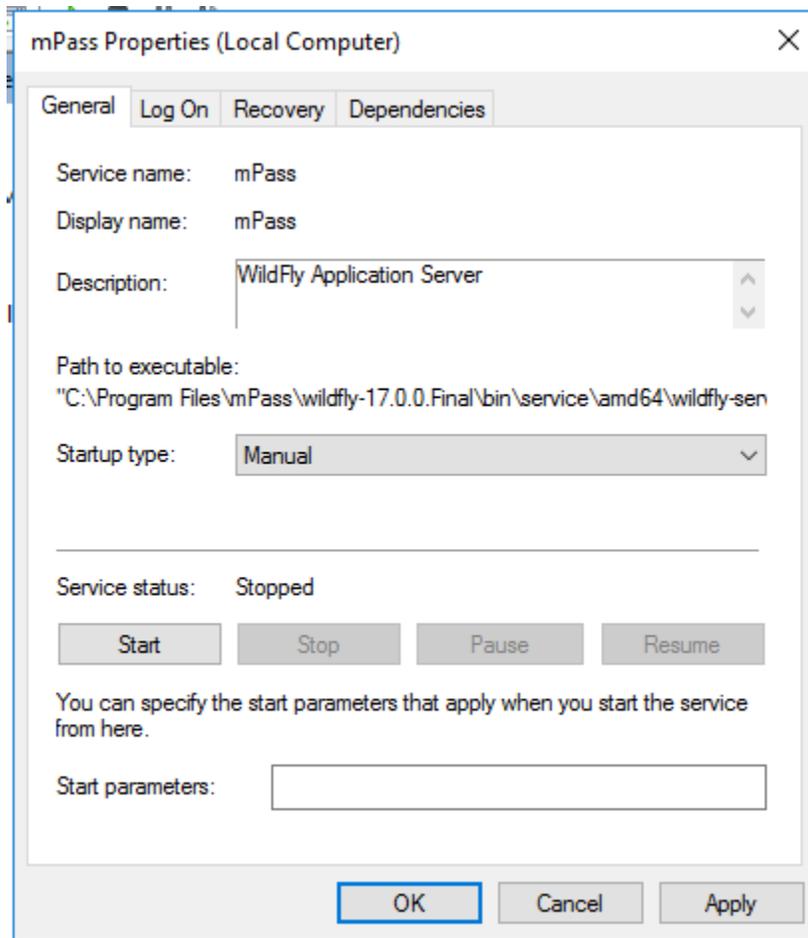


The next screen displays an option to Run service.bat. This is required to run the mPass Authentication server as a Windows Service.

Click the Finish button.

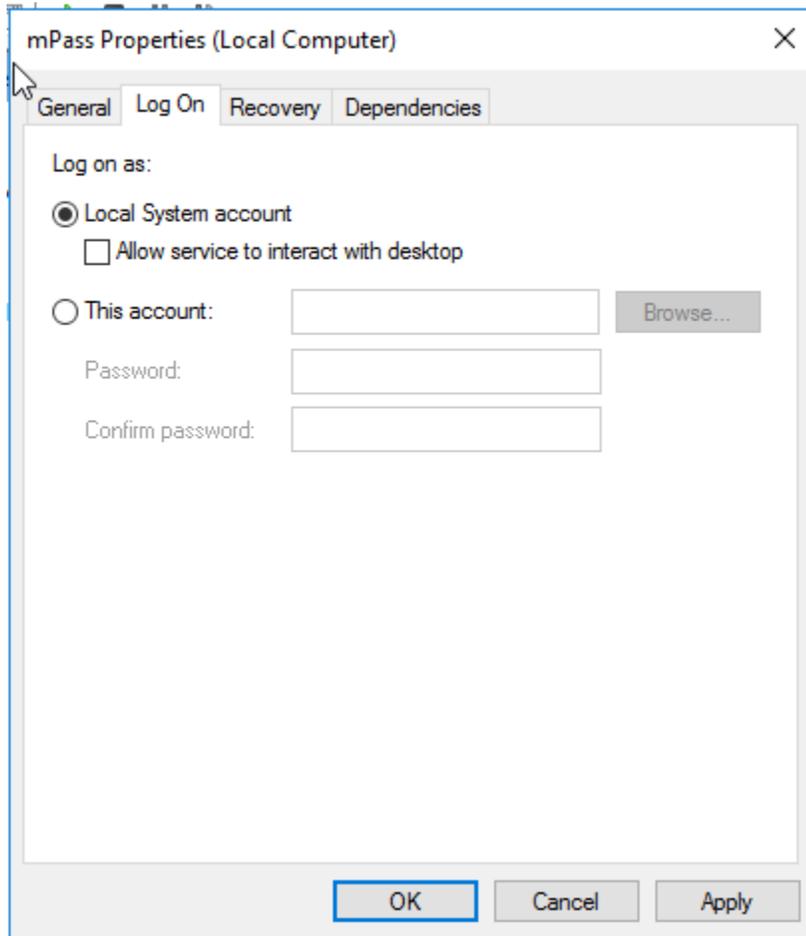


After the above wizard is completed. Navigate to the 'Services' window as displayed above. The mPass service should be displayed in stopped state.

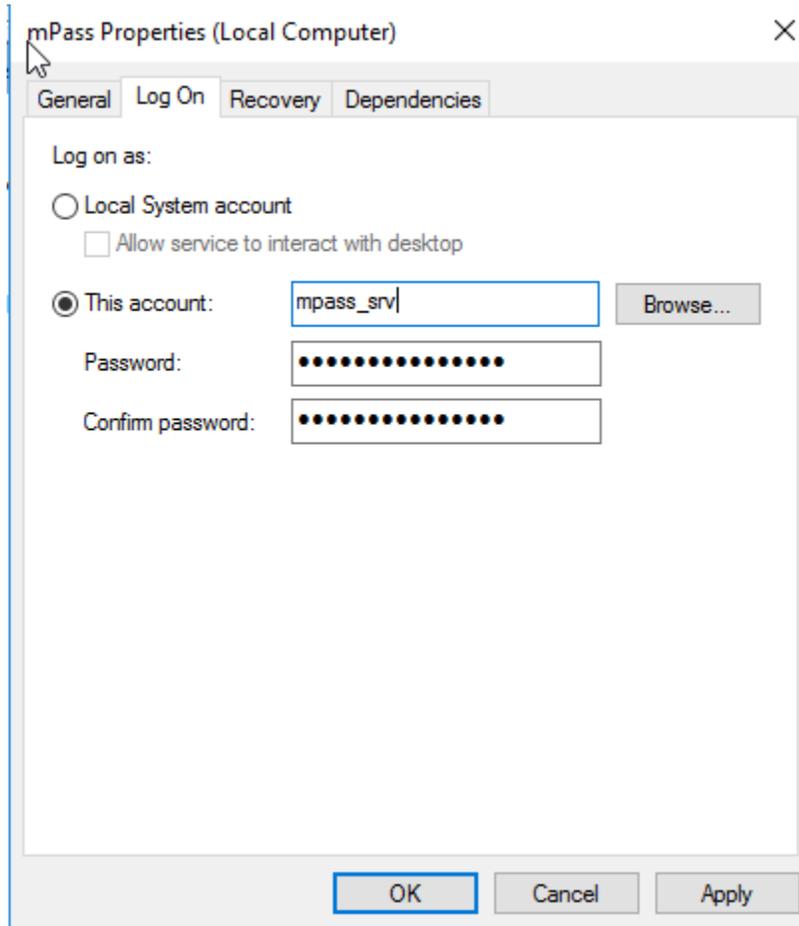


Double clicking on the mPass service will display the above dialog form.

Update the Startup type as Automatic and click Apply button.



If the MS-SQL Server requires an Integrated authentication mode, click the Log On tab and specify the domain name and password in the 'This account' Option. Please see the sample below.



After specifying a valid domain username and password, click Apply button

mPass

[Stop](#) the service
[Restart](#) the service

Description:
WildFly Application Server

Name	Description	Status
Microsoft (R) Diagnostics H...	Diagnostics ...	
Microsoft Account Sign-in ...	Enables use...	
Microsoft App-V Client	Manages A...	
Microsoft iSCSI Initiator Ser...	Manages In...	
Microsoft Key Distribution S...	This service ...	
Microsoft Passport	Provides pr...	
Microsoft Passport Container	Manages lo...	
Microsoft Software Shadow...	Manages so...	
Microsoft Storage Spaces S...	Host service...	
mPass	WildFly App...	Running

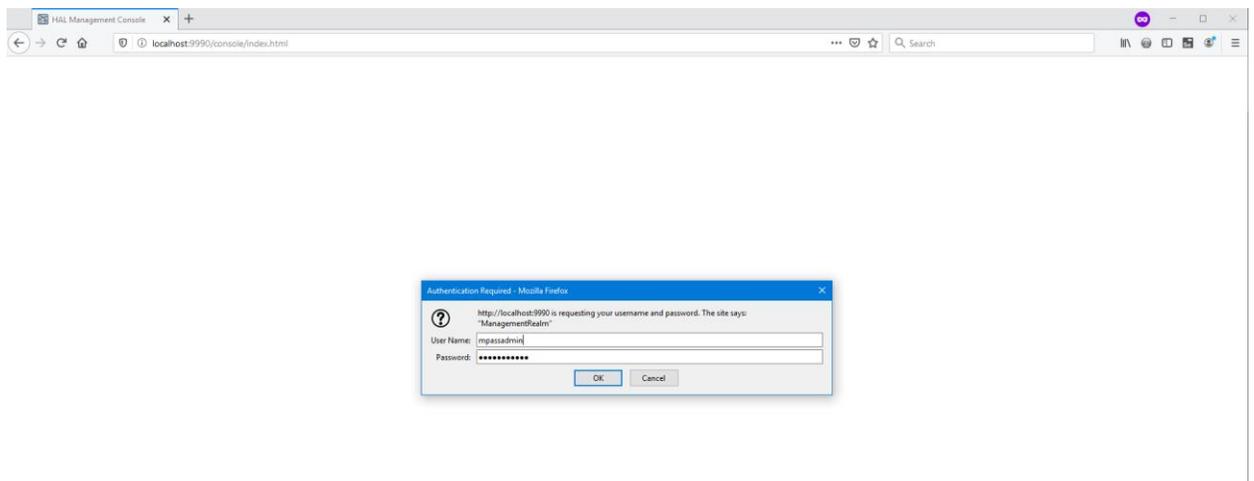
From the Services Windows start the mPass windows service.

4.2.3 mPass Datasource Setup and configuration

Once the mPass windows service is started, the next step is to define the mPass Datasource to integrate between the application and database server.

From the windows server, navigate to the below URL:

<http://localhost:9990/console/index.html>



The user should be prompted for the username and password.

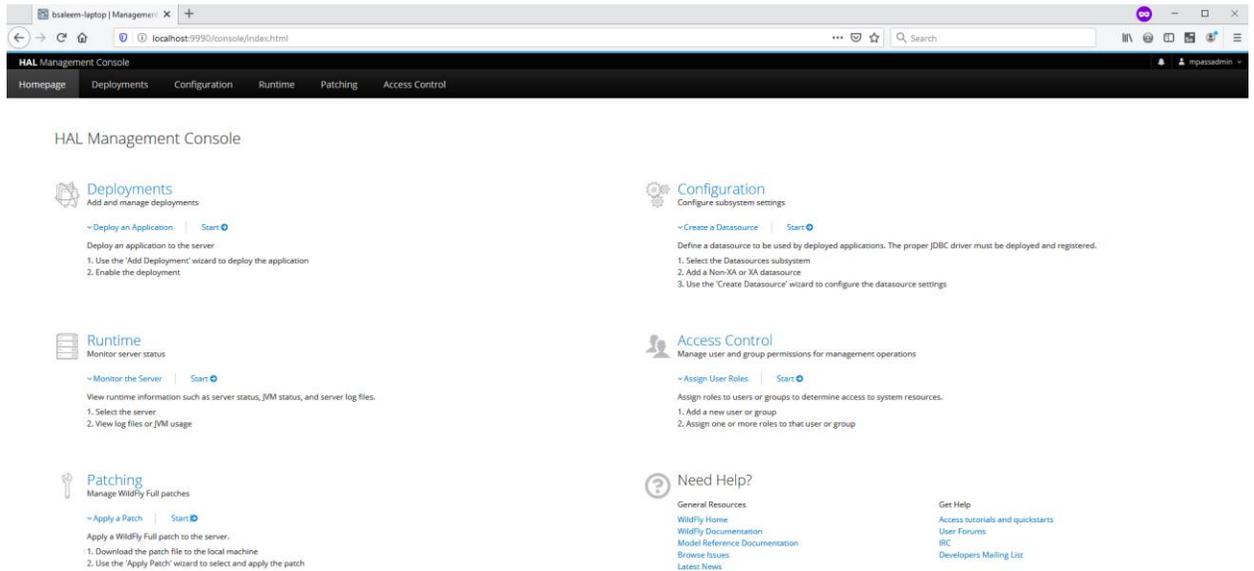
The default username and password is

mpassadmin

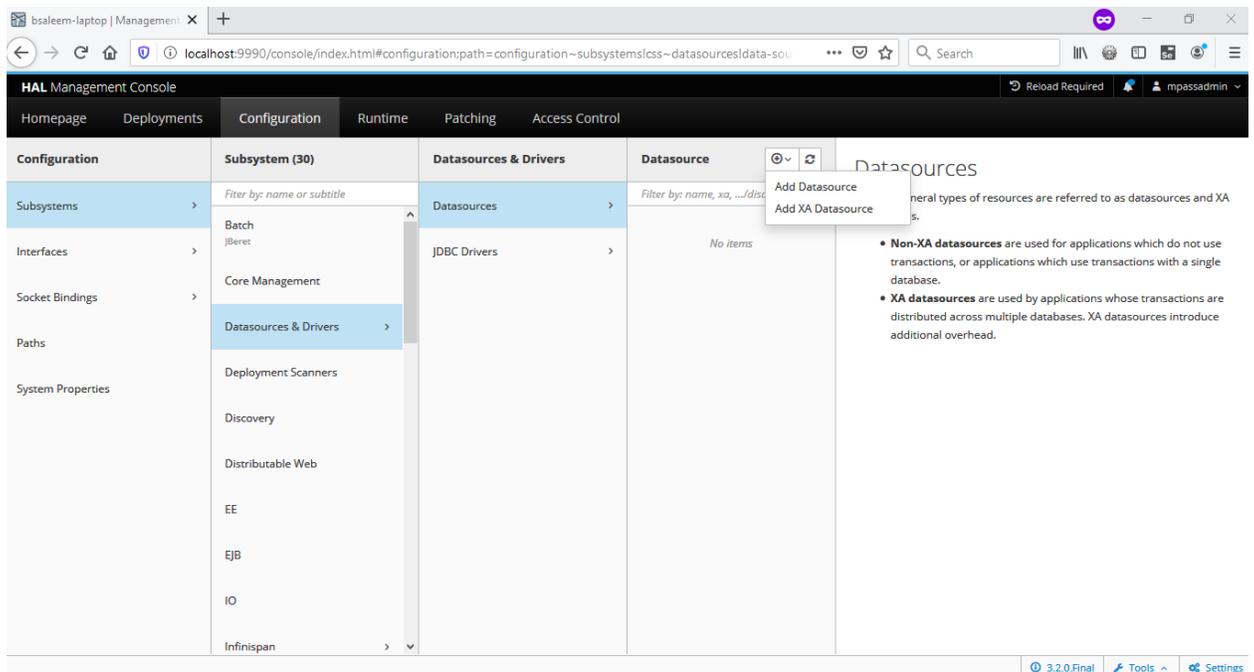
Mpass@13579

To ensure safety, the administrator should change the password from the command line interface by executing the

JBOSS_HOME\bin\add-user.bat file.



Above administrator console is displayed after providing the valid credentials.



To define a new Datasource, navigate to **Home->Configuration->Subsystems->Datasources & Drivers->Datasources->Datasource->Add Datasource**

Add Datasource ✕

Choose Template Attributes JDBC Driver Connection Test Connection Review

1 — 2 — 3 — 4 — 5 — 6

Choose one of the predefined templates to quickly add a datasource or choose "Custom" to specify your own settings.

- Custom
- H2
- PostgreSQL
- MySQL
- Oracle
- Microsoft SQLServer
- IBM DB2
- Sybase

Cancel < Back Next >

Above wizard is displayed.

Select Microsoft SQL Server as the Template type and click Next.

Add Datasource ✕

Choose Template Attributes JDBC Driver Connection Test Connection Review

1 — 2 — 3 — 4 — 5 — 6

[Help](#)

Name *

JNDI Name *

Required fields are marked with *

Define the following attributes as shown above and click Next:

Add Datasource ✕

Choose Template (1) Attributes (2) **JDBC Driver (3)** Connection (4) Test Connection (5) Review (6)

[Help](#)

Driver Name *

Driver Module Name

Driver Class Name

Required fields are marked with *

Define the attributes as shown above and click Next:

Add Datasource
✕

Choose Template Attributes JDBC Driver Connection Test Connection Review

① — ② — ③ — ④ — ⑤ — ⑥

ⓘ Help

Connection URL	jdbc:sqlserver://localhost:1433;databaseName=mpass
User Name	●● 👁
Password	●●●●●● 👁
Security Domain	👁

Cancel < Back Next >

Define the attributes as shown below and click Next:

1. Connection URL(for DB Local user authentication):

jdbc:sqlserver://<HostName or IP address>:1433;databaseName=mpass

2. Connection URL(for Integrated authentication):

jdbc:sqlserver:// <HostName or IP address>::1433;databaseName=mpass;integratedSecurity=true

3. User Name (for DB Local user authentication): privileged user name

4. Password (for DB Local user authentication): password for above username

Add Datasource ✕

On this page you can test the connection of your datasource.

Please note that testing the connection changes the semantics of this wizard:

- If you press **Test Connection** for the **first time**, the datasource is **created in advance**.
- If you **go back** and change settings, this will **modify** the newly created datasource. Please note that you cannot change the name and JNDI bindings once the datasource has been created.
- If you **cancel** the wizard, the datasource will be **removed** again. This might require a reload of the server.

If you choose to continue without testing the connection, the datasource will be created after finishing the wizard.

Test Connection

Cancel

< Back

Next >

Click the Test Connection Button to test the connection.

Add Datasource



Choose Template

1

Attributes

2

JDBC Driver

3

Connection

4

Test Connection

5

Review

6



Test Connection Successful

Successfully tested connection for datasource **mpass**.

Cancel

< Back

Next >

If the connection is successful above screen message should be displayed.

Click the Next button to continue.

Add Datasource ✕

Choose Template Attributes JDBC Driver Connection Test Connection Review

① — ② — ③ — ④ — ⑤ — ⑥

[Help](#)

Name	mpass
JNDI Name	java:/mpass
Connection URL	jdbc:sqlserver://localhost:1433;databaseName=yesser2fa
Driver Name	sqlserver2008
User Name	•• 👁
Password	•••••••• 👁

Cancel < Back Finish

Click the Finish button in the above screen.

Add Datasource
✕

Choose Template Attributes JDBC Driver Connection Test Connection Review

① ————— ② ————— ③ ————— ④ ————— ⑤ ————— ⑥

Operation Successful

Datasource **mpass** successfully added.

View Datasource

Cancel < Back Close

Click the close button of the wizard.

Now, revisit the services window and stop and start the mPass windows service.

mPass

[Stop](#) the service
[Restart](#) the service

Description:
WildFly Application Server

Name	Description	Status
Microsoft (R) Diagnostics H...	Diagnostics ...	
Microsoft Account Sign-in ...	Enables use...	
Microsoft App-V Client	Manages A...	
Microsoft iSCSI Initiator Ser...	Manages In...	
Microsoft Key Distribution S...	This service ...	
Microsoft Passport	Provides pr...	
Microsoft Passport Container	Manages lo...	
Microsoft Software Shadow...	Manages so...	
Microsoft Storage Spaces S...	Host service...	
mPass	WildFly App...	Running

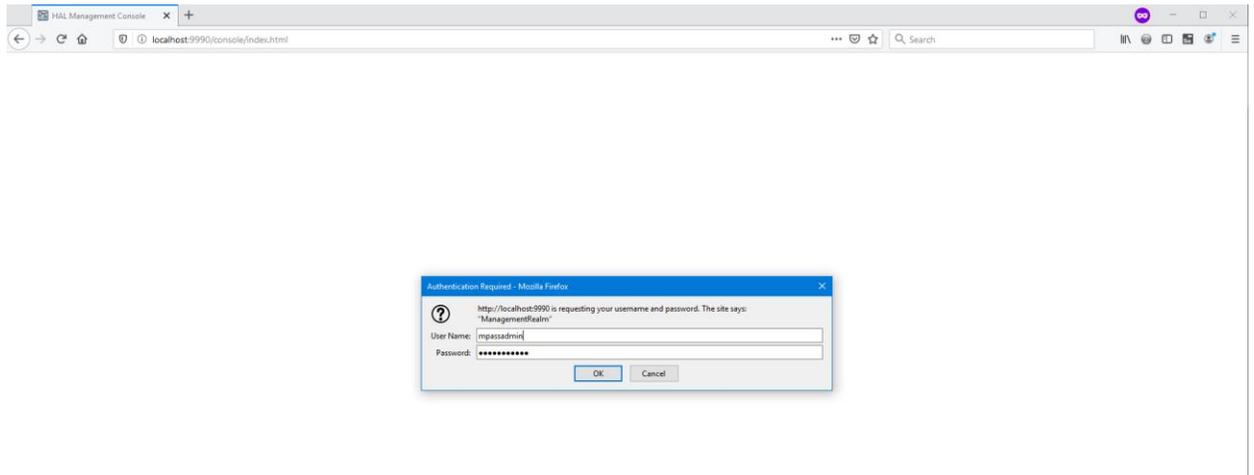
4.2.4 Enabling mPass applications

The mPass Administrative application and the mPass user portal applications are disabled by default. The Wildfly server administrator should enable the applications.

Navigate to the below URL from the windows server:

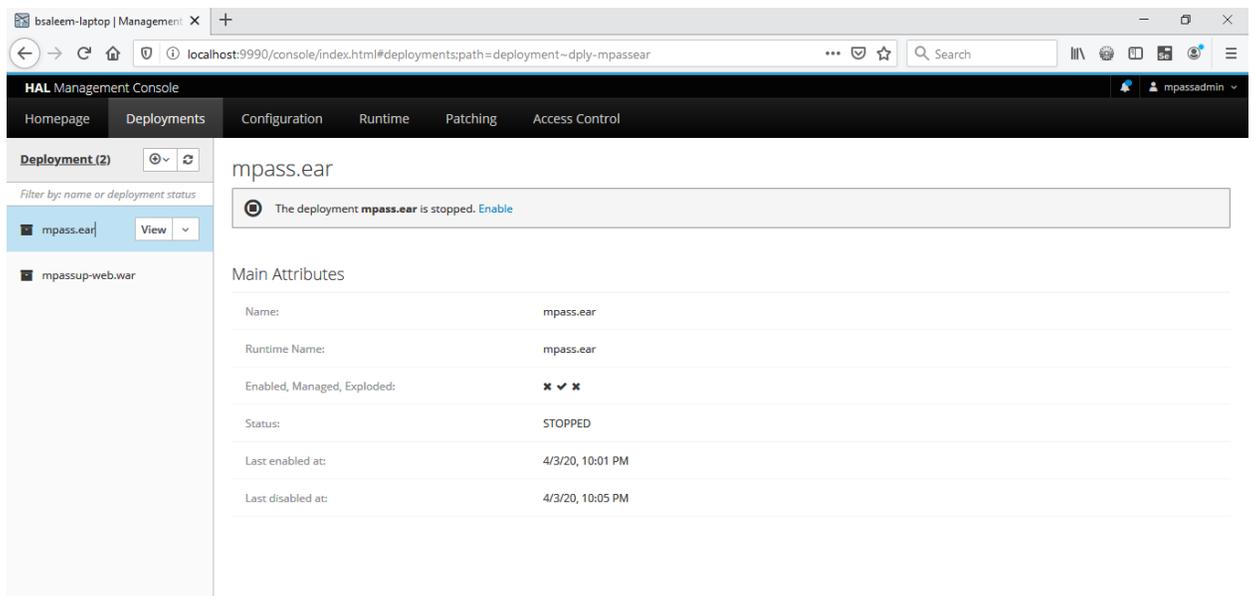
<http://localhost:9990/console/index.html>

and provide the mpassuser credentials as mentioned above.



Navigate to Home->Deployments section.

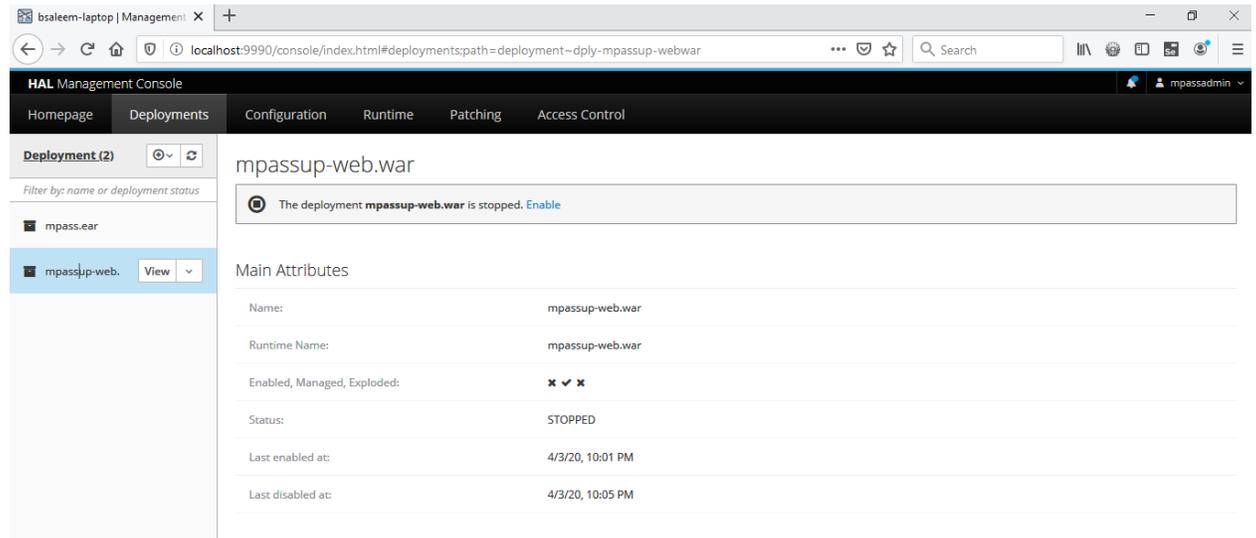
Following list of mPass applications should be displayed.



Click the 'mpass.ear' deployment and click the Enable Hyperlink in the right.

Click the 'mpassup-web.war' deployment and click the Enable Hyperlink in the right.

Both the applications should be started in few minutes.

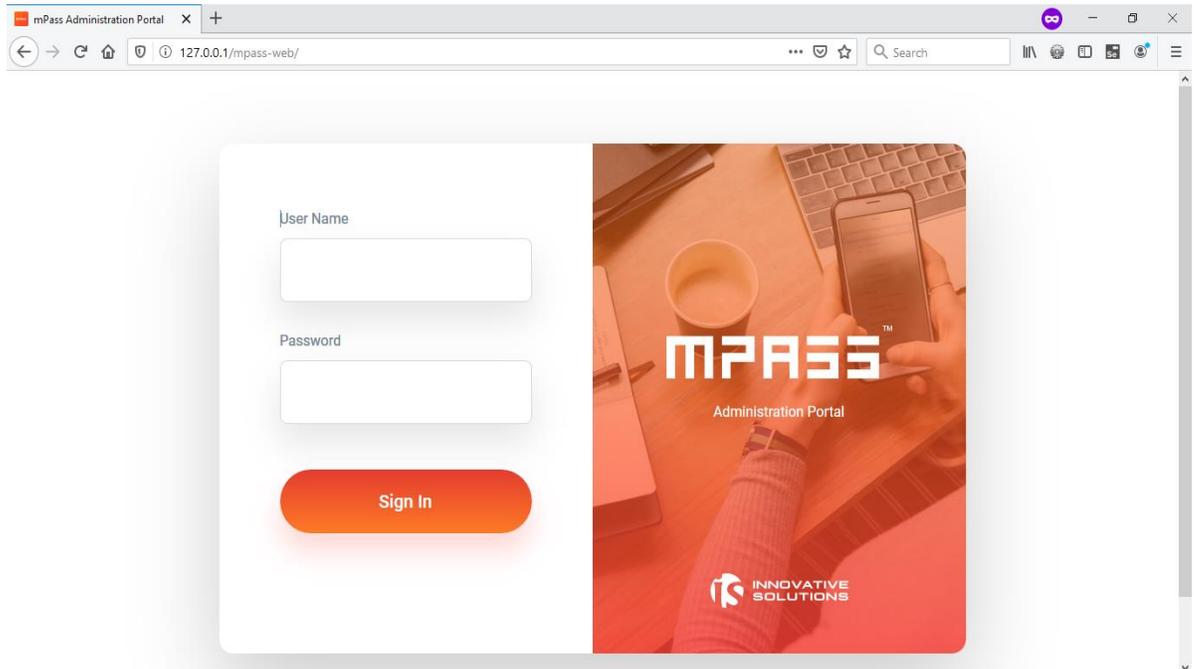


4.2.5 Deployment status checking and logs

To check the status of the deployment and start configuration. Navigate to the following URL from the windows server.

<http://127.0.0.1/mpass-web>

Following screen should be displayed.



5. Uninstalling mPass

mPass can be easily uninstalled from the windows server.

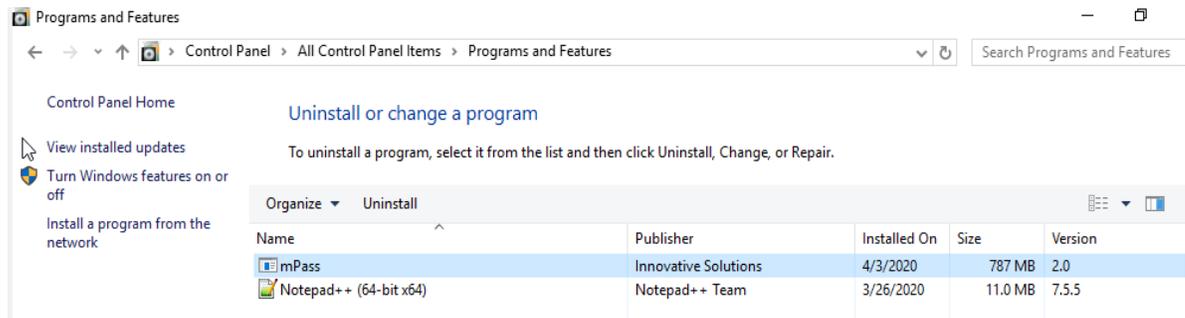
Step1: Stop the mPass service from the Services window.

	Name	Description	Status
mPass			
Stop the service			
Restart the service			
Description: WildFly Application Server			
	Microsoft (R) Diagnostics H...	Diagnostics ...	
	Microsoft Account Sign-in ...	Enables use...	
	Microsoft App-V Client	Manages A...	
	Microsoft iSCSI Initiator Ser...	Manages In...	
	Microsoft Key Distribution S...	This service ...	
	Microsoft Passport	Provides pr...	
	Microsoft Passport Container	Manages lo...	
	Microsoft Software Shadow...	Manages so...	
	Microsoft Storage Spaces S...	Host service...	
	mPass	WildFly App...	Running

Step2: Uninstall the mPass Server from the following:

Navigate to **Control Panel->Programs and Features**

Click the mPass Program and click the Uninstall button above follow the wizard.



6. FAQs and Troubleshooting

6.1 No Connectivity with DB Server

Please consult the networking team to check the network firewall rules.

6.2 Authentication failed with DB server

Please review the password and check the connection privileges for the user.