

Setting up IMM in WSL



OUTPERFORM THE FUTURE™

Contents

CONTENTS.....	i
Prerequisites.....	1
Enabling WSL	1
Installing Ubuntu	1
Installing MicroK8S	1
Finding WSL Machine IP Address	2
Enabling MicroK8S Add-ons.....	2
Setting-up IMM.....	3
ABOUT MAGIC SOFTWARE ENTERPRISES	5

To host the IMM infrastructure, you can use a Linux machine either on premise or on Cloud. For development purpose, you can setup the same on WSL as well.

The following steps depict setting-up IMM infrastructure on WSL using MicroK8S.

Prerequisites

Windows 10 version 1909(OS build 18363.1049) or above

Enabling WSL

To enable the WSL feature, refer to the official WSL documentation at <https://docs.microsoft.com/en-us/windows/wsl/install>.

Note: Make sure that your WSL is updated one. You can update the same by running the command:

```
wsl --update
```

Installing Ubuntu

1. Open Windows Store.
2. Search for **Ubuntu 22.04.x LTS**. This is tested and verified on Windows 10 Pro Version 22H2.
3. Click on **Get** to download it on the local machine.
4. Once the download is complete, click on **Open**. This action starts installation. It will take few minutes depending upon the system configuration.
5. You will be prompted to create a UNIX user account. Follow the instructions and set the username and password for your account. Once it is done, the installation will be complete.

Note: Remember your username and password. You will require them later.

Installing MicroK8S

Follow the steps given below to install MicroK8S:

6. Install MicroK8S using the command:

```
sudo snap install microk8s --classic
```

Note: On running this command, you might face an error like:

'error: cannot communicate with server: Post <http://localhost/v2/snaps/microk8s>: dial unix /run/snapd.socket: connect: no such file or directory'.



7. Execute the following commands:

- `sudo apt-get update && sudo apt-get install -yqq daemonize dbus-user-session fontconfig`
- `sudo daemonize /usr/bin/unshare -fork -pid -mount-proc /lib/systemd/systemd -system-unit=basic.target`
- `exec sudo nsenter -t $(pidof systemd) -a su - $LOGNAME`

8. Now reinstall MicroK8S.

9. To confirm MicroK8S is successfully installed, run the command

```
microk8s status
```

This command should show the status as running.

Finding WSL Machine IP Address

To know the IP address of WSL machine, execute the following command:

```
ifconfig
```

If you get an error on executing the command, first execute the following command:

```
sudo apt install net-tools
```

Note the IP Address of the system, which you need to enable MicroK8S add-ons.

Enabling MicroK8S Add-ons

Once MicroK8S is installed, you need to install microk8s add-ons as given in the steps below:

dns

To enable this add-on, execute the command

```
sudo microk8s enable dns
```

metallb

To enable this add-on, execute the command

```
sudo microk8s enable metallb
```

When it prompts for IP range, specify it as <IP Address of WSL>-<IP Address of WSL>.



Setting-up IMM

Once the above two add-ons are enabled, your system is ready for IMM installation.

10. Change the folder to `<Magic_xpa_Home>\InMemoryMiddleware\deploy\`.

11. Deploy Helm charts by executing the following command:

```
$ ./deploy-imm.bat
```

Note: If the files (imm.crt, imm.key, imm.pem) are present at `InMemoryMiddleware\config`, then IMM is deployed using HTTPS. In this case, access the monitor and IMM Tunnel using HTTPS. Otherwise, the IMM is deployed using HTTP.

12. You will be asked to enter the details as follows:

- Enter the domain name. For example, immxpa.com.
- Enter User Name and Password for IMM DB and LOG DB.

13. Update the .INI and .ENV files on Magic xpa Engine with imm-db-service IP. The path is given below.

- Change `<Magic_xpa_Home> Magic.ini` entry:

```
ImmHost=<domain_name>
```

- Change `<Magic_xpa_Home> \Scripts\Config\mgreq.ini` entry:

```
IMM_HOST=http://<domain_name>/immunnel
```

- Change `<Magic_xpa_Home> \InMemoryMiddleware\agent\.env` entry:

```
IMM_HOST=<domain_name>
```

Note: To use IMM with HTTPS, set the following parameters in .env file:

```
IMM_SECURED_CONNECTION=Y
```

Use CA certificates, which can be located anywhere on the system. You need to assign the path of the certificate file to a flag named `TLS_CA_FILE_PATH` in the .ENV file located at "`<Magic_xpa_installation_folder>\InMemoryMiddleware\agent`".

For example,

```
TLS_CA_FILE_PATH ="c:\temp\cacerts\gd_bundle-g2-g1.crt"
```

To work with SSL deployment, you need to import the CA certificates in the JAVA cacerts file you use.



For example, you can use the following command to import the certificates:
keytool -importcert -file "c:\Magic xpa 4.11\InMemoryMiddleware\config\imm.crt" -
alias imm -keystore "c:\Magic xpa 4.11\Java\64\jre\lib\security\cacerts"

Where

- "c:\Magic xpa 4.11\InMemoryMiddleware\config\imm.crt" is the path of the certificate file.
 - "c:\Magic xpa 4.11\Java\64\jre\lib\security\cacerts" is the path of the JAVA cacerts file.
- Change <Magic_xpa_Home> \InMemoryMiddleware\bin\CommandLine.bat entry:
ImmHost=<domain_name>

14. Ensure if all the pods running using the following command:

```
microk8s kubectl get pods -n magic-xpa-imm-ns
```

15. Run Agent.exe from <Magic_xpa_Home>\InMemoryMiddleware\agent.

16. Run StartProjects.bat from <Magic_xpa_Home>\InMemoryMiddleware\bin.

17. Confirm if Magic xpa Runtime Engine is started from the Monitor.

With these steps, IMM is deployed on WSL and Magic xpa Runtime engine is started.

18. Start the Client.

About Magic Software Enterprises

Magic Software Enterprises (NASDAQ: MGIC) empowers customers and partners around the globe with smarter technology that provides a multi-channel user experience of enterprise logic and data.

We draw on 30 years of experience, millions of installations worldwide, and strategic alliances with global IT leaders, including IBM, Microsoft, Oracle, Salesforce.com, and SAP, to enable our customers to seamlessly adopt new technologies and maximize business opportunities.

For more information, visit <http://www.magicsoftware.com>.



Disclaimer

Magic® is the registered trademark of Magic Software Enterprises Ltd. All other product and company names mentioned herein are for identification purposes only and are the property of, and might be trademarks of, their respective owners.

Magic Software Enterprises has made every effort to ensure that the information contained in this document is accurate. However; there are no representations or warranties regarding this information, including warranties of merchantability or fitness for a particular purpose. In no event Magic Software Enterprises Ltd. will be liable for any loss of profit, business, or data, or any kind of indirect, incidental or consequential damages due to the use of this document. Magic Software Enterprises assumes no responsibility for errors or omissions that may occur in this document. The information in this document is subject to change without prior notice and does not represent a commitment by Magic Software Enterprises or its representatives.

Copyright © 1989-2024 Magic Software Enterprises. All rights reserved.

