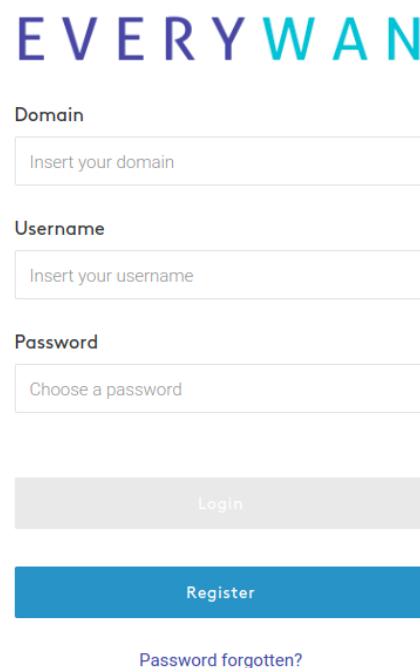


Walkthrough for SRv6 delay monitoring with EveryWAN

Deploy EveryWAN following the instructions reported here:

<https://github.com/everywan-io/everywan-deployment>

Then, log in to the EveryWAN GUI:



The image shows the EveryWAN login and registration interface. At the top is the 'EVERYWAN' logo in blue and teal. Below it are three input fields: 'Domain' with placeholder text 'Insert your domain', 'Username' with placeholder text 'Insert your username', and 'Password' with placeholder text 'Choose a password'. Below these fields are two buttons: a grey 'Login' button and a blue 'Register' button. At the bottom, there is a link for 'Password forgotten?' in blue text.

Click on Register and follow the instructions to create a new account.

Then, log in using wer credentials.

After completing the login, we will be redirected to the dashboard of EveryWAN:

- Dashboard
- EveryEdge routers
- Overlay Networks
- Measurement Sessions
- Tenant Details
- Logout

Dashboard

Registered EveryEdges
0

Connected EveryEdges
0

Enabled EveryEdges
0

Configured EveryEdges
0

Overlay Networks
0

Registered Users
1

Home

As we can see from the dashboard, initially there are no EveryEdge Devices registered to the system.

Start the EveryEdge software. After the initialization phase, the EveryEdge devices automatically register and authenticate to the EveryWAN system. From the *EveryEdge routers* section of the GUI, it is possible to see the new routers:

- Dashboard
- EveryEdge routers
- Overlay Networks
- Measurement Sessions
- Tenant Details
- Logout

EveryEdge routers

Search...

ID	NAME	CONNECTED	ENABLED	CONFIGURED	NAT TYPE	MGMT IP	INTERFACES	REGISTERED AT	ACTIONS
dc278190-d79b-459b-9ed6-cbefe2597588		yes	no	no	Open	2001:760:4016:1200:5054:ff:fa7f:f5a8	18	2021-12-24 00:03:07.232726	Actions
e2713f83-dab6-4f8c-b04f-7b22fb4a7fca		yes	no	no	Open	2001:738:0:527:f816:3eff:fedd:c8a4	19	2021-12-24 00:06:52.047530	Actions

Home // EveryEdges

Both the devices are connected but they are not yet configured and enabled. From the GUI we can configure the two devices. You can set the device name and description and we can set the network interfaces to be controlled using EveryWAN. For each interface, we can set the type (i.e. whether it is a WAN interface or a LAN interface) and we can set the IP address.

Beep Beep
Tenant: ACME corp.

- Dashboard
- EveryEdge routers
- Overlay Networks
- Measurement Sessions
- Tenant Details
- Logout

Configure EveryEdge

Home // EveryEdges // [Configure](#)

Registered at 2021-12-24 00:06:52.047530
Connected yes
Configured no
Name

NAT Type Open
Enabled yes
Mgmt IP 2001:738:0:527:f816:3eff:fedd:c8a4
Description

☐ **Interface: lo**
Type

IPv4 Subnets

IPv4 Addr

IPv6 Subnets

IPv6 Addr

☒ **Interface: ens3**
Type

IPv4 Subnets

IPv4 Addr

IPv6 Subnets

IPv6 Addr

After configuring and enabling the devices, we can create an overlay VPN between two routers (e.g., TV_DC and HU_NRN):

Beep Beep
Tenant: ACME corp.

- Dashboard
- EveryEdge routers
- Overlay Networks
- Measurement Sessions
- Tenant Details
- Logout

Overlay Networks

Home // Overlay Networks // [Create](#)

Name

Description

Type

Tunnel

☒ Name: br-tv-dc-host1 (lan)
IPv4: 192.168.1.1/24

☐ Name: br-tv-dc-host2 (lan)
IPv4: 192.168.2.1/24

☐ Name: br-tv-dc-host3 (lan)
IPv4: 192.168.3.1/24

☒ Name: br-hu-nm-host1 (lan)
IPv4: 192.168.4.1/24

☐ Name: br-hu-nm-host2 (lan)

☐ Name: br-hu-nm-host3 (lan)

Through the GUI we can also specify the local slices that we want to connect using the overlay VPN. In the scenario shown above we are connecting the slice associated to the interface br-tv-dc-host1 on TV_DC to the slice mapped to the interface br-hu-nrn-host1 on HU_NRN.

The new overlay appears in the Overlay Networks section of the GUI:



Beep Beep
Tenant: ACME corp.

Dashboard

EveryEdge routers

Overlay Networks

Measurement Sessions

Tenant Details

Logout

Overlay Networks

Search

ID	NAME	TYPE	TUNNEL	# SLICES	ACTIONS
61C5175095235AA2AAD77DCF	VPN-1	IPV4OVERLAY	SRV6	2	Actions

Create Overlay Network

Home // Overlay Networks

Create Overlay Network

Finally, we can run a STAMP Session to monitor the delay of the overlay network in real-time.

To do this, we access the Measurement Session page of the GUI and we create a STAMP Session between TV_DC and HU_NRN. The GUI allows to set several parameters of the experiment to be run, such as the duration, the interval between two STAMP test packets and the timestamp format to be used:



Beep Beep
Tenant: ACME corp.

Dashboard

EveryEdge routers

Overlay Networks

Measurement Sessions

Tenant Details

Logout

Configure Measurement Sessions

Interval [s]

5

Authentication Mode

Unauthenticated

Key Chain (only for Authentication Mode)

insert key chain

Timestamp Format

NTP

Delay Measurement Mode

Two Way

Session Reflector Mode

Stateless

Session Sender

TV_DC/dc278190-d79b-459b-9ed6-cbefe2597588

Session Reflector

HU_NRN/e2713f83-dab6-4f8c-b04f-7b22fb4a7fca

Direct Path Segment List

2001:738:0:527:f816:3efffeddc8a4:fc00:3

Return Path Segment List

2001:760:4016:1200:5054:fffef7ff5a8:fc00:3

Session Duration [s] - '0' for Unlimited Duration

600

Run After Creation

YES

Create Measurement Sessions

Home // Measurement Sessions

Create

The Measurement Sessions page shows the newly created STAMP Session.



Beep Beep
Tenant: ACME corp.

Dashboard

EveryEdge routers

Overlay Networks

Measurement Sessions

Tenant Details

Logout

Measurement Sessions

Home // Measurement Sessions

Create Measurement Sessions

ID	SESSION DESCRIPTION	SENDER NAME	REFLECTOR NAME	STATUS	DELAY DIRECT PATH	DELAY RETURN PATH	ACTIONS
1	Session 1	TV_DC	HU_NRN	Running	0	0	Actions

Finally, we can see the results the measured delays for both the direct and return paths:

