

About this Guide

This Quick Start Guide provides instructions and reference material for getting started with the Nomadix Edge Gateway Products.

Documentation and Technical Support

For more detailed information about the individual gateways and all other Nomadix Product Documentation, User Guide, XML DTD, MIB and Radius Dictionary can be found using the following URL:

<http://www.nomadix.com/technical-support-documentation>

If you have any problems, please contact our technical support team at +1.818.575.2590, or via email: support@nomadix.com

Accessory Box Contents

The EG 6000 is shipped with the following *Accessory Box* to assist with product installation. Contents varies depending on what was ordered.

Included with the EG 6000		
Qty	Description	Comments
1	1.8m U.S. (NEMA 5-15p) Power Cord (Type B): United States, Canada, Mexico and Japan	Other countries are sold separately.
1	19" Rack Mount Brackets Kit and screws.	
1	Bumper Kit for desktop installations.	
optional Items available separately		
	Part Number	Description
Console Cable	715-4001-001	1.8m USB to DB9 Console Cable ¹
Country Specific Power Cables	715-4001-003	Power Cord - C13 to CEE 7/7 - 1.8m - EU/RU
	715-4001-004	Power Cord - C13 to NEMA 5-15P - 1.8m - US/CA/MX/JP
	715-4001-005	Power Cord - C13 to BS 1363-1/SASO 2203:2003 - 1.8m - UK/IE/SG/HK/Arabia
	715-4001-006	Power Cord - C13 to GB2099, AS/NZS 3112 - 1.8m - CN/AU/NZ/AR
	715-4001-007	Power Cord - C13 to SABS 164-1 - 1.8m - IN/ZA
PMS	715-5001-001	PMS Serial Hardware Integration Kit

¹ The console port is typically used only in rare situations where the Gateway is not reachable via the Network. It is not required to initialize the Gateway or reset Administrative passwords.



Installation EG 6000

1. Unpack the Nomadix Edge Gateway and place the product on a flat and stable work surface.
2. Register the Gateway for support services by completing and returning the Nomadix Gateway Registration Form online at the following URL:
nomadix.com/registration.html
3. Install the Edge Gateway into the 19" rack.

Step #1	Install the Rack Mounting Flanges to each side of the EG 6000: using the (3) 6-32 flat head screws. Do not over tighten.
Step #2	Using (4) 10-32 rack mounting screws, position the EG 6000 in the rack and secure to the vertical rails.

EG 6000

TOOLS REQUIRED:
#2 PHILLIPS HEAD SCREWDRIVER

RAIL

RACK MOUNT FLANGE

EG 6000 Front View

6-32 x .38 FLAT HEAD SCREWS
3 PLACES ON EACH SIDE

Rack Mount Screws
not supplied
2 PLACES ON EACH SIDE

4. Connect the AC mains power cord.
5. The Gateway is now ready for initialization.

Initializing the Gateway

There are (2) methods to initialize/start-up the Gateway, most common is via the WAN Ethernet port or alternatively by using the asynchronous USB the console port, both configurations are depicted below:

Ethernet Port Connection

Configure the laptop's network setting to use the following Administration IP address settings **[Table 1]**.

IP Address	Netmask	Gateway	DNS (if needed)
172.30.30.173	255.255.0.0	172.30.30.172	4.2.2.1

Table 1: Administrative IP address

Attach the laptop to the EG 6000 using an Ethernet cable and check the status as shown below.

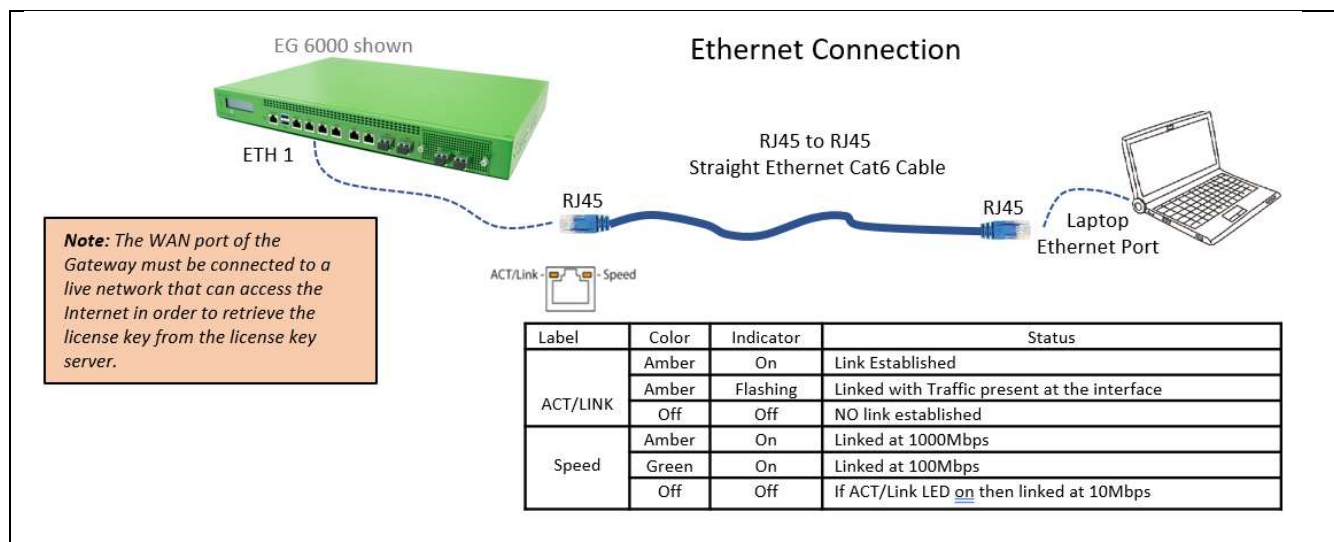


Figure 2: Ethernet Connection

On the PC/laptop open an SSH (Secure Shell) client connection using PuTTY, Hyperterm, Procomm (or equivalent) to the EG 3000 or EG 6000 using the Gateway's default IP address 172.30.30.172. Go to Initial (startup) Configuration.

Asynchronous Console Port Connection

On the PC/laptop start the asynchronous terminal emulation application, using PuTTY, Hyperterm, Procomm (or equivalent) application using the following configuration parameters for the comm port [Table 2].

Bits Per Second	Data Bits	Parity	Stop Bits	Flow Control
9600	8	NONE	1	NONE

Table 2: Comm port settings.

On the EG 6000 the console port is on the USB connector, requiring a console cable 715-4001-001 or equivalent. Connection methods are depicted below [illustration 2]:

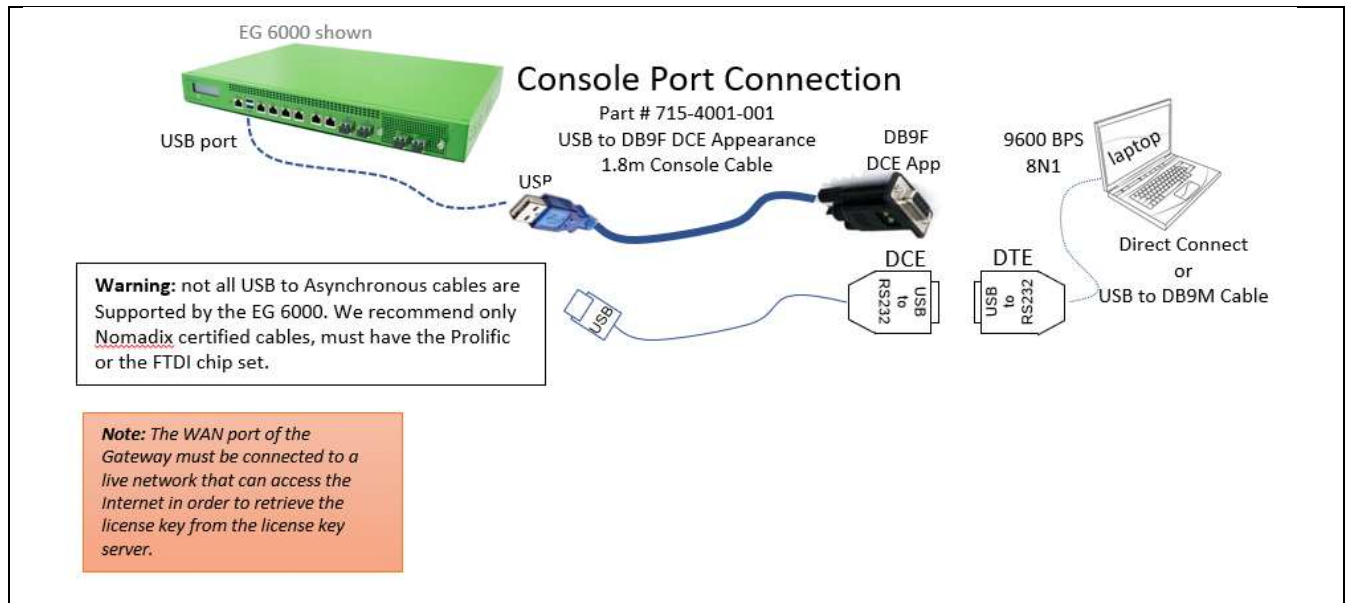


Illustration 2: USB Console Port connections

With everything connected and powered up, you are now ready to configure the Gateway's WAN for a static IP address, DHCP Client or PPPoE client using appropriate configuration guidelines that follow in order to obtain the license key.

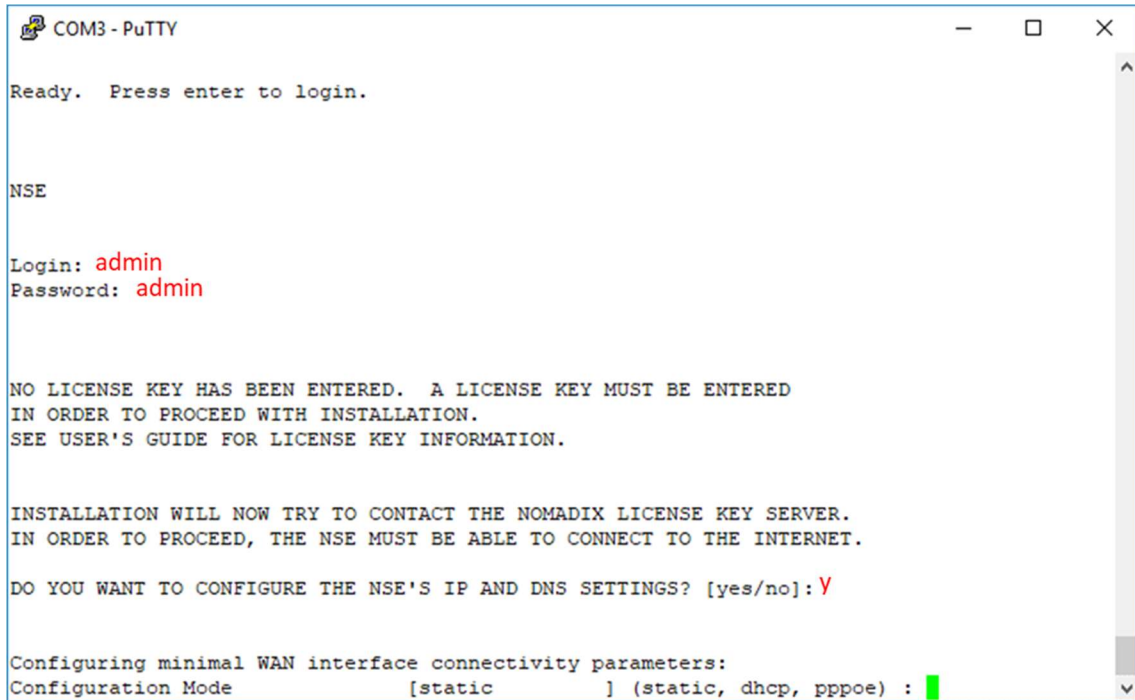
Go to Initial (startup) Configuration.

Once the key has been obtained, the web management interface (WMI) can be used to continue and finish the configuration.

Initial (startup) Configuration

Log in to the Gateway, by opening an SSH to 172.30.30.172 or the asynchronous comm port, using the default **Login= admin** and **password= admin**. Type **y[es]** when prompted to configure settings.

The initial minimal WAN port configuration mode will be displayed as shown in **Figure 1**.



```
COM3 - PuTTY
Ready. Press enter to login.

NSE

Login: admin
Password: admin

NO LICENSE KEY HAS BEEN ENTERED. A LICENSE KEY MUST BE ENTERED
IN ORDER TO PROCEED WITH INSTALLATION.
SEE USER'S GUIDE FOR LICENSE KEY INFORMATION.

INSTALLATION WILL NOW TRY TO CONTACT THE NOMADIX LICENSE KEY SERVER.
IN ORDER TO PROCEED, THE NSE MUST BE ABLE TO CONNECT TO THE INTERNET.

DO YOU WANT TO CONFIGURE THE NSE'S IP AND DNS SETTINGS? [yes/no]: Y

Configuring minimal WAN interface connectivity parameters:
Configuration Mode      [static      ] (static, dhcp, pppoe) : █
```

Figure 1: Initial minimal WAN port configuration.

Select the desired configuration mode and use the following steps to configure the WAN port for either Static IP, DHCP client or PPPoE.



Step 1a: Static WAN IP Configuration

Accept **static** as the default configuration mode and enter the following **mandatory** settings shown in **Figure 2**.

```
COM3 - PuTTY
NO LICENSE KEY HAS BEEN ENTERED.  A LICENSE KEY MUST BE ENTERED
IN ORDER TO PROCEED WITH INSTALLATION.
SEE USER'S GUIDE FOR LICENSE KEY INFORMATION.

INSTALLATION WILL NOW TRY TO CONTACT THE NOMADIX LICENSE KEY SERVER.
IN ORDER TO PROCEED, THE NSE MUST BE ABLE TO CONNECT TO THE INTERNET.

DO YOU WANT TO CONFIGURE THE NSE'S IP AND DNS SETTINGS? [yes/no]: y

Configuring minimal WAN interface connectivity parameters:
Configuration Mode      [static      ] (static, dhcp, pppoe) : s
IP Address              [67.130.148.85 ] : Enter WAN Ports IP Address
Subnet Mask             [255.255.255.0 ] : Enter WAN Ports Subnet Mask
Gateway IP Address      [67.130.148.254 ] : Enter WAN Ports Gateway IP Address
WAN 802.1Q tagging      [Disabled  ] :
VLAN ID                 [1          ] :
DNS Domain Name         [nomadix2.com] :
DNS IPv4 Server 1       [67.130.148.253] : Enter Primary DNS IP Address
DNS IPv4 Server 2       [8.8.8.8   ] :
DNS IPv4 Server 3       [216.146.35.35] :
DNS IPv6 Server 1       [::       ] :
DNS IPv6 Server 2       [::       ] :
DNS IPv6 Server 3       [::       ] :
```

Figure 2: Initial WAN port settings

A WAN port summary page will then be displayed as shown in **Figure 3**.

```
COM3 - PuTTY

Port Name                : WAN
Port Label               : WAN
Port Role                : wanIf
IPv6                    : Disabled
Configuration Mode       : static
IP Address               : IP Address entered
Subnet Mask              : Subnet Mask entered
Gateway IP Address       : Gateway IP Address entered
WAN 802.1Q tagging       : Disabled
VLAN ID                  : 1
DNS Domain Name          : nomadix2.com
DNS IPv4 Server 1        : DNS IP Address entered
DNS IPv4 Server 2        : 8.8.8.8
DNS IPv4 Server 3        : 216.146.35.35
DNS IPv6 Server 1        : ::
DNS IPv6 Server 2        : ::
DNS IPv6 Server 3        : ::
Additional NAT IP addresses : Disabled

  show all                - Show all WAN Interface configuration
  show interface <name>   - Show a single WAN Interface configuration
  modify interface <name> - Modify a single WAN Interface configuration

Type b to go back, <esc> to abort, ? for help.

Ethernet port/WAN interface configuration>
```

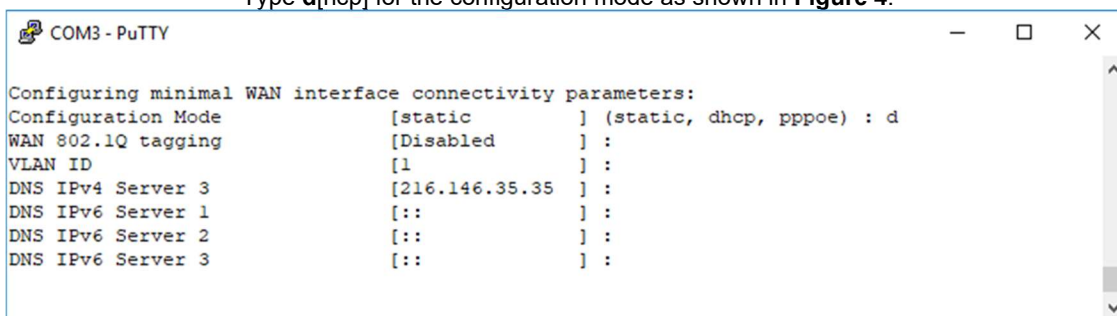
Figure 3: WAN port static IP configuration summary page

If everything is correct in the summary, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

Otherwise, select an option from the Ethernet port configuration menu to display or make changes to the WAN port settings. When finished with the settings, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

Step 1b: DHCP Client Configuration

Type **d[hcp]** for the configuration mode as shown in **Figure 4**.

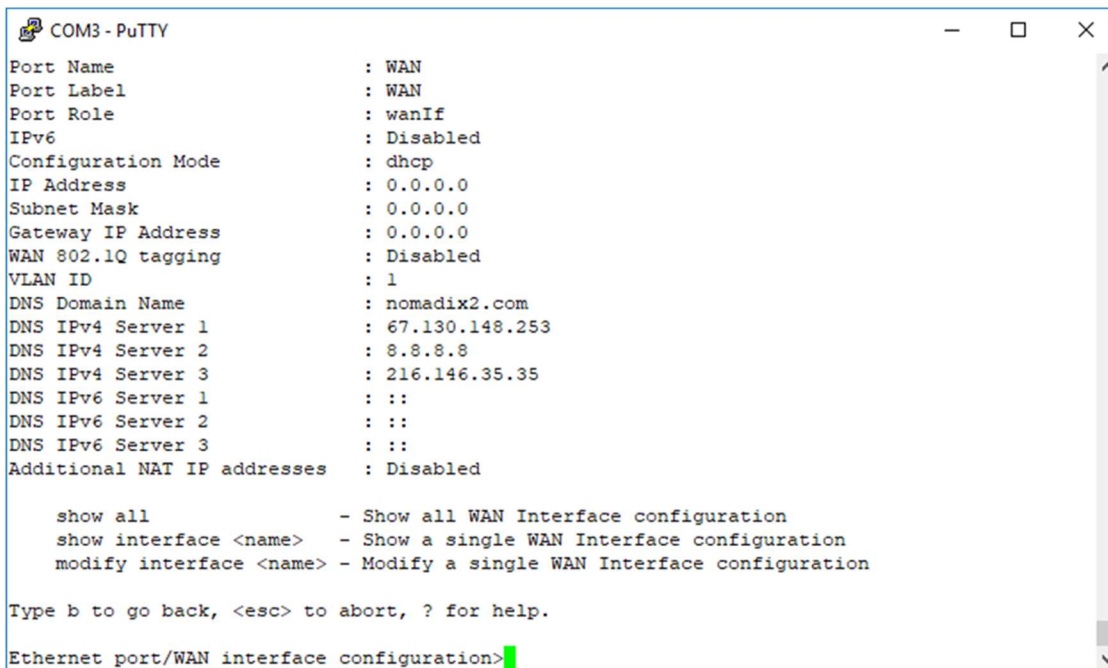


```

COM3 - PuTTY
Configuring minimal WAN interface connectivity parameters:
Configuration Mode      [static      ] (static, dhcp, pppoe) : d
WAN 802.1Q tagging      [Disabled   ] :
VLAN ID                 [1          ] :
DNS IPv4 Server 3       [216.146.35.35] :
DNS IPv6 Server 1       [::         ] :
DNS IPv6 Server 2       [::         ] :
DNS IPv6 Server 3       [::         ] :
  
```

Figure 4: Selecting DHCP Client for WAN configuration

A WAN port summary page will then be displayed as shown in the example **Figure 5**.



```

COM3 - PuTTY
Port Name                : WAN
Port Label               : WAN
Port Role                : wanIf
IPv6                     : Disabled
Configuration Mode       : dhcp
IP Address               : 0.0.0.0
Subnet Mask              : 0.0.0.0
Gateway IP Address       : 0.0.0.0
WAN 802.1Q tagging       : Disabled
VLAN ID                  : 1
DNS Domain Name          : nomadix2.com
DNS IPv4 Server 1       : 67.130.148.253
DNS IPv4 Server 2       : 8.8.8.8
DNS IPv4 Server 3       : 216.146.35.35
DNS IPv6 Server 1       : ::
DNS IPv6 Server 2       : ::
DNS IPv6 Server 3       : ::
Additional NAT IP addresses : Disabled

  show all                - Show all WAN Interface configuration
  show interface <name>   - Show a single WAN Interface configuration
  modify interface <name> - Modify a single WAN Interface configuration

Type b to go back, <esc> to abort, ? for help.
Ethernet port/WAN interface configuration>
  
```

Figure 5: WAN port DHCP client configuration summary page

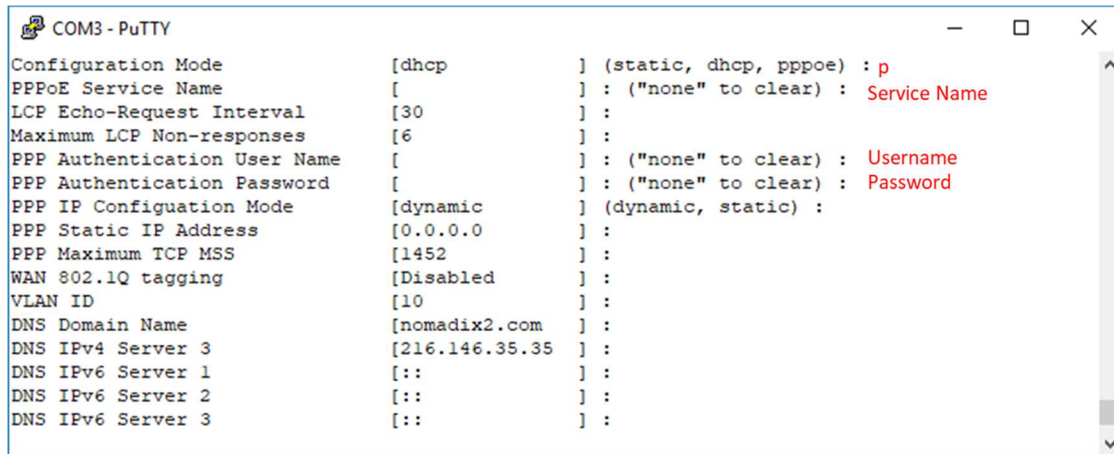
If everything is correct in the summary, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

Otherwise, select an option from the Ethernet port configuration menu to display or make changes to the WAN port settings. When finished with the settings, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.



Step 1c: PPPoE Dynamic IP Client Configuration

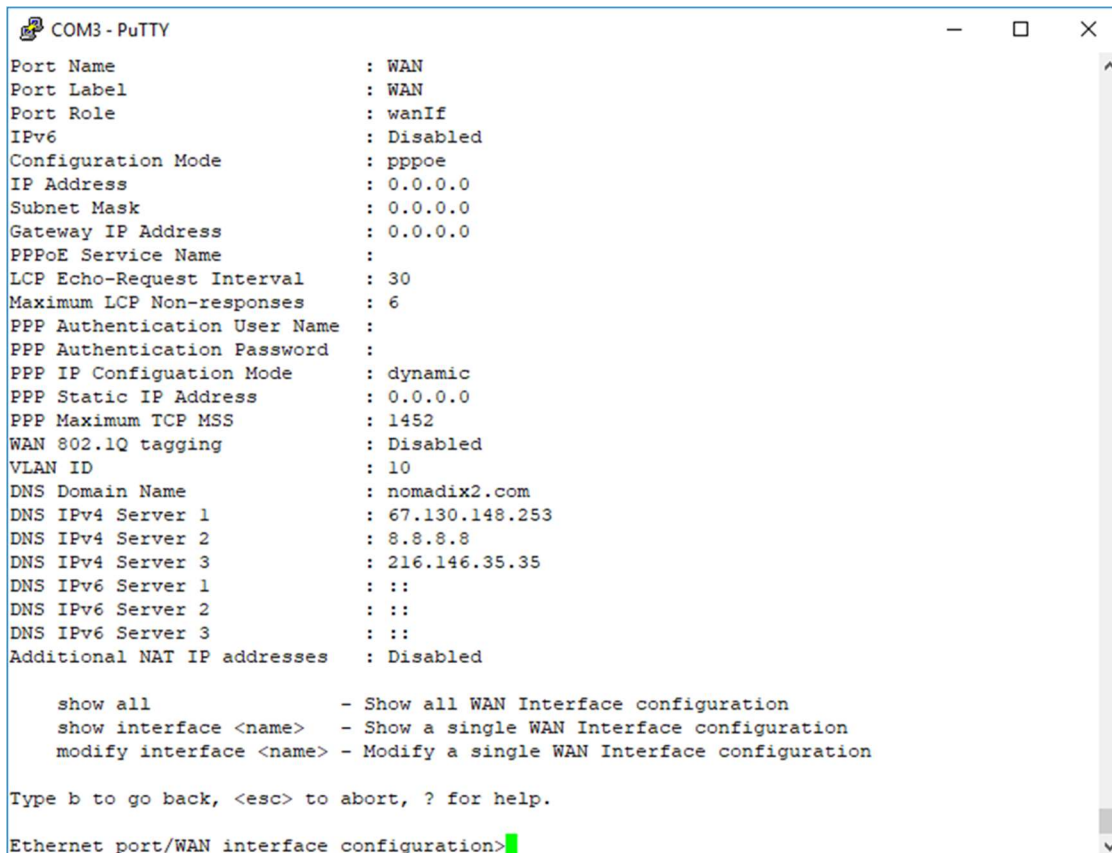
Enter **p[ppoe]** when prompted. Enter the following **mandatory** settings for a PPPoE connection with dynamic PPP IP configuration shown in **Figure 6**.



```
COM3 - PuTTY
Configuration Mode      [dhcp      ] (static, dhcp, pppoe) : p
PPPoE Service Name     [          ] : ("none" to clear) : Service Name
LCP Echo-Request Interval [30      ] :
Maximum LCP Non-responses [6        ] :
PPP Authentication User Name [        ] : ("none" to clear) : Username
PPP Authentication Password [        ] : ("none" to clear) : Password
PPP IP Configuration Mode [dynamic  ] (dynamic, static) :
PPP Static IP Address   [0.0.0.0  ] :
PPP Maximum TCP MSS     [1452     ] :
WAN 802.1Q tagging      [Disabled ] :
VLAN ID                 [10       ] :
DNS Domain Name         [nomadix2.com] :
DNS IPv4 Server 3       [216.146.35.35] :
DNS IPv6 Server 1       [::       ] :
DNS IPv6 Server 2       [::       ] :
DNS IPv6 Server 3       [::       ] :
```

Figure 6: Selecting PPPoE with dynamic IP configuration

A WAN port summary page will then be displayed as shown in **Figure 7**.



```
COM3 - PuTTY
Port Name               : WAN
Port Label              : WAN
Port Role               : wanIf
IPv6                    : Disabled
Configuration Mode      : pppoe
IP Address              : 0.0.0.0
Subnet Mask             : 0.0.0.0
Gateway IP Address      : 0.0.0.0
PPPoE Service Name     :
LCP Echo-Request Interval : 30
Maximum LCP Non-responses : 6
PPP Authentication User Name :
PPP Authentication Password :
PPP IP Configuration Mode : dynamic
PPP Static IP Address   : 0.0.0.0
PPP Maximum TCP MSS     : 1452
WAN 802.1Q tagging      : Disabled
VLAN ID                 : 10
DNS Domain Name         : nomadix2.com
DNS IPv4 Server 1       : 67.130.148.253
DNS IPv4 Server 2       : 8.8.8.8
DNS IPv4 Server 3       : 216.146.35.35
DNS IPv6 Server 1       : ::
DNS IPv6 Server 2       : ::
DNS IPv6 Server 3       : ::
Additional NAT IP addresses : Disabled

  show all               - Show all WAN Interface configuration
  show interface <name> - Show a single WAN Interface configuration
  modify interface <name> - Modify a single WAN Interface configuration

Type b to go back, <esc> to abort, ? for help.
Ethernet port/WAN interface configuration>
```

Figure 7: WAN port PPPoE client configuration summary page

Step 1d: PPPoE Static IP Client Configuration

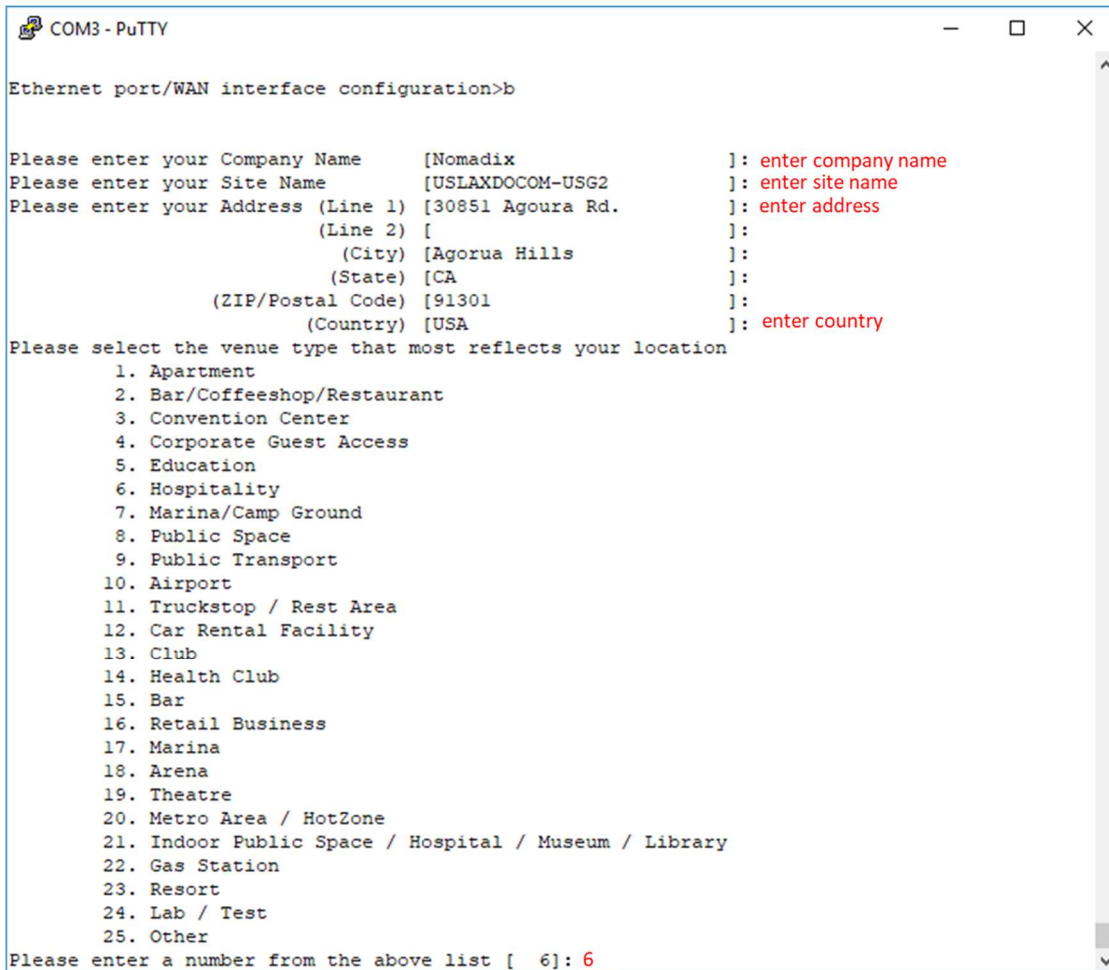
Use the same steps for configuring dynamic PPPoE shown in **Figure 6** above, but select static for PPP IP Configuration Mode, and enter your IP address for *PPP Static IP Address*. A summary page similar to **Figure 7** above will be displayed.

If everything is correct in the summary, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

Otherwise, select an option from the Ethernet port configuration menu to display or make changes to the WAN port settings. When finished with the settings, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

Step 2: Entering Your Location Information

You will be required to enter location information to obtain the license key. Enter the following **mandatory** location information details shown in **Figure 8**.



```

COM3 - PuTTY
Ethernet port/WAN interface configuration>b

Please enter your Company Name      [Nomadix]           ]: enter company name
Please enter your Site Name         [USLAXDOCOM-USG2]       ]: enter site name
Please enter your Address (Line 1)  [30851 Agoura Rd.]    ]: enter address
                                   (Line 2) [             ]:
                                   (City)  [Agorua Hills] ]:
                                   (State) [CA]           ]:
                                   (ZIP/Postal Code) [91301] ]:
                                   (Country) [USA]         ]: enter country

Please select the venue type that most reflects your location
  1. Apartment
  2. Bar/Coffeeshop/Restaurant
  3. Convention Center
  4. Corporate Guest Access
  5. Education
  6. Hospitality
  7. Marina/Camp Ground
  8. Public Space
  9. Public Transport
 10. Airport
 11. Truckstop / Rest Area
 12. Car Rental Facility
 13. Club
 14. Health Club
 15. Bar
 16. Retail Business
 17. Marina
 18. Arena
 19. Theatre
 20. Metro Area / HotZone
 21. Indoor Public Space / Hospital / Museum / Library
 22. Gas Station
 23. Resort
 24. Lab / Test
 25. Other

Please enter a number from the above list [ 6]: 6
    
```

Figure 8: Site location details

Step 3: Retrieving Your License Key

The system will now prompt you to accept or decline the End User License Agreement (EULA). You must accept the terms of the EULA before the Edge Gateway can retrieve its license key. To retrieve the license key, enter **y[es]** as shown in **Figure 9**. The EG retrieves the license key from the Nomadix license key server, then reboots.



```
COM3 - PuTTY
Please read the Nomadix End User License Agreement ("Agreement")
included with the Nomadix Product. A copy of this Agreement can
be found at:

https://nomadix.com/download/legal/NomadixEULA/pdf

The Agreement is a binding agreement between the end user and
Nomadix. This Agreement governs the end user's use of this Nomadix
Product including its software. By clicking "Yes" below and using
this software, you indicate your acceptance of the Agreement.

I agree to the terms and conditions of the Nomadix End User License
Agreement.
      (Y)ES   (N)O
Y

The system will now try to contact the Nomadix License Key Server.
Please wait...

Received key from License Key Server.

If the license key is successfully processed the unit will reboot...
```

Figure 9: License key retrieval.

NOTE: The date and time the gateway receives a valid license from our server for the first time is considered the Software License Subscription start date.

Step 4: Configuring the System

Log in to the Edge Gateway and use the graphical Web Management Interface (WMI) to configure the product's features. You have now established a basic configuration for the EG that enables internet connectivity.

For additional information about the available EG features, refer to Chapter 2 of the User Guide specific to your EG. For example:

- To establish various billing and authentication methods, see *Defining the AAA Services*.
- To establish hotel billing, see *Assigning a PMS Service*.

Step 5: Configuring EG DHCP Server Settings

DHCP Server is enabled by default. To configure the DHCP Server, go to DHCP under the Configuration menu. You can either modify the default DHCP pool or delete/add another DHCP pool. The total lease pool size recommendation is 75% more than the number of licensed subscribers. **Table 3** shows the factory default DHCP server settings.

DHCP Parameters	Your Settings	Default Values
DHCP Services (Disable)		no
DHCP Relay (Yes / No) <i>If No, skip to DHCP Server</i>		no
DHCP Relay Server IP Address		blank
DHCP Relay Agent IP Address		blank
DHCP Server (Yes / No) <i>Only if the DHCP Relay is disabled</i>		yes
DHCP Server IP Address		10.0.0.4

DHCP Server Subnet Mask		255.255.255.0
DHCP Pool Start IP Address		10.0.0.12
DHCP Pool End IP Address		10.0.0.72
DHCP Lease Minutes		1440

Table 3: DHCP server configuration

Sample Network Setup

An example of a basic network including the Edge Gateway is shown in **Figure 10**.

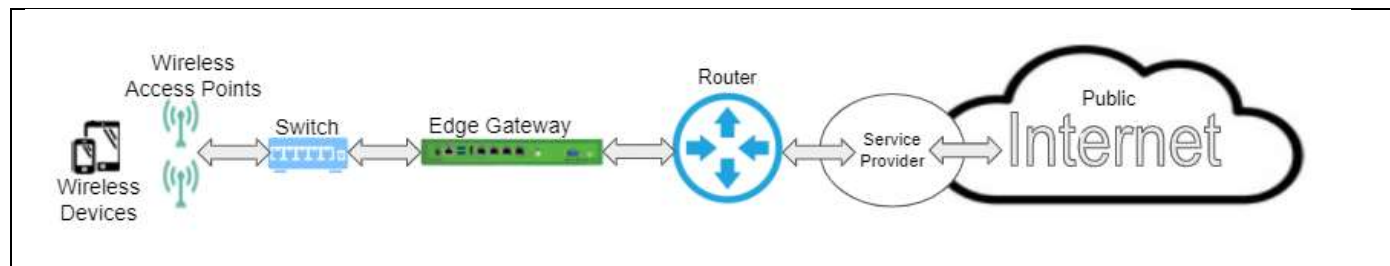


Figure 10: Example of a network setup

Additional Documentation

Additional Product documentation can be found at:

<http://www.nomadix.com/technical-support-documentation>



Nomadix Product Documentation