

About this Guide

This Quick Start Guide provides instructions and reference material for getting started with the Nomadix Access Gateway Products, specifically the AG 2500, AG 5900 and EG 6000.

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 AG 2500, AG 5900 and EG 6000 are shipped with the following *Accessory Box* to assist with product installation. Contents varies depending on what was ordered.

Accessory Box			
	Qty	Description	Comments
power cords	1	1.8m U.S. (NEMA 5-15p) Power Cord (Type B): United States, Canada, Mexico and Japan.	Included with all products. (part no. 715-4001-004)
	1	1.8m EU Schuko CEE7/7 Power Cable (Type F): Most everywhere in Europe and Russia except for UK and Ireland.	<i>Optional item:</i> (part no. 715-4001-003)
	1	1.8m U.K. Power Cord (BS1363 Type G): used in the United Kingdom, Ireland, Malaysia, Singapore and Hong Kong.	<i>Optional item:</i> (part no. 715-4001-005)
	1	1.8m China Standard (Type I) 3 Prong GB 2099 Power Cord, used in China, Australia, New Zealand, Argentina.	<i>Optional item:</i> (part no. 715-4001-006)
	1	1.8m India (Type D), 3 Prong Power Cord, used mainly in India.	<i>Optional item:</i> (part no. 715-4001-007)
console cables	1	1.8m RJ45 – DB9S Console Cable (Black)	AG 2500 and AG 5900 only
	1	1.8m EG 6000 USB to DB9 Console Cable (part number 715-4001-001)	EG 6000 only:
adaptors	1	RJ45 – DB9 Adaptor (Grey) PMS connection	AG 2500 and AG 5900 only
	1	RJ45 -DB9S PMS Adaptor (part number 715-4001-002) and Optical Isolator 715-4001-009)	EG 6000 only. Not sold separately. Included with EG 6000 Hospitality PMS Software Module (716-6017-001)
misc. items	1	19" Rack Mount Brackets Kit ¹ and screws.	All Products
	1	Power Transformer and mounting bracket	AG 2500 only
	1	Bumper Kit for desktop installations.	All Products

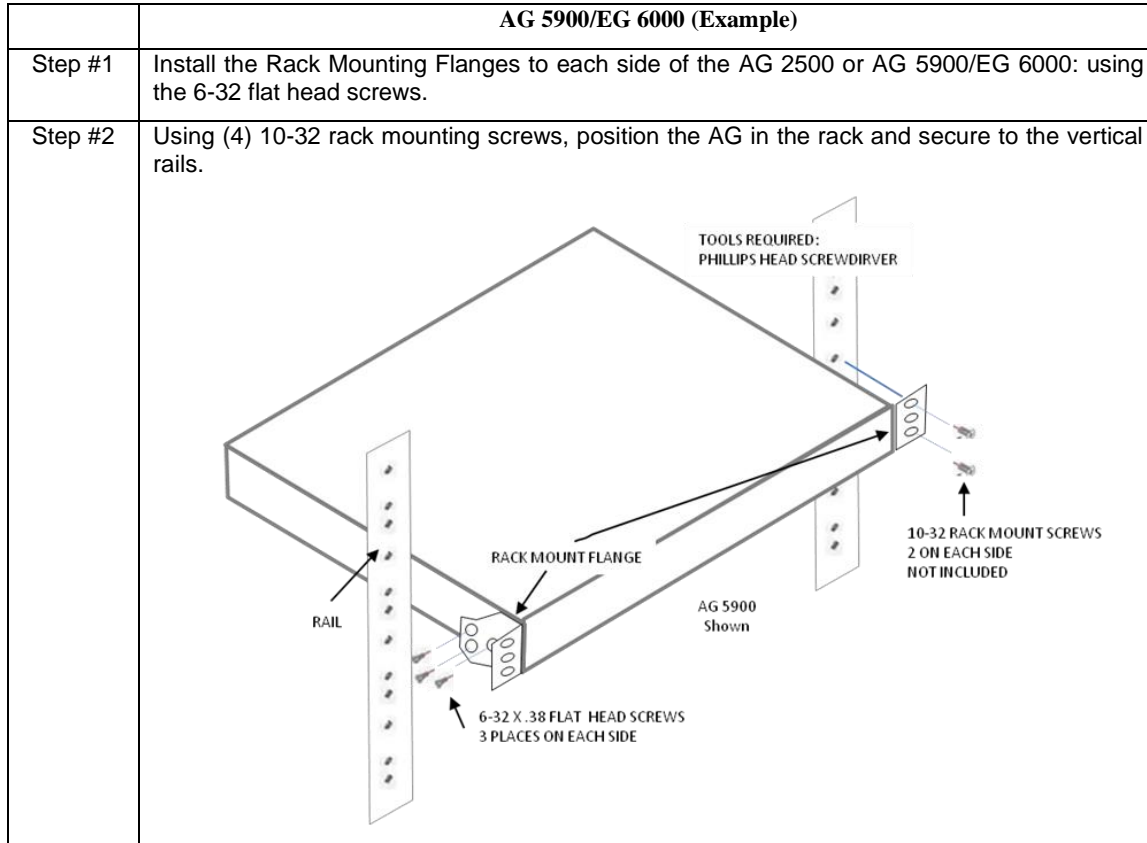
Installation and Cabling

¹ Rack Mount Bracket are different for the AG 2500 and AG 5900/EG 6000



ACCESS GATEWAY QUICK START GUIDE

1. Unpack the Nomadix Access 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 - hardcopy enclosed or obtain the form online at the following URL: <http://www.nomadix.com/registration.html>
3. Install the Rack Mount brackets to the Nomadix Access Gateway and install in the 19" rack.



4. Connect the power cord.
5. For the initial configuration connect to the AG 2500, AG 5900 or EG 6000, either a serial asynchronous connection or Ethernet connection described below:

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 RJ45 port on the AG 2500 or AG 5900, or the USB the console port on the EG 6000, 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

Install the Ethernet cable between the AG 2500, AG5900 or the EG 6000 Eth1 port and the laptop's Ethernet port and check the status as shown [illustration 1].

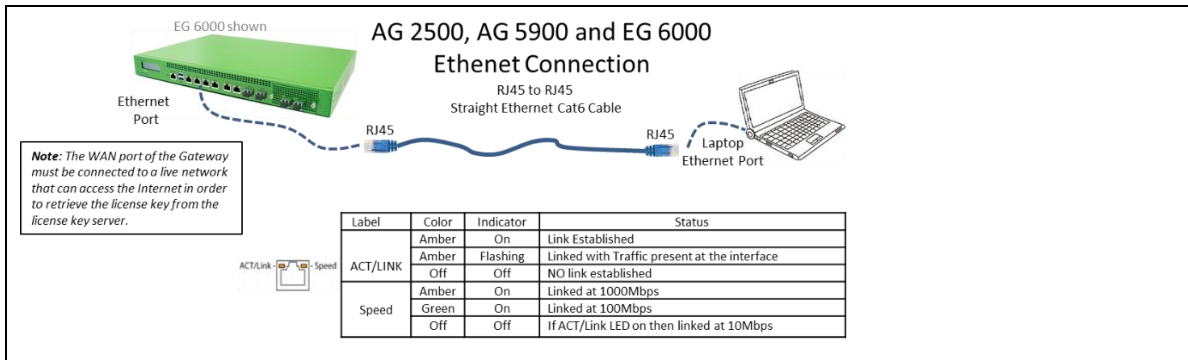


Illustration 1: Ethernet connection and status

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 AG 2500 and AG5900 use the RJ45 console port, on the EG 6000 use the USB console port. Please note: the EG 6000 console port is only on the USB port. Both methods are depicted below **[illustration 2]**:

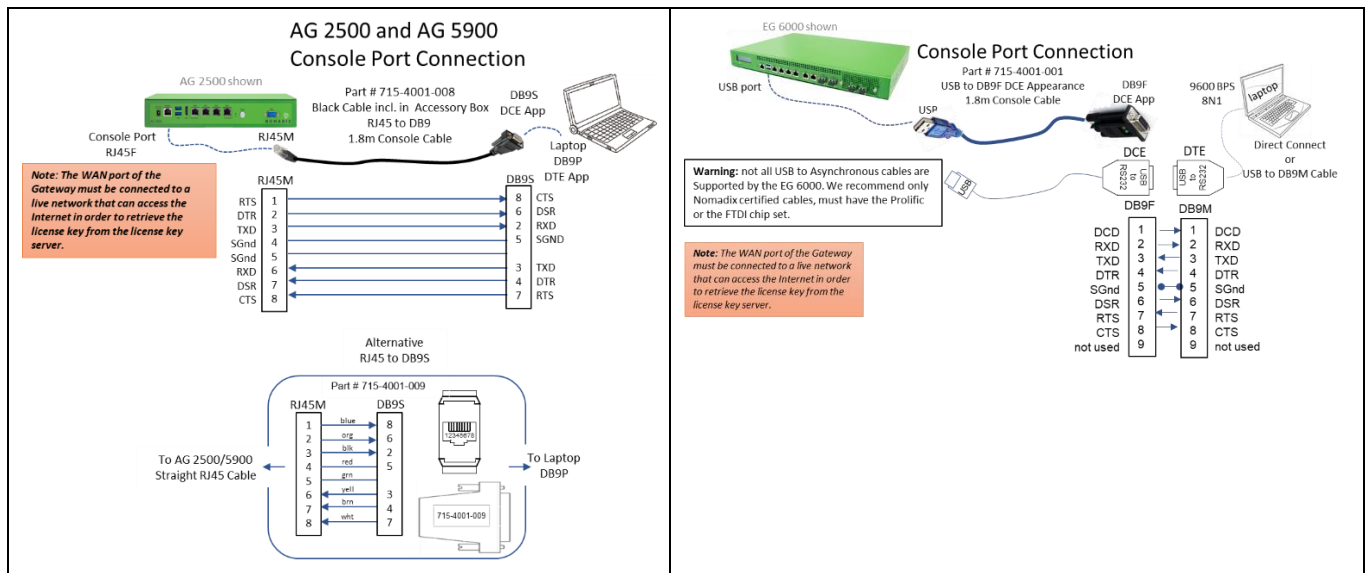


Illustration 2: Console Port connections

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



Note: The WAN port of the Gateway must be connected to a live network that can access the Internet in order to retrieve the license key from the license key server.

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

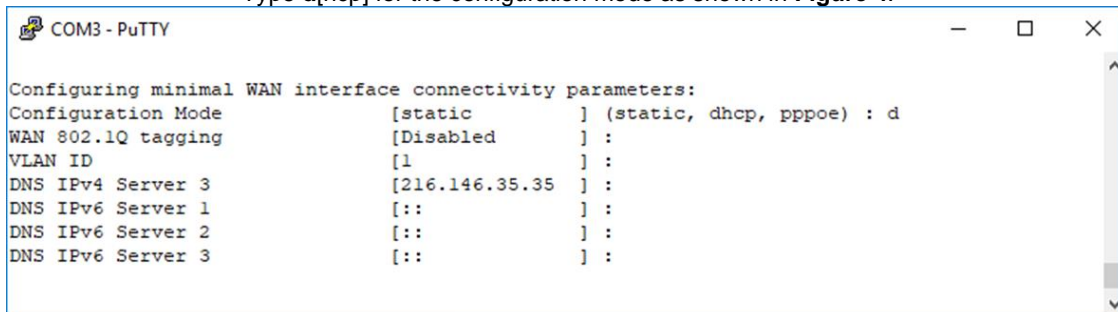


If everything is correct in the summary, type **b[ack]** to return to the previous menu and proceed to Step 2 to enter the location information.

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

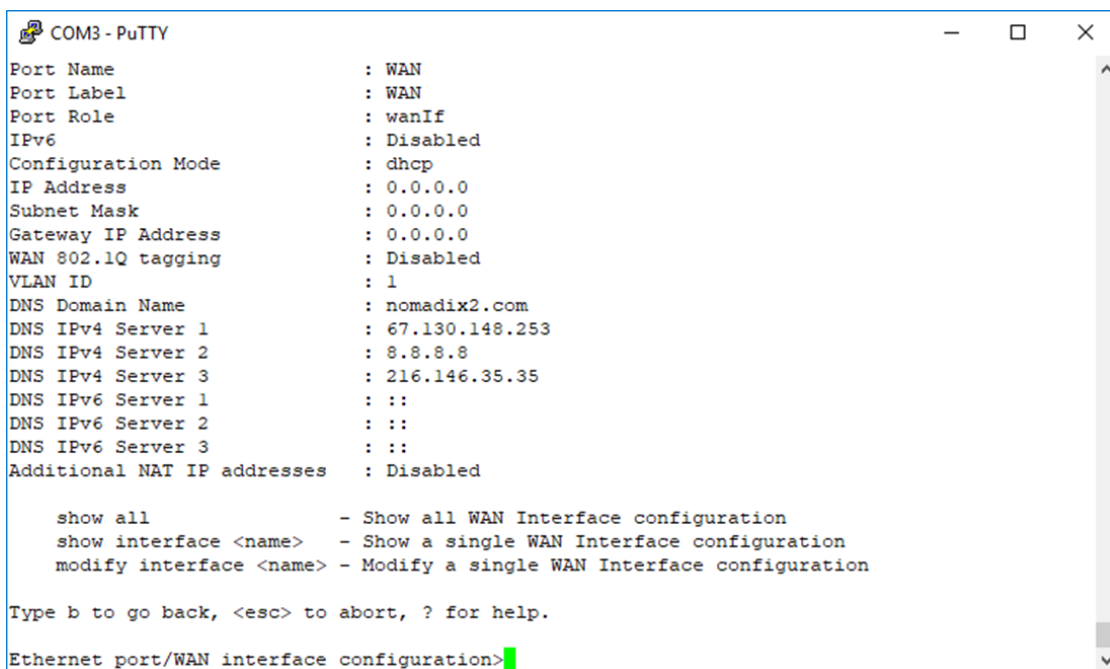
Type **d[hcp]** for the configuration mode as shown in **Figure 4**.



```
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 AG can retrieve its license key. To retrieve the license key, enter **y[es]** as shown in **Figure 9**. The AG retrieves the license key from the Nomadix license key server, then reboots.

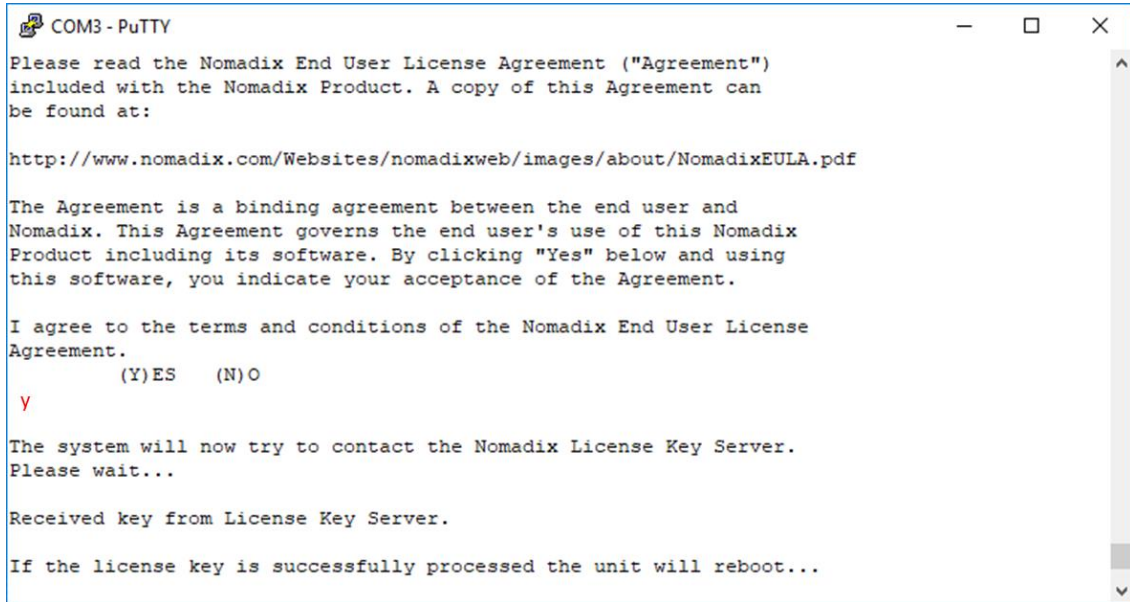


Figure 9: License key retrieval.

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

For additional information about the available AG features, refer to Chapter 2 of the User Guide specific to your AG. 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 AG 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 an AG is shown in **Figure 10**.

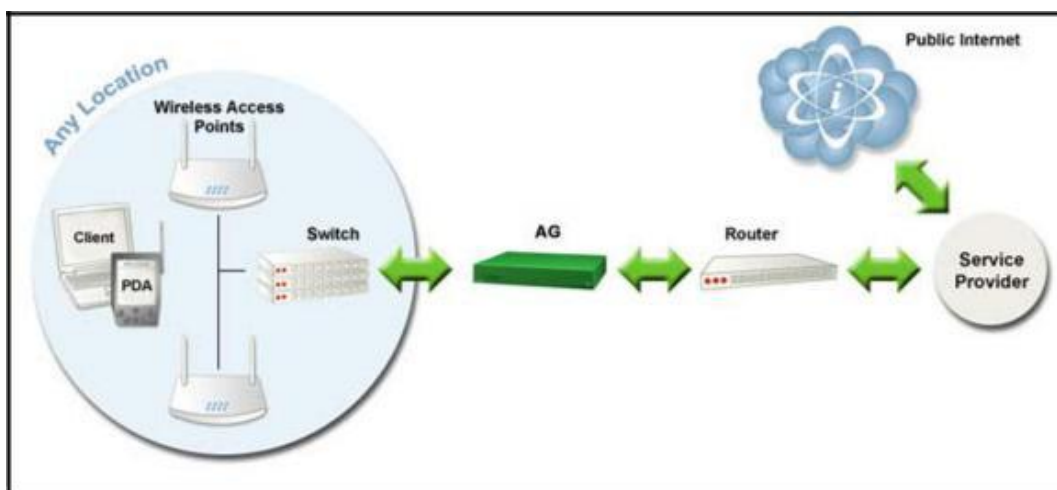


Figure 10: Example of a network setup

Additional Documentation

Additional Product documentation can be found at:

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



Nomadix Product Documentation