User Manual and Documentation

The Nomadix product user manuals, product documentation and support files including MIB, XML DTD and sample dictionary files are located at the following URL:

http://www.nomadix.com/current_releases.php

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

This quick start document provides instructions and reference material for getting started with the Nomadix Access Gateway products, specifically the AG 2400 and AG 5900.

Accessory Box Contents

AG 2400

1 – U.S. (NEMA 5-15p) Power Cord

1 – EU (Schuko CEE7/7) Power Cord

1 – 6' RJ45 – DB9 Console Cable

1 – RJ45 – DB9 Adaptor

2 – Rack Mount Brackets and PS bracket

1 – Bumper and Screw Kit

AG 5900

1 – U.S. (NEMA 5-15p) Power Cord

1 – EU (Schuko CEE7/7) Power Cord

1 – 6' RJ45 – DB9 Console Cable

1 – RJ45 – DB9 Adaptor

2 – Rack Mount Brackets

1 – Bumper and Screw Kit

Start Here

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 http://business.nomadix.com/registration.
3. Connect the power cord.
4. There are two ways to connect to the Access Gateway (AG):
    a. Serial Connection:
        i. Connect the RJ45 console cable to the product's console port and the DB9 female to your computer.
        ii. Start a HyperTerminal (or equivalent) session to communicate with the AG via the product's console interface. Use the following configuration settings for your session:

Bits per Second	Data Bits	Parity	Stop Bits	Flow Control
9600	8	None	1	None

b. Subscriber-side Ethernet Connection:

i. Connect a cross-over Ethernet cable between the product's **Eth1** port and your computer's Ethernet port.

ii. Setup a SSH client to establish a SSH session to communicate with the NSE gateway via the administrative IP address after the Access Gateway finishes powering up. The administrative IP address is 172.30.30.172.

IP Address	172.30.30.173
Netmask	255.255.0.0
Gateway	172.30.30.172
DNS (If Required)	4.2.2.1

5. Power up your computer and turn on the product. You can then configure the 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 configuration.

Configuration

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

Log in by typing **admin** then 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.

```
Ready.  Press enter to login.

NSE

Login: admin
Password: *****

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.

```
Configuring minimal WAN interface connectivity parameters:
Configuration Mode              [static         ] (static, dhcp, pppoe) :
IP Address                      [10.0.0.10      ] : Your WAN IP address
Subnet Mask                     [255.255.255.0  ] : Your subnet mask
Gateway IP                      [10.0.0.1       ] : Your gateway IP address
WAN 802.1Q tagging              [Disabled       ] :
VLAN ID                         [1              ] :
DNS Domain Name                 [nomadix.com    ] :
DNS Server 1                    [0.0.0.2        ] : Your primary DNS IP
DNS Server 2                    [0.0.0.0        ] :
DNS Server 3                    [0.0.0.0        ] :
```

Figure 2: Initial WAN port settings.

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

```
Port Name                     : WAN
Port Role                     : wanIf
Configuration Mode            : static
IP Address                    : Your IP address
Subnet Mask                   : Your subnet mask
Gateway IP                    : Your gateway IP addrss
WAN 802.1Q tagging            : Disabled
VLAN ID                       : 1
DNS Domain Name               : nomadix.com
DNS Server 1                  : Your primary DNS IP address
DNS Server 2                  :
DNS Server 3                  : 0.0.0.0
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 go to Step 2.

Step 1b: DHCP Client Configuration

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

```
Configuring minimal WAN interface connectivity parameters:
Configuration Mode              [static         ] (static, dhcp, pppoe) : d
WAN 802.1Q tagging              [Disabled       ] :
VLAN ID                         [1              ] :
DNS Server 3                    [0.0.0.0        ] :
```

Figure 4: Selecting DHCP Client for WAN configuration.

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

```
Port Name                     : WAN
Port Role                     : wanIf
Configuration Mode            : dhcp
IP Address                    : Your IP address
Subnet Mask                   : Your subnet mask
Gateway IP                    : Your gateway IP addrss
WAN 802.1Q tagging            : Disabled
VLAN ID                       : 1
DNS Domain Name               : Your domain name
DNS Server 1                  : Your primary DNS IP address
DNS Server 2                  :
DNS Server 3                  : 0.0.0.0
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 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 settings, type **b**[ack] to return to the previous menu, and go to step 2.

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.

```
Configuring minimal WAN interface connectivity parameters:
Port Role                       [wanIf          ] (outOfService, subscriberIf,
w
anIf) :
Configuration Mode              [static         ] (static, dhcp, pppoe) : p
PPPoE Service Name              [               ] : ("none" to clear) : Your
Service
LCP Echo-Request Interval       [30             ] :
Maximum LCP Non-responses       [6              ] :
PPP Authentication User Name    [               ] : ("none" to clear) : Your
User Name
PPP Authentication Password     [               ] : ("none" to clear) : Your
Password
PPP IP Configuation Mode        [dynamic        ] (dynamic, static) :
PPP Static IP Address           [0.0.0.0        ] :
PPP Maximum TCP MSS             [1452           ] :
WAN 802.1Q tagging              [Disabled       ] :
VLAN ID                         [1              ] :
DNS Domain Name                 [nomadix.com    ] :
DNS Server 3                    [0.0.0.0        ] :
```

Figure 6: Selecting PPPoE with dynamic IP configuration.

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

```
Port Name                     : WAN
Port Role                     : wanIf
Configuration Mode            : pppoe
IP Address                    : Your IP address
Subnet Mask                   : Your subnet mask
Gateway IP                    : Your gateway
PPPoE Service Name            : Your Service Name
LCP Echo-Request Interval     : 30
Maximum LCP Non-responses     : 6
PPP Authentication User Name  : Your user name
PPP Authentication Password   : Your password
PPP IP Configuation Mode      : dynamic
PPP Static IP Address         : 0.0.0.0
PPP Maximum TCP MSS           : 1452
WAN 802.1Q tagging            : Disabled
VLAN ID                       : 1
DNS Domain Name               : Your domain name
DNS Server 1                  : Your dns server IP address
DNS Server 2                  : 0.0.0.0
DNS Server 3                  : 0.0.0.0
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.

If everything is correct in the summary, type **b**[ack] to return to the previous menu, and proceed to step 2 to enter 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 settings, type **b**[ack] to return to the previous menu, and go to step 2.

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 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 settings, type **b**[ack] to return to the previous menu, and go to step 2.

Step 2: Entering Your Location Information

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

```
Ethernet port/WAN interface configuration>b


Please enter your Company Name     [                    ]: Your company name
Please enter your Site Name        [                    ]: Your site name
Please enter your Address (Line 1) [                    ]:
                          (Line 2) [                    ]:
                            (City) [                    ]: Your site city
                           (State) [                    ]: Your site state
                 (ZIP/Postal Code) [                    ]:
                         (Country) [                    ]: Your site country
Please enter your E-Mail Address   [                    ]: email address

Please select the venue type that most reflects your location
         1. Apartment
                ...
        25. Other
Please enter a number from the above list: Venue Type
```

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.

```
PLEASE READ THE NOMADIX END USER LICENSE AGREEMENT ('AGREEMENT') INCLUDED
WITH THE NOMADIX PRODUCT.
BY 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 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.

DHCP Parameter	Your Settings	Default Values
DHCP Services (Disable)		no
DHCP Relay (Yes / No) *If No, skip to DHCP Server*		no
DHCP Relay Server IP Address		blank
DHCP Relay Agent IP Address		blank
DHCP Server (Yes / No) Only if the DHCP Relay is disabled		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

An example of a basic network including an AG is shown in Figure 10.

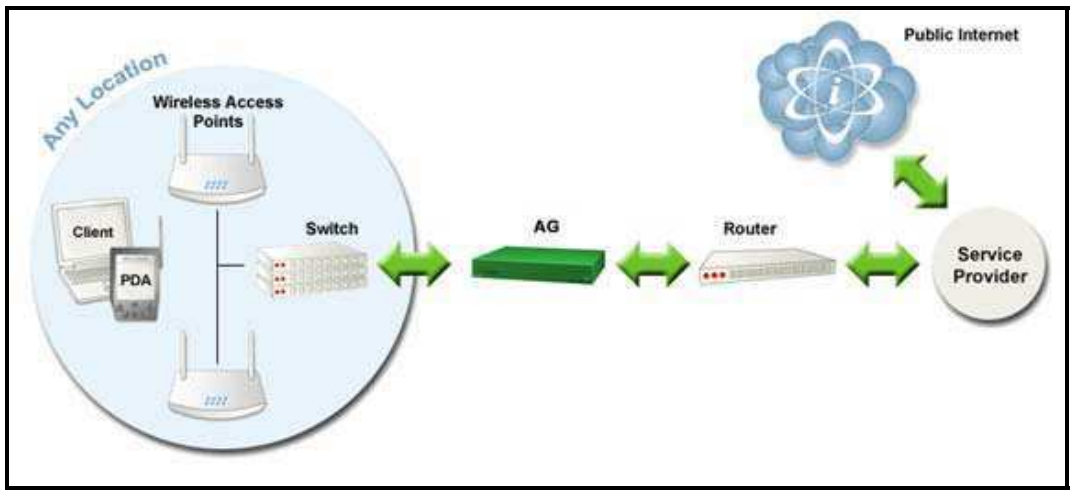

Figure 10: Example of a network setup.