

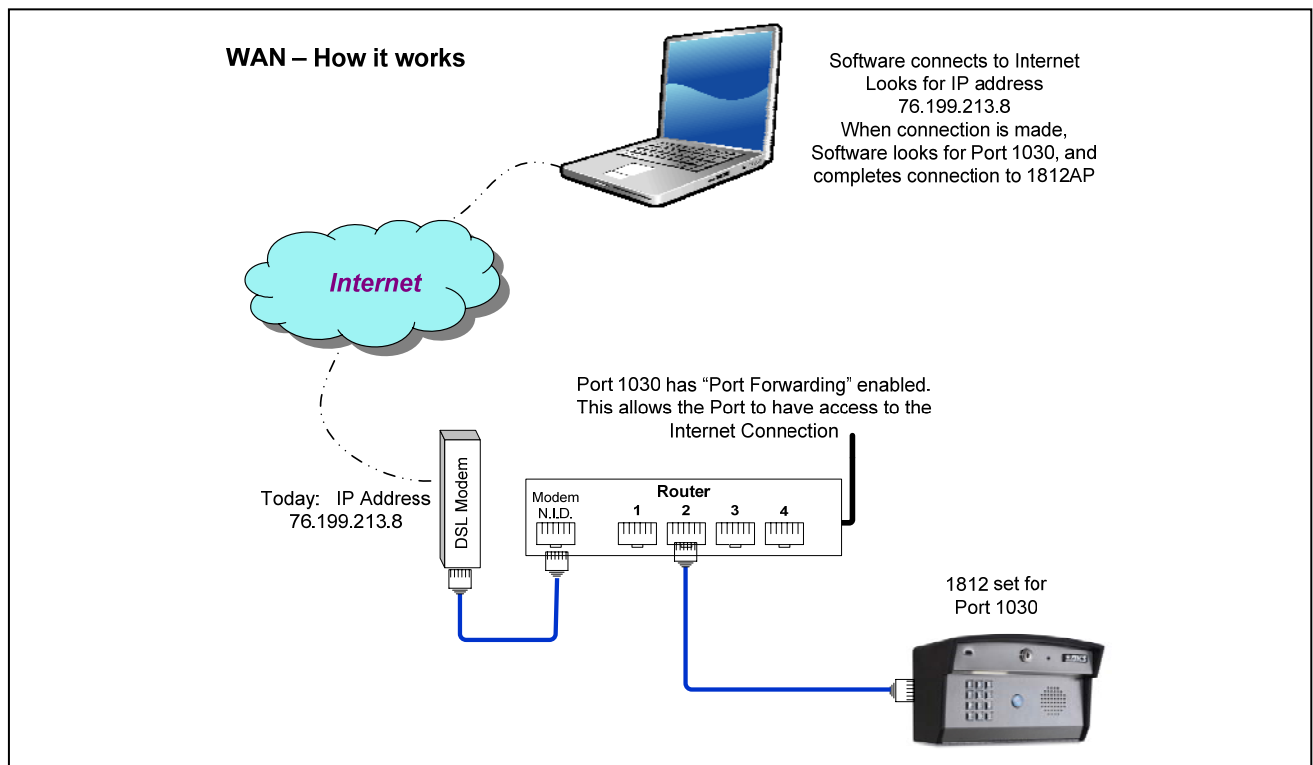
ACCESSPLUS WAN AND INTERNET CONNECTIONS

Model 1812-AccessPlus: This training guide will focus on the TCP/IP Network interface for Wide Area Network (Internet) Connections

WIDE AREA NETWORK (WAN): This allows the 1812 to be access from outside the LAN. Proper set up of the WAN connection is required for Remote Programming, Remote Control and Monitoring of the system relays.

REQUIREMENTS FOR A WAN APPLICATION:

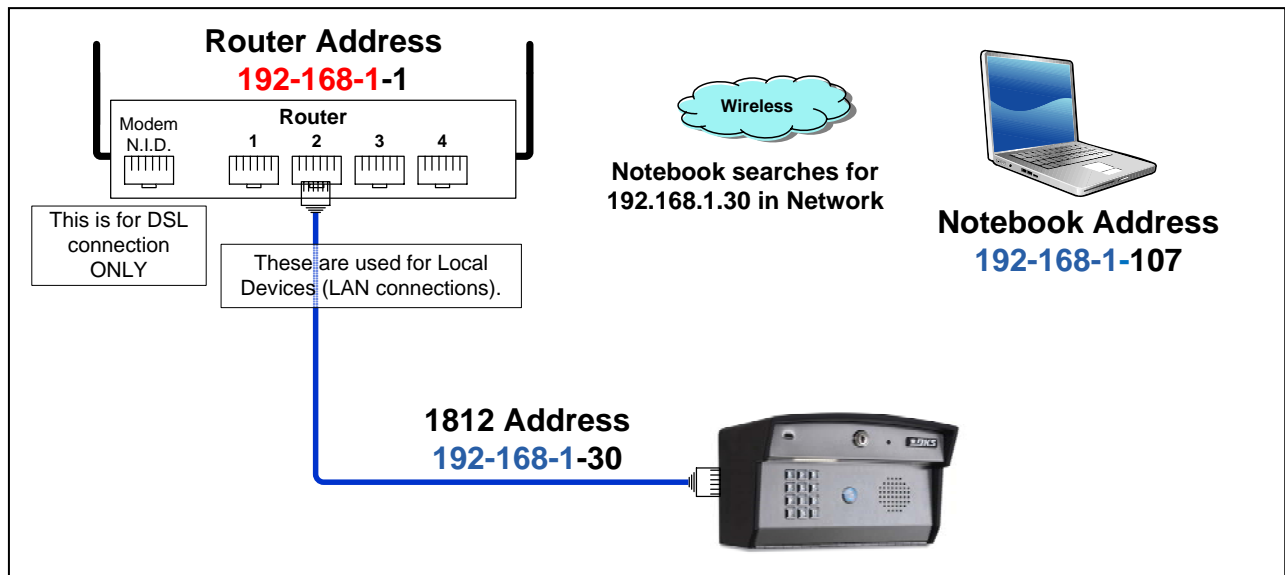
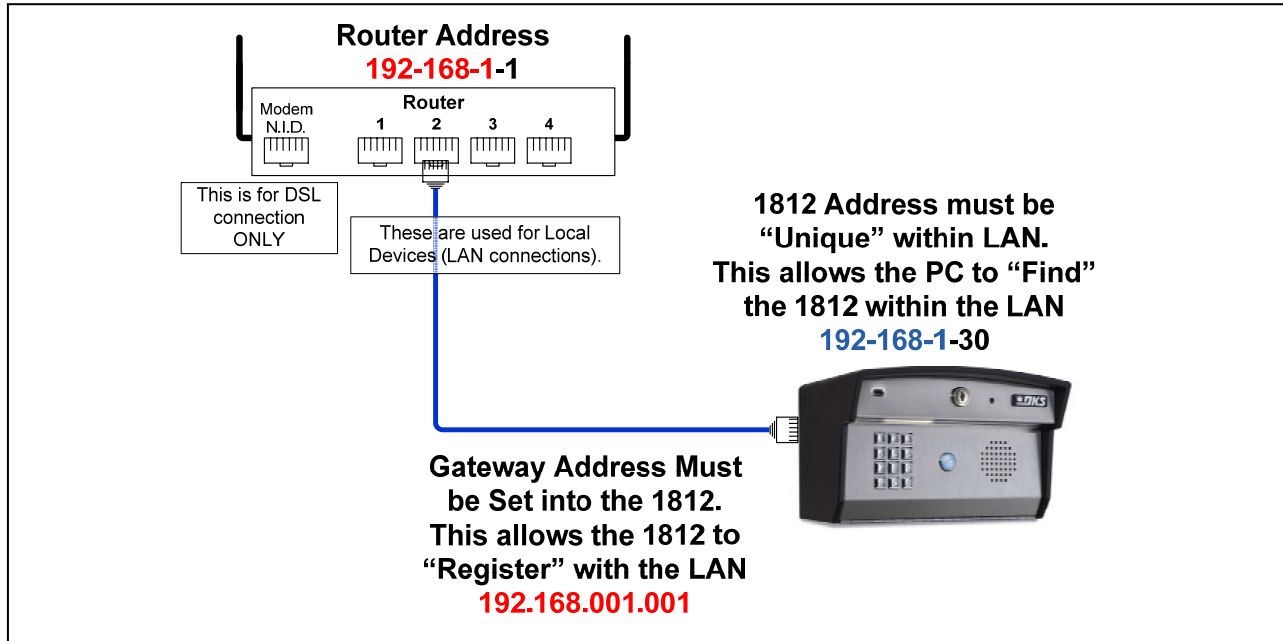
- ☑ **Local Area Network, (LAN)** – The AccessPLUS System must be connected and active on the LAN. This requires the following information (See LAN Guide for details)
 - Router (Default Gateway) IP Address
- ☑ **Port Forwarding** – The Port Number assigned to the Network Adaptor must be programmed to enable Port Forwarding (sometimes called “Virtual Server” in some routers). This must not conflict with other devices active within the LAN.
- ☑ **Gateway and Port Number Programming** – These must be programmed into the AccessPLUS System.
- ☑ **The ISP (Internet Service Provider) IP Address** – This will either be a Static IP Address or a Dynamic IP address (which can change periodically). If the ISP uses a Dynamic IP Address, you may need to register for a DDNS Host Service.



REGISTERING WITH THE LAN

LAN CONNECTIONS: (See the “LAN Guidelines”, or “Network Training Guide” for more details on setting up the Local Network Connections)

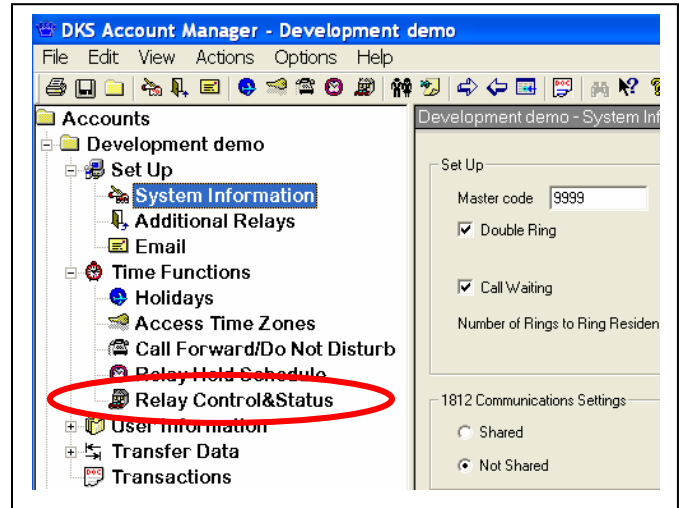
- ☑ **Registering with the LAN** – The Gateway Address must be programmed into the 1812 (from the system keypad). This allows the 1812 to locate and register with the LAN.
- ☑ **1812 IP Address** – The 1812 must also have a unique IP address within the LAN. The default of 192.168.001.030 is typically available. However, if the Gateway Address utilizes a different number in the first 2 segments, for example: 192.168.2.1, this must be changed in the 1812.



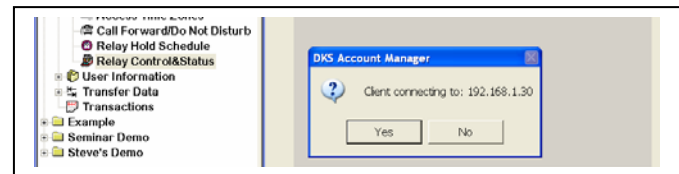
1812- ACCESSPLUS – LAN CONNECTIONS (CONTINUED)

Testing the Connection through the 1812 Software: Once the ‘System Information’ programming has been completed, and the 1812 has been manually set up, you can try connecting to the unit through the DoorKing 1812 AccessPLUS software.

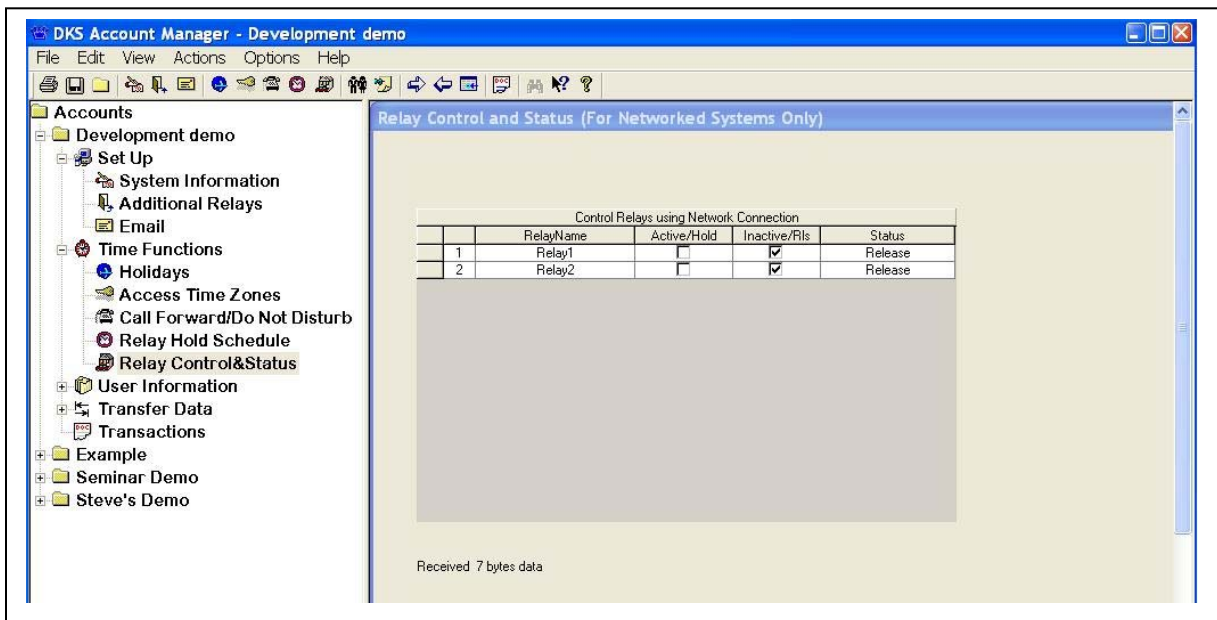
- ☑ Select ‘Relay Control & Status:



- ☑ Select ‘YES’ to initiate connection with 1812 system.



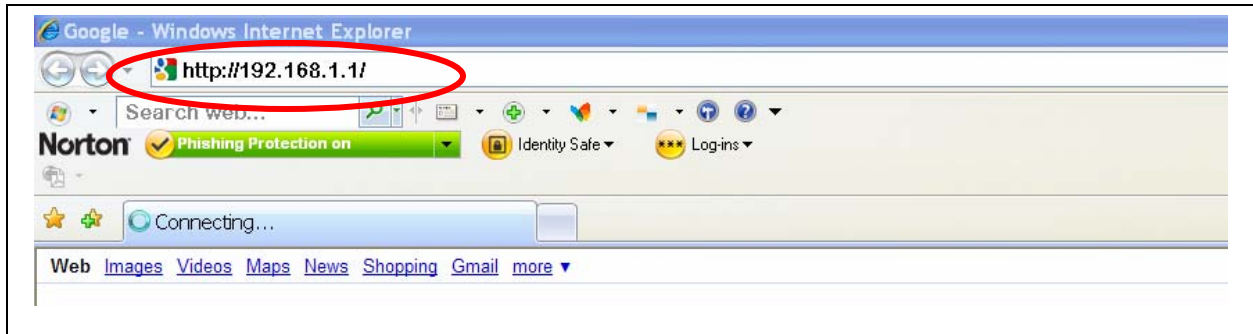
- ☑ Once verified, the screen will show the current status of System Relays:



1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

- ☑ **Router Port Forwarding:** This will require entering into the Router Manager Software to set up the Port and IP address for the 1812AP. **BE CAUTIOUS WHEN WORKING IN ROUTER PROGRAMMING. WE RECOMMEND HAVING THE NETWORK ADMINISTRATOR PERFORM THESE PROGRAMMING FUNCTIONS**

1. Open Internet Explorer. In the address line, type in the IP Address of the Router.



2. This will open an Authentication Window asking for the User Name and Password for the Router.

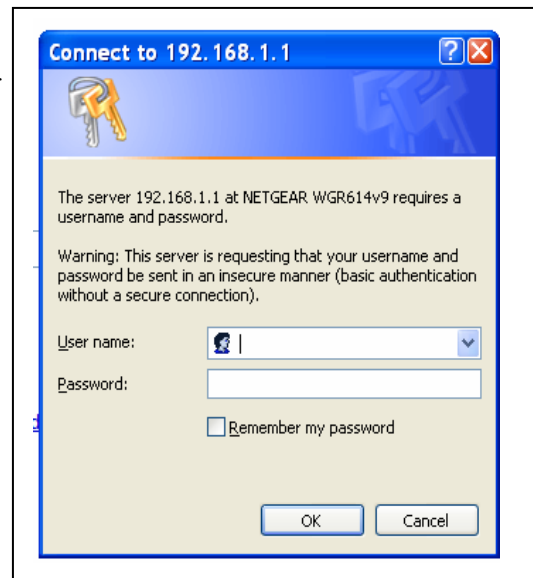
The default User Name and Password is typically listed on the identification label of the Router (bottom of Router).

A common default is as follows:

User Name: admin

Password: password

If this is an existing LAN, the User Name and Password have probably been changed. Contact the Network Administrator for Router Set Up.



1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

3. This will open the Router Manager software. Each Router brand may use different screens, or different terminology. The following are examples:

The first screenshot shows the Linksys Router Manager interface. The 'FORWARDING' tab is selected. A text box explains: 'Port forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your router, they will be redirected to the specified IP.' Below this is a table for configuring port forwarding:

Service	Port Range	Protocol	IP Address
	1030 ~ 1030	Both	192.168.1.11
	0 ~ 23	Both	192.168.1.101
	1025 ~ 1025	Both	192.168.1.7
	1027 ~ 1027	Both	192.168.1.10
	0 ~ 0	Both	192.168.1.0
	0 ~ 0	Both	192.168.1.0

To the right is a 'Well-known Ports (Commonly Used Ports)' list:

- 7 (Echo)
- 21 (FTP)
- 23 (TELNET)
- 25 (SMTP)
- 53 (DNS)
- 79 (finger)
- 80 (HTTP)

The second screenshot shows the D-Link AirPlus G 802.11g/2.4GHz Wireless Router interface. The 'Virtual Server' tab is selected. The configuration is as follows:

- Enabled: Enabled
- Name: DK1812
- Private IP: 192.168.1.10
- Protocol Type: Both
- Private Port: 1025
- Public Port: 1025
- Schedule: Always

Below the configuration is a 'Virtual Servers List' table:

Name	Private IP	Protocol	Schedule
<input type="checkbox"/> Virtual Server FTP	0.0.0.0	TCP 21/21	always
<input type="checkbox"/> Virtual Server HTTP	0.0.0.0	TCP 80/80	always
<input type="checkbox"/> Virtual Server HTTPS	0.0.0.0	TCP 443/443	always
<input type="checkbox"/> Virtual Server DNS	0.0.0.0	UDP 53/53	always

The third screenshot shows a yellow-themed router interface with the 'VIRTUAL SERVER' tab selected. The configuration is as follows:

- Virtual Server Name: KL2
- Incoming Protocol: TCP
- Incoming port: 1027
- Forwarding IP: 192.168.1.10
- Forwarding port: 1027
- Schedule: Everyday
- From: 1:00 AM To: 1:00 AM

Below the configuration is a 'VS Table' table:

Name	Enable	Proto/Port#	IP/Port#
SMTP	enable	TCP/25	192.168.1.11/25
POP3	disable	TCP/110	192.168.1.0/110
DK1812	enable	TCP/1030	192.168.1.11/1030

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

- ☑ **Setting up Router Port Forwarding:** (Continued) Depending upon the Router brand, this may be called Virtual Server.

4. Using the Netgear Router as an example... From the Router Manager, select “Port Forwarding”. Then click on Add Custom Service.

The screenshot shows the Netgear Router Manager web interface in Internet Explorer. The browser address bar shows `http://192.168.1.1/start.htm`. The page title is "NETGEAR Router - Windows Internet Explorer". The main content area is titled "Port Forwarding / Port Triggering".

On the left sidebar, the "Port Forwarding / Port Triggering" menu item is highlighted with a yellow circle. The main content area has the following elements:

- Port Forwarding / Port Triggering** (Section Header)
- Please select the service type**
 - Port Forwarding
 - Port Triggering
- Service Name**: Age-of-Empire (dropdown menu)
- Server IP Address**: 192.168.1. (input fields) + Add button
- Table** with columns: #, Service Name, Start Port, End Port, Server IP Address
- Buttons**: Edit Service, Delete Service, and Add Custom Service (highlighted with a red circle)

On the right side, there is a sidebar with text explaining Port Forwarding and Port Triggering. The "Add Custom Service" button is highlighted with a red circle.

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

Router Port Forwarding: (Continued)

- This may open an Authentication Window asking for the User Name and Password for the Router. Once you are into the Port screen, enter a Service Name (1812 for example, or 1812 Main Gate), Service Type (TCP), Port and IP address of 1812AP. Click “Apply”

NOTE: We recommend changing the Port from the default value of ‘1030’ to increase security. This Port Number must be programmed to match at the Router, in the AccessPLUS Software, and physically set in the 1812AP system.

The screenshot shows the Netgear SmartWizard router manager interface for a Wireless-G Router model WGR614v9. The left sidebar contains navigation options: Block Sites, Block Services, Schedule, Maintenance (selected), Router Status, Attached Devices, Backup Settings, Set Password, Router Upgrade, Advanced, and Wireless Settings. The main content area is titled 'Ports - Custom Services' and contains the following fields:

- Service Name: 1812
- Service Type: TCP/UDP (dropdown)
- Starting Port: 1030 (range 1~65534)
- Ending Port: 1030 (range 1~65534)
- Server IP Address: 192 . 168 . 1 . 30

Buttons for 'Apply' and 'Cancel' are located at the bottom of the form.

- This will bring you back to the Port Forwarding screen and should show the new “Service” with the 1812 set up.

The screenshot shows the Netgear SmartWizard router manager interface for a Wireless-G Router model WGR614v9. The left sidebar contains navigation options: Setup Wizard (selected), Setup, Basic Settings, Wireless Settings, Content Filtering, Logs, Block Sites, Block Services, Schedule, Maintenance, Router Status, Attached Devices, Backup Settings, Set Password, and Router Upgrade. The main content area is titled 'Port Forwarding / Port Triggering' and contains the following elements:

- Section: Please select the service type
- Radio buttons: Port Forwarding, Port Triggering
- Service Name: Age-of-Empire (dropdown)
- Server IP Address: 192 . 168 . 1 . [] (Add button)
- Table with columns: #, Service Name, Start Port, End Port, Server IP Address

#	Service Name	Start Port	End Port	Server IP Address
<input checked="" type="radio"/> 1	1812	1030	1030	192.168.1.30

Buttons for 'Edit Service', 'Delete Service', and 'Add Custom Service' are located at the bottom of the screen.

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

☑ **Programming at the 1812:** This is the same programming steps as detailed in the LAN Section of this training guide. Defaults are set in the 1812. You will either utilize the defaults, or reprogram as required, then enable the TCP/IP.

1. **Program Master Code of 1812**
2. **Program IP address:** (default 192.168.001.030. First 3 segments must match Router address).
3. **Subnet Mask:** This should always be the default of 255.255.255.000. If different, contact network administrator.
4. **Set Gateway (Router) address:** (default 192.168.001.001)
5. **Set Port Number:** (default 01030)
6. **Enable TCP/IP:** Reboots system.

1 – Master Code

Blinking LED - power is applied to the 1812 and the processor is working.

Steady LED - system is in Master Code programming mode.
(Reverts to blinking if master code is not entered within 10-seconds)

1. Press the Master Code push button (the LED will stay on steady).
2. Enter a four digit Master Code number then press *.
---- *(beep)

2 – IP Address (reboot required)

1. Press * 5 1 and enter the Master Code.
* 5 1 ---- (beep)
2. Enter the IP address. Use the * key to enter the "dot".
---- *(beep) ---- *(beep) ---- *(beep) ---- *(beep)
(valid value for any 3-digit number is 000 to 255)
Default value is: 192.168.001.030
3. Press 0 # Together to end.
0 # (beeeeeep)

3 – Sub-net Mask (reboot required)

The Default value should be appropriate for most applications. If this requires programming, see Network Administrator

4 – Gateway (router) Address (reboot required)



1. Press * 5 3 and enter the Master Code.
* 5 3 ---- (beep)
2. Enter gateway (router) address (Use the * key to enter the "dot").
---- *(beep) ---- *(beep) ---- *(beep) ---- *(beep)
(valid value for any 3-digit number is 000 to 255)
Default value is: 192.168.001.001
3. Press 0 # Together to end.
0 # (beeeeeep)



If the 1812 is connected directly to the PC with a crossover cable, this address MUST be set to 000.000.000.000.

5 – Set the Port Number (reboot required)

1. Press * 5 6 and enter the Master Code.
* 5 6 ---- (beep)
2. Enter the port number.
---- *(beep)
(valid values are 01024 to 65535)
Default value is: 01030
3. Press 0 # Together to end.
0 # (beeeeeep)

6 – Enable/Disable TCP/IP Support and System Reboot

1. Press * 5 0 and enter the Master Code.
* 5 0 ---- (beep)
2. Press 0 * (beep) to disable or press 1 * (beep) to enable.
Default is disabled.
3. The system will reboot automatically.

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

INTERNET CONNECTION: There are 3 methods of connecting through an Internet Service Provider:

STATIC IP ADDRESS: If the network is provided with a Static IP Address, this can be used for connection from outside the network, via the Internet

DYNAMIC DNS HOST (DDNS) This is a service that you register for which tracks the changing IP address of the residential internet service. A “site name” is assigned to the residential internet service, much like an internet site name. The AccessPLUS software then searches for this site, and provides connection between the PC and the 1812.

DYNAMIC IP ADDRESS: Typical Residential Internet Service. In this type of service, the IP Address changes periodically. Typically the address will remain constant until the Network or DSL Modem is reset, powered down or rebooted, or if there are extended periods with no activity on the internet connection. If you utilize this type of connection, you may need to re-program the IP address in the Software periodically to maintain connection with the 1812.

- Static or Dynamic IP Address, Finding the IP Address:** There are many methods for identifying the current IP address of the network. Open your Internet Explorer and type in one of the following IP addresses:

- IPChicken.com

The image contains two screenshots of web browsers. The top screenshot shows the IPChicken website in Mozilla Firefox. The page title is "IP Chicken - Whats my IP address? ip address lookup - Mozilla Firefox". The address bar shows "http://ipchicken.com/". The website features a cartoon chicken logo and displays the "Current IP Address" as 77.213.140.3. Below this, it lists "Ip Address Provider" and "Hosted IP Phone System" with a "Ads by Google" tag. An "Advanced" section shows details like "Name Address: 207-213-140-3.ded.pacbell.net", "Remote Port: 39720", and "Browser: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.9.0.15) Gecko/2009101601 Firefox/3.0.15 (.NET CLR 3.5.30729)".

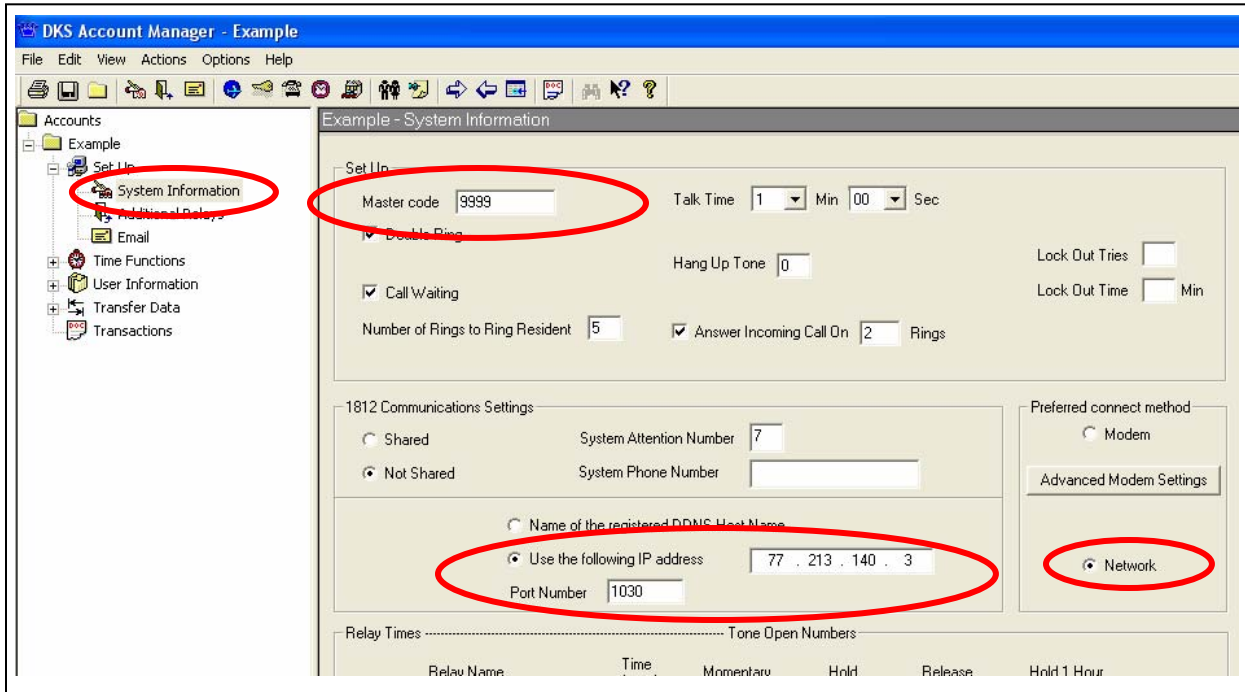
The bottom screenshot shows the CheckMyIP website in Mozilla Firefox. The page title is "check my ip, my ip, what is my ip, find ip - Mozilla Firefox". The address bar shows "http://checkmyip.com/". The website has a navigation menu with "home", "tools", "tech news", "linux man pages", and "contact". The main content area displays the "CheckMyIP" logo and states "Your local IP address is 77.213.140.3". There are two columns of text: "IP Scan" (Scan your Network IP Free Network IP Scan. IP-Scan.Qualys.com) and "Static IP Service" (Consumer & Business DSL Service. Contact A Sales Rep & Get DSL Now. www.Sonic.net).

- Checkmyip.com

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

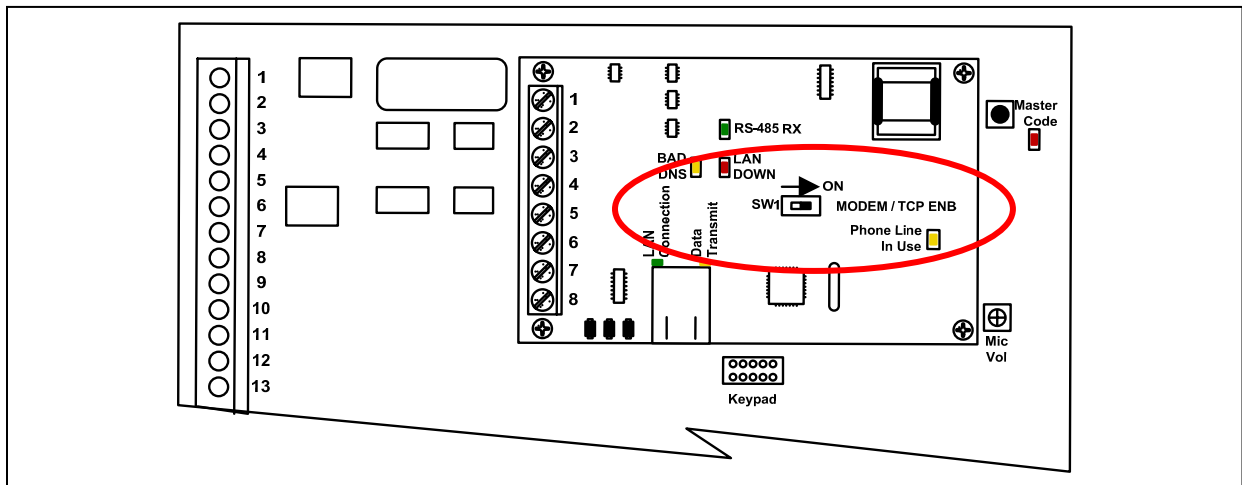
Things to set up in the AccessPLUS Software for connecting via IP Address:

- **Master Code:** This needs to match what has been set at the 1812AP system.
- **Network:** Select Network as preferred connection method
- **IP Address:** Enter Address for IP Connection. Example: 77.213.140.3
- **Port Number:** 1030



Control Board Settings:

- **SW1:** Must be Turned ON for Modem or TCP Connections to be enabled.



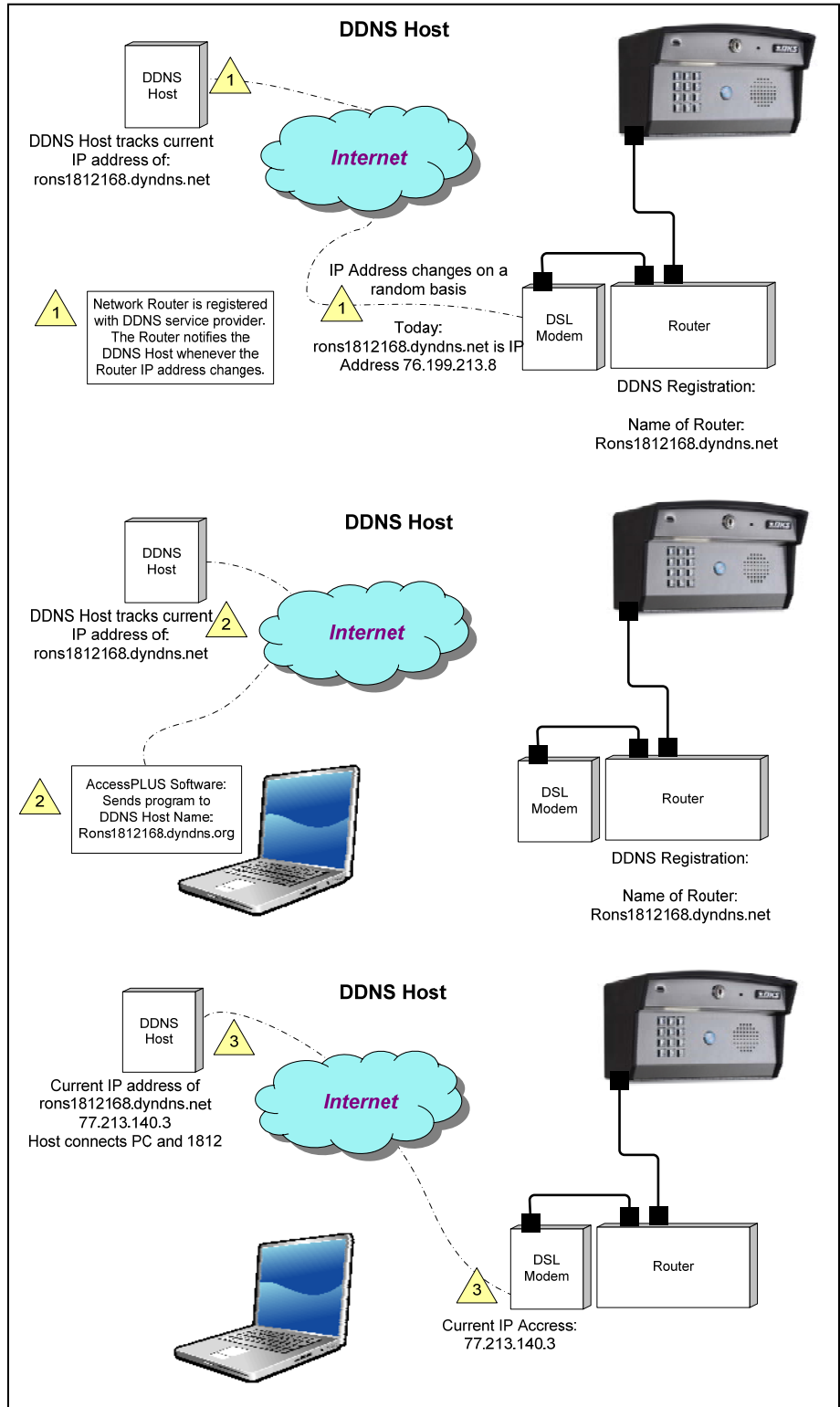
1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

INTERNET CONNECTION UTILIZING DDNS HOST.

If the Network is not provided with a Static IP Address, it is recommended that you utilize a DDNS service provider to register the system IP Address.

What is DDNS?

Dynamic Domain Name Server. This is service that will track the IP Address of the Network when changes occur.



1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

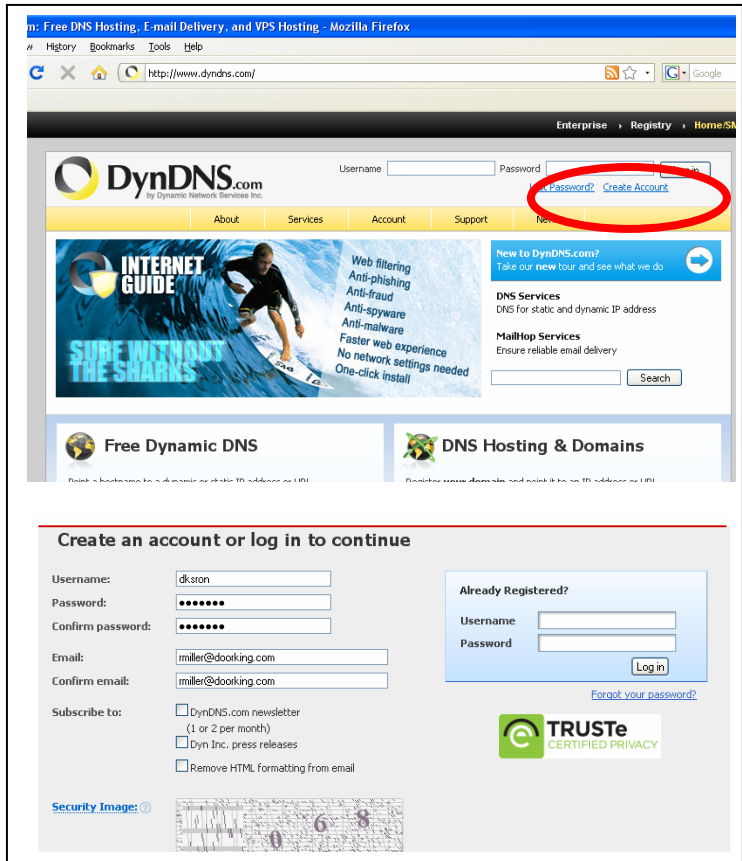
REGISTERING A DDNS NAME.

Most Routers will have a recommended DDNS Host Provider. This can be found in the Router documentation, or Router Manager. A common provider for many brands of Routers is: dyndns.org. This provider will host up to 5 DDNS accounts at no charge, as a complimentary service.

The following is an example of setting up a DDNS Host service.

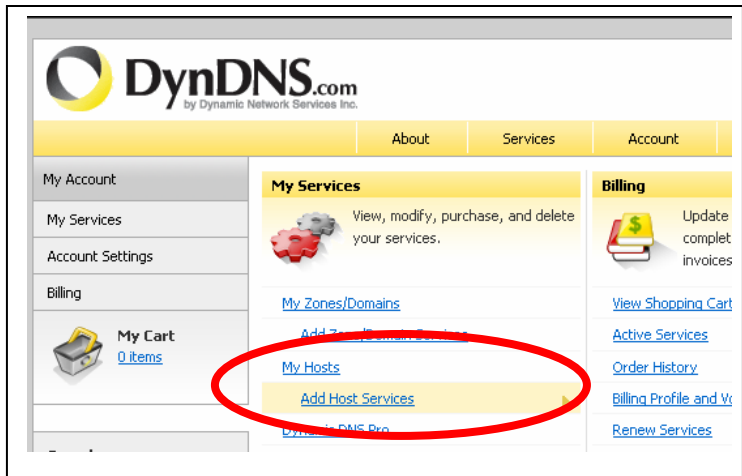
From a PC on the Network connected to the 1812 System:

1. **DynDns.org:** Go to the Website and create an account. This should be in the Homeowners or Network Administrators name.



The screenshot shows the DynDNS.com website in a Mozilla Firefox browser. The page title is "Free DNS Hosting, E-mail Delivery, and VPS Hosting - Mozilla Firefox". The URL is "http://www.dyndns.com/". The website header includes the DynDNS.com logo and navigation links: "Enterprise", "Registry", "HomeSite". Below the header is a search bar with "Username" and "Password" fields, and a "Create Account" link circled in red. The main content area features a "New to DynDNS.com?" section with a "Take our new tour and see what we do" button. Below this are sections for "Free Dynamic DNS" and "DNS Hosting & Domains". The "Create an account or log in to continue" section contains a registration form with fields for Username, Password, Confirm password, Email, and Confirm email. There are also checkboxes for "Subscribe to:" (DynDNS.com newsletter, Dyn Inc. press releases, Remove HTML formatting from email) and a "Security Image" with a CAPTCHA. A "Log in" button is present for existing users, along with a "Forgot your password?" link. A "TRUSTE CERTIFIED PRIVACY" logo is also visible.

2. **Add a Host Service:** This will set up a DDNS Hosting Service for the network of the 1812 system.



The screenshot shows the DynDNS.com "My Account" page. The header includes the DynDNS.com logo and navigation links: "About", "Services", "Account". The page is divided into several sections: "My Account" (with links for My Services, Account Settings, Billing, My Cart), "My Services" (with a "View, modify, purchase, and delete your services" button and a "My Zones/Domains" link), "Billing" (with a "View Shopping Cart" link), and "My Cart" (with a "0 Items" link). The "Add Host Services" link is circled in red. There is also a "Billing" section with a "Update complete invoices" button and links for "Active Services", "Order History", "Billing Profile and V", and "Renew Services".

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

REGISTERING A DDNS NAME (continued)

3. **Add New Hostname:** This is where you will create your DDNS Host information.
 - Select a “Host name”: We suggest using something related to the system
 - Select “dyndns.org” from host listing.
 - Service Type: “Host with IP Address”
 - IP Address: “Use the Auto Detected IP Address”. This will find the current IP Address of your network.
 - Click on “Add To Cart”

DynDNS.com - My Account -- Host Services -- Settings - Mozilla Firefox

Edit View History Bookmarks Tools Help

https://www.dyndns.com/account/services/hosts/add.html

Most Visited

Enterprise > P

DynDNS.com
by Dynamic Network Services Inc.

About Services Account Support News

My Account

My Services

- Dynamic DNS Pro
- Internet Guide
- SLA
- Premier Support
- Zone Level Services
 - Domain registration and transfer, DNS hosting, MailHop services
- Host Services
 - Dynamic DNS hosts, WebHop URL Forwarding
- Spring Server VPS
- MailHop Outbound
- Recursive DNS
- Network Monitoring
- SSL Certificates
- Renew Services
- Auto Renew Settings
- Sync Expirations

Add New Hostname

Note: You currently don't have any active [Dynamic DNS Pro upgrades](#) in your account. You cannot use some of our Host : Dynamic DNS Pro upgrade will make this form fully functional and will add several other features.

Hostname: rons1812168 · dyndns.org

Wildcard Status: Disabled [[Want Wildcard support?](#)]

Service Type:
 Host with IP address [[?](#)]
 WebHop Redirect [[?](#)]
 Offline Hostname [[?](#)]

IP Address: 77.213.140.3
[Use auto detected IP address 77.213.140.3.:](#)
TTL value is 60 seconds. [Edit TTL.](#)

Mail Routing: Yes, let me configure Email routing. [[?](#)]

[Add To Cart](#)

1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

REGISTERING A DDNS NAME (continued)

4. **Confirm Order:** Depending upon the DDNS Host Provider, this often will be a complimentary service, provided at No Charge. This Host information must now be programmed into the Network Router.

The image shows two screenshots of the DynDNS.com website interface. The top screenshot is the 'Shopping Cart' page, and the bottom screenshot is the 'Host Services' page.

Shopping Cart Page:

- Header: DynDNS.com by Dynamic Network Services Inc. Logged In User: dksron. My Cart My Services Log Out.
- Navigation: About Services Account Support News.
- Left Sidebar: My Account, My Services, Account Settings, Billing, Active Services, Order History, Billing Profile, Search.
- Main Content: Shopping Cart. Message: rons1812168.dyndns.org added to cart. You must checkout to activate. Your cart contains free services only. You will not be asked for credit card information.
- Upgrade Options: Free accounts allow only five Dynamic DNS hosts. To add more and enjoy additional benefits for only \$15.00 per year, purchase Dynamic DNS Pro. To get Dynamic DNS for your own domain, use Custom DNS.
- Dynamic DNS Hosts: rons1812168.dyndns.org (remove) \$0.00.
- Coupon: Please enter coupons in the box below and click "Add Coupon".
- Summary: Sub-Total: \$0.00, Order Total: \$0.00.
- Footer: Would you like to print an estimate/quote? Next >>

Host Services Page:

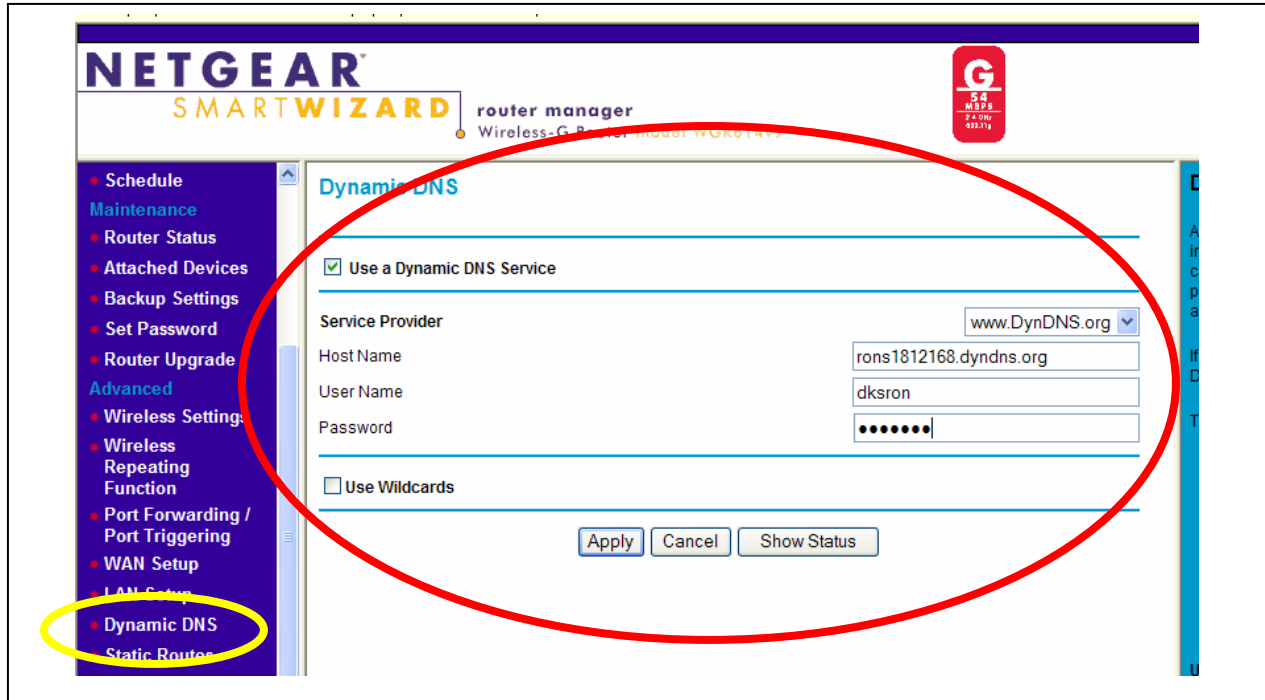
- Header: Enterprise > Registry > Home/SMB > Corporate. DynDNS.com by Dynamic Network Services Inc. Logged In User: dksron. My Cart My Services Log Out.
- Navigation: About Services Account Support News.
- Left Sidebar: My Account, My Services, Dynamic DNS Pro, Internet Guide, SLA, Premier Support, Zone Level Services (Domain registration and transfer, DNS hosting, Mailbox services).
- Main Content: Host Services. Add New Hostname - Host Update Logs. Message: rons1812168.dyndns.org successfully activated.
- Table:

Hostname	Service	Details	Last Updated
rons1812168.dyndns.org	Host	207.213.140.3	Nov. 24, 2009 6:04 PM

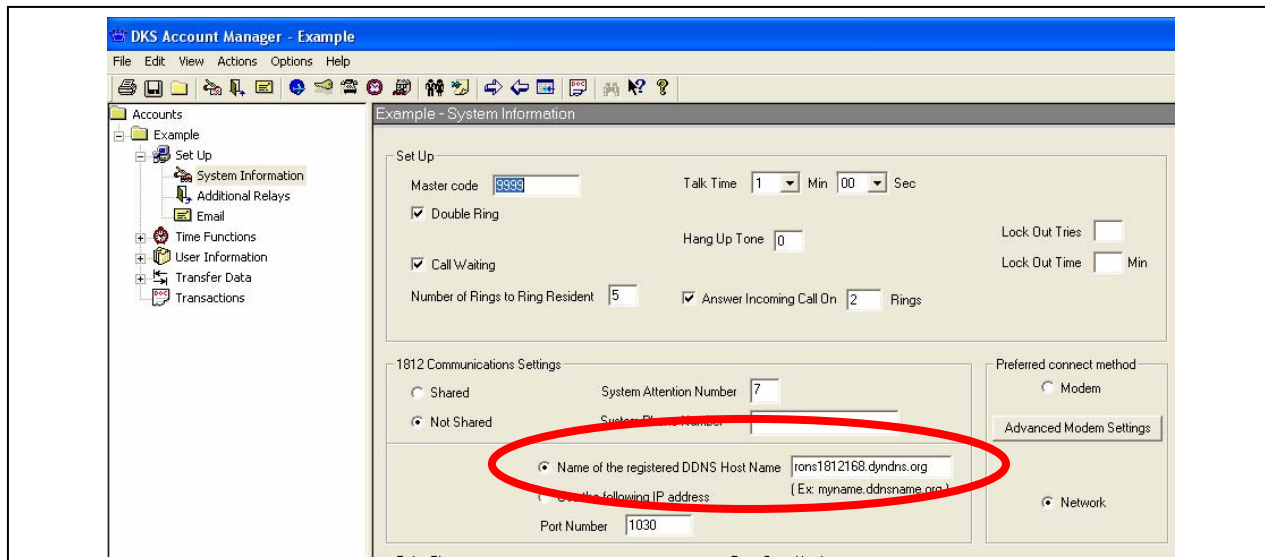
1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

REGISTERING A DDNS NAME (continued)

5. **DDNS Set Up in Router:** From a PC on the Network, log onto the Router Manager using Internet Explorer. Go to the Dynamic DNS page. Program the required information.
6. **Click “Apply” to complete the Router programming.**



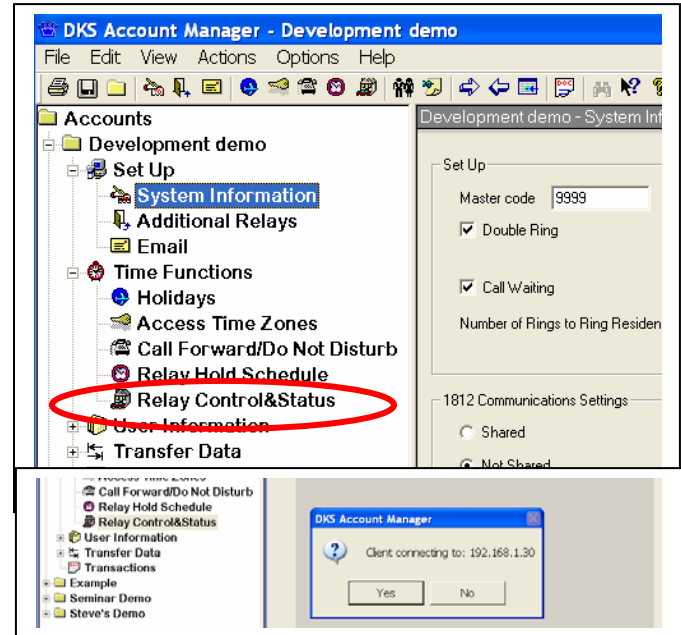
7. **AccessPLUS Software:** In the System Information screen, select the Network option for “Name of registered DDNS Host” and enter your listing.



1812- ACCESSPLUS – WAN CONNECTIONS (CONTINUED)

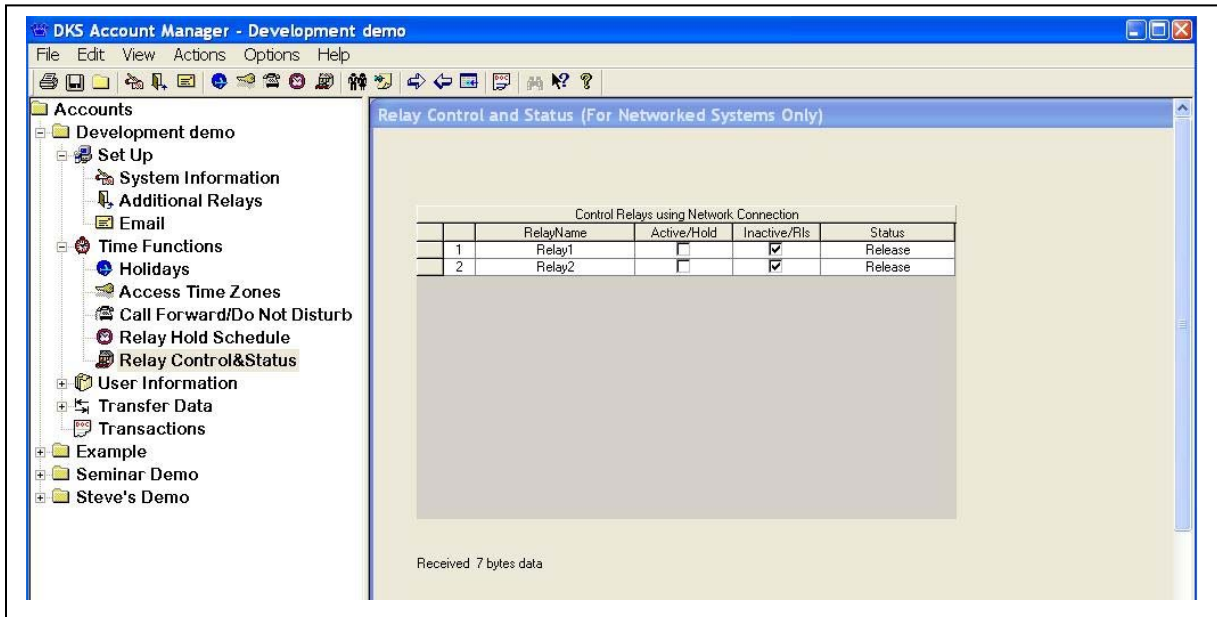
Testing the Connection through the 1812 Software:

- ☑ Select 'Relay Control & Status':



- ☑ Select 'YES' to initiate connection with 1812 system.

- ☑ Software will verify connection with 1812. This should only take a second or two. Once verified, the screen will show the current status of System Relays



- ☑ Clicking on the Relays can change the status: For example, click on the 'Activate/Hold' for Relay 2, the display should show the change in relay status.