

***Revision 2***

September 18, 2006

**HughesNet**   
Broadband Unbound.™

The installer will have the following equipment to complete the installation of a HughesNet VPN Program system:

- HughesNet modem and the cable required to connect the modem to the PC
- Antenna assembly (minimum .98m antenna) with 2 watt radio, mount, mounting hardware, HughesNet approved coaxial cable, ground block and grounding cable
- HughesNet VPN appliance\*

*\* Headquarters locations only require the HughesNet VPN appliance (no antenna system)*

### **VPN APPLIANCE ONLY (HEADQUARTERS SITES – NO ANTENNA)**

- Installing the HughesNet VPN appliance in a location designated by the site point of contact of the headquarters facility
  - Connecting the terrestrial Link to the primary WAN port of the HughesNet VPN appliance
  - Connecting the installer laptop to the HughesNet VPN appliance
  - Configuring the WAN Port of the HughesNet VPN appliance
  - Confirming that the LAN IP Address is correct with the POC
  - Entering the Activation Key into the HughesNet VPN appliance
  - Upon completion of the software download, confirm that all IP Addresses are correct on the HughesNet VPN appliance
  - Demonstrate Internet browsing thru the device\*
  - Cleaning up any unnecessary material from the install site.
  - Completing the Installation Reference Sheet and obtaining the site point of contact's signature on the Installation Reference Sheet
  - Notify your Distributor that the HQ site has been completed.
- *The customer is required to have someone at the site connect the LAN port to the existing network*

## **VPN APPLIANCE AND ANTENNA SYSTEM LOCATIONS**

- Locations safely accessible with a 25' extension ladder from the ground or with roof hatch access.
- Standard mounting includes one of the following three options:
  - **Ground pole mount; or**
    - *Note: All antennas must be mounted a minimum of 5 ft. off the ground and out of reasonable reach of small children, minimum total length of pole must be 9 ft. (3 ft. below ground, 6 ft. above ground)*
  - **Non-penetrating roof mount with ballast; or**
  - **Standard Tri-Mast roof/wall mount**
    - *Note: Wall mounts must not be mounted to surfaces or building materials that cannot support the wall mount (for example: stucco, aluminum siding, vinyl siding, aluminum roof)*
- Drilling one exterior point of entry, one interior point of entry, and installing one wall jack at the Indoor Unit (IDU) and PC location.
- Two exterior cable runs or one dual cable run of up to 150 feet of approved coaxial cable with one point of entry through an exterior wall to an interior wall.
- Connecting ground wire from the ground block to a NEC-approved bonding point.
- Installing and weather-sealing appropriate cable bushing, wall penetrations, and mounting locations.
- Using an installer laptop to obtain pointing parameters and conduct a cross-polarization test of the HUGHESNET system to verify receipt of satellite signal.
- Activating and commissioning the HUGHESNET service.
- Installation of the HUGHES Internet Continuity appliance (Connection of Primary Circuit to WAN-1 and Secondary to WAN-2)
- Demonstrating to the customer that the system is functioning by surfing the Internet.
- Demonstrating functionality by disconnecting primary service to observe the failover to satellite
- Cleaning up any unnecessary material from the install site.
- Completing the Installation Reference Sheet and obtaining the site point of contact's signature on the appropriate forms.

## **STANDARD INSTALLATION EXCEPTIONS**

**Exceptions to a standard HUGHESNET Internet Continuity installation include, but is not limited to the following:**

- If permits are needed to install satellite antenna due to city/local regulations/restrictions (that is, local city government or historical district may restrict the installation of a satellite dish because of location or visibility.)
- Drilling through more than one exterior and one interior wall.
- If site is on rental property and landlord has strict requirements to meet in order to receive approval for installation of equipment. Landlord approval is the sole responsibility of the customer.
- Fabricated mounts required to avoid line of site obstructions (i.e. Trees, buildings, billboards, etc.)
- If trenching work is needed in excess of 20 ft. in dirt, or any concrete/asphalt trenching.
- Cable in excess of 150 feet from the HUGHESNET dish to the termination point or installations that require additional drops such as high-rise buildings.
- Site surveys requiring a repeat site visit to determine the optimum antenna location.
- Any required configuration assistance beyond the LAN port of the HughesNet VPN appliance (i.e. Networking of additional PC's, servers, routers or switches)