Troubleshooting Guide

- **Connecting to an Access Point Cluster over the Internet**
- **Having trouble installing Monitor or Management Console**
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Connecting to an Access Point Cluster over the Internet:

A **cluster** is a unique, manageable entity to which a Cluster IP address is assigned. Centralized monitoring and management of the cluster can be achieved by connecting to the Cluster IP address via the Management Console. Whether you're connecting to a cluster from your LAN, over a virtual private network (VPN), or over the Internet, it is recommended that you assign a Cluster IP address. The Cluster IP address is user specified during the creation of a new cluster. The Cluster IP address must be static and outside of the scope of your network's DHCP server(s).

The following are descriptions regarding how the PC with the Management Console software loaded connects to clusters in various network configurations:

- **Connecting to a cluster or Access Point from a LAN or VPN:** When connecting to a cluster on the LAN or VPN, connect to its Cluster IP address. The PC with the Management Console software installed needs an IP address inside the same subnet as the Cluster IP address. If the PC and Cluster IP addresses are not in the same subnet, the Cluster IP address needs to be routable via a router on the network.
  Tip: If the IP addresses cannot be pinged, you cannot connect from the Management Console.

  If using a VPN, a VPN connection must be established from the PC with the Management Console software installed and a VPN server on the same physical network as the access points in the cluster. The PC with the Management Console installed needs an IP address in the same subnet as the Cluster IP address, or be routable.

- **Connecting to a cluster or Access Point from the Internet:** When connecting to a cluster over the Internet, connect to its external Cluster IP address. The external Cluster IP address needs to be exposed to the Internet and be static (never changing). Contact your IT administrator or your local broadband service provider for instructions on how to obtain an external, static IP address.

  The external Cluster IP address also needs to allow specific TCP traffic through the firewall; otherwise the firewall will reject all communication to the cluster. **The TCP port required for forwarding is 9877.** Consult your IT administrator or your firewall's documentation to determine how to open a port on the firewall.

  Bandspeed highly recommends enabling SSL communication when accessing a cluster from the Internet without a VPN connection. SSL encrypts the communication between the PC with the Management Console and the cluster, providing additional Internet security.

NOTE: Exposing any network device to the Internet may pose a security risk.

Having trouble installing Monitor or Management Console:

Make sure your Windows OS is up to date with the latest service pack, and make sure Windows Installer 3.0 is installed. Please see the following link for more information on installing Windows Installer 3.0.

http://www.microsoft.com/downloads/details.aspx?familyid=5FBC5470-B259-4733-A914-A956122E08E8&displaylang=en

Having Trouble getting DHCP IP addresses:

If you are experiencing problems getting DHCP IP addresses from DHCP servers behind the Access Points, please verify that the DHCP server is running and that the client is configured to acquire an IP address via a DHCP server.

If problems still exist, try disabling wireless encryption temporarily and determine if the clients can acquire a DHCP IP address. Some clients have problems properly authenticating with wireless networks that utilize WPA/WPA2 Mixed Mode wireless encryption. If you are experiencing DHCP problems with any of your client devices, Bandspeed recommends using just WPA or WPA2 and not using mixed mode.