5.2.4 APIPA and Alternate IP Addressing Facts

If a host is configured to obtain its IP address from a DHCP server but that server is unreachable, then an alternate IP address assignment method may be employed as follows:

Method	Description
Automatic Private IP Addressing (APIPA)	APIPA provides an option for automatic IP address assignment without a DHCP server. APIPA is enabled by default on most modern operating systems, including Windows and Linux. Using APIPA, hosts can assign themselves an IP address on the 169.254.0.0 network (with a mask of 255.255.0.0) if they can't locate a DHCP server. If a network host is configured to use dynamic IP addressing and a DHCP server can't be contacted, APIPA assigns a temporary IP address to the host. However, only the IP address and mask are assigned. Default gateway and DNS server addresses are not assigned. For this reason, APIPA can be used only to enable communications within a single subnet. Communication with other networks, including the internet, are not possible. In addition, communication with network infrastructure devices that use static IP addressing, such as servers, is not possible even if they are on the same local subnet as the APIPA host.
Alternate IP Configuration	With an alternate IP configuration, static IP configuration values are used if a DHCP server cannot be contacted. When you configure an alternate IP address, APIPA is automatically disabled. It is recommended that you use an IP configuration other than APIPA because you hosts need to access other systems on the local subnet and on other networks, including the internet. Alternate IP configuration also allows continued access to servers and other network infrastructure devices that use static IP addresses.