PfSense is an open source operating system designed to act as a firewall as well as a router. The software package is well known for its ability to be installed on a personal computer and act as a network management suite. The system’s easy to use graphical interface provides quick access into a wide array of complex network control tools. Scalability is another key feature, with pfSense support ranging from a small home office network to a huge corporate environment. With a wide list of features and a relatively small learning curve to begin use, it is easy to see why PfSense has become a popular tool among system administrators and networking professionals.

 Based off of FreeBSD, PfSense is not technically a Unix derivative but can be considered one for most purposes. Chris Buechler and Scott Ullrich began to develop PfSense in 2004. The software makes heavy use of the BSD firewall software PF, which is comparable to iptables. What made pfSense different from a traditional firewall was its intended use on a personal computer rather than embedded hardware. The current stable release is version 2.0.2 and was released December 21, 2012.

 One of the main features of pfSense is the ability to act as a firewall as well as a router. The stateful firewall relies on the Packet Filter software to determine what traffic is allowed in or out. The web interface allows an average user to configure these rules without the need to learn a complex syntax, providing an easy way to filter traffic by IP address or protocol. VPN is supported through the use of Ipsec, L2TP, Open VPN, and PPTP encryption algorithms. Routing software provides full support for NAT and DHCP as well as many other features expected as standard on most corporate level hardware.

 In addition to the routing and firewall support, pfSense makes use of many administrative tools and features which can be used for auditing and traffic shaping. Content control allows an administrator to block inappropriate or unproductive websites or have reports generated when certain traffic is detected. Bandwidth control allows for limitations to be placed on certain users whose heavy traffic bogs down the network. Profiles can be set up for different users or hardware setups, allowing dynamic privileges to be assigned based on many different factors such as operating system, access level, or even the time of day. With such a wide range of tools and features, pfSense makes a great administration and control tool for anyone looking to configure any individual aspect of their network.