

Monitoring Bandwidth with NetFlow and pmacct

Ubersmith can support collecting bandwidth data via libpcap, Netlink/ULOG, NetFlow v1/v5/v7/v8/v9, sFlow v2/v4/v5 and IPFIX by way of the network monitoring tool "pmacct". In order to take advantage of this capability, you will need to have a host configured to run pmacct. This can be your Ubersmith appliance, or a separate host dedicated for this purpose. More details on pmacct can be found at their website: <http://www.pmacct.net/>

Installing and configuring pmacct, as well as configuring your network infrastructure to communicate with it, is beyond the scope of this document. If you need help with pmacct, please contact Ubersmith support and we will do our best to answer any questions you may have.

To take advantage of the bandwidth data collected by pmacct, you will need to configure two device modules. The first is called 'NetFlow Server'. Configure this module for the device type or group that matches the host running pmacct.

The second device module required is NetFlow Bandwidth. This module functions very similarly to the 'Bandwidth Monitoring' device module. Configure this device module for the device type or group that is associated with the devices you plan to use to measure and bill bandwidth.

Once you've created a Device Manager entry to represent the host running pmacct, you'll want to configure the NetFlow Server device module. Select pmacct (Local) if pmacct is running on your Ubersmith appliance host, or pmacct (SSH) if it's running on a remote host. If using the SSH connection method, you will need to provide an IP, username, and password for your Ubersmith appliance host to communicate with pmacct.

Once you've configured the details for your NetFlow Server device module, the appliance will communicate with it and retrieve some details. You'll see that Ubersmith reports that no servers and no IPs are being monitored. This is normal. Ubersmith will collect new bandwidth data from pmacct once every five minutes.

Since we'd like to take advantage of the data being collected by pmacct, it's time to configure the NetFlow Bandwidth module for one of your devices. First, ensure you have an IP address assigned to the device that matches one of the addresses that pmacct is configured to monitor.

With the IP in place, you can configure the NetFlow Bandwidth device module. If you have more than one IP assignment configured for the device, you can determine which are appropriate to include or exclude from bandwidth measurement.

Once configured, Ubersmith will begin to collect and display bandwidth data for the selected IP. It may take a few Appliance polling cycles for the bandwidth data to appear, so wait about 10 to 15 minutes before beginning to troubleshoot any problems or contacting support. You can assign this device to a client and service, and it will appropriately bill for bandwidth utilization just as a device using the 'Bandwidth Monitoring' device module would.

Looking at your NetFlow Server device once more, you'll now see that it reflects the number of servers and IPs that are currently being monitored.

If you have any questions or problems using our NetFlow/pmacct integration, please contact Ubersmith support for assistance.