This documents describes the basic steps to install Caligare Netflow on Debian GNU/Linux to receive Netflow-5 Data from PacketShaper. Caligare provides a 30-daysTrial version, which is fully functional. At the end of this document, I've attached some reports.

Connect to Caligare Website http://www.caligare.com/netflow/download.php , where you can download the iso-image and request a trial key.

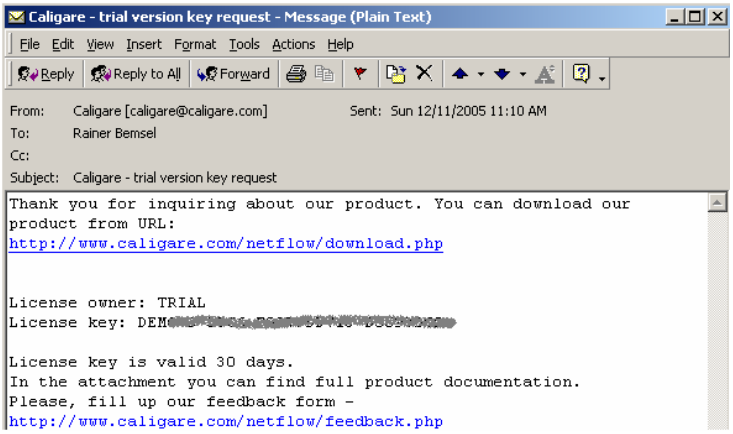
A) Download iso-netflow-3.2.4.iso and burn it onto a CD.
B) Request a License Key fro the Trial Version

DISCLAIMER

This Technical Tip or TechNote is provided as information only. I cannot make any guarantee, either explicit or implied, as to its accuracy to specific system installations / configurations. Readers should consult each Vendor for further information or support.

Although I believe the information provided in this document to be accurate at the time of writing, I reserve the right to modify, update, retract or otherwise change the information contained within for any reason and without notice. This technote has been created after studying the material and / or practical evaluation by myself. All liability for use of the information presented here remains with the user.

C) Wait for the Email providing the License Key.



D) Start Installation

1. Boot from CD
2. The installation script will perform all necessary steps, and only a few inputs are required
   - It will create partitions
   - It will create EXT3 file-system
   - It will create a swap file system
   - It will mount target device
   - It will extract the image
   - It will copy the netflow software
   - It will set up the boot loader
   - It will ask for a hostname
   - It will set the time zone
   - It will ask to set a UNIX password (for root account)
3. Remove the CD and reboot the system
4. After rebooting, you have some more information to be put it
   - Choose of DHCP or Static -> I suggest to run a static address to make sure, that netflow data will be received throughout the whole trial period.6
   - Now, you need the information from the email for License Owner, and the License Key itself
5. The Netflow daemon nfcd will stop and restart.
6. Open a web browser from another PC and connect to the IP address of the Netflow Collector.

If you see the login screen – you are done with the first main step. Username: **admin**, Password **nfadmin**

E) Synchronize Time

In order to have Netflow Sender and Netflow Receiver in time sync, I recommend to synchronizing date and time first, before adding any collectors or enable Netflow-5 at the sender side.

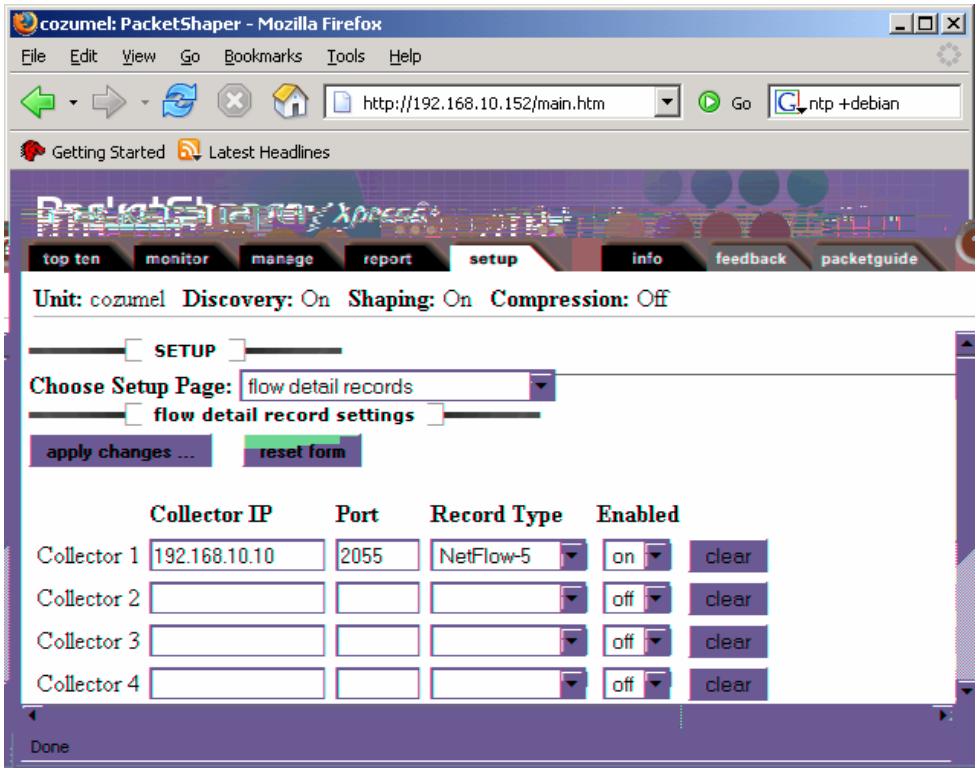
Note: 192.168.10.234 is hosting my local time server

```
Caligare-Server: ~#
Caligare-Server: ~# ntpdate 192.168.10.234
11 Dec 18:27:46 ntpdate [2816]: adjust time server 192.168.10.234 offset -0.131451 sec
Caligare-Server: ~#
```

If you use Caligare Netflow as a permanent collector, it would make sense to install an NTP-Client, which does periodically time synchronization.

F) Configure PacketShaper for Netflow-5 Delivery

Connect to PacketShaper, click on SETUP Tab and choose FLOW DETAIL RECORDS page. Netflow will send packets by default on port 2055/UDP to the collector.

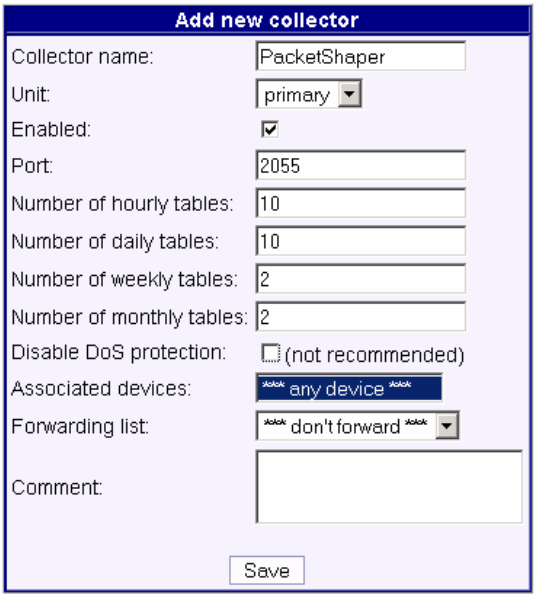


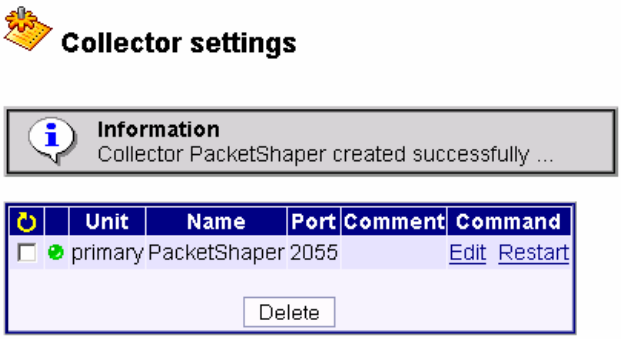
G) Set up Collector in Caligare

- Connect to Caligare with the Web User Interface

- Logon with admin (password: nfadmin)

- Click on Options – Collector – Add





Leave the advanced options for the collector on default. After Save, you should get a new unit.

Finally, wait a couple of minutes and verify statistics, if you get netflow data delivered.

This is just the basic setup. There are a lot of tables, graphs and analysis possible. Some of them, are added on the next few pages.

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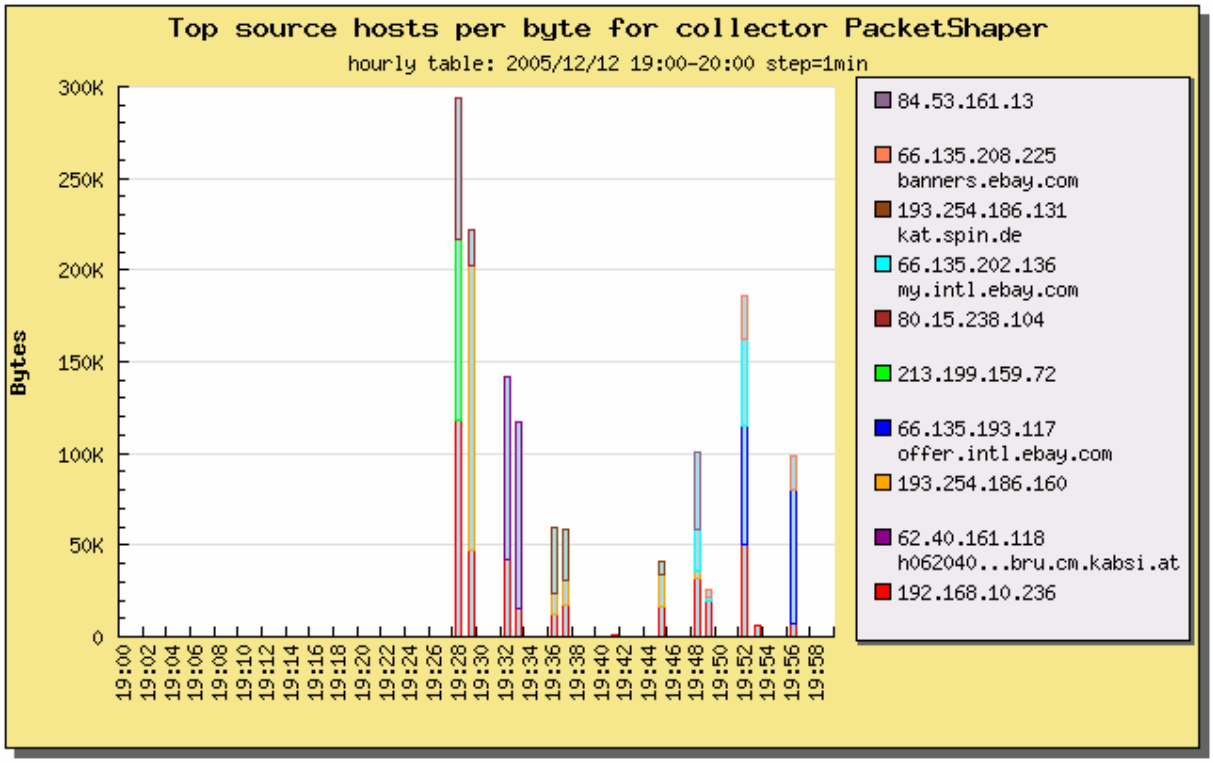
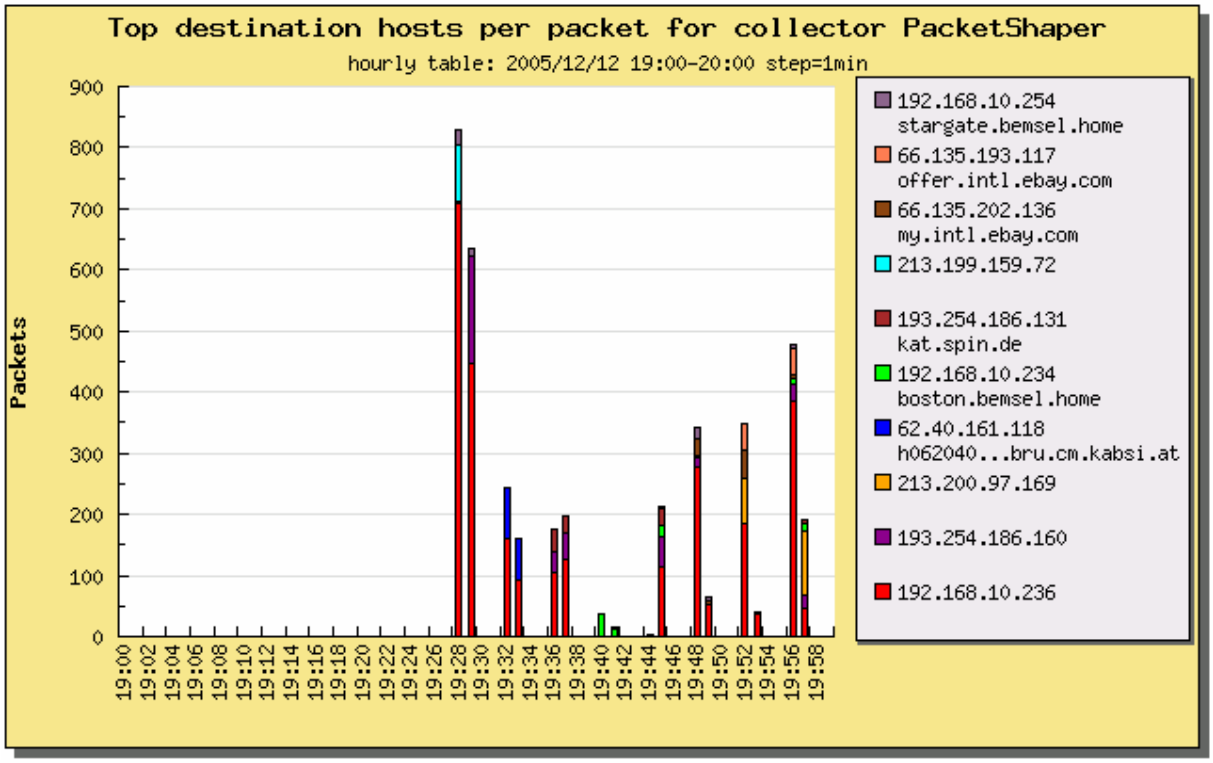
Sample Graphs





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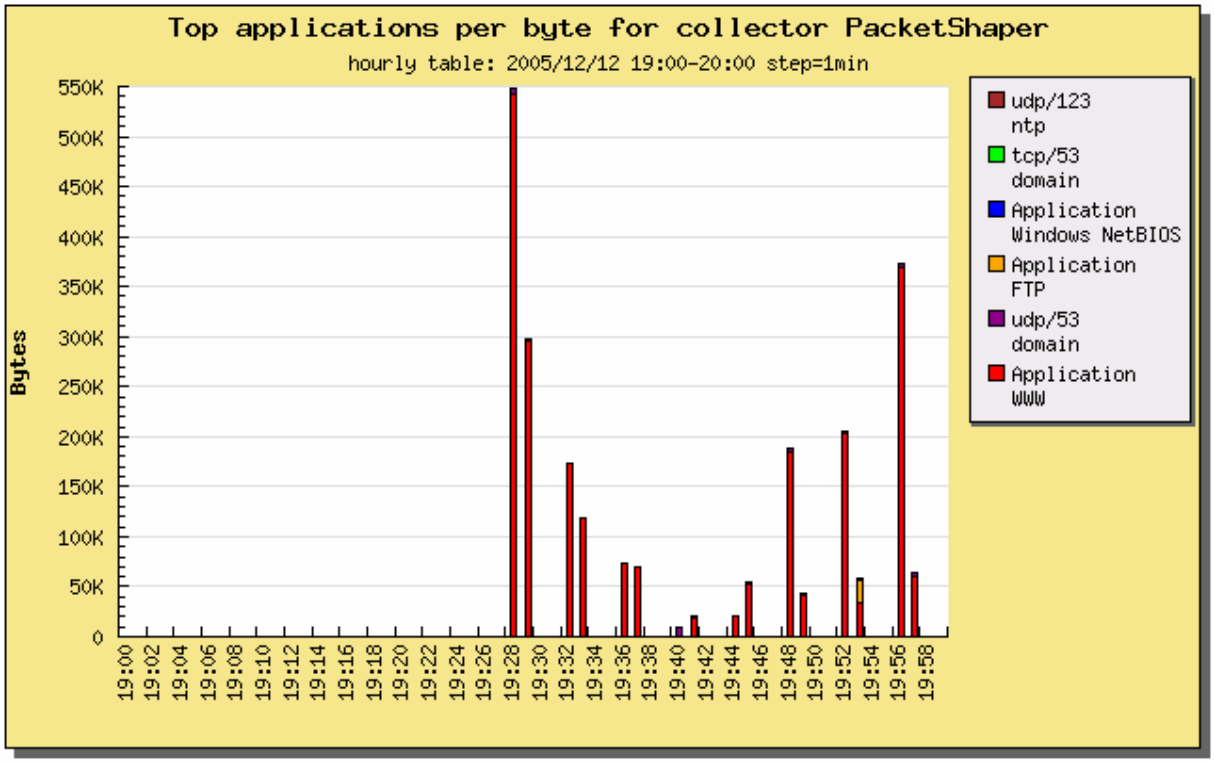

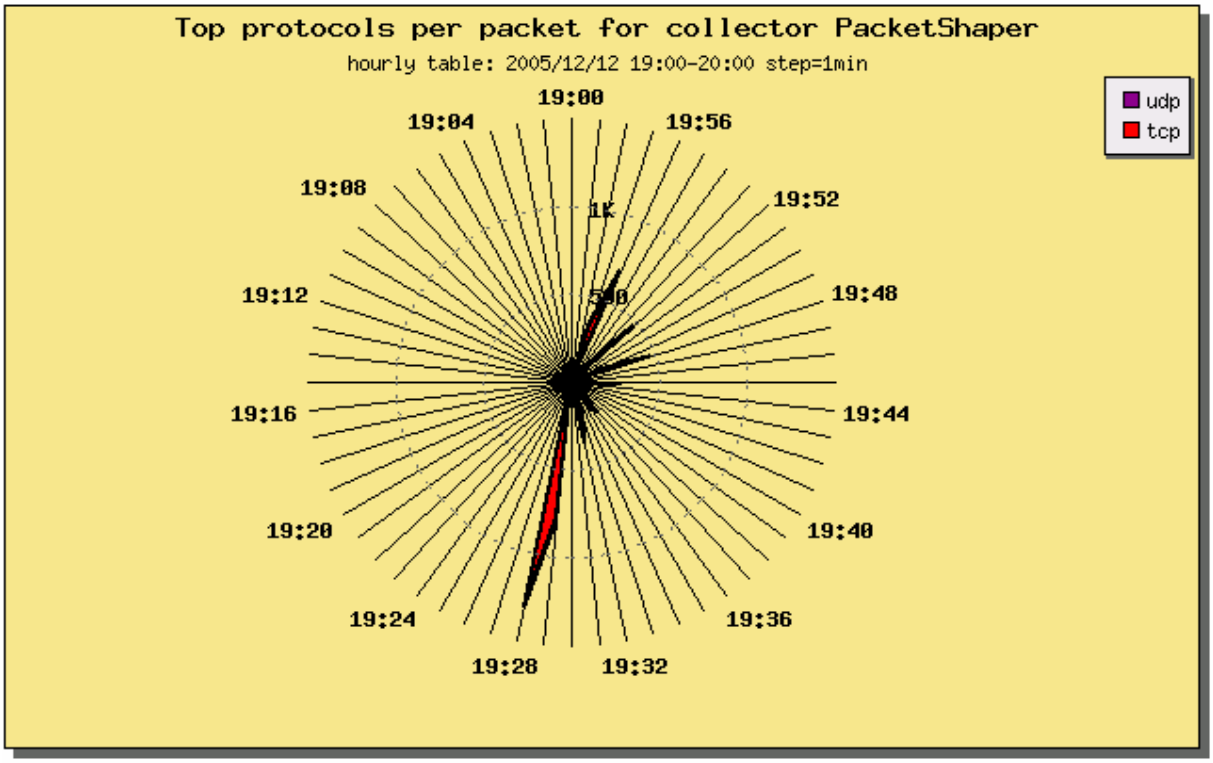

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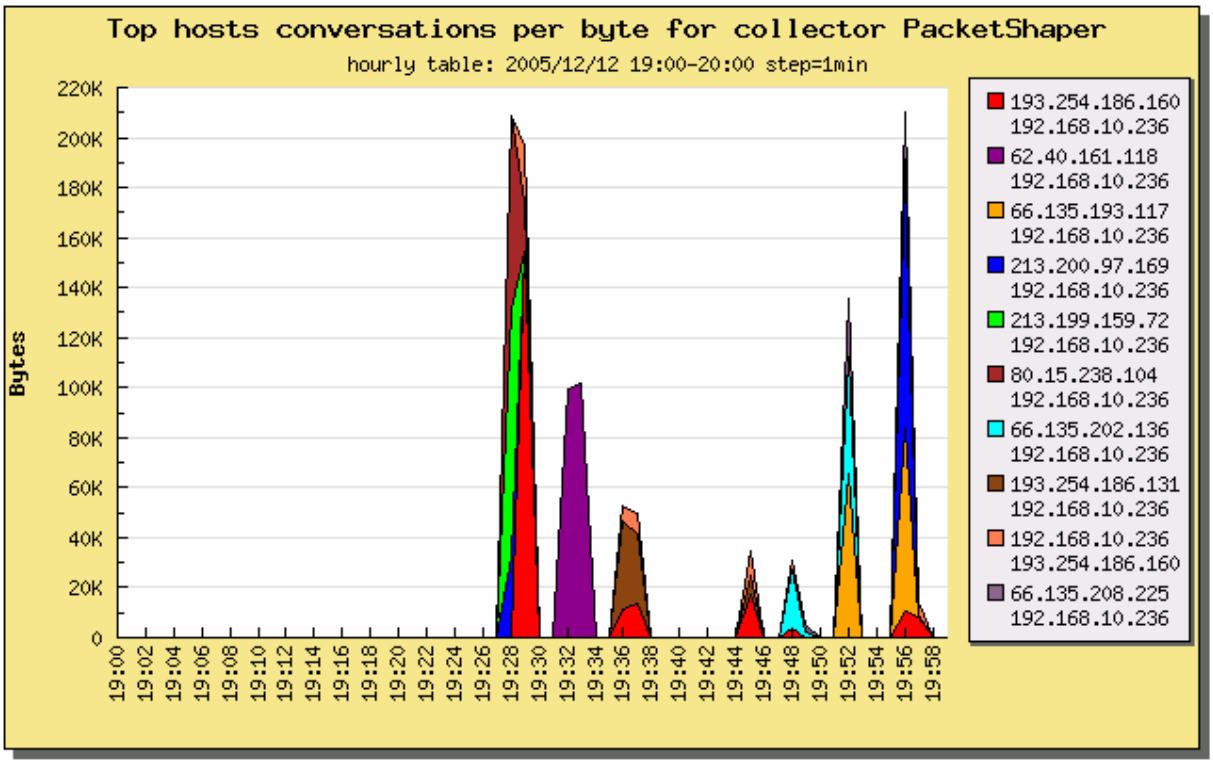

All graphs can also be shown as table.

Top applications per byte for collector PacketShaper										
Time	Application WWW	Application FTP	Application E-mail	udp/53 domain	Application Windows NetBIOS	Application Direct Connect	udp/123 ntp	tcp/53 domain	Application Gnutella	icmp/0.0 echo pong
Sun Dec 11 2005	0	0	0	0	0	0	0	0	0	0
Mon Dec 12 2005	9.1M (45.1%)	10.8M (53.42%)	71.2K (0.35%)	58.5K (0.29%)	23.3K (0.11%)	78.9K (0.39%)	20.3K (0.1%)	6.3K (0.03%)	40.5K (0.2%)	2.2K (0.01%)
Tue Dec 13 2005	0	0	0	0	0	0	0	0	0	0
Wed Dec 14 2005	0	0	0	0	0	0	0	0	0	0
Thu Dec 15 2005	101.7M (86.27%)	15M (12.7%)	712.1K (0.6%)	299.5K (0.25%)	116.7K (0.1%)	0	41.1K (0.03%)	37.8K (0.03%)	0	8.9K (0.01%)
Fri Dec 16 2005	16.5M (97.69%)	27.6K (0.16%)	222K (1.32%)	75.8K (0.45%)	35.4K (0.21%)	0	8.7K (0.05%)	8.5K (0.05%)	0	12.4K (0.07%)
Sat Dec 17 2005	0	0	0	0	0	0	0	0	0	0
Sum total	**127.4M**	**25.8M**	**1M**	**433.8K**	**175.3K**	**78.9K**	**70.1K**	**52.6K**	**40.5K**	**23.4K**

A complete Feature List of Caligare could be found on their website

http://www.caligare.com/document/CFI_Brief.pdf

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