NetSoft Inc.
Frequently Asked Questions

ASTRO FLOW GUARD

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How do I get AstroFlowGuard?

An ISO image is available for download from www.netsoft.co.za/download_afg.php
Download the ISO image; write it to a CD and boot from the CD to install.

How much does AstroFlowGuard Cost ?

The base price for AstroFlowGuard is determined by the amount of bandwidth you need to manage. All other modules are optional and are priced individually.

Visit www.netsoft.co.za/astroflowguard/afgpricing.php for the latest pricing on AstroFlowGuard.

Our upgrade pricing policy is such that you will pay the difference between your current configuration and your upgraded configuration based on the actual pricing at the time of upgrade.

What is AstroFlowGuard?

AstroFlowGuard is a Linux-based multi-function tool for network engineers - it incorporates all the proven bandwidth management functionality of *AstroFlow*, but also incorporates a state-full firewall, intrusion detection system and vpn server. With its user-friendly interface, automatic fail-over and smart recovery system, AstroFlowGuard is the complete tool for anyone wanting to manage bandwidth and network security.

Why should I use AstroFlowGuard?

AstroFlowGuard enables you to control a critical resource, your network. Network traffic is unpredictable, an unmanaged IP network handles traffic on a FIFO (first-in, first-out) basis. Controlled network behaviour is critical, AstroFlowGuard ensures your mission-critical applications are given priority when they need it. AstroFlowGuard prevents congestion at routers by buffering network traffic before releasing it to routers thus ensuring that the traffic flow never exceeds the bucket size capacity of your routers. AstroFlowGuard thus prevents dropping of packets and only does so as an absolute last resort.

AstroFlowGuard provides significant cost savings:

- You can fully optimise your network therefore saving costs on expensive WAN links.
- Your organisation's efficiency is increased.
- You can guarantee mission-critical applications get priority. At a fraction of the cost of other bandwidth management products, AstroFlowGuard provides a comprehensive set of tools to achieve the same goals.
- Using the firewall module you can control access to or from your network.
- With the IDS module you can detect possible intrusions or vulnerabilities.
- With the VPN module you can provide secure, encrypted connection to your network from an external source.

Can I put other applications or services on the AstroFlowGuard hardware?

No – AstroFlowGuard requires dedicated hardware to function.

What if I already have a firewall?

The various AstroFlowGuard modules are optional, if you choose to use AstroFlowGuard solely as a bandwidth management tool, all other modules can be disabled.

What is an Intrusion Detection System?

An intrusion detection system (IDS) inspects all inbound and outbound network activity and identifies suspicious patterns that may indicate a network or system attack from someone attempting to break into or compromise a system.

How does the AstroFlowGuard licensing policy work ?

AstroFlowGuard is licensed per server according to the amount of bandwidth you need to manage and which optional modules you choose to include in your configuration. A licence key is issued specific to the hardware that AstroFlowGuard is running on. This key will not work if any of the hardware is changed and a new key will need to be issued.

What is a licence key ?

A licence key is a string of characters that you would obtain from NetSoft after generating a licence file and sending it to NetSoft. This licence file is generated according to the specific hardware that AstroFlowGuard is installed on and thus cannot be used on a different server other than the one it was generated on.

A DEMO key will work with any hardware for a period of 30 days but the following restrictions apply:
- Only 5 Classes can be created.
- Only 5 Filters per class can be created.
- Only 5 ports will be discovered in Auto-Configure mode.
- All services will be disabled every 6 hours.

Where is the AstroFlowGuard server installed on my network?

It should be installed directly in front of your network's default gateway or between two networks so that the traffic has to flow through the device, this is typically directly before your core router. A transparent bridge system is used so no reconfiguring of your network is not necessary.

Does my network need to be changed to run the appliance?

No. AstroFlowGuard uses transparent bridging to pass traffic, you do not need to modify your network in any way or reconfigure your routing tables.

Will it control both incoming and outgoing traffic?

It controls both, the application manages traffic in both incoming and outgoing directions and these are independently controlled by the administrator.

Can both ISPs and enterprises benefit from using AstroFlowGuard?

Yes, network managers of ISPs, Web-hosting facilities, IP telcos, and end-user organisations can all benefit. ISPs can offer value-added services that act as key differentiators, such as providing several service classes for which customers can be charged accordingly. By installing a bandwidth manager on their networks' major links and known congestion points, large corporations will receive immediate benefits in terms of guaranteed bandwidth for mission-critical applications, increased network efficiency, reduced congestion, and detailed network usage statistics and reporting. Network security has become an absolute necessity in all network configurations – the firewall and intrusion detection system provide you with the tools to manage and monitor your network security effortlessly.

How many classes and filters can I create?

There is a limitation of 99 sub-classes per class. This equates to a maximum of 9801 classes per module. The number of filters per class is virtually unlimited.

One thing to remember here, is if you are going to use AstroFlowGuard for a large network with many classes and filters, you will need to compensate by installing it on an adequately powerful server.

What about failover ?

AstroFlowGuard incorporates a failover option. The servers will run in parallel and be configured as a Primary and Secondary. In the event of the Primary server failing, the Secondary will take over transparently within 30

seconds, when the Primary server is restored, it will transparently take over again.

You could save your configuration on your primary AstroFlowGuard server and restore it on your secondary server and enable bandwidth management on both.

In order to use the failover option, you will require two AstroFlowGuard licences.

Is AstroFlowGuard hardware or software?

It is available as both.

AstroFlowGuard is available as software for bandwidth management up to 20 Mbit.

If you need to manage more than 20 Mbit – you will need to use the AstroFlowGuard Appliance.

What if my network card breaks ?

In the unlikely event that your network card breaks, you will need to generate a new licence file and request a new licence key from Netsoft.

We will then issue a new licence key and rescind the old one.

Here are 3 precautions to take when using AstroFlowGuard:

- Ensure you use quality network cards (E.G Intel EtherExpress Pro 100)
- Ensure that the hardware AstroFlowGuard will be running on is known to be stable.
- Do not obtain a licence key on hardware that you intend to change in the future.

Is AstroFlowGuard available as an Appliance?

Yes. The AstroFlowGuard Appliance is now available.

Visit www.netsoft.co.za for more details.

What about support ?

Netsoft offer the following support options:

Initial 30 days Installation Support. (Free)
All Netsoft customers receive 30 days Installation Support free for installation and set up of the product.
This does not include in depth technical support for your product.

12 Months E-mail Support. (USD $ 195.00)
This support package offers email only support to Netsoft customers. It also *includes critical product updates* for 12 months.

12 Months Enhanced Product Support. (USD $ 395.00)
This comprehensive support package gives you online technical support and all minor and major product updates for 12 months.
Along with hands-on assistance and live support, you will also benefit from all the latest feature releases and critical updates for the duration of your subscription.

AstroFlowGuard incorporates an auto-update feature, which will automatically update the software if any updates are available. NetSoft provide all updates via our update server if any bug-fixes or enhancements are made.

Before I set up a server with the demo software, I would like to know where to place the AstroFlowGuard Server in a star-like WAN-topology. Do I need one box per subsidiary? Or can I have just one in our headquarters?

The answer would depend upon what you are trying to accomplish and how your network is built. If you are trying to manage Internet access and bandwidth, then you'll need it as close to the gateway router as possible. If all of your branches terminate into the WAN router, you must do your bandwidth management at the remote location.

You can also have the AF system at the remotes configured to manage bandwidth one way back to the main office and another AF bandwidth manager to the Internet set up a different way. Lots of flexibility.

To get the best shaping picture of your traffic with the demo, set it near the gateway.

I am going to install AstroFlowGuard on a PC with 3 network cards, will I face any problem?

No, AstroFlowGuard supports up to 7 NICs.

I downloaded the ISO, burned it to a cdr and booted from it. Then all I get is this:

Boot from ATAPI CD-ROM:
2.88MB Diskette
L 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 ....

I'm using a Celeron 850 with 512 RAM and installing on a 40Gb Seagate IDE HDD.

Did you have anything else on the hard drive before? We have had reports that if Grub was installed on a hard drive before, AstroFlowGuard has problems removing the boot sector. If Grub was on it before, please do a low level format on it and then clear the boot sector.

Does AstroFlowGuard support SCSI hard drives?

No, AstroFlowGuard only supports IDE devices at this stage.

I installed AstroFlowGuard and entered all the information. The system rebooted and came up with grub>. It appears the system didn't properly reboot/boot up.

This is a because of the grub boot loader you had installed on that hard drive before you installed AstroFlowGuard. What you need to do is run fdisk /mbr on it with a dos boot disk in order to clear the master boot record.   AstroFlowGuard uses the Lilo boot loader so this could not have been as a result of AstroFlowGuard.

Does the demo license reside on the NIC's MAC address? I am concern about this because if I buy the license after the demo period, how flexible is it?

AstroFlowGuard is licensed per server according to the amount of bandwidth you need to manage. A licence key is issued specific to the hardware that AstroFlowGuard is running on. This key will not work if any of the hardware is changed, in that event a new key will need to be issued.

I have downloaded the ISO file, what do I do to install it?

You will need to burn the ISO to a CD. You will need a dedicated PC with the following minimum requirements to install AstroFlowGuard on:
PIII 1 GHz
5124 M RAM
2 NICs
5 Gig HDD

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Boot the PC from the AstroFlowGuard CD - The AstroFlowGuard installation wizard will take you through the setup procedure.

I am confuse on the incoming and outgoing connection... internet <-> firewall <-> AstroFlowGuard <-> lan_workstation. So, which part is consider incoming and outgoing in the AstroFlowGuard?

Incoming is considered to be from the Internet to your network.   Outgoing is considered to be from your network to the Internet.

Where should I put the AstroFlowGuard? Is it before or after the firewall?

Internet <-> Router <-> AstroFlowGuard <-> Firewall
OR
Internet <-> Router <-> Firewall <-> AstroFlowGuard

AstroFlowGuard will work in both of those network configurations. If however, you put it between the router and the firewall, you should create logins restricted to IP addresses to prevent unwanted access to your AstroFlowGuard server.

Is there a way of blocking Kazaa? from in and outs?

Yes, you can entirely block Kazaa traffic by creating a P2P filter in the firewall. Alternatively you could limit P2P bandwidth by adding a P2P filter in the Bandwidth Manager.

My AstroFlowGuard is bridging my Internet connection and my LAN connection. AstroFlowGuard is currently managing the bandwidth between my LAN connection to the Internet connection. Is there a way to bypass certain computers? Example I manage bandwidth to ALL traffic to 64kbps.   Is it possible to bypass AstroFlowGuard on some specified addresses?

This can be done with a Pass-Thru Class. Read the help under "class add" it will explain how to use a Pass-Thru Class.

My AstroFlowGuard is serving 10 internal IP clients on a single subnet. Is it possible to manage their bandwidth on an IP basis? I would like to manage the bandwidth of each IP (192.168.0.1, 192.168.0.2, 192.168.0.3 etc...) instead of managing it on a subnet class basis. Is this possible?

Yes, this is easily attainable. Here is an example configuration:

1. Create a class (or subclass) with the desired bandwidth settings for each IP.
2. Within each class, create a filter with the destination IP address of the host you want to manage with a subnet mask of 255.255.255.255 – This will result in management of a single IP Address.

What will be the IP of AstroFlowGuard? Is it the Internal IP (192.168.0.x) or the Live Internet IP (203.131.103.x)?

This depends on how your network is setup, however, if you have placed the AstroFlowGuard server on the "internal" side of your default gateway, you should assign it an internal LAN address (e.g. 192.168.0.10)

I am looking to specify a /24 and instead of allocating the amount of bandwidth that you specify to all of the users and divided as if that's all the bigger the connection is I would like to create one rule that sets a max for each IP in the block to the max that you set. Like create a class of 400kbit and add a class c as a filter to it and have that mean 400k per IP address is allowed.

That is not possible, with AstroFlowGuard you have to specify the total amount of bandwidth for a class and that will be the limit for all filters falling under it.

Is there anyway to balance the connectivity between all of the IPs in a class c?

This is exactly what AstroFlowGuard does at the moment. If you have a Class of say 600Kbit and assign a filter of a class 'c', the bandwidth will be shared equally amongst all active sessions in that Class.

I have set up AstroFlowGuard to limit bandwidth and monitor my ISP customers. I have chosen to filter by using their IP addresses. Everything works fine with the limits I have set. My question is, how can I use AstroFlowGuard to monitor my Radius, Web and Dialup Servers. Can I set each of them up with a class and check the "Pass Through Class" button. If I want them to have unlimited bandwidth, should I set their guaranteed and burst to 0? Should I use the IP as the filter as I have done with the users? Currently, all of the activity of the servers shows up accumulated under default.

What I have done here on my network is to set-up a PassThru Class for my internal servers that need to be on each side of the AstroFlowGuard server and added a filter for the whole IP range that applies to my internal servers.

For Example my filter looks like this:
196.25.188.0/27 Any 196.25.188.0/27 Any IP 0

So as you can see I have assigned 30 IP addresses for my internal servers and simply added an IP filter to and from this range.

What happens here is that any traffic that needs to flow between servers on each side of the AstroFlowGuard server in this range will not be limited in any way.

The only browser that I have been able to use successfully to configure AstroFlowGuard has been IE running on a windows machine. On all other platforms and browsers I get to a point that when I hit a lot of the buttons on the interface and they don't work.

AstroFlowGuard only supports IE 5.5 and up. We will be writing in support for more at a later stage but an eta is not set yet.

I think someone else mentioned this somewhere, but I am wondering if your product will be able to detect applications based on the packet header content rather than the port number. Many of the P2P apps do not use one standard port and take advantage of ports like 80 or 25 that aren't usually guarded. Currently we use Cisco's NBAR in conjunction with snort to tame the amount of P2P running over our link. I've been told that Packeteer's product works for this, but I like what I see here - pricing as well. Will this be a capability of future versions?

AstroFlowGuard can block and/or limit P2P applications like the new KaZaa.

With the Firewall module, you can also mark packets containing specific string values and then read that mark in the Bandwidth Management rules.

I've been playing around with this (demo) and can't seem to figure out what I want in a BWMNGR.   (1) I need per user usage totals for each month based on mac addy or IP (static)? Previous month would be nice also. (2) I want the box to show all IP addresses flowing through and give me the option to enable/disable filtering for that IP (not sure if that's what auto configure is)? Let me know if AstroFlowGuard can/will be able to do this as I haven't figured out all the capabilities yet.

Quote: 1. I need per user usage totals for each month based on mac addy or IP (static)? Previous month would be nice also...

AstroFlowGuard does not do bandwidth accounting as such, it simply shows you total bandwidth per class and current throughput - We will be looking at proper accounting per IP at a later stage.

Quote: 2. I want the box to show all IP addresses flowing through and give me the option to enable/disable filtering for that IP (not sure if that's what auto configure is)?

Auto-Configure does not monitor per IP traffic, it discovers ports / protocols in use on the network and allows you to assign specific priorities to each port.

All our other systems have some sort of server mirroring or load balancing (Redhat piranha), which makes the AstroFlowGuard system our vulnerability and renders all our failover systems a waste of time. Also our servers are offsite at a co-location centre so swapping our network cards or bypassing the system will take forever. Any suggestions ?

AstroFlowGuard incorporates a failover system to accommodate your scenario.

I created an outgoing filter for Napster of 1bps with 0bps burst. However the stats are not increasing when viewing the filters and the protocol distribution report has Napster traffic well over 1bps.

The Auto-Configure only picks up KaZaa version 1 and Napster, which uses normal ports and protocols like TCP and UDP.

It does not detect KaZaa-2 or any Fasttrack protocols, for these you will have to add rules separately.

At the bottom of my firewall options screen it lists Internal as being excluded from SYN-FLOOD, Port Scan and ping flood. How do I add additional hosts to be excluded from these? Specifically I would like to be able to add monitor.sjc.above.net to be excluded from both ping flood and port scan.

You simply click the "Add Exclusion" button next to the Syn Flood, Ping Flood and Port Scan settings.

Contacting NetSoft Inc.

For help with the installation or operation of this product, contact NetSoft Technical Support at one of the phone numbers or Internet addresses below.

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