

This document provides a rough guideline for choosing the right Astaro Gateway appliance for different scenarios. As performance may vary based on user characteristics, application usage, security configurations and other factors, Astaro cannot guarantee specific performance results.

Performance numbers represent average throughput values achievable with a typical traffic mix. Numbers for recommended users are based on average usage. Please see the final section for more details.

Astaro Security Gateway Hardware Appliances

Average Performance Numbers						
Model	ASG 110/120	ASG 220	ASG 320	ASG 425	ASG 525	ASG 625
FW (Mbps)	200	340	500	2.000	3.000	4.000
VPN (Mbps)	50	130	150	260	320	375
IPS (Mbps)	30	55	70	100	125	170
HTTP (Mbps)	60	80	100	220	380	490
HTTP AV (Mbps)	35	45	70	135	180	350
IM/P2P (Mbps)	30	40	50	90	110	140
Web Requests – AV scanned (Req./s)	140	240	315	920	1800	2200
Emails scanned (emails/h)	25.000	36.000	54.000	160.000	195.000	255.000
Emails seen (emails/h)	200.000	300.000	450.000	1.200.000	1.500.000	2.200.000

Max. Recommended Users	10	50	150	350	1000	2500	4000
FW/VPN	ASG 110	ASG 120	ASG 220	ASG 320	ASG 425	ASG 525	ASG 625
FW/VPN + 1 content filtering module*							
FW/VPN + 2 content filtering modules*							
FW/VPN + 3 content filtering modules*	10	25	70	200	600	1300	2000

Content Filtering Modules are:

- **IPS:** Intrusion Prevention
- **Web:** Web proxy + URL Filter + AV + IM/P2P
- **Email:** Mail proxy + Antivirus + Antispam + Email Encryption

Astaro Mail Gateway Hardware Appliances

Average Performance Numbers				
Model	AMG 1000	AMG 2000	AMG 3000	AMG 4000
Emails scanned (emails/h)	50.000	100.000	150.000	200.000
Emails seen (emails/h)	400.000	750.000	1.000.000	1.500.000

Max. Recommended Users	300		800		2500		5000	
Base + AV + AS	AMG 1000	300	AMG 2000	800	AMG 3000	2500	AMG 4000	5000
Base + AV+ AS + Encryption		250		700		2200		4400

- **Base:** Mail proxy only
- **AV:** Virus Scanner for SMTP & POP3
- **AS:** Spam Filter for SMTP & POP3
- **Encryption:** S/MIME and PGP email encryption

Astaro Web Gateway Hardware Appliances

Average Performance Numbers				
Model	AWG 1000	AWG 2000	AWG 3000	AWG 4000
HTTP In-line (Mbps)	50	80	150	250
IM/P2P (Mbps)	40	60	100	150
AV (Mbps)	20	40	80	130
Web Requests – AV scanned (Req./s)	100	375	1200	3000

Max. Recommended Users	100		250		750		2000	
Base	AWG 1000	100	AWG 2000	250	AWG 3000	750	AWG 4000	2000
Base + IM/P2P								
Base + AV								
Base + AV + IM/P2P		50		125		500		1000

- **Base:** Web proxy + URL Filter
- **AV:** Virus Scanner for Web & FTP traffic
- **IM/P2P:** IM and P2P Traffic for one of those applications

Astaro Gateway Software

The following table provides a rough guideline for choosing a typical system configuration when installing Astaro Security Gateway, Astaro Mail Gateway or Astaro Web Gateway Software on Intel-compatible PCs or servers. Shown user numbers are average values for normal user traffic.

Astaro Security Gateway Software Appliance

Typical System Configuration					
CPU	<ul style="list-style-type: none"> VIA (1.5 GHz) Celeron (1.2 GHz) 	<ul style="list-style-type: none"> Pentium 4 (2.4 GHz) Pent. Dual-Core (1.6 GHz) 	<ul style="list-style-type: none"> Pent. Dual-Core (2 GHz) Core 2 Duo (2 GHz) 	<ul style="list-style-type: none"> Core 2 Duo (2.13 GHz) Xeon (2.8 GHz) 	<ul style="list-style-type: none"> Dual Core Xeon (2.33 GHz) 2 * Xeon (3.2 GHz)
Memory	512 MB	1024 MB	1024 MB	2048 MB	4096 MB
Max. Users	50	150	350	1000	3000

Astaro Mail Gateway Software Appliance

Typical System Configuration				
CPU	<ul style="list-style-type: none"> Celeron (1.6 GHz) 	<ul style="list-style-type: none"> Pentium 4 (2.8 GHz) Pentium Dual-Core (1.8 GHz) 	<ul style="list-style-type: none"> Core 2 Duo (3 GHz) 	<ul style="list-style-type: none"> Quad Core Xeon (2.4 GHz)
Memory	512 MB	1024 MB	1024 MB	2048 MB
Max. Users	300	800	2500	5000

Astaro Web Gateway Software Appliance

Typical System Configuration				
CPU	<ul style="list-style-type: none"> Celeron (1.6 GHz) 	<ul style="list-style-type: none"> Pentium 4 (2.8 GHz) Pentium Dual-Core (1.8 GHz) 	<ul style="list-style-type: none"> Core 2 Duo (3 GHz) 	<ul style="list-style-type: none"> Quad Core Xeon (2.4 GHz)
Memory	512 MB	1024 MB	1024 MB	2048 MB
Max. Users	100	250	750	2000

Average Usage vs. Power Usage

All recommended user numbers are based on average email and web usage with parameters outlined within the table below. If usage significantly exceeds traffic of an average user (i.e. is a "Power user") then you should choose an appliance with higher capacity according to the following rule:

- If at least 3 items apply in "Power User" column use unit with next higher capacity
- If at least 5 items apply in "Power User" column use unit with 2 levels higher capacity

	Average User	Power User
Email Usage (per 10 h working day)		
Number of received emails in IN-Box	Up to 50	> 50
Number of large emails	Up to 3 emails ~ attachments 500KB	> 3 emails and/or ~ attachments 1MB
Encrypted emails	Up to 10% of all emails	> 10%
Web Usage (per 10 h working day)		
Downloads per user and day	Up to 4	> 4
Web Usage	Equally spread throughout the day	Many peaks
Web Applications	Mostly Webmail / Google / News	"Power Users" (schools, universities, business applications)
Instant Messaging	10-15 text messages/day	Extensive use of VOIP features and file transfer
Peer-To-Peer	Infrequent downloads mostly IT department related (i.e. software updates)	Continuous and frequent sharing of data (i.e. software distribution, live feeds)
FW/VPN Usage		
IPS in use	No	Yes
Number of VPN tunnels per user	up to 0,5	> 0.5