Barracuda

Sizing the Barracuda NextGen Firewall F-Series 6.2.x

Choose the right Barracuda NextGen Firewall F-Series for your deployment

White Paper

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Preface

This document provides a guideline for choosing the right Barracuda NextGen Firewall F-Series appliance for your deployment. The information provided in this document is based on four different basic scenarios, which may fit to your network deployment and management strategy. Please follow the most appropriate scenario to find the right Barracuda NextGen Firewall F model for your needs.

As performance may vary (based on user characteristics, application usage, security configurations, and other factors) we cannot guarantee specific performance results. Choosing the right Barracuda NextGen Firewall F-series size depends on three main characteristics at each location:

- **Number of users** - Number of users who need data access to Intranet, Internet, or Cloud Services.
- **Feature set** - The Barracuda NextGen Firewall F-Series offers a lot of features that can be enabled or disabled. Feature use may massively influence performance of the appliance. In this Sizing Guide we look at following main feature sets:

Feature Sets	Firewall	Application Detection	VPN	URL Filtering	Malware Protection	Adv. Threat Detection	Intrusion Prevention	SSL Interception	WAN Optimization
1 Full Featured	▭	▭	▭	▭	▭	▭	▭	▭	▭
2 Internet Breakout	▭	▭	▭	▭	▭	▭			
3 Secure Connection	▭	▭	▭						

- **Internet usage** - Sizing and throughput numbers in this document are based on a typical traffic mix. The maximum recommended number of (concurrent) users depends on their usage level and is split into low, medium, or high.

  All recommended user numbers are based on average email, web, and firewall usage with parameters outlined within the table below. If usage requirements are located in High or Low ranges you may consider choosing an appliance with either higher or lower capacity according to the following table:

Email Usage (8h-working day)	LOW	MEDIUM	HIGH
Number of received emails in inbox	Up to 20	Up to 50	More than 50
Number of large emails	None	Up to 3 emails with attachments of up to 500kB	More than 3 emails and/or with attachments bigger than 1MB
Encrypted emails	None	Up to 10% of all emails	More than 10%
Web usage (8h-working day)	**LOW**	**MEDIUM**	**HIGH**
Downloads per user and day	Up to 2	Up to 4	More than 4
Web usage	Minor peaks	Equally spread throughout the day	Many peaks
Web applications	Mostly webmail / wikis / news	Mostly webmail / wikis / news	"PowerUsers" (schools, universities, business applications)
Active Directory in use	No	No	Yes
Firewall / VPN usage	**LOW**	**MEDIUM**	**HIGH**
IPS in use	No	No	Yes
Number of VPN tunnels per user	None	Up to 1	More than 1

If you have any suggestions for future releases of this sizing guide, please contact EMEAPMM_team@barracuda.com.

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Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

RELEASE 2

Barracuda NextGen Firewall F-Series 6.2.x

October 2015

Scenarios

Scenario 1 – Full Featured for headquarters, data centers

The full-featured scenario comprises one main office connecting to the Internet and cloud services and includes with remote workers connecting via VPN clients or SSL VPN.

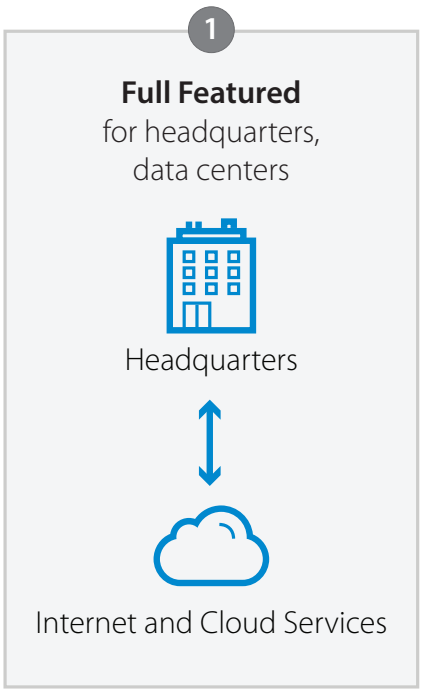
In general, the majority of features are used and the Barracuda NextGen Firewall F-Series runs full featured.

This scenario is also called "stand-alone deployment".

Typical examples are single locations or university campus' without branches.

Sample customers are.

- City of Palo Alto
- Grimaldi Lines
- Vienna University of Economics and Business



Scenario 1: Full-featured Barracuda NextGen Firewall F-Series
(Firewall, Application Detection, VPN, URL Filtering, Malware Protection, Advanced Threat Detection, Intrusion Prevention, SSL Interception, and WAN Optimization)

Model	Recommended number of users																			
	5	15	30	50	75	100	150	200	300	500	750	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	10,000	15,000
F1000																					
F900																					
F800																					
F600																					
F400																					
F380																					
F280																					
F180																					
F80																					
F18																					
F10																					

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

Scenario 2 – Internet Breakout for main and branch offices

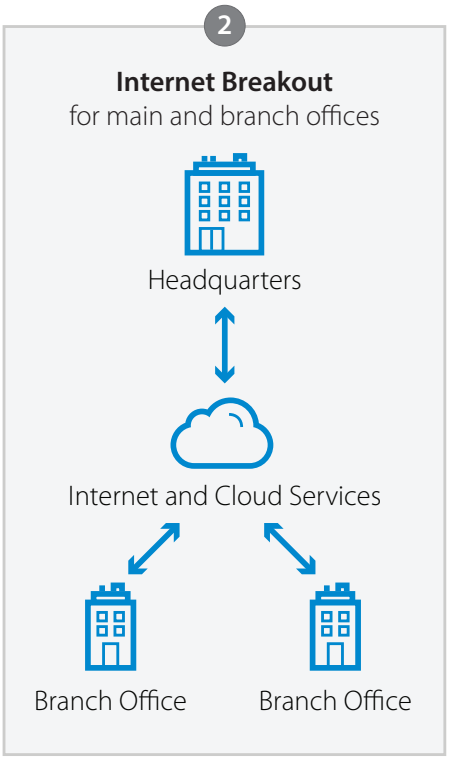
An Internet breakout at branch offices indicates full Internet access with (optional) full-fledged F-Series features in place.

As users can directly reach Internet and cloud resources via the local firewall, additional content security features like Malware Protection, URL Filtering, and Advanced Threat Detection might be needed. The management of all branch office appliances is done centrally via a Barracuda NextGen Control Center.

In general, the scenario can be seen as the classic national or international enterprise network with independent regional offices.

Sample Customers:

- Conservas Cidacos
- EADS
- Blum
- RHI



Scenario 2: Internet Breakout for main and branch offices
(Firewall, Application Detection, VPN, URL Filtering, Malware Protection, and Advanced Threat Detection)

Model	Recommended number of users																			
	5	15	30	50	75	100	150	200	300	500	750	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	10,000	15,000
F1000																					
F900																					
F800																					
F600																					
F400																					
F380																					
F280																					
F180																					
F80																					
F18																					
F10																					

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

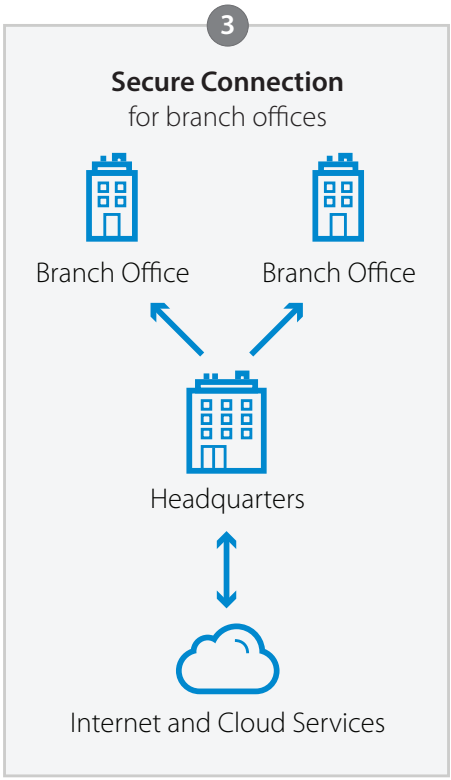
Scenario 3 – Secure Connection for branch offices

The satellite/shops scenario adds branch offices that need a stable and secure connection to headquarters. The branch offices connect to the headquarters via site-to-site VPN tunnels and send any compute-intensive security task, like antivirus, URL filtering, IPS, Application Control, etc., to the headquarters firewall. At the branch firewall only main features like firewalling, Application Detection, and VPN are enabled. Internet connections for the branch offices are routed entirely via the headquarter's firewall. All branch office appliances are managed centrally via a Barracuda NextGen Control Center.

This scenario can be seen as the classic shop-to-headquarters scenario.

Sample Customers

- Calzedonia
- CBCX
- Central Parking



Scenario 3: Secure Connection for branch offices
(Firewall, Application Detection, and VPN)

Model	Recommended number of users																			
	5	15	30	50	75	100	150	200	300	500	750	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	10,000	15,000
F1000																					
F900																					
F800																					
F600																					
F400																					
F380																					
F280																					
F180																					
F80																					
F18																					
F10																					

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

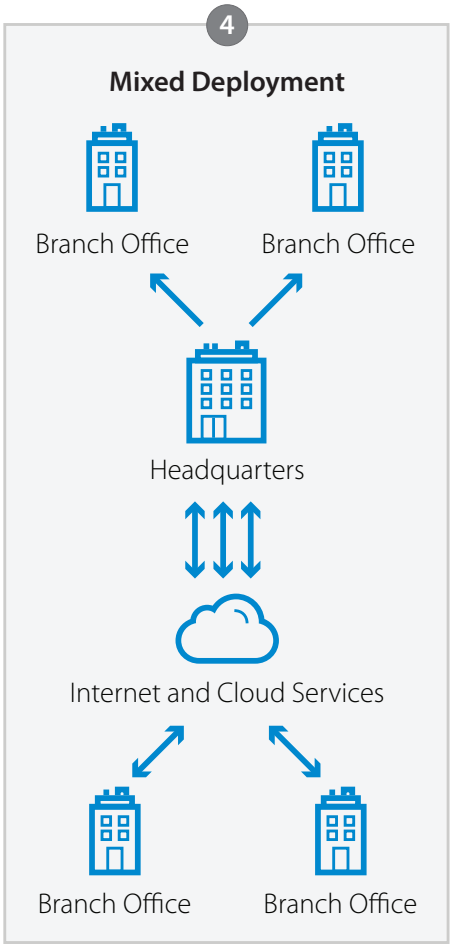
Scenario 4 – Mixed Deployment

The mixed deployment scenario combines Internet Breakout and Secure Connection setups.

You have small satellite offices as well as bigger regional offices connected to the company network. Both types of offices need a stable and secure connection to headquarters to reach centralized resources. Additionally, regional main offices can directly reach Internet and cloud services.

This scenario is mostly represented by international enterprises having regional main offices and also smaller retail shops or machine connectivity like ATMs or fuel dispensers connected to headquarters.

Nevertheless, all firewall appliances are managed centrally via the Barracuda NextGen Control Center.



Sample Customers

- ARZ
- Agrana
- Goethe Institute

Desktop Appliance Performance

Feature Sets	Firewall	Application Detection	VPN	URL Filtering	Malware Protection	Adv. Threat Detection	Intrusion Prevention	SSL Interception	WAN Optimization
1 Full Featured	▭	▭	▭	▭	▭	▭	▭	▭	▭
2 Internet Breakout	▭	▭	▭	▭	▭	▭			
3 Secure Connection	▭	▭	▭						

Barracuda NextGen Firewall F10

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured [1]	♙																				
2 Internet Breakout [2]	♙																				
3 Secure Connection	♙	♙																			
Feature sets	**Recommended number of users**																				

[1] Advanced Threat Detection, SSL Interception, and WAN Optimization not supported.

[2] Content Security only supported in combination with Barracuda Web Security Service; Advanced Threat Detection not supported.

Barracuda NextGen Firewall F18

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙																		
2 Internet Breakout	♙	♙	♙	♙																	
3 Secure Connection	♙	♙	♙	♙	♙																
Feature sets	**Recommended number of users**																				

Barracuda NextGen Firewall F80

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙																	
2 Internet Breakout	♙	♙	♙	♙	♙																
3 Secure Connection	♙	♙	♙	♙	♙	♙															
Feature sets	**Recommended number of users**																				

Barracuda NextGen Firewall F180

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙																
2 Internet Breakout	♙	♙	♙	♙	♙	♙															
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙														
Feature sets	**Recommended number of users**																				

Barracuda NextGen Firewall F280

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙	♙	♙														
2 Internet Breakout	♙	♙	♙	♙	♙	♙	♙	♙													
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙	♙	♙												
Feature sets	**Recommended number of users**																				

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

Rack Appliance Performance

Feature Sets	Firewall	Application Detection	VPN	URL Filtering	Malware Protection	Adv. Threat Detection	Intrusion Prevention	SSL Interception	WAN Optimization
1 Full Featured	▭	▭	▭	▭	▭	▭	▭	▭	▭
2 Internet Breakout	▭	▭	▭	▭	▭	▭			
3 Secure Connection	▭	▭	▭						

Barracuda NextGen Firewall F380

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙	♙	♙	♙													
2 Internet Breakout	♙	♙	♙	♙	♙	♙	♙	♙	♙												
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙											
Feature sets	Recommended number of users																				

Barracuda NextGen Firewall F400

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙	♙	♙	♙	♙												
2 Internet Breakout	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙											
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙									
Feature sets	Recommended number of users																				

Barracuda NextGen Firewall F600

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙									
2 Internet Breakout	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙								
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙							
Feature sets	Recommended number of users																				

Barracuda NextGen Firewall F800

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙							
2 Internet Breakout	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙						
3 Secure Connection	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙	♙					
Feature sets	Recommended number of users																				

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

Feature Sets	Firewall	Application Detection	VPN	URL Filtering	Malware Protection	Adv. Threat Detection	Intrusion Prevention	SSL Interception	WAN Optimization
1 Full Featured	▭	▭	▭	▭	▭	▭	▭	▭	▭
2 Internet Breakout	▭	▭	▭	▭	▭	▭			
3 Secure Connection	▭	▭	▭						

Barracuda NextGen Firewall F900

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●						
2 Internet Breakout	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●					
3 Secure Connection	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●				
Feature sets																					
Recommended number of users																					

Barracuda NextGen Firewall F1000

	5	15	25	50	75	100	150	200	300	500	750	1,000	2,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	15,000
1 Full Featured	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●				
2 Internet Breakout	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●		
3 Secure Connection	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●
Feature sets																					
Recommended number of users																					

Based on performance figures for actual Barracuda NextGen Firewall F appliances of October 2015 running on firmware 6.2.x.

About the Barracuda NextGen Firewall F-Series

The Barracuda NextGen Firewall F-Series is an ideal enterprise solution for IT administrators seeking to protect vital data in networks made chaotic and vulnerable by the explosion of mobile and BYOD devices, evasive Web 2.0 applications, and remote network users. The Barracuda NextGen Control Center adds a powerful and intuitive centralized management portal that makes it extremely simple to deploy, configure, update, and manage multiple units from a single location, while also providing comprehensive, real-time network visibility and reporting. As a result, it is an ideal solution for enterprises looking to manage large numbers of users or several sites with few IT personnel while meeting PCI Compliance requirements.

For questions about the Barracuda NextGen Firewall F-Series, or for a free 30-day evaluation, visit http://www.barracuda.com/products/nextgenfirewall or call Barracuda Networks at +1 408-342-5400.

For more information on our other security and productivity solutions, please visit http://www.barracuda.com/products.

About Barracuda Networks, Inc.

Barracuda provides cloud-connected security and storage solutions that simplify IT. These powerful, easy-to-use, and affordable solutions are trusted by more than 150,000 organizations worldwide and are delivered in appliance, virtual appliance, cloud, and hybrid deployments. Barracuda's customer-centric business model focuses on delivering high-value, subscription-based IT solutions that provide end-to-end network and data security. For additional information, please visit barracuda.com.

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