



### About ARZ

The ARZ provides the infrastructure for some 70 commercial banks, which are also shareholders, or communications between locations, controlled internet access and also network connections for the cash dispensers in the branches themselves.

The computing centre also services other customers – public sector institutions and health sector customers for example, including hospitals and the state of Tyrol.



## The ARZ realizes the world's largest firewall cluster

A 650 firewalls cluster equipped with and managed by Barracuda NG Firewalls

Critical infrastructures of this kind require ongoing further developments in terms of their security architecture. Back in 1999, when the existing non-2000 compliant firewall solutions were due for replacement, ARZ was therefore not just looking for an alternative. Instead, they wanted to use the opportunity to realize major optimizations in terms of customer security and management. The focus here was not solely upon protection against external threats, but also upon segmenting the customers into different groups. In addition the financial institutions also had their own individual guidelines for internet and network use by their staff. These too had to be mirrored with reasonable management expense. Each branch office was to be protected by its own firewall – i.e. 650 firewalls for 650 branch offices. A cluster of these dimensions is still unique worldwide today and requires extreme scalability and above all, an excellent management system for the architecture implemented.

### Convincing ideas

In this situation it seemed obvious for the ARZ to approach one of the largest international firewall suppliers. However, insurmountable hurdles seemed to arise as the ensuing project progressed. For example, the concept presented did not foresee the transparent inclusion of cash dispensers running under the operating system OS/2 and utilizing SNA for the data traffic. At the same time the backup scenario did not meet the ARZ requirements, so Rudolf Berger, Manager of the ARZ Network Department, began to look for alternative suppliers. Based on his experiences Dr. Peter Marte, the current chief software architect at phion AG, designed a concept for customer segmentation, firewalling and management that immediately sparked interest at ARZ.

### New approach catches on

"It may seem unconventional to consider a relatively unknown supplier for a project of these dimensions," explained Helmut Gratl, the project manager responsible at ARZ. "However, we have to remember that our requirements did not correspond with the products that were available on the market at that time. The Barracuda NG approach addressed all the major issues, especially in terms of management and scalability". This alone was, of course, not enough to convince him nor the graduate engineer. Manfred Prucker, Managing Director at ARZ. So the ARZ tested the deployment of the Barracuda solution under real conditions at one branch first and in direct comparison with a well-known competitive product. Within a very short space of time the Barracuda NG Firewall was installed and all demands could be covered - although the installation and configuration literally had to be completed „blind“ because of a defect monitor.

**“Ideally, the firewall is a component that fulfils its tasks without being noticed at all. This is precisely the case with the Barracuda NG solutions, especially when it comes to managing our very large firewall cluster.”**

**-Dr. Helmut Gratl,**  
Project Manager, ARZ



### Barracuda NG Firewall Cost Efficiency at a glance

- Extendable Barracuda NG systems offer companies sustainable investment protection.
- Unique management functions allow for quick and efficient roll-outs.
- Central management lets you save significant time and effort.
- Unique license and appliances/ server hardware combination lets you achieve a maximum of flexibility and cost optimization.

### Baptism of fire results in innovations

The final decision fell in Barracuda's favour following further evaluations and a phase of intense discussions – along with the start signal for one of most ambitious firewall projects ever. The firewall engine and the scalable management were both redesigned from scratch for the security software, which is known today as Barracuda NG Firewall. Barracuda took leave from outdated concepts which had, until then, dominated firewall technology. The example of working with ARZ soon showed that purely profile-based configuration management is not manageable for 650 firewalls. In order to achieve the flexibility required, the solution had to realize a combined profile and device-based approach, which is still an integral element of the highly efficient Barracuda NG management system today.

## About Barracuda NG Firewall Network Security

As the most successful attacks mounted today are within the network, a single remote access link with an unsecured external PC or laptop is often sufficient to allow hackers and malicious codes to open a back door into the company. There are also additional hazards that arise as a result of intentional or unintentional misconduct by some employees. This threat cannot be mastered with perimeter protection alone, because attackers are already behind the network limits. Crucial business processes run smoothly thanks to multi-gigabit firewall performance and integrated bandwidth management. By combining a Stateful Inspection Firewall with Intrusion Prevention, Denial of Service Protection, intelligent application-selective bandwidth and multipath management plus VPN technology, guarantee constant availability and protection. This is exactly what Barracuda is delivering with NG. Protection is no longer limited only to the perimeter and branches, but extends to all sensitive network areas. Flexible deployment and support for virtualized environments is crucial for successful realization of clean bit structures in your LAN.

“One can definitely say that the Barracuda solution rose to the challenge,” recalls Dr. Peter Marte from Barracuda. “The intense cooperation with ARZ made us aware of issues which other suppliers only detected much, much later on. A great deal of our reputation for highly critical environments is therefore based on the know-how we gained during the course of this project”.

### Cost efficiency with software appliances

All 650 of the ARZ firewalls are based on standard Intel systems, which meant that the hardware investments were kept within limits from the outset. This is thanks to Barracuda's own software appliance concept that combines a Linux operating system developed by the company itself with the Barracuda NG Firewall security solution. Barracuda also defused a critical scaling trap with this approach: The entire operating system configuration is incorporated into the Barracuda management system so that all settings can be adjusted centrally. If this were not the case, then the ARZ would have to conduct certain tasks (e.g. kernel routine) for all 650 firewalls individually – an unreasonable workload that everybody would like to avoid. No special IT expertise is necessary to set up the pre-configured software appliances either, all that is required is the simple insertion of a CD. This meant that branch employees could complete this task – a tremendous advantage considering that there are branches in Austria, Germany, Italy and the former Yugoslavia.

**“The rollout and centralised management of the Barracuda NG software appliances have proven their value in daily operations and make a major contribution to increasing efficiency and reducing costs. Complex configuration work onsite in the branches is a thing of the past.”**

**-Dr. Helmut Gratl,**  
Project Manager, ARZ

### Barracuda and ARZ: A productive partnership

Partnerships like those between Barracuda and ARZ are not only beneficial for the companies involved, but also show positive effects for the entire industry. Major technologies from which users across Europe in critical environments benefit today would never have been implemented with such consistency, if those responsible at ARZ and Barracuda had not deviated from the well-trodden paths.

“Critical system states can be identified easily, before malfunctions occur. This makes a considerable contribution to our systems' availability and makes work a lot easier for our IT department. We have also come to know Barracuda Networks Inc. as a reliable and flexible partner, who reacts to our specific requirements faster than other larger suppliers. We are therefore convinced that we can deploy all current and future requirements effectively together with Barracuda.”

### About Barracuda Networks Inc.

Barracuda Networks Inc. built its reputation as the worldwide leader in content security appliances by offering easy to use and affordable products that protect organizations from email, Web and IM threats. Barracuda Networks has leveraged its success in the security market to offer networking products that improve application delivery and network access as well as world-class solutions for message archiving, backup and data protection. Coca-Cola, FedEx, Harvard University, IBM, L'Oreal, and Europcar, are amongst the 100,000 organizations protecting their networks with Barracuda Networks' solutions. Barracuda Networks' success is due to its ability to deliver easy to use, comprehensive solutions that solve the most serious issues facing customer networks without unnecessary add-ons, maintenance, lengthy installations or per user license fees. Barracuda Networks is privately held with its headquarters in Campbell, Calif. Barracuda Networks has offices in 10 international locations and distributors in more than 80 countries worldwide. For more information, please visit [www.barracudanetworks.com](http://www.barracudanetworks.com).