

TVTEL Portugal

Case Study



TVTEL, a Portuguese cable operator, struggled with a very high volume of peer-to-peer (P2P) file sharing traffic. With an average P2P load of 65 percent rising up to 95 percent at nighttime, there was an adverse performance impact for all its subscribers. TVTEL deployed several PRX Traffic Managers and implemented a priority management scheme that gives P2P traffic a lower priority and thus improves the quality of service for all other applications such as Web browsing and Internet telephony.

The Peer-to-Peer Challenge

Portuguese triple-play operator TVTEL provides Internet access, satellite television and telephone service to a broad range of customers from its headquarters in Porto. As Portugal's second-largest ISP, TVTEL faced the challenge of a high volume of P2P traffic that began to "cannibalize" network bandwidth. Unlike classic client-server applications that open one connection, P2P clients often open hundreds of simultaneous connections in parallel in order to obtain the highest possible amount of bandwidth. This puts other users at a disadvantage, as they may no longer receive their fair share of the available bandwidth.

According to the ipoque Internet Study, often only 10% of users use up to 90% of network resources. In TVTEL's case, 64% of network bandwidth was being consumed by P2P applications, especially by downloads from the popular eDonkey network. For TVTEL, simply increasing the bandwidth was not a solution – P2P traffic would certainly expand to consume the extra bandwidth within a short time. Likewise, throttling P2P traffic was also not an option, as clients were promised a flat rate and

would certainly be unsatisfied by across-the-board bandwidth limitations for P2P traffic.

Intelligent Traffic Management of Peer-to-Peer File Sharing

ipoque's PRX Traffic Manager prevents this effect at TVTEL by ensuring that non-P2P traffic is prioritized without totally curbing P2P application usage, thus providing significant benefits for customers and ISP alike. This among many other things satisfied Amandio Goncalves from TVTEL's IT department: "We tried other products in the segment too, but the ipoque device simply convinced us."

TVTEL installed four PRX Traffic Managers because ipoque offered exactly the features TVTEL needed: an effective, powerful and failproof system for Internet traffic management. ipoque's PRX Traffic Managers combine deep packet inspection (DPI) technology with bandwidth management. They enable effective analysis and optimization of applications. The integrated QoS management allows prioritization and bandwidth control of classified traffic. Extensive accounting features provide in-depth application- and subscriber-aware network visibility.



Challenges at TVTEL:

- 64% of TVTEL traffic was P2P
- Especially eDonkey downloads critical
- More bandwidth no solution – P2P would use it soon
- P2P throttling not an option – clients were promised a flat rate

The ipoque Solution:

- Effective P2P management
- Accurate DPI protocol detection
- Automatic prioritization of non-P2P traffic
- Guaranteed performance for important services
- Bandwidth available for P2P as capacity permits

Fairness Among Users Through Simple Priority Management

The simplest solution for TVTEL is a priority management scenario that favors important applications over less important protocols with disproportionately large bandwidth usage. It can be as simple as a single bandwidth management rule that assigns P2P file sharing a lower priority than all other traffic. This approach is not only simple and highly effective, it also provides a fair bandwidth sharing model for all subscribers. P2P users get all the available bandwidth, but as soon as the demand of other applications rises (for instance during office hours, or in the evening as residential users come home), P2P is slowed down to accommodate for the increased demand.

The screenshot on the right is taken from the statistics section of PRX Traffic Manager deployed on the TVTEL network and shows the effect of this simple one-rule configuration. Clearly visible is the mirror-like behavior of the P2P (red) and non-P2P (blue) line.

As non-P2P traffic rises in the late afternoon – due to mostly residential customers – P2P traffic is pushed back all the way down to zero to make room for the more important traffic. This picture alone provides an idea of how poor the network performance would be without this kind of traffic management.

Satisfied Subscribers

This example shows how Internet traffic management can be used to the subscribers' advantage. With this solution, ipoque solves two critical issues: PRX Traffic Manager helps ISPs guarantee the availability and performance of important services such as e-mail, Web, VoIP,

etc. and at the same time, the ISP's customers get as much bandwidth for P2P as capacity permits.

TVTEL was one of ipoque's first customers, installing the first PRX Traffic Manager in June 2005 and three more systems since then. "We are very happy with the solution, particularly the performance and the easy handling," Goncalves says. The easy deployment and operation have been a major factor contributing to TVTEL's satisfaction with the solution. "Besides the effective Internet traffic management, PRX Traffic Manager convinces with the integrated bypass. I can change things without rebooting the equipment," so Goncalves.

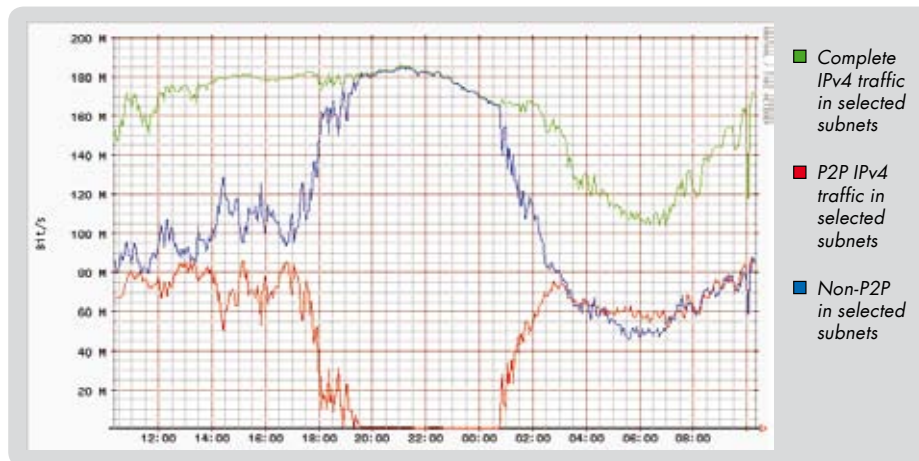
And TVTEL customers enjoy the availability of critical services, since P2P is automatically pushed back as much as the other traffic needs the bandwidth, while P2P downloads proceed at full speed when capacity is not otherwise needed. "Our customers know about the Internet traffic management. Everything is transparent and we had only positive reactions," so Goncalves.

Key Benefits:

- Reduced communication and infrastructure costs
- Improved subscriber satisfaction
- Extremely easy implementation

"PRX Traffic Manager is easy to manage. We tried other products in this segment too, but the ipoque device simply convinced us."

Amandio Goncalves, IT department, TVTEL



About TVTEL

TVTEL (TVTEL Comunicações, S.A.) is a Portuguese digital satellite and cable pay television service provider. The satellite service started on June 26, 2007, and it is currently on the Eurobird 9 satellite, broadcasting FTA and Conax-encrypted channels for the entire Europe.

With a market share of 3%, TVTEL is targeting Portugal's two million analogue terrestrial-only homes and aims to achieve 90,000 subscribers within three years.

More information at <http://www.TVTEL.pt>

About ipoque

ipoque is the leading European provider of deep packet inspection (DPI) solutions for Internet traffic management and analysis. Designed for Internet service providers, enterprises and educational institutions, ipoque's PRX Traffic Manager allows to effectively monitor, shape and optimize network applications. These include the most critical and hard-to-detect protocols used for peer-to-peer file sharing (P2P), instant messaging (IM), Voice over IP (VoIP), tunneling and media streaming, but also many legacy applications.

More information at <http://www.ipoque.com>