



## PortaOne Delivers VoIP Billing with MySQL

PortaOne is a leading solution provider for VoIP infrastructure: billing, management and customer care solutions. By providing an easy to use, turn-key solution, PortaOne allows small and medium sized Internet Telephony Service Providers (ITSPs) to deliver global carrier-grade services in a matter of days. Currently, PortaOne is the only vendor who offers a carrier-grade solution that includes excellent support and complete source code. PortaOne customers enjoy all the benefits of both commercial and open-source software without having to deal with drawbacks of either one.

With their sights set on small to medium sized ITSPs, PortaOne had to deliver a product that was not only affordable, easy to use, and easy to administer, but would also scale. MySQL's reliability, performance and affordable licensing model proved to be a perfect fit.

PortaBilling is a VoIP billing package that enables ITSPs to launch, price and provision an impressive array of IP Telephony services. Leading ITSPs such as Nextra, Apollo Phone, Hitech Telecom and VoxMundi are using PortaBilling to cost-effectively manage thousands of customers and millions of VoIP calls, and quickly deploy new services such as prepaid calling cards, callback, wholesale traffic exchange or residential IP call services to gain a competitive edge. The PortaBilling system is consistently recognized by customers for its extreme reliability, flexibility, and performance.



*"MySQL is extremely stable and reliable. We have been shipping MySQL for 4 years without any problems."*

**Andriy Zhylenko**  
Vice President of Engineering  
PortaOne



## PortaBilling – Reliability, Flexibility and Performance

### Product Requirements

To succeed, PortaBilling required an affordable database with proven performance, scalability, reliability, and zero administration. After evaluating multiple databases, PortaOne chose MySQL because it met these key requirements.

- ◆ **Performance** – In order to deliver a carrier grade VoIP billing and customer management platform, performance was the most important criteria. MySQL enables PortaOne to deliver a real-time authorization, authentication and billing engine enabling prepaid customers to start using services immediately after paying for it. Plus, customers and customer service agents can use a Web-based interface to view “up to the minute” account activity. The resulting service quality builds customer loyalty and increases traffic volume.
- ◆ **Cost-effective** – Many of the new ITSPs are small startup organizations selling either wholesale or directly to residential and corporate customers.

These companies don't have the financial resources that a large telecom company would have. After the dot-com bust, even large Telcos are focused on the ROI and TCO of any technology investment decisions. MySQL's affordable licensing model enables PortaOne to eliminate the traditional high cost barriers to entry by passing the database licensing savings on to their customers.

In addition, PortaBilling is architected on the open source FAMP (FreeBSD, Apache, MySQL, Perl) stack and built to run on commodity Intel hardware, eliminating the need for customers to purchase expensive proprietary hardware.

- ◆ **Reliability & Zero Administration** – As a solution provider with over 150 ITSP customers, PortaOne needed an extremely reliable database that would not require any maintenance in the field. MySQL's ease of use and Zero Administration capabilities enable PortaBilling to be installed and configured in less than 15 minutes.

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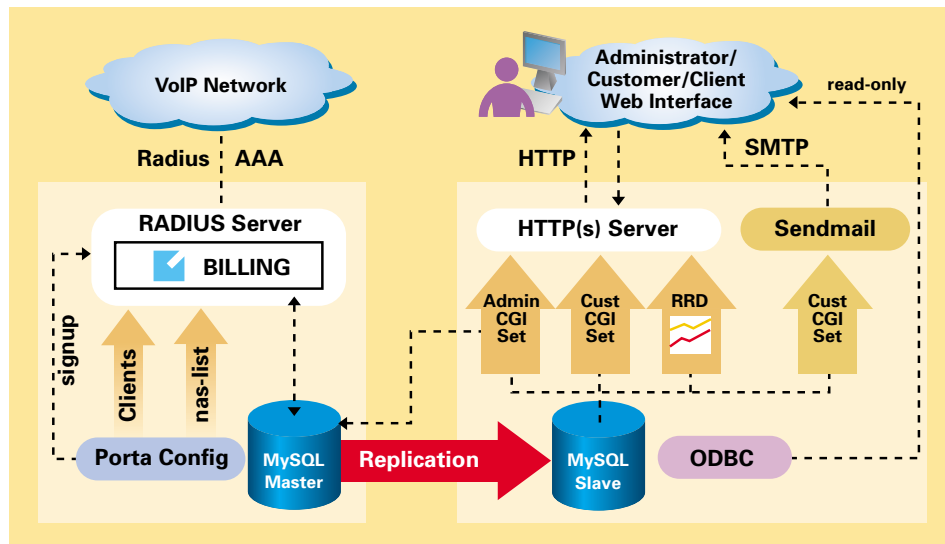
*“MySQL enables PortaOne to deliver a real-time authorization, authentication and billing engine with high performance. PortaBilling is capable of processing 100 call attempts per second, which translates to 10,000 simultaneous calls. All service provisioning happens instantly – the customer can use the service immediately upon registration or after service configuration changes.”*

**Andriy Zhylenko**  
Vice President of Engineering  
PortaOne

# The PortaBilling Solution

In the competitive VoIP industry, ITSPs must introduce innovative services to meet the ever-changing demands of end-users. Using PortaBilling, ITSPs can deploy new VoIP services, faster and more cost-effectively than their competitors. Specifically, PortaBilling enables ITSPs to:

- ◆ Support multiple business models including wholesale, corporate and retail VoIP services
- ◆ Provide real-time billing information such as “up-to-the-minute” call records
- ◆ Run comprehensive and customizable reports allowing ITSPs to track all types of call information (e.g. destination, time).
- ◆ Add, modify, or enhance services on the spot, with no service disruption or additional development necessary.
- ◆ Analyze and respond to customer behavior and activity in real time using Web-based tools
- ◆ Subscribers can pay bills and view account status online using web-based self care tools



*“PortaBilling has enabled VoxMundi to establish customer call record details and issue invoices 4x faster, even though the number of customers has increased by 300%.”*

## VoxMundi Telecom

VoIP Service Provider

## PortaBilling Architecture

PortaBilling is a proven carrier-grade solution that provides millions of subscribers with real-time performance and security. PortaBilling relies on the MySQL InnoDB storage engine to deliver up to 250 transactions/ second. To maximize the performance of the overall solution, PortaOne offers a multi-server solution that separates the real-time billing system from the statistics database. MySQL Replication is used

to create a redundant copy of data so that billing information is never lost.

High-availability ITSP platforms must include provisions for Disaster Recovery. MySQL Replication is used to implement a standby PortaBilling system, which provides fast disaster recovery (in case of the failure of the primary master server).

## Conclusion

MySQL has provided PortaOne the ability to offer an easy to use, high-performance and reliable solution so they can offer a solution ideally suited to the emerging IP Telephony Market. The PortaBilling solution gives ITSPs a competitive advantage – enabling them to deploy new VoIP services, faster and more cost-effectively.

## Technical Environment

<i>OS:</i>	FreeBSD
<i>CPU:</i>	Intel Xeon or AMD Opteron
<i>RAM:</i>	1GB
<i>Language:</i>	Perl
<i>Database:</i>	MySQL (InnoDB)
<i>Database Size:</i>	5-25GB on average, largest up to 100GB
<i>Tables:</i>	100+
<i>Largest Table:</i>	60 million rows
<i>Transactions:</i>	250 transactions/second

## About MySQL

MySQL AB develops and supports the MySQL database server, the world's most popular open source database. Over six million installations use MySQL to power high-volume Web sites and other critical business systems — including industry-leaders like The Associated Press, Yahoo, NASA, Sabre Holdings and Suzuki.

MySQL is an attractive alternative to higher-cost, more complex database technology. Its award-winning speed, scalability and reliability make it the right choice for corporate IT departments, Web developers and packaged software vendors. MySQL is available through an open source GPL licence or MySQL Network, a comprehensive offering of certified software and premium support services.

For more information about MySQL, please go to [www.mysql.com](http://www.mysql.com).



The World's Most Popular Open Source Database

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