

# A comprehensive framework for Infrastructure Management: A managed services approach for a global bank

## Business Impact

- ▶ Proactive call escalation by CSS engineers averted downtime of the database thereby ensuring high availability of enterprise application to its users
- ▶ Capacity planning exercise helped the client plan and forecast their user base, which helped them to gauge impact on the database size
- ▶ Single point access for all the server resources resulted in significant time savings for the engineer to connect
- ▶ Database tuning resulted in higher throughput and response times resulting in improved database performance
- ▶ Proactive monitoring of slow query logs helped to identify performance bottlenecks and escalated to the client for fixation
- ▶ Optimal utilization of processors, memory, etc pre-empted the client from investing in any additional hardware
- ▶ ITIL based SLA management methodology helped the client to optimize their resource utilization and improve service quality

## Perspective

*Management of technology resources is fast being recognized as an inherent and critical part of the technology experience, and the thin line between technology products and technology services is fading away fast. The technology user is looking at the entire package of service delivery, rather than distinguishing between product/platform and management/support. The reflection of this structural change is apparent across the spectrum of technology companies as the industry witnesses large scale restructuring aimed at creating increased consolidation of products and services.*

*The adoption of technology for banking services continuing at a healthy pace, it is predicted that major thrust will be to manage an optimized, secure IT infrastructure to stay competitive in the industry. It drives strategic business value, customer service, operational efficiency and cost containment.*

## The Company

The client is a leading global investment bank with a strong and profitable private clients franchise, with €1,126 billion in assets, operating with 70,000 employees across 73 countries. As a lean, dynamic, focused universal bank, they rank among the global leaders in corporate banking and securities, transaction banking, asset management and private wealth management, and has a significant retail banking franchise in Germany and other selected countries in Continental Europe.

An ability to set a clear business strategy that encompasses well-defined customer requirements, developing a close partnership between the business, IT and operations ensuring a holistic approach towards the roadmap are some of the key strengths of this global bank.

## Business Challenge

- ▶ Management of technology resources was fast being recognized as an inherent and critical part of the technology experience for

the client

- ▶ In such a competitive landscape, they were finding it difficult to monitor and manage a global network of databases running open source enterprise software.
- ▶ Geographical diversity of infrastructure with database servers spread across Frankfurt, New York and London added to this complexity
- ▶ They needed a specialist who could handle the diversities and ensure availability of their systems to their users

## CSS Solutions

CSS took control of the complete administration of MySQL servers on a day-to-day basis. CSS supported the client by providing On-site support for installation, up gradation and migration of MySQL servers. The technology environment include

**Linux:** SuSE SLES 8.1 running on Pentium 4 2.8Ghz servers, each with 4GB of memory.

**Apache:** Apache 1.3.27

**MySQL:** MySQL version 3 or 4

**PHP:** PHP 4.3 release

**Other technologies:** Includes CGI (Perl, Python, Ruby, Shell), Servlets (Tomcat 3.3.1a, 4.0.6, 4.1.24) and Java (1.2, 1.3 or 1.4) execution

### On-site support for installation, upgradation and migration of MySQL servers

- ▶ Planning and implementation of replication of MySQL Servers
- ▶ Setting up failover infrastructure including writing any scripts/to services that are needed for configuring failover
- ▶ Assisting dWeb and dbnetwork in migrating the MySQL servers to dWeb servers
- ▶ Planning the installation and/or upgrade of the MySQL Servers

**CSS**

Cybernet - SlashSupport

The activities that the offshore team was involved in are

Services	Description
Capacity Planning	<ul style="list-style-type: none"> <li>▶ Short-term and long-term planning for user growth and its impact on database size</li> <li>▶ Generate MySQL usage statistics</li> <li>▶ Alerting client team about possible resource requirements</li> </ul>
Maintenance of MySQL	<ul style="list-style-type: none"> <li>▶ Tracking upgrades to MySQL available and upgrading the servers to the latest version with the least possible downtime</li> <li>▶ Coordinate with client for any planned downtime for maintenance/upgrades</li> </ul>
Monitoring the existing MySQL infrastructure	<ul style="list-style-type: none"> <li>▶ Health of various MySQL servers</li> <li>▶ Review the security policies and ACLs on various MySQL servers</li> </ul>
Corrective action	<ul style="list-style-type: none"> <li>▶ If the CSS engineer finds any problem signs during the above monitoring activities, corrective action will be taken in co-ordination with the contacts at client team</li> </ul>
Database maintenance	<ul style="list-style-type: none"> <li>▶ Creation of new databases on request from the application support team</li> <li>▶ Modifying the ACLs for accessing MySQL servers as required</li> <li>▶ MySQL user management</li> <li>▶ Assist the client team with query optimizing techniques</li> </ul>
Backup and restoration	<ul style="list-style-type: none"> <li>▶ Promoting the slave servers into master servers in case the master server goes down</li> <li>▶ Ensuring data integrity on the master server before bringing it back online</li> </ul>

“CSS has provided us with skilled talent and our relationship has been successful. We are impressed at how CSS manages to not just resolve performance bottlenecks each time but also achieve over all improvement in application that is scalable and available to our users .”

VP, Infrastructure

### CSS Solution Design for Remote Database Administration

