

CLUSTERCONTROL ADDS A VIRTUAL DBA TO THE NET-SOL TEAM

NET-SOL

- Industry: Telecommunications
- Location: Austria
- Data Center: 2

USE CASE

Centralized database cluster for a suite of telephony applications and services

WHY SEVERALNINES

A database management GUI for monitoring and management of a complex database clustering technology that all of their team could operate.

INTRODUCTION

Founded in 2014 following the successful merger of kom2it and bitbybit IT Services, Net-Sol is an Austria-based provider of VOIP phone systems & SIP Trunking. In addition to providing telephony they also offer IT infrastructure, web hosting, and alarm monitoring services.

One of Net-Sol's core services is in the administration of call centers. As part of this service they handle call routing, manage phone queues, measure and record calls, and provide on-demand reporting of an agent's performance.

Net-Sol works with customers in Healthcare, Finance, Manufacturing, Telecommunications, Trade and more.

CHALLENGE

The database at the core of Net-Sol's vast array of telephony systems was key to the success of the overall application. "High availability is important for any communications provider," said Wolfgang Peschta, Co-Owner & CEO of Net-Sol, "No database means no phone communications."

The key to the challenge that Net-Sol faced was the lack of information they have on the operation of their databases. Should issues arise, these would translate into application faults and anomalies. Often times, the Net-Sol team

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struggled to identify the root cause of their production problems. In addition, the team was operated entirely by DevOps & System Administrators with no dedicated DBA support.

This situation; a combination of a lack of insight into the database operations and performance coupled with the lack of specific database expertise means that when a database node behaved weirdly in their environment, it could take a long time to diagnose the problem. "We had one node failing over the course of two weeks. It was very hard to diagnose, let alone repair... and the system was getting slower and slower," said Peschta.

The database setup, a multi-node MySQL Master-Master cluster using Galera Clustering technology, was difficult to manage for the ops team. The database also utilized HAProxy for load balancing with a manual failover scripts in place. Those scripts, however, were only partially successful in maintaining uptime and system performance which resulted from the twelve time the system failed-over that previous year.

SOLUTION

The Net-Sol team needed a solution that was easy to manage by the entirety of their team, regardless of database knowledge level. They also wanted to be able to deep-dive into their database cluster to understand what was happening under the hood. Lastly, they desired a better failover solution and the ability to easily deploy and upgrade nodes.

They took the web to search for a solution to their ongoing performance issues and failures but initially came up short. They spoke with Oracle about a combination of support and tools but found it to be cost-prohibitive.

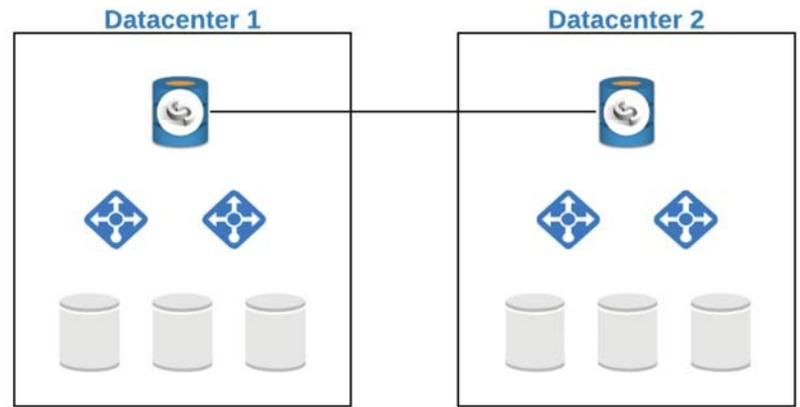
Later, Wolfgang Peschta attended a failover webinar hosted by Severalnines and decided to give ClusterControl a try. ClusterControl, they found, ticked all their boxes and was a software solution that was easy to setup and maintain.

Within two days (and without any assistance from the Severalnines team) the Net-Sol team had ClusterControl deployed, their clusters imported and operating, HAProxy configured, and were finally able to monitor at the individual node and query level. "Every engineer on our team is now able to check the health status and even upgrade the cluster," said Peschta.

"In the market there are monitoring tools and there are some tools and utilities for backups, failover, upgrades, etc. - but not the whole thing, especially when a proxy is involved," continued Peschta. "ClusterControl integrates the load balancing, and allows you to manage the full stack."

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THE RESULTS

It is hard to deny the results of Net-Sol implementing ClusterControl. While they initially set-out to have a better administration and monitoring tool, speed and performance of their database cluster improved by 15%.

In addition, ClusterControl's support of different technologies and approaches has prompted them to re-evaluate some of the aspects of their setup to test new ways of architecting their solution.

WHY SEVERALNINES?

"If you need a reliable cluster management system, you need to evaluate ClusterControl," said Peschta. "It is the best we have found for clustering open source databases. Severalnines is a perfect company with a very personal sales process that found a solution for every problem we had."

- **An Intuitive GUI:** The ClusterControl GUI makes it easy to deploy, monitor and configure every aspect of your database cluster. You can see your current database configurations, easily make changes and even apply upgrades and patches... all with a click of a mouse.
- **Easily Used by the Entire Ops Team:** Managing highly available open source databases is complex, with too many point solutions available, and lack of expert personnel. With ClusterControl Net-Sol was able to distribute the ongoing monitoring and maintenance of their complex database cluster to all members of the team, without the need for specific expertise.
- **Achieve Reliable Database Operations:** The growth of the database is a continuing concern for Net-Sol, and being able to automatically track health, performance and perform necessary maintenance tasks allowed the team to take comfort that they had their database under control.

