Swiss Telco Increases Operational Efficiency By Deploying Nagios

“With Nagios we were able to consolidate multiple commercial monitoring solutions into one, and at the same time reduce our maintenance costs.”

- Michael Niedermann, Manager IT Infrastructure Operations, Sunrise Communications AG

Customer Profile

Sunrise is the largest private telecommunications provider in Switzerland. Over 2.86 million customers use services from Sunrise in the areas of mobile telephony, fixed network and the Internet. Their mobile network - based on GSM, EDGE, UMTS and HSDPA technologies - provides over 99% of the population with state-of-the-art mobile network services with transfer rates of up to 7.2 Mbps. By the end of 2009, Sunrise will be serving 80% of all households in Switzerland with its own broadband services. Sunrise is a brand of Sunrise Communications AG, whose share capital is 100% owned by TDC A/S.

Business Needs

The IT infrastructure of Sunrise has evolved over the past 10 years due to mergers and reorganizations. There was a large variety of systems and applications in use – many of which provided overlapping functionality. This was true for their monitoring system software suite which consisted of, among others, BMC Patrol, CA Spectrum and Big-Brother. Much of the IT team's knowledge of vendor-specific monitoring systems had been lost over time. Sunrise wanted to consolidate its infrastructure monitoring software to use a single solution in order to reduce operational overhead and save on costs associated with licensing, maintenance, and hardware.

Challenge

The main challenges Sunrise faced were the broad range of IT systems in use, a tight implementation schedule, a small project budget, and the coordination of the required parties and teams. Other challenges included a broad range of operating systems and hardware architecture, a complex network design, requirements for full redundancy, and having the community as the only source of knowledge and support.
Solution

As a first step in solving their challenges, Sunrise made the decision to initially replace the smallest of their existing monitoring systems with Nagios. The two remaining systems were consolidated to a single central Nagios platform in a later effort to realize further cost savings and reduction in complexity.

As Sunrise’s budget and project timeline were quite tight, and the exact hardware estimates were not available at the start of the project, the team decided on an incremental, prototyping approach to deployment. Distributed Nagios servers were implemented as virtual servers, allowing the collectors to be scaled gradually to meet performance requirements. Two physical servers were used for a centralized monitoring and alerting cluster in order to facilitate direct-attached USB modems for SMS notifications.

In an effort to reduce deployment overhead, Sunrise utilized existing Nagios plugins whenever possible and automated the deployment of checks to servers using custom-built packages. Sunrise developed a web-based tool for simple administration of the Nagios platform in order to allow system operators to easily configure Nagios for their machines and applications. Sunrise subsequently released this configuration addon to the Open Source community as a project known as “NConf”. More information on NConf can be found at http://nconf.sourceforge.net

Sunrise’s final monitoring solution consisted of Nagios, Nagios plugins, NConf, PNP, NRPE, NSCA, NetSNMP and custom-developed scripts.

Benefits

Nagios provides Sunrise with a flexible and extensible monitoring solution that offers a “big picture” view of the health of their critical infrastructure components. By deploying a Nagios solution, Sunrise has realized organizational benefits that include increased operational efficiency and cost savings.

About Intuit

Intuittech Sdn. Bhd. is a pioneer and leading provider of Asterisk® IP PBX and Nagios® Network Monitoring solutions in Asia. Intuit Innovation offers a variety of professional services which includes consultancy, installation and support. Our solutions and expertise has helped organizations from SME to large enterprises be more efficient, improve business processes and gain competitive advantage.

About Nagios

With an estimated 250,000 users worldwide, Nagios® is the undisputed industry standard in enterprise-grade Open Source monitoring. Formed in 2007 by experts in the IT monitoring space, Nagios Enterprises provides professional services around Nagios for clients worldwide. Our solutions have helped organizations around the globe realize the strengths and competitive advantages that can be gained by utilizing Open Source monitoring solutions.