

INTELLIGENT COMMUNICATION SOFTWARE

CASE STUDY

CONTINUITY

Service Level Management Case Study



1. INTRODUCTION, GOALS AND SCOPE

Holistic end-to-end service level management is a thing much talked about but seldom conquered successfully by IT service providers today. Service level agreements between service providers and service recipients need to be monitored to check the degree of observance and the cause of any deviations needs to be investigated in real time (causes generally include faulty application, infrastructure or system components). Drivers of complexity mainly include the following:

- Today's high degree of heterogeneity and distribution of applications, systems and infrastructural elements
- The m:n relationship between existing service level agreements and the resources that guarantee their observance
- The time span between the appearance of a fault and its elimination – currently too long in most cases
- Dependencies between faults that appear simultaneously
- The difficulty of prioritizing faults using business impacts

This case study is intended to describe a successful project based on precisely these problems, looking at the background, our approach to solving the problem and the portfolio of tools used.

The company in question is one of the world's largest suppliers of outsourcing services and belongs to an international IT corporation. It pursues the explicit top-level aim of a holistic SLA Management, i.e. it is not concerned with punctual monitoring of individual components of infrastructure, systems or applications but concentrates on real-time monitoring of binding SLAs taking all resources involved into consideration.

The operative targets were as identified as follows:

- Establishment of automated controlling tools to ensure compliance with service level agreements (SLAs)
- Efficient monitoring of the infrastructure
- Proactive alarming to reduce error rates and downtime
- Creation of a basis for the optimization of the company's own business processes
- Establishment of a competitive advantage by means of higher quality service due to more efficient monitoring tools

In order to meet these targets it was necessary to carry out a methodical, tool-oriented and organizational realignment of IT management processes in the course of an enterprise management project. The scope of this case study comprises:

- The initial situation of the company
- The selection of the tool portfolio
- The project approach

The following aspects exceed the scope:

- Basic concepts of service level management, e.g. ITIL
- The anchoring of service level management (SLM) in the organization
- Aspects and special requirements of individual service level agreements
- Methods for the quantification of the business benefits of SLM concepts and tools
- Utilization of service level management concepts for monitoring business processes (business process management)



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2. INITIAL SITUATION

The company's infrastructure includes:

- More than 50 individual networks with a total of more than 1,000 active network components
- About 500 servers with applications, e.g. SAP R/3, Lotus Notes, MS-Exchange, VMS, NOVELL, MS-SQL Server, various Unix systems, etc.
- About 130 different SLAs; partly with differing requirements
- About 50 – 80 employees who need to be granted administrated access to the whole system

At project start, there was **no overall monitoring solution**. All components and applications were **administrated point by point**. There was no automated service level management.

About 4 months' time was scheduled for the transformation of the initial situation into a situation in which the above mentioned targets should be met.

3. SOLUTION CONCEPT AND SELECTION OF TOOLS

The following basic alternatives for the solution of the problem were identified:

- Option 1: Installation of a **single product/framework**.
- Option 2: **Integration of best-of-breed products** to form an overall solution

In the course of the **evaluation phase**, during which various pilot installations were carried out and evaluated, the following **success factors/evaluation criteria** were applied (among others):

- Quality of **network monitoring mechanisms** (proactive alarming)
- Quality of **server and application monitoring mechanisms**
- Availability of a **web console for distributed access**
- Availability of **interfaces to help desk or trouble ticket systems**
- Option of **automated monitoring of compliance with SLAs**
- **Comprehensive reporting on all systems, independent of suppliers**
- **Event correlation** including all elements, systems and applications

From the evaluation followed that **none of the single product offers** was suitable for the given application example. Option 1 was refused; Option 2 was selected and validated by means of a pilot installation.

The following **tool portfolio** was selected:

- The **service level management solution CONTINUITY** by ICS Intelligent Communication Software GmbH
- The **network management platform SPECTRUM** by Aprisma Management Technologies, formerly the software division of the network component producer Cabletron Systems
- The **application management solution BMC Patrol**

SOLCON IT-Management GmbH provided supporting **consulting and management services**. As a certified partner of Cabletron, BMC, ICS, and Metrix, and many years of project-related experience, SOLCON proved to be an ideal partner to support the project.



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4. PROJECT APPROACH

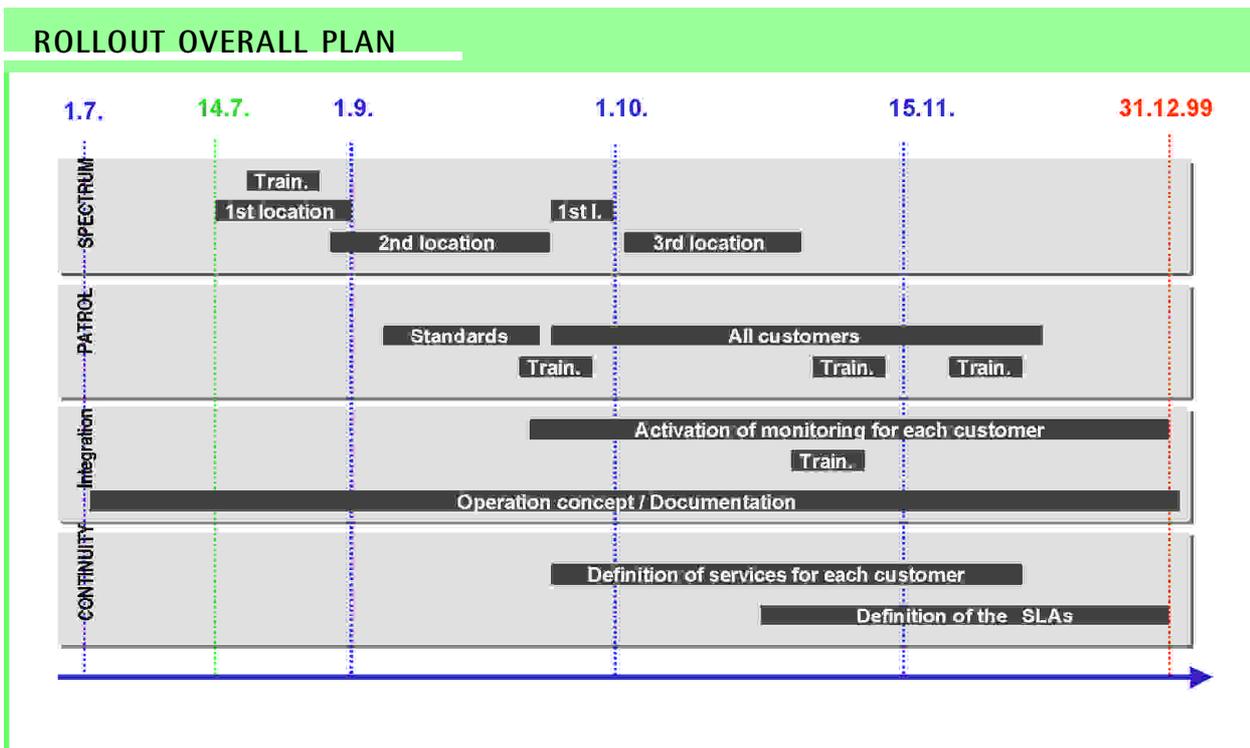
With a view to the tight schedule for the realization of the project, the identification of **parallel project modules** was a prerequisite for a successful approach. Considering all given interdependencies, the following modules were defined:

- Module "SPECTRUM": Establishment of the basic platform for
 - The development of the enterprise console; and
 - The required network management functions
- Module "PATROL": Development of the necessary performance management functionality on application level
- Module "INTEGRATION": Content and software-related integration of PATROL and SPECTRUM in order to:
 - Monitor and warn at the infrastructure and application levels following a uniform concept
 - Function as an interface to the existing ARS trouble ticket system by Remedy
- Module "CONTINUITY": Development of the service level management functions based on the "INTEGRATION" module

The following **team structure** was implemented in order to work on these modules and to assume overall responsibility for the project:

- **Project Steering Committee:** A committee meeting on a regular basis to monitor project process and to approve results at milestones critical to project success
- **Project Management:** Subteam which assumes responsibility for the operative steering of the daily project business
- **"PATROL" Project Group:** Subteam to implement the "PATROL" module and to contribute to the "INTEGRATION" module. Experience of the relevant project partners has shown that the rollout phase requires more time; therefore, this part of the project is dealt with separately in the project organization.
- **"Coaching, SPECTRUM, CONTINUITY" Project Group:** subteam to work on the remaining project modules, and to coach the organization.

The following figure provides an overview of the procedure for the overall project:





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For the operative staffing of the teams, employees of the company and resources of the participating software companies were considered. The company employees already received training for the relevant products during the project, enabling them to actively contribute to the implementation.

Significant savings in time during implementation were achieved due to parallel execution of individual tasks. As a rule, contact persons on the customers' part were not identical for all project modules; thus the modules could be worked on independently from each other. This was especially true of the CONTINUITY module, which for this reason could be implemented very quickly.

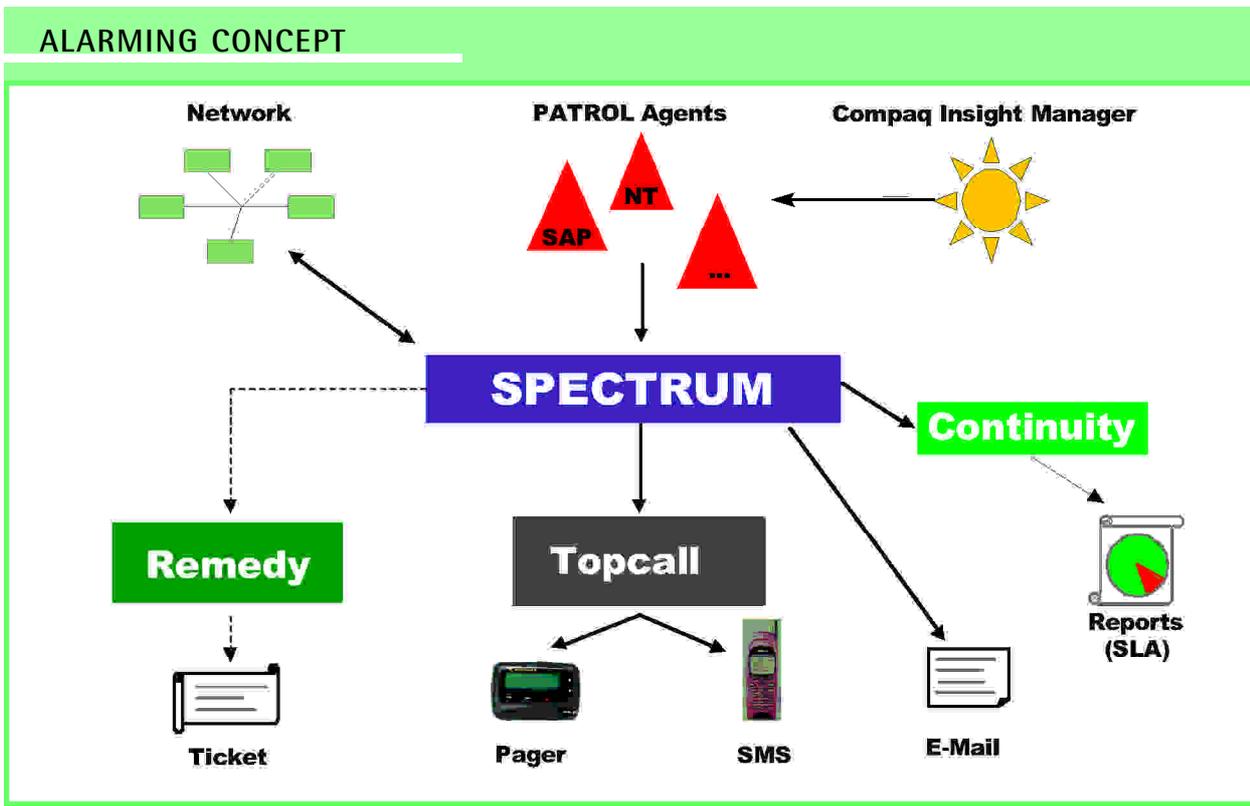
In the course of the individual modules, a considerable share of conceivable incidents (errors, interruptions, and service degradations) could be covered by generic scenarios. In addition, the most important client projects were analyzed for their special requirements, and adequate adjustments were made to the configuration of the tool portfolio. This way, the company was put in a position to respond to certain situations along individually developed guidelines. This function significantly increased the commitment of the organization as it considered this solution more favorable as a standard solution, because its own ideas could be implemented in a better way.

Project monitoring was realized by means of a continuous process ("ongoing controlling"), so that compliance with guidelines, budgets and schedule was guaranteed.

5. CURRENT STATUS AND EVALUATION OF THE PROJECT

The adjustment of software components has been completed in the meantime. The majority of the client's projects are carried out under SLAs which are monitored by means of CONTINUITY.

The following figure shows the cooperation and the functions of the individual solution components.





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The project lead to the following results:

- The effective IT downtimes were significantly reduced
- The relations between service level agreements and resources were made more transparent
- Homogeneous alarming mechanisms for networks, applications and systems were developed and implemented
- The support of individual IT management processes has been optimized on the basis of the new tool portfolio

CONTINUITY has the lion's share in the successful attainment of the overall goals. It is only by means of the SLA management with CONTINUITY, that the concepts of network and application management are raised to a level at which the goals of state-of-the-art IT management can be achieved.



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ICS – BRIEF PROFILE

ICS Intelligent Communication Software GmbH is a company with a wealth of experience in a wide range of IT management disciplines. The development of software solutions based on SPECTRUM began as far back as 1992 – at the time with a focus on device managers for hardware products from Hirschmann, IBM and other manufacturers.

1995 saw the launch of SPECTRUM management components for system management applications, e.g. for SAP R/3, Lotus Notes and Novell Netware. Since 1996, the main focus has been on the issues of Service Level and Business Process Management, for which a total solution is provided in the shape of ICS' core product: CONTINUITY.

ICS is a strategic partner to Aprisma, which manufactures SPECTRUM, and manages over 40 SPECTRUM client accounts in German-speaking Europe.

ICS' mission is to develop software solutions and provide system integration services which connect technological and business-oriented views by adopting a service-oriented perspective of the problem of IT availability and quality.

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