Assured Service Quality by Improved Fault Management

Service-Oriented Event Correlation

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ABSTRACT

The paradigm shift from device-oriented to service-oriented management has also implications to the area of event correlation. Today's event correlation mainly addresses the correlation of events as reported from management tools. However, a correlation of user trouble reports concerning services should also be performed. This is necessary to improve the resolution time and to reduce the effort for keeping the service agreements. We refer to such a type of correlation as service-oriented event correlation. The necessity to use this kind of event correlation is motivated in the paper.

To introduce service-oriented event correlation for an IT service provider, an appropriate modeling of the correlation workflow and of the information is necessary. Therefore, we examine the process management frameworks IT Infrastructure Library (ITIL) and enhanced Telecom Operations Map (eTOM) for their contribution to the workflow modeling in this area. The different kinds of dependencies that we find in our general scenario are then used to develop a workflow for the service-oriented event correlation. The MNM Service Model, which is a generic model for IT service management proposed by the Munich Network Management (MNM) Team, is used to derive an appropriate information modeling. An example scenario, the Web Hosting Service of the Leibniz Supercomputing Center (LRZ), is used to demonstrate the application of service-oriented event correlation.