

CrossTalk™ Alarm Application Services

Framework for processing and correlating Alarm Objects

- ◆ Framework for alarm processing, correlation, and hand-off
- ◆ Integrates at the Alarm Object Layer as part of standard HP OpenView TeMIP alarm handling
- ◆ Extensive library of plug-in modules for a wide range of functionality
- ◆ Support for Perl and scripting frameworks
- ◆ Gateway support for external cross-domain correlation applications
- ◆ Alarm forwarding support
- ◆ Oracle database access support
- ◆ Alarm Object subscription support for creation, clearance, and state change events

Overview

The CrossTalk™ Alarm Application Services (AAS) provides a framework for alarm applications aimed at automatic alarm processing and correlation. It includes:

- ◆ Alarm Object (AO) presentation enhancement and annotation
- ◆ Automatic program launch
- ◆ Automatic action
- ◆ Value added alarm creation

The product is based on the CrossTalk™ Mapper Engine technology.

The Alarm Object Layer

The AAS is tightly integrated with HP OpenView TeMIP at the AO Layer. It supports configurable subscriptions to AO events occurring in Operation Contexts (OC).

The AAS provides a capability to manipulate HP OpenView TeMIP AOs based on mapping rule-sets. The product is designed as a framework, which supports the use of plug-in modules to extend the basic alarm mapping functionality. These plug-in modules provide a wide range of functionality to support alarm normalisation, reduction, classification, hand-off, and recording to database. In addition gateway plug-in modules support alarm handling by external applications across the alarm lifecycle. Multiple mapping rulesets can be defined to fire in sequence in response to AO events as they occur in Operation Contexts.

Out of the Box Capabilities

The AAS offers enhancement and annotation of alarms as standard. In addition to this, the following capabilities are also provided out of the box:

- ◆ Alarm acknowledgement & termination
- ◆ Alarm cloning—creating an exact copy of an alarm in a new OC
- ◆ Alarm spawning—copying an alarm, applying any relevant mapping updates and creating in a new OC

Plug-in Library

Further capabilities are provided through a library of plug-ins that are available off-the-shelf. Several plug-in modules have been developed to extend the capabilities of the AAS:

- ◆ Generic XML Lookup
- ◆ Perl Automation Framework
- ◆ Script Automation Framework
- ◆ State Management (Out of Service)
- ◆ Alarm Logging to database
- ◆ Alarm Escalation
- ◆ Extended Alarm Prioritisation
- ◆ Regular Expression Lookup
- ◆ Threshold
- ◆ Semi-Automated Scripting Tool
- ◆ Network Visualisation (GIS based)

CrossTalk™ Alarm Application Services

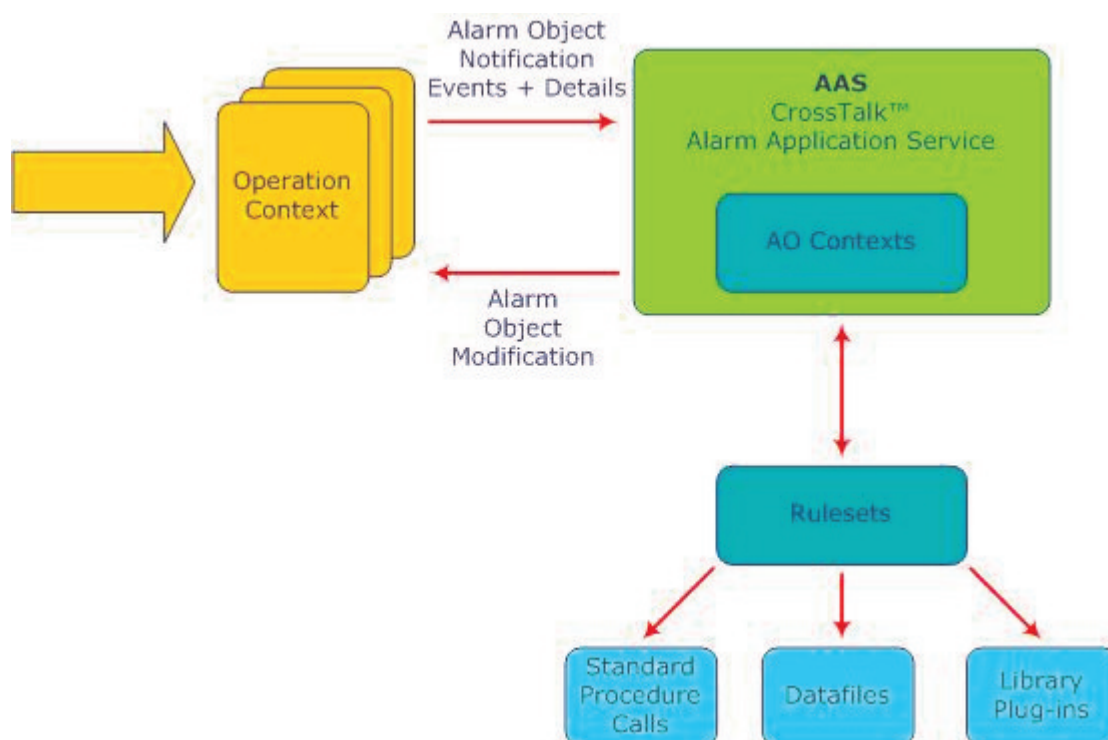
Architecture

An AO Context monitors one or more HP OpenView TeMIP Operation contexts. Each AO Context has one or more rulesets associated with it, with each ruleset being applied in sequential order. Rulesets can be defined to fire on one or more class of events, i.e. AO creation, alarm clearance report, state change.

AO Contexts support both a Discriminator Construct and Scheduling attributes. They can therefore arbitrate on the types of AO to be

passed to rulesets and the timeframe in which they are eligible to be passed.

Regular expressions within each ruleset provide low-level arbitration to determine whether a new alarm should be processed or immediately passed on for examination by the next ruleset in any given sequence. The rulesets can perform any of the standard mapping commands or make a call to any of the plug-ins available.



Key Features:

- ◆ Modular, extensible architecture
- ◆ Automated handling of alarms for processing, correlation, forwarding and logging
- ◆ Support for multiple plug-in modules
- ◆ Selective processing based on collection domain, alarm type, network entity, etc.
- ◆ Statistical analysis capability for monitoring operation and performance

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