

## STEELEYE

### General description:

STEELEYE has been designed from the ground up to monitor, report and provide meaningful alarms specifically for Riverbed Steelhead Products. STEELEYE provides both a Dash-Board High-Level overview together with detailed and comprehensive reporting. For data collection and monitoring it uses a combination of SNMP, CLI interrogation and Syslog interpretation, examining more than 200 discreet variables and numerous problem indicators which are not to be found “out of the box”. All these metrics are needed to comprehensively understand the health and status of a Steelhead environment.

STEELEYE capitalises on almost a decade of Riverbed Steelhead production experience and thousands of development hours has been put into this tailored Steelhead monitoring, reporting and alerting solution.

### What data is collected?

Hundreds of available data parameters are retained and analyzed, allowing STEELEYE to focus only on information that provides significant value when assessing and understanding the health and operational status of the Steelhead environment, this also significantly reduces the administration overhead associated with managing the Steelhead estate. All data is collected in real time by a combination of SNMP (Get), Syslog and CLI it is then delivered to the STEELEYE Agent/Data collector and or central NOC for further analysis and action.

SNMP (Get) opposite SNMP traps provides consistent input on the health and status of the Steelhead which enables intelligent alerting capabilities.

The intelligence and analysis applied to this data has two purposes; i) proactive alerting and ii) meaningful reporting. Additionally SysLog data at the highest Syslog level (Info Level) is collected and stored centrally for historical trouble shooting purposes leading to faster Time to Resolve (TTR) metrics

### What should be analyzed and how?

All the collected data and data patterns are analysed whether it has been collected by SNMP (Get), SysLog or CLI. The analysis techniques used have been specifically designed, both on the STEELEYE Agent and within the NOC, to provide valuable and precise information for Steelhead customers.

Data collected from the Steelheads is continuously analyzed to extract relevant information only. It is then cross-checked in the NOC to ensure that only the most productive actions and responses are initiated. This means that depending on model, version, traffic pattern or other values different actions or approaches will be taken.

Data used for alerting purpose is analyzed by combining incident quantity, time-interval and thresholds. Data used for reporting purposes is analyzed with the objective of documenting areas for improvement in performance-and optimization as well as for capacity planning. The analysis combines real-time data, Steelhead model/version and applications specific information resulting in action based recommendations.

Riverbed Certified Solution Professionals (RCSP) interpret the reports ensuring that fact based data is aligned with common sense and the knowledge of customer specific circumstances.

## What actions are taken?

Actions taken will differ, whether it is related to alerting or reporting.

### Alerting

Data used to decide upon action is not limited to SNMP (Get), but can also be triggered from CLI requests or analyzed Syslog. Quality improvements have been added to the original Riverbed Steelhead alarms, which mean that we register the errors but also use them in collaboration with other data to ensure that the alerts are as specific as possible.

For intelligent and proactive alerting certain critical parameters are correlated with specific errors which can trigger an alert immediately they are seen. Others are monitored and analyzed over time, ensuring that specific thresholds are to be met in order eliminate false positive and ensure accuracy. STEELEYE doesn't simply trigger alerts when an error is detected but also recommends a proactive approach, alerting when the data is assessed as outside normal parameters and should be further investigated. In addition STEELEYE offers "Recover" alerts which automatically notify when an alarm has been resolved and normal service re-established. This promotes integration with ticketing systems, operational efficiency, and enables support personal to take appropriate action quickly and effectively.

Depending on severity, which is classified as P1 (Critical) – P4 (Informational) in accordance with Riverbed's standard definitions, the alert information will contain specific problem descriptions together with remedial advice for problem resolution. In addition links to the STEELEYE knowledge base is offered for further information.

### Reporting

Collected data is used for both intermediate (3 months) and long term reporting (up to 14 months). The long term reporting offers enhanced trending capabilities that go beyond the normal "out of the box" steelhead reporting that typically only offers up to one month's historical data. STEELEYE's long term data capture and reporting enables better capacity planning, ensuring that temporary trends and loading are excluded and only significant and consistent demand factored into capacity planning.

High Level executive management reporting is available in the form of both Dashboard overview and summarized action based recommendations. To support operational staff, steelhead specific reporting is available for deeper technical documentation both the management overview and Steelhead specific recommendations can be used to validate decisions and support the creation of internal ROI and business cases.

The Global Network Application Performance (GNAP) reporting will highlight the most common applications that could be optimized but are not. Specific recommendations on how to gain or re-gain application specific optimization ensures maximum ROI on the Riverbed investment.

In general the reports are designed to provide valuable information and recommendations on how to maintain the Riverbed estate in the most efficient way, including how to change the traffic profile, to support business objectives as well as to eliminate or postpone unnecessary Steelhead upgrades.

## STEELEYE value points:

- STEELEYE has been designed from the ground up to monitor, report and provide intelligent alarms specifically for Riverbed Steelhead Products.
  - There is no need to spend thousands of man-hours to build what has already been build, tested and running in production environments.
  - Designed to Maximize ROI by maintaining Steelhead at their optimal performance level, based on business objectives and priorities.
- STEELEYE Syslog analysis is pre-configured.
  - The STEELEYE service triggers on errors which can only be found in the SysLog output (a complex and time consuming task that requires existing tools to be modified to deliver this level of functionality).
  - The list of triggers is based on the experience of supporting and managing thousands of Steelheads over the past 9 years.
  - The complete list of alarm triggers cannot be found within Riverbed's documentation although sourced from-knowledgebase articles.
- STEELEYE Time to market
  - STEELEYE is totally focused on Steelheads meaning it can be implemented in a few hours instead of the many months (or years) normally associated with large customizable products.
- STEELEYE Solution up-dates
  - Leverage other Steelhead customers experience, which have resulted in the new features and functionality that ensures continuity and optimum performance.
  - Comprehensive Steelhead Support - Steelheads xx20, xx50, xx55 (CX) and xx60 (EX) series models.
  - Full support for Riverbed software (RiOS)
    - from v6.0.2 to 8.0 for xx20, xx50 & xx55 models
    - from v1.x to 2.5 for xx60 models.
- STEELEYE specific designed alarms (using the cross-referenced historical data)
  - The data is cross referenced with other operational and configuration parameters to ensure its severity is classified correctly.
  - Intelligent alarms offer precise problem description together with remedial advice, aiding the support organization.
  - Quality improvement of the standard Riverbed alarms reduces "false positives".
  - Integration support for existing ticketing systems.
- STEELEYE business oriented reporting
  - High Level Dashboard Reporting and Global Recommendations to support decision making and status of the most important KPI's
  - Recommendations for actions to maintain the Steelheads at the optimum level.
  - Data collection for intermediate (3 months) to Long term reporting enabling trending analysis and capacity planning.
  - SysLog information stored over time ensures faster TTR.
- RCSP review
  - Reports go further than providing useful and a complete set of key Steelhead performance indicators and statistics. Each report is analyzed by qualified and experienced Riverbed Certified Solution Professionals providing recommendations from configuration design, through observations on performance issues and how these may be addressed.