Cisco Tidal Enterprise Scheduler: Reporting and Analytics

Introduction

IT operations that focus on the automation of business processes integrate a wide range of custom and enterprise applications and the infrastructure on which they run, often with complex interdependencies. In such environments, IT typically uses job scheduling tools to control batch and event-driven processing, which are essential to the success of a range of business operations from sales to manufacturing to financial management.

Effective job scheduling and workload automation requires deep visibility into the complete workload automation environment. Broad and deep visibility is crucial to the successful delivery of data center service-level agreements (SLAs) agreed upon by IT and the business units they support. This end-to-end visibility is delivered in a variety of ways depending on the needs of the user, the criticality of the business process, and the consumer of the information. Reliable reporting and analytics capabilities are crucial to achieving visibility because they provide insight into the underlying health of business processes so that optimal workload automation environments can be maintained.

Product Overview

High performance workload automation is crucial in today's complex IT environments. Making informed decisions about the performance of scheduled and event-driven workloads that support business-focused service-level agreements is a major concern. Efficiently managing complex workflows and enhancing the accuracy and reliability of job processing have a significant positive impact on meeting these business demands.

IT executives, scheduling managers, and front-line staff all need ongoing access to timely and accurate information to understand the performance of their business processing environments and to comply with IT policy and audit requirements. Reporting and analytics for Cisco® Tidal Enterprise Scheduler address these needs by providing insight into enterprise-wide scheduling environments.

The scheduler comes with predefined granular reports. Also, the scheduler is integrated with Terma Software Labs' JAWS Workload Analytics. Reporting and analytics for enterprise scheduling give you comprehensive historical, real-time and predictive job run analysis. With reporting and analytics for the scheduler, both business end users and IT management can gain broad and deep visibility into the performance of their workloads and the SLAs that comprise the delivery to the business.

Features and Benefits

The scope of reporting and analytics available through the enterprise scheduler is designed to help you be proactive so you can consistently and confidently meet SLA requirements. The reporting and analytics capabilities available to you through the scheduler let you gain useful insights and knowledge about your environment so you can proactively optimize job schedules and improve workload automation and management.

Standardized Reporting Platform and Interface

The reporting functionality that comes with Cisco Tidal Enterprise Scheduler speeds access to granular information because the scheduler database stores detailed data about processes and uses that data to supply standard reports that provide insights into the workflows, including trouble spots such as long, costly time buffers between processes.

The system is further standardized because all authorized users can quickly run and distribute reports through the scheduler's web interface. A familiar web interface for strategic report generation and distribution makes information access as straightforward as managing any other job in the Cisco scheduling environment. This solution provides IT staff and business managers with an accurate, portable, and dependable reporting platform for risk mitigation and IT compliance management.

Predefined Reports

Cisco Tidal Enterprise Scheduler simplifies the management of complex enterprise job schedules by providing rapid access to a variety of information through specialized reports.

- **Job Last Status:** The Job Last Status report shows a snapshot of the status of all the latest occurrences of jobs in the production schedule and compares actual start times to estimated start times.
- **Schedule Summary:** This report provides a general understanding of job throughput in the production schedule. It reveals the number of successful jobs compared to failed jobs and shows all the current job statuses.
- **Dependency Cross Reference:** This report provides information about dependencies on jobs that are in the production schedule.
- **Event History:** This report displays information about the events that occurred in the time interval specified in the Event History Selection dialog. Optionally, you can include in the report details about the action that was triggered by the event.
- **Report Panes:** Reports are also available for individual scheduler actions, or report panes. These report panes include most enterprise scheduler functions: Actions, Agent Lists, Alerts/Response, Calendars, Connections, Event Activity, Fiscal Calendars, Job Activity, Job Classes, Job Events, Jobs, Queues, Schedules, Security Policies, System Events, System Logs, Users, Variables, and Workgroups.

JAWS Historical and Predictive Analytics Modules

Workload analytics is a major factor in successful SLA delivery. As data center complexity grows and business demands becomes more event-driven, SLA delivery times are compressed, so automaton is imperative. Only job scheduling with historic, real-time and predictive environmental visibility and analysis can produce the infrastructure awareness necessary to help ensure business processes complete in accordance with defined SLAs.

In addition to its detailed native reporting features, Cisco Tidal Enterprise Scheduler integrates with Terma Software Labs' JAWS Historical and Predictive Analytics modules. With the Cisco scheduler, customers can gain historical, real-time and predictive job run analysis to help them deliver their SLAs in a proactive rather than a reactive mode.

The JAWS data driven model is managed though self-discovered "jobstreams". These jobstreams are collection of all applicable jobs within a predefined SLA with critical path, dependencies, historical, real-time and predictive delivery information graphically rendered for each workload.

Rapid access to accurate jobstream reports and critical path analytics can support IT in detecting issues proactively so that service levels are not compromised. Insight provided by these sophisticated analytics modules supports auditing and compliance process as well as promoting new strategies to help continuously improve SLA delivery. These analytics solutions also deliver predefined reports as well as the ability to create custom reports and gather the data needed by IT and business managers to troubleshoot, identify trends, and analyze job scheduling performance across the enterprise.

JAWS Historical Analytics

The scheduler's integration with the JAWS Historical Analytics module simplifies the management of complex enterprise job schedules by providing rapid access to a variety of information through specialized historical data pathways.

- **Critical Path History Summary:** View frequency of jobs that were the critical path for jobstreams and spot trends showing which jobs need attention before they become bottlenecks.
- **Historical Gantt Charts:** View representation of jobstreams with run times, dependencies, and critical paths displayed to give users a visual representation of their critical job run environments.
- **Business Area Dashboard:** View summary by business area, identifying jobs completed by status, running with predicted completion targets, and forecast with predicted completion targets.
- **Job Stream Historical Details:** View start times, end times, total run time, delays, and durations per job - all the historical job run information needed to make informed decisions.
- **Processing Load Summary:** View the number of job runs, average processing time, and delay times.
- **Job Trending:** View trending of job execution times per job. Historical job trending allows the user to see where potential issues may arise, creating a proactive services delivery environment.

JAWS Predictive Analytics

Cisco Tidal Enterprise Scheduler integration with the JAWS Predictive Analytics module simplifies management of complex enterprise job schedules by providing rapid access to a variety of information through specialized real-time and predictive data pathways. In addition to the Historical Analytics features, JAWS Predictive Analytics delivers a wide range of real-time and predictive jobstream analytics features.

- **Predicted Completion Time of SLA-Driven Jobstream:** JAWS continuously collects and updates its jobstream database to deliver accurate job and job stream delivery information.
- **Real-Time Critical Path Analysis:** Users can view the frequency of jobs that are in the critical path for currently running jobstreams and spot trends showing which jobs need attention before they become bottlenecks.
- **Real-Time Gantt Charts:** This analytic provides real-time charting of jobstreams with run times, dependencies, and critical paths displayed to give users a visual representation of their critical job run environments.

- **Alerts and Predictive Notifications:** Scheduling specialists can set parameters to deliver alerts and notifications so that your workload team can act quickly before jobs fail and affect SLA delivery. Notification can be defined and managed using the following criteria:
  - Calculated end times
  - Early and late notifications
  - Failure to complete
  - Percentage of completion

Requirements

JAWS is sold through an OEM license agreement with Terma Software Labs and is intended for use with Cisco Tidal Enterprise Scheduler release 6.0.3 and higher. A current JAWS Historical Analytics software license is a prerequisite for the purchase of JAWS Predictive Analytics. Contact your Cisco Tidal Enterprise Scheduler sales representative for more information.

About Cisco Tidal Enterprise Scheduler

Cisco Tidal Enterprise Scheduler promotes efficiency by centralizing and providing a single view of cross-enterprise job scheduling events. This powerful, yet easy-to-use solution allows organizations to assemble complex batch job and business process schedules that span the enterprise. The scheduler's ability to closely monitor scheduled jobs, automatically detect problems, and define actions to aid in recovery, can greatly enhance business process performance.

With the broad coverage provided by the enterprise scheduler, IT operations teams can effectively schedule processes that touch a wide range of databases, systems, and applications. They can also easily incorporate and manage new applications as they come online, which helps improve the operation of mission-critical business processes as the enterprise expands and evolves.

Companies in a variety of industries rely on enterprise schedulers to keep their daily operations running smoothly. Cisco's enterprise job scheduling and performance management solutions can deliver greater levels of automation and optimization to the data center than conventional scheduling and performance management solutions.

For More Information

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