SightLine Performance Power Agent for ClearPath MCP Systems

Metric Overview

The following describes some of the metrics that are collected by the SightLine™ Performance Power Agent for Unisys ClearPath MCP Systems and analyzed using SightLine Expert Advisor/Vision™.

Baseline Metrics

Processor – Processor utilization is the most important measure of system capacity. SightLine monitors processor resources in terms of User and MCP utilization, activation rates and queuing delays. Each category contains data items which allow more in-depth analysis of how your processor resources are being used and who is using them.

Application – Application programs can easily insert data into SightLine. This permits simple correlation of application metrics like order counts, dollar volumes, accounts processed, etc. with system performance and capacity utilization measures.

Memory – SightLine reports the amount of available and in-use memory, plus statistics that profile the Overlay activity of in-use memory and the users of the memory resource. This data helps you detect memory constraints causing performance bottlenecks.

I/O – SightLine reports I/O data in four categories: I/O Processor (IOP), Subsystem, Unit, and Family. Key performance measures are Percent Busy, I/Os per Second, Average Block Size, Seconds per I/O, and Average Queue Depth. This data allows for elimination of I/O bottlenecks and optimal allocation of I/O activity to improve system throughput.

Network – For each Network Processor (NP or ICP), SightLine reports I/O traffic rates for Reads, Writes, Average I/O Times, Average Block (message) Size, Queue Depth, Percent Busy, and other key metrics. For Network Support Processor (NSP), SightLine reports the I/Os per second and Kbytes transferred per second, which are divided into Reads and Writes. SightLine's network data will help you improve the efficiency of communications line handling and the system interface to your LAN/WAN.

Workload – SightLine allows workload analysis at two levels: individual transaction types and workload classes. Each transaction type is measured in terms of Rate per Second, CPU Time, I/O Time, Response Time, Queue Time, etc. For each user-defined workload class, SightLine reports the Mix Count, CPU, and I/O utilization, memory utilization, and ReadyQ Percent. Different performance objectives can be set for each workload class.

Worst Offenders – SightLine EA/V's EventList window format lets you display the programs or tasks that are consuming the highest processor, I/O, and memory utilization, all sorted by user-selected resource criteria, the busiest BNA lines or TCP connections, and the busiest DMSII data sets and access structures. Data can be viewed in real-time or after the fact. Event data allows you to diagnose problem applications at the program and data base structure level in addition to spotting busy communications facilities.

On-Line Transaction Metrics

COMS response time is the most important measure of end-user performance. The COMS Interface Agent provides transaction data for each COMS program, program group, user, trancode (LINC ISPEC), window, and station as defined through the COMS utility. The data includes Transactions per Second, Average Response Time, Average Queue Depth, CPU, I/O, ReadyQ Time, Transaction Counts and a Response Time/Transaction Count Histogram. The statistics reported by COMS can be used to analyze performance problems for on-line transactions, for transaction growth projections, and capacity planning.

Database Metrics

The DMSII Database Interface Agent provides data for each DMSII database active on the system. Utilization and performance data for database global metrics as well as those for individual structures and a total for all structures are available. Key metrics include Transactions per Second, I/Os per Second, Overlays per Second, Average Wait for Audit, Audit Block Percent, Buffer Counts and Allowed Core Usage. Four successive levels of database monitoring are available: global statistics only, global plus a summary of all structures, individual structure statistics, and audit statistics. SightLine will also display the busiest structures in the EventList window.

Billing Accounts and Event Reporting

The Billing Accounts and Event Reporting Interface Agent reads the SUMLOG and reports resource statistics for each job, task, and MCS session run on the system. Custom categories can then be defined and used as a basis for a chargeback system. This "billing" data also provides a summary view of resource consumption by "billing account" or workload and can supplement the information provided by Workloads for capacity planning purposes. The Accounting Interface Module also tracks system outage events and any user entered events. This can be used to monitor availability of the system, availability of key application services, or any data center or user defined event.

BNAv2 Metrics

The BNAv2 Interface Agent provides automated access to network statistics on the ClearPath MCP host, for the NPs or ICP's, CP2000, and CP2000 Line Modules. Detail statistics are also available for monitoring down to the Line and Station level. SightLine displays the busiest lines in the EventList window.

TCP/IP Metrics

The TCP/IP Interface Agent provides automated access to network statistics for every TCP/IP LAN connection on the ClearPath MCP host. This provides a set of TCP specific metrics to monitor individual LAN throughput and error rates. SightLine displays the busiest TCP connections in the EventList window.

Disk Space Metrics

The Disk Accounting Interface Agent lets you define and automatically maintain "disk accounts" by individual users, groups of users, or by application. Accounts are categorized or allocated by Usercode, Family Name, File Name, Days since Last Access, and other keys. Disk accounts can be used for space usage chargeback and more importantly for proactive space resource planning. Users of the SightLine Capacity Power Agent can also analyze space usage trends, reallocate existing pack units, and justify the need for additional pack storage.

SightLine…the Key to Performance Information

SightLine Systems Corporation
11130 Fairfax Boulevard, Suite 200
Fairfax, VA 22030
703-563-3000
877-744-4854
www.sightlinesystems.com