

Cray[®] System Snapshot Analyzer



Proactively Address System Health

Over time, large and complex supercomputing systems are statistically susceptible to component issues, and failures are to be expected. While expected component failures (hardware, networking, etc.) will occur, proactive monitoring and system care can minimize downtime, maximize uptime and direct the scheduling of preventive care, upgrades, system retrofits, fixes, maintenance and more. Maximizing reliability and uptime improves total cost of ownership (TCO) and user productivity.

Collect – Upload – Analyze – Act

Automated and remote system status checks, or “snapshots,” can expedite the turnaround time when failures and issues occur, and accelerate the support diagnosis and time-to-resolution. The Cray System Snapshot Analyzer (SSA) technology is a distributed application designed to securely monitor, triage and analyze machine information from Cray customer systems. Data collection can be a transparent operation, and snapshot uploads are secured across SSL (secure socket layer)/TLS (transport layer security) channels with customer specific credential protections. SSA can also be classified as a “call-home” program. The health data is hosted and managed by the Cray support home office, and partitioned by users, systems and snapshots.

SSA initially supports Cray[®] XC40[™], XC30[™], XK7[™], XK6[™] and XE6[™] supercomputer systems, and every Cray customer benefits from the centralized data collection at Cray headquarters. With SSA Cray can help customers leverage trend identification, version interactions, component dependencies, upgrade tracking and more. Broad data collection also helps Cray R&D drive the evolution of technology and continuously improve reliability.

Minimize Overhead and Expedite Time-to-Resolution

Data collection for diagnosis can often be an arduous and time-consuming process for users, additionally impacting production system use. Proactive and automated system query/data collection through Cray’s SSA can dramatically improve detection of issues and reduce the time of Cray support response. Regular and easy system health maintenance snapshots can provide insights to predict future behavior and potential triage responses, often before issues reach critical states.

Leverage Domain Knowledge and Technology

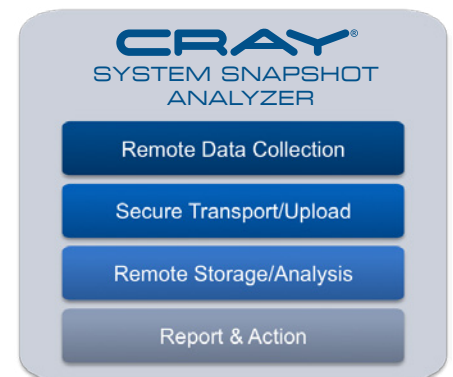
Cray already has years of experience supporting large, sophisticated and distributed worldwide sites for installations, upgrades and corrective action. With SSA, Cray’s new support capabilities are more automated and provide secure, remote interaction, expediting the system health analysis. Cray can leverage its decades of domain knowledge accumulated across numerous installations to better predict and respond to the issues of individual customers and users.

SSA Delivers:

- Faster issue response
- Improved uptime and TCO
- More intelligent and personalized customer support
- An improved support process (less time and customer effort)
 - Automated support data collection, transfer, analysis
 - Improved manual triage
 - Automated triage
- System health and performance reporting
- System configuration analysis
 - Detect updates/upgrades
 - Detect known problematic configuration settings
- Proactive service event analysis
 - Event stream analysis
 - Detect degrading conditions
 - Perform predictive failure analysis
- Productivity

“SSA identified several failures on our system before we noticed them. It was very handy to have the information prepared for Cray support personnel to review and respond to without having to perform manual steps.”

*Liam Forbes
UAF RCS HPC Systems Analyst / GI
ARSC Interim Director*



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