

## Cray System Snapshot Analyzer



### Proactively Address System Health

Over time, large and complex computing 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 turnaround time when failures and issues occur, and accelerate support diagnosis and time to resolution. Our 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 supports Cray<sup>®</sup> XC50<sup>™</sup>, XC40<sup>™</sup>, XC30<sup>™</sup>, XK7<sup>™</sup>, XK6<sup>™</sup> and XE6<sup>™</sup> supercomputer systems, and Cray<sup>®</sup> ClusterStor<sup>™</sup> and Sonexion<sup>®</sup> scale-out Lustre<sup>®</sup> storage systems. Each of our customers benefits from centralized data collection at Cray headquarters. With SSA we 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 be an arduous and time-consuming process for users, impacting production system use. Proactive and automated system query and data collection through Cray’s System Snapshot Analyzer can dramatically improve detection of issues and reduce the time of support response. Regular and easy system health maintenance snapshots provide insights to predict future behavior and potential triage responses, often before issues reach critical states.

### Leverage Domain Knowledge and Technology

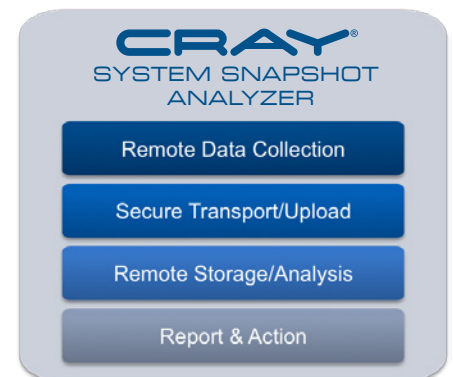
Cray has decades of experience supporting large, sophisticated and distributed worldwide sites for installations, upgrades and corrective action. With SSA, our support capabilities are automated and provide secure, remote interaction, expediting system health analysis. We leverage decades of domain knowledge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

#### 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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