

Remote Support 3.0 for Cray Research computer systems

New Remote Support capabilities enhance service effectiveness

To improve the effectiveness of service delivery to our customers, Cray Research has embraced new technologies to provide our service personnel with an advanced remote service environment. With your consent, this environment allows us to troubleshoot, monitor, and perform key maintenance functions on your Cray Research computer systems from a remote location.

Remote Support is a service tool designed to reduce the time required to fix any problems which might occur with your Cray Research system. Available at no extra cost to you, the Remote Support system enhances service to your super-computing environment regardless of the service option you have selected.

For example, if you have selected onsite support, the Remote Support tool allows us to apply our large technical support pool quickly to any given problem, regardless of the location of your site or

the technical resource. Backed by the combined forces of our Customer Service Division, release 3.0 of Remote Support helps ensure that you get the most from your Cray Research system.

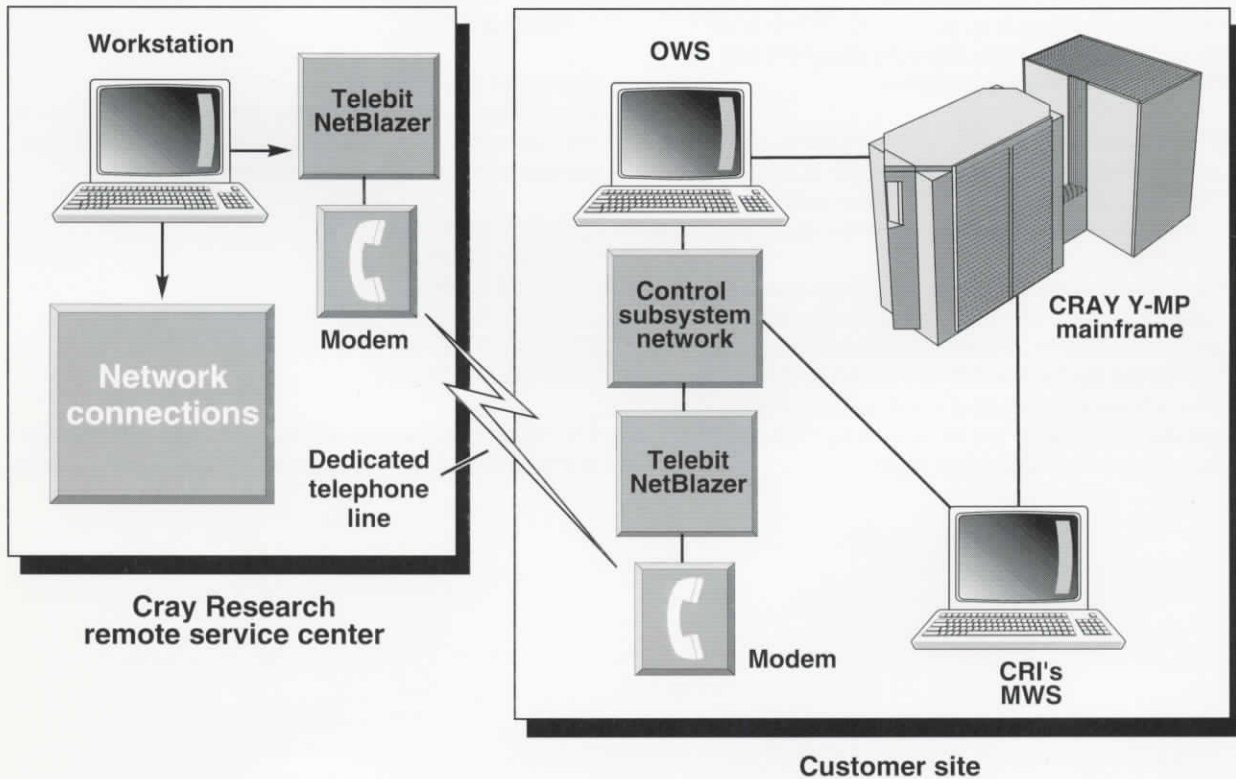
If you have selected offsite support, the Remote Support system allows us to diagnose problems before your Customer Service representative arrives at your site. This capability helps us expedite repairs and ensure that required spare parts are on hand.

Keeping your supercomputer productive

The Remote Support 3.0 system uses state-of-the-art technology to provide the following advantages:

- Increased system availability.* In many cases, remote support capabilities will allow Cray Research to apply extensive resources to a problem and return the system to you in a more timely manner.
- Increased service expertise.* By connecting your system to a Cray Research service center,

Remote Support configuration



the Remote Support system provides access to centralized hardware and software support specialists.

- Faster response to potential problems.* Should you allow Remote Support for your system, automatic notification of system errors ensures that service personnel can respond quickly. (Available mid-1991.)
- Timely and accurate spare part delivery.* By diagnosing system problems remotely, service personnel can deliver and install appropriate replacement parts in a timely manner.

Fully functional remote capabilities

Cray Research has greatly enhanced the capabilities of Remote Support since its introduction in 1989. Release 3.0 of Remote Support enables selected off-site personnel to connect to the maintenance workstation (MWS) at your site and perform the following functions:

- Diagnose system failures
- Perform hardware and software maintenance concurrent with customer operations
- Take system components in and out of the UNICOS operating system
- Transfer Cray Research files to and from the customer site
- Install software modifications
- Monitor hardware performance
- Monitor, shut down, or restart the UNICOS operating system

Remote Support 3.0 features

In addition to providing access to offline and online diagnostic tools, Remote Support 3.0 includes the following features:

- Pager service.* To notify site personnel of system errors and alerts, the system can automatically activate pagers carried by site support staff (available 12/91) or service center staff (available mid-1992).
- Automatic notification.* The system can be configured to notify Cray Research service personnel when certain conditions occur as detected by the SMARTe monitors. If remote transmission is enabled, the system transmits an alert packet to an off-site Cray Research location. (Available mid-1992.)

- Multiprocessing capabilities.* This feature allows remote users to create, control, execute, and view multiple MWS programs.

Multiple security layers

To protect information at your site, the Remote Support system uses a Telebit NetBlazer that employs the following security features:

- Login and password.* A predetermined ID and password must be answered when connecting one NetBlazer to another.
- Encrypted code exchange.* Only authorized users can dial into the NetBlazer. An encrypted, random-generated number challenge is presented to all connection requests after they have been successfully authenticated by the password and login sequence. The remote requestor must respond to this challenge correctly to successfully complete the connection, which prompts for the login and password.
- Restricted route broadcasting.* The Routing Information Protocol (RIP) in the NetBlazer can be turned off, in which case the NetBlazer does not broadcast its address or accept any routing information broadcast from other routers on any networks.
- IP packet and port filtering.* IP packet filters enable you to control IP traffic into and out of your NetBlazer.
- NetBlazer access control.* Under your control, the NetBlazer can be enabled or disabled. You can change this configuration to accept calls when remote support from Cray Research is needed.

Systems supported

Currently the remote service environment supports the following systems running release 6.0 or later versions of the UNICOS operating system:

- CRAY X-MP EA
- CRAY Y-MP
- CRAY Y-MP EL
- CRAY Y-MP 2E and CRAY Y-MP 4E
- CRAY Y-MP 8E and CRAY Y-MP 8I
- CRAY Y-MP C90

For more information on Remote Support, please contact your Cray Research service representative.