Hi-Track® Remote Monitoring System: Secure and Effective 24/7 Support
Operating with the current imperative of 24/7 data availability, today’s businesses find downtime and information loss to be unacceptable. To ensure availability, Hitachi Data Systems offers Hi-Track® Remote Monitoring system. Its service and software capabilities include error analysis, case creation, and error information and data browsing for an additional layer of protection to support business data. Satisfying the highest security requirements, Hi-Track gives organizations constant access to the full spectrum of unmatched Hitachi Data Systems Global Support Center infrastructure and expertise.

Benefits
Organizations implementing the Hi-Track Remote Monitoring system benefit from the following:
■ 24/7 monitoring and troubleshooting.
■ Immediate support, exactly when needed.
■ Trend analysis.
■ High-security access.
■ Most cost-effective method for continuously and securely monitoring distributed storage.

Hi-Track Remote Monitoring System Overview
■ Hi-Track Remote Monitoring system has a proven track record spanning over 20 years; its services and software capabilities are continually being enhanced.
■ Highest security standards allow full control of access to metadata.
■ No production data is accessed.
■ A “watchdog” function constantly monitors supported devices for potential error conditions and immediately opens a case on the Hitachi Data Systems service management system, when warranted.
   The function often alerts Hitachi Data Systems before administrators are even aware of the issue.
■ Hitachi Data Systems experts perform virtual and immediate troubleshooting as if they were at any of the organization’s locations.
■ Hi-Track Remote Monitoring automates many of the data acquisition and analysis tasks that would otherwise be performed by manual and time-consuming processes.

Hi-Track Remote Monitoring system comprises the following components: Hi-Track SVP agent, Hi-Track Monitor agent and Hi-Track SSL Tunnel Appliance.

How Does Hi-Track Remote Monitoring System Work?
The Hi-Track Remote Monitoring system:
■ Performs a health check assessment to ensure that the Hi-Track Monitor is functioning properly; if it is not operating as expected, a support case is opened.
■ Transports configuration information to the Hi-Track Server at Hitachi Data Systems on a daily or weekly basis.
■ Typically includes microcode level, hard disk drive type and board revision level information, and so on.
■ Helps Hitachi Data Systems specialists operate on large RAID enterprise systems as if they were at the organization’s site via a service processor (SVP), the maintenance interface to the storage device.

HI-TRACK REMOTE MONITORING SYSTEM SUPPORT

■ Hitachi Unified Storage (HUS) 100 family.
■ Hitachi Virtual Storage Platform (VSP).
■ Hitachi Universal Storage Platform® V (USP V) and Hitachi.
■ Universal Storage Platform VM (USP VM).
■ Hitachi Universal Storage Platform (USP) and Hitachi.
■ Network Storage Controller (NSC).
■ Hitachi Adaptable Modular Storage (AMS) 2000 family.
■ Hitachi Simple Modular Storage (SMS).
■ Hitachi Adaptable Modular Storage 1000, 500, 200.
■ Hitachi Workgroup Modular Storage (WMS).
■ Hitachi Compute Rack (CR) 220.
■ Hitachi Compute Blade (CB) 2000, 320.
■ Hitachi Content Platform (HCP).
■ Hitachi Data Discovery Suite (HDDS).
■ Hitachi Data Ingestor (HDI).
■ Hitachi Essential NAS Platform®.
■ Hitachi NAS Platform (HNAS) family, powered by BlueArc®.
■ Adva Optical Networking.
■ NetApp NAS.
■ Adic Tape Libraries.
■ Benning UPS Manager.
■ Brocade.
■ Cisco.
■ INRange.
■ McDATA.
■ Nishan.
■ QLogic.
Hi-Track Remote Monitoring System Passes Independent Security Audit with Flying Colors

Independent testing from ICSA Labs validated that the Hi-Track Remote Monitoring system provides safe and reliable remote management of storage devices and equipment while remaining secure from attack.

“During the course of testing, Hi-Track platform and its individual components were found to be secured from intrusion and that Hi-Track could be installed, administered and operated securely. The Hi-Track platform was not found to introduce any vulnerabilities into an existing network infrastructure.”

Hi-Track Remote Monitoring System Security

Understanding that security is at the heart of most enterprise storage strategies, Hitachi Data Systems is constantly developing the highest levels of security for the Hi-Track Remote Monitoring system; these security features allow storage administrators to customize and control any aspect of its usage.

For an added layer of protection, Hi-Track Remote Monitoring has been designed so it does not access any production data; it only works with the service-related information and interface devices that drive the infrastructure.

Below are some highlights regarding security. Additional detailed security information is available in other Hi-Track documentation.

- Three transport options are available for the agents: HTTPS, FTP (SSL and standard) and dialup.
- For these 3 options, normal error and configuration transport operation of Hi-Track is in an outbound direction, originating at the customer site.
- When the HTTPS or FTP-SSL transport options are used, data is moved via SSL, which provides up to 256 bit data encryption.
- When the HTTPS or FTP transport is used with the Hi-Track SSL Tunnel Appliance there is no need to use a phone line.
- The information transported from the site is maintenance-related information only; such data would not normally be considered sensitive data by customers.
- When the optional Hi-Track SSL Tunnel function is used to provide remote access to the specialist, many security features are employed, including the following.
  - The SSL Tunnel is established in an outbound direction only. There is no need to open an inbound port.
Only certain specialists using the Hitachi Data Systems internal network may establish a connection with the site. The SSL Tunnel Appliance cannot make a connection to any other location.

The specialist establishing the connection already must have authenticated to the Hitachi Data Systems internal network. In addition, they already must have been authorized and authenticated to establish a connection to the particular site.

The customer has multiple levels of control over whether the connection can take place and can terminate the session at any time.

All activity is logged and the customer may access the logs.

The connection will forcibly disconnect if it is left open for a certain length of time.

The application can optionally use Microsoft Windows Advanced Firewall to limit access to devices after the connection is established.

The customer may place their own firewall controls surrounding the Hi-Track SSL function to provide additional independent security.

The Hi-Track function has been audited from a security aspect by an independent security firm and validated to be secure.

Hitachi Data Systems experts follow the strictest procedures when allowed to remotely service and troubleshoot an issue. They:

Access the remote session launch program via a secure tunnel on the Hitachi Data Systems LAN.

Employ a special Hi-Track program that communicates via a proprietary protocol to initiate the remote session.

Use a password to access the proprietary Hi-Track Monitor application that launches the remote session.

Use an additional password (required) to launch the remote session and connect with the remote session application.

Extra safeguards include:

The Hi-Track agent monitors the session and will forcibly terminate if it is left running beyond a predetermined time.

All access is audited and remains under the organization’s full control at all times.

Remote connections are always established from inside the network to the outside for additional security. Connection requests that originate from outside the organization’s network are not permitted.

### Hi-Track Remote Monitoring System: Your Protection

The Hi-Track Remote Monitoring system provides full-time monitoring of your Hitachi storage systems, guarding against unforeseen disruption and protecting your data 24/7.

For more information about the benefits of Hi-Track Remote Monitoring system and how it can answer your data protection challenges, please contact your Hitachi Data Systems representative or visit www.HDS.com.