



## MTS Echo<sup>®</sup> Hub

Local monitoring solution for MTS Echo Intelligent Lab

be certain.

THE **MTS ECHO HUB** ALLOWS YOU TO REMOTELY MONITOR TEST STATUS AND/OR SYSTEM HEALTH THROUGH INTERFACES WITH THE SYSTEM CONTROLLER AND SENSORS. THIS LOCAL SOLUTION HELPS MAINTAIN HIGH UPTIME AND GIVES YOU THE SECURITY OF KNOWING THAT ALL THE MONITORING INFORMATION RESIDES WITHIN YOUR NETWORK. THE MTS ECHO HUB PROVIDES A QUICK AND EASY WAY TO ADD REMOTE MONITORING CAPABILITY TO ANY LAB.



## Modern Technology to Improve Lab Operations

With important tests, tight deadlines, valuable test equipment and sometimes irreplaceable specimens, it is critical to know what is happening in the lab at all times. Knowing when important tests complete or if a test stops unexpectedly can determine the difference between productive operation and unplanned downtime.

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To maximize uptime and provide greater insights into lab operations, you can rely on MTS Echo Intelligent Lab. This connected solution allows you to remotely monitor test status and equipment health, and now, with the Echo Hub, you can monitor these critical items from within your corporate network. With MTS Echo Hub you can:

- » Define alerts for any signal or sensor connected to the hub
- » Receive alerts through email, text message, desktop notification or, on some models, an optional hardwired alarm
- » Monitor everything connected to the hub from anywhere in your network
- » Monitor all your hubs through one app
- » Design custom views to see the signals you want to monitor
- » View sensor data history
- » Manage access with password protection

### BENEFITS

- » No cloud connection required
- » Keeps data within your network
- » Monitors test status and equipment health from anywhere
- » Sends alerts for any signal or sensor connected to the hub
- » Maximizes uptime with powerful health monitoring

### Anywhere Visibility

The MTS Echo Hub allows you to monitor everything that is connected to the hub from anywhere within your network. With the desktop app, you can design your own custom views to monitor the signals you want to see. You can configure the app to connect to multiple hubs and monitor signals from all of them on one screen.

### Customizable Alerts

Be the first to know when something changes in your lab. You have full control over which signals will trigger alerts. You can choose to receive an alert when thresholds are exceeded, specific values

are met or when a condition changes. With this information at your fingertips, you'll be able to respond to and communicate changes quickly.

### 24/7 Health Monitoring







Know your equipment health condition and track historical data to analyze trends and predict when maintenance or intervention will be required. You can store important sensor data at configurable rates to understand equipment utilization and wear. The health monitoring sensors can store more than three million readings per sensor per year, and the MTS Echo Hub can store up to one billion data points.\*\*



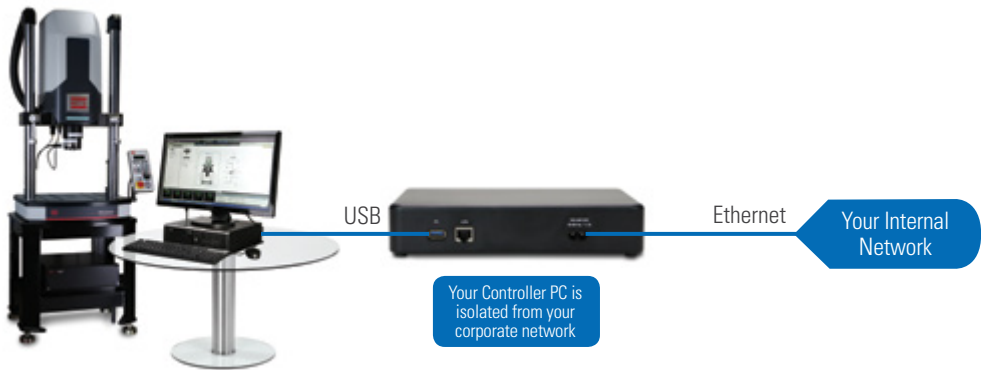
*\*\*Echo Hub H1 has enough storage to record approximately 1/2 billion data points, and Echo Hub D1 has storage capacity of approximately 1 billion data points. These estimates are average based on typical configuration. Actual number will vary based on specific data precision.*

# Easy to Install

The MTS Echo Hub is easy to integrate into your lab. It is a simple three-step process:

What Do You Want To Monitor?	Echo Hub Model
	<p data-bbox="1226 430 1347 472">Echo Hub C1</p> <p data-bbox="885 483 1047 546">Test Status for 1 Controller</p> 
<p data-bbox="251 693 454 829">1. Select model(s) based on what you would like to monitor</p>	 <p data-bbox="885 714 1047 777">Health Sensors for 1 HPU</p> <p data-bbox="1218 661 1339 703">Echo Hub H1</p> 
	<p data-bbox="885 924 1047 1060">Test Status + Health Sensors for 1 System</p> <p data-bbox="1218 892 1339 934">Echo Hub D1</p> 

2. Connect the MTS Echo Hub to your test system and your local network



3. Install the monitoring app on your various devices. Use the app to monitor each system in real-time, configure alerts and more.



## Equipment and Test Monitoring

With the MTS Echo Hub C1, you can stay connected to your lab and ensure that your equipment is running optimally. All lab equipment that is run by MTS FlexText® controllers and software can be monitored from anywhere within your network without putting your Controller PC on the network. The included Echo Remote Monitoring software enables you to easily configure dashboards that display the information that is relevant to you. The following key capabilities will help maintain uptime and increase lab efficiency:



Echo Hub C1

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### Local Monitoring

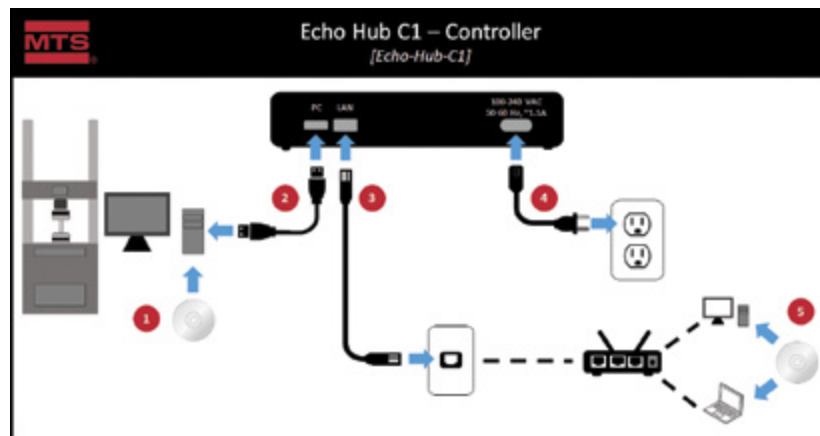
The MTS Echo Hub C1 does not require any connections outside of your corporate network. You can stay connected to your equipment from anywhere that you can access your corporate network.

### Easy to Install

Setup takes just minutes so you can get started quickly to stay connected to your lab from anywhere.

### Isolated Controller PC

The Echo Hub C1 connects to your Controller PC with a USB connection and does not require the Controller PC to be connected to your corporate network. This configuration insulates your test equipment from any IT updates that could interrupt testing, while still enabling you to stay connected to your tests.



### Monitor Multiple Tests

From a single application, you can connect to as many MTS Echo Hubs as you'd like within your organization. You can choose which systems and tests that you would like to monitor in your building, across town or around the world

### Powerful Alerting

With the Echo Hub, you can define alerts on any signals of interest. With this capability, you can rest assured that your system is operating correctly and will notify you when a test finishes or there is a problem. You have full control of alerts and can be alerted through desktop notifications, emails or text messages.

- » Receive alerts through multiple channels
  - Email<sup>1</sup>
  - Text Message<sup>1</sup>
  - Desktop Notification

<sup>1</sup>Available when configured with a local SMTP server



## Equipment Health Monitoring

The MTS Echo Hub H1 allows you to monitor the health of your hydraulic power units and preemptively identify possible threats to hydraulic system health. With the anytime access to information about your HPU and the ability to set alerts, you can make sure that your HPU is running optimally and can intervene with maintenance when necessary. The following key capabilities will help maintain uptime and increase lab efficiency:



Echo Hub H1

### Local Monitoring

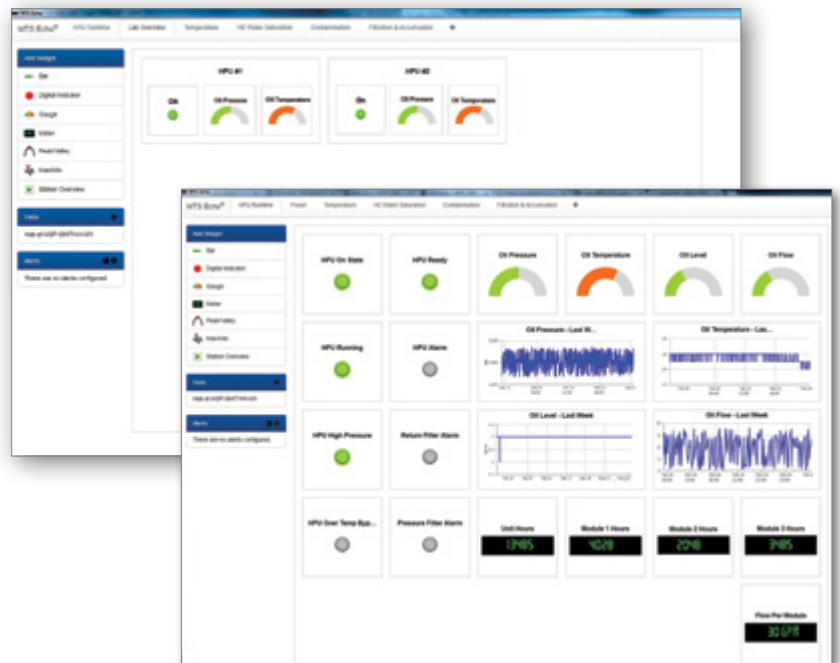
The MTS Echo Hub H1 does not require any connections outside of your corporate network. You can monitor HPU operating condition from anywhere that you can access your corporate network.

### No Internet Connection Required

Since the Echo Hub H1 does not require an internet connection, your monitoring will not be affected by internet outages or latency. With this hardware-based solution, you do not need to worry about losing visibility to your data.

### Monitor Multiple HPUs

From a single application, you can connect to as many MTS Echo Hubs as you'd like within your organization, allowing you to monitor many parameters of your hydraulic system from a single dashboard.



### Powerful Alerting

With the Echo Hub, you can define alerts on any signals of interest. With this capability, you can rest assured that your system is operating correctly and will notify you when a signal or threshold is reached. You have full control of alerts and can be alerted through desktop notifications, emails or text messages.

- » Receive alerts through multiple channels
  - Email<sup>1</sup>
  - Text Message<sup>1</sup>
  - Desktop Notification
  - Optional hardwired siren or alarm

<sup>1</sup>Available when configured with a local SMTP server

### Trend Data

The MTS Echo Hub H1 allows you to analyze trends over time and view interactive trending charts to determine the health of your HPU. The H1 model can collect and store 1/2 billion sensor samples, so you will have access to a large set of historical data and can make run, replace or repair decisions at the appropriate time.

### Full System Monitoring
















The MTS Echo Hub D1 allows you to monitor both equipment operation and health condition. This combined package provides all the benefits of both the Hub C1 and Hub H1 solutions.



Echo Hub D1

## Improve Uptime and Increase Lab Efficiency

The MTS Echo Hub gives you real-time access to the information, alerts and remote monitoring that you want, from within your corporate network and without an internet connection. This cost-effective hardware solution provides an easy way to add the power of MTS Echo Intelligent Lab to any lab.

Echo Hub Model	Controller Signals	Health Sensors	Real-Time Remote Monitoring	Alerting (Email, SMS, & Desktop)	Historic Data Capture	Local Alerting
<b>Echo Hub C1</b> 	All stations on connected controller 		Monitor controller signals remotely in real-time 	Custom alerts on any signal 		
<b>Echo Hub H1</b> 		All sensors connected to master junction box 	Monitor health sensors remotely in real-time 	Custom alerts on any sensor 	Any sensor 	Up to 2 alarms/sirens 
<b>Echo Hub D1</b> 	All stations on connected controller 	All sensors connected to master junction box 	Monitor sensors/signals remotely in real-time 	Custom alerts on any sensor/signal 	Any sensor/signal 	Up to 2 alarms/sirens 

### MTS ECHO HUB CAPABILITIES

- » Easily view information and receive alerts from within your corporate network
- » Monitor controllers without putting the controller PC on the network
- » Access lab monitoring information without an internet connection
- » Optionally limit access to lab information to a dedicated lab network

Contact MTS today to see how we can add remote monitoring capability to your lab.

*Note: MTS Echo Intelligent Lab is also available through Software as a Service annual subscription. For the differences in delivery of the MTS Echo Intelligent Lab solution, please see your Service Sales Representative.*

## Regional Business Centers

### THE AMERICAS

#### **MTS Systems Corporation**

14000 Technology Drive  
Eden Prairie, MN 55344-2290

#### **USA**

Telephone: 952-937-4000  
Toll Free: 800-328-2255  
Fax: 952-937-4515  
E-mail: [info@mts.com](mailto:info@mts.com)  
Internet: [www.mts.com](http://www.mts.com)

### EUROPE

#### **MTS Systems France**

BAT EXA 16  
16/18 rue Eugène Dupuis  
94046 Créteil Cedex

#### **France**

Telephone: +33-(0)1-58 43 90 00  
Fax: +33-(0)1-58 43 90 01  
E-mail: [contact.france@mts.com](mailto:contact.france@mts.com)

#### **MTS Systems GmbH**

Hohentwielsteig 3  
14163 Berlin

#### **Germany**

Telephone: +49-(0)30 81002-0  
Fax: +49-(0)30 81002-100  
E-mail: [euroinfo@mts.com](mailto:euroinfo@mts.com)

#### **MTS Systems S.R.L. a socio unico**

Strada Pianezza 289  
10151 Torino

#### **Italy**

Telephone: +39-(0)11 45175 11 sel. pass.  
Fax: +39-(0)11 45175 00-01  
E-mail: [mtstorino@mts.com](mailto:mtstorino@mts.com)

#### **MTS Systems Norden AB**

Datavägen 37b  
SE-436 32 Askim

#### **Sweden**

Telephone: +46-(0)31-68 69 99  
Fax: +46-(0)31-68 69 80  
E-mail: [norden@mts.com](mailto:norden@mts.com)

#### **MTS Systems Ltd. UK**

40 Alan Turing Road  
Surrey Research Park  
Guildford  
Surrey  
GU2 7YF

#### **United Kingdom**

Telephone: +44-(0)1483-533731  
Fax: +44-(0)1483-504564  
E-mail: [mtsksales@mts.com](mailto:mtsksales@mts.com)

### ASIA/PACIFIC

#### **MTS Japan Ltd.**

ArcaCentral Bldg. 8F  
1-2-1 Kinshi, Sumida-ku  
Tokyo 130-0013

#### **Japan**

Telephone: 81-3-6658-0901  
Fax: 81-3-6658-0904  
E-mail: [mtsj-info@mts.com](mailto:mtsj-info@mts.com)

#### **MTS Korea, Inc.**

4<sup>th</sup> F., ATEC Tower, 289,  
Pankyo-ro, Bundang-gu  
Seongnam-si  
Gyeonggi-do 13488,

#### **Korea**

Telephone: 82-31-728-1600  
Fax: 82-31-728-1699  
E-mail: [mtsk-info@mts.com](mailto:mtsk-info@mts.com)

#### **MTS China Hechuan Office**

Room 703 Building #B,  
Venture International Park,  
No. 2679 Hechuan Road,  
Minhang District,  
Shanghai 201103,

#### **P.R.China**

Telephone: +86-21-5427 1122  
Fax: +86-21-6495 6330  
E-mail: [info@mtschina.com](mailto:info@mtschina.com)



#### **MTS Systems Corporation**

14000 Technology Drive  
Eden Prairie, MN 55344-2290 USA