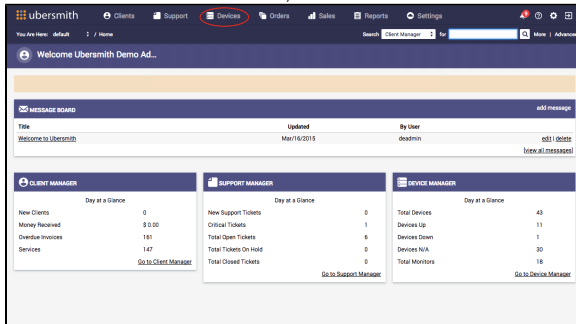


# Adding Monitors

Monitors can be set up for devices. These monitors watch predefined events and let you know when these events have occurred.

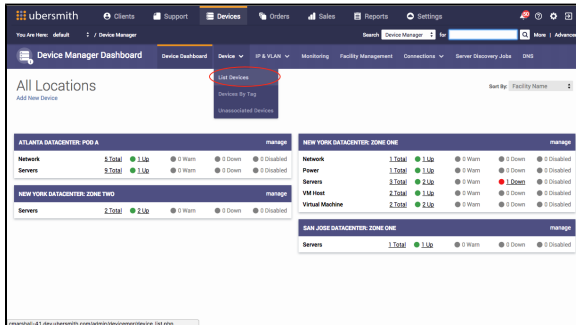
## Access the Device Monitors Tab

1. From the *Ubersmith Dashboard*, click **Devices**.



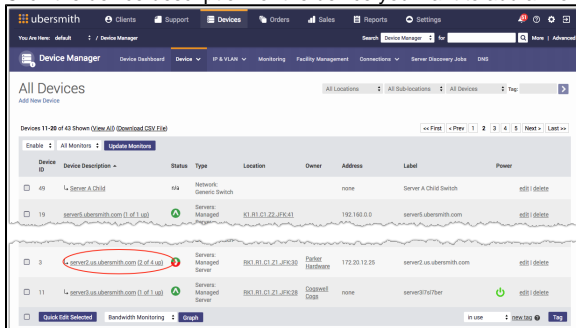
The *All Locations* page appears.

2. Select **Device** and click **List Devices**.



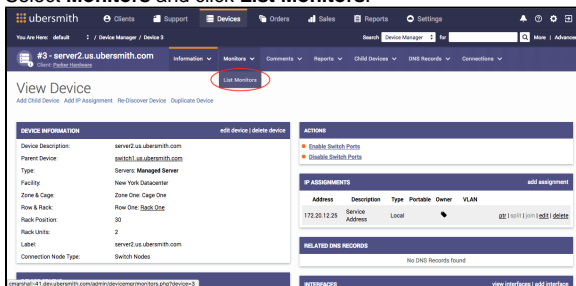
The *All Devices* page appears.

3. Click the device description for the device you want to add a monitor.



The *View Device* page appears.

4. Select **Monitors** and click **List Monitors**.



The *Device Monitors* tab appears.

## On this page:

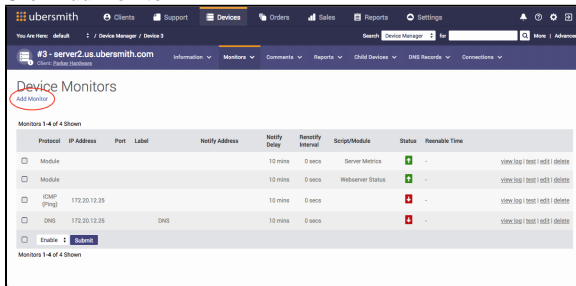
On this page:

- Access the Device Monitors Tab
- Complete the Add Monitor Page
- Complete the Details Tab
- Complete the Instructions Tab
- Complete the Config Tab
  - If your Monitor Protocol is TCP or SSL
  - If your Monitor Protocol is DNS
  - If your Monitor Protocol is Module
    - And the Module is Webserver Status
    - And the Module is Bandwidth Monitoring
    - And the Module is My SQL Status
    - And the Module is Reboot Control
    - And the Module is Server Metrics
- Related Topics

## Complete the Add Monitor Page

1. Access the *Device Monitors* tab.

## 2. Click **Add Monitor**.



The *Add Monitor* page appears.

## Complete the Details Tab

1. In the **Label** field, enter the name for the monitor.
2. In the **Protocol** field, select **TCP** to use a monitor script, **ICMP** to use ping or ICMP echo test, **DNS** to use a DNS query/resolution test, **SSL** to use test connections using SSL/TLS, or **Module** to use an Ubersmith device module. NOTE: See [Adding Monitor Types](#) for more information on monitor scripts. See [Adding Device Type Groups and Device Type Modules](#) for more information on modules.
3. In the **Address** field either select the IP address you want to monitor, or click edit and manually enter the IP address.
4. In the **Max Packet Loss** field, enter the upper threshold of packet loss, in percentage, to be alerted. NOTE: This is an ICMP field.
5. In the **Module** field, select the appropriate monitoring module. NOTE: This is a Module field.
6. In the **Port** field, enter the port to monitor. NOTE: This is a TCP and SSL field.
7. In the **Script** field, select the appropriate script for the monitor. NOTE: This is a TCP and SSL field.
8. In the **Notify Address** field, enter the email address to notify when the monitor is in a failed state. Use commas to specify multiple addresses.
9. In the **Notify Delay** field, enter the amount of time to wait after the device first stops responding before sending an initial notification, then select the unit of time.
10. In the **Notify Interval** field, enter the amount of time to wait before sending out additional email notifications, then select the unit of time.
11. In the **Notify Downstream Device Owners** field, select **Yes** to notify the device's child device owners of the failure, select **No** to disregard child devices.
12. In the **Notify When Monitor Comes Back Up** field, select one of the following:
13. **Never** to never send notifications when the monitor returns up from a down or warning state.
14. **From Warn** to send a notification when the monitor returns up from a warning state.
15. **From Down** to send a notification when then monitor returns up from a down state.
16. **From Warn and Down** to send a notification when the monitor returns up from a warning or down state.

## Complete the Instructions Tab

1. Click **Instructions**.

2. In the **Extra Instructions** field, enter any text to provide additional information or instructions to persons responding to a problem with the device.

The screenshot shows the 'Add Monitor' form in the 'Instructions' tab. The 'Extra Instructions' field is highlighted with a red circle. The text in the field reads: 'The time shows you how fast the connection is. If you see a "timed out" error instead of a reply, there is a breakdown somewhere between the device and the domain. In this case, the next step is to perform a trace-route.' The form has tabs for 'Details', 'Instructions', and 'Config'. At the bottom, there are buttons for 'Save', 'Save & New', and 'Cancel'.

## Complete the Config Tab

You can configure constraints for device modules or one-off configurations for monitor scripts. For example, the bandwidth monitoring device module allows alerts to be sent based on traffic rates. The environmental monitoring module allows temperature and humidity alerts to be sent. Fields on this tab are based on the monitor protocol being configured, and have previously been configured on the [Monitor Types](#) page.

1. Click **Config**.
2. Click **Save** after the appropriate configurations are set.

The screenshot shows the 'Add Monitor' form in the 'Config' tab. The 'Config' tab is highlighted with a red circle. The form contains several fields for configuring the monitor script, including 'Match regular expression', 'Send single line (with \n)', and 'End of Script'. The 'Save' button at the bottom is highlighted with a red circle. The form has tabs for 'Details', 'Instructions', and 'Config'. At the bottom, there are buttons for 'Save', 'Save & New', and 'Cancel'.

## If your Monitor Protocol is TCP or SSL

The *Config* tab for both TCP and SSL contains default fields based on the selected script. NOTE: refer to [Monitor Types](#) for adding customized scripts to this tab.

1. Make any necessary changes to tailor the script for your device.
2. Click **more** to add more fields.

3. Click **reset** to return the *Config* tab to its default settings.

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Add Monitor

Details Instructions **Config**

Match regular expression: ^220

Send single line (with \n): HELO ubersmith.com

Match regular expression: ^250

Send single line (with \n): QUIT

Match regular expression: ^221

End of Script

more... reset

Save Save & New Cancel

## If your Monitor Protocol is DNS

1. In the **Query** field, enter the DNS record name to query.
2. In the **Query Type** field, select the DNS record type to query, for example 'A'.
3. In the **Min results** field, enter the minimum number of expected results.
4. In the **Max results** field, enter the maximum number of expected results.
5. In the **Match Regex** field, enter a regular expression to test the output from the DNS lookup.

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Add Monitor

Details Instructions **Config**

Query: Sample

Query Type: A

Min results: 10

Max results: 50

Match Regex: This is a sample

Save Save & New Cancel

## If your Monitor Protocol is Module

### And the Module is Webserver Status

1. In the **Maximum Active Connections** field, enter the number of connection to monitor.

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Add Monitor

Details Instructions **Config**

Maximum Active Connections: 25

Save Save & New Cancel

### And the Module is **Bandwidth Monitoring**

Note: the numbers next to each field display the current data as of the last polling run.

1. In the **Minimum bps inbound** field, enter the inbound minimum bits per second to monitor.
2. In the **Maximum bps inbound** field, enter the inbound maximum bits per second to monitor.
3. In the **Minimum bps outbound** field, enter the outbound minimum bits per second to monitor.
4. In the **Maximum bps outbound** field, enter the outbound maximum bits per second to monitor.
5. In the **Minimum bps total** field, enter the total minimum bits per second to monitor.
6. In the **Maximum bps total** field, enter the total maximum bits per second to monitor.
7. In the **Expected eth0 Port Status** field, select **Up**, **Down**, or **Testing**. If something other than your chosen status is returned, the monitor will fail.

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Add Monitor

Details Instructions **Config**

Minimum bps inbound: 100000000 (3274899.4 bps)

Maximum bps inbound: 100000000 (3274899.4 bps)

Minimum bps outbound: 100000000 (2817886.5 bps)

Maximum bps outbound: 100000000 (2817886.5 bps)

Minimum bps total: 100000000 (6092785.9 bps)

Maximum bps total: 100000000 (6092785.9 bps)

Expected eth0 Port Status: Up (UP)

Save Save & New Cancel

### And the Module is **My SQL Status**

1. In the **Is this a slave database host** field, select either **Yes** or **No**.
2. In the **Maximum Slave Delay** field, enter the maximum number of seconds for the delay.
3. In the **Minimum Slave Processing Rate** field, enter the minimum number of writes per second.

4. In the **Warn if active connections are greater than** field, enter the percent of active connection to warn.

The screenshot shows the 'Add Monitor' configuration page for a database host. The page has a dark blue header with the 'ubersmith' logo and the URL 'server2.us.ubersmith.com'. Below the header are three tabs: 'Details', 'Instructions', and 'Config'. The 'Config' tab is selected. The configuration form includes the following fields:

- 'Is this a slave database host?': Radio buttons for 'Yes' and 'No', with 'No' selected.
- 'Maximum Slave Delay': A text input field with '30' and a unit dropdown set to 'seconds'.
- 'Minimum Slave Processing Rate': A text input field with '50' and a unit dropdown set to 'writes/s'.
- 'Warn if active connections are greater than': A text input field with '75' and a unit dropdown set to '% of max\_connections'.

At the bottom of the form are three buttons: 'Save', 'Save & New', and 'Cancel'.

### And the Module is Reboot Control

1. In the **Minimum draw (A)** field, enter the minimum amount of power the device is drawing to monitor.
2. In the **Maximum draw (A)** field, enter the maximum amount of power the device is drawing to monitor.
3. In the **Minimum percentage draw (%)** field, enter the minimum percentage amount of power the device is drawing to monitor.
4. In the **Maximum percentage draw (%)** field, enter the maximum percentage amount of power the device is drawing to monitor.

The screenshot shows the 'Add Monitor' configuration page for a device with power draw metrics. The page has a dark blue header with the 'ubersmith' logo and the URL 'server2.us.ubersmith.com'. Below the header are three tabs: 'Details', 'Instructions', and 'Config'. The 'Config' tab is selected. The configuration form includes the following fields:

- 'Minimum draw (A)': A text input field with '50'.
- 'Maximum draw (A)': A text input field with '100'.
- 'Minimum percentage draw (%)': A text input field with '30'.
- 'Maximum percentage draw (%)': A text input field with '75'.

At the bottom of the form are three buttons: 'Save', 'Save & New', and 'Cancel'.

### And the Module is Server Metrics

Some fields are based on the SNMP output for the device, while the rest are generic. The generic fields are explained below.

Note: the numbers next to each field display the current data as of the last polling run.

1. In the **Minimum ram usage** field, enter the minimum megabytes of ram usage to monitor.
2. In the **Maximum ram usage** field, enter the maximum megabytes of ram usage to monitor.

3. In the **Minimum virtual memory usage** field, enter the minimum megabytes of virtual memory usage to monitor.
4. In the **Maximum virtual memory usage** field, enter the maximum megabytes of virtual memory usage to monitor.
5. In the **Maximum hard disk usage** field, enter the maximum percentage of hard disk usage to monitor.
6. In the **Minimum cpu usage** field, enter the minimum percentage of CPU usage to monitor.
7. In the **Maximum cpu usage** field, enter the maximum percentage of CPU usage to monitor.
8. In the **Minimum I/O Wait %** field, enter the minimum percentage of input/output wait time to monitor.
9. In the **Maximum I/O Wait %** field, enter the maximum percentage of input/output wait to monitor.
10. In the **Minimum Disk I/O transfer** field, enter the minimum bits per second of disk input/output wait to monitor.
11. In the **Maximum Disk I/O transfer** field, enter the maximum bits per second of disk input/output wait to monitor.
12. In the **Minimum Disk I/O operations** field, enter the minimum disk input/output operations to monitor.
13. In the **Maximum Disk I/O operations** field, enter the maximum disk input/output operations to monitor.
14. In the **Maximum System Load** field, enter the maximum system load to monitor.

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Add Monitor server2.us.ubersmith.com

Details Instructions **Config**

Minimum ram usage:	4000	MB (3656 MB)
Maximum ram usage:	7000	MB (3656 MB)
Minimum virtual memory usage:	200	MB (131 MB)
Maximum virtual memory usage:	400	MB (131 MB)
Maximum hard disk usage:	45	% (17.92%)
Maximum hard disk usage for "/":	40	% (24.31%)
Maximum hard disk usage for "/dev/shm":	50	% (0.00%)
Maximum hard disk usage for "/boot":	50	% (28.66%)
Maximum hard disk usage for "/home":	25	% (16.44%)
Minimum cpu usage:	25	% (12.5%)
Maximum cpu usage:	50	% (12.5%)

Save Save & New Cancel

## Related Topics

[Managing Monitors](#)

[Adding Monitor Types](#)

[Managing Monitor Types](#)

[Using the Monitoring Dashboard](#)