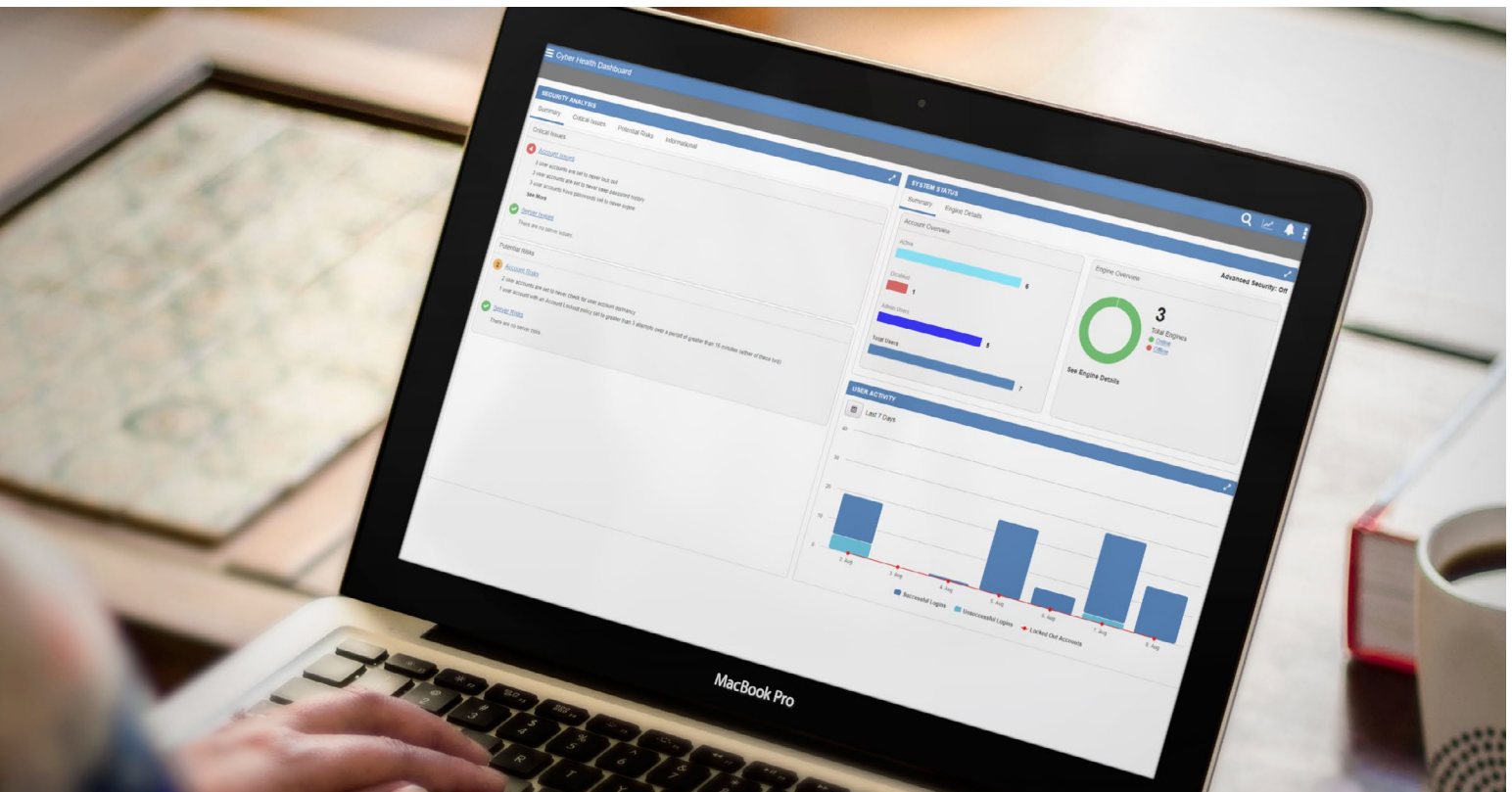


April 2020



Working Remotely with Metasys

Exploring Remote Notification Features



If conditions require facilities & operations teams, contractors and system integrators to manage building systems remotely, it's helpful to be familiar with the building automation system (BAS) features and capabilities that help you do so more effectively. Here's a guide to key considerations, as well as how to use the Metasys remote notification feature suite.

Building and organization needs, regulatory compliance, environmental conditions and other circumstances may or may not require building operators to be on site as they use the BAS. Instances where building operators may not be required to be on site include:

- Mission-critical sites operating with reduced facilities personnel, with some team members working remotely
- Partially open sites requiring full-time system supervision via remote access, such as office buildings with only some floors open
- Temporarily or otherwise closed sites with no onsite team members, requiring remote monitoring and supervision

Whatever the conditions, you want a BAS that provides maximum flexibility.

Important Factors to Consider Before Using Your BAS to Work Remotely

Need: Web browser access, optimized for any device.

Benefit: Phone, tablet or laptop access – without having to download apps or more software – makes working remotely much easier.

Need: IT best practices such as complex passwords, encrypted communication over the internet, and blocking of unused ports.

Benefit: These features help prevent unauthorized access.

Need: Dashboard views of critical information like users accessing the system, and engines that are offline.

Benefit: This helps system administrators identify and address potential cybersecurity concerns.

Need: Programming and configuration tools for any system user.

Benefit: These tools support remote operations at any system level – supervisory or equipment controller.

Need: Up-to-date BAS, using the latest software release, with all recent patches applied.

Benefit: Staying current ensures access to the latest features and is one of five key security measures recommended by the Department of Homeland Security Control Systems Security Program.¹

Need: Direct access to your BAS provider for support.

Benefit: Access to technicians, training materials and other resources—including maintenance agreements, software subscriptions and other enhancements—ensures you're getting the most out of your BAS.

If your system lacks these essential features and benefits, it may be time to explore an upgrade or replacement with the latest Metasys release to help make remote operation more efficient and secure.


¹ ICS-CERT Recommended Practices: <https://ics-cert.us-cert.gov/Introduction-Recommended-Practices>

Metasys Remote Notifications

Whether you're using the Metasys User Interface (UI) or Site Management Portal (SMP), Metasys remote notification features help provide ease of mind. Select recipients can receive custom notifications any time, anywhere, to know what's happening on your site.


Remote Notifications in Metasys UI

1. Getting Started

- Select the User Menu 
- Select User Menu › Administrative Tasks › Remote Notifications.
The Remote Notifications page opens.

Email Server Setup

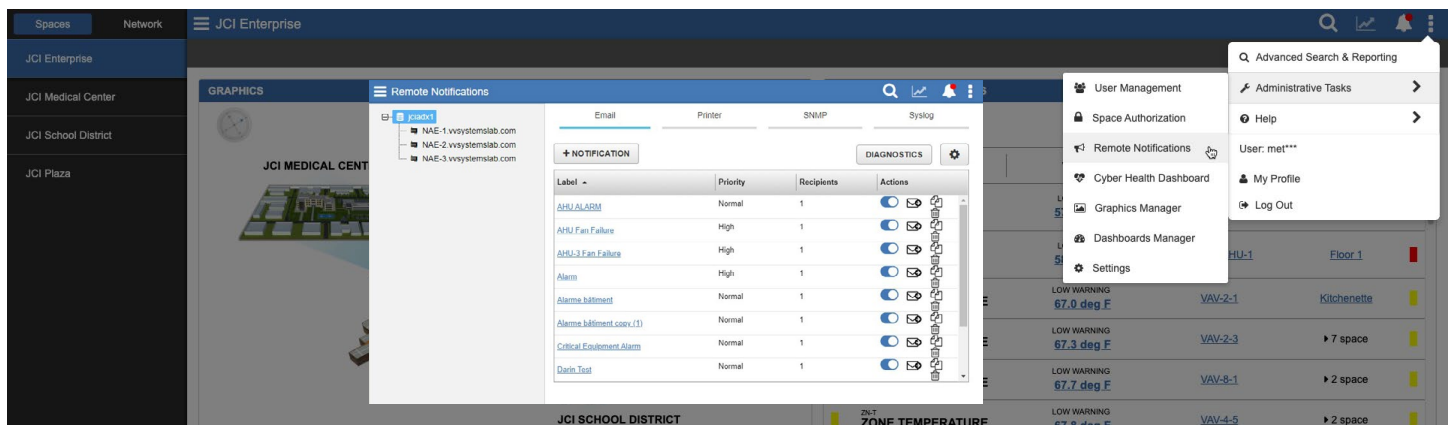
Select the email destination for the notification.

- Select the configuration icon 
- Complete the Shared Configuration form, including:

1. **SMTP Server Host** - xxx
2. **SMTP Port** - xxx

- Select **Save**

xxx - Contact your IT department for assistance, as the values are unique for each connection.

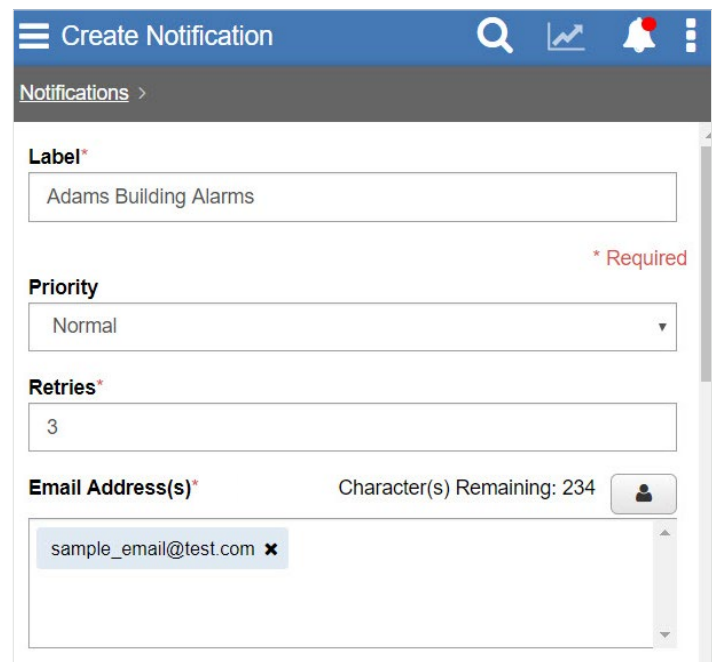


2. Create Notification Recipients

- Select the desired Server or Engine from the menu tree
- Select **+Notification** (on the Remote Notification page)
- Complete the Create Notification form, including:
 1. **Label**
 2. **Retries** - how many retries you want a system to attempt sending the notification
 3. **Email Address(s)** - the email recipients to receive the notification

Complete additional sections, as desired:

- Escalation - [watch video](#)
- Email formatting - [watch video](#)



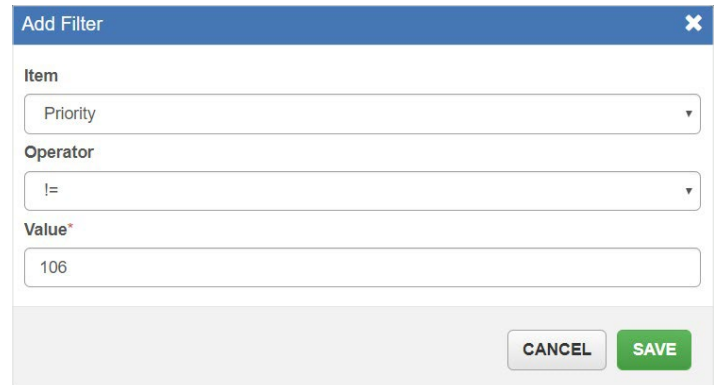
3. Configure Notifications

Example – Event Filter on all alarms except 106 (on/offline) from the Adams building to the individual managing the space.

Define the priority

Send priority notifications for everything except online/offline alarms (106).

- Select **+Event Filter**
- Complete the **Add Filter** form:
 - Item: **Priority**
 - Operator: **!=** (except function)
 - Value: **106**
- Select **Save**



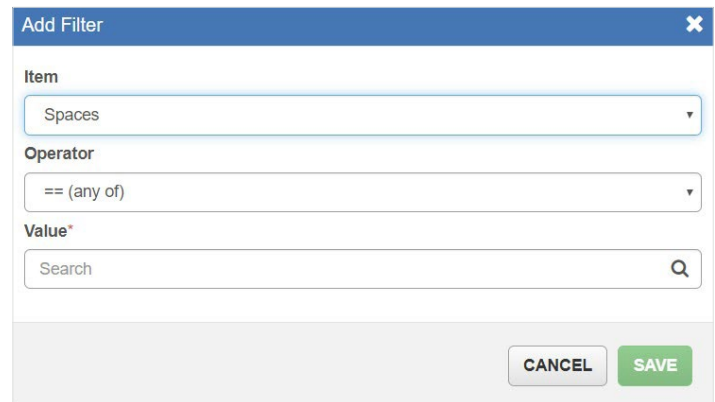
The 'Add Filter' dialog box has a blue header with a close button. It contains three fields: 'Item' with a dropdown menu showing 'Priority', 'Operator' with a dropdown menu showing '!=', and 'Value*' with a text input field containing '106'. At the bottom right are 'CANCEL' and 'SAVE' buttons.

Define the space

Route all event messages in the Adams building.

- Select **+Event Filter**
- Complete the **Add Filter** form:
 - Item: **Spaces**
 - Operator: **== (any of)**
 - Value: **Adams**
- Select **Save**

Learn how to configure a high alarm with a priority range – [watch video](#)



The 'Add Filter' dialog box has a blue header with a close button. It contains three fields: 'Item' with a dropdown menu showing 'Spaces', 'Operator' with a dropdown menu showing '== (any of)', and 'Value*' with a text input field containing 'Search' and a search icon. At the bottom right are 'CANCEL' and 'SAVE' buttons.

Remote Notifications in SMP, Known as Destination Delivery Agents*

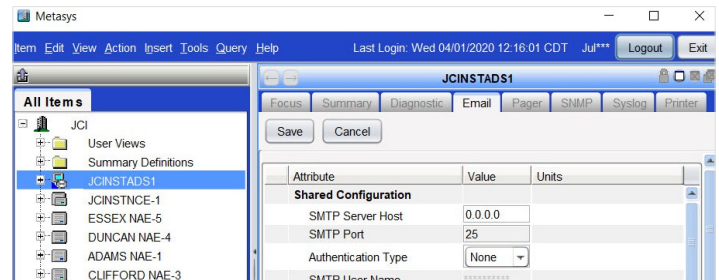
The Metasys system alarm and event feature lets you route engine-generated event messages to different devices ("destinations"). For each engine, you can configure the routing and filtering of event messages using DDAs.

1. Configure Email Server

Configure the Email sever that will send the notification.

- View an Engine
- Select the Email tab
- Select **Edit**
- Edit the attributes in the Shared Configuration section, including:
 1. **SMTP Server Host** - xxx
 2. **SMTP Port** - xxx

xxx - Contact your IT department for assistance, as the values are unique for each connection.



2. Configure the Destination

Define the alarm notification that will be sent, and the email recipient. Then, add an Event Filter for all alarms on the site except 106 (on/offline).

- Select New in the Destination Configuration section.
- Edit the parameters for email in the Destination Configuration section.
 1. **Label** - description meaningful to you
 2. **Email Address** - the email recipients to receive the notification
 3. **Subject** - the subject line of the email
 4. **Retries** - how many retries you want a system to attempt sending the notification
 5. **Event Filters** -
 - Select **New**
 - Complete the Add Filter form:
 - Item: **Priority**
 - Operator: **!=** (except function)
 - Value: **106**
- Select **OK**
- Select **Save**

Attribute	Value						
Destination Configuration							
Label	Alarm Notification						
Email Address	joe.smith@test.com						
Priority	Normal						
Subject	Alarm Notification (All Buildings)						
Retries	3						
Enabled	True						
Event Filters	<table border="1"><thead><tr><th>Item</th><th>Operator</th><th>Value</th></tr></thead><tbody><tr><td>Priority</td><td>!=</td><td>106</td></tr></tbody></table>	Item	Operator	Value	Priority	!=	106
Item	Operator	Value					
Priority	!=	106					

Add Filter ✕

Item Priority

Operator !=

Value 106

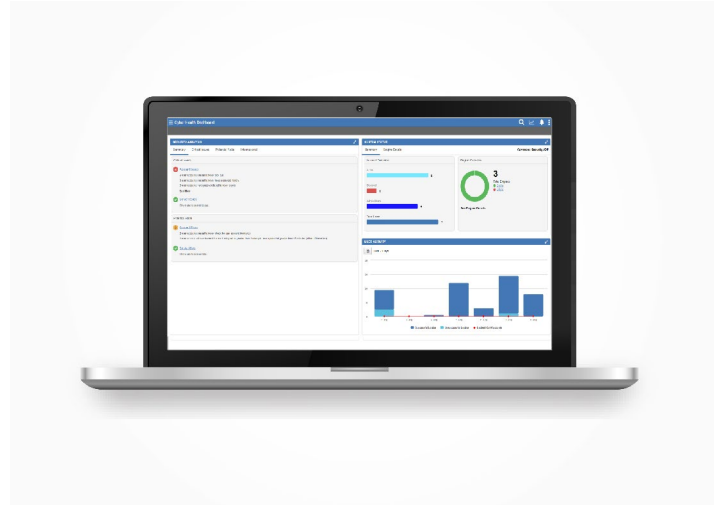
Remote Notifications (configured using Metasys UI) replace Server level DDAs at Metasys 10.1 or later.

For more information, refer to [Metasys SMP Help](#).

Cybersecurity Considerations

- When remotely accessing Metasys, use a virtual private network (VPN).
- Make sure your remote device has its firewall turned on and is running antivirus software.
- Make sure your remote device's operating system and other software are up to date to eliminate security gaps.
- When accessing your Metasys system remotely, always do so from a secure location with computers and networks you know and trust.
- Always log out of your Metasys session when you have finished your work.

For more information, refer to the Johnson Controls Building Automation System [Network and IT Guidance Technical Bulletin \(LIT-12011279\)](https://www.johnsoncontrols.com/campaigns/metasys-tips/resources).



For a complete list of resources, including how-to videos and technical documentation, refer to <https://www.johnsoncontrols.com/campaigns/metasys-tips/resources>.

Let's Talk

Johnson Controls is here to help you stay secure while working remotely. To learn more about Metasys remote notification features, contact us today.

Contact Us