



# DOCUMENTATION

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## *Signal Notifications*

HEAL Software Inc.

Signal Notifications let you control which alerts you get and how you get them. Each user picks email or SMS, recipient lists, and the granularity (component, instance, category, or all) for each application they have access to.

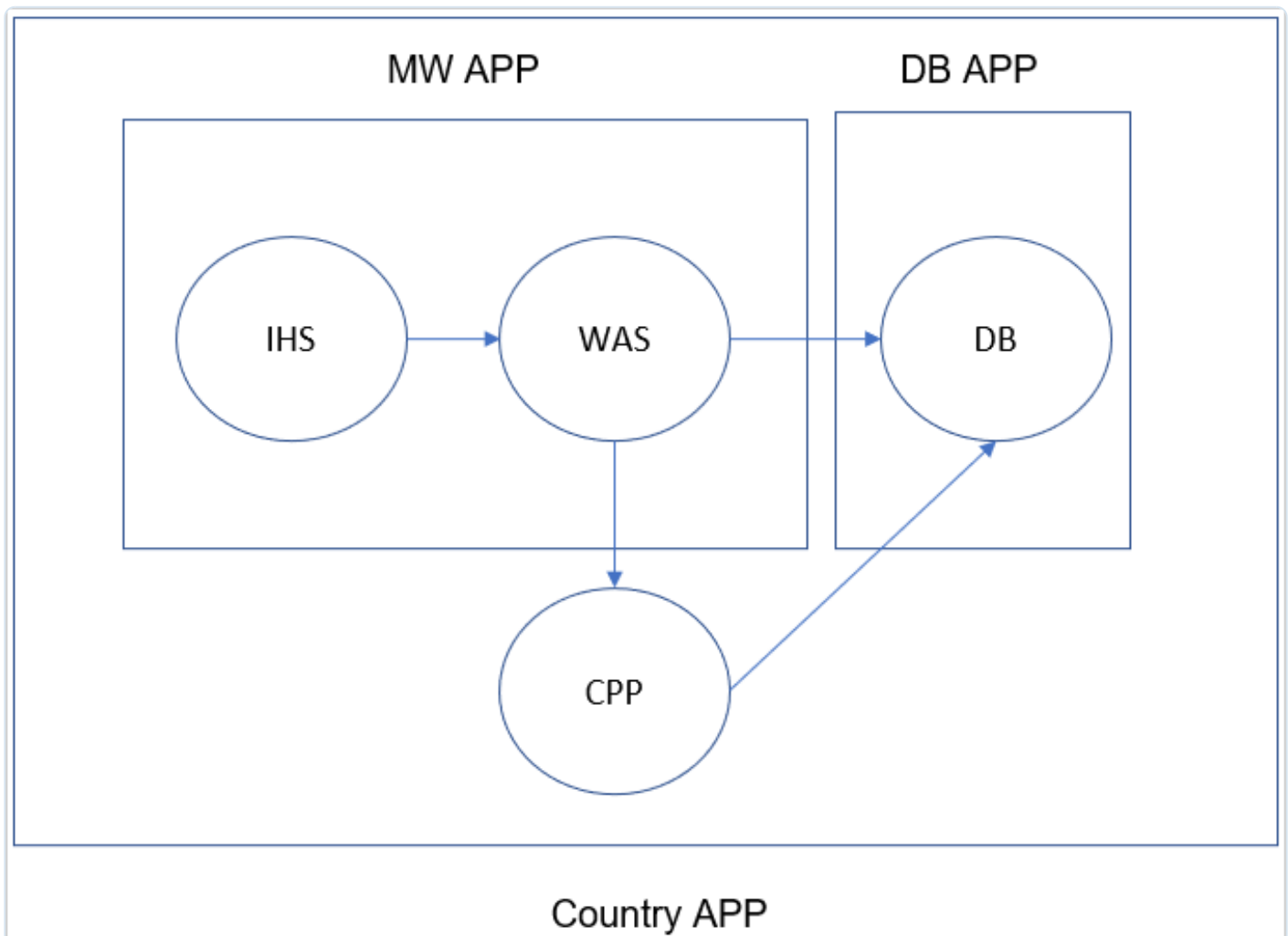
An individual event is created in one of three ways:

- Automatic via the Machine Learning Engine (MLE).
- Manual threshold-based rule.
- Availability-based rule.

## User-specific notifications

Many alerts can be generated, but each user only cares about a subset. Notifications are split into:

- **Application level.** Per-application defaults.
- **User level.** Each user defines their own preferences so they only get the alerts they need.



Example assignments:

- **User 1 (OS).** Country Application. Selected host-level alerts.
- **User 2 (MW).** MW Application. Selected component-level alerts.

- **User 3 (DB).** DB Application. Selected component-level alerts.
- **User 4 (App Owner).** Country Application. Selected all alerts.

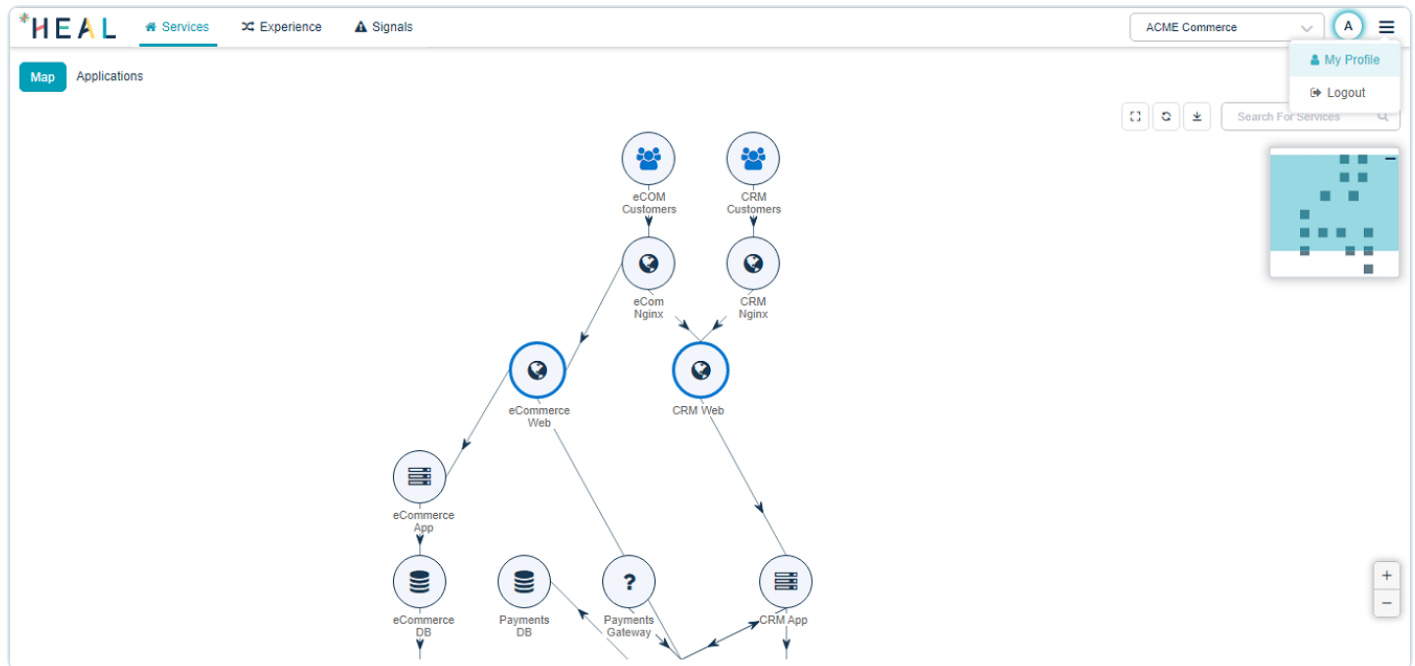
### Scenario walkthrough:

- Component-level event on WAS. Early Warning raised. Notifications go to User 2 and User 4.
- Component-level event on DB. Early Warning continues. Notifications to User 3 and User 4.
- Host-level event on IHS. Notifications to User 1 and User 4.
- Host-level event on DB. Notifications to User 1 and User 4.

Severity-change emails and reminder emails go to every user who already received notifications for the signal. Transaction-related KPI events always go to every user assigned to the application, with no opt-out.

## Open My Profile

Click the user icon in the top-right corner. Pick **My Profile**. Email and SMS settings are audited.



## Signal Notifications

The screenshot shows the 'My Profile' page in the HEAL application. The left sidebar contains a 'Notifications' dropdown menu with 'Signal Notification' selected (1). The main content area is divided into several sections. The 'Email and SMS Settings' section (2) has 'Email Notifications' checked (2) and 'Enable Email Recipients' checked (3). Below this is an 'Email To' field with 'vk@gmail.com' and an 'Email Cc' field. The 'Signal Notification Preference' section (4) has 'Application Level' selected. The 'Granularity' section (5) has 'Instance Level' selected. The 'Preferences' section (6) has 'HDFC' selected. A search bar (7) is at the bottom right. The page footer shows 'Total 238' and a pagination bar.

**1. Email Notifications.** Switch on to receive emails. User-level setting that applies across every account and application you can access.

**2. SMS Notifications.** Same scope. Switch on for SMS.

**3. Email recipients.** Switch on **Enable Email Recipients** to send to specific addresses. Add comma-separated addresses to **Email To** and **Email Cc**. Notes:

- If both boxes are empty, emails go to the default user the recipients are added to.
- If you fill **Email Cc**, you must also fill at least one address in **Email To**.
- Recipients only get emails when **Email Notifications** is on.

**4. Signal Notification Preference.** Pick the alert type. **All** means notifications for every signal HEAL generates.

**5. Granularity.** Pick **Component Type**, **Component Name**, or **Instance Level** for Lead Signals. Pick **Category Level** for Info Signals. The choice applies to every application you are assigned to. New users default to Application level.

**6. Account selection.** Pick the account whose preferences you are setting. The preferences apply to every application in that account.

**7. Application search.** Find an application by full or partial name.

My Profile

Notifications

Signal Notification

Forensic Notification

Time Zone

Email and SMS Settings

Email Notifications

SMS Notifications

Enable Email Recipients

Email To

anup.k@healsoftware.ai

22/2048

Email Cc

raghavendra.m@healsoftware.ai, ravi.t@healsoftware.ai

53/2048

Signal Notification Preference

Select the type of alerts you want to receive

Application Level

All

Get notified for all signals generated by HEAL

Component Level

Category Level

Get notified for Lead signals generated by HEAL

Host Component Level

Component Instance Level

User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

INDIA\_FA

Search By Application

Total 0

1

Applications

Severe Problem

Default Problem

Severe Early Warning

Default Early Warning

Severe Info

Default Info

My Profile

Notifications

Signal Notification

Forensic Notification

Time Zone

Email and SMS Settings

Email Notifications

SMS Notifications

Enable Email Recipients

Email To

anup.k@healsoftware.ai

22/2048

Email Cc

raghavendra.m@healsoftware.ai, ravi.t@healsoftware.ai

53/2048

Signal Notification Preference

Select the type of alerts you want to receive

Application Level

All

Get notified for all signals generated by HEAL

Component Level

Category Level

Get notified for Lead signals generated by HEAL

Host Component Level

Component Instance Level

User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

INDIA\_FA

Search By Application

Total 0

1

Applications

Severe Problem

Default Problem

Severe Early Warning

Default Early Warning

Severe Info

Default Info

My Profile A

Notifications

- Signal Notification
- Forensic Notification
- Time Zone

Signal Notification Preference 0/2048

Select the type of alerts you want to receive

Application Level

☒ All Get notified for all signals generated by HEAL

☐ Component Level ☐ Category Level Get notified for Lead signals generated by HEAL

☐ Host Component Level ☐ Component Instance Level

User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

INDIA\_FA Search By Application Total 0 < 1 >

| Applications      | Severe Problem | Default Problem | Severe Early Warning | Default Early Warning | Severe Info | Default Info |
|-------------------|----------------|-----------------|----------------------|-----------------------|-------------|--------------|
| App_Netbanking    | Immediately    | Immediately     | If Open for long     | Immediately           | Immediately | Immediately  |
| App_Insurance     | Immediately    | Immediately     | If Open for too long | If Open for too long  | Immediately | Off          |
| App_Mutualfund    | Immediately    | Immediately     | Immediately          | Immediately           | Off         | Off          |
| App_MobileBanking | Immediately    | Immediately     | Immediately          | Off                   | Off         | Off          |

Save Cancel

**1. Application list.** Applications the Product Admin granted you access to.

**2. Severe Problem.** Pick a notification preference.

**3. Default Problem.** Pick a preference.

**4. Severe Early Warning.** Pick a preference.

**5. Default Early Warning.** Pick a preference.

**6. Severe Info Signal.** Pick a preference.

**7. Default Info Signal.** Pick a preference.

**8. Save.** Apply the settings.

**9. Cancel.** Discard the settings.

Category Level selection (Info Signals):

**My Profile**

Notifications

**Signal Notification**

Forensic Notification

Time Zone

**Signal Notification Preference** ⓘ Select the type of alerts you want to receive

**Application Level**

☐ All ⓘ Get notified for all signals generated by HEAL

☐ Component Level ☒ **Category Level** ⓘ Get notified for Info signals generated by HEAL

Search for Category ⓘ Please select at least one Category ☐ Select All

☐ AppServerApplications ☐ AppServerDataSource ☐ AppServerJDBC ☐ AppServerJMS ☐ AppserverCPU

☐ AppserverConnPool ☐ AppserverEJB ☐ AppserverIO ☐ AppserverMemory ☐ AppserverNetwork

☐ AppserverRequest ☐ AppserverServlets ☐ AppserverSessions ☐ AppserverThreads ☐ AppserverTransaction

☐ Availability ☐ Background\_Job\_DB\_Response... ☐ Background\_Job\_Data\_Process... ☐ Background\_Job\_Memory\_Usage ☐ Background\_Job\_Response\_Time

ⓘ User opting for Immediately, will also be notified on the intervals of Open for long

**Preferences**

INDIA\_FA Search By Application Total 0 < 1 >

| Applications      | Severe Problem ⓘ | Default Problem ⓘ | Severe Early Warning ⓘ | Default Early Warning ⓘ | Severe Info ⓘ | Default Info ⓘ |
|-------------------|------------------|-------------------|------------------------|-------------------------|---------------|----------------|
| App_Netbanking    | Immediately      | Immediately       | If Open for long       | Immediately             | Immediately   | Immediately    |
| App_Insurance     | Immediately      | Immediately       | If Open for too long   | If Open for too long    | Immediately   | Off            |
| App_Mutualfund    | Immediately      | Immediately       | Immediately            | Immediately             | Off           | Off            |
| App_MobileBanking | Immediately      | Immediately       | Immediately            | Off                     | Off           | Off            |

Save Cancel

### Component Level selection:

**My Profile**

Notifications

**Signal Notification**

Forensic Notification

Time Zone

**Signal Notification Preference** ⓘ Select the type of alerts you want to receive

**Application Level**

☐ All ⓘ Get notified for all signals generated by HEAL

☒ **Component Level** ☐ Category Level ⓘ Get notified for Lead signals generated by HEAL

☐ Host Component Level ☐ Component Instance Level ⓘ Please select at least one level

ⓘ User opting for Immediately, will also be notified on the intervals of Open for long

**Preferences**

INDIA\_FA Search By Application Total 0 < 1 >

| Applications      | Severe Problem ⓘ | Default Problem ⓘ | Severe Early Warning ⓘ | Default Early Warning ⓘ | Severe Info ⓘ | Default Info ⓘ |
|-------------------|------------------|-------------------|------------------------|-------------------------|---------------|----------------|
| App_Netbanking    | Immediately      | Immediately       | If Open for long       | Immediately             | Immediately   | Immediately    |
| App_Insurance     | Immediately      | Immediately       | If Open for too long   | If Open for too long    | Immediately   | Off            |
| App_Mutualfund    | Immediately      | Immediately       | Immediately            | Immediately             | Off           | Off            |
| App_MobileBanking | Immediately      | Immediately       | Immediately            | Off                     | Off           | Off            |

Save Cancel

### Available preferences for a Lead Signal:

My Profile

Notifications

Signal Notification

Forensic Notification

Time Zone

Signal Notification Preference ⓘ Select the type of alerts you want to receive

Application Level

☐ All ⓘ Get notified for all signals generated by HEAL

☒ Component Level ☐ Category Level ⓘ Get notified for Lead signals generated by HEAL

☐ Host Component Level ☐ Component Instance Level ⓘ Please select at least one level

ⓘ User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

INDIA\_FA Search By Application

Total 0 < 1 >

| Applications      | Severe Problem ⓘ               | Default Problem ⓘ | Severe Early Warning ⓘ | Default Early Warning ⓘ | Severe Info ⓘ | Default Info ⓘ |
|-------------------|--------------------------------|-------------------|------------------------|-------------------------|---------------|----------------|
| App_Netbanking    | Immediately                    | Immediately       | If Open for long       | Immediately             | Immediately   | Immediately    |
| App_Insurance     | Immediately                    | Immediately       | If Open for too long   | If Open for too long    | Immediately   | Off            |
| App_Mutualfund    | Open for long (15 minutes)     | Immediately       | Immediately            | Immediately             | Off           | Off            |
| App_MobileBanking | Open for too long (30 minutes) | Immediately       | Immediately            | Off                     | Off           | Off            |
| App_CoreBanking   | Off                            | Immediately       | Immediately            | Off                     | Off           | Off            |

Save Cancel

Available preferences for an Info Signal:

My Profile

Notifications

Signal Notification

Forensic Notification

Time Zone

Signal Notification Preference ⓘ Select the type of alerts you want to receive

Application Level

☐ All ⓘ Get notified for all signals generated by HEAL

☒ Component Level ☐ Category Level ⓘ Get notified for Lead signals generated by HEAL

☐ Host Component Level ☐ Component Instance Level ⓘ Please select at least one level

ⓘ User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

INDIA\_FA Search By Application

Total 0 < 1 >

| Applications      | Severe Problem ⓘ | Default Problem ⓘ | Severe Early Warning ⓘ | Default Early Warning ⓘ | Severe Info ⓘ | Default Info ⓘ |
|-------------------|------------------|-------------------|------------------------|-------------------------|---------------|----------------|
| App_Netbanking    | Immediately      | Immediately       | If Open for long       | Immediately             | Immediately   | Immediately    |
| App_Insurance     | Immediately      | Immediately       | If Open for too long   | If Open for too long    | Immediately   | Off            |
| App_Mutualfund    | Immediately      | Immediately       | Immediately            | Immediately             | Immediately   | Off            |
| App_MobileBanking | Immediately      | Immediately       | Immediately            | Off                     | Off           | Off            |
| App_CoreBanking   | Immediately      | Immediately       | Immediately            | Off                     | Off           | Off            |

Save Cancel

For **If Open for long** and **If Open for too long** preferences, you can see the configured duration.

## Forensic notifications

My Profile Last Log in : 17 Sep 2021 3:20:35, IST

Notifications

Signal Notification

**Forensic Notification**

Time Zone

☒ Email Notifications

\* Application(s) to receive notification

NetBanking-DC ENET-DR LOS-DC MicroBanking-DR

NetBanking-DR ENET-DC MicroBanking-DC LOS-DR

Suppression Duration (minutes)

1

Save Cancel

Switch forensic notifications on or off, pick the applications you want emails for, and enter a suppression duration in minutes (the gap between two forensic emails). Emails fire only when the toggle is on.

## Batch Job enabled

When batch job monitoring is on, you also see batch signals in the HEAL UI.

My Profile

FC

Notifications

Time Zone

Email and SMS Settings

☒ Email Notifications

☒ SMS Notifications

Signal Notification Preference

Select the type of alerts you want to receive

Application Level

☐ All 

Get notified for all signals generated by HEAL

☐ Component Level ☒ CategoryLevel 

Get notified for Info signals generated by HEAL

Search for Category

☐ Info Category1 ☐ Info Category2 ☐ Info Category3 ☐ Info Category4 ☐ Info Category5 ☐ Info Category6

☐ Info Category7 ☐ Info Category8 ☐ Info Category9 ☐ Info Category10 ☐ Info Category11 ☐ Info Category12

User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

XR Travels

Search By Application

Total 6 < 1 >

| Applications      | Severe Problem | Default Problem | Severe Early Warning | Default Early Warning | Severe Info | Default Info | Severe Batch Problem | Default Batch Problem |
|-------------------|----------------|-----------------|----------------------|-----------------------|-------------|--------------|----------------------|-----------------------|
| App_Netbanking    | Immediately    | Immediately     | If Open for long     | Immediately           | Immediately | Immediately  | Immediately          | Immediately           |
| App_Insurance     | Immediately    | Immediately     | If Open for too long | If Open for too long  | Immediately | Off          | Immediately          | Immediately           |
| App_Mutuaifund    | Immediately    | Immediately     | Immediately          | Immediately           | Off         | Off          | Immediately          | Immediately           |
| App_MobileBanking | Immediately    | Immediately     | Immediately          | Off                   | Off         | Off          | Immediately          | Immediately           |
| App_CoreBanking   | Immediately    | Immediately     | Immediately          | Off                   | Off         | Off          | Immediately          | Immediately           |
| Application10     | Immediately    | Off             | If Open for too long | Off                   | Off         | Off          | Immediately          | Off                   |

Save

Cancel

Pick preferences for severe and default batch signals.

My Profile FC

Notifications

Time Zone

Email and SMS Settings

☒ Email Notifications

☒ SMS Notifications

Signal Notification Preference Select the type of alerts you want to receive

Application Level

☐ All Get notified for all signals generated by HEAL

☐ Component Level ☒ CategoryLevel Get notified for Info signals generated by HEAL

Search for Category

☐ Info Category1 ☐ Info Category2 ☐ Info Category3 ☐ Info Category4 ☐ Info Category5 ☐ Info Category6

☐ Info Category7 ☐ Info Category8 ☐ Info Category9 ☐ Info Category10 ☐ Info Category11 ☐ Info Category12

User opting for Immediately, will also be notified on the intervals of Open for long

Preferences

XR Travels Search By Application

Total 6 < 1 >

| Applications      | Severe Problem | Default Problem | Severe Early Warning | Default Early Warning | Severe Info | Default Info | Severe Batch Problem | Default Batch Problem |
|-------------------|----------------|-----------------|----------------------|-----------------------|-------------|--------------|----------------------|-----------------------|
| App_Netbanking    | Immediately    | Immediately     | If Open for long     | Immediately           | Immediately | Immediately  | Immediately          | Immediately           |
| App_Insurance     | Immediately    | Immediately     | If Open for too long | If Open for too long  | Immediately | Off          | Immediately          | Immediately           |
| App_Mutualfund    | Immediately    | Immediately     | Immediately          | Immediately           | Off         | Off          | Immediately          | Immediately           |
| App_MobileBanking | Immediately    | Immediately     | Immediately          | Off                   | Off         | Off          | Immediately          | Immediately           |
| App_CoreBanking   | Immediately    | Immediately     | Immediately          | Off                   | Off         | Off          | Immediately          | Immediately           |
| Application10     | Immediately    | Off             | If Open for too long | Off                   | Off         | Off          | Immediately          | Off                   |

Save Cancel

## Notification preferences

Set per-application preferences for each signal type. The four options:

- **Immediately.** Notify as soon as the signal is raised. Default for new applications.
- **If Open for long.** Notify when the signal stays open past the "long time" threshold (admin-configured in Control Center).
- **If Open for too long.** Notify when the signal stays open past the "very long time" threshold (admin-configured in Control Center).
- **Off.** No notifications.

For **Immediately**, you receive notifications when the signal opens, upgrades, or closes.

For the long and too-long options, you receive:

- A notification when a signal is raised on an application assigned to you.
- Reminder emails on the long-time or very-long-time interval.
- A notification when the signal closes or upgrades.

- A notification when an assigned application is affected because one of its services lies in the path of a signal raised on another application you do not own.

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## Multi-level subscription

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If you pick **Immediately**, HEAL also assigns you **Open for long** and **Open for too long**. If you pick **Open for long**, HEAL also assigns **Open for too long**.

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## Summary placeholders

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In the Behavior Event Summary, HEAL shows the last N events. Severe events come first, with default events filling in if there are fewer than N severe ones. If severe events exceed N, the latest severe ones win. The Workload Event Summary follows the same logic.

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## Alert notification on severe event

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Every severe event triggers a notification to every user with the **Immediately** preference. If multiple severe events fire in one minute across or within a service, HEAL sends one consolidated notification instead of several. Summary placeholders carry the details. This setting is off by default.

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## Notification reminders

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HEAL sends reminder emails to users with **Open for long** and **Open for too long**. For example, if Open for long is 15 minutes and Open for too long is 30 minutes, reminders fire every 15 or 30 minutes after the signal opens. The first email goes out 15 minutes after the signal opens, then every 15 minutes, ending when the signal closes or upgrades. The same pattern applies for too long.

If a reminder is scheduled for 12:00 PM and at the same moment two services join the timeline, five new severe events fire, and the signal severity changes from Default to Severe, HEAL sends two emails. One is the reminder. The other carries the new severe events, the new services, and the severity change. Placeholders include the event details.

### Notifications when an end-user-impacting signal stays open for a long time.

Set **Default Problem** and **Severe Problem** for every assigned application to **If Signal remains open for long time**. You only get notifications when those problems stay open past the threshold.

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### [Mixed preferences walkthrough.](#)

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Settings for one application:

- Default Early Warning **If Open for too long** = 4 hours.
- Severe Early Warning **If Open for too long** = 2 hours.
- Severe Problem = **Immediately**.

HEAL detects a Default Early Warning at 1 PM:

- No notification until 5 PM.
- After 5 PM, if the warning still persists, you get the reminder (within 15 minutes).
- Reminders continue every 4 hours.
- Final notification when the warning closes or upgrades. No notifications between reminders.

The Early Warning becomes severe at 2 PM (timer starts from when the signal began):

- No notification until 3 PM.
- After 3 PM, if the severe warning still persists, you get the reminder.
- Reminders continue every 2 hours.
- Final notification when it closes or upgrades.

The severe Early Warning becomes a severe Problem at 2:30 PM:

- You immediately get a notification that severity changed to severe.
- Every update on this signal ID also triggers an immediate notification.

#### Next

- Signal Notifications Templates . customize email content.
- Navigating Signal Tab . problems and early warnings.
- HEAL UI Security . session protection.