



Inova OnAlert Display
and
CAP Feed
Integration Overview



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1. Introduction

The Inova Solutions OnAlert Display displays your CAP feed notifications in a highly visible manner. The Inova OnAlert Display polls an Outbound Common Alerting Protocol (CAP) channel at a particular URL and then displays prioritized messages posted to that URL.

This document will help you get started with instructions to configure the Inova OnAlert Display to monitor and display those alert messages.

For more details on Outbound CAP format, please refer to <http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2.html>.

1.1. Applicability

This document describes the integration of the OnAlert display firmware version 2.8 and newer only. This document will be updated with features changes implemented in future versions.

1.2. Overview: How it Works

The steps below outline the process for an outbound CAP alert to display on an Inova OnAlert Display.

1. The administrator for the Alert system configures one or more CAP Outbound notification feeds to be provided at specified URLs.
2. The administrator for the OnAlert Display configures one or more Emergency Notification feeds that correspond to the specified CAP Outbound feeds.
3. The OnAlert Display polls the specified feeds for valid CAP documents every 15 seconds.
4. The administrator for the OnAlert Display can change the way a message is displayed by changing the alert style, presentation style, and feed element. Refer to Section 1.4 for more details about these options.
5. A valid CAP Outbound notification will display on the Inova OnAlert Display until one of the following criteria is met:
 - Another message is sent from the CAP system to the same feed.
 - A message is sent from the CAP system to a higher priority feed. *Note that the priority of feeds is configured as part of display configuration.*
 - The message expiration time configured as part of the CAP message is reached.

1.3. System Requirements

The Inova OnAlert and CAP feed integration requires the following:

- An operational CAP alerting system
- A network path between the OnAlert display and the CAP alerting system server

1.4. Message Style

The message shown will depend on which display options you select. You can select the alert style, presentation style, and feed element to customize your message. Once you create and send a new message, the resulting text is sent to the display face, overwriting any previous messages.

1.4.1. Alert Style

Alert Style	Description
None	No tone, no amber flash
Brief	3 siren repetitions, 3 amber flashes
Long	10 siren repetitions, sufficient flashes to match the audio duration
Continuous	12 siren repetitions, continuous sequence of flashes as long as the message plays

Table 1: Message Alert Styles

1.4.2. Presentation Style

Presentation Style	Description
Vertical-hold	Scroll up, medium speed, 2 sec hold per line, red color, bold font weight
Vertical	Scroll up, fast speed, red color, normal font weight
Vertical-slow	Scroll up, slow speed, red color, normal font weight
Horizontal	One of these styles, depending on the feed element you select: <ul style="list-style-type: none"> • <i>For headline only or description only:</i> full height horizontal scroll in red text (or yellow, for a test message) • <i>For both (headline: description):</i> Headline in appear mode centered on top line in red; <i>description</i> horizontally scrolling at medium speed in yellow

Table 2: Message Presentation Styles

1.4.3. Feed Element

You can choose to show the headline only, description only, or both (i.e., headline: description). Note that if you select the *horizontal* presentation style, your message will display differently, depending on which feed element you select.

Vertical-hold, vertical, and vertical-slow will display the same for all three feed element selections. Refer to Table 2 for details about how the horizontal presentation style will look for each feed element.

1.5. Limitations

The CAP Feed and Inova OnAlert Display have certain restrictions on message content and configuration. Consider the following limitations when configuring your OnAlert Display and CAP Feed integration:

- The OnAlert Display truncates a message after 3162 characters. This count includes the message Headline, a colon character, a space, and the Description field.
- The Inova OnAlert Display will remove any carriage returns or line feeds from the text.
- The Inova OnAlert Display doesn't support parentheses in the feed URL.
- The display will convert double-quotes to single-quotes; in order to show double-quotes in an alert message on the display, enter two double-quotes or two single-quotes next to each other.

1.6. Best Practices

There are no limitations on the number of feed URLs that can be configured; however, each display can only monitor two feeds in the priority order shown in Table 3.

Feed	Priority level	Typical Use
Feed A	Higher priority	Feed URL for a specific building
Feed B	Lower priority	Feed URL for the entire campus or a quadrant if this display is part of the emergency response plan

Table 3: Feed Priority Levels

Using each of the priority levels in Table 3 is recommended, but not required. One or both priority levels can be configured in the OnAlert display.

1.6.1. Best Practice #2: Test vs Emergency Feed

As a best practice, you should configure at least two feed channels.

- A *test feed* for a single test display (e.g., in your dispatch office). This test feed will allow dispatchers to send shift change or training messages that can be viewed locally in the dispatch office, encouraging frequent use and familiarity with the system.
- A *campus-wide emergency notification feed* for your emergency communications to be sent to all other displays.

More details about how to configure these feeds are outlined in the following sections.

1.7. Troubleshooting

If your Content Admin or Group Admin screen lacks any of the features or controls shown in the steps below, contact your system administrator to request changes to the privileges.

If you follow these instructions and your display is not properly showing messages, log into the display and use the *Config* command to see the current configuration. Review the configuration settings to make sure you have the proper URL.

Refer to Inova OnAlert Installation and User Guide or to the Inova FAQ on the support site at support.inovasolutions.com.

2. Configure a CAP Outbound Alert

You will complete the steps below to configure your emergency notification channel.

2.1. Set Up a CAP Feed

Per CAP requirements, configure your CAP alerting system to provide XML documents at the specified URL, and containing, at a minimum, the fields listed in Table 4.

Field	Required?	Description
identifier	Yes	Only used in logging the processing of the CAP document retrieved from the Alert system server, but must be provided in the CAP feed XML.
sent, effective	One or the other is required	The time at which the CAP notification was sent; these fields are used to determine the time after which a message should be considered valid. If both are provided, the <i>effective</i> value is used as the authoritative time before which the message is not to be displayed.
expires	No	The time after which the CAP notification is considered invalid and should not be displayed; if not provided, the message stops playing on the display eight hours after the sent or effective time.
headline	No	The first part of the message shown on the display.
description	No	The remainder of the message shown on the display; if both the headline and description are present, they are separated by a colon and a space in the message on the display.

Table 4: Required XML Feed Elements

Note that the date-time format should conform to the Oasis CAP standard

2.2. Example CAP Feed XML

An example CAP feed XML is presented in Figure 1; the highlighted fields are used as described above by the Inova OnAlert Display in processing the CAP feed document.

```
<alert xmlns="urn:oasis:names:tc:emergency:cap:1.2">
<identifier>14995548000026474538</identifier>
<sender>InovaSolutions</sender>
<sent>2018-01-24T12:00:00-05:00</sent>
<status>Actual</status>
<msgType>Alert</msgType>
<scope>Public</scope>
<info>
<language>en-US</language>
<category>Other</category>
<event>OnAlert Display Test Message</event>
<urgency>Immediate</urgency>
<severity>Extreme</severity>
<certainty>Observed</certainty>
<effective>2018-01-24T12:00:00-05:00</effective>
<onset>2018-01-24T12:02:00-05:00</onset>
<expires>2018-01-25T19:02:00-05:00</expires>
<senderName>Inova Solutions</senderName>
<headline>test headline</headline>
<description>test description</description>
</info>
</alert>
```

Figure 1: Example CAP Feed XML Document

3. Configure the Inova Solutions OnAlert Display

Once you have configured the CAP feed in Rave Alert, you will need to configure the Inova OnAlert Display to retrieve those messages. The SSH command line interface session described below is shown in Figure 2. When **you are entering configuration settings** in *config edit*, the existing settings are shown in parentheses before the colon of each prompt.

1. Follow the instructions for logging into the display with an SSH client program, the admin username, and the appropriate password.
2. Type *config edit*.
3. Type 2 and press *Enter* to keep the Network settings and continue.
4. Type 2 and press *Enter* to keep the Timekeeping settings and continue.
5. Type 2 and press *Enter* to keep the Display Settings.
6. Type 1 and press *Enter* to edit the Emergency Communications settings.
7. Set the EC Service Enabled field to *true*.
8. Set the EC Service Provider field to *rave*.
9. Set the Feed A URL field to the file location URL shown in the CAP Channel you previously created. (<http://your.server/yourCAPfeed-A> in this example).
10. Set the Feed B URL field to the file location URL shown in the Rave Alert CAP Channel you previously created. (<http://your.server/yourCAPfeed-B> in this example).
11. Set the Alert style field to the desired setting: *none*, *brief*, *long*, or *continuous*. (Refer to Section 1.4.1).

If a lower priority feed was configured, set its alert style: "", *none*, *brief*, *long*, or *continuous*.

Use "" to set the same alert style as the main feed.
12. Set the Presentation Style to the desired setting: *vertical*, *vertical-hold*, *vertical-slow*, or *horizontal*. (Refer to Section 1.4.2).
13. Set the feed elements you wish to display: *headline*, *description*, or *both*. (Refer to Section 1.4.3).
14. The display will present the Emergency Communications settings again for your review. If you are satisfied, press 2 to save your settings.
15. Wait for the command prompt to return before exiting the display SSH session to ensure your changes were saved.

```
Emergency Communication Settings:
  EC Service Enabled : false
1-edit Emergency Communication Settings, 2-keep and continue, 3-quit > 1
Configure Emergency Communication Settings :
  Set EC Service Enabled ( false ): true
  Set EC Service Provider ( "" ): rave
  Set Rave Feed A URL ( "" ): http://your.server/yourCAPfeed-A
  Set Rave Feed B URL ( "" ): http://your.server/yourCAPfeed-B
  Set Alert style( NONE ): long
  Set Alert style of low priority feed(if different)( NONE ):      brief
  Set Presentation Style ( VERTICAL-HOLD ): vertical
  Set EC feed element(s) to display in messages ( DESCRIPTION ): headline

Emergency Communication Settings:
  EC Service Enabled : true
  EC Service Provider : RAVE
  Rave Feed A URL   : http://your.server/yourCAPfeed-A
  Rave Feed B URL   : http://your.server/yourCAPfeed-B
  Alert style       : LONG
  Alert style of low priority feed (if different) : BRIEF
  Presentation Style : VERTICAL
  EC feed element(s) to display in messages : HEADLINE

1-edit Emergency Communication Settings, 2-keep and continue, 3-quit >2
```

Figure 2: Inova OnAlert Display Configuration with CAP Alert System

4. Send a Test Message to the Display

To verify successful configuration, send a test message from the Alerting System to the Inova OnAlert Display. You can use whatever steps your Alerting System requires to send a message on the URL specified for the CAP feed in the OnAlert Display configuration.

The message should appear on the OnAlert display within 30 seconds.

5. Deactivating a Message on the Inova OnAlert Display

The Inova OnAlert Display will deactivate a CAP message when one of the following criteria is met:

- The passage of time results in the message expiring based on the timing described in the Message Activation Criteria.
- When a new CAP message is received at an equal or higher priority feed, then any previously playing message is removed, even if the new CAP message does not meet the Message Activation Criteria.