

Sage Alerting Systems  
Digital ENDEC model 3644  
Firmware Revision: Alert Authentication Certificate Update si-rev5  
Released August 28, 2018

**Release notes for certificate update SI-rev5 – for United States ENDECs only**

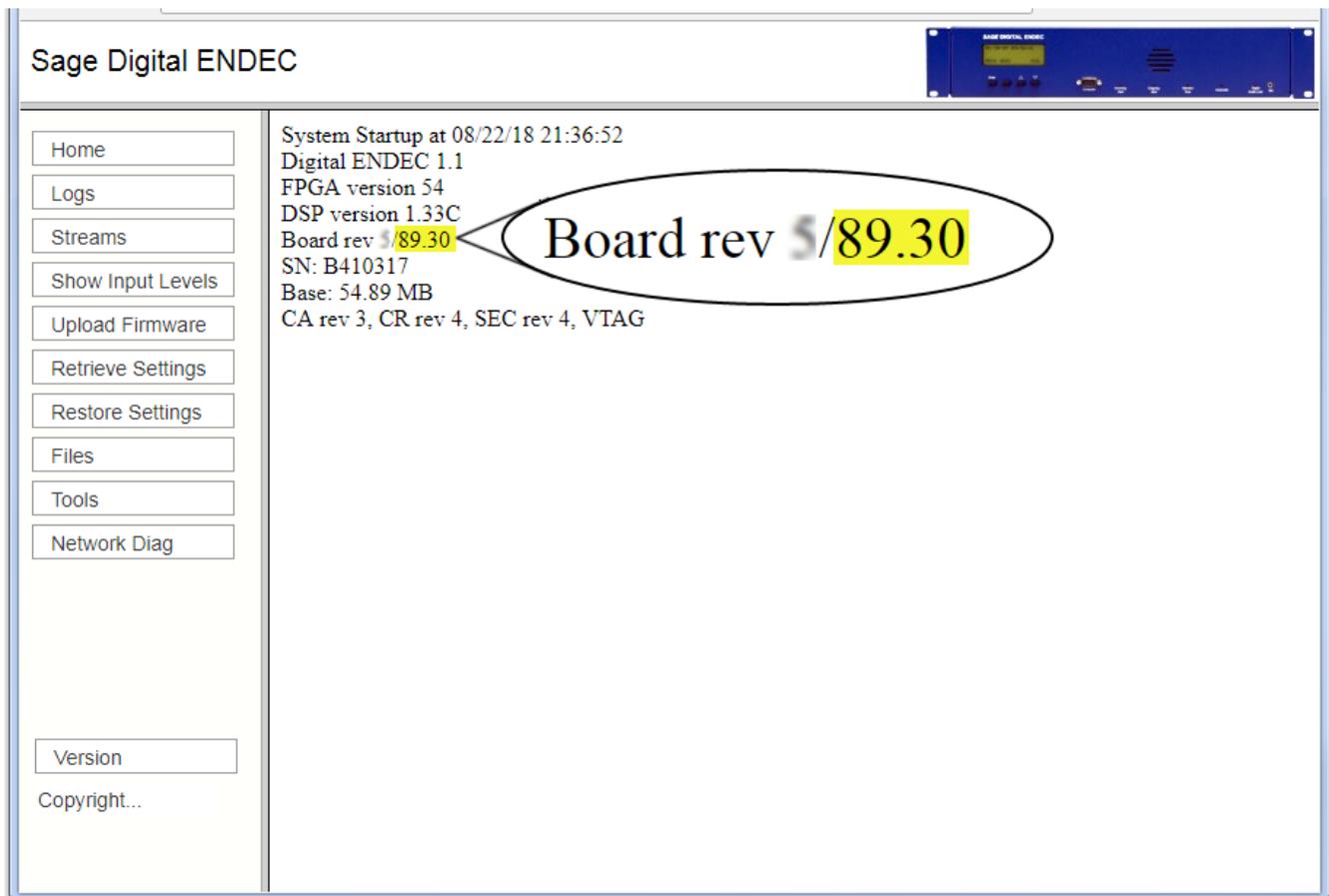
This release updates a CAP alert authentication certificate that is needed to continue to receive CAP alerts from IPAWS and some other CAP alert providers. This update **must be installed by 11:55pm EDT on September 24, 2018**.

This release is only to be applied to ENDECs that already have version 89-30 installed and the cr-rev4 update. The cr-rev4 update was released in May 2018. If you are receiving IPAWS messages now (August 2018), you have cr-rev4 installed.

Do not install this release on ENDECs in Canada.

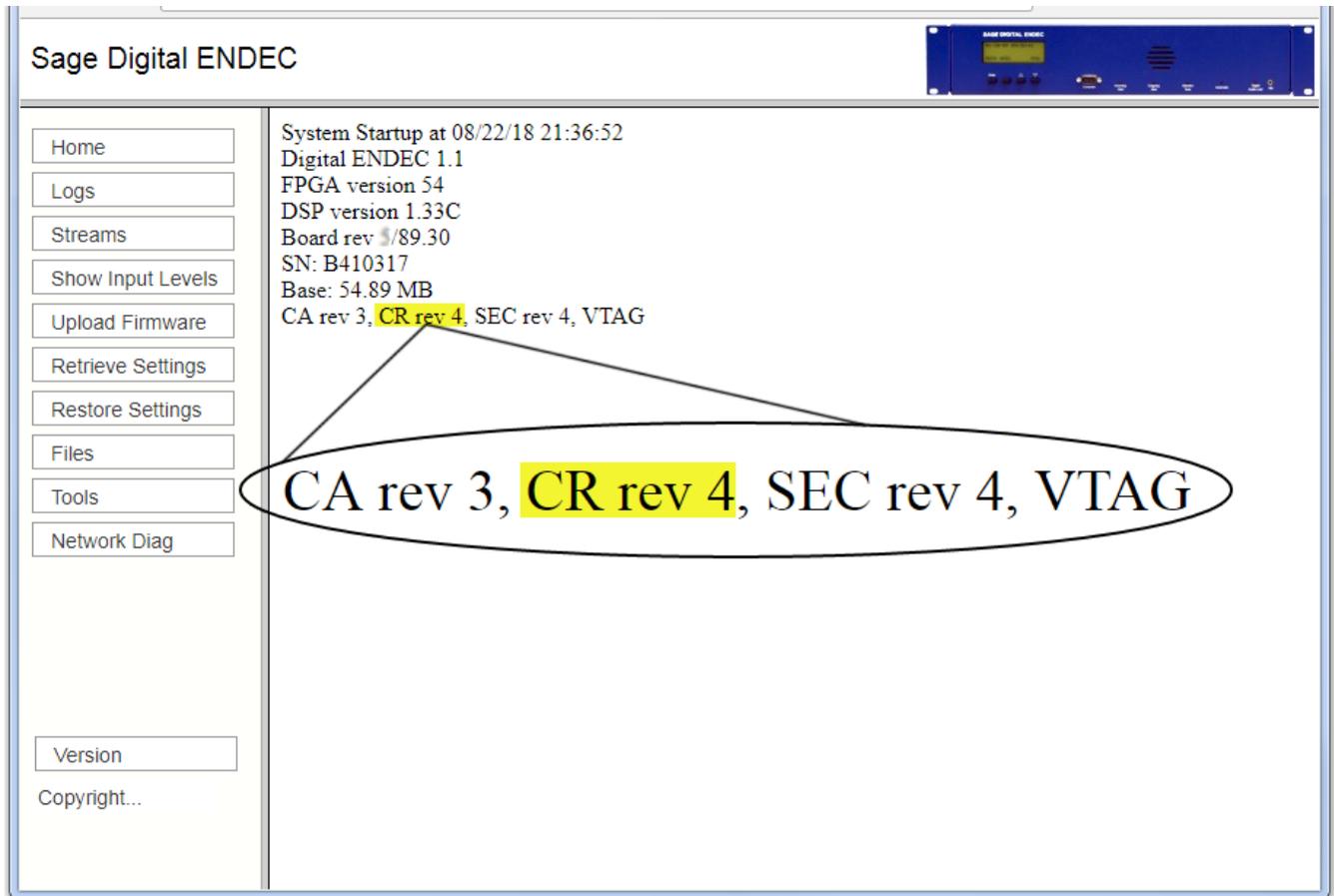
As always, the detailed instructions are far more complex than the actual steps you need to take. We've split this release note into two parts, one simplified, and one detailed. The simple version is first. It assumes that you know how to access your ENDEC's web page. There are four steps.

**Step 1.** Verify that your ENDEC is up to date, and is ready for this update. Check your version by clicking the version button on the ENDEC's web page. If you see version 89.30 as shown below, continue to step two, otherwise see the details section. Ignore the number in front of the '/'.



**Step 2.** Check to see if your ENDEC has the cr-rev4 update. Find the CR rev as shown below. You want to see CR Rev 4, as shown below. If it does show CR rev 4, proceed to step 3. If you see CR rev 2, you need to install the CR rev 4 update first, please read the CR rev 4 release notes:

<https://www.sagealertingsystems.com/release1-1/cr-rev4-release-notes.pdf>

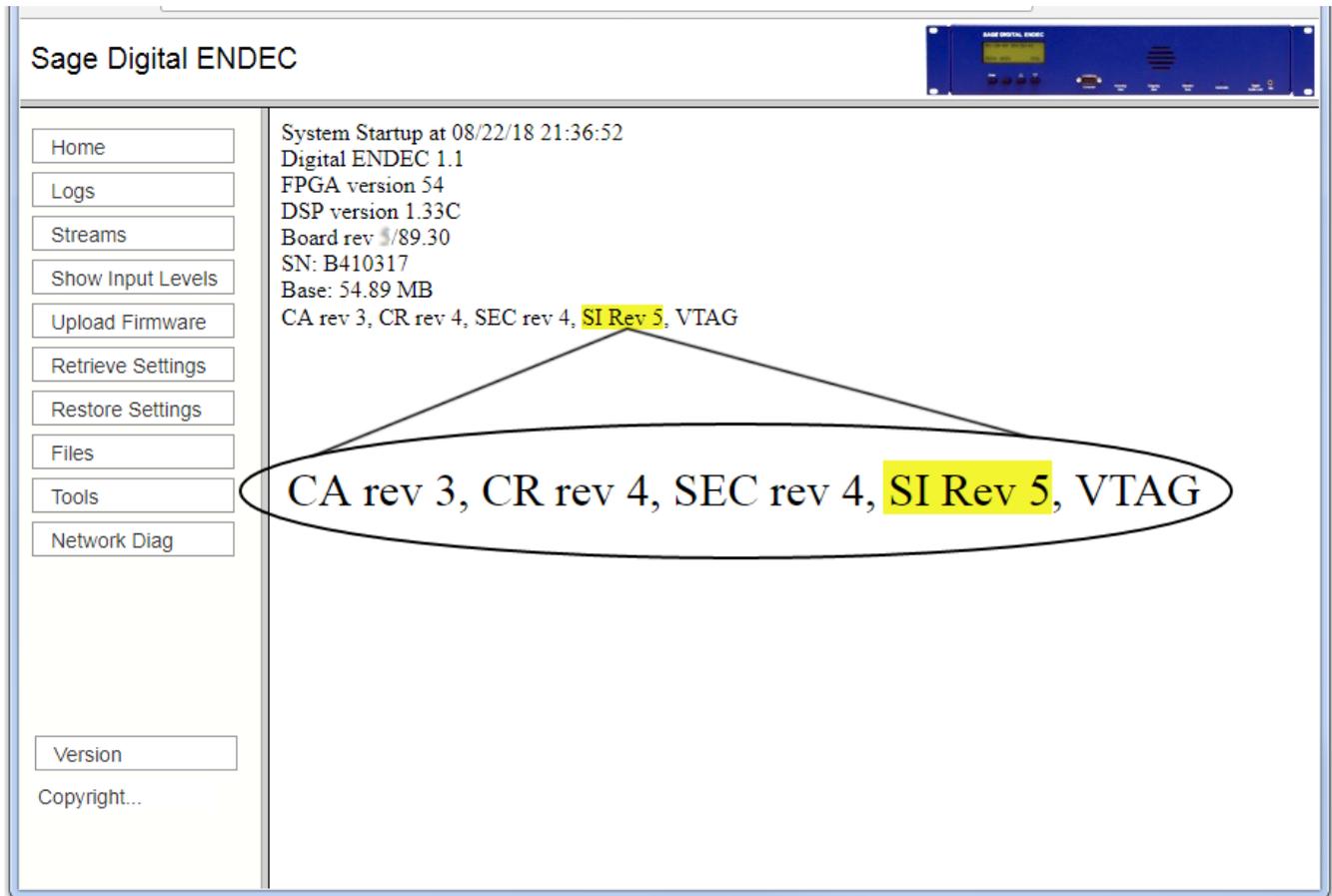


**Step 3.** On the same line that you checked for the presence of the CR rev 4 tag, check for SI rev 5. If you see SI rev 5, you already have the update, and can stop now.

Otherwise, you need to install the SI rev 5 update. Download it from the sage web site here:

<https://www.sagealertingsystems.com/release1-1/si-rev5.x> and then upload it to your ENDEC with the Upload Firmware button on the ENDEC's web page.

**Step 4.** Once the ENDEC has rebooted (you will need to manually refresh the web page after about two minutes), click the version button again. Check to make sure you now have SI rev 5, as shown below.



The screenshot displays the Sage Digital ENDEC web interface. At the top left, the title "Sage Digital ENDEC" is visible. On the top right, there is a small image of the device. A left-hand navigation menu contains buttons for Home, Logs, Streams, Show Input Levels, Upload Firmware, Retrieve Settings, Restore Settings, Files, Tools, and Network Diag. The main content area shows system startup information: "System Startup at 08/22/18 21:36:52", "Digital ENDEC 1.1", "FPGA version 54", "DSP version 1.33C", "Board rev 3/89.30", "SN: B410317", "Base: 54.89 MB", and "CA rev 3, CR rev 4, SEC rev 4, SI Rev 5, VTAG". A yellow highlight is placed over "SI Rev 5" in this line. Below this, a larger yellow highlight is placed over "SI Rev 5" in the text "CA rev 3, CR rev 4, SEC rev 4, SI Rev 5, VTAG", which is also enclosed in a black oval. At the bottom left, there is a "Version" button and a "Copyright..." label.

## Details Section

Read this section only if you want more details or your version was not 89.30.

Here are the steps you must follow to install this release.

**Step 1.** Before installing this release, use the version button on the ENDEC's home page and check this line:

### **Board rev x/nn.mm**

nn (major version) must be 89, mm (minor version) must be 30. If you have 89.30, skip to the next step.

If you have a major version less than 89, you must first install version 89. If you have a major version 89 but a minor version less than 30, you must install 89-30 before installing the cr-rev 4 update. Read the 89-30 release notes at <https://www.sagealertingsystems.com/support-firmware-89-30.htm> for details.

*Note that the ENDEC uses a major.minor release identification system. The "." is a separator, not a decimal point. The ENDEC will show you a version number like this: 89.30, meaning major release 89, sub release 30. A displayed version of 89.6 is a major release of 89, and a minor release of 6. As 6 is less than 30, the 89.6 version is older than 89.30, and your ENDEC should be updated before continuing this procedure.*

If you have a major release number of 90 or 91, see the section on special releases below.

**Step 2.** From the information on the version page you obtained above, look at the last line. You will see a list of feature codes, for example:

### **CR rev 2, CA rev 2, SEC rev 2**

If your CR rev is less than 4, as shown above, then you need to install this release and should continue to step 3. If you have version 89-30 and the feature code line shows CR rev 4, continue with step 6.

If you do not see a line of feature codes, refer to step 1.

**Step 3.** As you don't have CR rev 4 installed, you will need to install it. Download the firmware update file from here:

<https://www.sagealertingsystems.com/release1-1/cr-rev4.x>

Save the file to your desktop or another convenient location.

**Step 4.** Install this release by using the Upload Firmware button on the ENDEC's home page. Upload the cr-rev4.x file you downloaded in the above step.

**Step 5.** After the reboot, use the version button on the ENDEC's home page and check for this line:

### **CA rev 3, CR rev 4, SEC rev 4, VTAG**

Note that the browser won't refresh on its own, you'll need to click the home button on the ENDEC's web page once it has rebooted. If you do not see that line, the update did not

install. Check to see that you have performed the above steps, then contact us at [support@sagealertingsystems.com](mailto:support@sagealertingsystems.com), or call us at 914-872-4069 – press 1 for support.

**Step 6.** You now have (or already had) CR Rev 4 installed. Use the version button on the ENDEC's home page and check for this line:

**CA rev 3, CR rev 4, SEC rev 4, SI Rev 5, VTAG**

If you do not see SI Rev 5, then you need to install this release.

**Step 7.** Download the firmware update file from here:

<https://www.sagealertingsystems.com/release1-1/si-rev5.x>

Save the file to your desktop or another convenient location.

**Step 8.** Install this release by using the Upload Firmware button on the ENDEC's home page. Upload the si-rev5.x file you downloaded in the above step.

**Step 9.** After the reboot, use the version button on the ENDEC's home page and check for this line:

**CA rev 3, CR rev 4, SEC rev 4, SI Rev 5, VTAG**

Note that the browser won't refresh on its own, you'll need to click the home button on the ENDEC's web page once it has rebooted. If you do not see that line, the update did not install. Check to see that you have performed the above steps, then contact us at [support@sagealertingsystems.com](mailto:support@sagealertingsystems.com), or call us at 914-872-4069 – press 1 for support.

## Release Contents

### IPAWS intermediate certificate

Security certificates allow the ENDEC to use the digital signature in the CAP message to verify that the message came from an authorized authority, and that it wasn't changed between the originator and the ENDEC. These certificates expire periodically.

FEMA currently uses a chain of 5 certificates for alert validation, one of which expires at 11:55pm EDT on September 24, 2018 (Sep 25 03:55:36 2018 UTC) This release will update that certificate.

FEMA plans to decrease the amount of time that certificates are valid. Sage will switch from its current static intermediates scheme to dynamic acquisition of intermediates in the near future.