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Biomedical Engineering

MGH
ZOLL R Series Plus Defibrillator Technical Training

ZOLL R-Series Defibrillator

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Wi-Fi Certificates Configuration

- The Certificates are needed in order to connect and authenticate to the Partners IS Wi-Fi Network
- Partners requires TLS Authentication to connect to the Wi-Fi network

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Prerequisites

- R-Series software **version 10.0** or greater
- R-Series DATA COMM II REV B or REV C or REV D card
- ZOLL Data Exchange Service (DXS) installed version 1.0.124 or greater
- Facility Wi-Fi network information
- ROOT Certificate (if applicable) with a file extension of .p7b
- CLIENT Certificate (if applicable) with a file extension of .pfx
- Compact Flash Card to copy both the ROOT and CLIENT certificates onto.
- When TLS is selected, a client certificate is required and root certificate is required if the root certificate is not one of
- the common CA Trust certificates installed with the REV D Wi-Fi card.

R- Series Wi-Fi Card
DATA COMM II Red D

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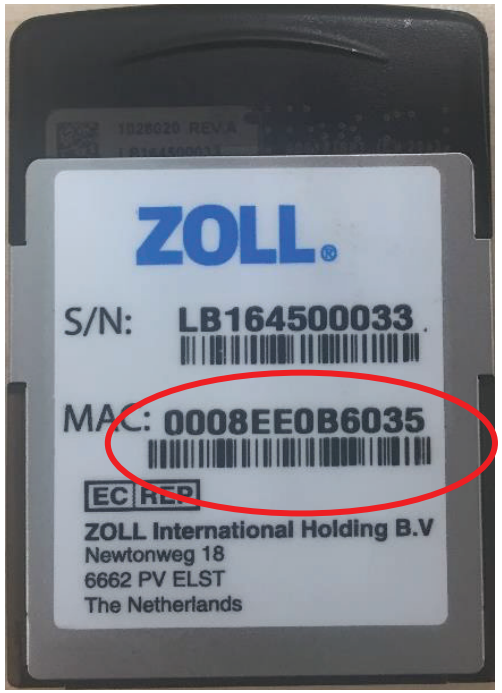

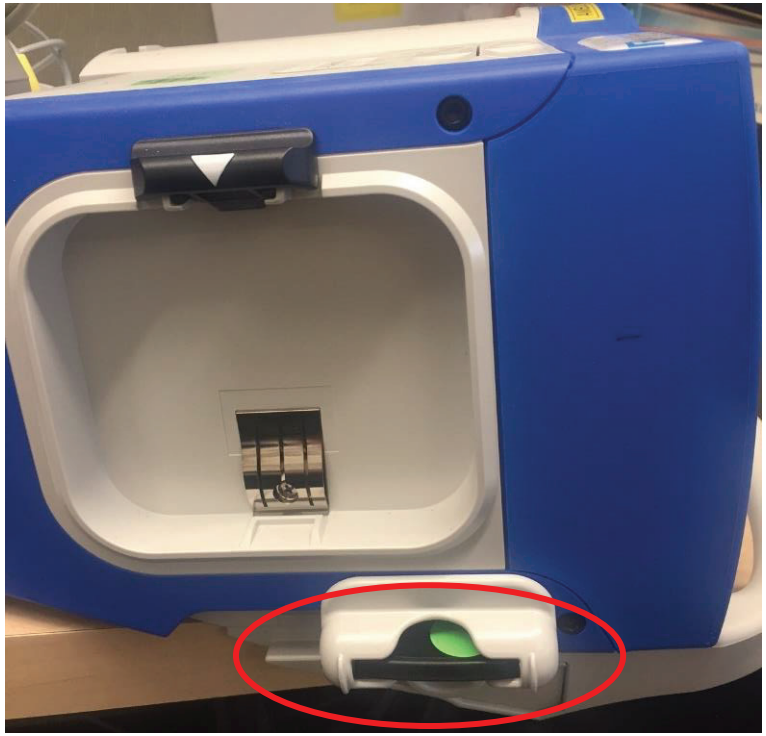

Note: Do not interchange the wi-fi cars between defibrillators.

Certificate Generation Process

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1. Get the MAC Address of Wi-Fi card from TMS or from the device

2. Open a Ticket in Service Now
   - Configuration Item: phsqlweb61
   - Assignment Group: Network security – phs
   - Provide MAC Address in description or attached excel file with MAC ADDRESS
3. Save certificates on Compact Flash card (CF)

4. Load the Certificates in the Wi-Fi card
5. TEST THE WIFI COMMUNICATION

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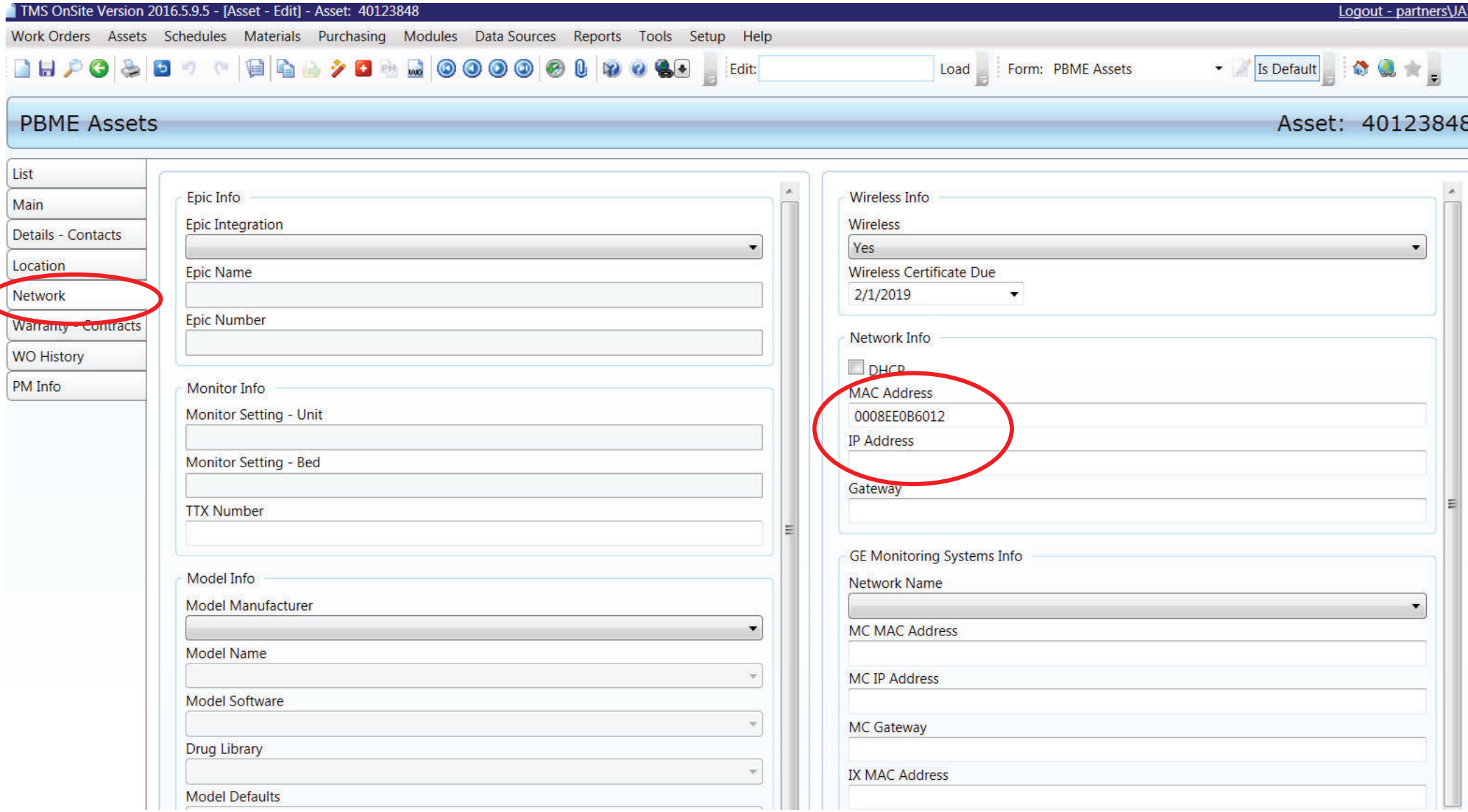
1. Get MAC Address from Wi-Fi card



2. Open a Service Now Ticket

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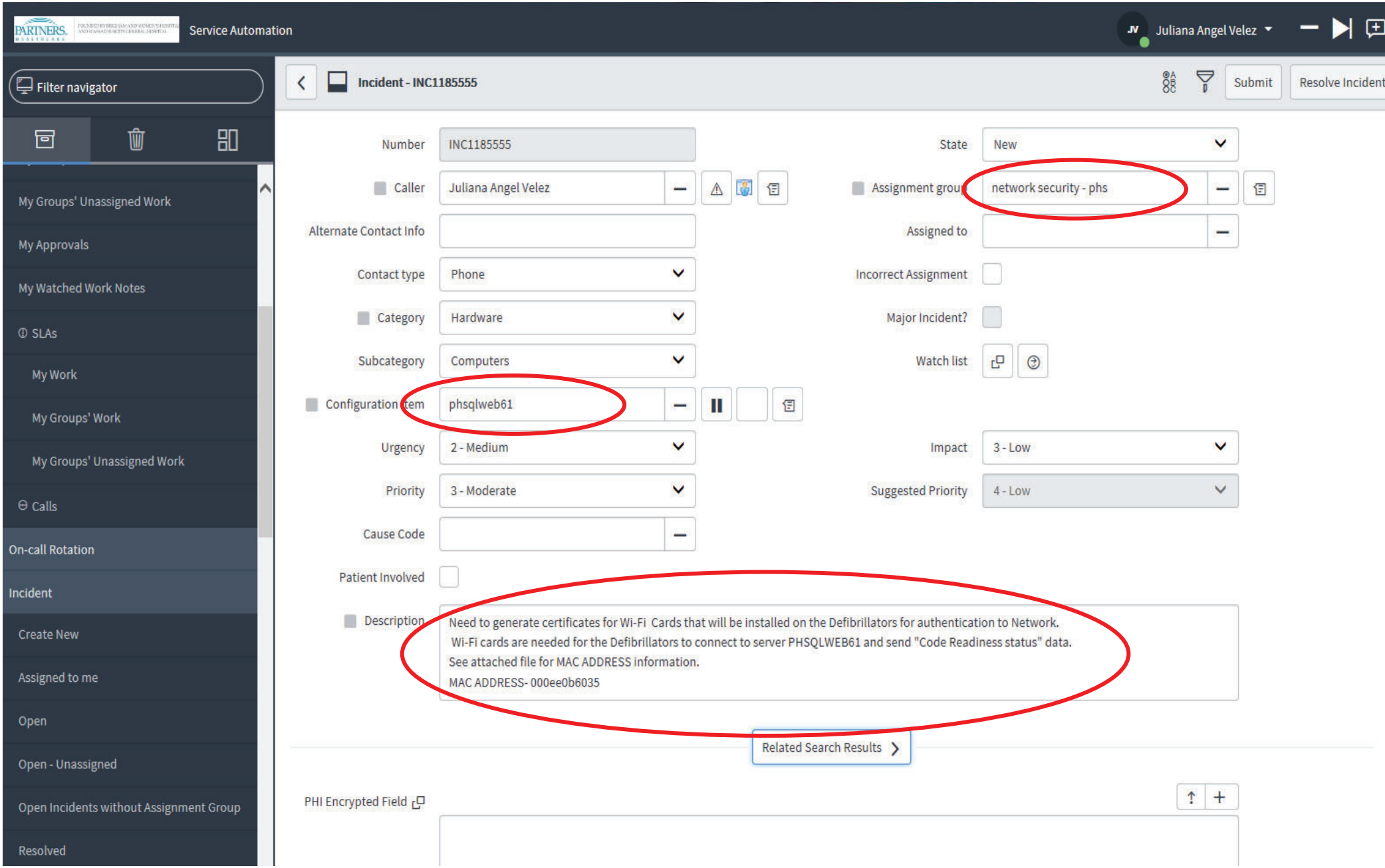
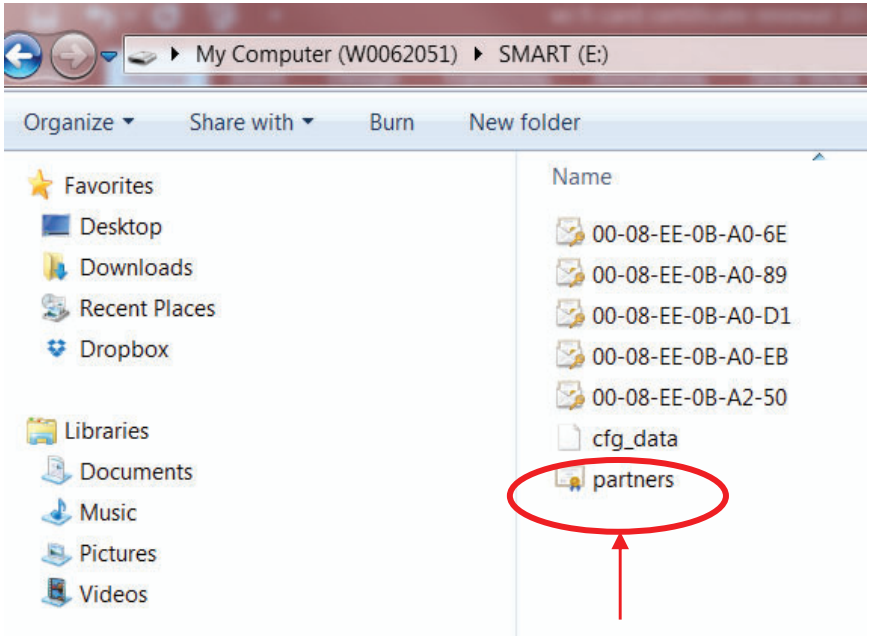


- You will receive a .pxf file. That is your Client Certificate. This file is unique to the MAC Address you provided.
- You will need .p7b file which is the ROOT Certificate. This file is the same across Partners.

3. Save Certificate files in CF

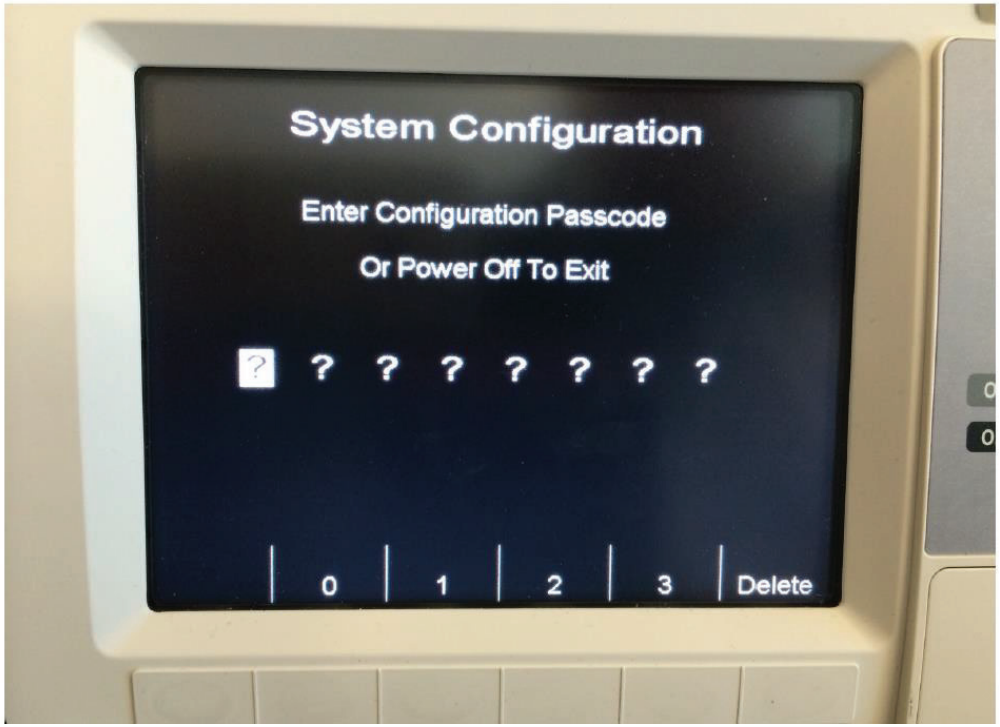
- Move the Client (pfx file) and Root Certificate to Compact Flash (CF) Card



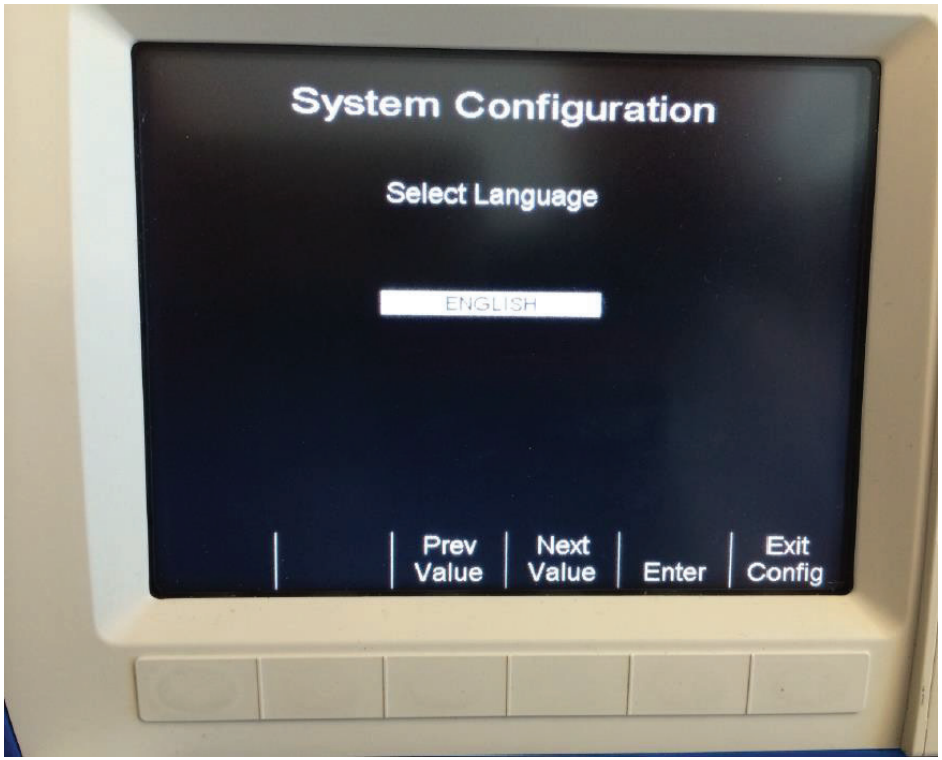
.p7b file

4. Load new Certificate

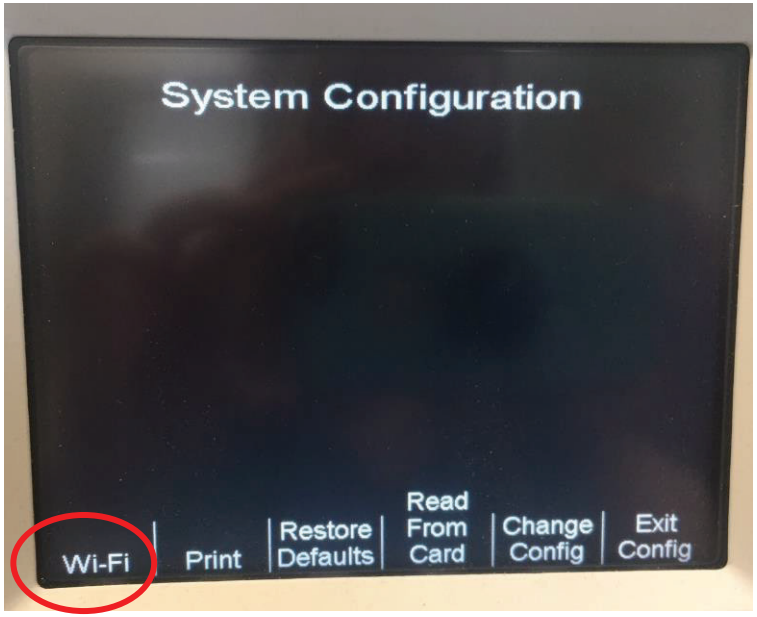
Go to the System configuration mode

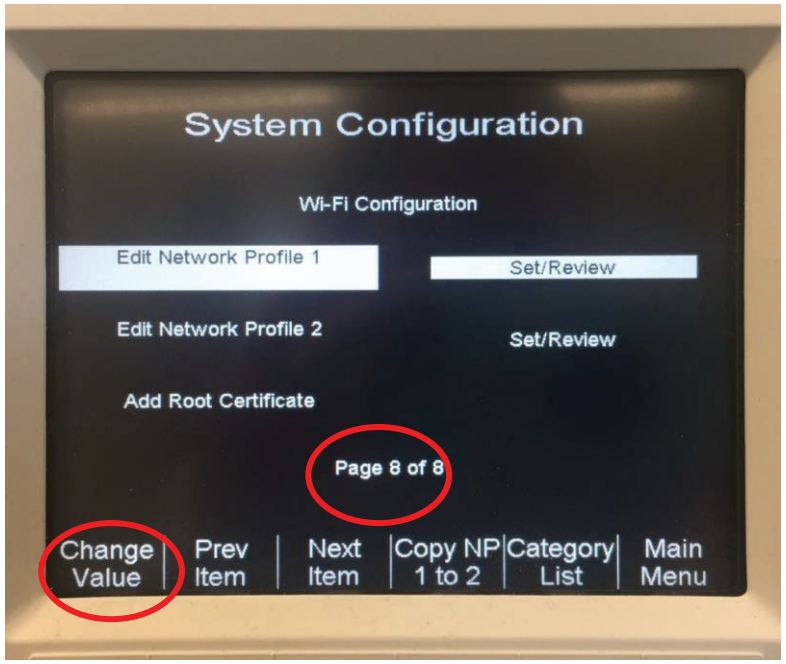


- On the R-Series defibrillator, while holding the left and right most soft keys simultaneously turn the power switch on the R-Series to the “On” position.
- The passcode is set to the factory setting. “00000000”

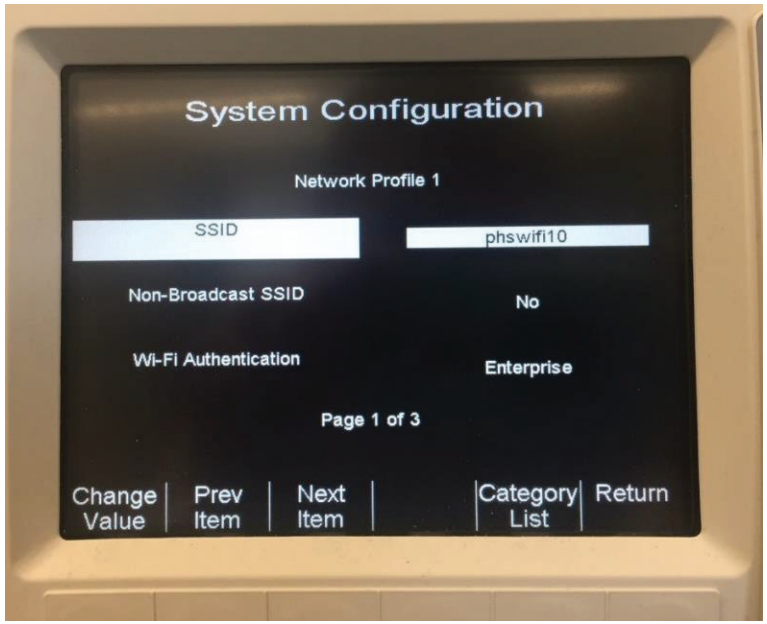


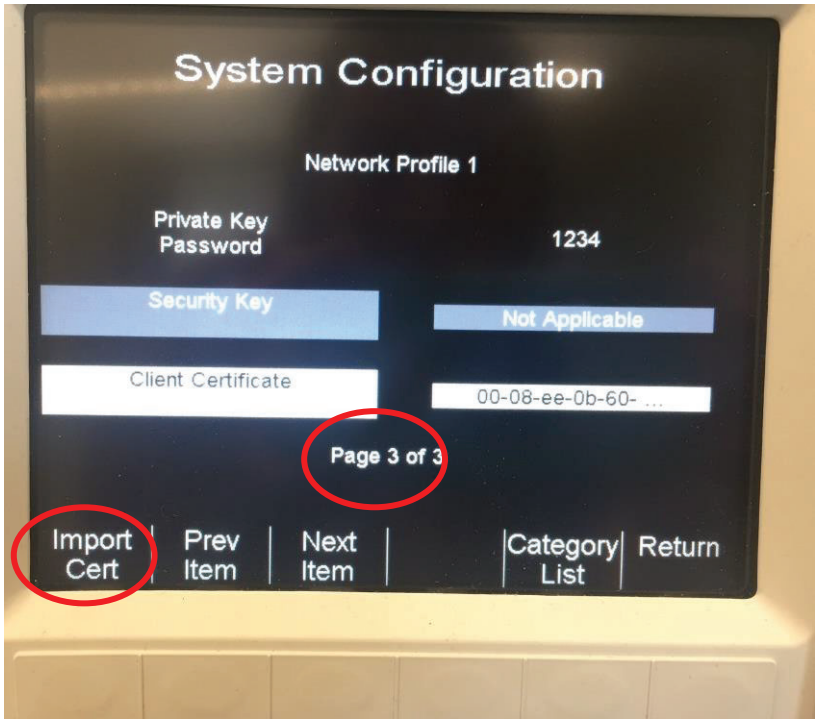
- Select the language
- Select the Enter soft key





- Select “Wi-Fi Soft key”. A green box message appears that says “**Identifying Card**”
- Select “Read Wi-Fi Card”. A green box will appears that says “**Wi-Fi card read ok**”
- With the “Next Item” soft key move to **Page 8** until “**Edit Network Profile 1**” is highlighted
- Select “Change value” soft key

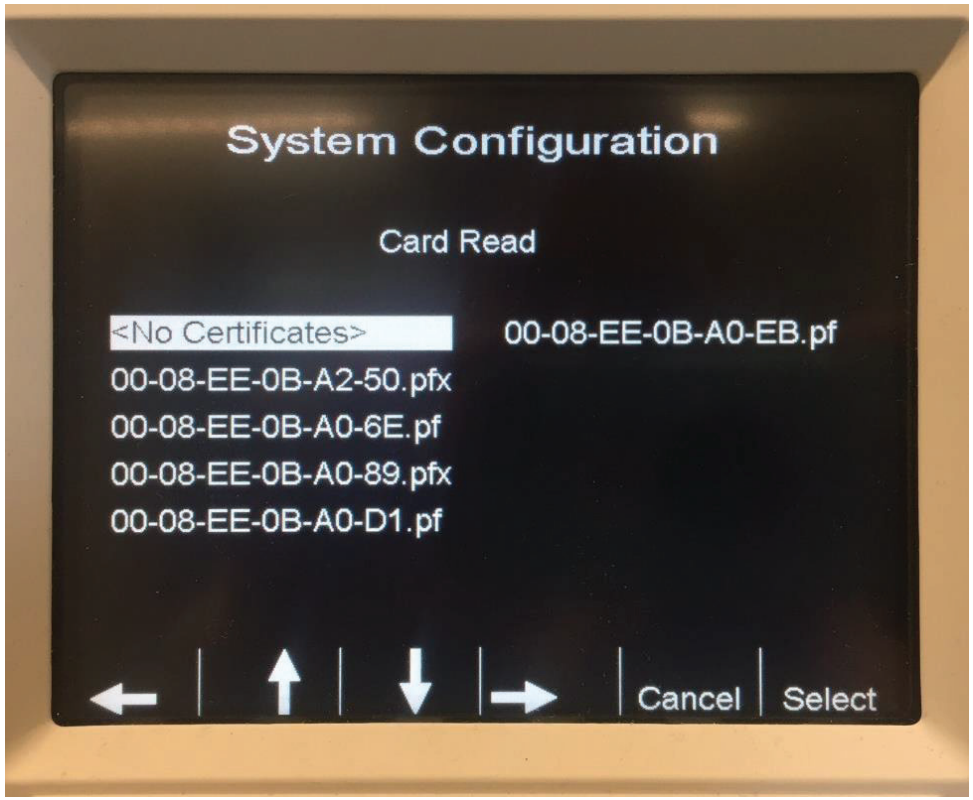




- With the “Next Item” soft key move until **Page 3** appears and “**Client Certificate”** is highlighted.

➢ At this point remove the DATA COMM II Wi-Fi card and place the CF Card with the ROOT and CLIENT certificates

- Select “Import Cert”

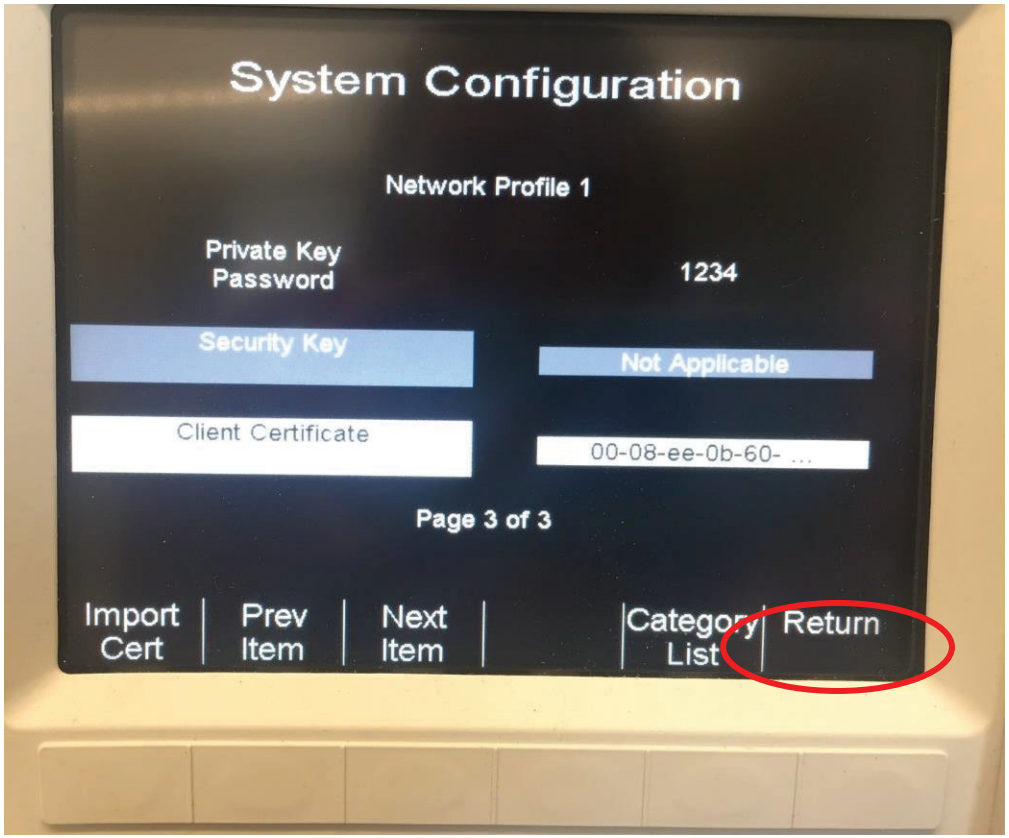


- Once the CF Card is inserted the message in green "**Reading Card**" or "**Identifying Card"** should appear and quickly disappear again.

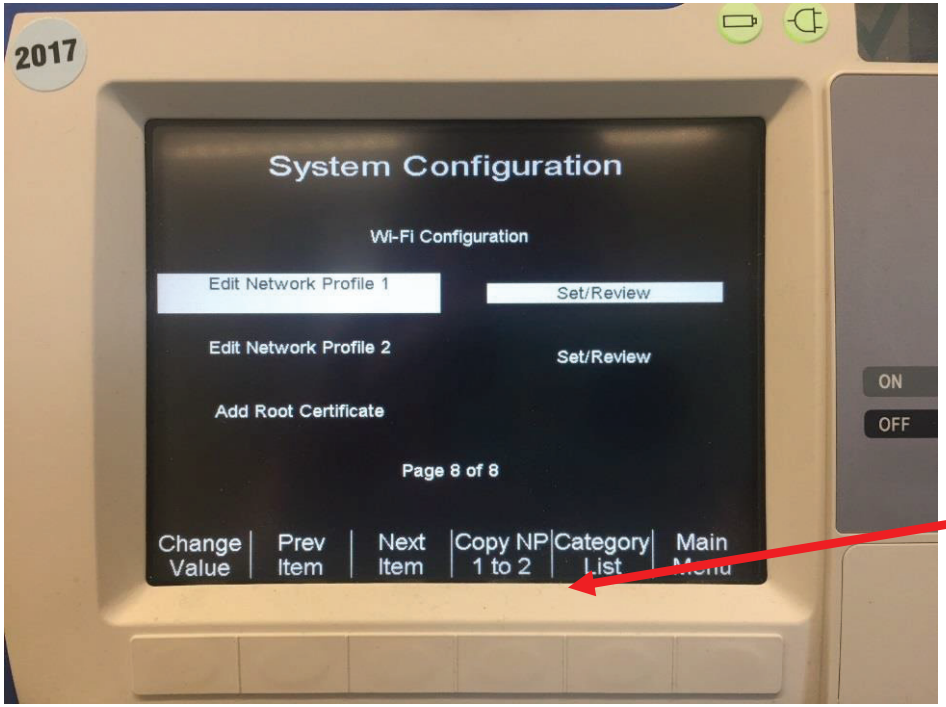
*If the card inserted is the incorrect card a message in red "Wrong Card" will appear.

- Once "Import Cert" is selected using the arrow keys select the client certificate from the list.
- The name of the appropriate .pfx certificate will be the MAC Address of the Wi-Fi card currently being configured.

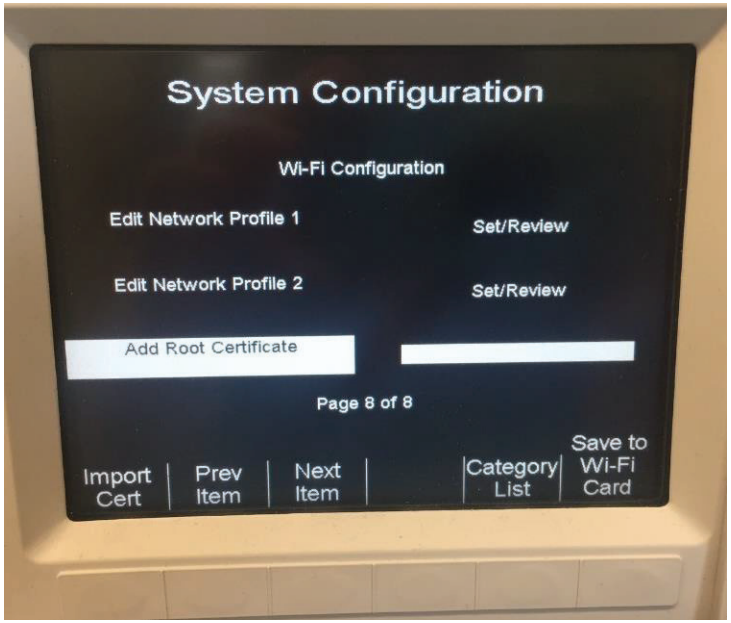
*Note that only the .pfx certificates will appear in the list.



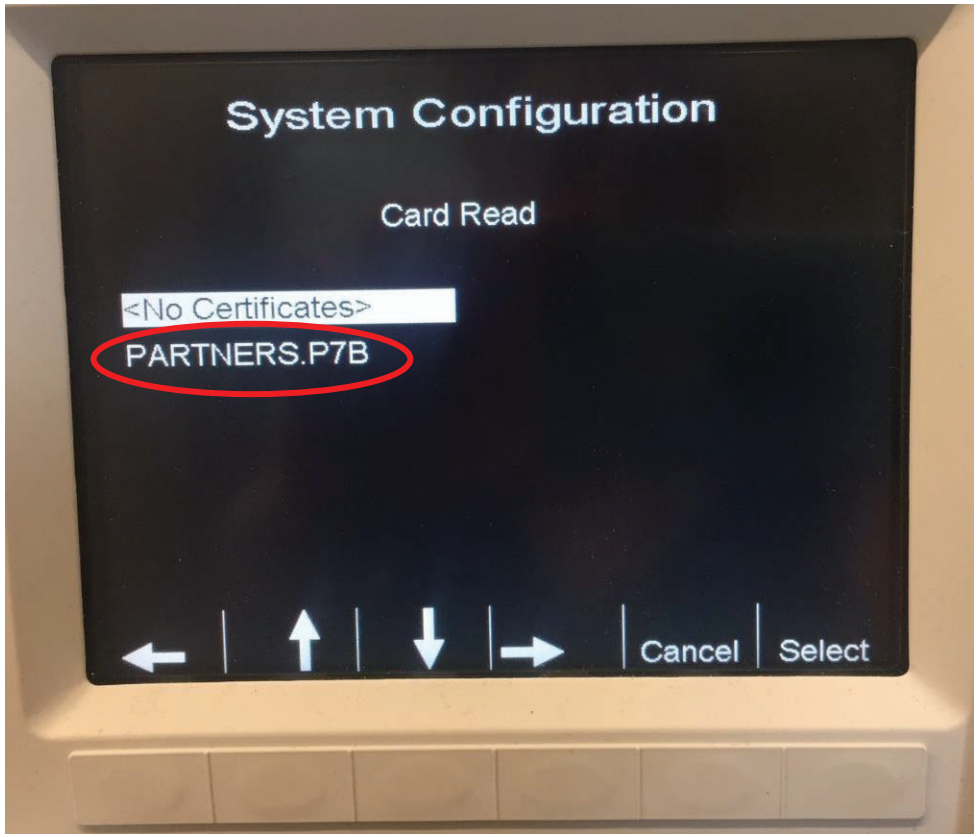
- After the client certificate has been selected and the Select key has been pressed you are returned to the previous page and your client certificate should show in the list.
- Now Select "Return" soft key on the far right of the screen



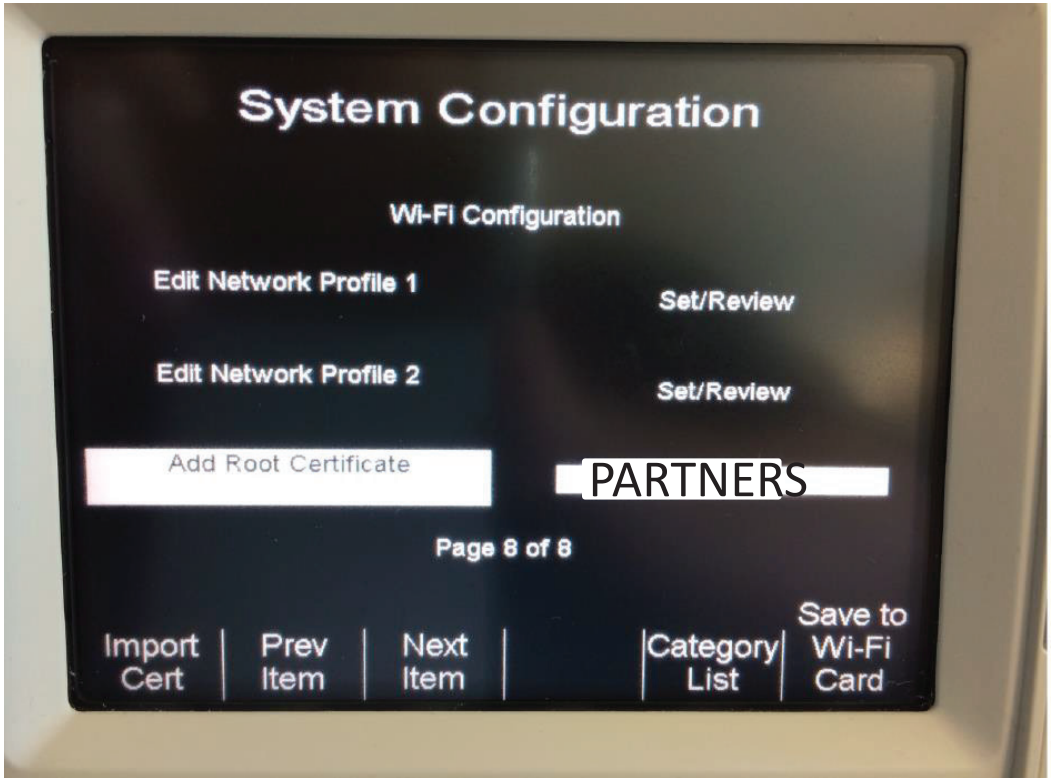
- Select the Copy NP 1 to 2 soft key; third soft key from the right



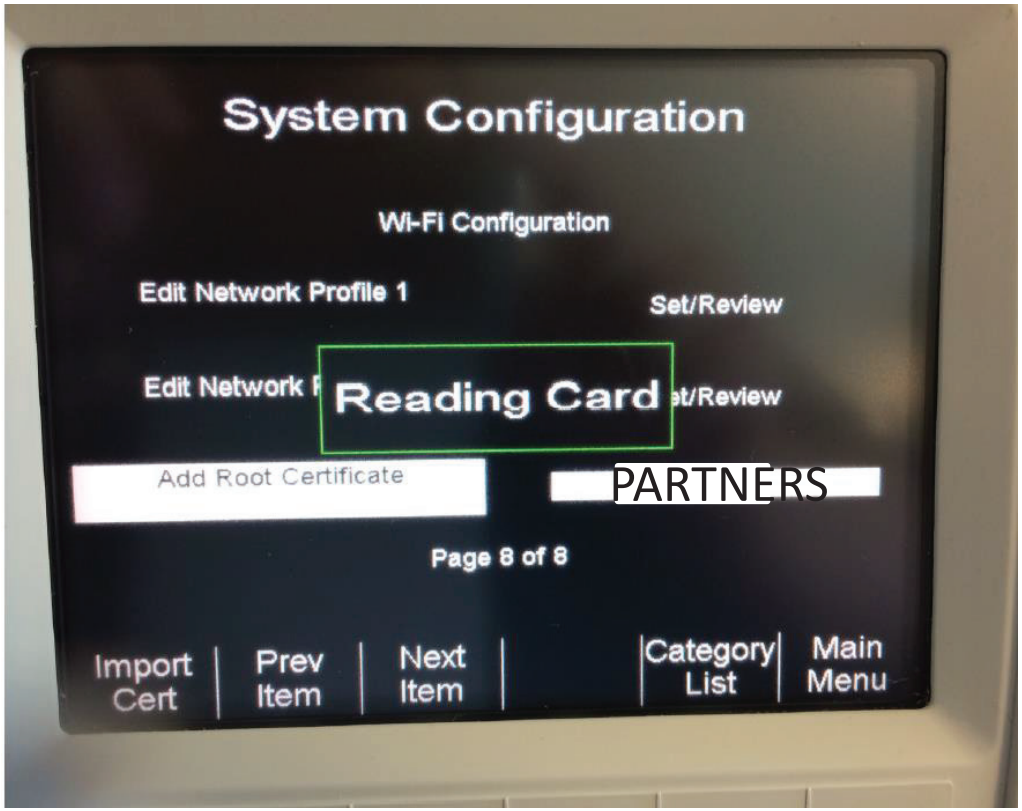
- Select the Next Item soft key to highlight the "Add Root Certificate" line
- Root Certificate – Note the left most value on the screen has changed from Change Value to Import Cert



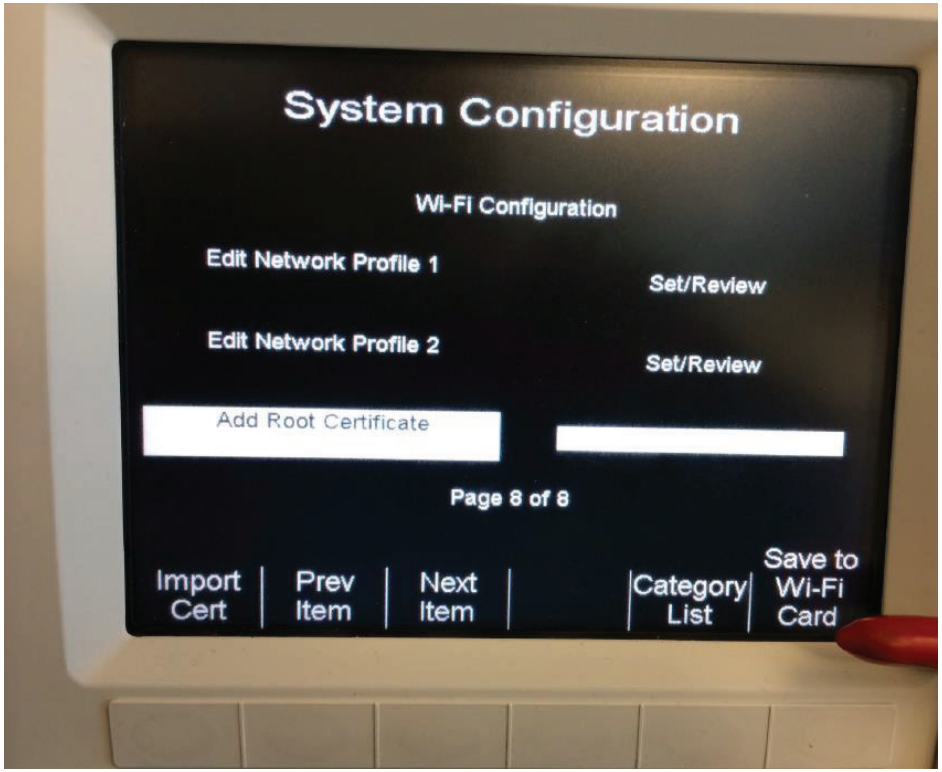
- Select Import Cert – using the arrow keys select the root certificate named partners.p7b
- Note that only the .p7b certificates will appear in the list.



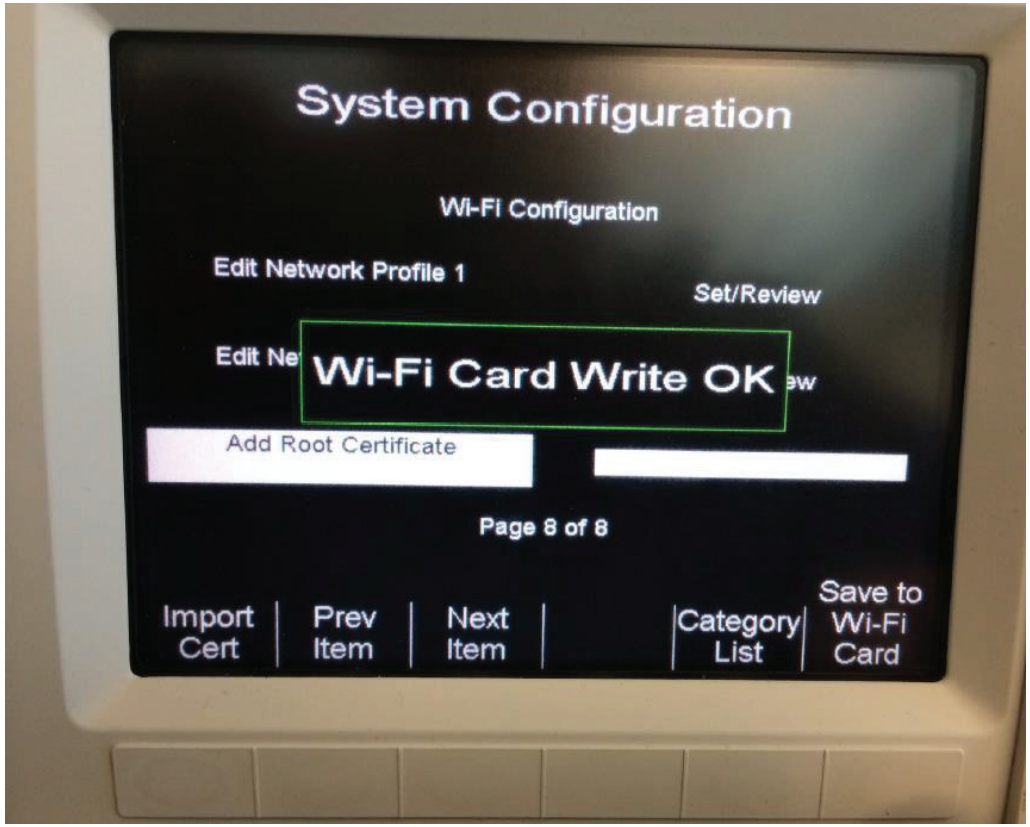
- After the root certificate has been selected and the Select key has been pressed you are returned to the previous page and your root certificate should show in the list.



- At this point remove the CF card and re-insert the Wi-Fi card.
- You should have a green "**Reading Card**" or "**Identifying Card**" message again.
- Once the message clears the screen you will be ready to **save** the configuration to the **Wi-Fi card.**



- After the green "Reading Card" or "Identifying Card" message disappears the bottom right soft key will change to **" Save to Wi-Fi card"**
- Select the **save to Wi-Fi card s**oft key



- A message in a GREEN box will appear on the screen that says "Writing Wi-Fi Card"
- Finally a message in a GREEN box will appear on the screen that says "Wi-Fi Card Write OK"
- Turn off the Defibrillator

- Once the new certificate has been loaded in the Wi-Fi card perform a test by sending the 30J results to the server.
  - Turn defibrillator ON and go to **Manual** mode
  - Press “Report data”
  - Press “Transfer mode”
  - Press the soft key “More”
  - Pres “Defib History to Wi-Fi”
  - Wait until you get a message that says:

  “Device Check Was Sent” “Activity Log Was Sent”