

SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

Summary

In many stores the Cradlepoint is located in the MDF. In select store locations the Cradlepoint (CP) device was installed at a location other than the MDF due to signal strength/quality issues. In the coming months, KT is shifting to an SD-WAN implementation. SD-WAN post-implementation efforts will require a console connection from the Cradlepoint device to the **Cisco router (RT1-####)** located in the MDF.

To remedy this issue, KT will be requesting a technician to be dispatched to the identified location(s). The assigned technician will need to verify the location of the CP and follow the instructions below to establish a new console connection to **RT1** in the MDF via an RJ45-to-RJ45 rollover cable extension.

Additionally, the new SD-WAN solution will require us to install a new ethernet patch cable run from the **LAN1** port of the Cradlepoint to the patch panel in the MDF.

The steps outlined below identify the procedures required to accomplish this directive. Please see the end of this document for reference photos of the CP device. **Please Call Support staff upon arrival to site after locating the Cradlepoint device 262-704-0412.**

PRE IMPLEMENTATION

- ❑ Log in to CrossCom IVR: 800-820-9229
- ❑ Check-in upon arrival with the designated H2 Manager
- ❑ Call Kohl's Support staff 262-704-0412 to inform them of the Cradlepoint location (or request assistance in locating it within the store). In some cases the work order indicates suspected location. Refer to documentation for the identified location of the Cradlepoint (CP), **reference images on next page.**
 - ❑ If the CP is not found at the specified location please search the site to locate the device. Common areas of installation are listed below:
 - MDF / IDF (Wall-mount/Network Rack placement/Above Ceiling Tiles)
 - Telco Demarc / MPOE
 - Store Customer Service Area
 - Exterior walls of Stockroom or Loading Dock
 - ❑ Based on the store's CP location, follow direction for appropriate Scenario outlined below.
 - ❑ If CP is still not found then call (262) 704-0412 to speak with KT support to verify that a unit is active at the store and receive further instruction

STOP: DO NOT Remove cable or disconnect CP unless directed by Kohl's Support Desk.

SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

Cradlepoint CBA850 Reference Images:



IMPLEMENTATION

There are 3 Scenarios possible. Please identify which scenario is needed prior to beginning cabling.
(Only 1 scenario will be executed)

Scenario #1 - CP is installed in the IDF

- ☐ If CP device is located in the IDF →
 - ☐ Determine if the CP *Console* port is connected to the patch panel
 - ☐ If Console connection is present →
 - ☐ Trace data cable to determine where it terminates in the MDF
 - ☐ Ensure that the console cable is connected to the *Console* port in **RT1**. If it is not connected then terminate the connection into the *Console* port of **RT1** via a **new rollover cable**.
 - ☐ **NOTE:** If possible, use a red cable for the crossover portion in the MDF, or mark the rollover cable in red to signify it further as a rollover cable
 - ☐ Once cabling is complete tag the newly installed rollover cable with the following naming convention:
CPC-#### (where #### = 4-digit Store Number)
 - ☐ Install new **regular Ethernet patch cable** from the **LAN1** port on the Cradlepoint to the IDF patch panel and terminate at the MDF patch panel with the following naming convention:
CPE-LAN-#### (where #### = 4-digit Store Number)
CONNECTION is complete once cable reaches the MDF patch panel
 - ☐ Finally, locate the current LAN2 connection going to RT2 Gi8 and label the existing cable with the following naming convention: **CPE-LAN-#### (where #### = 4-digit Store Number)**

Continue to next page

SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

❑ If Console connection is not present →

- ❑ Install a **new regular Ethernet patch cable** connection from the RJ45 *Console* port on the CP unit and terminate at the IDF patch panel.
- ❑ Continue the newly established run from the MDF patch panel, install **new rollover cable** and terminate into the *Console* port of **RT1**
- ❑ **NOTE:** If possible, use a red cable for the rollover portion in the MDF, or mark the rollover cable in red to signify it further as a rollover cable
- ❑ Once cabling is complete tag the newly installed rollover cable with the following naming convention:
CPC-#### (where #### = 4-digit Store Number)
- ❑ Install new **regular Ethernet patch cable** from the **LAN1** port on the Cradlepoint to the IDF patch panel and terminate at the MDF patch panel with the following naming convention:
CPE-LAN-#### (where #### = 4-digit Store Number)
CONNECTION is complete once cable reaches the MDF patch panel
- ❑ Finally, locate the current LAN2 connection going to RT2 Gi8 and label the existing cable with the following naming convention: **CPE-LAN-#### (where #### = 4-digit Store Number)**

Scenario #2 - CP is installed at alt. location (outside of MDF/IDF)

❑ If CP device is located in an alternate location →

- ❑ Determine if the CP *Console* cable connection is present
- ❑ **If Console connection is present →**
 - ❑ Trace data cable to determine where it terminates in the MDF
 - ❑ Ensure that the console cable is connected to the *Console* port in **RT1**.
 - ❑ Label the existing rollover cable with the following naming convention: **CPC-#### (where #### = 4-digit Store Number)**
 - ❑ Install new **regular Ethernet patch cable** from the **LAN1** port on the Cradlepoint to the IDF patch panel and terminate at the MDF patch panel with the following naming convention:
CPE-LAN-#### (where #### = 4-digit Store Number)
CONNECTION is complete once cable reaches the MDF patch panel.
 - ❑ Finally, locate the current LAN2 connection going to RT2 Gi8 and label the existing cable with the following naming convention: **CPE-LAN-#### (where #### = 4-digit Store Number)**

Continue to next page

SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

- ❑ **If Console connection is not present →**
 - ❑ Install a **new regular Ethernet patch cable** connection from the RJ45 *Console* port on the CP unit and terminate at the MDF patch panel.
 - ❑ Continue the newly established run from the MDF patch panel, install **new rollover cable** and terminate into the *Console* port of **RT1**
 - ❑ **NOTE:** If possible, use a red cable for the crossover portion in th MDF, or mark the rollover cable in red to signify it further as a rollover cable
 - ❑ Once cabling is complete tag the newly installed rollover cable with the following naming convention:
CPC-#### (where #### = 4-digit Store Number)
 - ❑ Install new **regular Ethernet patch cable** from the **LAN1** port on the Cradlepoint to the IDF patch panel and terminate at the MDF patch panel with the following naming convention:
CPE-LAN-#### (where #### = 4-digit Store Number)
CONNECTION is complete once cable reaches the MDF patch panel.
 - ❑ Finally, locate the current LAN2 connection going to RT2 Gi8 and label the existing cable with the following naming convention: **CPE-LAN-#### (where #### = 4-digit Store Number)**
 - ❑ **If it is determined that new cable run would exceed 300' then contact KT Support**

Scenario #3 - CP is installed in the MDF

- ❑ **If CP device is located in the MDF →**
 - ❑ Determine if the CP *Console* port is connected to the **Cisco Router Console Port (RT1-XXXX)**.
 - ❑ Ensure that the console cable is connected to the *Console* port in **RT1**. If it is not connected then terminate the connection into the *Console* port of **RT1** via a **new rollover cable**.
 - ❑ **NOTE:** A red crossover cable has been shipped to site for use.
 - ❑ Once cabling is complete tag the newly installed rollover cable: **CPC-#### (where #### = 4-digit Store Number)**
 - ❑ Install new **regular Ethernet patch cable** from the **LAN1** port on the CradlePoint to the MDF patch panel with the following naming convention:
CPE-LAN-#### (where #### = 4-digit Store Number)
CONNECTION is complete once cable reaches the MDF patch panel.
 - ❑ Finally, locate the current LAN2 connection going to RT2 Gi8 and label the existing cable with the following naming convention: **CPE-LAN2-#### (where #### = 4-digit Store Number)**

Validation

- ❑ Call KT Support at (262) 704-0412 to validate CP connectivity & remote access through SSH CP connection via the Netcloud portal. KT Support will provide a checkout code upon 100% successful validation.

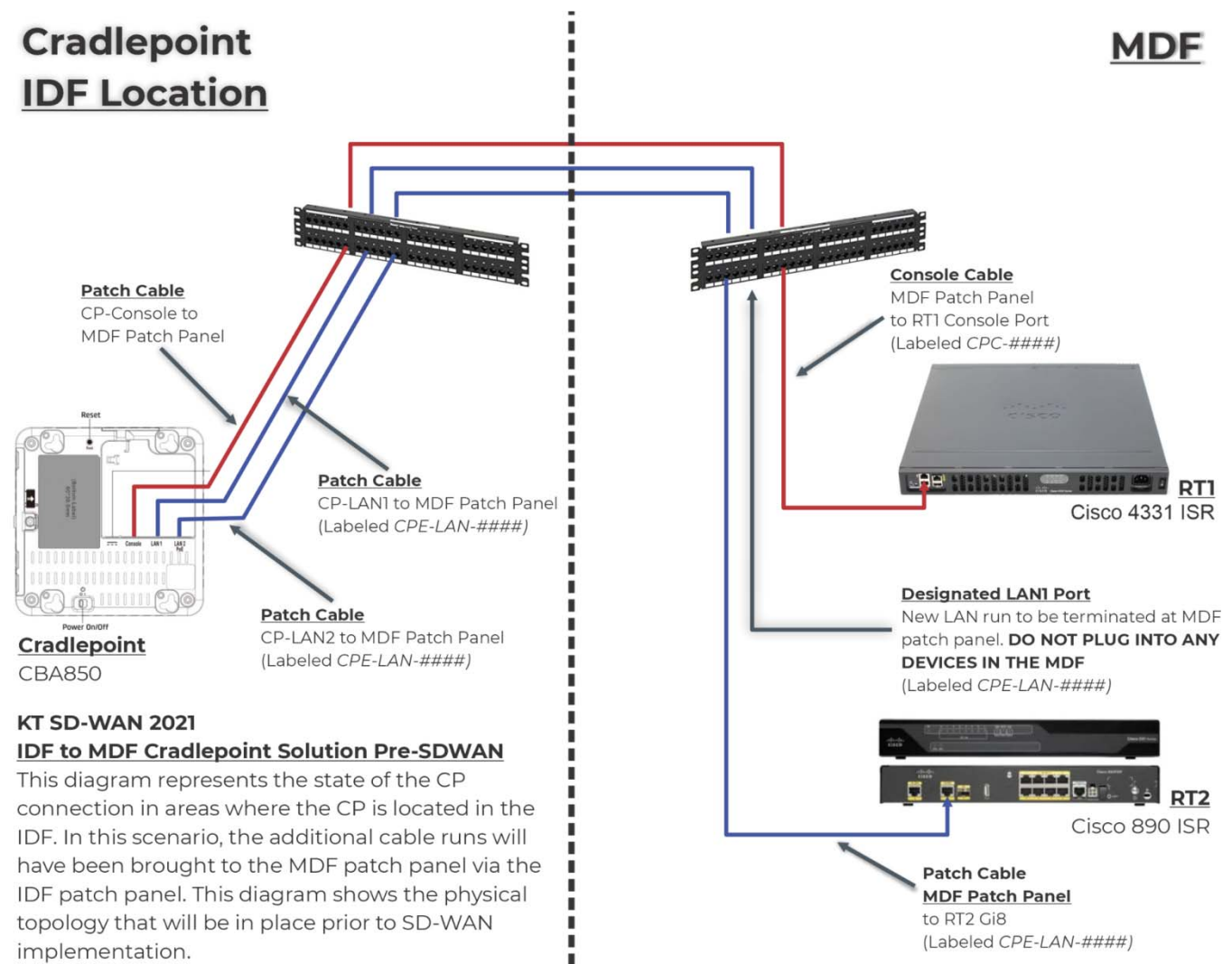
SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

Log Out

- ❑ Clean up work areas.
- ❑ Take any unused cabling materials with you. Any unused jacks and cable spools of 333' or greater will need to be returned to CrossCom. Report these items at checkout with the CrossCom Project Team and CrossCom will issue you an RMA number and email a return mailing label.
- ❑ Check out with Store Manager or Administrator.
- ❑ Log out to CrossCom IVR: 800-820-9229

Reference Image - Scenario #1: CP Located in the IDF



SD-WAN 2021:

KT Vendor Directive: MDF, Non-MDF Cradlepoint Solution

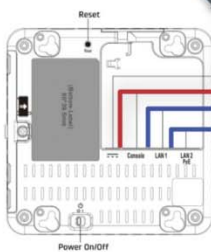
Reference Image - Scenario #2: CP Located in Alt. Location

Cradlepoint

Non-IDF/MDF Location

MDF

Patch Cable
CP-Console to
MDF Patch Panel



Cradlepoint
CBA850

Patch Cable
CP-LAN1 to MDF Patch Panel
(Labeled CPE-LAN-####)

Patch Cable
CP-LAN2 to MDF Patch Panel
(Labeled CPE-LAN-####)

Console Cable
MDF Patch Panel
to RT1 Console Port
(Labeled CPC-####)



RT1
Cisco 4331 ISR

Designated LAN1 Port
New LAN run to be terminated at MDF
patch panel. **DO NOT PLUG INTO ANY
DEVICES IN THE MDF**
(Labeled CPE-LAN-####)



RT2
Cisco 890 ISR

Patch Cable
MDF Patch Panel
to RT2 Gi8
(Labeled CPE-LAN-####)

KT SD-WAN 2021

Non-IDF/MDF Cradlepoint Solution Pre-SDWAN

This diagram represents the state of the CP connection in areas where the CP is located outside of both the MDF and IDF. In this scenario, the additional cable runs will have been brought to the MDF patch panel. This diagram shows the physical topology that will be in place prior to SD-WAN implementation.