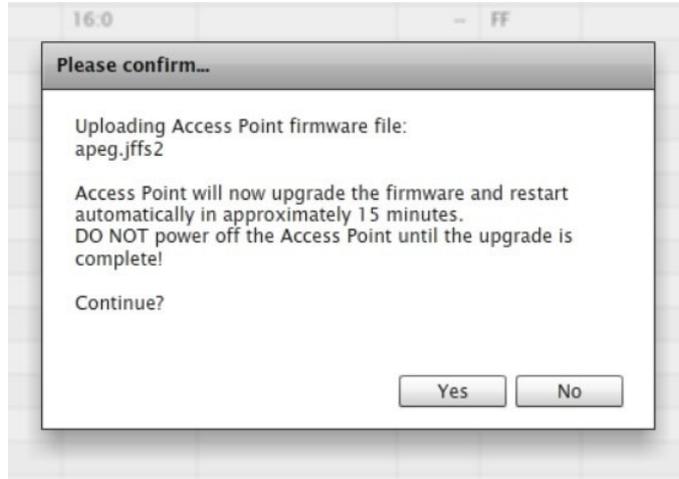


## Step by step instructions to update M100 system firmware

1. Ensure that the TrafficDOT software is installed and can be opened as an administrator on the laptop or PC that will be connected to the M100 system.
2. Download our latest system firmware update bundle from 'resources' area <https://www.clearview-intelligence.com/resources> on our website and save in an accessible location available offline on your system. The ZIP file includes firmware updates for Access Points, Repeater units & sensors, Access points and repeaters require an update at the same time as the sensors.  
NOTE: Our latest firmware package is located within a ZIP folder that will need 'unzipping' before the files can be uploaded into the M100 system hardware.
3. Connect to the access point locally via Cat5E connection in the M120 / M150 contact closure card in the outstation or controller unit
4. Open and connect to the access point using TrafficDOT software  
NOTE: This software allows for configuration of your M100 system and is available for download from our website at link <https://www.clearview-intelligence.com/resources>  
If you already have TrafficDOT software installed on your system, make sure that you are using the most up to date version of the software (2.12.15) and update if necessary.

### STEP 1: Update Access Point Firmware

5. Once connected to the access point in TrafficDOT, click on the 'AP Info' button in the top left of the screen. Once pressed, a menu will appear on the right-hand side. In this access point information window, click the 'AP config' tab and then the 'CMDs' tab. In the 'CMDs' window, click 'Update AP firmware' and upload the appropriate .jffs2 file from the firmware folder. You will receive a notification that this selection has been successful.
6. You will see a warning message that this process will take up to 15 minutes. We recommend setting a timer for 15 minutes and leaving the system to update once you click 'yes' on the below message.  
NOTE: Once this process has started, it is normal to see pop up messages that may read 'error', 'lost connection' or 'socket connection error'. DO NOT click anything on these messages, remove connection to the access point, restart the TrafficDOT software or unplug the connection to the Access Point until the 15-minute timer is up. There is potential to irreparably damage the access point if this process is interrupted.



7. After 15 minutes, accept all popups and close the TrafficDOT software. If the application doesn't reopen, manually re-open TrafficDOT and re-connect to the access point. The firmware will have now been upgraded to the latest version.

Step 2: Update M100 sensor firmware

8. Re-visit the AP info menu and open the CMDs tab. Click on the 'Broadcast Sensor / Repeater firmware' button and upload the sensor firmware file from the firmware bundle. A notification will inform that the process of broadcasting sensor software has started (you will also see a button appear in the bottom bar of TrafficDOT that gives you the option to stop this broadcast at any time). The access point is now transmitting this sensor firmware to its network.
9. Sensors need to be told to look for the broadcasting message from the M110 Access Point. In the main 'table' view of TrafficDOT you will see a list of sensors connected to the Access Point. Click on each sensor and in the right-hand menu that appears, click 'Download firmware'. The status of each sensor will go purple in the table when firmware is updating and return to green when complete (as shown in image below). NOTE: During the process of updating firmware, a sensor will go into detect mode for a maximum period of 10 minutes.

ID	Channel	Battery Level	Idle	RSSI	LQI
7C38	10		10	-59	97
2949	10	3.63	3	-86	94
BCF3	10	3.69	7	-89	90

10. Once all sensors have updated, simply click the 'Stop broadcasting' button in the bottom bar of TrafficDOT.

Step 3: Update M115 Repeater firmware

11. Now that both the M110 access point and M100 sensor firmware has been updated, return to the 'Broadcast Sensor / Repeater firmware' button in the CMD's tab of the Access Point and upload the repeater firmware file when prompted.
12. Repeat the process of clicking 'Download firmware' on each individual repeater in the TrafficDOT table view. System repeaters will update firmware in the same way as sensors. NOTE: During the process of updating repeater firmware, the sensors connected by that repeater may go into permanent detect mode for a period of up to 10 minutes.
13. Once completed, click the 'Stop broadcasting' button in the bottom bar of TrafficDOT.