Boulder County Sheriff's Office

Curtis Johnson
Sheriff

Boulder County Communications Hardware & Network Requirements for Mobile CAD
as of July 3, 2024

Expectations:

Boulder County Communications (BCC) can provide Mobile CAD connectivity to enhance operations. User-Agencies are required to comply with all BCC procedures for the implementation, use and on-going maintenance of mobile CAD. BCC user-agencies interested in building mobile CAD connectivity capacity shall notify BCC technical staff via submitting a ticket and work collaboratively throughout implementation. BCC dispatches Career FDs by apparatus and Volunteer FDs by agency. CAD connectivity can enhance information exchange but does not change standard dispatching processes.

User-Agency Hardware and Connectivity Requirements:

1) Dedicated Internet circuit supplied by the User-Agency
   a. 10MB minimum
   b. A single forward facing static IP address is required
2) Firewall to broker the connection between the Fire Station and BRETSA
   a. Must support IKE2 at a minimum
   b. Must be able to establish an encrypted VPN tunnel between the User-Agency Firewall and the BRETSA Firewall
3) Mobile Data Computer or Tablet
   a. 1.66GHz Processor
   b. 4 GB RAM
   c. Disk Space: 12 GB
   d. Monitor 1024 x768 minimum resolution
   e. Operating System: Windows 10; 64 bit
      i. NOTE: Window 11 is NOT supported at this time
   f. Maintain current Anti-Virus software installed that is regularly scanning the device
   g. Maintain current Windows updates on the Mobile Data Computer
   h. Ensure all emergency patches for zero day exploits are applied as soon as they are available
   i. A ruggedized Mobile Data Computer or Tablet is highly recommended
4) Connectivity from the Apparatus or Mobile Data Computer (MDC) back to the User-Agency Firewall at the Fire Station
   a. Cellular service for each MDC
   b. Wireless connectivity from the MDC to the Fire Station Firewall
      i. If connecting the MDC to the Apparatus, a mobile router is needed to manage the cellular connection between the Apparatus and the Fire Station
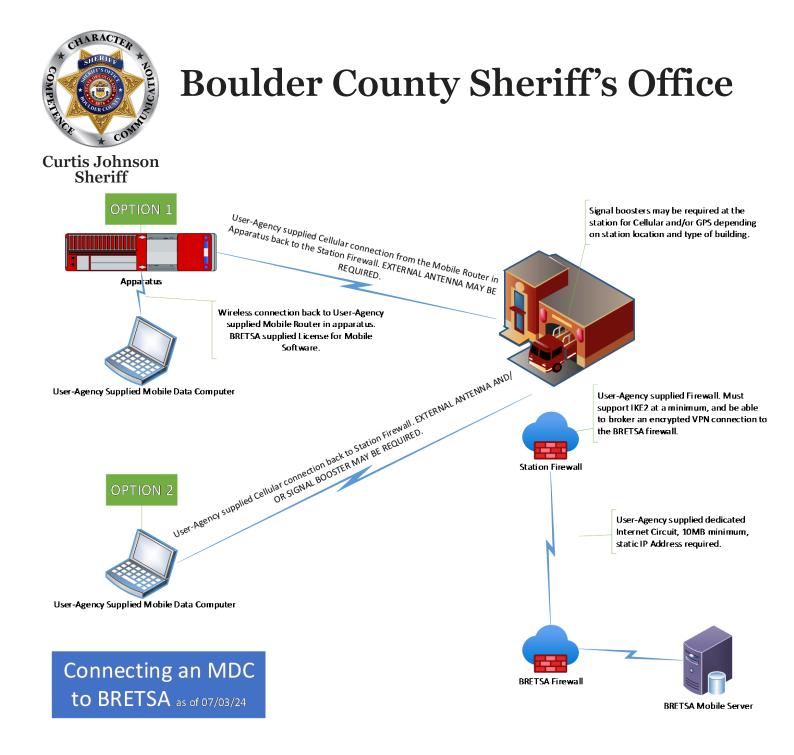
  ii. Cradle Point and Sierra Wireless are two common options for a mobile router. Each offers automated switching between multiple carriers, connection persistence, and a wifi hotspot. Additional carrier charges will apply

 c. A Mobile Firewall to establish a secure tunnel between the MDC and the Fire Station Firewall

  i. NetMotion is commonly used for this

 d. If connecting directly from the MDC to the User-Agency Firewall, a cellular connection must be established from the MDC to the User-Agency Firewall

Schedule of Responsibilities

Item	Description	Initial Purchase and On-going Cost Responsibility	Configuration	Ongoing Maintenance & Troubleshooting
Dedicated Internet Circuit at Fire Station	Provides data transport between the FD and BRETSA	User-Agency	User-Agency	User-Agency
Firewall at User-Agency	Establishes secure VPN tunnel between the user-agency and BRETSA	User-Agency	User-Agency; Coordinated with BCC Resource	User-Agency
Mobile Data Computer (MDC) or Tablet that contains a version of Windows currently supported.	Computer that runs the CAD software and maintains the connection with the BRETSA network	User-Agency	User-Agency	User-Agency
Mobile Software and Licensing	Software for daily CAD operations	BRETSA/BCC	BRETSA/BCC	BRETSA/BCC
Connectivity from the apparatus or MDC/Tablet back to the User-Agency firewall	Typically cellular service, but could be low earth orbit (LEO)	User-Agency	User-Agency	User-Agency
Anti-Virus Software for MDC	Software for maintaining current anti-virus security	User-Agency	User-Agency	User-Agency
Information Technology support	MDC hardware and mobile connectivity.	User-Agency	User-Agency	User-Agency

Formal requests can be submitted via link on the BCC Dashboard: BCCDashboard.BoulderSheriff.gov

General Questions can be submitted to SheriffCAD@BoulderCounty.gov

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OPTION 1

Apparatus

User-Agency supplied Cellular connection from the Mobile Router in Apparatus back to the Station Firewall. EXTERNAL ANTENNA MAY BE REQUIRED.

Wireless connection back to User-Agency supplied Mobile Router in apparatus. BRETSA supplied License for Mobile Software.

User-Agency Supplied Mobile Data Computer

Signal boosters may be required at the station for Cellular and/or GPS depending on station location and type of building.

User-Agency supplied Firewall. Must support IKE2 at a minimum, and be able to broker an encrypted VPN connection to the BRETSA firewall.

Station Firewall

OPTION 2

User-Agency supplied Cellular connection back to Station Firewall. EXTERNAL ANTENNA AND/OR SIGNAL BOOSTER MAY BE REQUIRED.

User-Agency Supplied Mobile Data Computer

User-Agency supplied dedicated Internet Circuit, 10MB minimum, static IP Address required.

Connecting an MDC to BRETSA as of 07/03/24

BRETSA Firewall

BRETSA Mobile Server