



DESCRIPTION



Analytics at the Edge

KMC Commander® is a next-generation IoT (Internet of Things) solution that connects your building and other devices to the cloud and provides meaningful data in real-time to your PC or mobile device. The KMC Commander platform consists of Dell Edge Gateway 3002 hardware plus KMC IoT software and cloud services. It is an out-of-the-box solution to visualize, connect, and manage energy, building, and other systems. It not only works with KMC controllers, but also most third-party meters and many other energy and automation devices. It is designed to aggregate, analyze, secure, and relay data from diverse sensors and equipment, and communicate the analytics and visualizations to your mobile device. From a mobile device in the palm of your hand, you can analyze and act on data at the edge of the network with this IoT platform, purpose-built for building and industrial automation.

Built Tough for Demanding Environments

Unlike PCs and servers, the KMC Commander IoT appliance/gateway (hardware) is designed to attach to a wall, panel, or DIN rail in commercial and industrial environments.

Engineered with an industrial-grade form factor and fanless, solid-state design, KMC Commander can reliably run 24/7 with long life at extended temperatures, in addition to withstanding the higher levels of humidity and dust typical of commercial environments.

Connect Multiple Communication Protocols

Make the most of the equipment you already have and expand capabilities with new technologies. Use KMC Commander to connect with the physical world, bridging both legacy systems and modern sensors to the Internet. Connect to BACnet Ethernet, BACnet IP, BACnet MS/TP, KMDigital, SNMP, and Modbus TCP. For details, see [Specifications—Supported Communication Protocols on page 3](#).

Security Built In

You can depend on KMC Commander's security. Embedded Ubuntu Core software ensures secure operation. White lists and black lists prevent unauthorized IP connections. Custom user permissions, data encryption, and other measures enhance security.

APPLICATIONS

KMC Commander provides data collection, analysis, visualization, and management for the modern smart building ecosystem, including HVAC, lighting, security, and other building applications. For just one example, see [Sample Installation on page 6](#).

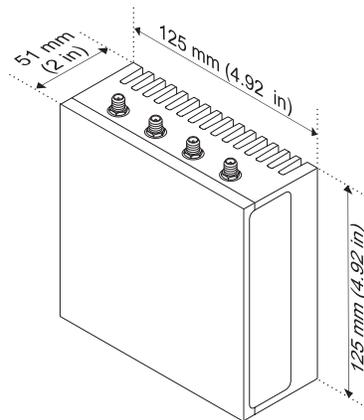
MODELS

KMC COMMANDER BASE PACKAGES		
Wi-Fi	Cellular (AT&T)	Cellular (Verizon)
CMDR-V2-WIFI-BASE package includes (Wi-Fi) KMC Commander (discontinued)	CMDR-V2-ATT-BASE package includes (AT&T) KMC Commander (discontinued)	CMDR-V2-VRZ-BASE package includes (Verizon) KMC Commander (discontinued)
<p>All base packages also include:</p> <ul style="list-style-type: none"> • Antennas for Wi-Fi or cellular Internet connection • A CMDR-D3-PWR-POE Power Over Ethernet injector (or use a third-party 12–57 VDC, 20 watt or greater, power supply with the supplied terminal block) • A CMDR-D3-DINMT mounting adapter for DIN-rail mounting (or order separately a CMDR-D3-WALLMT mounting adapter for optional wall/panel mounting) <p>Purchase the appropriate point license. See the chart below. See also Frequently Asked Questions on page 5 and Accessories on page 4.</p>		

POINT LICENSES			
Add licenses for expected points:			
Points	First Year	Yearly Renewal	Alternate Increment Yearly Renewals
250	CMDR-LIC-000250	CMDR-RNL-000250	*Yearly renewals are also available in other increments of 250 points (e.g., CMDR-RNL-007500 , CMDR-RNL-001250 , CMDR-RNL-003500 , CMDR-RNL-004000 , CMDR-RNL-005750 , or CMDR-RNL-009250). See the KMC website for all point license renewal options.
500	CMDR-LIC-000500	CMDR-RNL-000500*	
1,000	CMDR-LIC-001000	CMDR-RNL-001000*	
2,500	CMDR-LIC-002500	CMDR-RNL-002500*	
5,000	CMDR-LIC-005000	CMDR-RNL-005000*	
10,000	CMDR-LIC-010000	CMDR-RNL-010000*	
<p>NOTE:</p> <ul style="list-style-type: none"> • Point licenses for the first year provide continuing maintenance, storage, security, and software updates. After the first year, select the minimum point license renewal that is higher than the total points used in the project. • For more information, see What Is a Point (of Interest) License? on page 5. 			

SPECIFICATIONS—COMMANDER IOT APPLIANCE HARDWARE

Processor	Intel® Atom™ E3805, 1.33 GHz, 64-bit, 2 cores, 1 MB cache
Memory	2 GB RAM, 8 GB eMMC
Storage	Industrial-grade Micro-SD card: 8, 16, 32, or 64 GB (not included)
Environmental	Operating temperature –22 to 158° F (–30 to 70° C); relative humidity 10 to 95%, non-condensing, IP50 rating, shock and vibration resistant
Dimensions	4.9 x 4.9 x 2.0 inches (125 x 125 x 51 mm)
Form Factor	Fanless design, optimized for DIN-rail mounting (with a CMDR-D3-DINMT mounting adapter) or wall/panel mounting (with a CMDR-D3-WALLMT mounting adapter)—see Accessories on page 4
Weight	2.69 pounds (1.22 kg)
Power Requirements	Power Over Ethernet Injector (CMDR-D3-PWR-POE) or a third-party 12–57 VDC, 20 watt or greater, power supply (with the supplied terminal block)—see Accessories on page 4
I/O	Gigabit Ethernet (RJ-45), Wi-Fi, and (optional) cellular
Status Indicators	Power, Ethernet, WLAN, and Cloud connection
Operating System	Ubuntu Core Series 16
KMC Limited Warranty	1 year (from Dell’s manufacturing date code)

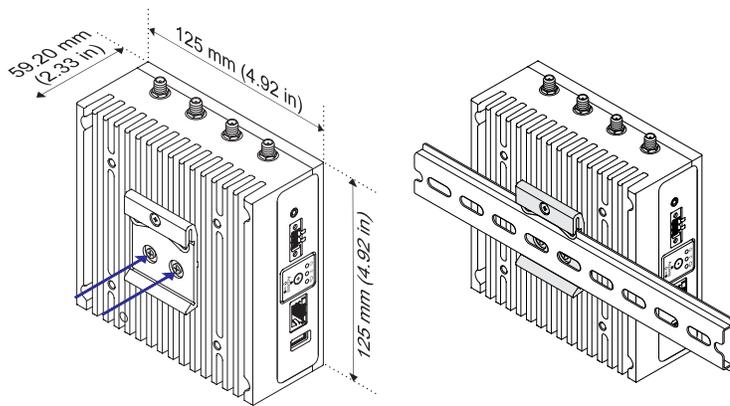


SPECIFICATIONS—SUPPORTED COMMUNICATION PROTOCOLS

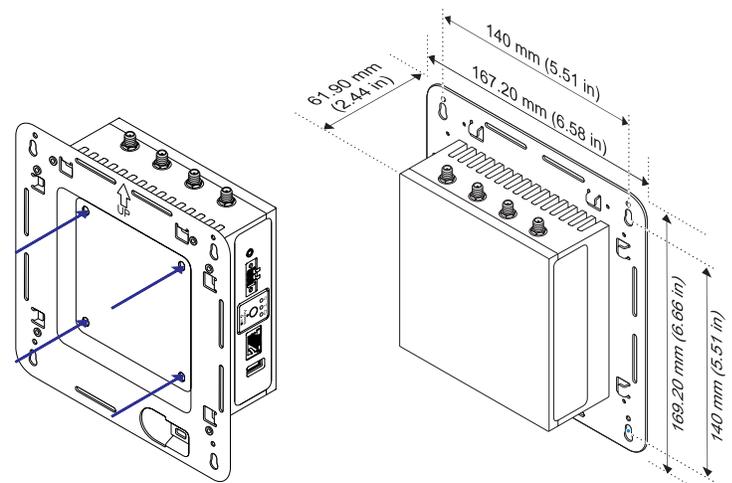
SNMP	Direct network connection to the Ethernet port
Modbus TCP	Direct network connection to the Ethernet port
BACnet MS/TP	With a KMC BAC-5051E BACnet router connected to the Ethernet network
BACnet IP and Ethernet	Direct network connection to the Ethernet port*
KMDigital	With a KMC KMD-5551E translator connected to the Ethernet network*
	<p>*NOTE: Three Tier 1 KMDigital controller models have optional BACnet Ethernet interfaces. Their points are discoverable in KMC Commander using BACnet Ethernet protocol without a KMD-5551E translator. (Points in any Tier 2 controllers connected to them via EIA-485, however, are not discoverable without a KMD-5551E.) The Tier 1 models with BACnet interfaces are KMD-5270-001 WebLite Controller, KMD-5210-001 LAN Controller, KMD-5205-006 LanLite Controller.</p>

ACCESSORIES

Power supply	<ul style="list-style-type: none"> Replacement (CMDR-D3-PWR-POE) Power Over Ethernet injector (included in base packages—or use a third-party 12–57 VDC, 20 watt or greater, power supply with the supplied terminal block)
Mounting on a DIN rail or on a wall or panel	<ul style="list-style-type: none"> A replacement (CMDR-D3-DINMT) adapter for DIN-rail mounting (included in base packages) A (CMDR-D3-WALLMT) adapter for optional wall or panel mounting
Mounting inside an enclosure	<ul style="list-style-type: none"> Steel control enclosure, 16 x 18 x 6 inches (HCO-1034) or equivalent—and use a CMDR-D3-DINMT or CMDR-D3-WALLMT adapter to mount the gateway inside
Remote mounting of antennas (outside of an enclosure or at a distance for better range/reception)	<ul style="list-style-type: none"> Extension cables (pack of two), Wi-Fi or cellular, 3-foot (CMDR-ANT-EXT-3) Extension cables (pack of two), Wi-Fi or cellular, 15-foot (CMDR-ANT-EXT-15)
Network communication accessories	<ul style="list-style-type: none"> Single-port BACnet router (BAC-5051E)—use for connecting to an MS/TP network KMDigital to BACnet translator (KMD-5551E)—use for connecting to a KMDigital network Ethernet patch cable, 50 feet (HSO-9001) Ethernet patch cable, 50 feet, plenum rated (HSO-9011) Ethernet patch cable, 75 feet, plenum rated (HSO-9012)
SIM card for cellular service	<ul style="list-style-type: none"> For a cellular base package, a carrier SIM (Subscriber Identity Module) card is shipped in the carton, which needs to be activated by contacting AT&T or Verizon
SD card for expanded storage	<ul style="list-style-type: none"> Micro-SD card: 8, 16, 32, or 64 GB (purchase from third party)



With DIN Rail Adapter (Included in Base Packages)



With Wall/Panel Adapter (Ordered Separately)

FREQUENTLY ASKED QUESTIONS

Why Purchase the Wi-Fi Base Package?

During KMC Commander installation, Wi-Fi is used to discover and set-up the hardware (for all models). This is the package to order if cellular service is not needed for operation.

NOTE: In all base packages, Wi-Fi is used during installation and then disabled for security reasons. During operation, Ethernet or cellular (see below) is normally used for the Internet connection. See [KMC Commander Base Packages on page 2](#).

Why Purchase a Cellular Base Package?

A cellular package is primarily used in locations where Internet access is unavailable through Ethernet or Wi-Fi or as a way of separating from a building's Ethernet network for added security. A cellular data plan provides the Internet access instead. Activation of the SIM card included in the cellular base package and an active AT&T or Verizon account are required to use the option.

What Is a Point (of Interest) License?

A **point** is a device data point that is alarmed, scheduled, trended, or used in control logic. Examples of data points include, but are not limited to, temperature, air volume, CO₂ level, door status (open/closed), pressure, tank level, and binary status (on/off). When one of these points is manually selected to be continuously tracked, it counts as a point of interest and is licensed as such.

A **point of interest** is any user-selected point that is configured to be tracked and/or commanded by KMC Commander. Not all points in a controller will be points of interest. Points of interest are continuously subscribed to in the KMC Commander software.

Each point of interest being pulled from a device uses 1 license point. For example, 60 controllers gathering 8 points of interest each would need a total of 480 license points. A 500 point license would cover this amount and provide room for small future additions to the project. Point licenses can be purchased in increments of 250 points on up and are available for purchase as projects expand.

See [Point Licenses on page 2](#).

How Does Licensing Work?

Licensing is an annual term and based on total number of system points identified as points of interest. Licensing also includes cloud storage as well as software and security updates and enhancements for the length of the term.

License renewal notifications will be forwarded in advance and prior to expiration of the existing license term.

For 14 days after a license's expiration date, KMC Commander will continue to function to allow time to remedy payment. After 14 days, KMC Commander will not be accessible, and will not receive updates and enhancements, store data in the cloud, or interact with the building automation system. If the license is renewed prior to 60 days after the initial license expiration date, KMC Commander will return to normal operation. If not renewed for more than 60 days, the license will be decommissioned, at which point a new license would need to be purchased and the project set up again from the beginning.

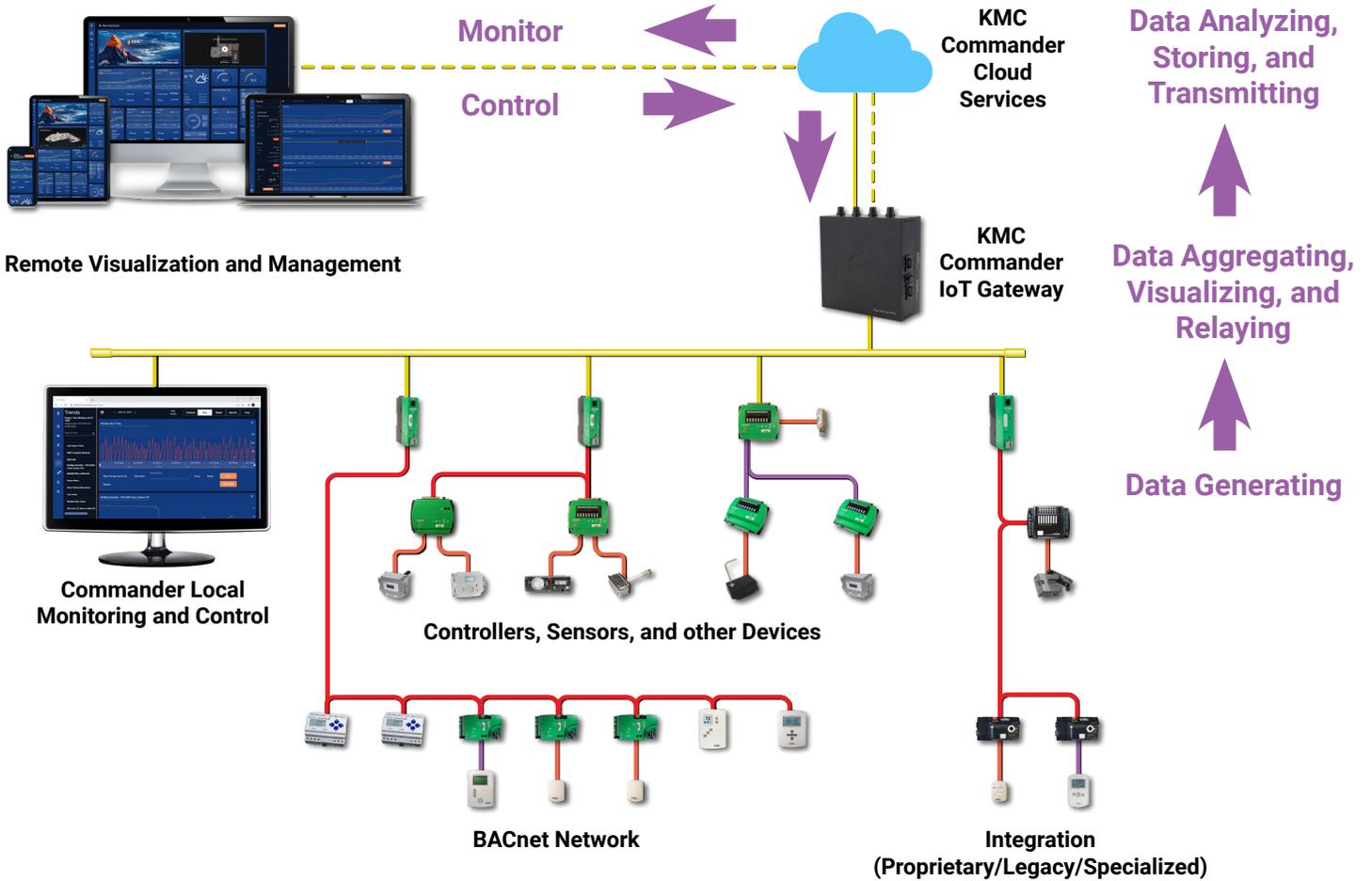
Also, any connection to a KMD-5551E KMDigital to BACnet translator will not work without an active license and a live Internet connection.

What is the Commander Cloud Service?

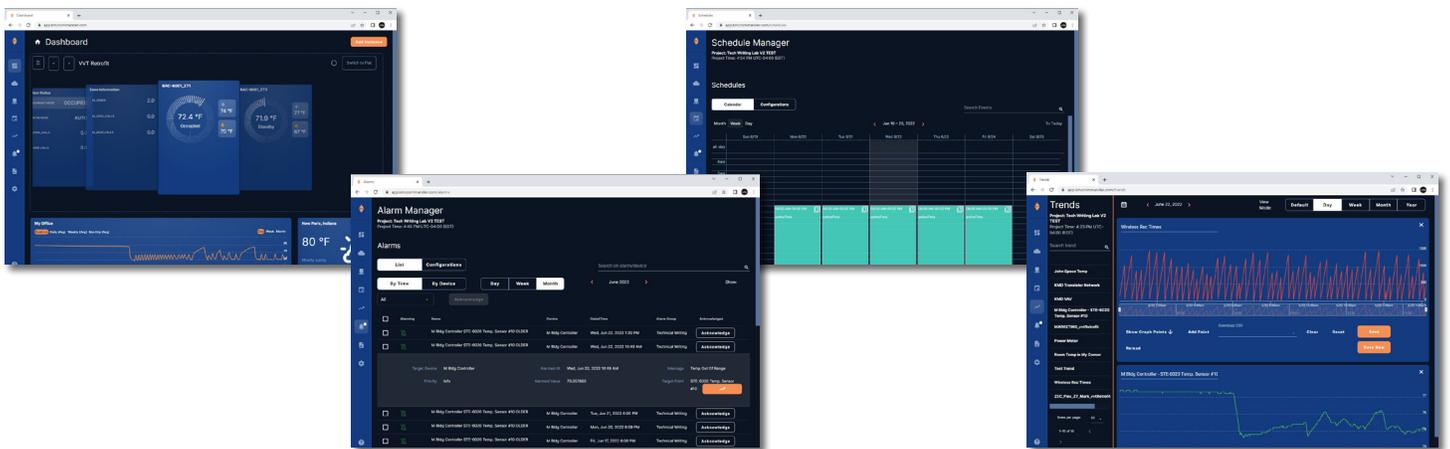
The Commander cloud service provides important data and security benefits to customers. Cloud services include:

- Securely storing data
- Processing data
- Relaying data to mobile and other devices
- Managing control devices
- Providing automatic software enhancements and security updates

SAMPLE INSTALLATION



SAMPLE SCREENS



SUPPORT

Additional KMC product information and resources are available at www.kmcccontrols.com. Log in to see all available files.

Information on KMC Commander installation and operation is available at help.kmcccommander.com.

