

MosaicONE VMS



The Problem

Code compliance without compromising aesthetics or security. The A17.1/B44 2019 Elevator Code / IBC 2018 Building Code mandates that all new and modernized elevators must be capable of establishing video and text communication between a rider and a monitoring station or security team. Meanwhile, the A17.1 2022 code now requires IEC 62443 cybersecurity compliance for internet-connected systems. Most solutions require adding separate screens that disrupt cab design and fall short on cybersecurity requirements.

The Solution

MosaicONE VMS – the most advanced, secure, and simple-to-implement solution for video messaging and elevator monitoring, integrating seamlessly with your existing elevator phones to deliver Elevator code compliance and IEC 62443-grade cybersecurity, while preserving cab aesthetics with our elegant single-screen design.

Unlike other solutions with confusing secondary screens during emergencies, MosaicONE VMS integrates seamlessly into the familiar position indicator passengers already know. Our system is easy to order, installs rapidly, requires minimal maintenance, and delivers enterprise-grade security exceeding the strictest requirements—while offering passengers engaging curated infotainment content without any maintenance burden on building staff.

Meet MosaicONE VMS

Simple.
Seamless.
Superior.

What's Included

MosaicONE VMS is a complete system, not a collection of components. All hardware is factory assembled, wired and tested to ensure fast simple installation in the field.

- HD IP Camera
- 10" HD Matisse Position Indicator
- Car components in COP or on Cartop
 - includes battery backup
- Machine Room Box with Battery Backup
- Touchscreen Local Communication Panel (req. for >60' of rise)
- Cellular Modem and VOIP (*optional*)

With streamlined installation, assisted maintenance, and comprehensive security, MosaicONE VMS is designed to minimize your workload at every step of the process.

Simple.

Simple Installation

The factory assembled, pre-wired and tested system ensures minimum effort in the field. Our streamlined commissioning process eliminates complex data entry, multiple serial number tracking, and repetitive device configurations.

Just connect components, enter one registration code, and the system automatically setup up everything - letting even first-time installers complete projects efficiently

Simple Maintenance

01 Automated Status Alerts

If the system becomes disconnected, real-time alerts are sent to your team and displayed on the relevant position indicators.

02 Automated Diagnostics

Automated diagnostics identify which components require servicing. A maintenance report is sent to your team so they have the solution before they get to site.

Simple Code Compliance

Tell us how many cars, machine rooms, and floors the property has. We'll configure the ideal system for your specific needs—whether that's a centralized solution for adjacent machine rooms, a distributed system for multiple buildings, or a custom setup for complex properties. Our modular design adapts to virtually any building configuration while ensuring complete code compliance with minimal components.

Seamless.

Seamless Compatibility

01 Non-Proprietary

MosaicONE VMS is compatible with any intercom/phone system, controller, contractor or monitoring station. Flexibility to choose today and in future.

02 End-to-End Solution

MosaicONE VMS comes with all required hardware, factory assembled, and wired. Your team will never deal with piece-meal assembly, field wiring, components by others or compatibility problems.

Seamless Security

We deliver code-compliant security without complexity. MosaicONE VMS is certified to IEC 62443-4-1 Meeting or exceeding A17.1 2022 Code requirements. This certification, plus our path to FedRAMP approval, ensures protection suitable for federal buildings and critical infrastructure while eliminating security burdens for contractors and building owners.

Seamless Updating

System updates keep your product enhanced over its lifetime. Mechanics can easily perform OTA updates on-site, for vulnerability patching and feature enhancements without special training or tools. Our support assistance is always available to guide the process, ensuring your system remains secure and current with minimal effort.

Superior.

Superior Hardware

Carefully selected components from reputable suppliers ensure durability and minimize maintenance for your team. All components as a system have gone through comprehensive testing (including environmental) to confirm compatibility, functionality, and reliability for the long term.

Superior Software

MosaicONE VMS uses a modern cloud architecture accessible through any standard web browser, eliminating proprietary software requirements. Our platform manages secure connections between elevators and monitoring stations while maintaining IEC 62443 compliance through regular security updates. This approach ensures compatibility with future browsers and devices without requiring on-site software replacements.

Superior Value

As part of the MosaicONE platform, every property with VMS benefits from a growing suite of products and features. From the included Digital Signage Software or Infotainment Feed, to add on products like Security Video Backup, elevator Usage Statistics, and Call Recording. VMS is not just about meeting code; it delivers real value to the property.

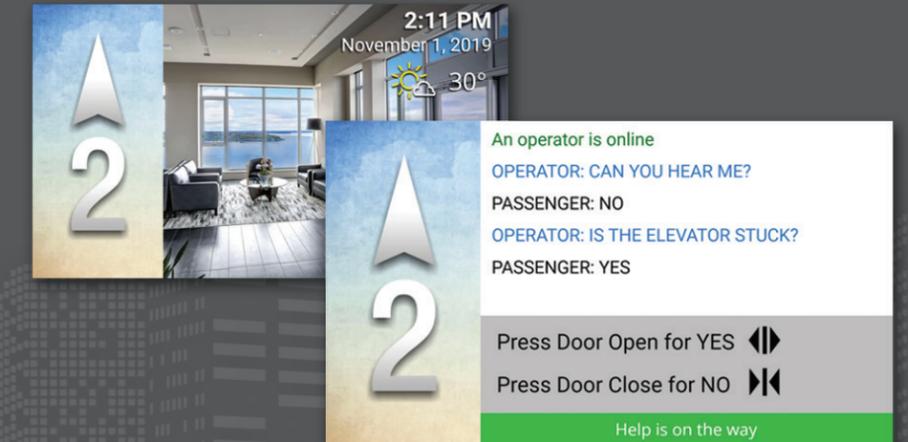
Key Benefits

Features

- Uses the Position Indicator as the in-car two-way text messaging screen. Additional screen not required
- Multiple screen sizes available: 5", 7", 10", 15", 21"
- Certified to Industrial Cyber Security Standards
- CyberSecurity Mature, and certified SDLC (62443-4)
- Complete System: no additional components needed, includes 4 hour battery backup
- Elevator phone agnostic: works with any elevator phone or intercom system
- Comprehensive "Line Monitoring" ensures all devices are communicating and external connections are up
- Flexible attendant/monitoring station interaction
- Message and video archiving for Monitoring Center
- A17.1/ B44-19, IBC 2018 and CBC 2019 code compliant

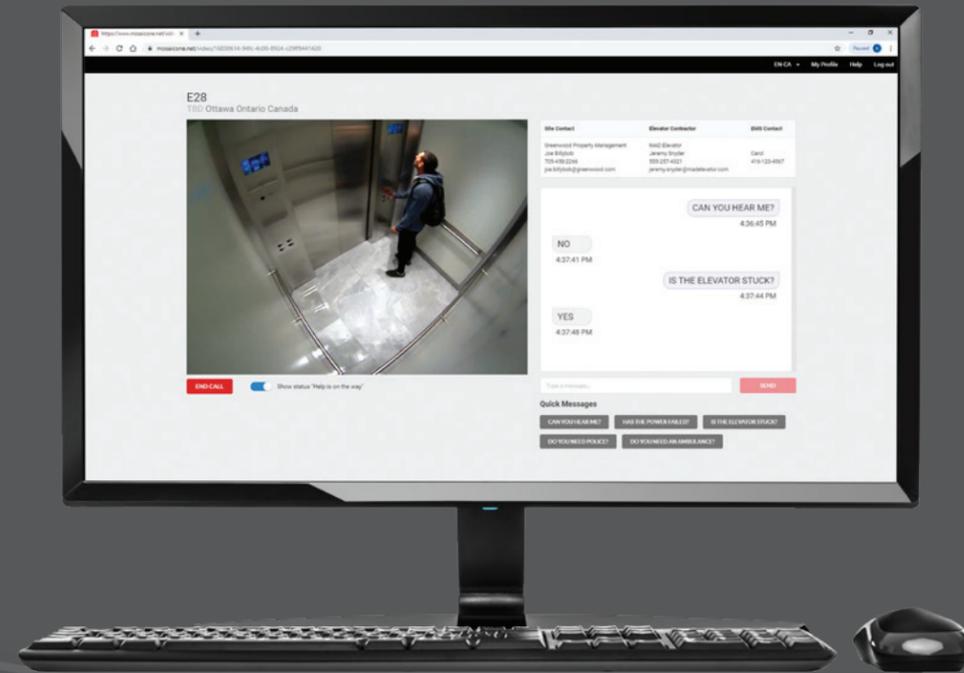
Premium Features

- MosaicONE Self Managed Digital Signage on same screen – or enable curated infotainment feeds to make it easy for the building to manage.
- Emergency Broadcast: post emergency messages on any screens within seconds to notify passengers of an emergency situation



How Users Interact with the System

1. A passenger places an emergency call by pressing the phone/help pushbutton.
2. Through the existing emergency phone system, a call is placed to the on-site attendant or monitoring station.
3. At the same time, a MosaicONE VMS tunnel is opened.
4. The attendant/monitoring station answers the phone and begins a verbal conversation with the passenger.
5. If the passenger does NOT respond, the attendant/monitoring station can visually confirm if there is a passenger in the car, and that it was not an accidental button press.
6. If passenger is present and has not responded verbally, the attendant/monitoring station can try to communicate with them by posting messages on the Matisse position indicator.
7. Passengers can either respond verbally or by pressing door open/close pushbuttons to answer “yes” or “no”
8. If there is still no response (or unable to respond i.e. unconscious), with the visual confirmation of a passenger present, attendant/monitoring station can dispatch appropriate emergency personnel



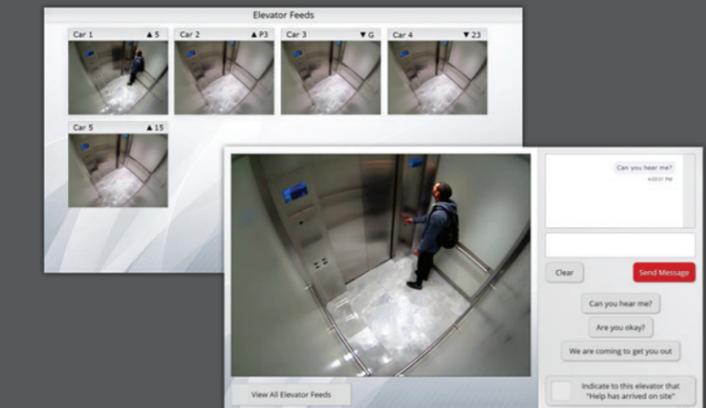
How the System Works

Offsite Monitoring

- The system monitors the phone/help button through a second contact
- When the passengers press the button, the system sees the “press” and a call is created in the MosaicONE Cloud (and locally on the Local Communication Panel)
- MosaicONE and the location communication panel show an incoming call request and waits for authorized personnel to answer – either locally on site or on MosaicONE.
- When the attendant/monitoring station Connects to the Call, an on-demand point to point encrypted connection is created between the monitoring station PC and the elevator. This can be done either through a predefined HTTPS link, or in MosaicONE call center portal page.
- Through this live connection, video and messages are transmitted between elevator and monitoring station.

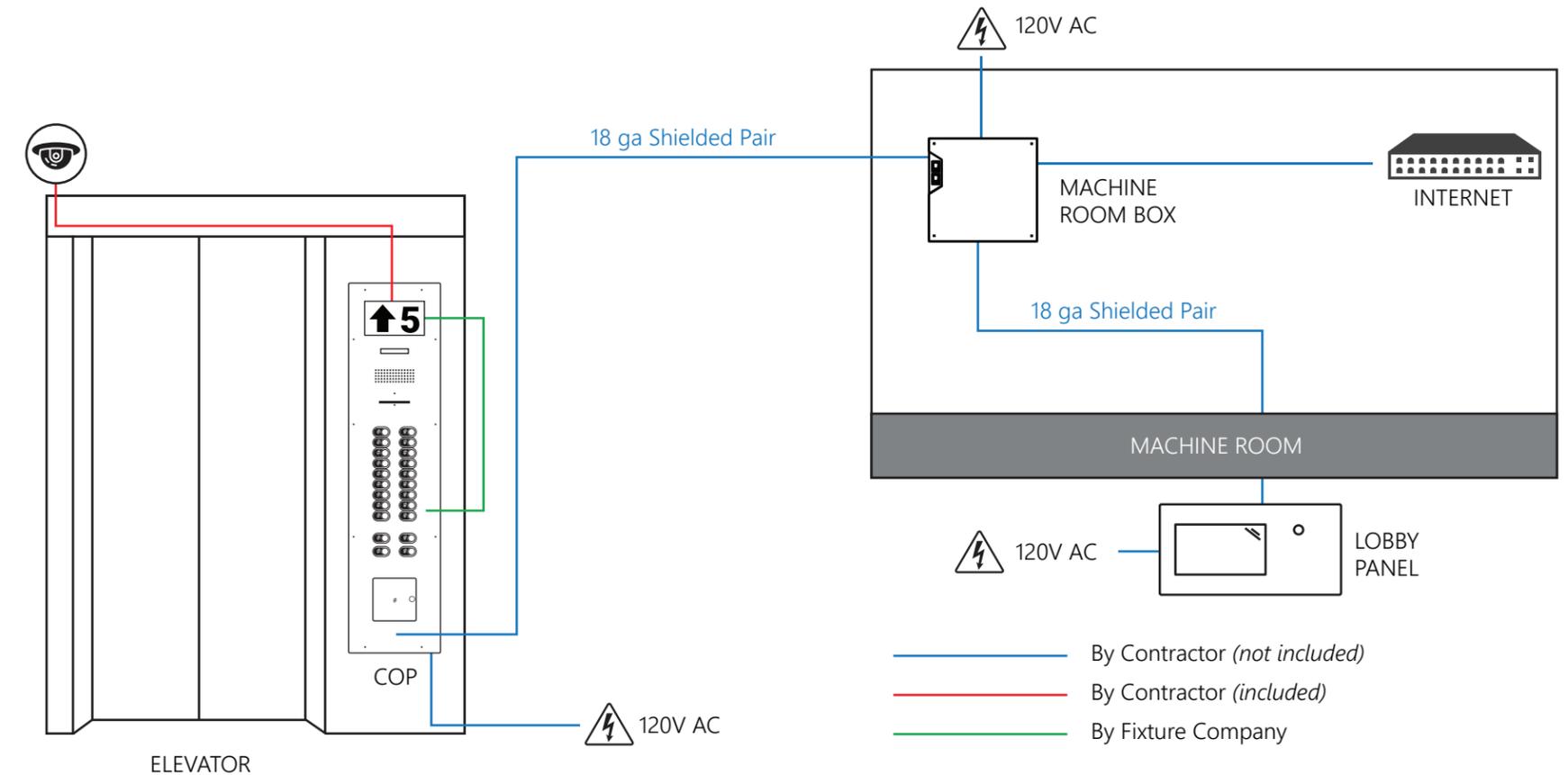
Onsite Monitoring

- Onsite personnel can access the system through a local interface for buildings taller than 60ft without external Internet connection
- Onsite personnel can view all elevators and interact via touchscreen when located at FCC or lobby location for Emergency Responders. Fireman can use system with gloved hand.
- Onsite Security location can interact via a dedicated computer
- Live video of all elevators is available to view at a glance to assess the entire situation quickly and efficiently. Selecting the elevator opens the communication screen.



System Components

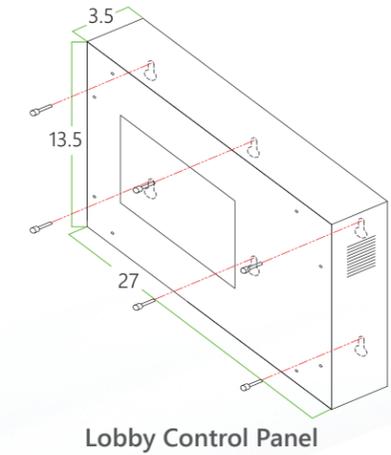
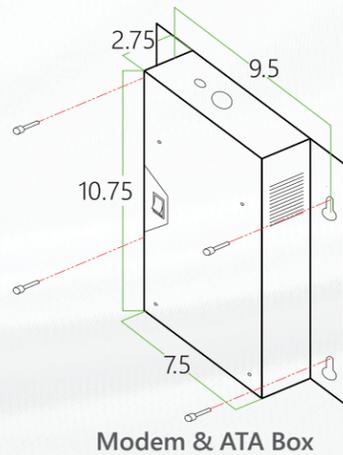
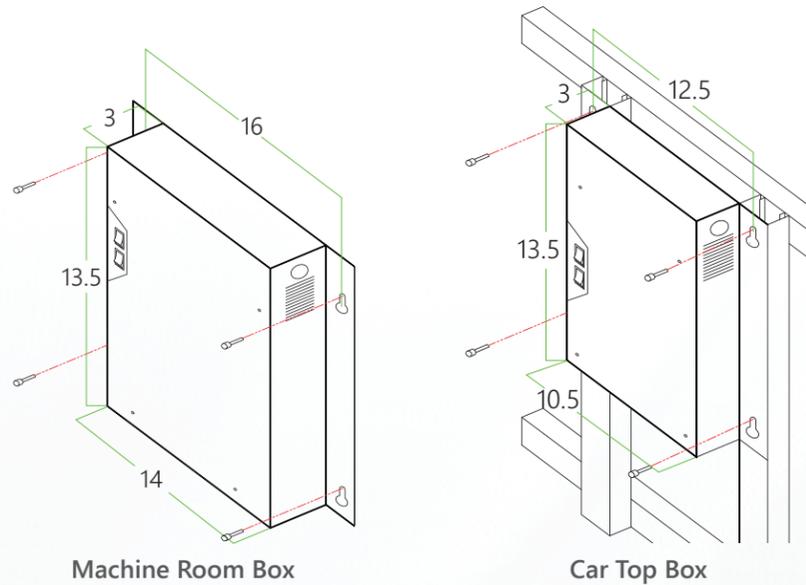
- **Machine Room Box** – The machine room box is the starting point of the VMS system. Housed inside is the Firewall (protecting the VMS system from outside penetration), Gateway (that manages the encrypted communication with monitoring stations), battery backup and where the internet is converted to run on a single twisted pair down the traveler up to 5,000 feet. One small prewired box can run entire groups of elevators.
- **COP Components** – Terminate a STP pair here to bring internet and communications to the car, as well as provide power and battery backup to your HD IP Camera and LCD Position Indicator / Message screen. Acts as a hub to bring communication and power to your devices in the car. Available in a COP Plate prewired assembly or a prewired Car Top Box depending on your needs.
- **Matisse LCD Position Indicator** - Mounting in the COP, this position indicator plays triple duty between Position Indicator, Digital Signage Screen and Emergency Communication Display showing text messages from the monitoring station. Available in different sizes and input formats allowing seamless compatibility with controller and side conditions.
- **Optional Emergency Communication Monitoring Board** - Located in the main egress hall station, this alarm board gives visual and audio notification of any system failure in addition to the audio line monitoring.
- **HD IP Camera** - With the option for COP or ceiling mount, Dome, or concealed camera, this captures the live video for the monitoring station. Optionally, share this camera with building Video/Security system to eliminate the need for 2 dome cameras in the elevator.
- **Door Open/Close Buttons** - Using the second contact or separate Yes/No buttons on COP, the passenger uses these to responding Yes & No to the monitoring station or local communication panel.
- **Lobby Panel/Local Communication Panel** - For jobs with over 60ft of travel, the code requires a communication panel for onsite emergency personnel to communicate with each elevator. This 15" touchscreen gives emergency responders a live video feed into every elevator, and the ability to communicate via text with the elevator. Optionally use Laptop instead of a 15" touchscreen panel, for desk locations with limited space.



Installation

Simple, Seamless, Superior. All inclusive, Plug and Play, Installation and commission of the MosaicONE VMS system is quick and mistake proof.

- Machine Room Box:**
 Mount the Machine Room Box using 4 bolts in the machine room or hoistway. Connections are only power (120VAC, 1A), internet (Cat5), and an 18ga shielded twisted pair to each elevator traveling cable and one to the local communication panel if applicable. The VMS system has its own firewall, so no special provision is needed for the internet connection.
- Car Top Box:**
 When space does not permit for mounting components inside the COP, Car Top Boxes are provided to be bolted to the canopy or car top railing. Connections are: power (120VAC, 600mA), 18ga shielded twisted pair from the traveler, 18 ga 12V power to the Matisse in the COP, and 2 Cat5 (included for camera and Matisse).
- Modem & ATA Box: (Optional)**
 The modem box should be mounted in the nearest location with a signal to the Machine Room Box. Provided antennas can be extended to achieve a good connection. Connections are only 18ga Power (12V) and Cat5 from the Machine Room Box. If optional VOIP is being used, an additional twisted pair from the phone line consolidator is required.



- Local Communication Panel:**
 The Local Communication Panel is available as a surface or flush mount, depending on onsite requirements. The connection is only power (120VAC, 3A) and the twisted pair from the machine room box.
- Line Monitoring Alarm Board: (Optional)**
 The Alarm board only requires 1 pair of wires from the machine room box.

System Commissioning

- After installation, the system needs to be commissioned to properly route any calls to the correct monitoring station. The MosaicONE VMS system has an auto commissioning process to facilitate an error-proof setup.
- When the system is powered on, it automatically detects displays and cameras. By turning on one car at a time, the system automatically groups them, removing the need to manually identify and select displays and cameras for each car.
- A unique ID will be displayed on Matisse Position Indicator in each elevator. Calling this ID into your selected monitoring station, with a few mouse clicks, the elevator is now assigned to them.



Note: A dedicated 120V circuit with disconnect is recommended for the system. The circuit will supply the Machine Room Box and each elevator Car Top Boxes.

Subscriptions

Offsite MosaicONE VMS Subscription

With traditional audio-only elevator emergency communication systems, the property owns the hardware and pays for the phoneline and the service of connecting the calls to a Telco. Software and computers were not required at each end.

To meet the code's requirements, not only does there need to be an internet connection, all systems require a cloud service, website, or 3rd party service to make the connection between the elevator and the answering agent's computer. This service, critical for communication functionality, is life safety and needs to be updated and functional for the life of the elevator.

The MosaicONE VMS License subscription ensures that our system is updated for security and functionality for the life of the elevator. It includes:

- Updates and Maintenance of Cloud servers
- Continuous privacy and security updates
- Updates to function with new client computers and browsers
- Constant monitoring for a 99% uptime

Onsite MosaicONE VMS

When the call answer/monitoring is done onsite, usage of MosaicONE Cloud is not required, therefore there is **no subscription required**. This option is for single buildings with 24/7 onsite security, **where the call is never going offsite**. The MosaicONE VMS system for onsite monitoring is a closed system, provided that the onsite personal use the Local Communication panel or dedicated onsite computer provided by MAD. As the system is not accessed by or connected to the outside world, the ongoing costs of maintenance, security updates, and compatibility do not apply. The equipment installed today is isolated from the world and will continue to work throughout the elevator's life.

Cellular Data Subscription (Optional)

Using the optional MAD cellular modem makes the installation simple and seamless, however introduces the complication of who provides the SIM card with the data plan. To complete the package, MAD will provide and manage the data plan and bill monthly with the license fee.

VOIP Phone Line Subscription (Optional)

An internet connection is already required for the video/text component of the job, why incur the cost of an analog telephone line? The MAD VOIP Phone Line subscription removes the need of the separate Telco phone line and provides the hardware, phone number and SIP Trunk to provide an equivalent phone line for analog elevator phones. All equipment is factory preprogrammed, adding no effort or labor in the field. Just plug and play.

Call Answer Service Subscription (Optional)

Contact Centers have been answering the elevators phones the same way for 20+ years. Despite the simplicity behind the system and how the calls are managed, the video/text aspect of an emergency call is something that has never been in place before. Contact Centers or Authorized Personnel need to be trained on how to identify elevators equipped with this technology, how to access video/text. Depending on your Contact Center and their capabilities they may not be interested in taking on this extra responsibility. That is why MAD has partnered with several Contact Centers that have already been setup and trained. Clients can contract direct with the center or if preferred can be contracted through MAD for simplicity.



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