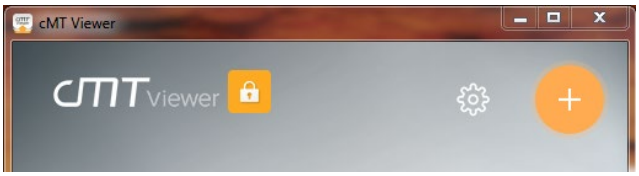
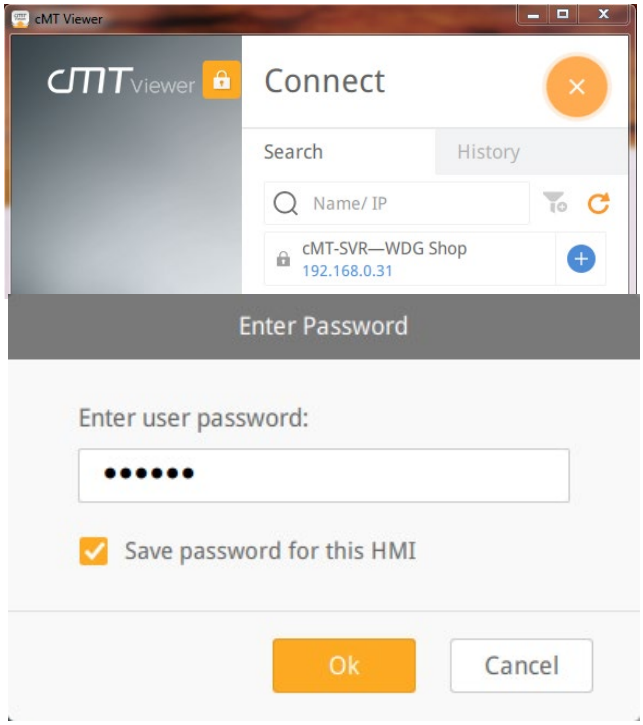
Apps required to use OnSite:

"cMT Viewer"is for local access. All devices expected to connect to the cMT-SVR-102 on the network's LAN must install "cMT Viewer" by Weintek. A quick search on the web or app store will bring this up. Install the app and make sure the device (computer, table, phone, etc) is connected by wire or WiFi to the same LAN as the cMT-SVR-102. Follow the step-by-step instructions below to access **OnSite™**.

- Once the app is installed, open it and press the plus sign.



- The cMT-SVR-102 should appear with a blue plus sign next to it. Press that plus sign and enter the password "121314". Or "111111"

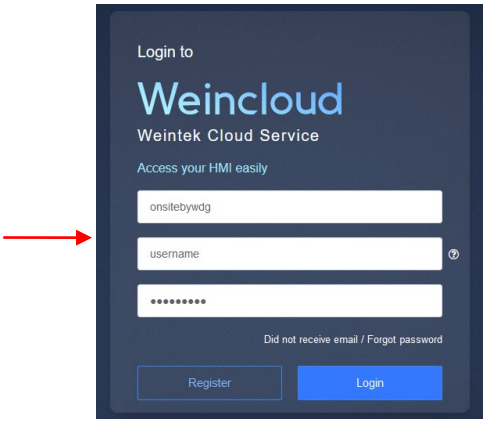


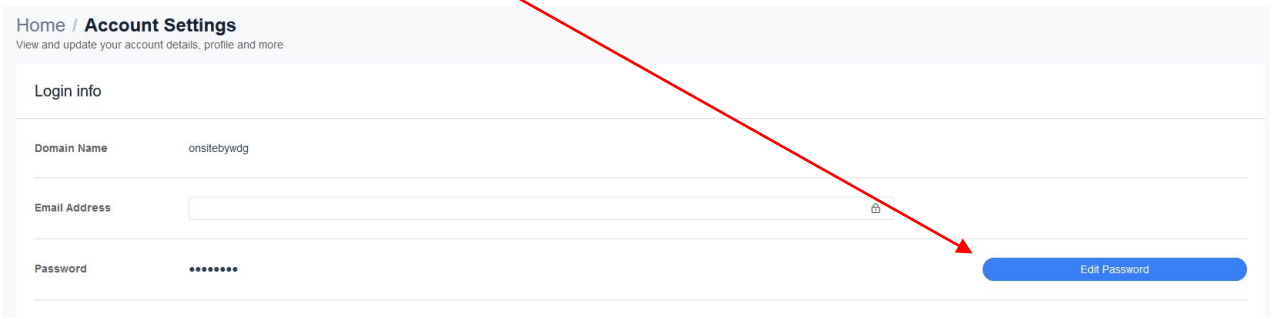
- The project file will download onto the device, and OnSite will appear.

"Easy Access 2.0" For connecting remotely via the Internet, users must install "Easy Access 2.0" by Weintek.

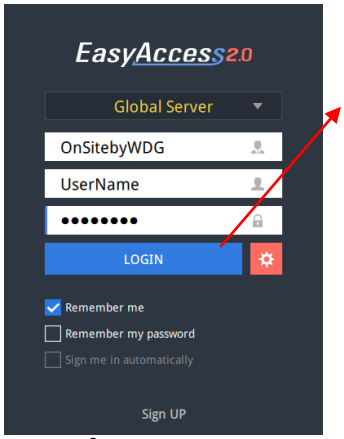
- Users will receive a password from Easy Access 2.0 after Wet Dog Glass sets up the account.
- Follow the instructions to complete E-mail registration confirmation.

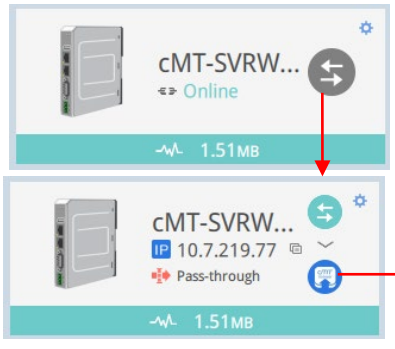
- After following directions to register the account, the user can then go to https://www.weincloud.net/login and click “User” to change the password. Use “OnSitebyWDG“ as the domain, and use the username and password you received. Groups of users can share a user name and password, or customers can request another user account be created by contacting Wet Dog Glass.



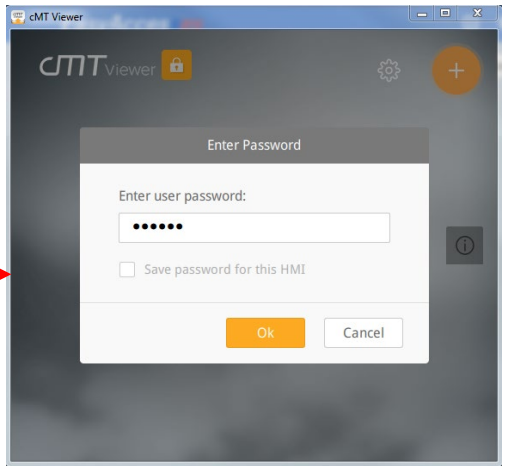


- Next, close this window and open the Easy Access 2.0 app and log in.
- When the app is opened, the cMT-SVR-102 will appear on the screen. Press the circle with two arrows in it to connect. Once the connection is made through the facility firewall, a small blue circle with the “cMT Viewer” icon will appear. Press that button and proceed to login through cMT Viewer as explained in the previous section.





OnSite™:

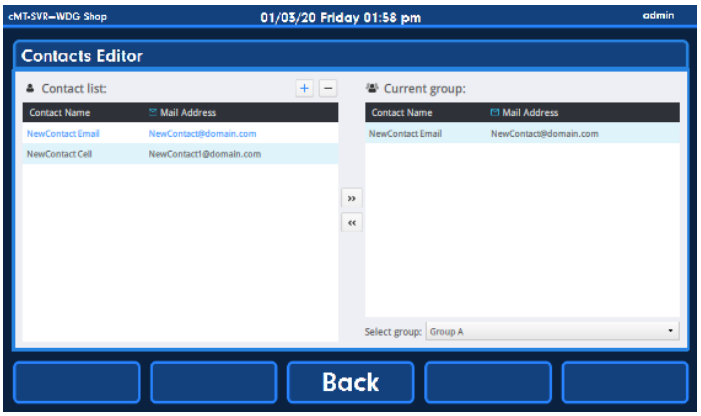


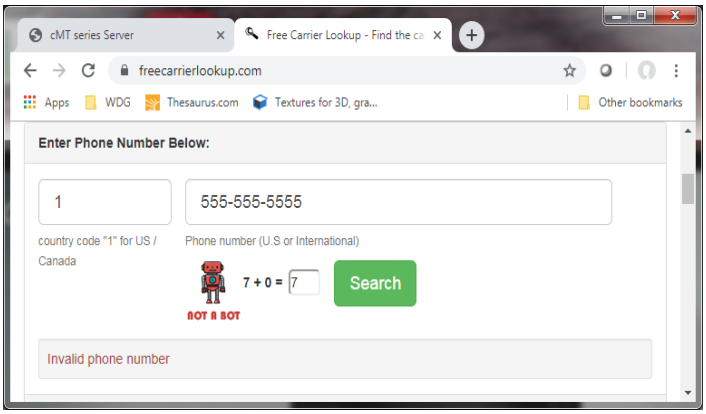
Finding Your Way:

Once connected to OnSite™, you will be able to click certain buttons without logging in. By logging in as either "Operator" with "2" as the password, or "Technician" with "3" as the password, you will be able to access additional areas based on that user access level. The service is designed to be intuitive, so spend some time familiarizing yourself with it, and you will see that you catch on quickly. If you are concerned about security of the user access levels, please login as Technician and change the passwords in the Menu/Passwords window.

Contacts Editor:

The Contact Editor is found in the Menu page. Administrators or other authorized users must set up contacts in order to receive alert messages by email and/or text. For text alerts, the recipient's SMS gateway address must be entered. A carrier lookup service like the example shown below can provide the SMS (Short Message Service) Gateway Address. The format will be similar to ##########@txt.att.com, with the 10 digit mobile telephone number followed by an "at" (@) sign, and the carrier's SMS gateway domain.

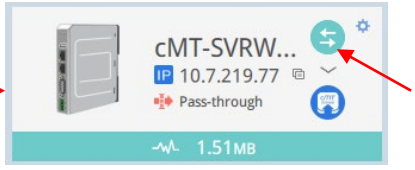




Remember:

Remember to disconnect in Easy Access 2.0, otherwise other users will be blocked. Close the cMT Viewer app and in Easy Access 2.0, click the circle with two arrows. Then close Easy Access 2.0.

Other users will see the message above and will be blocked if you don't disconnect, so……..



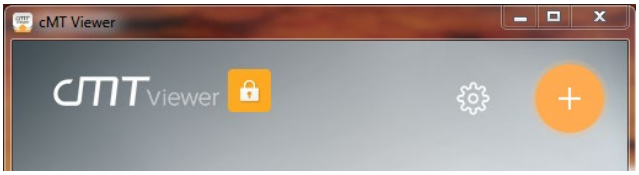
Click the circle with two arrows to disconnect.

User Local Access Instructions:

OnSite™ by Wet Dog Glass is a remote access system designed to monitor glass and ceramic heating equipment. Please download and install "cMT Viewer" and "Easy Access 2.0" by Wientek.

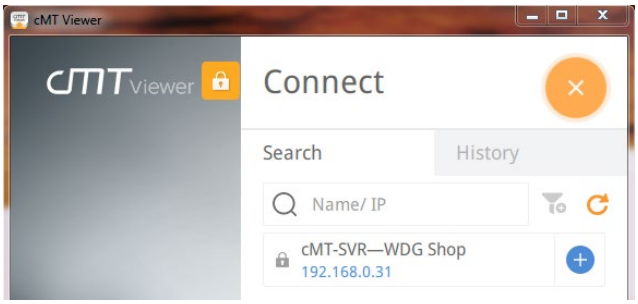
"cMT Viewer"is for local access. All devices expected to connect to the cMT-SVR-102 on the network's LAN must install "cMT Viewer" by Weintek. A quick search on the web or app store will bring this up. Install the app and make sure the device (computer, table, phone, etc) is connected

by wire or WiFi to the same LAN as the cMT-SVR-102. Follow the step-by-step instructions below to access **OnSite™**.

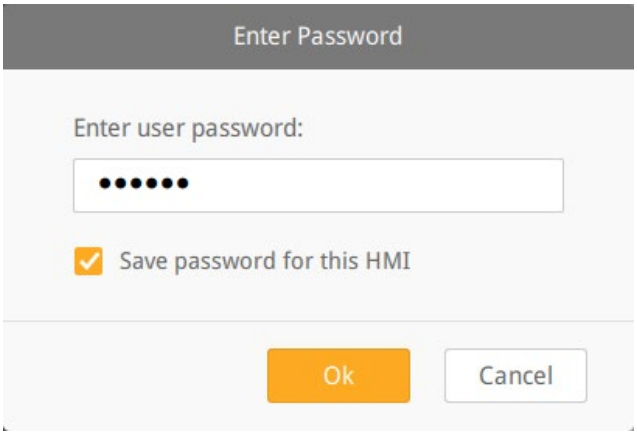


- Once the app is installed, open it and press the plus sign.

- The cMT-SVR-102 should appear with a blue plus sign next to it. Press the plus sign and enter the password provided to you.



- The project file will download onto the device, and OnSite will appear.

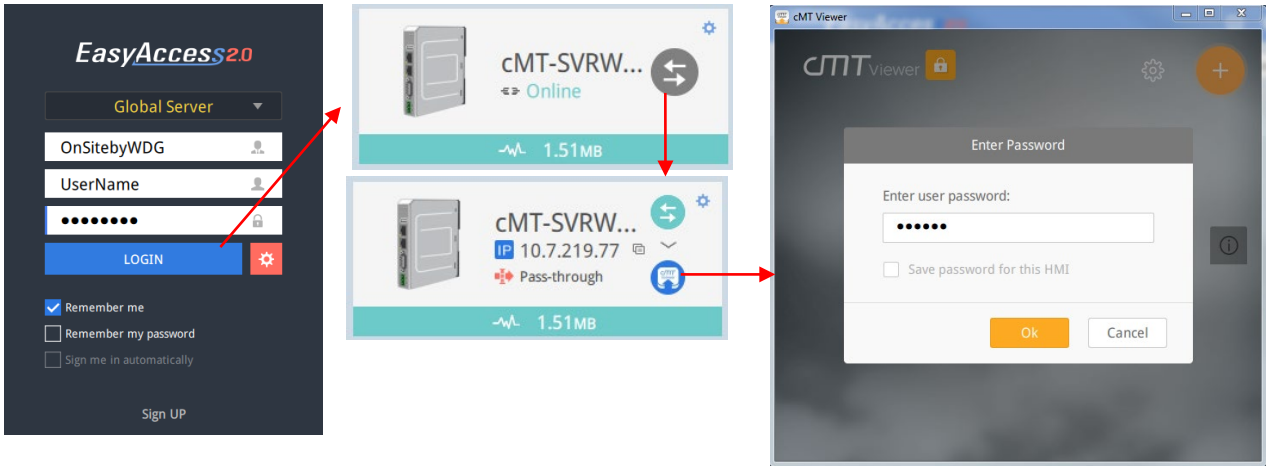


User Remote Access Instructions:

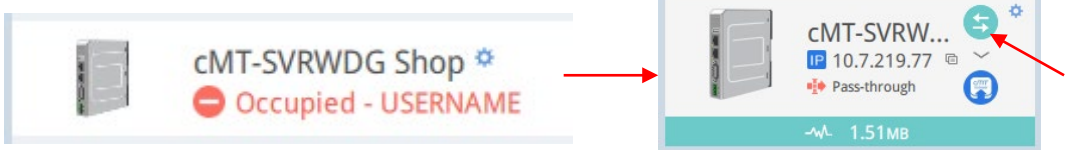
"Easy Access 2.0" To connect remotely via the Internet, users must install "Easy Access 2.0" by Weintek. A quick search on the web or app store will bring this up.

- Next, open the Easy Access 2.0 app and log in using the domain name, and the username and password provided to you by your organization's administrator (professor, grad student, technician, etc.).

- When the app is opened, the equipment server name will appear on the screen. Press the gray circle with two arrows in it to connect. Once the connection is made through the facility firewall, a small blue circle with the "cMT Viewer" icon will appear. Press that button and proceed to login through cMT Viewer as explained in the previous section.



- Remember to disconnect, otherwise other users will be blocked. Close the cMT Viewer app and in Easy Access 2.0, press the circle with two arrows. Then close Easy Access 2.0.



Other users will see the message above and will be blocked if you don't disconnect, so…….→

Click the circle with two arrows to disconnect.

Setup—Administrator

Installation: The cMT-SVR-102 remote server requires either a DIN rail to clip device onto or a back plate to bolt it to. Wiring requires a 24VDC/230mA power supply with ground, an Ethernet cable connecting the network's LAN to "Ethernet 1", and a second Ethernet cable connecting the client device, such as a temperature controller, to "Ethernet 2". If more than one client device must be connected, an Ethernet switch must be used between Ethernet 2 and the devices. See Figure 1.

Network Security:
Most low security level routers will not require service IP information, but if it does, use one or more of the following options. Reboot the router if necessary to "hard set" these settings.

54.171.161.211 443/tcp account.ihmi.net
54.238.174.31 443/tcp auth.ihmi.net
13.114.36.115 443/tcp 443/udp japan.wvpn.ihmi.net
34.253.91.245 443/tcp 443/udp ireland.wvpn.ihmi.net
13.56.221.131 443/tcp 443/udp us.wvpn.ihmi.net

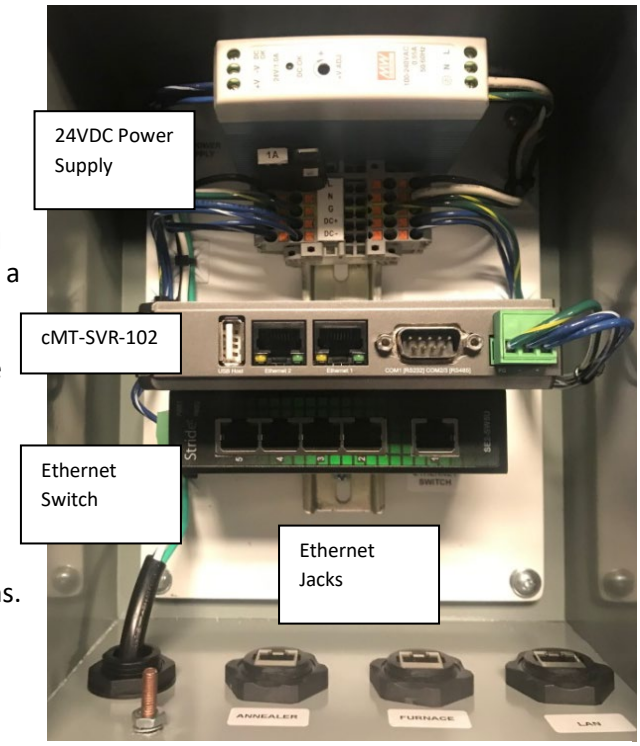
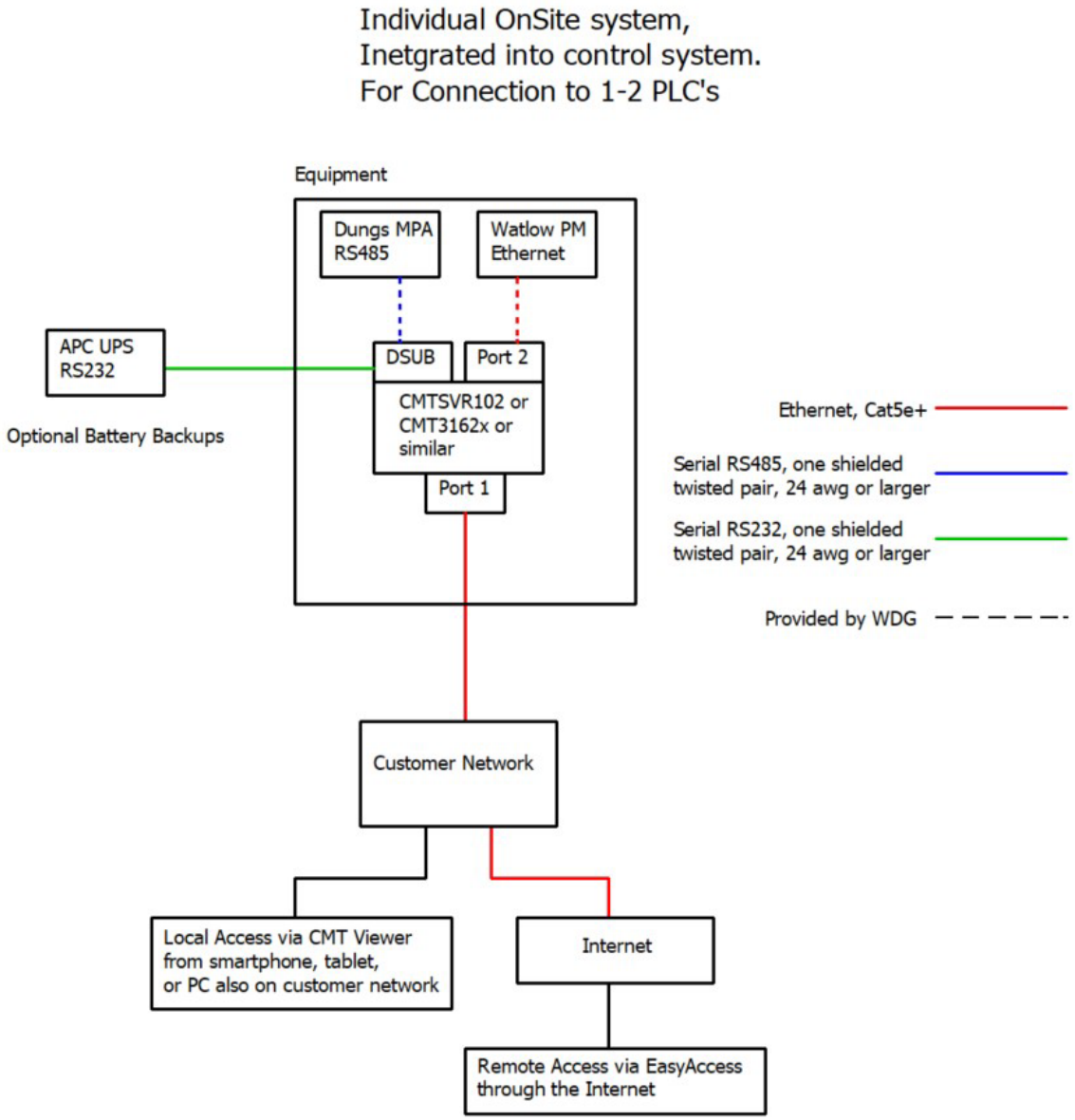


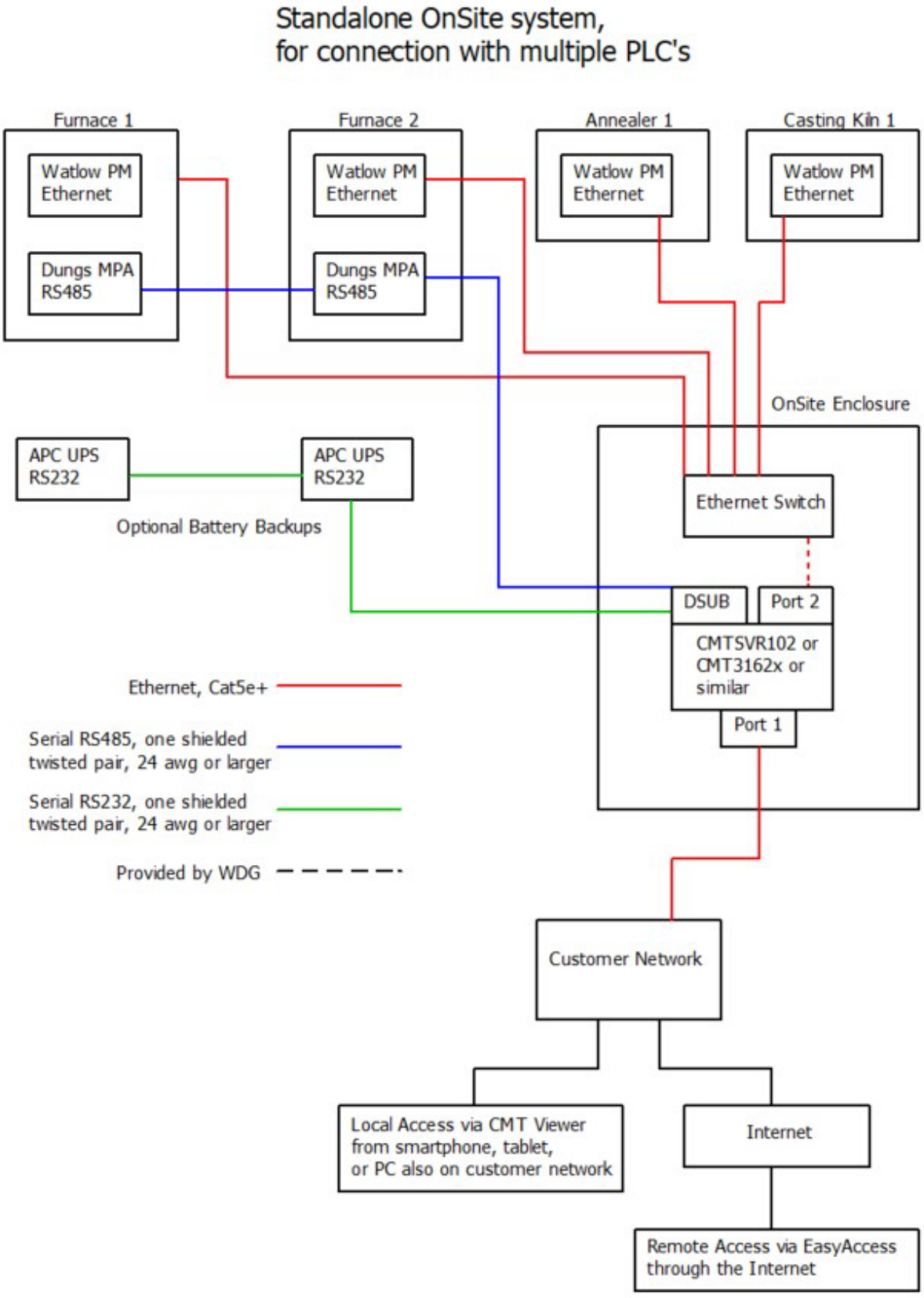
Figure 1. 24VDC power supply is located at top, with cMT-SVR-102 and Ethernet switch below. CAT6 cables will connect the Ethernet switch ports to the equipment Ethernet jacks at the bottom of the enclosure.

Example Network Map. PLC's (such as Watlow controllers, EPack, MPA) that the CMT communicates with are on an internal network(s) hosted by the CMT. The PLC's should not be connected directly to the customer's network. PLC's connect to the CMT, and the CMT connects to the customer's network.

Network types may include Ethernet, RS232 and RS485. RS232 and RS485 networks must not intersect. PLC's in the RS232 and RS485 networks are daisy-chained device to device, and then to the CMT. Any number of serial devices can be added to this daisy-chain in series. Cables should be run to minimize total distance.

Plugs for Serial wiring are provided by WDG. Customer must provide serial wiring from control panel to control panel as required by their system. Internal ethernet connections are provided by WDG. Customer must provide ethernet connections between equipment and HMI, and the HMI and network.




Standalone OnSite system,
for connection with multiple PLC's
Furnace 1
Watlow PM Ethernet
Dungs MPA RS485
Furnace 2
Watlow PM Ethernet
Dungs MPA RS485
Annealer 1
Watlow PM Ethernet
Casting Kiln 1
Watlow PM Ethernet
OnSite Enclosure
APC UPS RS232
APC UPS RS232
Optional Battery Backups
Ethernet Switch
DSUB
Port 2
CMTSVR102 or CMT3162x or similar
Port 1
Ethernet, Cat5e+
Serial RS485, one shielded twisted pair, 24 awg or larger
Serial RS232, one shielded twisted pair, 24 awg or larger
Provided by WDG
Customer Network
Local Access via CMT Viewer from smartphone, tablet, or PC also on customer network
Internet
Remote Access via EasyAccess through the Internet

Usernames, Passwords, and IP Addresses:
All usernames, passwords and IP Addresses required will be found in the "OnSiteClient User/Password/PLC Table" provided by Wet Dog Glass. The last octet in each IP Address will be unique, and thus is represented by a blank line below.

Configuring Temperature Controllers: Each temperature controller needs its IP Address configured to match the address stored in the cMT-SVR-102. If your controller has shipped to you from Wet Dog Glass, LLC, it is most likely already configured. Otherwise, please follow instructions below for your controller model:

Watlow PM:

- Press and hold up and down simultaneously for 6 seconds to go to "Ai/SEt". If you let go before reaching Ai/Set, press Reset and start over.
- Press up once or twice to CoM/Set.
- Press Advance (Green Key) to 1/CoM, then up to 2/CoM.
- Press Advance a to ____/M.hL and press up or down to set this to Lohi.
- Press Advance to____/iP.M, and set this to F.Add.
- Press Advance to ____/iP.F1 and begin entering the octets of the IP Address by pressing up or down.
- Press Advance after entering each octet. As you advance through, you will enter 192,168,100,___; 255,255,255,0; 192.168.100.1. (For CMT's wired to a single controller, the ___ will likely be 2)
- Eventually you will see ___/Mb.E. Set this to YES.
- Press Advance and set EiP.E to YES
- Press Advance a few times to arrive at ___/MAP, and set this to 2.
- Press Reset 3 times to get back to the home page.
- Cycle power to the Watlow controller to set the new IP Address.

Figure 2. Watlow PM Temperature Controller

Watlow F4T:

- From the Home Page, press Menu (an icon with four horizontal lines)
- Login with the Maintenance User Password (MUP)
- Press Settings, then Network, then Ethernet
- Change IP Address Mode to "Fixed"
- Scroll down and begin entering the octets of the IP Address by clicking in the numeric entry fields at right.
- Enter 192,168,100,___; 255,255,255,0; 192.168.100.1.
- Set Modbus Display Units to "F"
- Set Modbus TCP Enable to "On"
- Set Modbus word order to" Low High"
- Set Modbus Data Map to "1"
- Press the "Home" icon to get back to the home page.
- Cycle power to the Watlow controller to set the new IP Address.

Figure 3. Watlow F4T Temperature Controller

HMI Serial Pin Assignments:

Model: cMT-SVR 100/102				
COM1 [RS232], COM2/COM3 [RS485] 9 Pin, Male, D-sub				
PIN#	COM1 [RS232]2W	COM2 [RS485]		COM3 [RS485]2W
		2W	4W	
1				Data+
2	RxD			
3	TxD			
4				Data-
5	GND			
6		Data+	Rx+	
7		Data-	Rx-	
8			Tx+	
9			Tx-	

Model: cMT3162x						
Connector B: COM1/COM3 [RS232] 9 Pin, Male, D-sub			Connector A: COM1/COM3 [RS485] 9 Pin, Female, D-sub			
PIN#	COM1 [RS232]4W	COM3 [RS232]2W	PIN#	COM1 [RS485]2W	COM1 [RS485]4W	COM3 [RS485]2W
1			1	Data-	Rx-	
2	RxD		2	Data+	Rx+	
3	TxD		3		Tx-	
4			4		TX+	
5	GND		5	GND		
6			6			Data-
7	RTS	TxD	7			
8	CTS	RxD	8			
9	GND		9			Data+

Battery (APC SRT-**XLA) Protocol and Comms**

Protocol: Modbus RTU, RTU over TCP
Serial: RS232
COM: For cMT-SVR100/102, use COM1 (9600,N,8,0). For cMT-3162x, use COM3 (9600,N,8,0)
Station: Station No. 1
The jack in the UPS is a 10 pin RJ45 (aka RJ50), but it's acceptable to use an 8 pin RJ45 connector.

Pin Number (RJ50)	Pin Number (RJ45)	Pin Name	Description
2	1	TxD	Transmit
4	3	Frame GND	Chassis Ground
7	6	GND	Signal Ground
8	7	RxD	Receive

Dungs MPA:

Serial: RS485
Female M12 Connector to HMI, Use Pin 4 for Data+ and Pin 2 for Data-
Male M12 Connector to daisy chain multiple MPAs (Male to Female), Use Pin 4 for Data+ and Pin 2 for Data-.