



NETWORK ALL YOUR HVAC EQUIPMENT

Monitor, update and control System Information through BACnet-IP

Centralized DDC Communications for
Stand-Alone HVAC and Zoned Modulating Systems



GATEWAY CONFIGURATION MANUAL

PART # GATEWAY
NOV 2024

Configuration of the GATEWAY should be performed **ONLY** after the GEN X system has been:

1. Completely installed and working.
2. Configured with a static IP address.
3. Both the GEN X's & RM's (if applicable) Daily Schedules set to 24/7 (always occupied) operation.

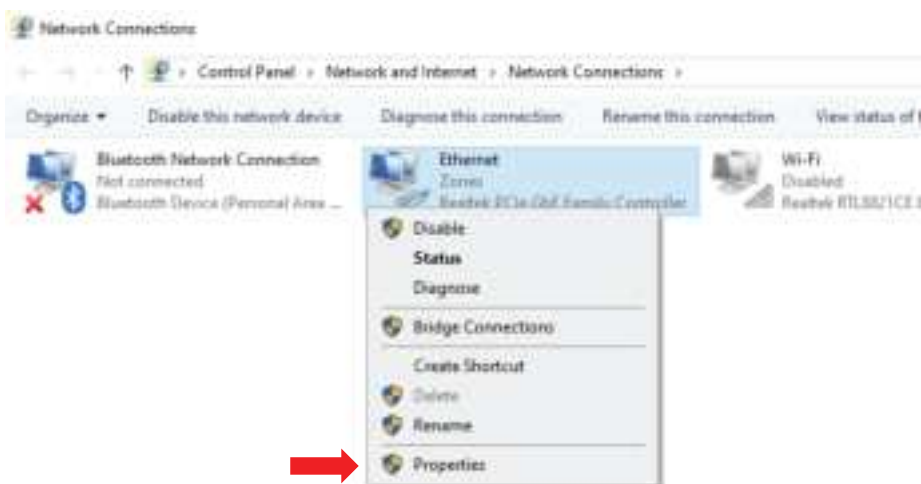
See the GEN X's Installation and Operation manual for more details on how to configure a static IP address or daily scheduling.

The following steps **MUST** be completed in order.

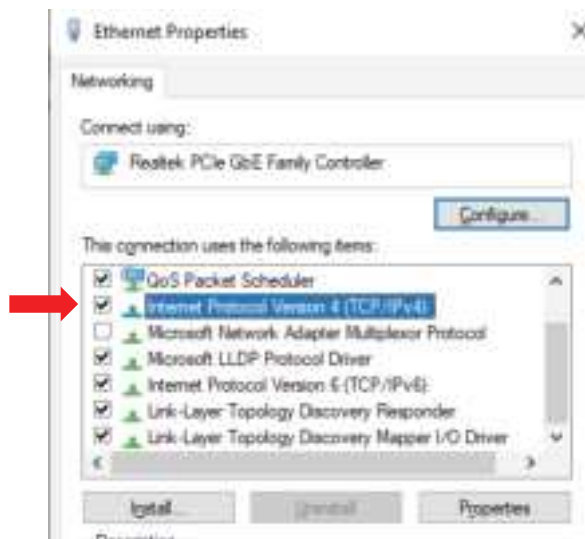
To access and setup the GATEWAY an Ethernet cable must be connected between it and the PC.



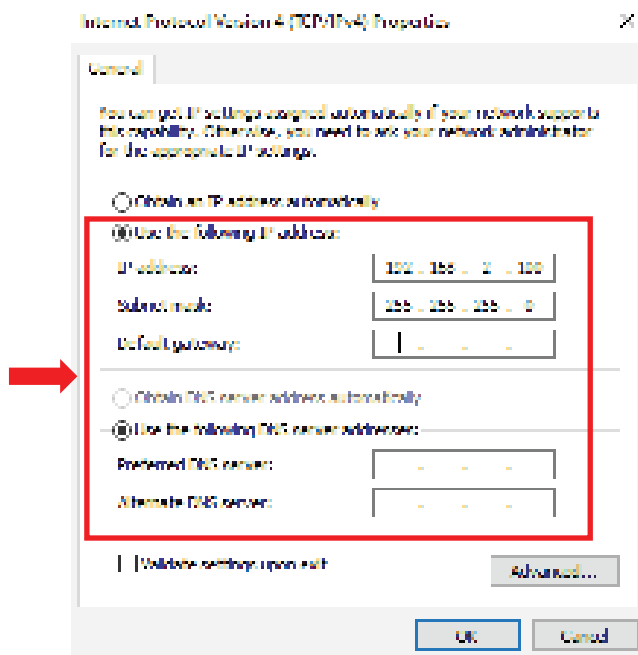
Go to the PC's Network Connections, disable the Wi-Fi adapter (right click on select disable), right click on the Ethernet and click on Properties:



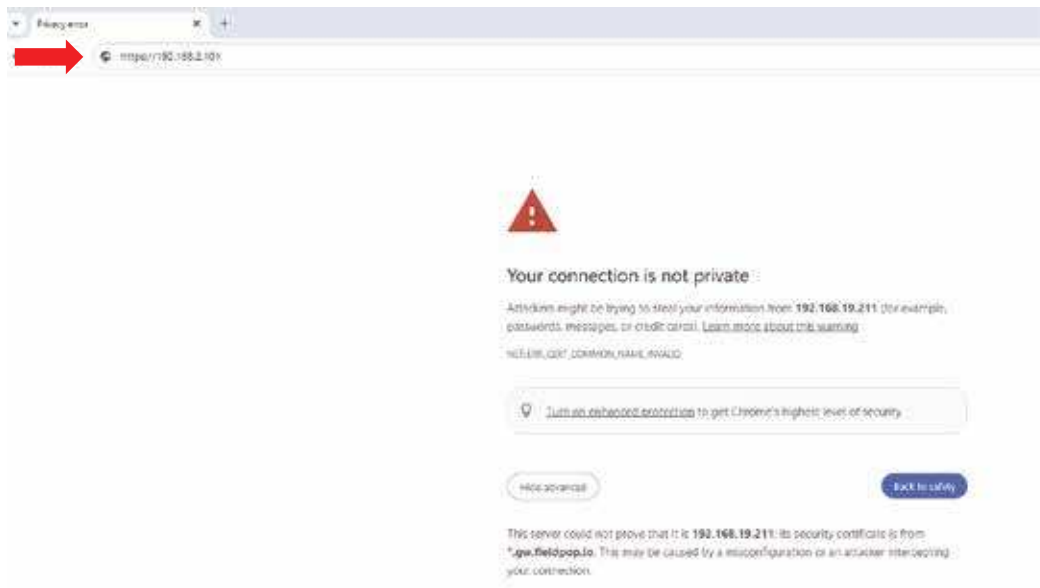
Click on Internet Protocol Version 4 and then click the Properties button:



Click on Use the following IP address: radio button, in the IP address field enter 192.168.2.100, Subnet mask 255.255.255.0, leave the other fields blank and click the OK button:



Open up a web browser and in the address bar type in the GATEWAY's default IP address **192.168.2.101** and proceed.

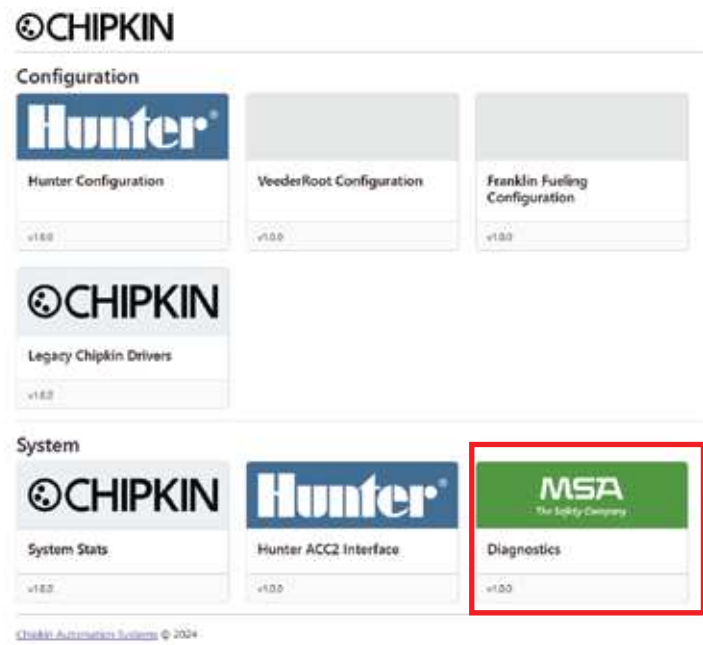


The default username is **admin** and the default **password** is printed on the bottom of the GATEWAY

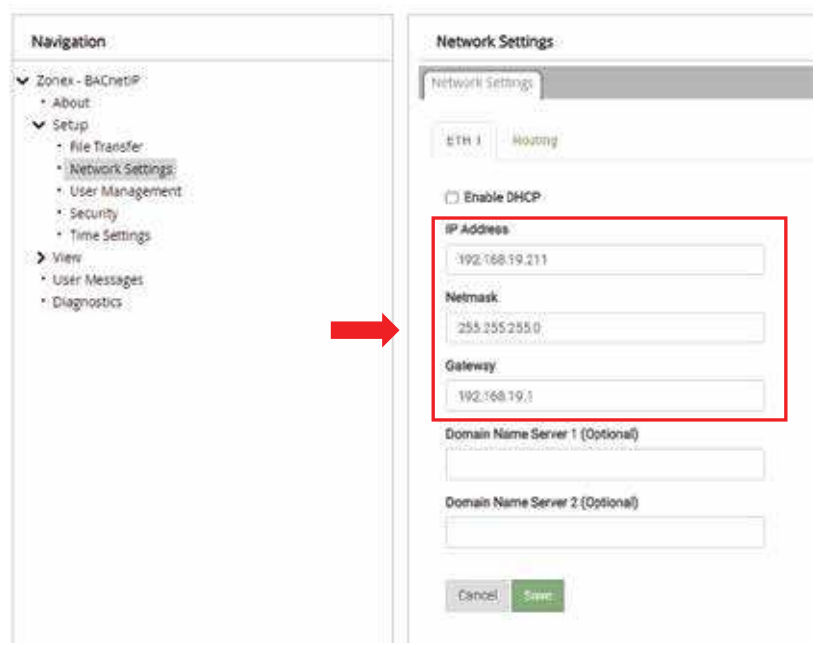
Log In

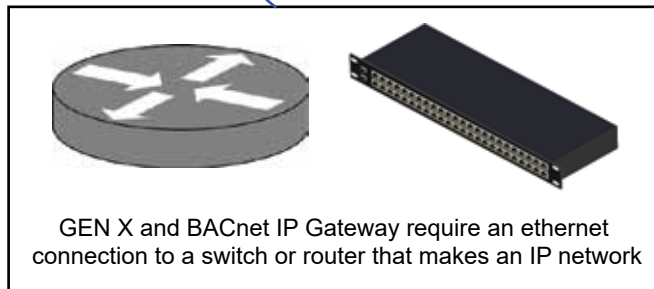
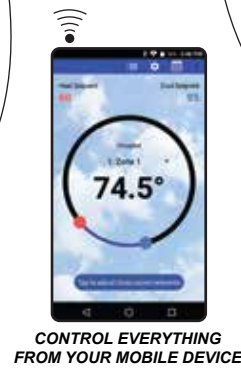
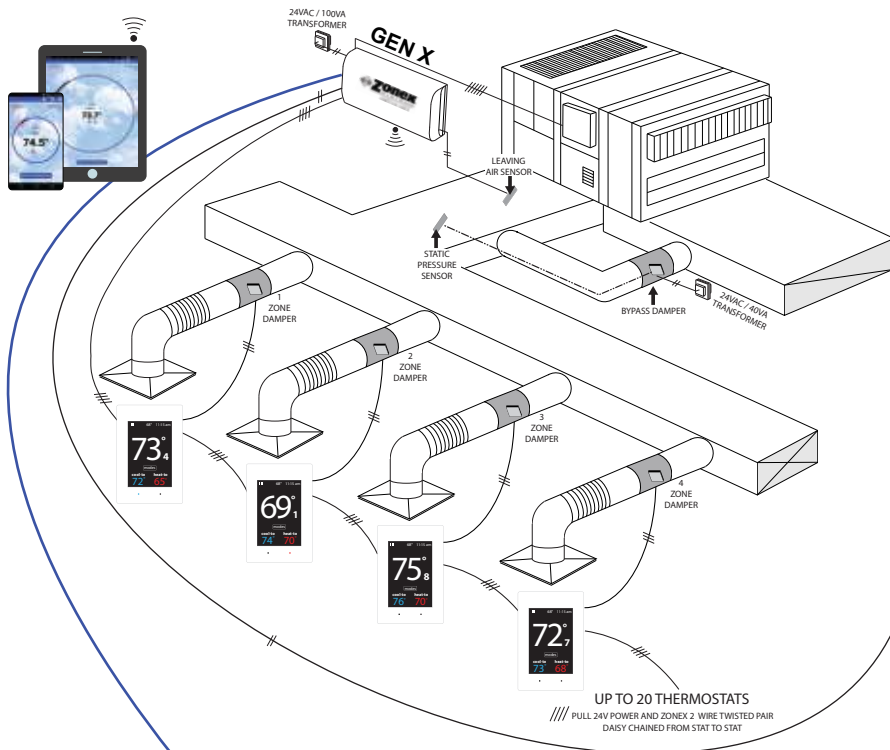
[Forgot Password?](#)

To set a new static IP for the GATEWAY or enable DHCP scroll down and click on the Diagnostics card:



Click on the Setup and then Network Settings. Enter your static IP Address information and then click the Save button. The new IP settings will take effect immediately and you will be logged out of the GATEWAY.

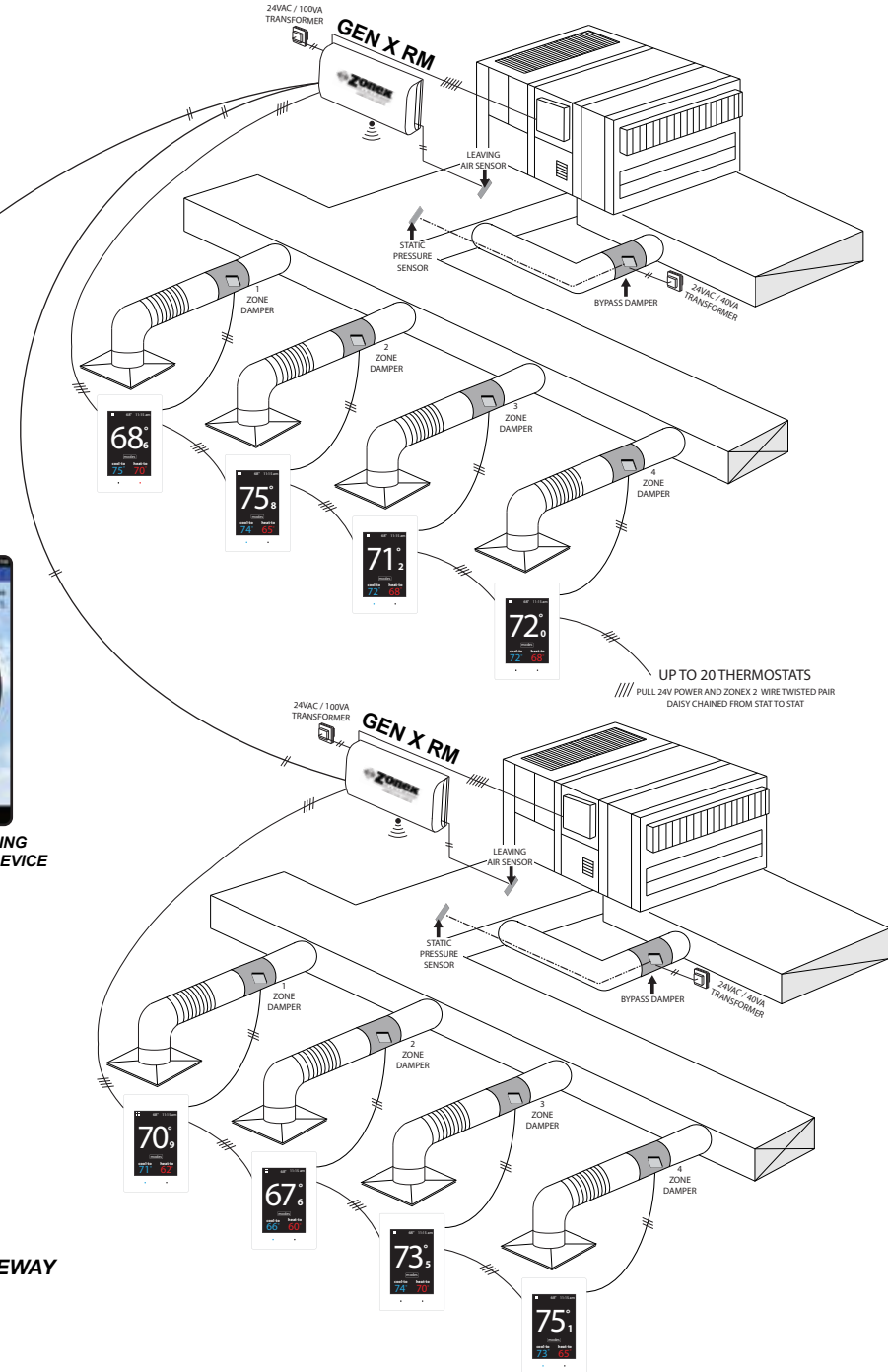




NOTE: NEED ZONEX QUICKSERVER FOR BACnet IP COMMUNICATION
NOTE: USE ZONEX, 2 WIRE TWISTED PAIR COMMUNICATION LINK



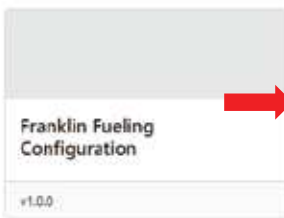
ZONEX BACnet IP GATEWAY



The GATEWAY must be connected to the same subnet as the GEN X system and powered on before **continuing**. Next, to configure communication between the GATEWAY and the GEN X connect the GATEWAY, GEN X and a PC to the network. Enter the GATEWAY's new IP address into the address bar of your browser and log back in. Then click on the Zonex Configuration card.



Configuration



Enter the GEN X's IP address in the URL field in the following format: <http://xxx.xxx.xxx.xxx/> (the x's represent the GEN X's IP address) and click the Save Configuration button.



Zonex Configuration

Zonex Parameters

Url

Read Interval

Write Interval

<http://192.168.1.100/>

30

5

BACnetIP Configuration

Adapter

Port

Node ID

COV Enable

N1

47808

389001

☐

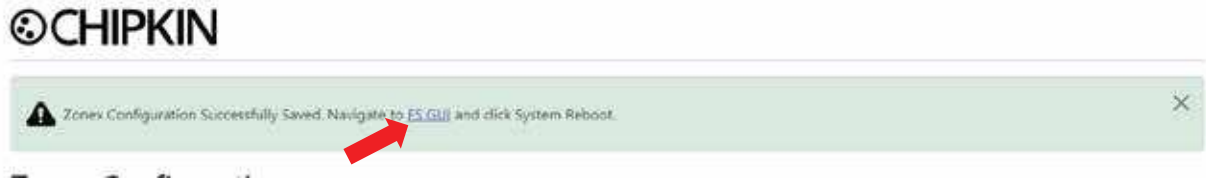
Save Configuration

Below is a brief explanation of the fields found on the Zonex Configuration page:

Name	Description	Value Ranges
URL	Enter the GEN X's static IP address in this field	Must be in format of http://xxx.xxx.xxx.xx/ (where the x's represent the GEN X's static IP address).
Read Interval	How often the QuickServer polls the GEN X system for data (in seconds).	1-3600, 30
Write Interval	How often data vaues are written to the GEN X system when data has changed via BACnet IP (in seconds).	1-3600, 5
Adapter	The physical media that the Quickserver uses to connects to the BACnet IP network.	N1 , the ETH Ethernet port only. (No option for MS/TP)
Port	The UDP port for BACnet IP	47808
Node ID	The BACnet IP Device Identifier for the FieldServer .	0-4194302; 389001
COV Enable	Enables or disables COV (Change of Value) for the QuickServer.	Checked = enabled, Unchecked = disabled

Values in bold are defaults.

Click on the FS GUI link.



On the next page click on the System Reboot button. Then click the OK button.



The SS LED on the front of the GATEWAY will go solid green, then turn off and then flash steadily when it is ready to communicate. You may now attempt to discover the GEN X system on your network (should display as **ZonexGateway**).

GATEWAY - GEN X & RMs BACnet IP Objects

The following table contains the BACnet IP Objects generated in the Meta-Configurer. The configuration uses the BACnet Object Instance of the objects to sort the objects.

Supported Object Types:
 AI = Analog Input
 AV = Analog Value
 BI = Binary Input
 BV = Binary Value
 MI = Multi-State Input
 MV = Multi-State Value

Note: Depending on the configuration of the Zonex devices, there can be a large amount of generated BACnet objects which could cause the discovery of this BACnet IP device to take a long time.

Name	Description	Object Type	Object Instance	Notes
System Diagnostic Data Points				
Genx_SysDiag_Leaving Air	GEN X's Leaving air temperature sensor	AI	0	Displays in Fahrenheit ONLY
Genx_SysDiag_Return Air	GEN X's Return air temperature sensor	AI	1	Displays in Fahrenheit ONLY
Genx_SysDiag_Outside Air	GEN X's Outside air temperature sensor	AI	2	Displays in Fahrenheit ONLY
GenX_SysDiag_Stat1 Comm Status	Communication status of thermostat #1	MI	3	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat2 Comm Status	Communication status of thermostat #2	MI	4	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat3 Comm Status	Communication status of thermostat #3	MI	5	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat4 Comm Status	Communication status of thermostat #4	MI	6	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat5 Comm Status	Communication status of thermostat #5	MI	7	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat6 Comm Status	Communication status of thermostat #6	MI	8	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat7 Comm Status	Communication status of thermostat #7	MI	9	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat8 Comm Status	Communication status of thermostat #8	MI	10	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat9 Comm Status	Communication status of thermostat #9	MI	11	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat10 Comm Status	Communication status of thermostat #10	MI	12	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat11 Comm Status	Communication status of thermostat #11	MI	13	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat12 Comm Status	Communication status of thermostat #12	MI	14	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat13 Comm Status	Communication status of thermostat #13	MI	15	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat14 Comm Status	Communication status of thermostat #14	MI	16	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat15 Comm Status	Communication status of thermostat #15	MI	17	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat16 Comm Status	Communication status of thermostat #16	MI	18	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat17 Comm Status	Communication status of thermostat #17	MI	19	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat18 Comm Status	Communication status of thermostat #18	MI	20	Communication OK = 1 Communication Error = 2
GenX_SysDiag_Stat19 Comm Status	Communication status of thermostat #19	MI	21	Communication OK = 1 Communication Error = 2

GenX_SysDiag_Stat19 Comm Status	Communication status of thermostat #20	MI	22	Communication OK = 1 Communication Error = 2
Genx_SysDiag_AC Status	Operating mode of HVAC unit requested by GEN X controller	MI	23	Off = 1 Vent = 2 Cool = 3 Heat = 4 Changeover = 5 Air balance = 6
Genx_SysDiag_FDD/ADR	FDD alert from unit's economizer ADR (Automated Demand Response) triggered.	MI	24	No alert = 1 FDD alert = 2 ADR = 3 FDD & ADR = 4
GEN X - System Configuration Data Points				
GenX_SysCon_Fan Mode	GEN X's indoor blower mode of operation.	BV	30	Active = On Inactive = Auto
GEN X - Thermostat ID Data Points # represents the thermostat ID number attached to GENX (1-20)				
Genx_StatDataID#_LockStatus	Limits or prevents users from making changes at a thermostat.	MV	#000	Unlock = 1 Lock +/- 2 Degrees = 2 Lock = 3 (no changes can be made)
Genx_StatDataID#_CurrentRoomTemperature	Current room temperature for that thermostat.	AI	#001	Displays in Fahrenheit ONLY
Genx_StatDataID#_OccupiedCool	Cool set point	AV	#002	Displays in Fahrenheit ONLY
Genx_StatDataID#_OccupiedHeat	Heat set point	AV	#003	Displays in Fahrenheit ONLY
Genx_StatDataID#_PriorityVote	Add or subtract votes from a thermostat	AV	#004	0, 1, 2, or 3 votes
Genx_StatDataID#_ZoneStatus	Indicates if the zone is Off, heating, or cooling. Vent applies to VFR-VAV systems only.	MV	#005	Off = 1 Vent = 2 Cool = 3 Heat = 4
Genx_StatDataID#_ZoneCall	Indicates if the zone is Off, calling for heat, or calling for cooling. Vent applies to VFR-VAV systems only.	MV	#006	Off = 1 Vent = 2 Cool = 3 Heat = 4
Genx_StatDataID#_AutoMode	Thermostat's mode of operation	MV	#007	Off = 1 Auto on (heat/cool) = 2 Cool only = 3 Heat only = 4
Genx_StatDataID#_StatType	Type of thermostat.	MI	#008	EZTouchX = 5 SATouch = 6
Genx_StatDataID#_LeavingAir	Temp sensor connected to thermostat	AI	#009	Displays in Fahrenheit ONLY
Genx_StatDataID#_ADR	Enables or disables Automated Demand Response (ADR) for this thermostat.	BV	#010	Active = Enable Inactive = Disabled
RMD Data Points # represents the RM ID number (1-20)				
RM#_RMD_Leaving Air	RM #'s Leaving air temperature	AI	#00000	Displays in Fahrenheit ONLY
RM#_RMD_Return Air	RM #'s Return air temperature	AI	#00001	Displays in Fahrenheit ONLY
RM#_RMD_Stat1 Comm Status	Communication status of thermostat #1 on RM#	MI	#00002	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat2 Comm Status	Communication status of thermostat #2 on RM#	MI	#00003	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat3 Comm Status	Communication status of thermostat #3 on RM#	MI	#00004	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat4 Comm Status	Communication status of thermostat #4 on RM#	MI	#00005	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat5 Comm Status	Communication status of thermostat #5 on RM#	MI	#00006	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat6 Comm Status	Communication status of thermostat #6 on RM#	MI	#00007	Communication OK = 1 Communication Error = 2

RM#_RMD_Stat7 Comm Status	Communication status of thermostat #7 on RM#	MI	#00008	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat8 Comm Status	Communication status of thermostat #8 on RM#	MI	#00009	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat9 Comm Status	Communication status of thermostat #9 on RM#	MI	#00010	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat10 Comm Status	Communication status of thermostat #10 on RM#	MI	#00011	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat11 Comm Status	Communication status of thermostat #11 on RM#	MI	#00012	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat12 Comm Status	Communication status of thermostat #12 on RM#	MI	#00013	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat13 Comm Status	Communication status of thermostat #13 on RM#	MI	#00014	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat14 Comm Status	Communication status of thermostat #14 on RM#	MI	#00015	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat15 Comm Status	Communication status of thermostat #15 on RM#	MI	#00016	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat16 Comm Status	Communication status of thermostat #16 on RM#	MI	#00017	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat17 Comm Status	Communication status of thermostat #17 on RM#	MI	#00018	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat18 Comm Status	Communication status of thermostat #18 on RM#	MI	#00019	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat19 Comm Status	Communication status of thermostat #19 on RM#	MI	#00020	Communication OK = 1 Communication Error = 2
RM#_RMD_Stat20 Comm Status	Communication status of thermostat #20 on RM#	MI	#00021	Communication OK = 1 Communication Error = 2
RM#_RMD_AC Status	Operating mode of HVAC unit requested by RM # controller	MI	#00022	Off = 1 Vent = 2 Cool = 3 Heat = 4 Changeover = 5 Air balance = 6
RM#_RMD_FDD/ADR	RM# FDD alert for unit's economizer ADR (Automated Demand Response) triggered.	MI	#00023	No alert = 1 FDD alert = 2 ADR = 3 FDD & ADR = 4
RM#_RMC_Fan Mode	RM #'s indoor blower mode of operation.	BV	#00030	Active = On Inactive = Auto
RMS Data Points # represents the RM ID number (1-20) \$\$ represents the thermostat ID number attached to RM # (01-20)				
RM#_RMS\$\$_LockStatus	Limits or prevents users from making changes at a thermostat.	MV	#\$S000	Unlock = 1 Lock +/- 2 Degrees = 2 Lock = 3 (no changes can be made)
RM#_RMS\$\$_CurrentRoomTemperature	Current room temperature of that thermostat	AI	#\$S001	Displays in Fahrenheit ONLY
RM#_RMS\$\$_OccupiedCool	Cool set point	AV	#\$S002	Displays in Fahrenheit ONLY
RM#_RMS\$\$_OccupiedHeat	Heat set point	AV	#\$S003	Displays in Fahrenheit ONLY
RM#_RMS\$\$_PriorityVote	Add or subtract votes from the thermostat	AV	#\$S004	0, 1, 2, or 3 votes
RM#_RMS\$\$_ZoneStatus	Indicates if the zone is Off, heating, or cooling. Vent applies to VFR-VAV systems only.	MV	#\$S005	Off = 1, Vent = 2 Cool = 3 Heat = 4

RM#_RMS\$\$ _ZoneStatus	Indicates if the zone is Off, calling for heat, or calling for cooling. Vent applies to VFR-VAV systems only.	MV	#\$006	Off = 1 Vent = 2 Cool = 3 Heat = 4
RM#_RMS\$\$ _AutoMode	Thermostat's mode of operation.	MV	#\$007	Off = 1 Auto on (heat/cool) = 2 Cool only = 3 Heat only = 4
RM#_RMS\$\$ _StatType	Type of thermostat.	MI	#\$008	EZTouchX = 5 SATouch = 6
RM#_RMS\$\$ _LeavingAir	Temp sensor connected to this thermostat.	AI	#\$009	Displays in Fahrenheit ONLY
RM#_RMS\$\$ _ADR	Enables or disables Automated Demand Response (ADR) for this thermostat.	BV	#\$010	Active = Enable Inactive = Disabled

TROUBLESHOOTING TIPS

1. Can't directly connect to the GATEWAY:
 - a. Make sure that the GATEWAY is powered on and the SS LED is flashing steadily.
 - b. Double check the static IP address settings of your PC are configured for the same subnet as the GATEWAY's default IP address.
 - c. Make sure the Ethernet cable is plugged into the GATEWAY & your PC and the activity light on both devices are flashing periodically.
 - d. Try to ping the GATEWAY's default IP address.
2. Can't connect to the GATEWAY after its IP address has been changed and connected to the network:
 - a. Make sure that the GATEWAY is powered on and the SS LED is flashing steadily.
 - b. Double check the IP address settings of your PC are for the same subnet as the GATEWAY's new IP address.
 - c. Make sure the Ethernet cable is plugged into the GATEWAY & your switch/router and the activity light on both devices are flashing periodically.
 - d. Ensure that the IP address that you are attempting to use to connect to GATEWAY is correct.
 - e. Try to ping the GATEWAY's new IP address.
 - f. Try to discover the GATEWAY using FieldServer Toolbox-1.08aC-Setup utility
3. My BMS can't find ZonexGateway/GEN X system.
 - a. Follow Troubleshooting step #2.
 - b. Reconnect to the GATEWAY and ensure that the GEN X's IP address was correctly entered on the Zonex Configuration page.
 - c. Log into the GEN X using the Zonex app (see the GEN X Installation and operation manual for more details) and confirm that its static IP address is correct.
4. Why are there no points to set an operating schedule for the GEN X system's zone thermostats?
 - a. Scheduling should be done through the BMS and the GEN X system configured for 24/7 operation through the Zonex app to avoid any scheduling conflicts. See the GEN X Installation and operation manual for more details on how to set a 24/7 schedule.
5. I can discover the GEN X and its thermostats but I can't discover the RM(s) and their thermostats?
 - a. Using the Zonex app ensure that the RMs are properly connected to and synced to the GEN X system.
 - b. Re-enter the GEN X's IP address into the URL field on the Zonex Configuration page and reboot the GATEWAY.



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