

GATEWAY **CONFIGURATION FILE GUIDE**

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PROPRIETARY INFORMATION

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CONTROL SHEET

Issue	Date MM/DD/YYYY	Description	Originator
1	06/06/2020	iO Gateway v1.0, v1.1, v1.2	S. Boivin
2	12/10/2020	iO Gateway v1.3	L. Methot
3	31/08/2021	iO Gateway v1.4 (SNMP Trap, SSH, Trap Forwarding Configuration)	L.Methot

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WARNING

When you import a configuration file, all existing configuration on the device will be replaced by the new configuration. Imported a configuration file can change critical configuration such as ethernet connection properties which can impact the remote access of the device.

RESET FACTORY

The device can be reset through the settings - system maintenance module. Performing factory reset will delete all your data, configuration and get the software back to its original state.

MULTITEL RECOMMENDATIONS

- Without backup configuration, there is no way to restore an old configuration to a device. Multitel recommends backup/export the configuration file before importing the new configuration file. If the new configuration causes some unexpected results, the configuration can be restored with the configuration backup.
- To avoid overwriting existing configuration, Multitel recommends importing only the parameters (row) modified and not the whole configuration file.

IMPORT PROCESS

To import a new configuration:

*Before importing a new configuration, be sure that no user is performing manual operations.

1. In the Settings | System Maintenance module, click on the Configuration File
2. Click on *Export*

*This step is not mandatory but recommended by Multitel. If the new configuration causes some unexpected results, the configuration can be restored with the configuration backup.

3. Click on *Import*
4. Select the new configuration file (must be a CSV. or TEXT. File)
5. Click on *Start Import*

Import a new configuration may take a few minutes to complete the process. A confirmation or error message will be displayed when the process will be finished.

6. As need, reboot the device to apply changes

Error Messages

Even if there is some error message, the configuration will be uploaded excepted for error lines.

CONFIGURATION FILE

FILE STRUCTURE

Columns A and B: Describe the type of the configuration

Columns impair: Display the ID of the configuration

Columns pair: Display the state of the configuration

	A	B	C	D
1	TYPE	USER	U	Administrator

The export configuration file includes only ID and state with value. If the field in the IO interface is empty, the ID and the state will not be displayed.

Example: If there no email for a user, the ID E (Email) will not be displayed on the user line in the configuration file.

CONFIGURATION TYPE

CONFIGURATION TYPE	ID
Configuration	CFG
Security	USER
Category	CAT
Model	MOD
Equipment	EQU
Data Point	DP
Passthrough	PT
Trap Sources	TFS
Trap Destination	TFD
Trap Forwarding Configuration	TFS2TFD

CONNECTIONS CONFIGURATION

DESCRIPTION	ID	STATE
Connection Port	CP	1 – RS-485 COM A
		2 – RS-485 COM B
		3 – Ethernet 1 - Back
		4 – Ethernet 2 - Front
Configuration Type	CFGT	1 – Connection
		2 – Protocol

RS-485 – COM CONFIGURATION

CP = 1 OR 2 (1 = RS-485 COM A, 2 = RS-485 COM B)		
DESCRIPTION	ID	STATE
Baudrate (RS-485 – COM)	BR	300
		1200
		2400
		4800

		9600 (Default)
		19200
		38400
		57600
		115200
Data Bits	DB	6
		7
		8 (Default)
Stop Bits	SB	0 (Default)
		1
		2
Parity	PA	0 – None (Default)
		1 – Odd
		2 – Even
Connection Port	CP	1 – RS-485 COM A
		2 – RS-485 COM B
Protocol Type	PR	5 – Modbus RTU - Master
		15 – Modbus RTU - Slave
		255 – None (Default)
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	1 – Connection (noneditable)

ETHERNET CONFIGURATION

**** Imported a configuration file can change critical configuration such as ethernet connection properties which can impact the remote access of the device. ****

CP = 3 OR 4 (3 = Ethernet 1 – Back, 4 = Ethernet 2 – Front)		
DESCRIPTION	ID	STATE
Speed	SPD	0 – Auto (Default)
		1 – 10Mbps

		2 – 100Mbps
		3 – 1Gbs
MTU	MTU	68 to 1500 (Default:1500)
Mode	MD	0 – DHCP (Default)
		1 – Static
MD = 0 (DHCP)		
IP DHCP Address	IP4	0.0.0.0 to 255.255.255.255
IP Override Gateway	IP4OG	0.0.0.0 to 255.255.255.255
MD = 1 (Static)		
IP Address	IP4	0.0.0.0 to 255.255.255.255 ** ATTENTION** Change the IP Address properties can impact the remote access of the device.
Subnet Mask	IP4SM	0.0.0.0 to 255.255.255.255
Default Gateway	IP4G	0.0.0.0 to 255.255.255.255
DNS Configuration		
DNS State	DNS	1 – Enable
		0 – Disabled
Preferred DNS Server	DNSP	0.0.0.0 to 255.255.255.255
Alternate DNS Server	DNSS	0.0.0.0 to 255.255.255.255
Connection Port	CP	3 – Ethernet 1 - Back
		4 – Ethernet 2 - Front
Protocol Type	PR	5 – Modbus RTU - Master
		15 – Modbus RTU - Slave
		255 – None (Default)
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	1 – Connection (noneditable)

PROTOCOLS CONFIGURATION

Protocol Type	PT	8 – HTTP
		9 – HTTPS
		4 – PING
		15 – Modbus Slave
		16 – Modbus TCP Server
		1 – SNMP AGENT
		21 – SNMP TRAP
		11 - SSH

HTTP/HTTPS

PT = 8 (HTTP)		
Port Number	PN	1 to 65535 (Default: 80)
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)
PT = 9 (HTTPS)		
Country	CT	Max length: 2
Location	LC	Max length: 50
Organization	OU	Max length: 50
Organization Unit	ORG	Max length: 50
State/Province	SP	Max length: 50
Certification Type	CERT	0 – Self-Signed Certificate
		1 – Signed Certificate
SSL Private Key File	PKF	-
SSL Certificate File	CRF	-
Edge.key	PKFN	Edge.key
Edge.crt	CRFN	Edge.crt
Port Number	PN	1 to 65535 (Default: 443)

Configuration Type	CFGT	2 – Protocol (noneditable)
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PING

PT = 4 (PING)		
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

MODBUS SLAVE

PT = 15 (Modbus Slave)		
Slave ID	SID	1 to 255 (Default: 80)
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

MODBUS TCP SERVER

PT = 16 (Modbus TCP Server)		
Port Number	PN	1 to 65 535
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

SNMP - AGENT

PT = 1 (SNMP)		
State SNMP v3	ST3	1 – Enable
		0 – Disabled
Read Community	CN	Max length: 50
User Name	UN	Max length: 50
Context Name	DCN	Max length: 50
Security Level	SL	0 – SNMP v1/2c

		1 – No Authentication, No Privacy (par default)
		2 – Authentication, No Privacy
		3 – Authentication, Privacy
Authentication Protocol	AP	0 – SNMP v1/2c
		1 – MD5
		2 – SHA1
Authentication Password	APWD	Min length: 8 Max length: 50
Privacy Protocol	PP	0 – SNMP v1/2c
		1 – DES
		2 – AES
Privacy Password	PPWD	Min length: 8 Max length: 50
Port Number	PN	1 to 65535 (Default: 161)
State (SNMP v1/v2C)	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

SNMP TRAP

PT = 21 (SNMP TRAP)		
Read Community	CN	Max length: 50
Port Number	PN	1 to 65535 (Default: 161)
State (SNMP v1/v2C)	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

SSH

PT = 11 (SSH)		
Port Number	PN	1 to 65535

		(Default: 161)
State	ST	1 – Enable
		0 – Disabled
Configuration Type	CFGT	2 – Protocol (noneditable)

SECURITY CONFIGURATION

TYPE = USER		
DESCRIPTION	ID	STATE
Username	U	Max length: 50 (must be unique)
Password	PWD	Export: Encrypted password auto-generated Import: Password are not imported
Email	E	Email Format Max length: 250
Phone	P	Numeric Max length: 50
Function	F	Max length: 50
Group	G	1 – Supervisor
		2 – User
		3 – Viewer
Expiration Date	ED	yyyy-mm-dddthh:mm:ss-hh:mm
State	ST	1 – Enable
		0 – Disabled

CATEGORIES CONFIGURATION

TYPE = CAT		
DESCRIPTION	ID	STATE
Category Name	CN (mandatory)	Max length: 50
Note	N	Max length: 50

MODELS CONFIGURATION

TYPE = MOD		
DESCRIPTION	ID	STATE
Category Name	CN (mandatory)	Max length: 50 (must be a category created in the device)
Model Name	MN (mandatory)	Max length: 50 (must be unique)
Manufacturer	M (mandatory)	Max length: 50

EQUIPMENT CONFIGURATION

TYPE = EQU		
DESCRIPTION	ID	STATE
Communication Protocol	CP	1 – Modbus TCP/IP – Client
		2 – SNMP Get
		3 – Modbus RTU - Master
Gateway Mode	GM	0 – Standard
		1 – Transparent
SNMP Version	V	1 – SNMP v1
		2 – SNMP v2C
		3 – SNMP v3
CP = 1 (Modbus TCP/IP – Client) GM = 0 (Standard Mode)		
Equipment Slave ID	SID (mandatory)	1 to 246
Register Order	RO (mandatory)	1 – Lower Address (default)
		2 – Higher Address
Register Base Address	RBA (mandatory)	0 – Use given address (default)
		1 – Subtract 1 from given address
Equipment IP Address	DA (mandatory)	0.0.0.0 to 255.255.255.255

Port Number	PN (mandatory)	1 to 65535 Default: 502 – Modbus TCP/IP 161 – SNMP Get
Equipment Name	EN (mandatory)	Max length: 50 (must be unique)
Smart Equipment	ET	1 – Yes (Default and noneditable)
State	ST	0 – Enable
		1 - Disabled
Communication Protocol	CP	1 – Modbus TCP/IP – Client
Equipment Polling Rate	DPR (mandatory)	1000 (1s)
		15 000 (15s)
		30 000 (30s)
		60 000 (1m)
		300 000 (5m)
		900 000 (15m)
		1 800 000 (30m)
		3 600 000 (60m)
		14 400 000 (4h)
		43 200 000 (12h)
86 400 000 (24h)		
Equipment Time Out	TO (mandatory)	1000 (1s)
		2000 (2s)
		3000 (3s)
		4000 (4s)
		5000 (5s)
Mnemonic	MNE	Empty Field – Auto Generate or existing mnemonic
Model Name	MN (mandatory)	Max length: 50 (must be a model created in the device)
CP = 1 (Modbus TCP/IP – Client) GM = 1 (Transparent Mode)		
Equipment Slave ID	SID (mandatory)	1 to 246

IO Slave ID	IOSID (mandatory)	1 to 246
Register Order	RO	1 – Lower Address (Default)
		2 – Higher Address
Register Base Address	RBA	0 – Use given address (Default)
		1 – Subtract 1 from given address
Equipment IP Address	DA (mandatory)	0.0.0.0 to 255.255.255.255
Port Number	PN (mandatory)	1 to 65535 Default: 502 – Modbus TCP/IP 161 – SNMP Get
Equipment Name	EN (mandatory)	Max length: 50 (must be unique)
Smart Equipment	ET	1 – Yes (Default)
State	ST	0 – Enable
		1 - Disabled
Communication Protocol	CP	1 – Modbus TCP/IP – Client
Equipment Polling Rate	DPR (mandatory)	1000 (1s)
		15 000 (15s)
		30 000 (30s)
		60 000 (1m)
		300 000 (5m)
		900 000 (15m)
		1 800 000 (30m)
		3 600 000 (60m)
		14 400 000 (4h)
		43 200 000 (12h)
86 400 000 (24h)		
Equipment Time Out	TO (mandatory)	1000 (1s)
		2000 (2s)
		3000 (3s)
		4000 (4s)

		5000 (5s)
Mnemonic	MNE	Empty Field – Auto Generate or existing mnemonic
Model Name	MN	Max length: 50
CP = 2 (SNMP Get) V = 1 (SNMP v1) or 2 (SNMP v2C)		
Constant Part of OID	OID	Max length: 128
SNMP Device Community Name	CN (mandatory)	Max length: 32
Security Level	SL	0 – Not applicable
		1 – No Authentication, No Privacy
		2 – Authentication, No Privacy
		3 – Authentication, Privacy
Authentication Protocol	AP (mandatory)	1 – MD5 (Default)
		2 – SHA1
Privacy Protocol	PP (mandatory)	1 – DES (Default)
		2 - AES
SNMP Version	V	1 – SNMP v1
		2 – SNMP v2C
Equipment IP Address	DA	0.0.0.0 to 255.255.255.255
Port Number	PN (mandatory)	1 to 65535 Default: 502 – Modbus TCP/IP 161 – SNMP Get
Equipment Name	EN	Max length: 50 (must be unique)
Smart Equipment	ET	1 – Yes (Default and noneditable)
State	ST	0 – Enable
		1 - Disabled
Communication Protocol	CP	1 – Modbus TCP/IP – Client
Equipment Polling Rate	DPR (mandatory)	1000 (1s)
		15 000 (15s)
		30 000 (30s)
		60 000 (1m)

		300 000 (5m)
		900 000 (15m)
		1 800 000 (30m)
		3 600 000 (60m)
		14 400 000 (4h)
		43 200 000 (12h)
		86 400 000 (24h)
Equipment Time Out	TO (mandatory)	1000 (1s)
		2000 (2s)
		3000 (3s)
		4000 (4s)
		5000 (5s)
Mnemonic	MNE	Empty Field – Auto Generate or existing mnemonic
Model Name	MN	Max length: 50
CP = 2 (SNMP Get) V = 3 (SNMP v3)		
Constant Part of OID	OID	Max length: 128
SNMP Device Community Name	CN (mandatory)	Max length: 32
Username	UN (mandatory)	Max length: 50
Default Context Name	DCN	Max length: 50
Security Level	SL (mandatory)	1 – No Authentication, No Privacy
		2 – Authentication, No Privacy
		3 – Authentication, Privacy
Authentication Protocol	AP (mandatory)	1 – MD5 (Default)
		2 – SHA1
Authentication Password	APWD	Export: Encrypted password auto-generated Import: Password are not imported
Privacy Protocol	PP (mandatory)	1 – DES (Default)
		2 - AES

Privacy Password	PPWD	Export: Encrypted password auto-generated Import: Password are not imported
SNMP Version	V	3 – SNMP v3
Equipment IP Address	DA	0.0.0.0 to 255.255.255.255
Port Number	PN (mandatory)	1 to 65535 Default: 502 – Modbus TCP/IP 161 – SNMP Get
Equipment Name	EN	Max length: 50
Smart Equipment	ET	1 – Yes (Default)
State	ST	0 – Enable
		1 - Disabled
Communication Protocol	CP	1 – Modbus TCP/IP – Client
Equipment Polling Rate	DPR (mandatory)	1000 (1s)
		15 000 (15s)
		30 000 (30s)
		60 000 (1m)
		300 000 (5m)
		900 000 (15m)
		1 800 000 (30m)
		3 600 000 (60m)
		14 400 000 (4h)
		43 200 000 (12h)
Equipment Time Out	TO (mandatory)	1000 (1s)
		2000 (2s)
		3000 (3s)
		4000 (4s)
		5000 (5s)
Mnemonic	MNE	Empty Field – Auto Generate or existing mnemonic
Model Name	MN	Max length: 50

CP = 3 (Modbus RTU – Master)		
Serial Port	PP	1 – RS-485 - COM A
		2 – RS-485 - COM B
Gateway Mode	GM	0 – Standard
Equipment Slave ID	SID	1 to 246
Register Order	RO	1 – Lower Address
		2 – Higher Address
Register Base Address	RBA	0 – Use given address
		1 – Subtract 1 from given address
Port Number	PN	1 to 65535
		Default: 502 – Modbus TCP/IP 161 – SNMP Get
Equipment Name	EN	Max length: 50
Smart Equipment	ET	1 – Yes (Default)
State	ST	0 – Enable
		1 - Disabled
Communication Protocol	CP	3 – Modbus RTU – Master
Equipment Polling Rate	DPR (mandatory)	1000 (1s)
		15 000 (15s)
		30 000 (30s)
		60 000 (1m)
		300 000 (5m)
		900 000 (15m)
		1 800 000 (30m)
		3 600 000 (60m)
		14 400 000 (4h)
		43 200 000 (12h)
		86 400 000 (24h)
Equipment Time Out	TO (mandatory)	1000 (1s)
		2000 (2s)
		3000 (3s)
		4000 (4s)

		5000 (5s)
Mnemonic	MNE	Empty Field – Auto Generate or existing mnemonic
Model Name	MN	Max length: 50

DATA POINT CONFIGURATION

TYPE = DP		
	DPT	1 – Modbus RTU 2 – SNMP Get
DESCRIPTION	ID	STATE
SNMP Get (Analog)		
Suffix	OID	Max length :128
Syntax Type	SYNT	2 - Integer String
		3 – Integer
		4 – Bit String
Data Type	DPTS	1 – 1 bit
		2 – 16 bit
		3 – 32 bit
		4 – 64 bit
	ODT	1 – Analog datapoint
		2 – Binary datapoint
Equipment Name	EN	Existing equipment name
Datapoint Type	DPT	1 – Modbus TCP/IP
		2 – SNMP Get
		3 – Modbus RTU
ID	MNE	Empty Field – Auto Generate or existing mnemonic
Datapoint Description	DES	Max length: 50
Unit	U	1 – C (Celsius)

		2 – F (Fahrenheit)
		3 – m (meter)
		4 – mm (Millimeter)
		5 – km (Kilometer)
		6 – in (Inch)
		7 – ft (Foot)
		8 – mi (Mile)
		9 – l (Liter)
		10 – ml (Milliliter)
		11 – US gal (US gallon)
		12 – UK gal (UK Gallon)
		13 – g (Gram)
		14 – kg (Kilogram)
		15 – t (Ton)
		16 – oz (Ounce)
		17 – lb (Pound)
		18 – US t (US ton)
		19 – N-m (Newton-meter)
		20 – in-lb (Inch-pound)
		21 – ft-lb (Foot-pound)
		22 – V (Volt)
		23 – kV (Kilovolt)
		24 – A (Ampere)
		25 – kA (Kiloampere)
		26 – mA (Milliampere)
		27 – VA (Volt-ampere)
		28 – kVA (Kilovolt-ampere)
		29 – MVA (Megavolt-ampere)
		30 – W (Watt)
		31 – kW (Kilowatt)

		32 – MW (Megawatt)
		33 – s (Second)
		34 – min (Minute)
		35 – h (Hour)
		36 – d (Day)
		37 – wk (Week)
		38 – mo (Month)
		39 – yr (Year)
		40 – Hz (Hertz)
		41 – ? (Efficiency)
		42 – sq m (Square Meter)
		44 – sq km (Square Kilometer)
		45 – sq in (Square Inch)
		46 – sq ft (Square Foot)
		47 – sq mi (Square Mile)
		48 – m ³ /h (Cubic Meter / Hour)
		49 – ft ³ /h (Cubic Foot / Hour)
		50 – BTU/h (British thermal SysUnit)
		51 – RT (Refrigeration tons)
		52 – Ah (Ampere / Hour)
		53 – kW/h (Kilowatt / Hour)
		54 – % (Percent)
Decimal	D	-1 – Decimal
		0 – 0
		1 – 1
		2 – 2
		3 – 3
		4 – 4
State	ST	0 – Enable
		1 - Disabled

Factor	F	Numeric with Decimal (Default = 1)
Offset	O	Numeric with Decimal (Default = 0)
iO Modbus Register	IOMBR	1 to 65535 (Must be unique)
Polling Rate	PR	1000 – 1s
		15 000 – 15s
		30 000 – 30s
		60 000 – 1m
		300 000 – 5m
		900 000 – 15m
		1 800 000 – 30m
		3 600 000 – 60m
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h
SNMP Get (Binary)		
Suffix	OID	Max length: 128
Syntax Type	SYNT	2 - Integer String
		3 - Integer
		4 - Bit String
Data Type	DPTS	1 - 1 bit
		2 - 16 bit
		3 - 32 bit
		4 - 64 bit
	ODT	1 - Analog datapoint
		2 - Binary datapoint
Equipment Name	EN	Existing equipment name
Datapoint Type	DPT	1 - Modbus TCP/IP
		2 - SNMP Get
		3 - Modbus RTU

ID	MNE	Empty Field – Auto Generate or existing mnemonic
Datapoint Description	DES	Max length: 50
Unit	U	1 – C (Celsius)
		2 – F (Fahrenheit)
		3 – m (meter)
		4 – mm (Millimeter)
		5 – km (Kilometer)
		6 – in (Inch)
		7 – ft (Foot)
		8 – mi (Mile)
		9 – l (Liter)
		10 – ml (Milliliter)
		11 – US gal (US gallon)
		12 – UK gal (UK Gallon)
		13 – g (Gram)
		14 – kg (Kilogram)
		15 – t (Ton)
		16 – oz (Ounce)
		17 – lb (Pound)
		18 – US t (US ton)
		19 – N-m (Newton-meter)
		20 – in-lb (Inch-pound)
		21 – ft-lb (Foot-pound)
		22 – V (Volt)
		23 – kV (Kilovolt)
		24 – A (Ampere)
		25 – kA (Kiloampere)
		26 – mA (Milliampere)
		27 – VA (Volt-ampere)

		28 – kVA (Kilovolt-ampere)
		29 – MVA (Megavolt-ampere)
		30 – W (Watt)
		31 – kW (Kilowatt)
		32 – MW (Megawatt)
		33 – s (Second)
		34 – min (Minute)
		35 – h (Hour)
		36 – d (Day)
		37 – wk (Week)
		38 – mo (Month)
		39 – yr (Year)
		40 – Hz (Hertz)
		41 – ? (Efficiency)
		42 – sq m (Square Meter)
		44 – sq km (Square Kilometer)
		45 – sq in (Square Inch)
		46 – sq ft (Square Foot)
		47 – sq mi (Square Mile)
		48 – m ³ /h (Cubic Meter / Hour)
		49 – ft ³ /h (Cubic Foot / Hour)
		50 – BTU/h (British thermal SysUnit)
		51 – RT (Refrigeration tons)
		52 – Ah (Ampere / Hour)
		53 – kW/h (Kilowatt / Hour)
		54 – % (Percent)
Decimal	D	-1 – Decimal
		0 – 0
		1 – 1
		2 – 2

		3 – 3
		4 – 4
State	ST	0 – Enable
		1 – Disabled
Factor	F	Numeric with Decimal Default: 1
Offset	O	Numeric with Decimal Default: 0
iO Modbus Register	IOMBR	1 to 65535 (Must be unique)
Polling Rate	PR	1000 – 1s
		15 000 – 15s
		30 000 – 30s
		60 000 – 1m
		300 000 – 5m
		900 000 – 15m
		1 800 000 – 30m
		3 600 000 – 60m
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h
Mask Type	MSK_ST	0 – none
		1 – bit
		2 – range
Mask	MSK	16 bit: 0 to 15 32 bit : 0 to 31 64 bit: 0 to 64
Value Interpretation	MSK_V	
MODBUS RTU or MODBUS TCP/IP (Analog)		
Equipment Modbus Register	RA	1 to 65535 (Must be unique)

	ODT	1 – Analog datapoint
		2 – Binary datapoint
Equipment Name	EN	Existing equipment name
	DPT	1 – Modbus RTU or TCP/IP
Register Type	RT	3 - Holding Register
		4 – Input Register
Data Type	DT	1 – 16 bit integer
		2 – 32 bit integer
		3 – 32 bit float
ID	MNE	Empty Field – Auto Generate or existing mnemonic
Datapoint Description	DES	Max length: 50
Unit	U	1 – C (Celsius)
		2 – F (Fahrenheit)
		3 – m (meter)
		4 – mm (Millimeter)
		5 – km (Kilometer)
		6 – in (Inch)
		7 – ft (Foot)
		8 – mi (Mile)
		9 – l (Liter)
		10 – ml (Milliliter)
		11 – US gal (US gallon)
		12 – UK gal (UK Gallon)
		13 – g (Gram)
		14 – kg (Kilogram)
		15 – t (Ton)
		16 – oz (Ounce)
		17 – lb (Pound)
		18 – US t (US ton)

		19 – N-m (Newton-meter)
		20 – in-lb (Inch-pound)
		21 – ft-lb (Foot-pound)
		22 – V (Volt)
		23 – kV (Kilovolt)
		24 – A (Ampere)
		25 – kA (Kiloampere)
		26 – mA (Milliampere)
		27 – VA (Volt-ampere)
		28 – kVA (Kilovolt-ampere)
		29 – MVA (Megavolt-ampere)
		30 – W (Watt)
		31 – kW (Kilowatt)
		32 – MW (Megawatt)
		33 – s (Second)
		34 – min (Minute)
		35 – h (Hour)
		36 – d (Day)
		37 – wk (Week)
		38 – mo (Month)
		39 – yr (Year)
		40 – Hz (Hertz)
		41 – ? (Efficiency)
		42 – sq m (Square Meter)
		44 – sq km (Square Kilometer)
		45 – sq in (Square Inch)
		46 – sq ft (Square Foot)
		47 – sq mi (Square Mile)
		48 – m ³ /h (Cubic Meter / Hour)
		49 – ft ³ /h (Cubic Foot / Hour)

		50 – BTU/h (British thermal SysUnit)
		51 – RT (Refrigeration tons)
		52 – Ah (Ampere / Hour)
		53 – kW/h (Kilowatt / Hour)
		54 – % (Percent)
Decimal	D	-1 – Decimal
		0 – 0
		1 – 1
		2 – 2
		3 – 3
		4 – 4
State	ST	0 – Enable
		1 – Disabled
Factor	F	Numeric with Decimal (Default = 1)
Offset	O	Numeric with Decimal (Default = 0)
Polling Rate	PR	1000 – 1s
		15 000 – 15s
		30 000 – 30s
		60 000 – 1m
		300 000 – 5m
		900 000 – 15m
		1 800 000 – 30m
		3 600 000 – 60m
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h

MODBUS RTU or MODBUS TCP/IP (Binary)		
Equipment Modbus Register	RA	1 to 65535 (Must be unique)
	ODT	1 – Analog datapoint
		2 – Binary datapoint
Equipment Name	EN	Existing equipment name
	DPT	1 – Modbus RTU or TCP/IP
Register Type	RT	1 – Coil
		2 – Discrete Input
		3 – Holding Register
		4 – Input Register
Data Type	DT	0 – 1 bit
		1 – 16 bit integer
		2 – 32 bit integer
		3 – 32 bit float
ID	MNE	Empty Field – Auto Generate or existing mnemonic
Datapoint Description	DES	Max length: 50
Unit	U	1 – C (Celsius)
		2 – F (Fahrenheit)
		3 – m (meter)
		4 – mm (Millimeter)
		5 – km (Kilometer)
		6 – in (Inch)
		7 – ft (Foot)
		8 – mi (Mile)
		9 – l (Liter)
		10 – ml (Milliliter)
		11 – US gal (US gallon)
		12 – UK gal (UK Gallon)

		13 – g (Gram)
		14 – kg (Kilogram)
		15 – t (Ton)
		16 – oz (Ounce)
		17 – lb (Pound)
		18 – US t (US ton)
		19 – N-m (Newton-meter)
		20 – in-lb (Inch-pound)
		21 – ft-lb (Foot-pound)
		22 – V (Volt)
		23 – kV (Kilovolt)
		24 – A (Ampere)
		25 – kA (Kiloampere)
		26 – mA (Milliampere)
		27 – VA (Volt-ampere)
		28 – kVA (Kilovolt-ampere)
		29 – MVA (Megavolt-ampere)
		30 – W (Watt)
		31 – kW (Kilowatt)
		32 – MW (Megawatt)
		33 – s (Second)
		34 – min (Minute)
		35 – h (Hour)
		36 – d (Day)
		37 – wk (Week)
		38 – mo (Month)
		39 – yr (Year)
		40 – Hz (Hertz)
		41 – ? (Efficiency)
		42 – sq m (Square Meter)

		44 – sq km (Square Kilometer)
		45 – sq in (Square Inch)
		46 – sq ft (Square Foot)
		47 – sq mi (Square Mile)
		48 – m ³ /h (Cubic Meter / Hour)
		49 – ft ³ /h (Cubic Foot / Hour)
		50 – BTU/h (British thermal SysUnit)
		51 – RT (Refrigeration tons)
		52 – Ah (Ampere / Hour)
		53 – kW/h (Kilowatt / Hour)
		54 – % (Percent)
Decimal	D	-1 – Decimal
		0 – 0
		1 – 1
		2 – 2
		3 – 3
		4 – 4
State	ST	0 – Enable
		1 – Disabled
Factor	F	Numeric with Decimal Default: 1
Offset	O	Numeric with Decimal Default: 0
Polling Rate	PR	1000 – 1s
		15 000 – 15s
		30 000 – 30s
		60 000 – 1m
		300 000 – 5m
		900 000 – 15m
		1 800 000 – 30m

		3 600 000 – 60m
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h
		14 400 000 – 4h
		43 200 000 – 12h
		86 400 000 – 24h

PASSTHROUGH CONFIGURATION

TYPE = PT		
DESCRIPTION	ID	STATE
Mnemonic	MNE	Empty Field – Auto Generate or Existing Mnemonic
State	ST (mandatory)	1 – Enable
		0 – Disabled
Protocol	P (mandatory)	8 – HTTP
		9 – HTTPS
		10 – Telnet
		11 – SSH
		17 – FTP
		19 - SFTP
Source Port	SC (mandatory) (Must be unique)	HTTP/HTTPS: 61 000 à 61 999
		FTP/SFTP/SCP : 62 000 à 62 999
		Telnet/SSH : 63 000 à 63 999
Destination Port	DP (mandatory)	1 to 65 535 Default: HTTP: 80 HTTPS: 443 FTP: 21 SFTP: 21 SSH: 22

		Telnet: 23 SCP: 22
Destination IP	IP (mandatory)	Format: XXX.XXX.XXX.XXX 0.0.0.0 à 255.255.255.255
Additional Port	AP	1 to 65 535 Max length: 300 To add more than one separated by commas
Transport Protocol	TP	1 – TCP (default)
		2 – UDP
		3 – Both
Action	I_O	0 – None (default)
		1 – IN
		2 – Passthrough

TRAP FORWARDING SOURCE CONFIGURATION

TYPE = TSID		
Automatically populated (1 to 999999999)		
DESCRIPTION	ID	STATE
Equipment Name	EN	Max length: 50
Equipment IP Address	IP	0.0.0.0 to 255.255.255.255
State	ST	0- Enabled
		1- Disabled

TRAP FORWARDING DESTINATIONS CONFIGURATION

TYPE = TDID		
Automatically populated (1 to 10)		
DESCRIPTION	ID	STATE
Destination Name	DN	Max length: 50
IP Type	IPT	- ipv4
		- ipv6
Destination IP Address	IP	0.0.0.0 to 255.255.255.255

Port Number	P	1 to 65 535
Community Name	CN	Max length: 32
SNMP Version	V	2 - v2C
		3 - v3
Type	NT	1- Trap – Unacknowledge
		2- Trap- Acknowledge
Timeout	T (Only if NT = 2)	1000 (1s)
		5000 (5s)
		30000 (30s)
		60000 (1min)
Retries	R (Only if NT = 2)	1
		2
		3
		4
		5
State	ST	0- Disabled
		1- Enabled
Keep Alive Trap Delay	KA	0
		60 (1min)
		900 (15min)
		1800 (30min)
		3600 (1hrs)
If SNMP Version is v3		
Username	UN	Max length: 50
Context Name	CTN	Max length: 32
Security Level	SL	1- No authentication
		2- Authentication, No privacy
		3- Authentication, Privacy
Authentication Protocol	AP	1- MD5
		2-SHA1
Authentication Password	APWD	
Privacy Protocol	PP	1- DES

		2- AES
Privacy Password	PPWD	

TRAP FORWARDING CONFIGURATION

TYPE = TFS2TFD		
DESCRIPTION	ID	STATE
Trap Forwarding Source	TSID	1 to 999999999 (refer you to the TDID automatically populated)
Trap Forwarding Destination	TDID	1 to 10 (refer you to the TDID automatically populated)