LOCKHEED MARTIN

Dial-up Gateway

Reliable and secure communication to substation devices is of critical importance to today's bulk electricity provider. Utilities need equipment that can withstand harsh environments, provide robust communications for many years.

Many remote substations are still accessible only through a standard analog telephone connection. For those situations, the Industrial Defender Dial-up Gateway offers a solution.

The Industrial Defender Dial-up Gateway is built on the reliability of the Teltone* SLSS (Substation Line Sharing Switch) platform. The Dial-up Gateway supports three programming settings:

- Factory Default Mode normally used with a Teltone Polling Controller.
- Standalone Default mode which may or may not use a Teltone Polling Controller.
- Customer Defined Defaults using Customer defined programming defaults so no field programming is required.

The Dial-up Gateway offers many features to provide access to substation devices, as well as reducing communications costs:

- Enables sharing a single substation telephone line between up to eight devices (such as telephones, modems connected to fault locating relays, meters, etc., and fax machines), thus eliminating expensive telephone line installation and monthly charges for briefly used modem lines.
- Enhances on-site worker safety by giving priority to outgoing calls.
- Obtains high reliability and availability by providing IEEE Standard C37.90 SWC (Surge Withstand Capability) protection to attached devices.
- Available in both AC and DC versions.
- Backward compatible with previous models

For more information on the security capabilities of the Dial-up Gateway, please visit Industrial Defender on the web at www.IndustrialDefender.com, select Services, Supported Products

*Industrial Defender acquired Teltone Corporation in June 2008.

GATEWAY

Specifications	
Operational	
Incoming Line Ring Detect	Unit ring trips after end of first ring cycle; or after 300 - 400 ms of ring
Local Ring Generator	50 VRMS minimum into 5 REN load
Ringing Frequency	Rounded square wave output at 20 Hz
Incoming Loop Hold Circuit: Voltage vs. Loop Current	Incoming loop hold circuit in unit has DC resistance of approximately 240 ohms
Loop Current On-Hook/Off-Hook Detection	Unit detects off-hook when loop current is ≥ 20 mA Unit detects on-hook when loop current is ≤ 6 mA
Surge Withstand Capability	IEEE 37.90.1-1989
DTMF Network Signaling	-7.8 dBm ±3 dBm into 600-ohm termination (combined level)
Data Transmission Level	Shall not exceed -9 dB with respect to 1 mW when averaged over any three-second period
Call Progress Tones toward CO	-10 dBm into 900-ohm termination (combined level)
Auxiliary Relay Ratings	Latching, rated 1 A at 125 VDC or 3 A at 220 VAC
Indicator Lights	Green status and port indicators, amber aux relay indicator, and red alarm indicator
Internal Clock	Gauntlet Server can set timeused for call log ttime stamps, clock is accurate to within 30s per month and continues to run for >24 hours if the Dial-up Gateway loses power
Call Log Storage	Gauntlet Server can retrieve call records from secure-enabled units, circular buffer (of v 1.07) holds > 5,000 records before overwriting earliest records
Local Battery Feed	
On-Hook Voltage	35-52 VDC
Off-Hook Local Battery Short Circuit Loop Current	30 mA maximum
Input Power	
M-395-B-12 or M 396 B 12	Input voltage range is 42-150 VDC Average current is 200 mA at 42 VDC, 75 mA at 150 VDC
M-395-D-12 or M 396 D 12	Input voltage range is 90-220 VAC Average current is 100 mA at 120 VAC
M 395 B 02 or -D-02 and M 396 B 02 or -D-02	Discontinued -02 (security-ready) models See corresponding -12 (security-enabled) model above
Unit Fusing	1.5 A, Slo-blo, 3 AG, 250 V external fuse
Physical	
Size	2.37-in H x 12.00-in W x 11.80-in D (includes brackets for wall or 19-inch rack mounting)
Shipping Weight	8 lb
Environmental	
Operating Temperature	-20 to +60 degrees C
Short-Term Storage Temperature	-20 to +85 degrees C
Relative Humidity (non-condensing)	95% Max.
Regulatory Compliance	
EMC	
United States	FCC Part 15, Class A
Telecom	
United States	FCC Part 68 - Certification Number: AHHUSA-75367-KX-T
Canada	Canadian CS-03 - Registration Number: 344 5555 A
FCC and Industry Canada REN	0.5B