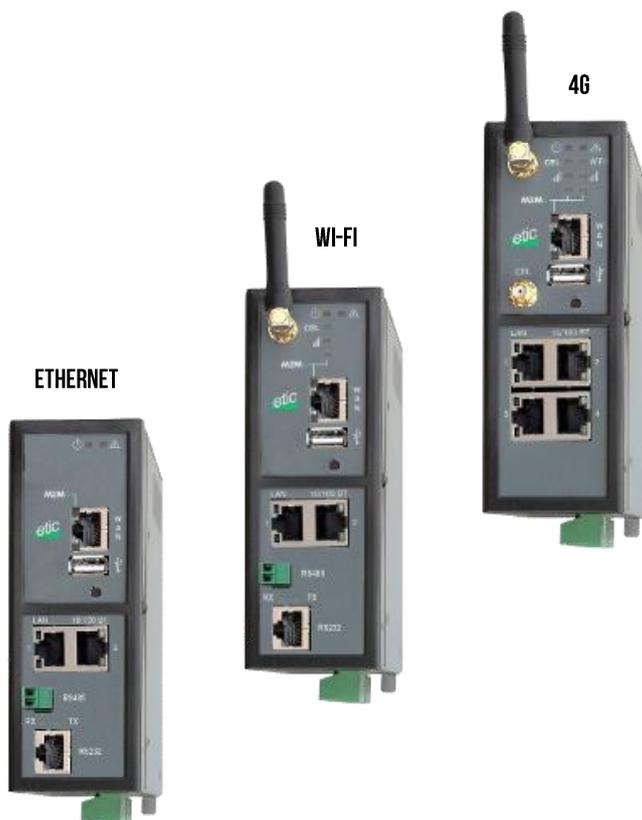# A COMPLETE SOLUTION FOR REMOTE SCADA NETWORK

IPL industrial grade routers is a complete family enabling you to connect safely multiple industrial devices located anywhere across the Internet or a VPN network using Ethernet, ADSL, Wi-Fi or cellular networks.

4G

WI-FI

ETHERNET

☞ **THE IPL FAMILY IS MADE OF :**

■ Industrial Router with Ethernet, ADSL, Wi-Fi, Cellular (3G /4G), ISDN, PPP connection.

■ Industrial Router with a WAN back up

CHARACTERISTICS

■ 4G, 3G, Wi-Fi, ADSL, Intranet
■ PSTN, ISDN, Serial-PPP, USB-PPP
■ IP Sec - OpenVPN client & server
■ Backup link & VRRP redundancy
■ SNMP, QoS, VLAN
■ Serial (RS232, RS422, RS485) Gateway
■ Wi-Fi Access point or client
■ Remote Access Server PPTP, OpenVPN, L2TP/IP Sec
■ Configuration html-https
■ Human Machine Interface: Ethernet, Wi-Fi, serial, USB
■ Secured access for Smartphone and tablet PC
■ Compatible with Pack_Alert
■ 5 years warranty

MARKETS

■ **Water**: Water distribution and management
■ **Energy**: Dam, pipe line, Wind turbine, photovoltaic…
■ **Industry**: Quarry, mines, building, factory
■ **Transport**: Subway, canals, port, airport, road, traffic control …
■ **Infrastructure**: Lighting, Video, display panels …

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TELECOM

www.etictelecom.com

IP ROUTER FOR ELECTRICAL CABINET

This DIN Rail mounted family of router is ideal for remote sites with automation to be interconnected.

This solid equipment can endure long life without maintenance reducing operating cost for large SCADA networks.

IPL router is also a firewall, a Client and VPN server, a remote access server, a WEB portal for tablet PC and smartphone.

Wi-Fi Client or Access Point is available on IPL-E, IPL-A and IPL-C products.

A serial interface is also available on some units.

Ref	Reseau
IPL-C	Cellular 4G - 3G - GPRS 1 or 2 SIM cards
IPL-A	ADSL 2+
IPL-E	Ethernet 10/100 BT

IPL-C   IPL-A   IPL-E

Reference	WAN connexion
IPL-DAC	ADSL line with backup via cellular network
IPL-DAE	ADSL line with backup via an Ethernet link
IPL-DEC	Ethernet Router with backup via cellular network

ROUTER WITH BACKUP LINK

This range of IPL router is dedicated to critical sites.

The router automatically detects when the line is broken and switches to the backup WAN connection.

Wi-Fi option is not available on the IPL-D family.

IPL-DAC   IPL-DAE   IPLDEC

OTHER ROUTERS FOR ELECTRICAL CABINETS

Reference	WAN connection
IPL-S	RS232 supporting PPP protocol
IPL-M	PSTN network- V56 modem
IPL-I	ISDN network – SO interface
IPL-L	Leased Line with 2 wires – V34 Modem
IPL-G	GSM network – GSM Data at 9600 b/s

A COMPLETE SOLUTION

IPL routers are based on the same technology and can easily be interconnected to build a complex and large SCADA network combining various technology (ASDL, Ethernet, Cellular, …).

IPL is also a firewall, a remote access server or a WEB portal enabling Smartphone or Tablet PC to be connected remotely to a PLC.
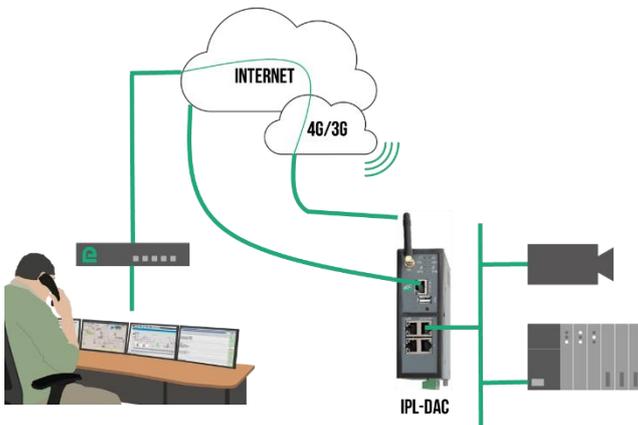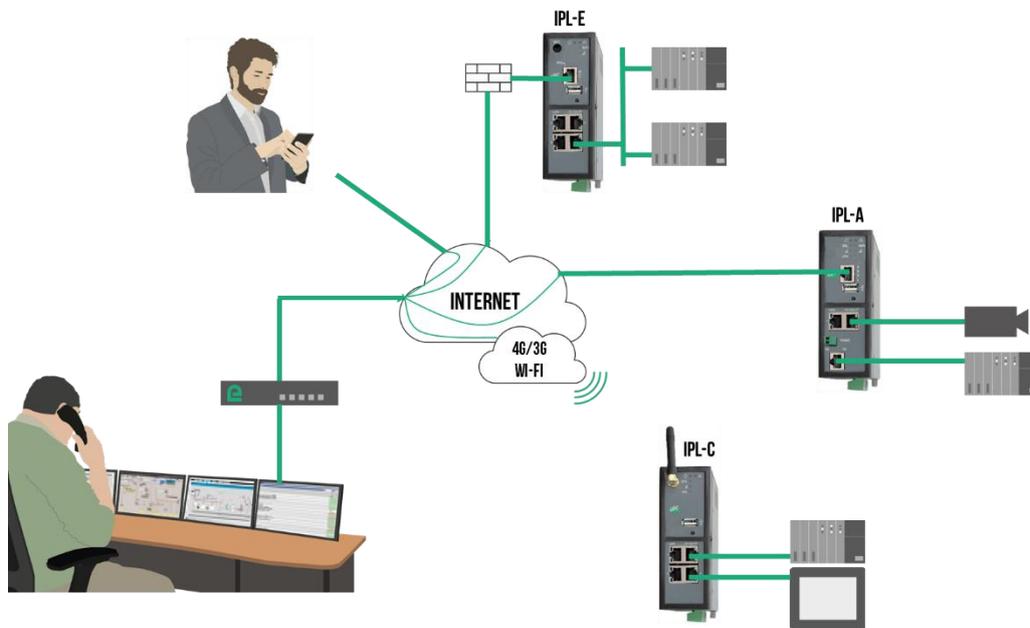
AVAILABILITY

☞ **BACK UP WAN CONNECTION**

Critical sites can benefit from the IPL-D family offering a native dual WAN connection with an automatic switch to the backup line when the IPL-D detects that the 1st WAN connection is broken.

The IPL-D is also capable to set up 2 VPN lines (one ADSL and one Cellular) connected to SIG VPN server from Etic Telecom

MACHINE INTERFACES VIA ETHERNET, WI-FI, RS232/ RS485, USB

IPL has an optional link for serial (RS232, RS485) or USB or Wi-Fi.

IPL   IPL FAMILY FOR REMOTE SCADA
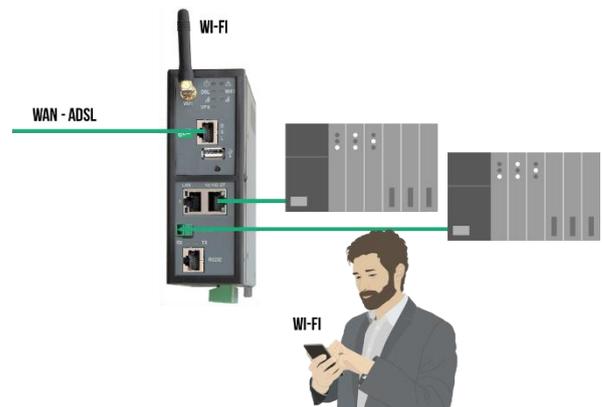
IPL-CODE 1- CODE 2- CODE 3

CODE 1	CELLULAR	ADSL	ETHERNET	ADSL BACKUP CELLULAR	ADSL BACKUP ETHERNET	ETHERNET BACKUP CELLULAR
Without Wi-Fi	-C	-A	-E	-DAC	-DAE	-DEC
With Wi-Fi	-CW	-AW	-EW	Not available	Not available	Not available

CODE 2	400	220	230	260	261
Ethernet 10/100 MDI MDIX	4	2	2	2	2
RS232	-	1	2	-	-
RS485 no isolated		1			
RS485 isolated					1
RS422 isolated				1	
USB	1	1	1	1	1
Serial Gateway					
RAW TCP & UDP & Telnet		•	•	•	
Modbus Master and slave		•	•	•	
USB		•	•	•	
Input / Output					
Input ToR (Pack_Alert)	1	1	1	1	1

CODE 3	LE	LS	LA	CH	HG
	4G Europe	4G USA	4G Asia	4G China	-
	3G+ (*)				3G+ « world » (**)
	GPRS-EDGE (***)	GPRS-EDGE (***)	GPRS-EDGE (***)	GPRS-EDGE (***)	GPRS-EDGE (***)

*850 / 900 / 1900 / 2100 MHz
**850 / 900 / 1700 / 1900 / 2100 MHz
**850 / 900 / 1800 / 1900 MHz

ANTENNAS AND COAXIAL CABLE FOR CELLULAR NETWORK RAS-EC OR RAS-ECW

	ANT305	ANT310	ANT320
Type	Panel Mount	Roof (3dB Gain)	Magnet
Network	2G – 3G – 4G		
RF Connector	SMA male		
Cable length	-	5m	3m
Dimension	H = 82mm Ø = 48mm		
Coaxial Cable extension (5m) : CO-LL6-SF-SM-500			

ANTENNAS AND COAXIAL CABLE FOR WI-FI NETWORK: RAS-EW OR RAS-ECW

	ANT217	ANT316 / ANT311	ANT219
Type	Panel Mount	Roof (3dB gain for -311)	Magnet
Network	2,4 et 5 GHz		2,4 GHz
RF Connector	RP SMA male		
Cable	-	3m/5m	3m
Dimension	H = 90mm	H = 82mm Ø = 48mm	-
Coaxial Cable extension (5m): CO-LL6-RSF-RSM-500			

IP Router Family	IPL-C	IPL-A	IPL-O	IPL-E	IPL-DAC	IPL-DAE	IPL-DEC	IPL-S	IPL-M	IPL-I	IPL-G12
Features	Remote Access Router				Remote Access Router with backup link			Other Remote Access Router			
Main network (WAN1)	4G 3G GPRS	ADSL	Optical Fiber	Ethernet Interface	ADSL	ADSL	Ethernet	RS232 PPP	RTC V34	RNIS S0	GSM data 9600 b/s
Second network for backup (WAN2)					4G 3G GPRS	Ethernet	4G 3G GPRS				
VRRP redundancy	•	•	•	•	•	•	•				
WAN backup					•	•	•				
LAN RJ45 interface	4	4	4	4	4	4	4	2	1	1	1
Serial gateway RS232-RS485-USB	2	2	2	2				1	1	1	1
Wi-Fi (Client or Access Point)	•	•		•							
VPN											
Max. Number of VPNs link (server)	10	10	10	10	10	10	10				
Max. Number of VPN link (Client) (*)	10	10	10	10	10	10	10				
Open VPN	•	•	•	•	•	•	•				
IPSec	•	•	•	•	•	•	•				
IP Router / Firewall / management / VLAN											
Max number of remote nodes								25	25	25	25
RIP	•	•	•	•	•	•	•	•	•	•	•
Firewall SPI entre LAN et WAN	•	•	•	•	•	•	•	•	•	•	•
SNMP	•	•	•	•	•	•	•	•	•	•	•
QoS	•	•	•	•	•	•	•				
Configuration HTML - HTTPS	•	•	•	•	•	•	•	•	•	•	•
VLAN	•	•	•	•	•	•	•	•			
Other											
Remote Access server	•	•	•	•	•	•	•	•	•	•	•
E-TOR for emails ou SMS (with Pack_Alert)	1	1	1	1	1	1	1	1	3	3	3
Web Portal HTTPS	•	•	•	•	•	•	•	•	•	•	•
M2Me (with Pack_M2Me)	•	•		•	•	•	•				