

MAINTENANCE WITHOUT TRAVELLING

M2Me solution is dedicated to remotely maintain and control any type of industrial devices (PLC, HMI, Drive, ...).

Using M2Me you can from your PC, your tablet or your smartphone be «teleported» in real time and safely onto the remote site you want to monitor or maintain.

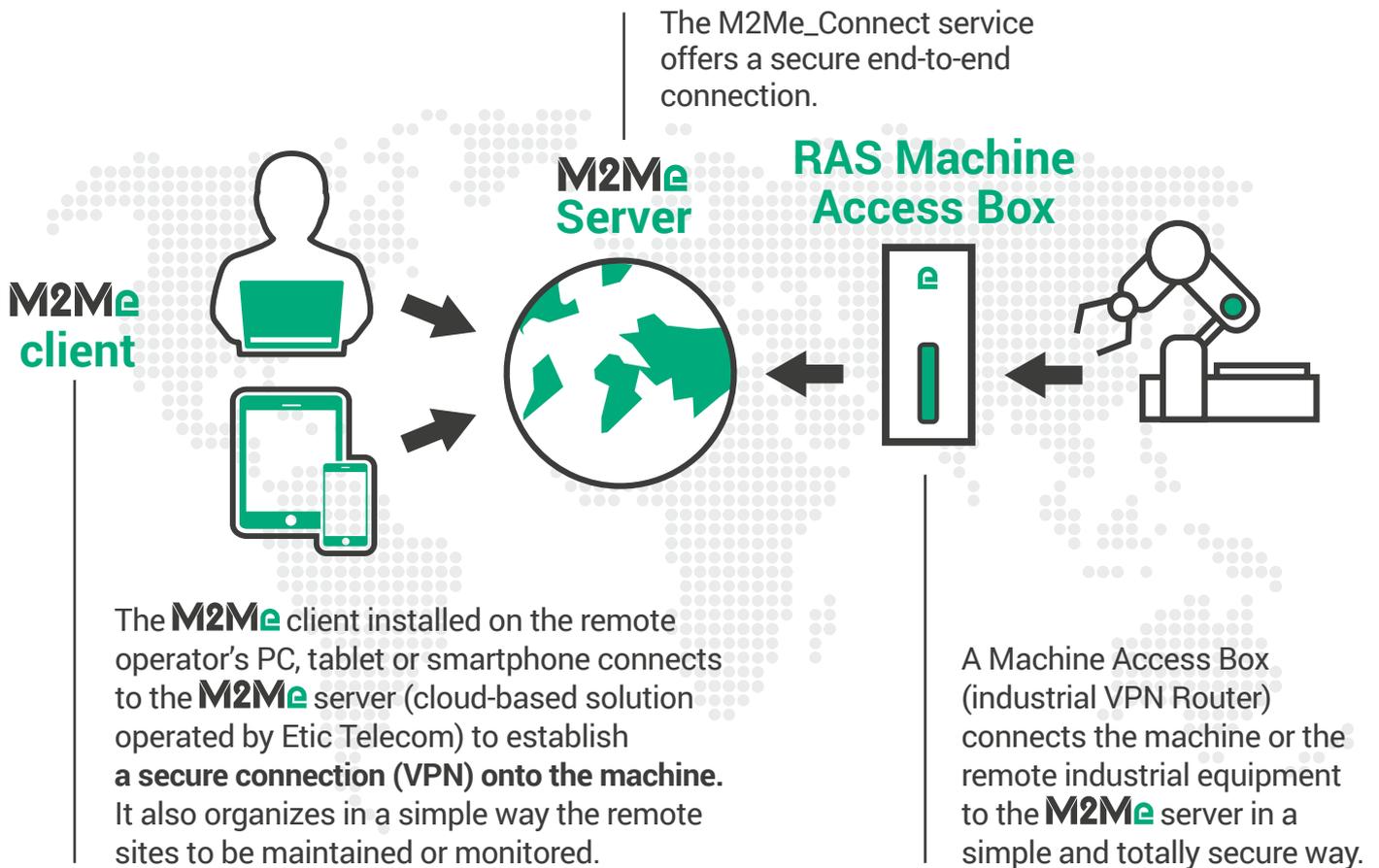


RAS Machine Access Box

- **Simple configuration** (Wizard)
- **Ultra-secure connection**
- **MultiWAN** (Ethernet, 4G/3G+, Wi-Fi)
- **Wi-Fi** (Access point and client)
- **Alert & Display** (SMS, E-mail, Datalogger)
- **Connection from a tablet, a PC, a smartphone**
- **Tracking (GPS)**
- **Compatible with Schneider, Siemens, Rockwell, Mitsubishi, ABB,...**
- **5 years warranty**



THE M2Me SOLUTION



ADVANTAGES



Simplicity of implementation

RAS is delivered together with a Wizard.



Plant network integrity

The RAS establishes an outgoing VPN connection that does not require any modification of the existing plant network (firewall, proxy, ...).



A non-intrusive solution

The **M2Me** technology guarantees that the operator can only connect to the machine network and in no case to the other equipment of the industrial site.



A secure solution

M2Me relies on VPN technology and implements authentication to the **M2Me** server by certificates for the remote user and the RAS.



Management of access rights

The RAS allows a personalized management of access rights allowing an operator to connect to all or part of the equipment.



Wireless solution for isolated sites

Some RAS have a 3G + or 4G connection to establish an Internet link through a cellular network.



Wireless access to industrial equipment

Some machines may be difficult to access in the factory. The optional RAS Wi-Fi hotspot allows you to remotely configure the Machine Access Box from a PC or a tablet.



Wireless Internet access via Wi-Fi

The RAS optionally has a Wi-Fi client that allows access to the Internet via a Wi-Fi access point of the industrial site or by using its smartphone in connection-sharing mode.



Solution compatible with the Alert & Display option

The Alert & Display option allows the raising of alarms and its transmission (CSV files). The alerted manager can then visualize Web pages or take the hand (VPN) on the PLC or the HMI of the machine.



A sustainable solution

The RAS is an industrial device with 5 years warranty.

SELECTION GUIDE



RAS-	E-100	EW-100	C-100	E-400	E-220	EW-400	EW-220	EC-400	EC-220	ECW-400	ECW-220	M156E
WAN: Ethernet	1	1		1	1	1	1	1	1	1	1	
WAN: cellular (-HG : 3G+, -LE : 4G)			1					1	1	1	1	
WAN: PSTN												1
Wi-Fi (Access point and client)		1 (2.4 GHz)				1 (2.4/5 GHz)	1 (2.4/5 GHz)			1 (2.4/5 GHz)	1 (2.4/5 GHz)	
LAN: Ethernet 10-100 Mb/s	1	1	1	4	2	4	2	4	2	4	2	
LAN: Ethernet 10 Mb/s												1
Serial link RS232 / RS485					1		1		1		1	
USB link (PLC connection, data logging)				1	1	1	1	1	1	1	1	
GPS Option (avec ANT405)				1	1	1	1	1	1	1	1	
2 power inputs				1	1	1	1	1	1	1	1	
2 SIM readers								1	1	1	1	

ACCESSORIES



	ANT305	ANT310	ANT320	ANT217	ANT316/311	ANT219	ANT405
Type	Panel Mount	Roof	Magnet	Panel Mount	Roof	Magnet	Magnet
Network	2G - 3G - 4G	2G - 3G - 4G	2G - 3G - 4G	Wi-Fi (2.4 and 5 GHz)	Wi-Fi (2.4 and 5 GHz)	Wi-Fi (2.4 GHz)	GPS (1.57 GHz)
Connector	Male SMA	Male SMA	Male SMA	Male RP SMA	Male RP SMA	Male RP SMA	USB
Cable	-	5m	3m	-	3m/5m	1m	3m
Dimensions	H = 82mm Ø = 48mm	H = 82mm Ø = 48mm	H = 82mm Ø = 48mm	H = 90mm	H = 82mm Ø = 48mm	-	H = 15mm Ø = 38mm

5m coaxial extension : CO-LL6-SF-SM-500

TECHNICAL CHARACTERISTICS

GENERAL CHARACTERISTICS		ROUTING / IP@ / MANAGEMENT	
Dimensions	<ul style="list-style-type: none"> • RAS-X-100 : 120x37x88mm (h,l,d) • RAS-E : 135x47x115mm (h,l,d) • RAS-M : 130x38x110mm (h,l,d) 	Routing IP	<ul style="list-style-type: none"> • Routing tables • Static routes • RIP or OSPF • Address translation (DNAT et NAT 1:1)
Weight	Between 500g and 650g depending on model (without packaging)	Assigning IP@	<ul style="list-style-type: none"> • WAN interface: DHCP client or fixed IP • LAN interface: DHCP client or server or IP@ fixed
Power	<ul style="list-style-type: none"> • RAS-X-100 : 10 - 30 VDC • RAS-E : 10 - 60 VDC • RAS-M : 10 - 160 VDC • Phoenix connector 2 points 	DNS	<ul style="list-style-type: none"> • WAN interface: compatible with DYNDNS, No-IP or ETIC DNS • LAN interface: relay & DNS server
Consumption	<ul style="list-style-type: none"> • RAS-E or RAS-M : 2W • RAS-EC or RAS-ECW : 4W 	Management	MIB 2 and Traps SNMP
Temperature	-20°C to + 70°C (• LTE : 60°C • -40°C with tropicalisation • Humidity 5 to 95%)	Configuration	Web Server
CEM	Immunity (EN 61000-6-2) • EN61000-4-2 : Electrostatic discharge (ESD) • EN61000-4-3 : RF radiated • EN61000-4-4 : EFT/Burst • EN61000-4-5 : Surge • EN61000-4-6 : RF Conducted Emission (EN 61000-6-4) • EN 55022 : Radiated and Conducted emission	SECURITY	
Electrical Safety	EN 60950	VPN tunnel	<ul style="list-style-type: none"> • OpenVPN, IPSEC, TLS-SSL, L2TP / IPSEC, PPTP • Shared Key or X.509 Certificate • Encryption 3DES & AES 128-192-256 • Authentication: MD5 & SHA-1 • Up to 10 VPN tunnels (mix OpenVPN and IPSEC allowed)
Hazardous substances	<ul style="list-style-type: none"> • Directive 2002/95/CE (RoHS) • REACH 	Firewall	<ul style="list-style-type: none"> • Stateful packet inspection (SPI : 50 rules) • Filtering IP@ and Ports
Casing	Metallic IP20 with RailDIN mounting	Internal report	<ul style="list-style-type: none"> • Timestamped • Events: connection, restart, alarms
WAN NETWORK		Alarms	<ul style="list-style-type: none"> • Digital input: email, SMS, SNMP trap • Digital output: Power supply failure, user connection, ...
Ethernet	RJ45	Redondancy	VRRP protocol RFC 3768
4G/3G+	<ul style="list-style-type: none"> • 4G LTE Europe, USA, Asia, China • 3G+ HSPA "world wide" 850/900/1700AWS/1800/1900 MHz • Max. data rate 4G: UL @ 50 Mbps and DL @ 100Mbps • Max. data rate 3G+ : UL @ 5,7 Mbps and DL @ 21 Mbps • Max. data rate 2G : UL @ 237 Kbps and DL @ 237 Kbps • Antenna connector Male SMA • Certified antennas: see selection guide 	M2ME SOLUTION	
Wi-Fi	<ul style="list-style-type: none"> • Client 2.4 and 5 GHz depending on model • 802.11 a/b/g/n and super AG • Antenna connector Female SMA • Certified antennas: see selection guide 	Users	Jusqu'à 100 utilisateurs distants
PSTN network	<ul style="list-style-type: none"> • PSTN V90 modem • Autoadaptable all countries 	Security	<ul style="list-style-type: none"> • Access to the RAS by Login & Password and optional certificate • Single RAS product key required for the remote user • Customizable LAN machine network access rights
LAN NETWORK		Alarms	RAS Compatible with «Alert & Display» solution
Ethernet	RJ45, 1 up to 4 ports depending on model	Redondancy	Multi WAN for backup on specific models
RS232/RS485	<ul style="list-style-type: none"> • 9600 up to 115200bps 10 or 11 bits • RAW TCP server, TCP client & UDP gateway • ModBus master or slave gateway • Unitelway gateway for master PLC • RS232 : RJ45 • RS485: 2 points phoenix connector 	Communication	<ul style="list-style-type: none"> • Secured Connection onto the M2Me_Connect service • OpenVPN
Wi-Fi	Access point 2.4 and 5 GHz depending on model	Management	<ul style="list-style-type: none"> • Saving a configuration • Recording on USB flash drive, SD card or internal memory • Reset product to return to factory configuration • Option managed from the client area of the WEB site
		M2Me Client	<ul style="list-style-type: none"> • PC: All OS versions up to W10 • Smartphone and tablet PC: Android and iOS
		M2Me_Connect	VPN Tunnel Secure Interconnection Service

Since 1985, Etic Telecom designs and markets industrial telecom solutions to interconnect machines with each other.

Etic Telecom is dedicated to the supply of safe, simple and sustainable products (3S).



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