



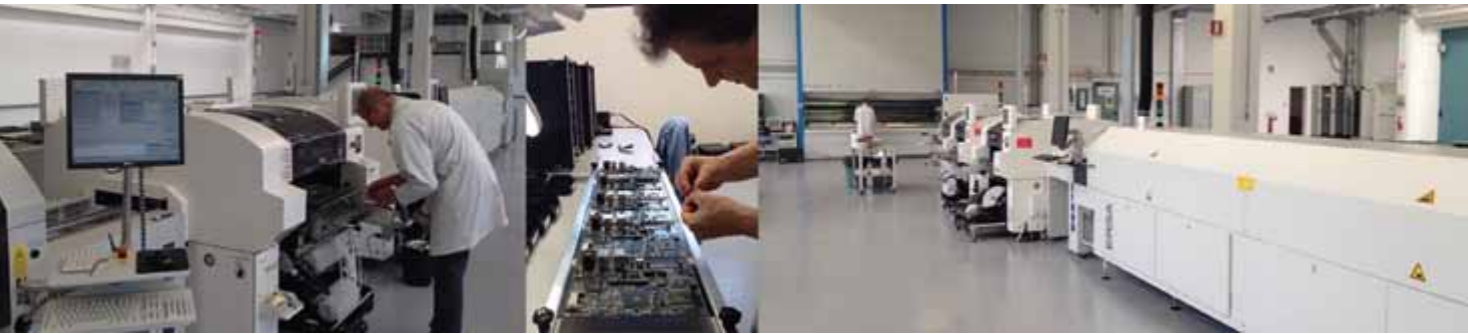
# Remote Assistance Solutions



# Table of content

<b>ASEM</b>	<b>4</b>
<b>UBIQUITY</b>	<b>6</b>
<b>UBIQUITY ROUTER</b>	<b>18</b>
UBIQUITY RK	<b>20</b>
UBIQUITY RM	<b>22</b>
<b>BRETON CASE STUDY</b>	<b>24</b>

# Solutions for the OpenAutomation



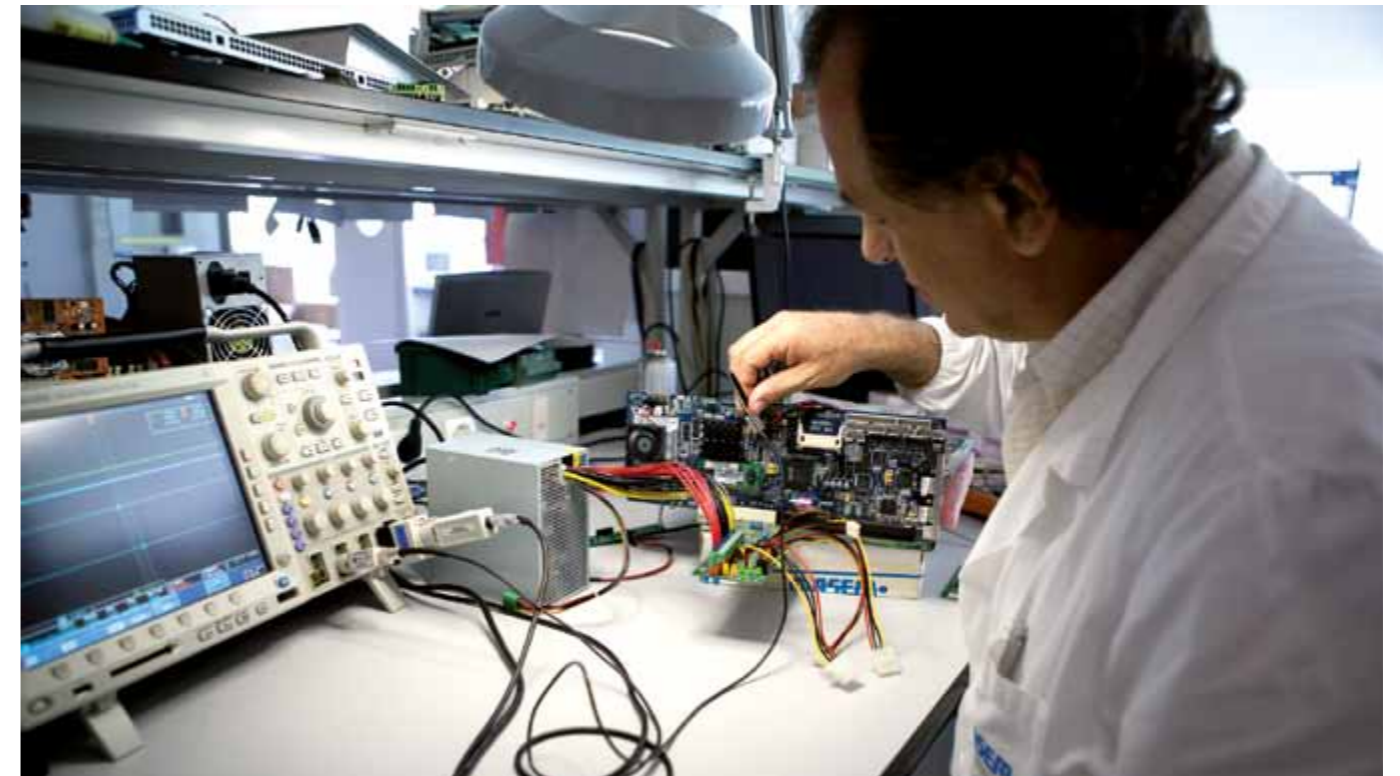
ASEM operates since more than 25 years in the x86-based industrial applications market and since 10 years ASEM has been specializing in the industrial automation market.

Leading the "Open PC Automation" in Italy, ASEM is guiding the technological evolution of its customers' HMI, control and remote assistance solutions, providing them with "open and standard" hardware platforms integrated with innovative, flexible and easy-to-use software solutions.

## Reliability

ASEM is a reliable and professional partner able to dominate the key technologies of automation systems.

In fact ASEM designs, engineers and manufactures entirely all its hardware, firmware and software solutions and controls directly an internal manufacturing process that includes board assembly and welding.



## ASEM in numbers:

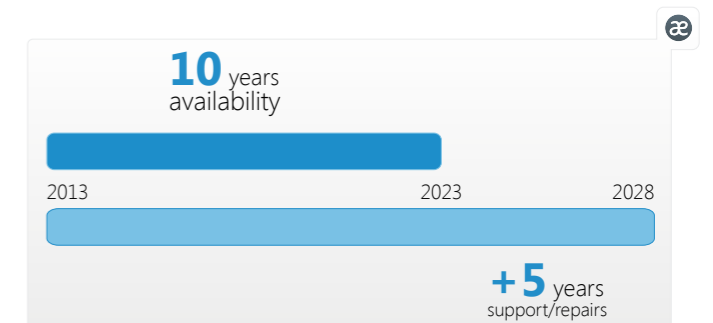
- Revenues: euro 22 millions (2012)
- 130 employees
- 5.200 sqm Headquarters in Artegna (UD)
- 3.250 sqm manufacturing plant in Artegna (UD)
- R&D department in Verona
- R&D department in Giussano
- Sales unit in Germany

## Innovation

The technological excellence of ASEM is guaranteed by important investments in R&D and a continuous staff training. The ability to understand and anticipate the fast market evolution and set and follow the right strategies has enabled the company to maintain a steady growth momentum in the last 10 years.

## Continuity

ASEM products and solutions have 7 to 10 years life-cycle with additional 5 years of support and repair service.



# Ubiquity

## Ubiquity

The innovative remote assistance solution



**In 2011 ASEM presented Ubiquity, the innovative software platform for remote assistance and control.**

The development idea came up to solve customer requests for an easy-to-use tool to install and setup machinery and, in particular, to manage post-sales service, phases during which customers often require modifications, customizations and support.

Designed for machine builders, the remote assistance and control solution UBIQUITY allows to operate on the remote system and its sub-networks as if it was in your own office.

Traditionally, the most challenging aspect of meeting such needs is the availability of qualified technical resources, that would need the gift of **ubiquity**.



The software solution UBIQUITY enables the access to remote supervision and control systems (based on Windows CE and Windows 32/64 operative systems) and to the automation devices (PLC, drive, etc), connected to the Ethernet and Serial sub-networks of the HMI/controller, through a VPN (Virtual Private Network) based on proprietary technology comparable to a cable connection.

UBIQUITY does not require additional hardware and allows to operate in remote plants as if they were directly connected to your enterprise network. It enables technical support teams to solve any issue, eliminating the need for on-site assistance, dramatically reducing post-sale service costs.

This solution is particularly useful during machine setup and commissioning, to modify and update software applications and remotely debug PLCs and other automation devices.

#### ➤ What I can do with Ubiquity

- Remotely program, debug and update HMI/IPC/ Controllers and automation devices (PLCs/drives, etc.) connected to Ethernet and Serial sub-networks
- Malfunctioning Analysis
- Software applications updates

#### ➤ How it works

- Uses a simple internet connection
- Creates a VPN between the remote assistance PC and the remote device activating sub-networks access
- Activates safety procedures with end-to-end sessions without any intermediate
- Ensures reliability and service continuity thanks to a redundant and distributed server infrastructure

## Ubiquity

### Value added for all automation devices



Ubiquity adds huge value in ASEM supervision and control system, but it is also a solution delivered as a software component to install on ASEM IPCs and third parties hardware.

Ubiquity is included in ASEM Windows CE-based HMI & PAC Solutions (HMI25, HMI30, HMI600, HMI700, LP30, LP700, LOGIC300).

#### ➤ Highlights

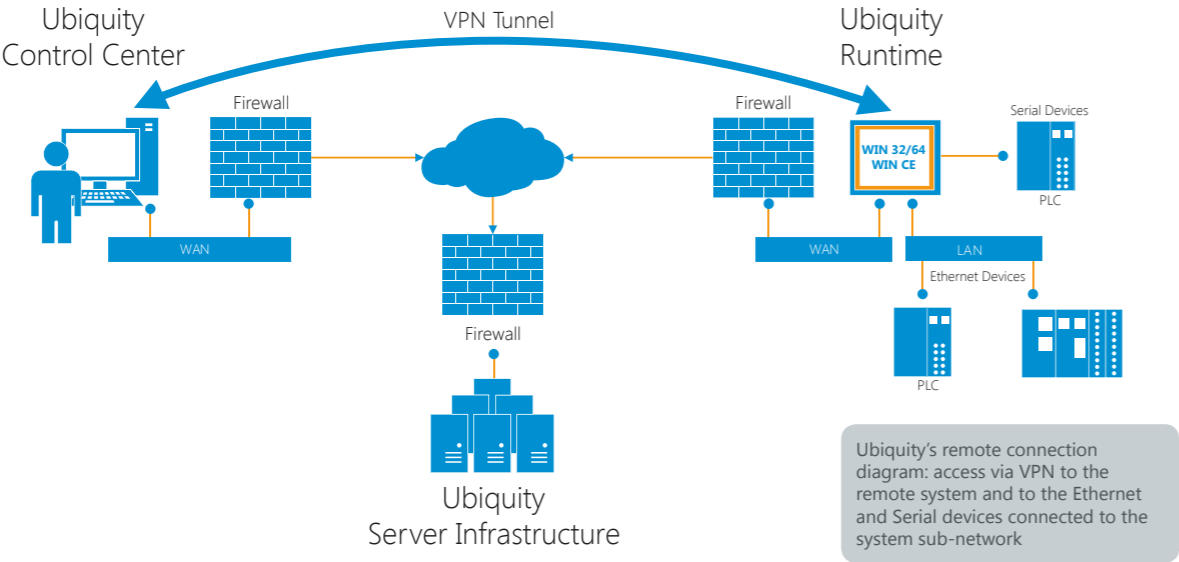
- Remote control of the HMI system
- Access to Ethernet and Serial devices connected to the IPC/HMI/controller sub-network
- Additional tools: remote desktop, file transfer, chat, etc.
- Proprietary VPN technology optimized for industrial communication
- Available with the same features for Windows 32/64 and Windows CE platforms
- No additional hardware required
- SSL/TLS safe connection and use of certificates
- Simple and easy-to-use interface
- Automatic selection of relay servers depending on the best response time
- Runtime with multiple connection support

Ubiquity is a simple and ready-to-use solution. Its installation does not require any ICT expertise in network and firewalls configuration. It has a user-friendly interface that enables access to remote systems (PLCs, HMIs, drives, etc.) with a simple click through a VPN optimized for industrial communications.

The solution allows transparent management of remote systems as if they were connected to the enterprise network and it does not require the support of network administrators for any NAT, proxy, firewall, public IP and reserved ports.

# Ubiquity

## The components



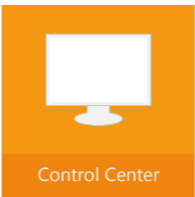
Ubiquity platform is made up of "Control Center", the software tool to be installed on the remote assistance PC to manage the "Ubiquity Domain", of the Server infrastructure and different versions of Runtime.

The connection between Control Center and the Runtime installed on the remote IPC/HMI/controller leverages on a safe end-to-end connection.

## Server infrastructure



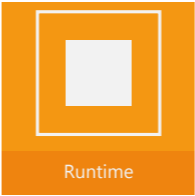
To provide an excellent service ASEM built a redundant and globally distributed server infrastructure that counts two farms in Europe (Munich and Amsterdam), two in the United States (western and eastern coast) and two in Asia (Singapore and Honk Hong).



**Ubiquity Control Center**  
Control Center is installed and executed on the remote assistance PC and allows to manage the domain, the users and their privileges, and the connection with remote devices.



**Ubiquity Domain**  
Ubiquity Domain is the "customer account" to make use of Ubiquity infrastructure and services.



**Ubiquity Runtime**  
The runtime is the software component installed and executed on the remote IPC/HMI/controller that supervises or controls the automation process. It requires neither additional hardware nor network configuration and it uses the existing Internet connection.



**Ubiquity Server Infrastructure**  
Communication between Control Center and Runtime is ensured by a redundant server infrastructure built and maintained by ASEM which uses state-of-the-art security technologies for data exchange such as SSL/TLS, public key cryptography, safe, fault tolerant and redundant server farms to secure data privacy and adequacy.

### Runtime versions

Runtime component is available in Basic and PRO versions for WIN CE and WIN 32/64 operating systems. The Basic version provides access to the IPC/HMI/remote controller and provides

remote-desktop, remote task manager, remote file manager and chat with the remote operator. The PRO version enables also the access to all the automation devices (PLCs, drives, etc.) connected to the

Ethernet or Serial subnetwork of the IPC/HMI/remote controller.

Ubiquity 3 Runtime	Windows CE		Win32/64	
	Basic	Pro	Basic	Pro
Remote desktop, file & task management, chat, screenshot	■	■	■	■
VPN to the remote device	■	■	■	■
VPN with access to the Ethernet sub-network of the device/router	No	■	No	■
VPN with access to the Serial sub-network of the device/router	No	■	No	■
Integrated firewall	■	■	■	■
API to interface proprietary software applications	■	■	■	■
Runtime operations persistent log	■	■	■	■
Multiple connections from different Control Center	■	■	■	■
Structured Domain creation, users and remote devices management	■	■	■	■
Internet connection via PROXY for Control Center e Runtime	■	■	■	■
Functioning in local network without license	■	■	■	■
Runtime update procedure with automatic shutdown and restart of services	■	■	No	No

### Domain types

Ubiquity Domain is available in three different versions: Single Entity-Single Access, Single Entity-Multi Access and Multi Entity-Multi Access. Single Entity Domains are

accessible by users of one only company, Multi Entity Domains are accessible by users of different companies. Single Access Domains give access to Ubiquity

infrastructure and services to one user at a time, Multi Access Domains give access to Ubiquity infrastructure and services to more users at the same time.

	Ubiquity Domain types		
	Single Entity-Single Access	Single Entity-Multi Access	Multi Entity-Multy Access
Domain accessible by	Users of one company	Users of one company	Users of more companies
Remote assistance services enabled for	One user per time	More users at the same time	More users at the same time



Control Center	Software application for Windows 32/64 PCs to access the Domain and manage Ubiquity services
Level 2 (data-link) and level 3 (network, IP) VPN towards remote system and Ethernet devices connected to it	
Remote serial connection support	
Remote desktop	
Remote file-exchange	
Remote task manager - Processes execution and stop	
Remote system and OS resources monitoring	
Chat	
Screenshot	
Accesses statistics visualization	
Users database, remote devices and access profiles management	
Ubiquity Router configuration	
Windows Xp, Vista, 7, 8 (32 and 64 bit) support	
Requires .Net Framework 3.5	

Runtime	Software application for Win CE and Win 32/64 remote devices (IPC/HMI/controller) and Ubiquity Routers to make them accessible from remote
Supports systems with 1 Ethernet (WAN) or 2 Ethernet (WAN + LAN) interfaces	
Level 2 (data-link) and level 3 (network, IP) VPN	
Automatic or manual activation (activation possible also from third party applications using API - Application Program Interfaces)	
Allows to display connection status and log of remote accesses and remote actions	
Supports integrated firewall	
Low CPU and memory footprint	
Allows to avoid the usage of VNC, FTP Server, folder sharing and PLC development tool on the remote system	
Supports Windows CE 5.0, 6.0, 7.0 (ARM and X86), Windows Xp, Vista, 7 (also embedded versions) 32/64 bit	
Requires .Net Compact Framework 3.5, min. 500 MHz CPU, min. 256 KB RAM for Win CE OS	
Requires .Net framework 2.0 SP1, min. 500 MHz CPU, min. 256 KB RAM for Win 32/64 OS	

Server Infrastructure	Redundant and multiple servers located worldwide
Allows secure connection between Control Center and remote devices without any firewall and NAT configuration	
Enables management of an unlimited number of devices, users, configurable in different profiles and groups	
Uses a connection with SSL/TLS protocol cryptography and use of certificates	
Allows performances optimization with end-to-end connections (server is excluded)	


# Ubiquity Highlights



**Proprietary VPN**  
Differently from VPNs based on the IP layer, Ubiquity VPN works on the data-link layer bringing concrete advantages:

- Remote assistance PC becomes part of the remote host network using the same physical IP addresses

- Remote assistant can use broadcast-based protocols
- It is not necessary to configure the gateway of the remotely accessed devices. The remote assistant connection appears as a locally connected IP.




**Remotation of Serial Communication**  
Ubiquity installs a virtual serial port on the Control Center PC.

This virtual serial port can be mapped on a physical port of the remote device executing Ubiquity Runtime.

**Benefits:**

- Possibility to carry out supervision and diagnostics tasks on remote serial devices.



**Multi-client**  
Ubiquity Runtime supports multiple concurrent connections from different supervisors whether with interactive session (remote

desktop, file transfer, etc) or in VPN. Control Center can activate multiple interactive sessions with different devices and only one VPN connection to a remote device.

**Benefits:**

- Maximum productivity being able to operate simultaneously on the same system.


**Full compatibility with the existing firewalls**  
Ubiquity Control Center and Ubiquity Runtime connection are automatically configured

using outbound connections which are recognized as safe and therefore allowed by firewall policies.

**Benefits:**

- No need to configure the end-user's firewall and network. Only an outbound connection is necessary.

- Ubiquity automatically uses enabled TCP and UDP protocols and can use HTTP, HTTPS or custom ports, ensuring compatibility with existing IT policies.

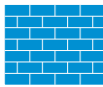


**Industrial Security**  
Ubiquity infrastructure uses the highest network security standards, such as:

- SSL/TLS protocol via UDP or TCP
- Asymmetric cryptography and X509 certificates for authentication sessions

- Symmetric cryptography for data transimission
- Message authentication codes (MAC) for data integrity.

# Ubiquity Highlights



**Integrated firewall**  
Ubiquity's integrated firewall allows to control communication packets passing through the VPN. Introducing firewall policies, it is possible to filter Ethernet datagrams depending on communication protocols and target addresses.

The server infrastructure provides a library of policies that can be imported into the Domain and applied to devices and folders. Filtering rules can be assigned to single users or group of users.

**Benefits:**  
→ Increased security and bandwidth control  
→ Increased flexibility in access permissions.



**Access profiling and control**  
Ubiquity allows the creation of an unlimited number of users, user groups, device groups, each with different access rules. Permissions can be flexibly configured up to the single device or folder: possibility to create local and global users, and sub-domains.

Ubiquity provides 4 different user profiles: **Administration** enables folders and users management, **Device Installer** allows to add new devices in the Domain, **Network security** enables configuration and set up of Firewall rules and **Remote access** allows to practice remote access sessions.

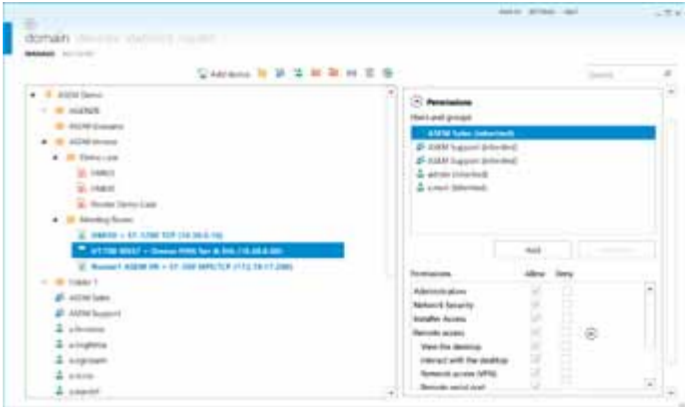
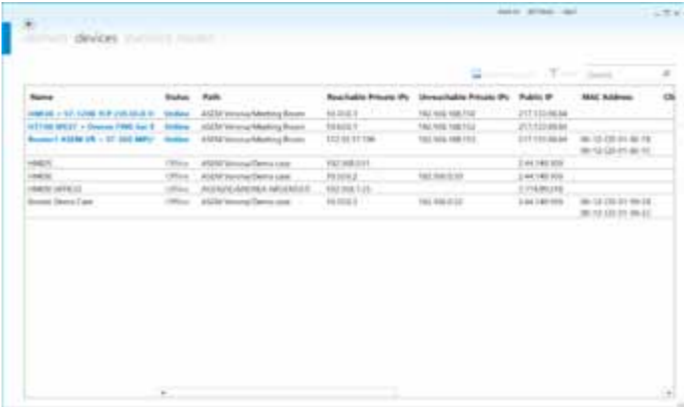
**Benefits:**  
→ Users can implement their own organizational structure (made up of users, administrators, power-users, third parties, limited users, etc.) to reach in a flexible and controlled way all customers around the world  
→ Access to remote devices is properly secured and restricted to the required personnel.



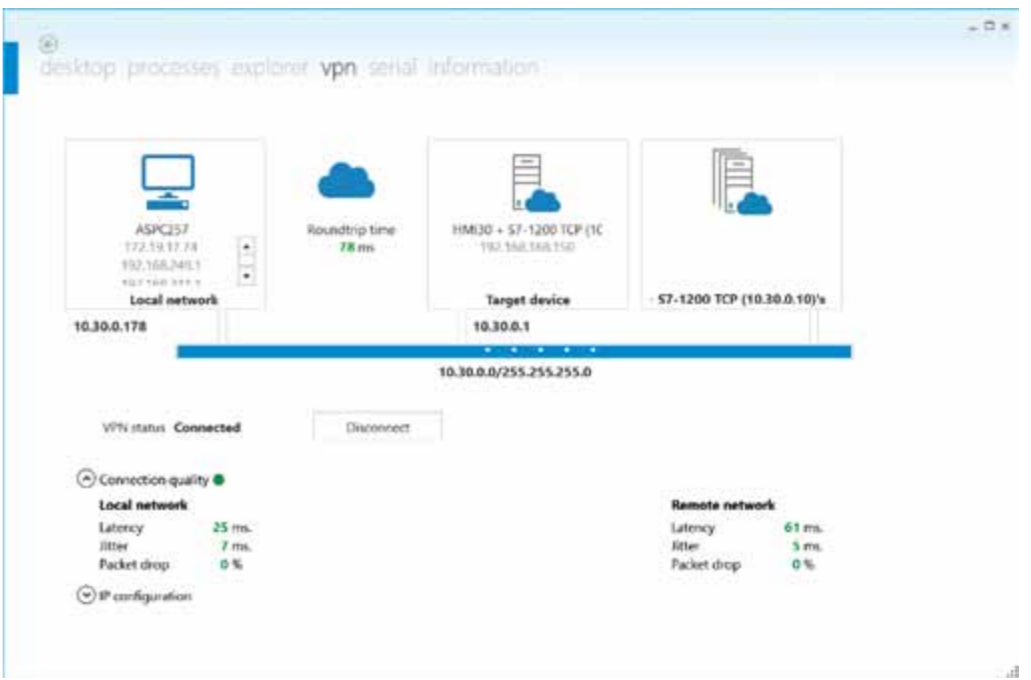
**New user interface**  
With a completely redesigned graphic interface based on Modern-UI standards. The new design gives additional controls and views,

as the new table view that enables the "Search" function using the text field on the right of the tree view that now gives also users (or groups of users) information.

**Benefits:**  
→ Ubiquity Control Center becomes clearer and more intuitive  
→ Users' daily operations are simplified and made more immediate.



**Connectivity quality measurement**  
Ubiquity provides a simple function that measures connectivity quality on both local and remote network. Performances are measured in terms of latency time, jitter and packet drop.



# Ubiquity Highlights



## Remote desktop

Control center includes remote desktop function.

### Benefits:

→ No need to activate RDP services or to install optional utilities like VNC.



## File exchange

Control Center includes a complete tool to perform remote files download and upload.

### Benefits:

→ No need to open shared folders or to install optional utilities like FTP servers.



## Statistic and Audit

Ubiquity records and stores on the Domain all the remote access activities.

### Benefits:

→ The network administrator can verify anytime the post-sales support workload, the

accuracy of the jobs carried out and get statistics for customers, PCs and operators.



## Chat

Control Center and Runtime include a chat.

### Benefits:

→ Instead of using the phone to communicate with remote operators, the user can simply take advantage of Ubiquity chat and reduce costs.



## Cloud-based accessibility

Ubiquity domain is registered on the Cloud. This architectural paradigm allows service continuity and data safety.

### Benefits:

→ Wherever the user is located, he can launch Control Center getting access to remote machines worldwide.



## Windows Embedded

### Full support of Embedded platforms

Ubiquity Runtime is available for the following operative systems:

→ Windows XP, Vista, 7, 8 (32 and 64 bit)

→ Windows Embedded Standard 2009, Windows Embedded Standard 7E and 7P

→ Windows CE 5.0, 6.0, Windows Embedded Compact 7.0

# Ubiquity Router

## Ubiquity RK and RM

Remote access and monitoring  
have no limits



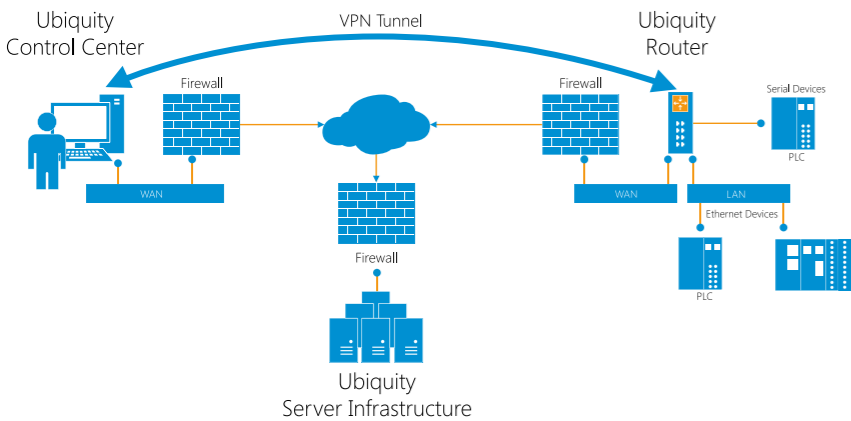
**Ubiquity Routers complete the range of Remote Assistance Solutions with a combined hardware + software solution that ensures remote access and remote monitoring functionalities on every automation device.**

**With the built-in 2G/3G/3G+ modem of RK11 and RM11 it is possible to reach and monitor also plants and automation networks without a wired Internet connection.**

Ubiquity software creates a VPN between the Control Center PC and the router enabling access to automation devices connected via Ethernet and Serial ports. The features of Premium HMI, ASEM's HMI software, enable additional remote monitoring functionalities that allow RM10 and RM11 to directly access controller's memory and perform data sampling, archiving and monitoring for the eventual delivery of alerts and notifications. Ubiquity Routers bring remote assistance services on plants and machinery

where it would have not been possible to install the Ubiquity software solution, as automation systems with HMI/IPC/controller with operating system other than WIN 32/64 and WIN CE, machinery controlled only by serial devices without Ethernet interface and even machines and plants without a wired internet connection. Furthermore Ubiquity Routers separate the automation devices from the external Internet connection adding a further protection to the Local Area Network.

RK10 - RK11



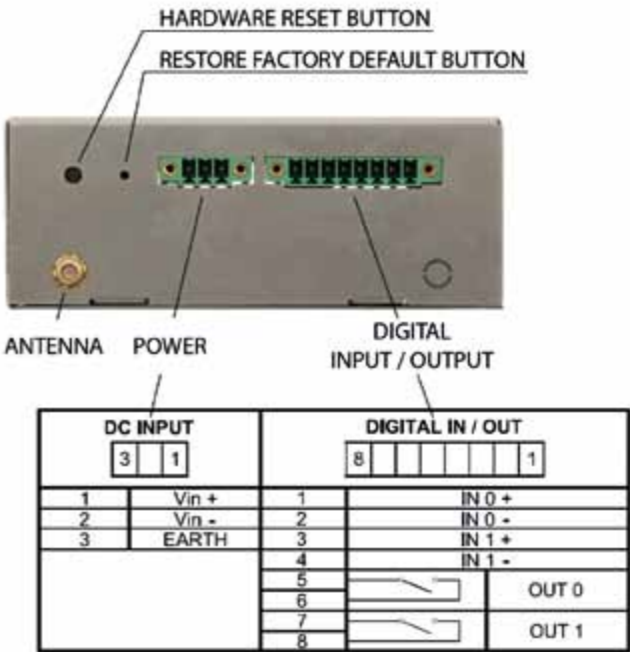
RK10

RK11



RK10

RK11



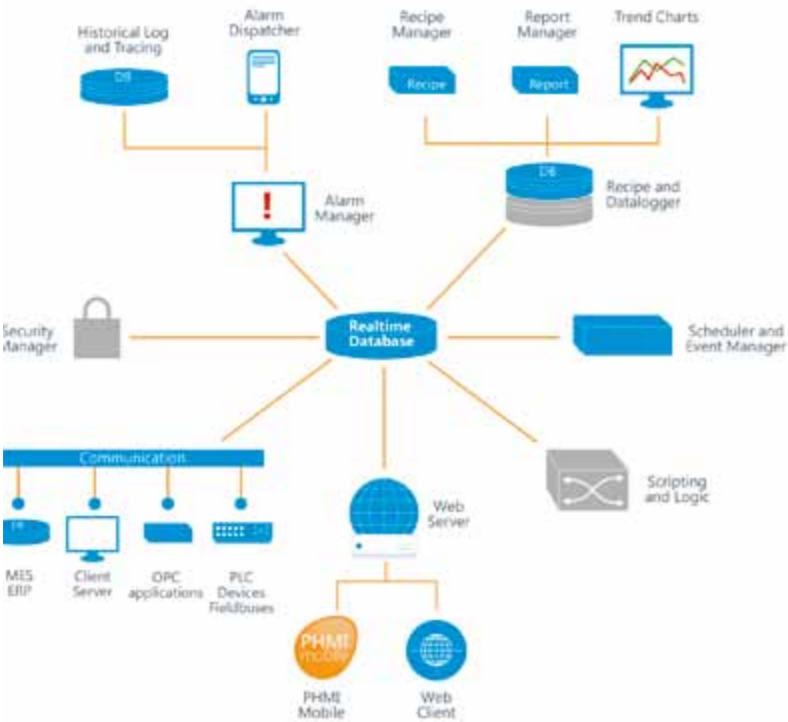
Ubiquity RK10 and RK11 are systems dedicated to remote assistance based on a 1 GHz ARM Cortex A8 processor enclosed in a "book mount" stainless steel case for DIN rail or wall mounting, with 9÷24 V DC power supply range. RK families have one 10/100 Mbps Ethernet WAN port for Internet connection, one 100 Mbps Ethernet LAN for automation devices connection, an optoisolated serial interface RS 232/422/485/MPI and one USB 2.0 port. The systems include one

24 V DC digital input for the security key activation that activates the router also from remote and one 24 V DC digital input for the remote reset function. RK10 and RK11 include also a low voltage relay output to remote the "UBIQUITY RK enabled for WAN connection" signal and a relay output to remote the "ongoing remote assistance service" signal. RK11 integrates a built-in 2G/3G/3G+ EDGE/HSPA quadriband modem compatible with cellular networks worldwide.

- Highlights**
- Ubiquity software creates a VPN between the Control Center PC and the Router enabling access to devices connected via Ethernet and Serial ports
  - Debug, programming and update of the automation devices connected to the RK10/11 via Ethernet and Serial interfaces
  - Proprietary VPN technology designed for Industrial communication
  - MPI protocol support
  - Immediate setup and configuration
  - Firewall friendly
  - RK11 integrates a built-in 2G/3G/3G+modem to access machines and plants without a wired Internet connection

		RK10	RK11
CELLULAR NETWORK	Standard	-	
	Antenna	2G/3G/3G + EDGE/HSPA quadriband modem up to 5,76 Mbps upload / 14,4 Mbps download	
	SIM	1 x SMA connector (auxiliary Diversity antenna option) 1 x SIM card socked push-push type	
REMOTE ASSISTANCE SW		ASEM UBIQUITY Router Runtime	
O.S. INSTALLED		Microsoft Windows Embedded Compact 7 Pro	
CASE	Material	Stainless Steel	
	Mounting	Wall book mounting prediposition, DIN rail holders kit included	
	Dimensions	36x138x116 mm	45x138x116 mm
PROTECTION GRADE		IP20	
PROCESSOR		ARM Cortex A8 processor Freescale® i.MX535 1 GHz	
SYSTEM MEMORY - RAM		512MB	
MASS STORAGE		256MB Ready-Only NAND-Flash for operating system and runtime 2GB eMMC (Solid State Disk) 8bit, file system organization	
LAN		LAN Ethernet 100 Mbps (RJ45) WAN Ethernet 10/100 Mbps (RJ45)	
USB		1 x USB 2.0	
SERIAL		1 x RS-232/422/485 (DB15M) optoisolated	
DIGITAL INPUT	IN0	Security key for WAN connection activation. Function managed by Control Center.	
	IN1	UBIQUITY Router software reset	
	Type	0÷24V DC, 500V optoisolated	
DIGITAL OUTPUT	OUT0	UBIQUITY Router WAN enabled connection signal	
	OUT1	Remote assistance service running signal	
	Type	Output with relay 200mA@24V DC max for contact (N.O. - normally open)	
BUTTONS		UBIQUITY Router hardware reset UBIQUITY Router factory default restore	
POWER SUPPLY UNIT		Input voltage 24V DC (9÷36 V DC)	
OPERATING TEMPERATURE		0° ÷ +50°C (-20° ÷ +70° C option)	
APPROVALS		CE, cULus	

RM10 - RM11



Ubiquity RM10 and RM11 add remote monitoring functionalities to the Ubiquity RK families providing a complete solution for applications where remote access needs to be supported by constant data monitoring. RM solutions provide flexible data monitoring and data collection functionalities managing efficiently real-time data, historical archives and instant notifications. Data is stored in the local memory of the RM10/11 and Ubiquity Control Center provides an easy way to export data and monitor the application from remote. Data monitoring features include alarm notifications via e-mail and SMS.

Premium HMI RM Runtime provides compatibility with PLC and controllers protocols allowing RM10/11 to connect directly to the PLC's memory for data acquisition. Data gateway is also supported and RM families can be programmed to transfer data between different communication drivers. Ubiquity RM families provide also VBA scripting functions that extend application flexibility providing a comprehensive solution to all common needs of a data monitoring device. Furthermore, RM families allow graphic screens programming and provide a web client that enables Web and Mobile HMI visualization

of local screens via Ubiquity Control Center and web browsers. HMI screens are also accessible from the local Wi-Fi network using the new Premium HMI Mobile App for iOS and Android devices. RM11 integrates a built-in 2G/3G/3G+ EDGE/HSPA quadriband modem compatible with cellular networks worldwide. RM10 and RM11 are a full-featured remote monitoring solution that leverages on the innovative remote assistance solution Ubiquity and Premium HMI 4 advanced functionalities.

Highlights

In addition to RK families features RM10 and RM11 provide:

- Flexible Scripting with integrated VBA Engine and multi-threading support
- Web and Mobile HMI using Ubiquity Control Center, web browser or Premium HMI Mobile App
- Data logging (with data export procedure)
- Alarms management
- Recipe management
- Integrated gateway for multiple PLC drivers communication
- Programmable with Premium HMI Studio
- RM11 integrates a built-in 2G/3G/3G+ modem to access machines and plants without a wired Internet connection



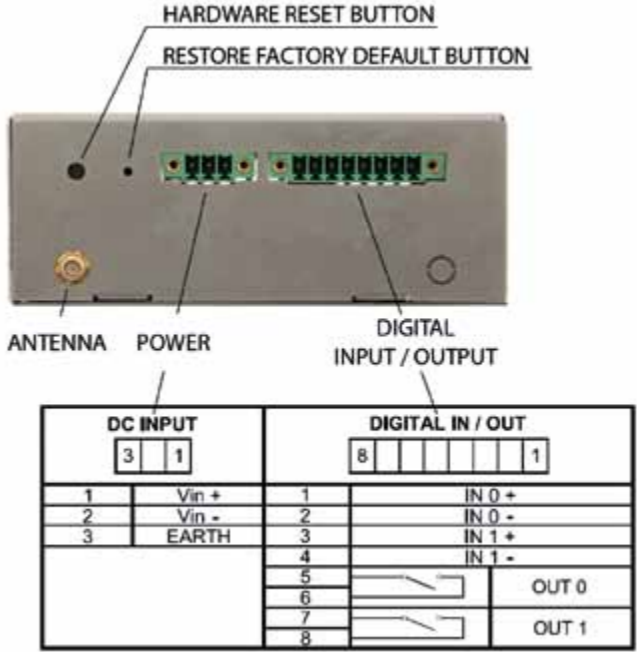
RM10

RM11



RM10

RM11



		RM10	RM11
CELLULAR NETWORK COMPATIBILITY	Standard	-	
	Antenna	2G/3G/3G + EDGE/HSPA quadriband modem up to 5,76 Mbps upload / 14,4 Mbps download	
	SIM	1 x SMA connector (auxiliary Diversity antenna option) 1 x SIM card socked push-push type	
REMOTE ASSISTANCE SW		ASEM UBIQUITY Router Runtime	
REMOTE MONITORING SW		ASEM Premium HMI RM Runtime	
O.S. INSTALLED		Microsoft Windows Embedded Compact 7 Pro	
CASE	Material	Stainless Steel	
	Mounting	Wall book mounting prediposition, DIN rail holders kit included	
	Dimensions	36x138x116 mm	45x138x116 mm
PROTECTION GRADE		IP20	
PROCESSOR		ARM Cortex A8 processor Freescale® i.MX535 1 GHz	
SYSTEM MEMORY - RAM		512MB	
MASS STORAGE		256MB Ready-Only NAND-Flash for operating system and runtime 2GB eMMC (Solid State Disk) 8bit, file system organization	
LAN		LAN Ethernet 100 Mbps (RJ45) WAN Ethernet 10/100 Mbps (RJ45)	
USB		1 x USB 2.0	
SERIAL		1 x RS-232/422/485 (DB15M) optoisolated	
DIGITAL INPUT	IN0	Security key for WAN connection activation. Function managed by Control Center.	
	IN1	UBIQUITY Router software reset	
	Type	0÷24V DC, 500V optoisolated	
DIGITAL OUTPUT	OUT0	UBIQUITY Router WAN enabled connection signal	
	OUT1	Remote assistance service running signal	
	Type	Output with relay 200mA@24V DC max for contact (N.O. - normally open)	
BUTTONS		UBIQUITY Router hardware reset UBIQUITY Router factory default restore	
POWER SUPPLY UNIT		Input voltage 24V DC (9÷36 V DC)	
OPERATING TEMPERATURE		0° ÷ +50°C (-20° ÷ +70° C option)	
APPROVALS		CE, cULus	

# Breton Case Study



**“Using the remote assistance solution ASEM UBIQUITY we saved over € 400'000 of our yearly travel expenses” said Denis Soldan, After Sales Dept. Director at Breton.**

In 2012, thanks to the collaboration with an important customer, Breton S.p.A., a manufacturer of high speed CNC machining stations and stone working machines for processing marble and granite, ASEM with its Ubiquity solution won the "Windows Embedded Intelligent Systems Partner Excellence Award" in the Global Manufacturing category. The award recognizes each year Microsoft partners that stood out by delivering creative problem-solving intelligent solutions to customers.

The "Success Case" shows how Breton S.p.A. found useful and convenient to install the software Ubiquity in all their plants and machinery worldwide obtaining an overall saving in service costs higher than 30% and a level of proximity to customers never achieved before.

# Breton Case Study



Founded in 1963 by Marcello Toncelli, who perceived the enormous potential of a developing innovative market, Breton has become one of the world's leading companies in the high speed CNC machining stations sector and in the field of stone working machines for processing marble, granite and ornamental stone. Furthermore Breton, after years of R&D and several international patents filed, is the global leading manufacturer of plants for compound stone production.

Breton plants, machines and high speed CNC machining stations are recognized worldwide for the high technological level, the innovative solutions, and for the undisputed quality of the products and services offered to customers.

## **Breton, a customer oriented company**

"We have always paid particular attention to customer needs, providing up-to-date, comprehensive and efficient services to integrate our high-performance machines offering. Being a Breton customer means choosing not only the quality, efficiency and excellence of machines and plants, but also the highest level services" said Enrico Favaro CTO at Breton.

Each year Breton realizes on average between 250 and 300 machines. After-sales services and maintenance are provided also on machines sold 15 years ago. The fleet is huge and counts around 4.000 plants and machines worldwide. "Reaching each machine is really challenging, with different time zones and on-site staff shortage. On-site service personnel must be high-qualified and able to cover every automation need. This is the reason why remote connection and remote access have always been considered a must-have.

In fact Breton had previously assisted machines controlled with PCs using several remote desktop solutions available on the market. However these did not allow an easy access to the different networks of the customers. "Configuring the different firewalls and networks required many days of work and high level IT expertise. Sometimes, to access the machine we had to use different software solutions at the same time. It was paradoxical" continues Favaro. The PLC-controlled machines had never been assisted or remotely controlled. It was impossible to find a reliable and easy-to-use solution thus Breton had to give up the chance to remotely access PLC-controlled machines.



**Ubiquity, the solution for any problem**

"When ASEM presented us UBIQUITY, we immediately realized that it was the solution to our issues. UBIQUITY opened new horizons enabling remote assistance even on PLC-controlled machines, providing us with a unique and complete solution to remotely access the Ethernet and Serial subnetwork of the IPC/HMI running the Ubiquity Software, on both Win 32/64 and Win CE operating systems" said Favaro.

Therefore Breton decided to install the software UBIQUITY on each IPC-controlled machine, and appreciating the offer of ASEM HMI solutions that integrate the remote assistance software Ubiquity, decided to provide each PLC-controlled machine with an HMI30 obtaining the possibility to operate from remote on the controller via the HMI.

Breton is now taking full advantage of Ubiquity potential. The company is constantly connected to the several machines all over the world to perform software updates and troubleshooting. "UBIQUITY has become essential. In the different branches of Breton, there are at least 5 or 6 people permanently connected to the UBIQUITY servers to perform preventive maintenance and to get machines' operating data."

Using UBIQUITY, Breton is always on customers' side providing them with an efficient machine set up and commissioning while offering an unrivaled after-sale service able to satisfy every need taking advantage of high-qualified staff availability.

The desire to provide an excellent assistance service belongs to BRETON philosophy and UBIQUITY is a primary tool to ensure reliability and continuity of service which is often the reason why customers choose Breton rather than other competitors" said Favaro.



#### **An easy and ready-to-use solution**

"One of the key advantages of ASEM UBIQUITY, compared with other remote assistance solutions on the market, is certainly the ease-of-use. The connection to the customer enterprise network does not require any network or firewall configuration. Therefore it is possible to activate the service and access the customer's network without any assistance or technical support" continued Favaro.

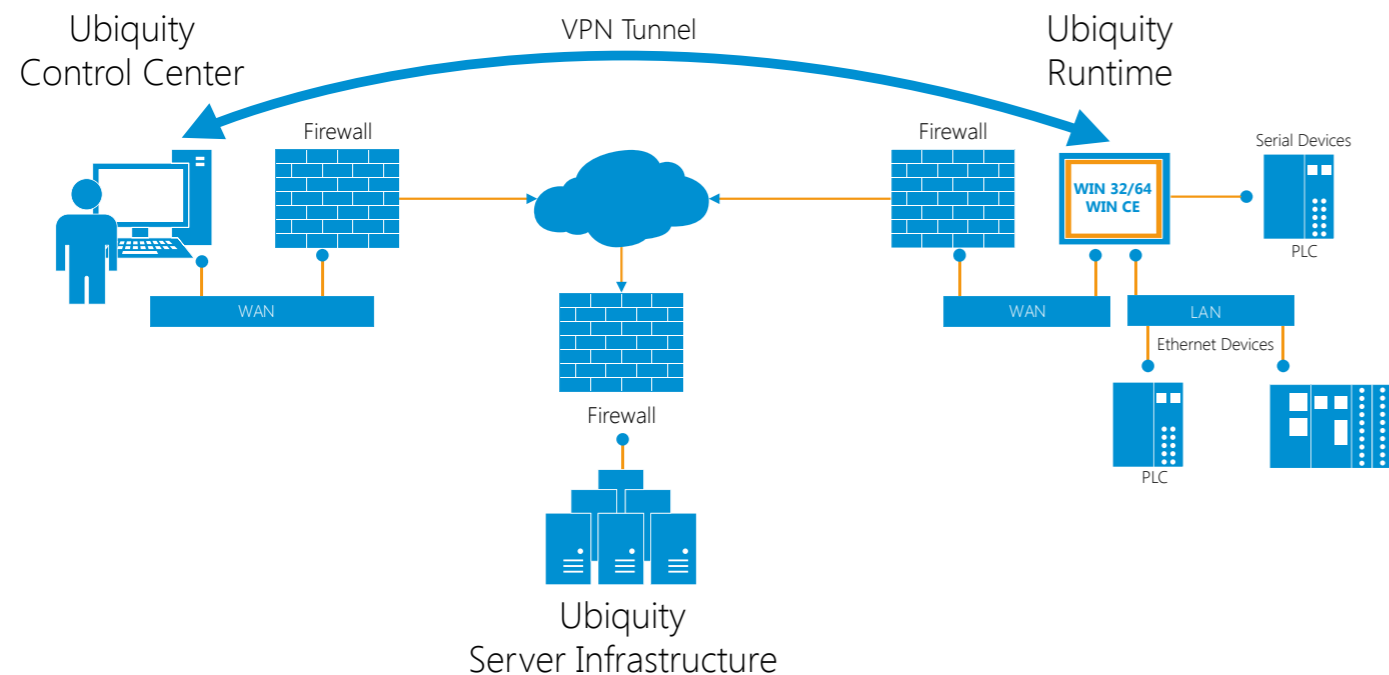
#### **A proprietary VPN optimized for industrial communication**

"The most important aspect is definitely the VPN end-to-end connection. In the past, Breton used to install a direct VPN to bigger plants to get access to customer's automation system since the remote desktop was not enough to get all the plant operating data. This functionality is native and completely integrated in the ASEM UBIQUITY Solution.

In fact ASEM UBIQUITY includes a proprietary VPN specifically designed for the industrial communication needs. The UBIQUITY Virtual Private Network works on the ISO/OSI model data-link layer and supports broadcast messages such as UDP. This avoids the introduction of complex routing rules and the need to adjust the gateway configuration of the devices that must be reached, since the remote supervisor appears as a locally connected IP.



# UBIQUITY



## Hierarchical and flexible management of accesses and permissions

"Another important feature of UBIQUITY is the machine accesses management, that allows to differentiate profiles and authorizations depending on specific user expertise. For example the engineer in charge of preventive maintenance and data storage can perform a first remote diagnosis of the problem. Once the engineer realizes that the PLC might need to be debugged, the technician with related PLC programming software expertise can access the controller and execute a system debug thanks to a broader authorization access profile" states Enrico Favaro.

As a matter of fact, Ubiquity allows the creation of an unlimited number of users, user groups or remote machines groups with different access rules.

## Offering an unmatched and cost-effective service with remote assistance

Today, service is one of the most important levers to establish a fruitful relation with the customer. The chances to be successful for supplier who has a flawless product but does not ensure a very good service are really low. Breton has always invested in after-sales service and UBIQUITY allows us to stay a step ahead of our competitors.

Ubiquity benefits are huge. We have had 30% savings on service cost. Just think about the reduction of on-site support with a related saving on travel expenses, not to mention the continuous availability of key-staff during after-sales support.

Breton plants and machining stations are appreciated worldwide for the high-technology and innovation standards, but the unchallenged service quality is the reason why customers finally choose Breton. In fact customer service affect up to 50% on the choice to buy a Breton machine or plant and Ubiquity allowed Breton to reach a customer support and service level never achieved before."





**ASEM S.p.A.**

**ASEM | Artegna | Headquarters**  
Via Buia 4  
33011 Artegna (UD) | Italia  
Phone: +39/0432-9671  
Fax: +39/0432-977465

**ASEM | Giussano**  
Via Prealpi 13/A  
20833 Giussano (MB) | Italia  
Phone: +39/0362-859111  
Fax: +39/0362-859121

**ASEM | Germany**  
Walbenstraße 41  
72127 Kusterdingen-Wankheim  
Phone: +49 (0) 7071 7963 070  
Fax: +49 (0) 7071 7963 071

email: [industrialautomation@asem.it](mailto:industrialautomation@asem.it)  
website: [www.asem.it](http://www.asem.it)