

TCP/IP For Industrial Control

PRESENTATION



Why use TCP/IP?

- **Robust** Communication (Reliability, Performance)
- **Flexibility** (can be used in LAN or WAN)
- **Rich suite** of Common protocols (communication rules for all networks)
- **Ease of Reconfiguration** (Adding and removing devices without disrupting communications)
- **10.000+** Devices and Vendors

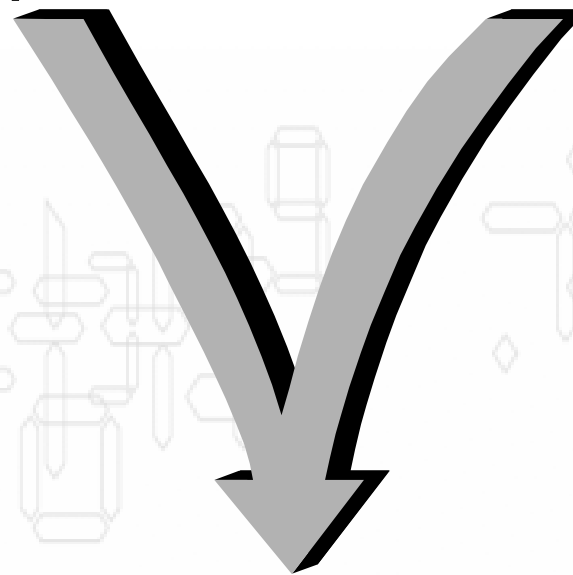
2 approaches to new technology!

Integration

Into new products

Gateway

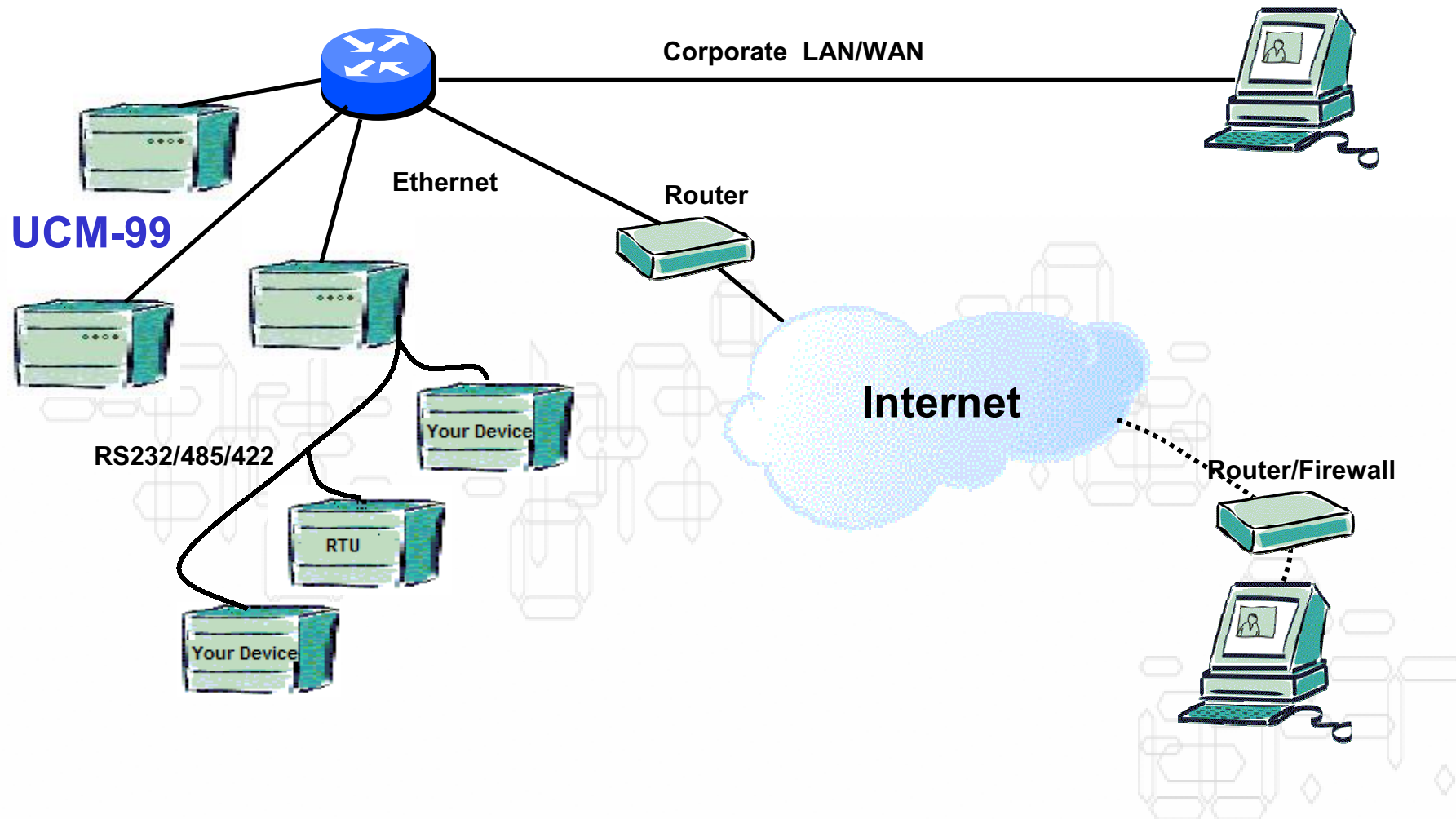
To existing products



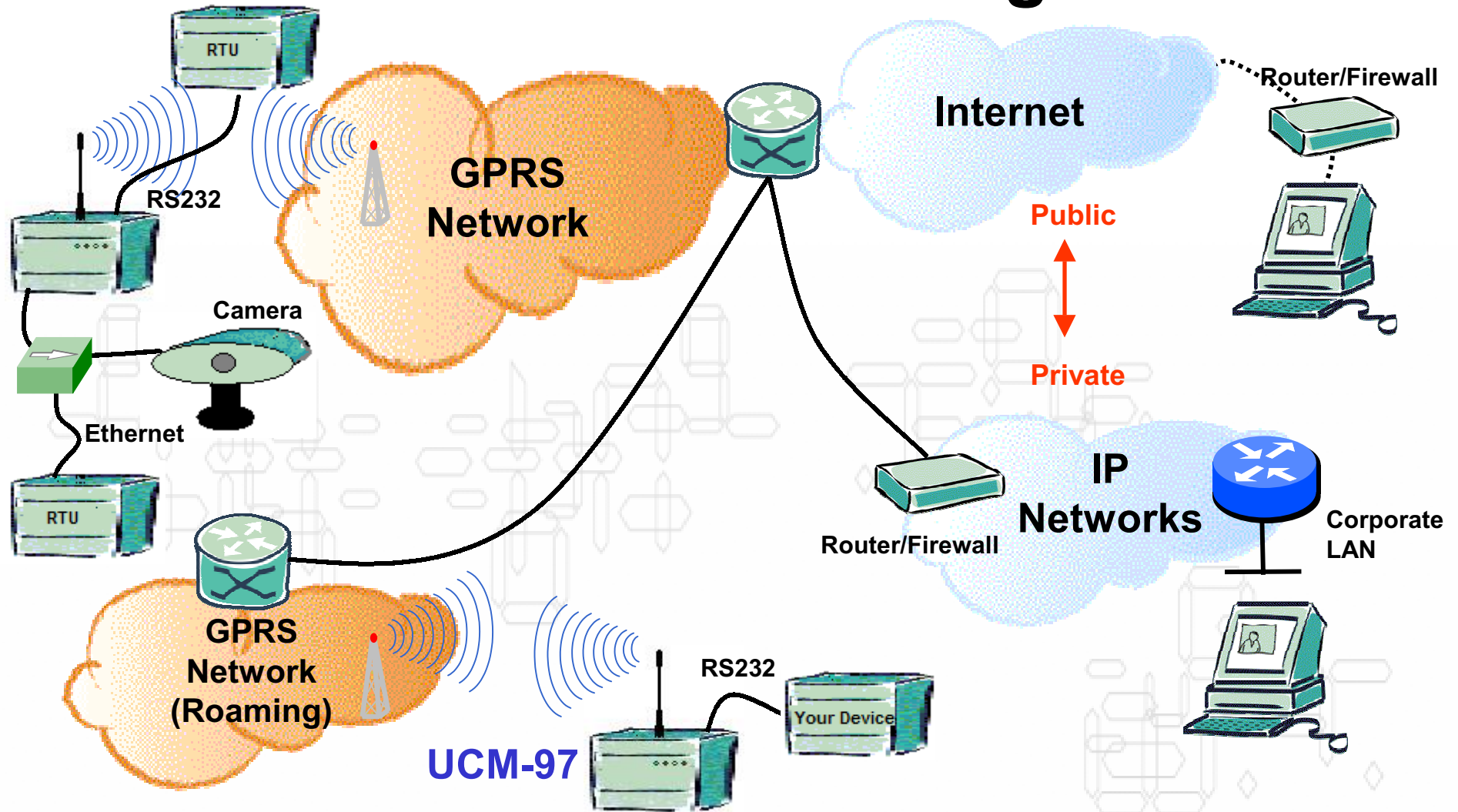
TCP/IP Communication

Speed up your Communication with a **Gateway** from Brodersen Controls

Network architecture ready!

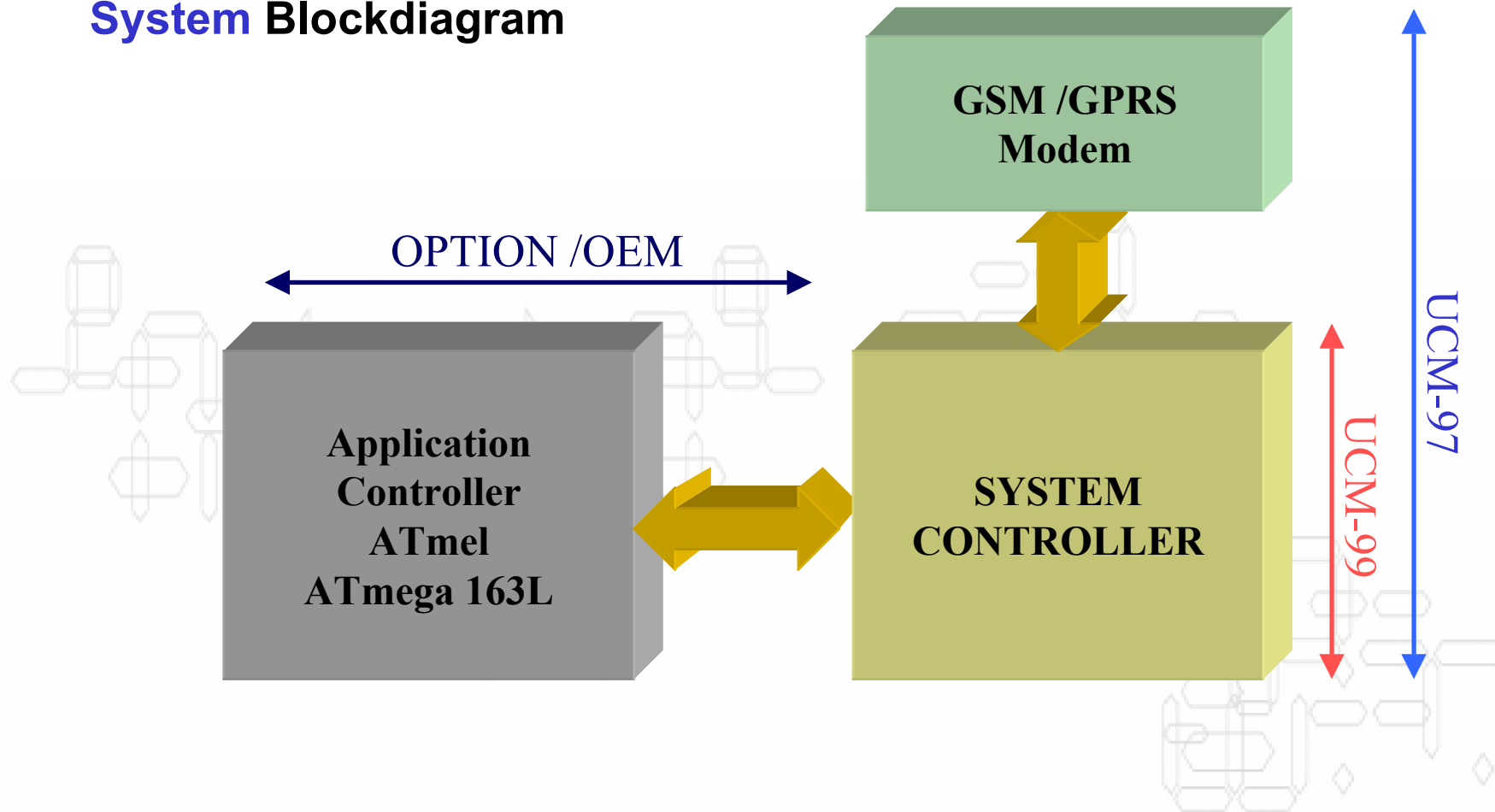


Wireless Network using GPRS!

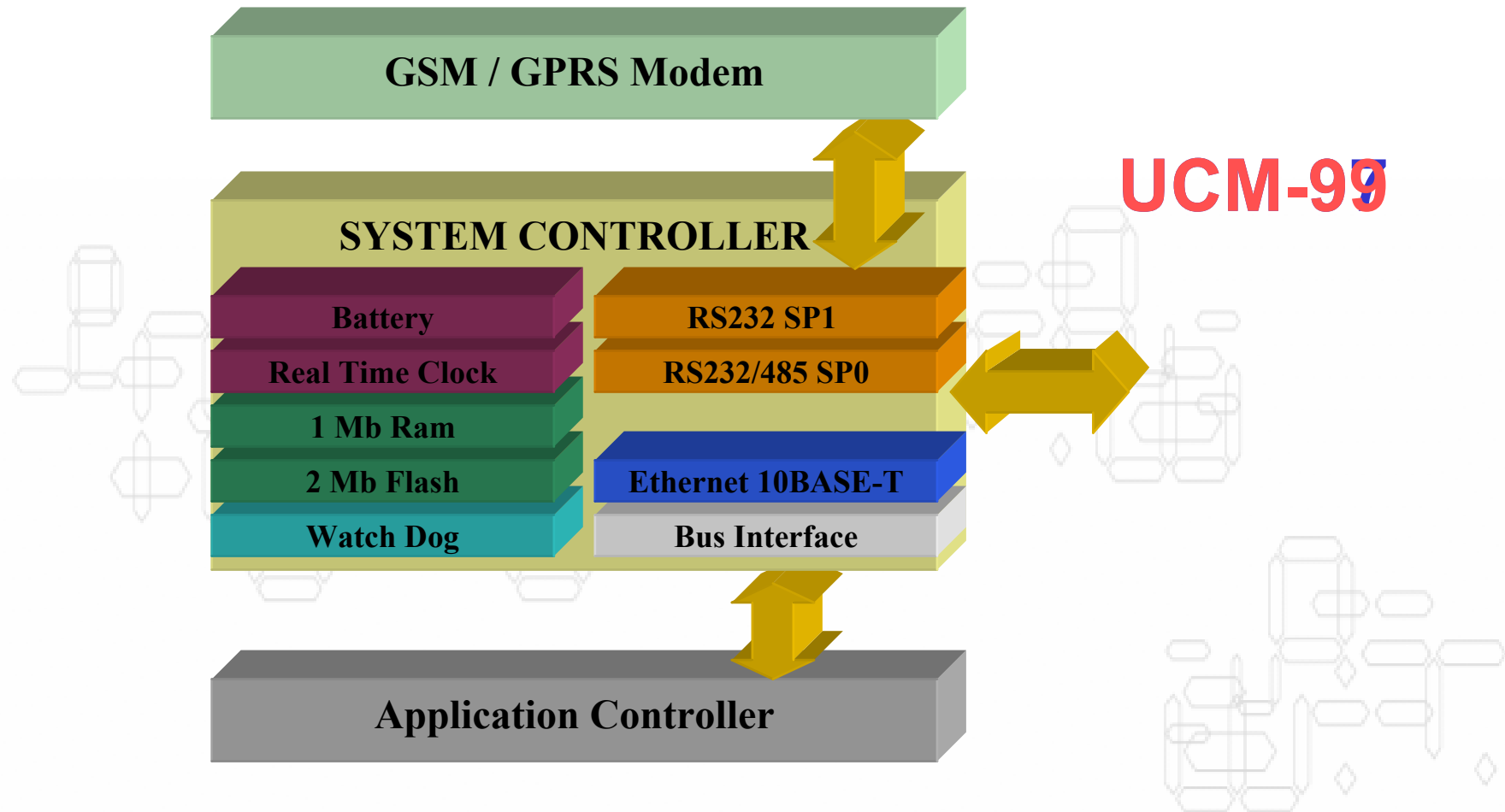


UCM-97/99 Concept

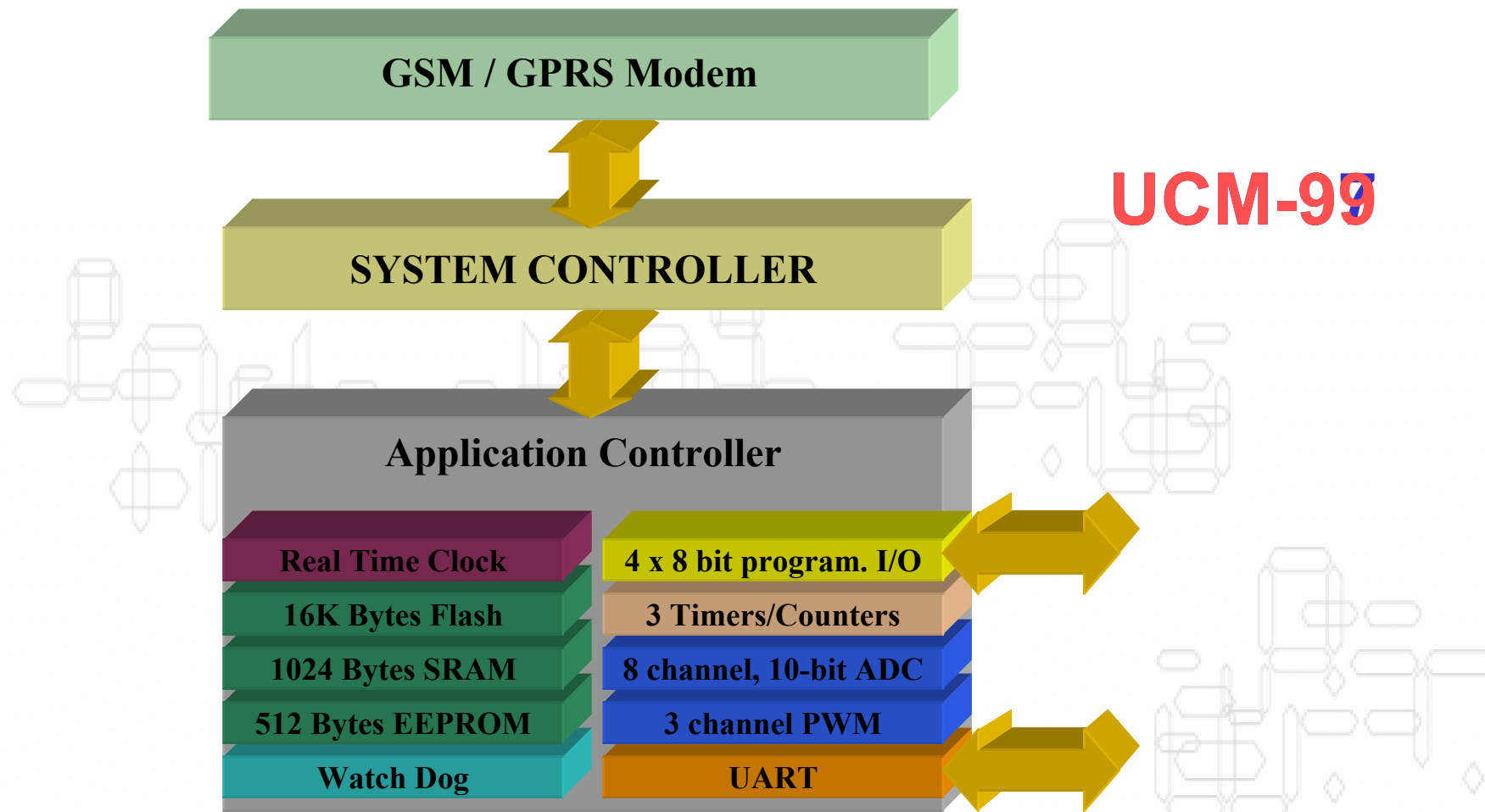
System Blockdiagram



UCM-97/99 Concept



UCM-97/99 Concept



UCM-9x Hardware Options

- **Power Supply**

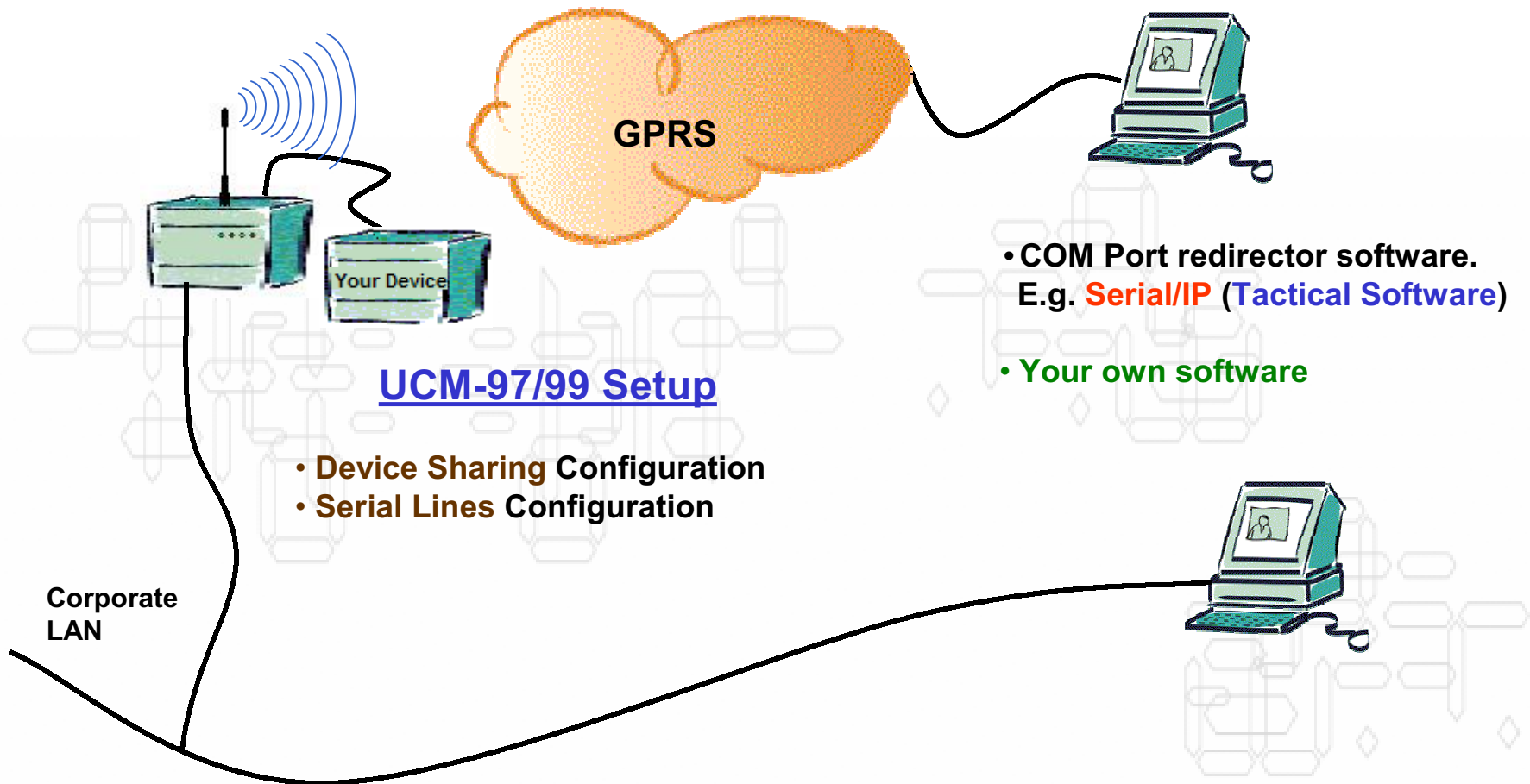
- 12-24 VDC
- 110-240 VAC/DC

- **Interface Hardware**

- Main Controller: Com.1 RS232 (UCM-99 only)
- Main Controller: Com.1 Modem(UCM-97 only)
- Main Controller: Com.2 RS232
- Main Controller: Com.2 RS485
- App. Controller: Com.3 RS232/485/422
- App. Controller: 4 Bi-directional I/O
- App. Controller: 2 Analog Input, 1 PT100 input

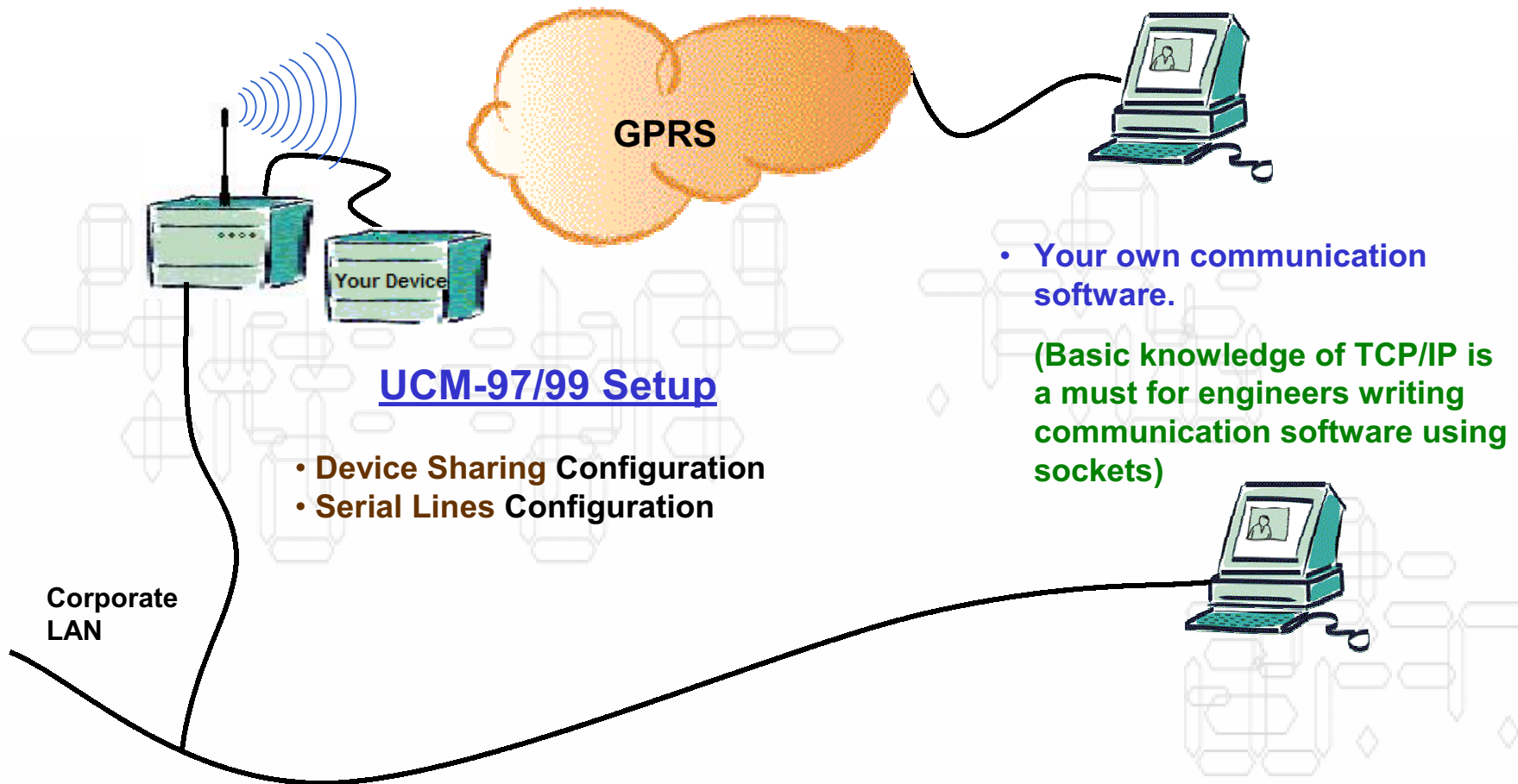
UCM-97/99 Operating Modes

Transparent Gateway Mode



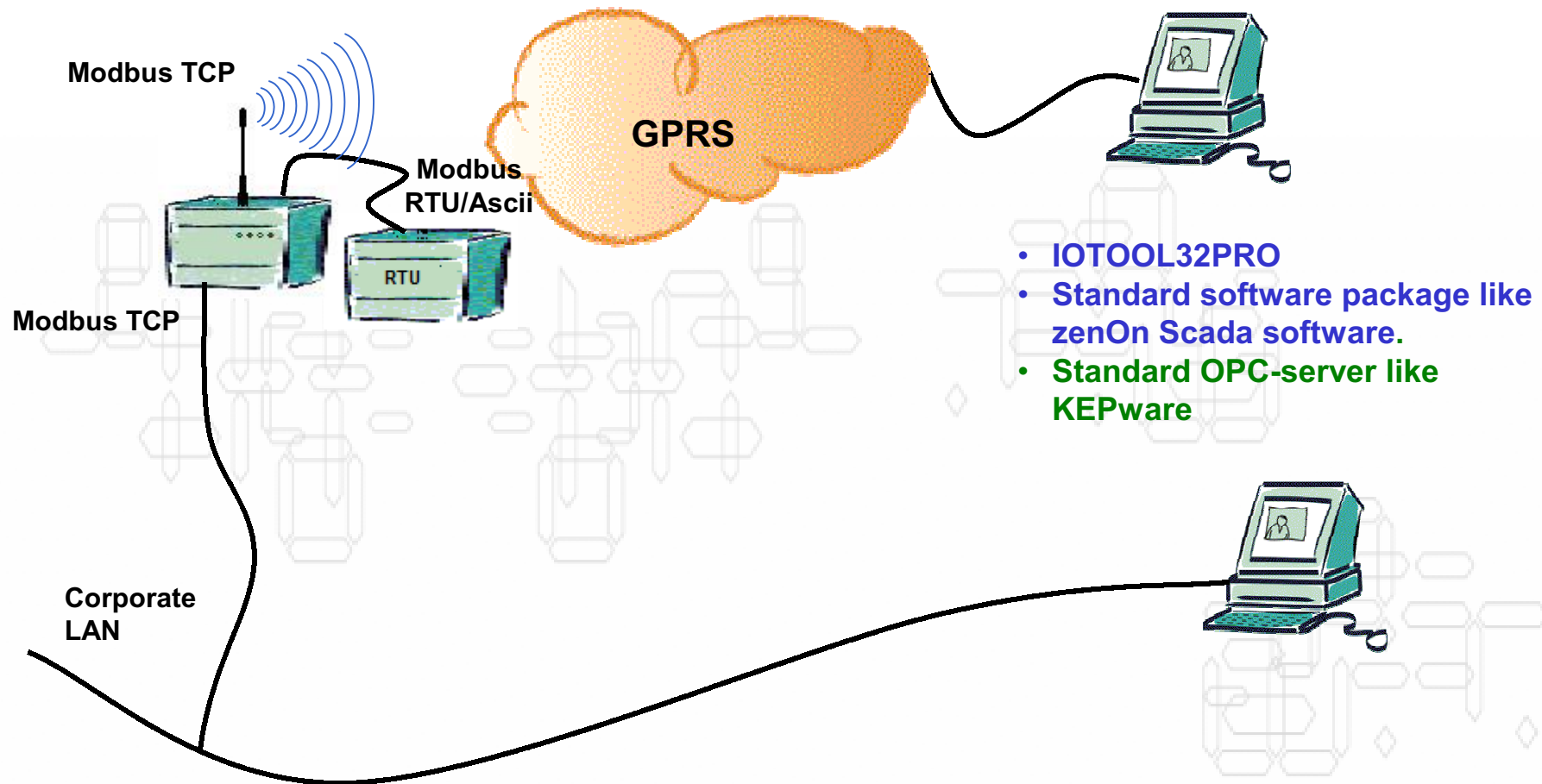
UCM-97/99 Operating Modes

Socket Mode



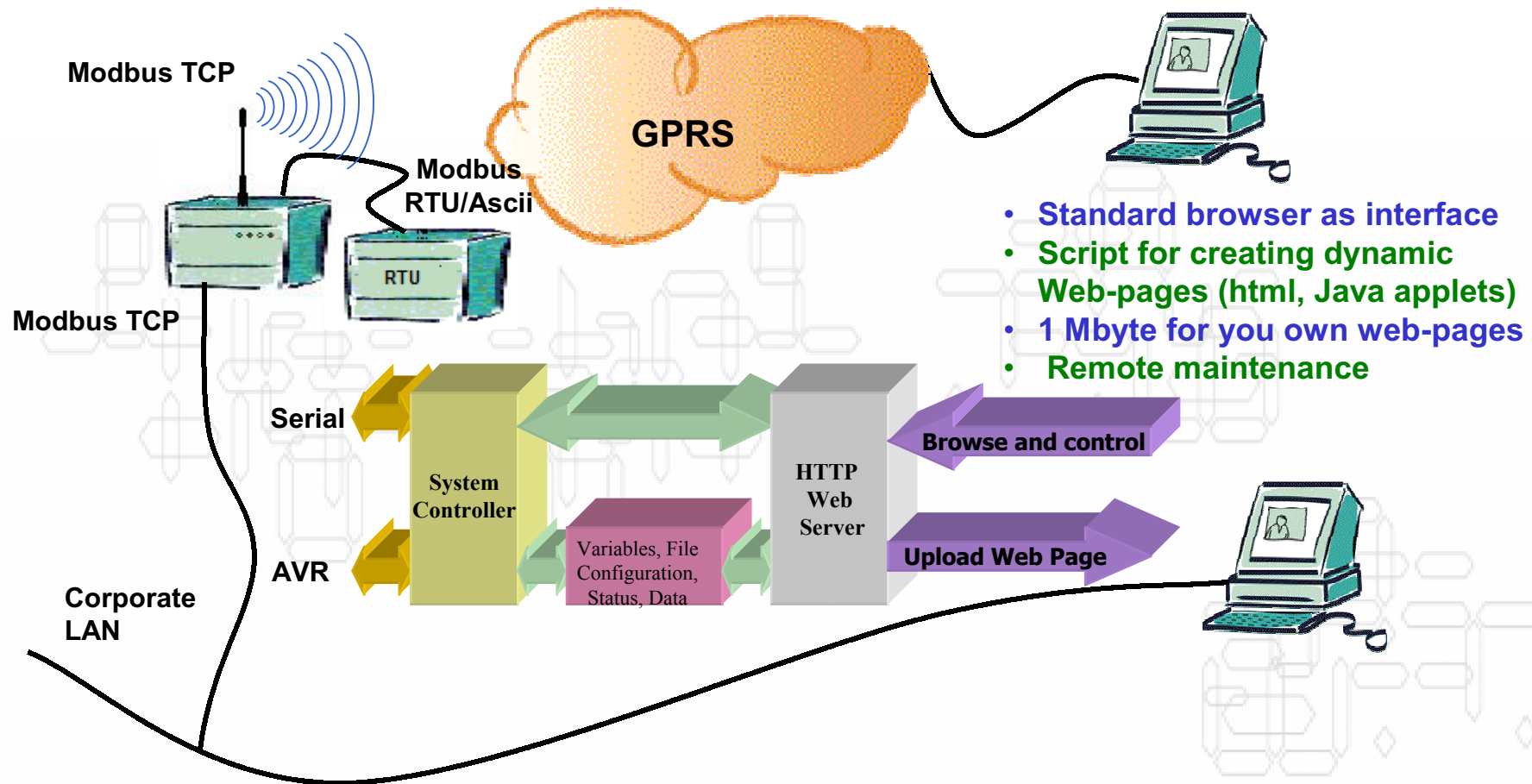
UCM-97/99 Operating Modes

Modbus Mode



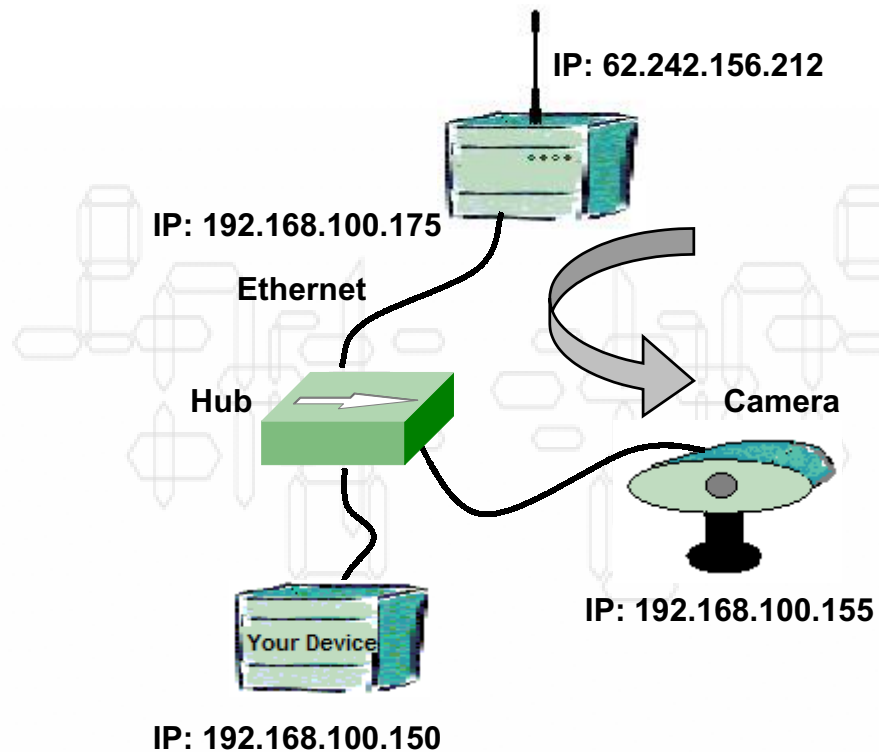
UCM-97/99 Operating Modes

Web-Server Mode



UCM-97/99 Routing (NAT)

Port Remapping



NAT Table

	Source	Dist.	Internal Host
1	1080	80	192.168.100.155
2	10001	1001	192.168.100.150
3			
4			
5			
6			
7			
8			



Camera data: <http://62.242.156.212:1080/cgi-bin/jpg/image.cgi>

UCM-97/99 FAB

Feature	Advantage	Benefit
UCM-9x features industrial TCP/IP communication.	Robust and highly flexible suite of common protocols. Ease of Reconfiguration (Adding and removing devices without disrupting communications)	No other protocol suite offers the same price / performance . 10.000+ devices and vendors. Very easy to find standard network products.
Embedded AVR application controller featuring standardised API.	You can implement your own application specific solutions without involving Brodersen Controls.	Communication and application separated into two different controllers. No need for special task control.
UCM-9x is the powerful and flexible platform for OEM and application specific solutions.	You don't have to have expert knowledge in internet and/or GPRS technology. Proven technology.	You can concentrate on your own application . Very short time to market. Reduced development cost.