



➔ *Wireless point of presence*

➔ *About our client*

• Our customer is a multinational sport bet company, **Astra Sport Bets**, that develops its activity in many European countries. Due to rapid expansion has achieved significant results, and notably, on the territory of Romania it became an absolute market leader with over 260 shops in Bucharest and in country. TOPEX and Vodafone offer a common solution to meet the customer needs.

➔ *Initial situation*

• During first three years, the solution for transfer data it was designed for a small amount of places, with transfer off small packages over fixes lines, modem-modem connections, only from office to places. In office, one server keep up-dates in data base and in branches are installed two computers, one server with data base and one or more terminals connected to it. Any changes made in office's data base like new events added, up-dates for offer (starting time events, odds adjustments, blocking games and so), results for playing games, got to be replicated on every location in a very short time. In the end of everyday, or on requests, from locations to headquarters' server, all the information's about new tickets made, winning tickets paid, numbers of newspapers sold out have to be transferred. Transferring packages over modems it's manually made, without any possibility to make it full automatically and increasing number of places it's reflected in time required for update all, with higher expenses phone bills and increasing number of people blocked only for this activity.

• On the moment when it was required one improvement in system with lower costs, technical department it was overloaded by maintaining daily updates with 4 people working simultaneously with 3 modems to connect on over 200 branches server.



➔ *The solution*

• The solution it was established by including all those branch offices in Virtual Private Network, over Vodafone data network. Data transfer it's made through Alvarion Radio Modems and Bytton wireless router, by sending packages between locations and headquarter on request or time shift. Data are still saved on local data base and send it on office request. Data transfer it's now made in both directions:

- Getting information from locations regarding tickets played, tickets paid, other commercial activities.
- Sending from headquarter to all places or only selected ones - offer changes or messages prompted on screen.

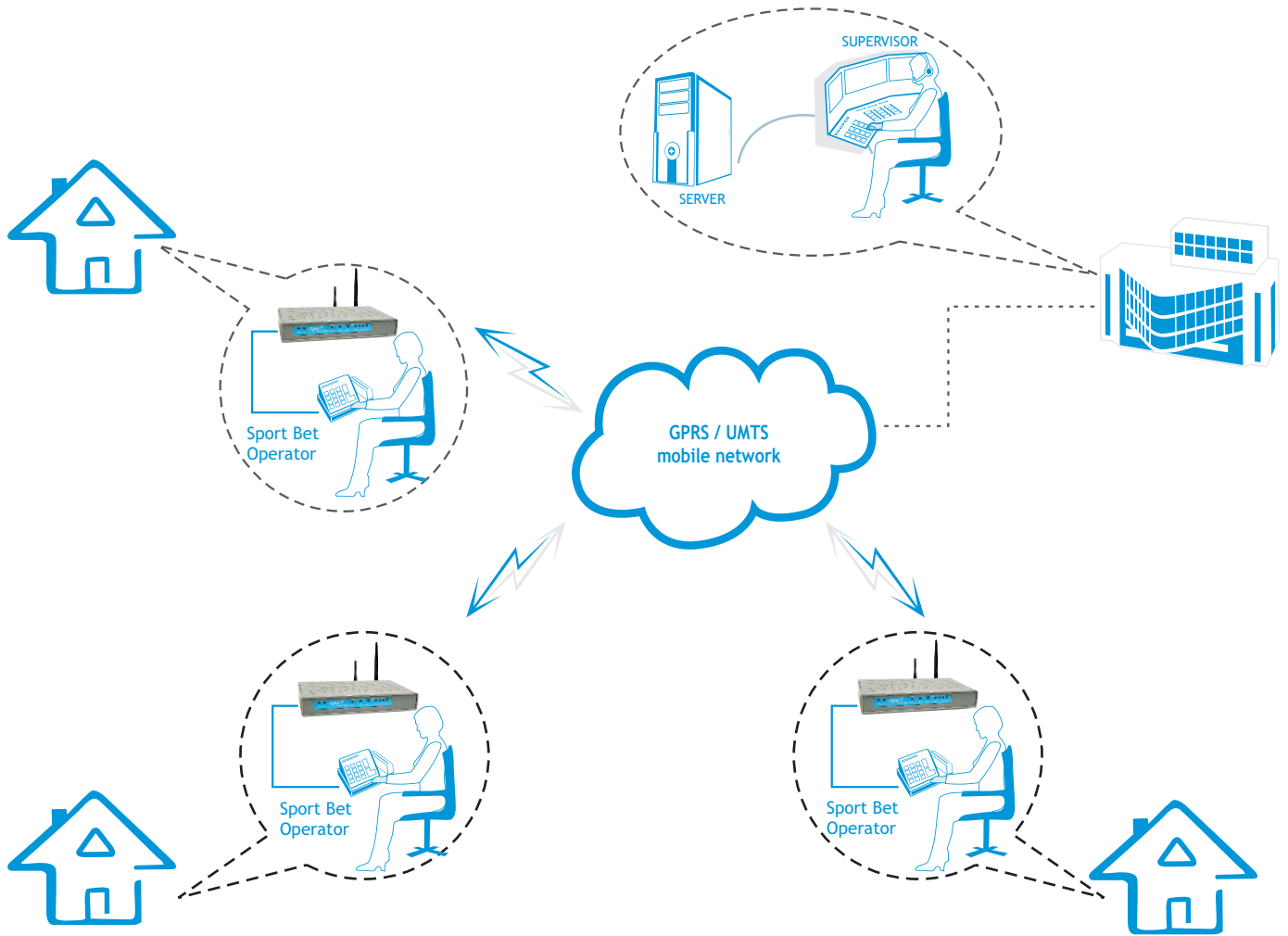
➔ *Transfer network*

• Transfer network it's provided by carrier GSM data operator with radio-modems over 2.4 GHz and Bytton UMTS and Bytton GPRS (for 2G coverage places only) by offering:

- network/services presence in all locations.
- better price offer then other similar company's on the market.
- installing period and SLA established.
- transfer data security.

➔ *Transfer data bandwidth:*

- 64 Kbps for branches over radio modems
- 2 Mbps in headquarter
- UMTS up to 384 Kbps fully mobile
- GPRS up to 80 Kbps



➔ Existing problems:

- Installing antennas for radio modems on top of the buildings for line of sight availability, when most of all the branches are on commercial area ground level;
- Accord for installing antennas from local associations communities
- Hardly access on roof for adjustments and measures for antenna (natural causes effect)
- Relative higher number of people used for fixing problems regarding transfer data
- Traffic congestion for packages transfer on certainly periods (starting and ending of working time)

➔ Improvements by installing Bytton UMTS:

- Easy to install and configure
- Simultaneous voice and data transmission
- Download data rates up to 384 Mbps
- Secure HTTP (HTTPS) access from headquarter to web based configuration interface pages
- True Plug-and-Play functionality
- Implementation in record time in all locations
- No necessary to install antennas on top of the buildings, accords, team interventions, etc.
- Possibility to use a stronger antenna to gain better signal in location

BYTTON UMTS has the following features:

● **Voice and data interface:**

- simultaneous voice and data transmission
- use a single mobile connection for both voice calls and - data transfers, while browsing or downloading you can still make important phone calls

● **High Throughput:**

- download data rates up to 384 Mbps
- wireless data transfers between clients up to 54 Mbps
- wired data transfers between clients up to 100 Mbps

● **High Security:**

- stateful packet inspection firewall for Internet connection
- 128 bits encryption for wireless clients
- secure HTTP (HTTPS) access to configuration pages

● **Ease of Use:**

- true Plug-and-Play functionality*
- web based configuration interface
- embedded server for dynamic IP configuration of the clients (DHCP)
- embedded server for static IP configuration of the clients (IP-PnP)
- embedded transparent HTTP/HTTPS proxy
- automatic e-mail server redirection

● **Advanced Internet Connection Management:**

- automatic connection establishment on traffic detection
- automatic disconnection on lack of traffic
- the connection can be initiated remotely when required**
- complete network address translation (NAT) support

● **Video Surveillance Service:**

- allows video monitoring using either an USB web camera or an IP camera***
- web based viewer of the video stream
- supports multiple cameras

* IP Plug and Play technology means that new users and IP configurations such as Private IP and Static IP or DHCP, gateway or Proxy are automatically recognized, there is no need for users to re-configure their PCs, notebooks or PDAs. This translates into instant wireless Internet connection for multiple local users, wireless (WiFi) or wired (10/100 Ethernet cables).

** needs voice activation of the UMTS terminal from the 3G carrier

*** USB and wireless or wired IP cameras are available on demand, features varies with different models

● **Easy Firmware Updating:**

- firmware updates can be downloaded for free****
- automatic update process using the web configuration interface

● **Two USB 2.0 ports:**

- intended primary for web cam connection
- may be also used to connect an external 3G modem
- further developments will allow connection of peripherals, external hard disk drives, card readers, etc. These storage devices will be shared with users from WLAN or Internet.

● **Fully Mobile Internet Access Solution:**

- it is wireless on the LAN side due to embedded WiFi 802.11g/b Access Point
- also wireless on the WAN side due to CDMA UMTS
- the remote configuration via browser means, no cables at all are required!

● **Multiple mobile networks supported:**

- the embedded modem is for GSM/GPRS/UMTS
- this way you may use any mobile network available in your area: classic GSM (2G) in the 900/1800 MHz frequency band, GPRS 900/1800 (2,5G) or 3G UMTS on 2100 MHz

● **Two phone interfaces, FXO and FXS for versatility:**

- the FXS interface can be used for connecting to an - analog trunk of the PBX or directly to a standard phone
- the FXO interface can be used for connecting to a local extension of the PBX.

● **SIM based:**

- you can easily change the subscription to the mobile network
- when you go from one 3G carrier to another, you only change the SIM, not the modem

**** firmware update files are monthly published on our website

"We hereby certify that Vodafone MultiOffice 3G Broadband Service is offered through Bytton HSDPA router, developed and manufactured by TOPEX SA. Having analyzed the received offers, we have chosen the TOPEX Bytton HSDPA router, as it excellently performs the specific functioning and delivers the high-speed mobile data transfer for our MultiOffice 3G Broadband. Using TOPEX Bytton HSDPA Vodafone offers for the first time on the Romanian market a new connectivity application at HSDPA speeds. We are very satisfied with the performance of this equipment which meets our exigencies and we highly recommend it."

Best regards, Gabriel Guta - Acting Manager,
Transmission/Microwave-Vodafone Romania"