



Hot Spot and User Manager

*An easy approach to Internet
access in tourist places*

Andrea Grittini
Product Manager
Wireless Division
Wi4Net - Totalconn

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Andrea Grittini

- Graduated in Computer Science
- Working with wireless since 2003
- Startup of one of the first Italian WISP
- Mikrotik distributor since 2005
- Microsoft MCP
- Mikrotik Certified in Routing and Wireless
- Mikrotik Certified Trainer

Wi4Net - Totalconn

- Mikrotik Italian distributor
- Training and consulting
- Building Certified Devices for EU market
- Power supply solutions
- Ecommerce Web site www.wi4net.eu or .it



Totalconn

- Base Station solution:
- Point-to-Point integrated antennas
- CPEs



HotSpot and UserMan

Topics

- What are Hotspots?
- Where installed
- Hotspot Quick setup
- User Manager: an easy way to manage centralized access
- Logging and accounting
- SMS approach
- Conclusion

Hotspot

- It is RouterOs tool for Instant Plug-and-Play Internet Access
- HotSpot provides authentication of clients before access to public network
- It also provides User Accounting
- It is very EASY to setup

Hotspot: Where

- Hotel, restaurant, café
- Shopping Mall,
- Public Park and areas,
- Camping, Beach
- Marinas
- Hospital
- Municipal Hotspot
... where you want



Hotspot: When

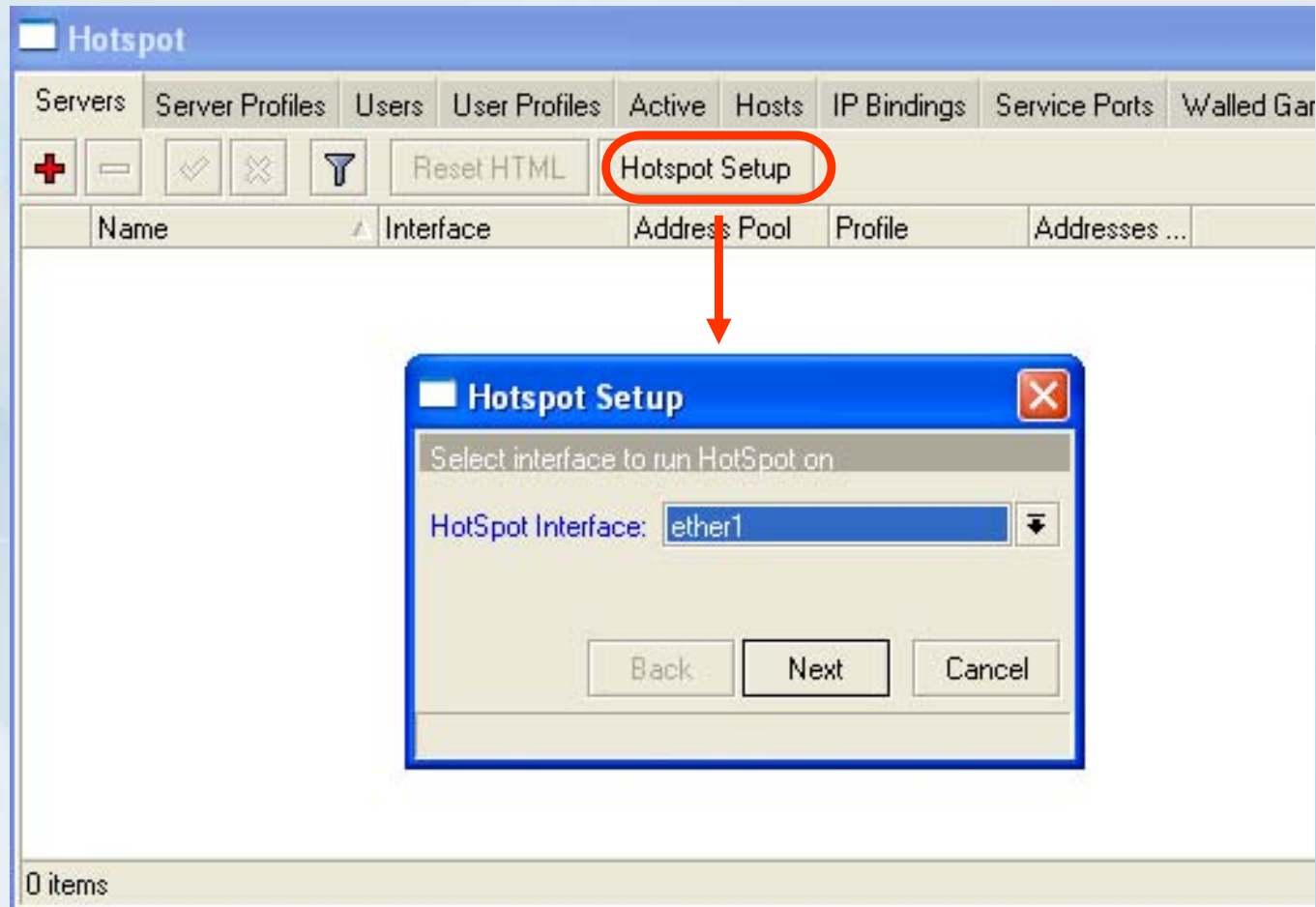
- During meeting in conference room
- In the summer at the beach
- In the winter in ski places
- At the week-end in parks and open spaces

...not all the places need connectivity for all the year round

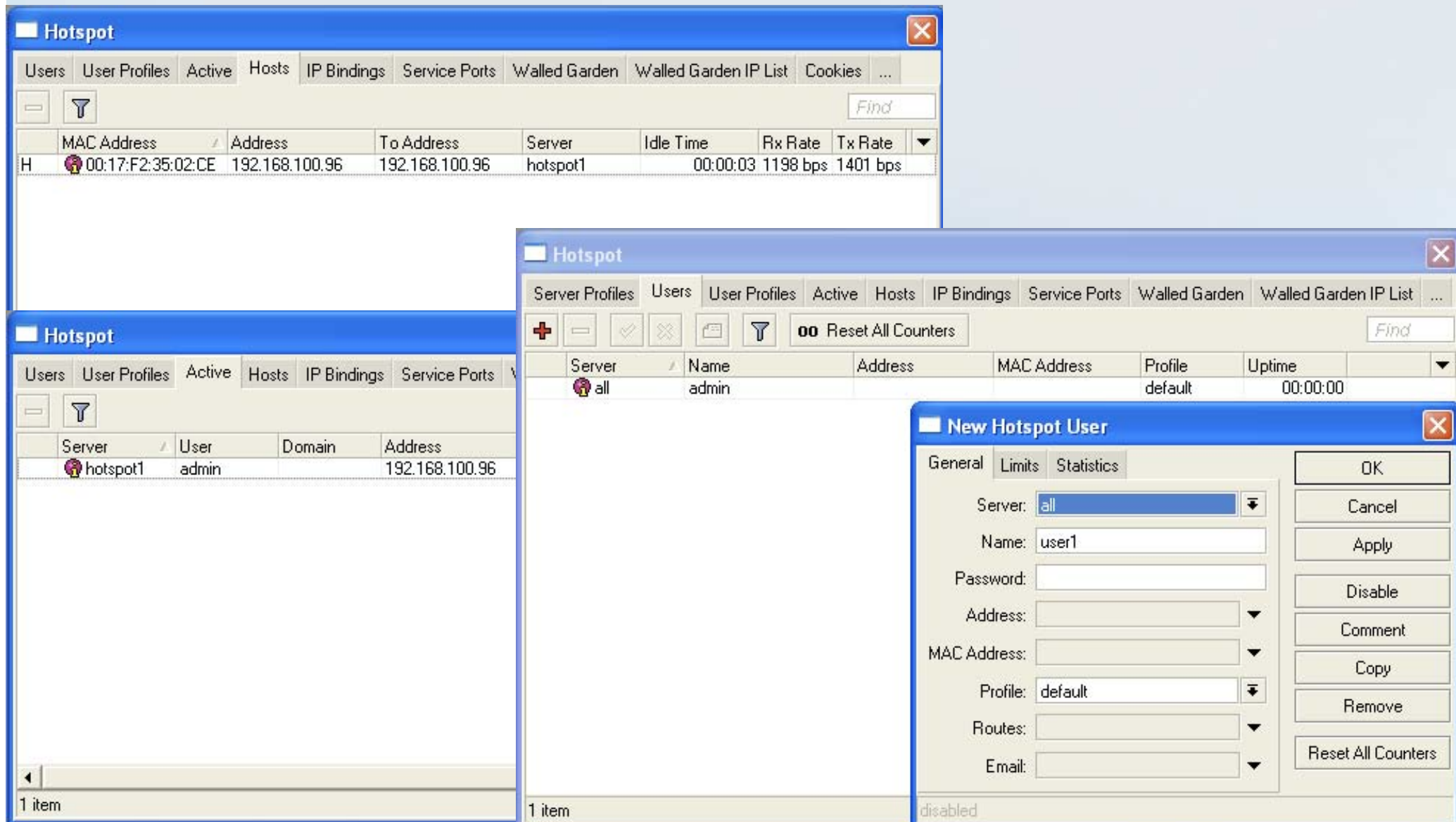
Hotspot Setup

- Easy wizard tool
- It is similar to DHCP server setup
- Just select the interface and answer to questions

Hotspot: setup wizard



Hotspot: functionality



Hotspot - Active Tab

	MAC Address	Address	To Address	Server	Idle Time	Rx Rate	Tx Rate
H	00:17:F2:35:02:CE	192.168.100.96	192.168.100.96	hotspot1	00:00:03	1198 bps	1401 bps

Hotspot - Users Tab

Server	User	Domain	Address
hotspot1	admin		192.168.100.96

New Hotspot User Dialog

General Limits Statistics

Server: all

Name: user1

Password:

Address:

MAC Address:

Profile: default

Routes:

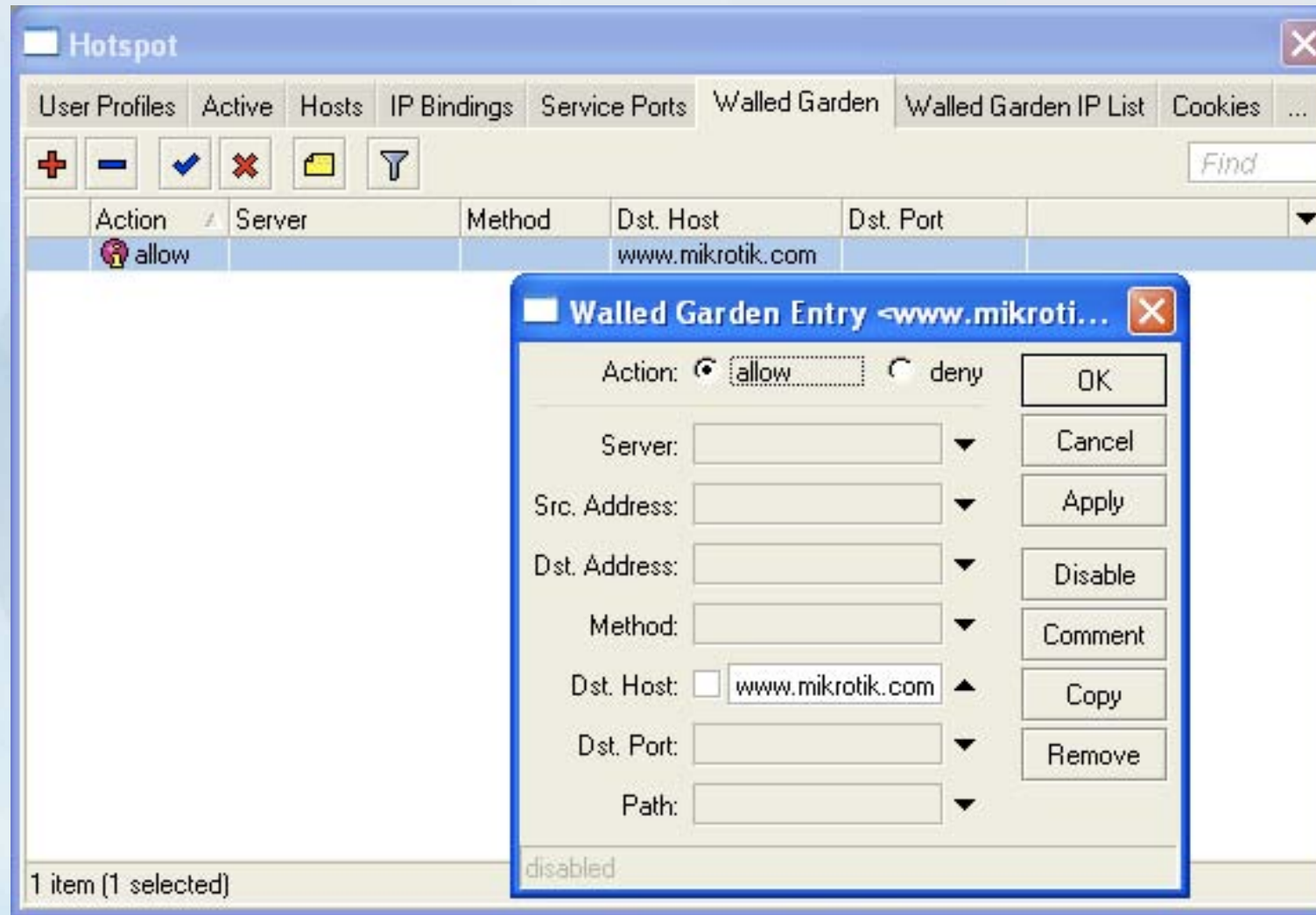
Email:

Buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove, Reset All Counters

Hotspot Walled Garden

- Tool to get access to specific resources without HotSpot authorization
- Can be used for Advertising web site
- For Online payment website

Walled garden

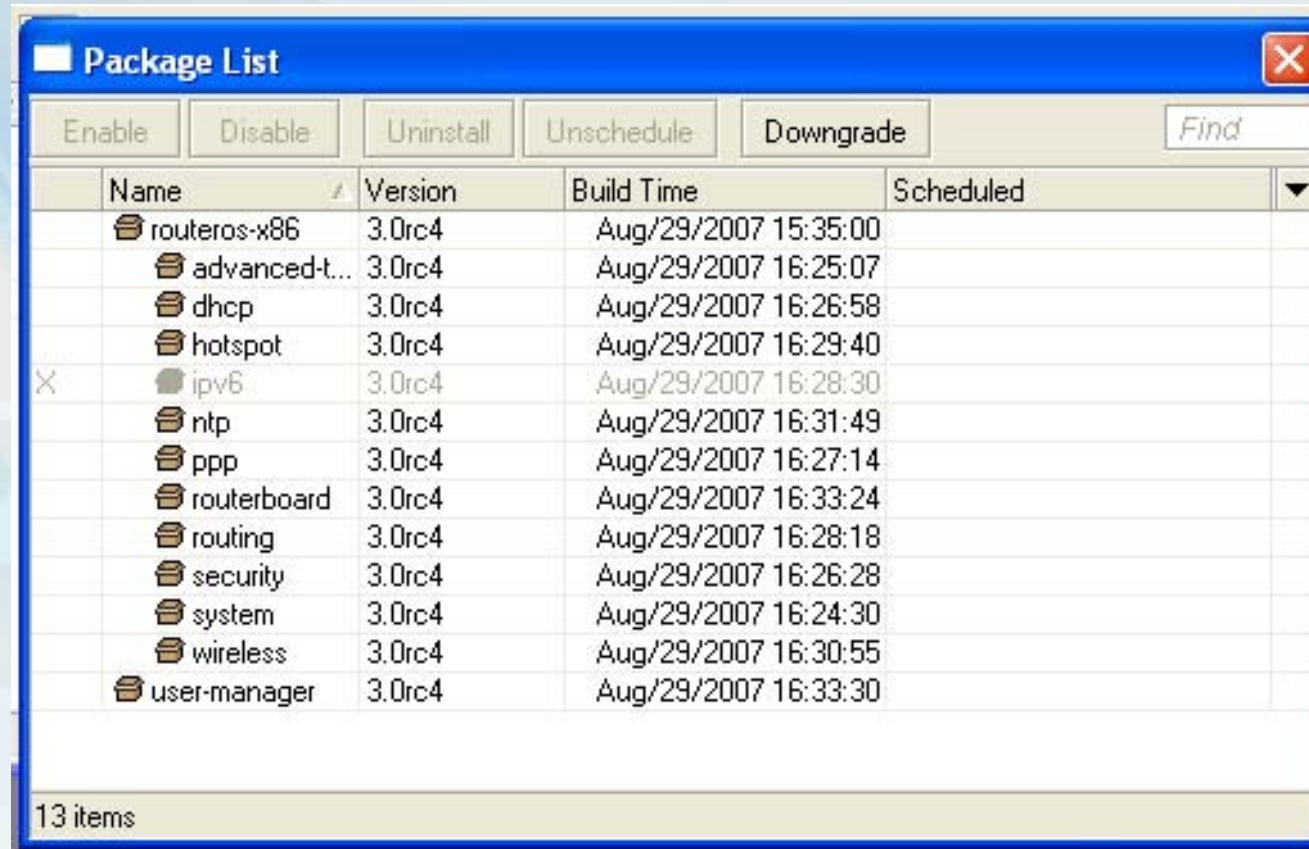


User Manager

- User Manager is a **Radius** server for processing authentication and for accounting
- Installable as a RouterOs package
- A new version to be released soon

User Manager

- Package



The screenshot shows a 'Package List' window with a blue title bar and a red close button. Below the title bar are buttons for 'Enable', 'Disable', 'Uninstall', 'Unschedule', and 'Downgrade', along with a 'Find' search box. The main area contains a table with columns: Name, Version, Build Time, and Scheduled. The table lists 13 packages, all with version 3.0rc4. The 'ip6v' package is selected, indicated by an 'X' in the left margin. At the bottom, a status bar shows '13 items'.

Name	Version	Build Time	Scheduled
routeros-x86	3.0rc4	Aug/29/2007 15:35:00	
advanced-t...	3.0rc4	Aug/29/2007 16:25:07	
dhcp	3.0rc4	Aug/29/2007 16:26:58	
hotspot	3.0rc4	Aug/29/2007 16:29:40	
X ip6v	3.0rc4	Aug/29/2007 16:28:30	
ntp	3.0rc4	Aug/29/2007 16:31:49	
ppp	3.0rc4	Aug/29/2007 16:27:14	
routerboard	3.0rc4	Aug/29/2007 16:33:24	
routing	3.0rc4	Aug/29/2007 16:28:18	
security	3.0rc4	Aug/29/2007 16:26:28	
system	3.0rc4	Aug/29/2007 16:24:30	
wireless	3.0rc4	Aug/29/2007 16:30:55	
user-manager	3.0rc4	Aug/29/2007 16:33:30	

13 items

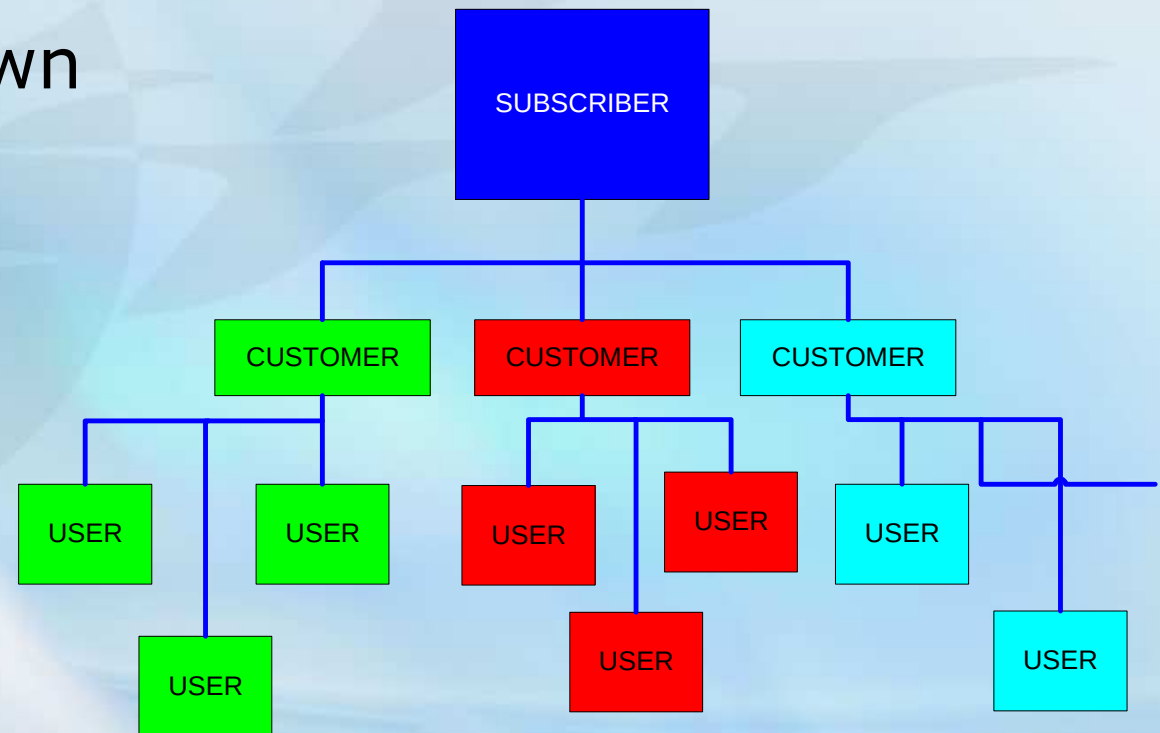
User Manager: Scalability

- Together in the same gateway machine
- In a separate authentication server
(to be connected to the hotspot via radius client)

UserMan: multi-site

- One UserMan installation can control several gateway site
- Local customer can administer their own users

Color=different site



Logging and accounting

- Due to anti-terrorism regulations, many countries now require the WISP or Internet Point to keep information about:
 - Who is connected
 - When they connect to the system
 - Which website users have visited
- User must provide Identity Card or other legal infos to get access to an Hotspot

Logging and accounting

- User Manager supplies logging and accounting informations for the connected users:
 - When they were connected
 - How many time have used
 - How many bandwidth
- RouterOS through Firewall or Proxy provides information about websites accessed

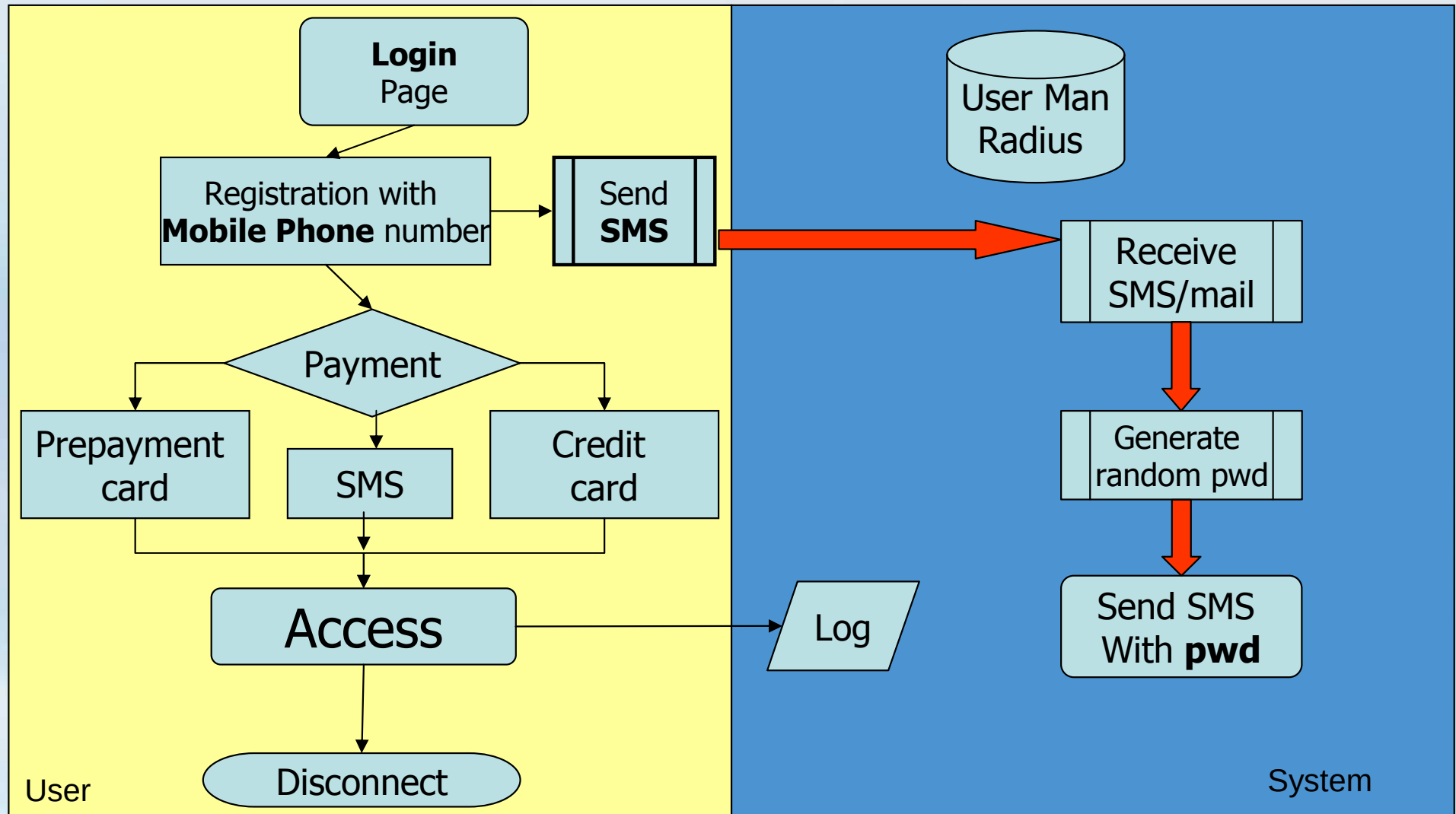
ROUTER OS IS COMPLIANT TO ALL OF THE REGULATORY RULES !

User Manager: easy approach

- Mobile phone is used by 110% of people
- SMS is an easy tool to get information about users
- SIM infos are validated by mobile operators before customer gains access to telephone line



Easy approach



Wi4Mobile

- It is a small device that does all these things:
 - Wifi 802.11abg access point
 - GSM/GPRS UMTS/HSDPA modem
 - Hotspot
 - Usermanager
 - Send SMS
 - Provide backup line
 - RouterOs inside



Conclusion

- Hotspot and UserManager are powerful tools to quickly setup an Internet Access infrastructure
- With some tools it will be compliant to all local regulations
- SMS can help to deploy an unattended HotSpot access



Thanks for your attention !

Visit our stand Wi4Net – Totalconn

www.wi4net.eu

Info@wi4net.it

Andrea.Grittini@wi4net.it