

## The State of Wireless

Christian Gross  
Trainer / Consultant  
[christianhgross@gmail.com](mailto:christianhgross@gmail.com)  
Montreal and Zurich

## 1999

- North America:
  - Analog - Digital (sort of)
  - Palm Wireless
  - Pagers
- Japan:
  - I-mode
    - Cool and exciting Internet fun
- Europe, Asia and Australia
  - GSM 1800, 900
  - SMS text messaging
  - WAP

## Introduction

- Software Engineering Consultant
  - Specializing in Pattern Oriented Development
  - Provide training, consulting and mentoring on how to use Open / Shared / Free Source within your corporation (Apache / XML, Java, C++, C#, MySQL)
  - DOES NOT MEAN I will make you convert your applications into Open Source

## 2002 And Where Are They Now?

- North America
  - Dual Band still means analog and digital
  - GSM is actually gaining a foothold
    - Before it was only Voicestream, now Cingular, Fido, AT&T, etc
    - North America and the rest of the world are coming together
  - Pagers are slowly going away
  - SMS is gaining foothold
  - Still very little Internet

## Agenda

- Friendly little talk of wireless past, present and future

## 2002 And Where Are They Now? (cont.)

- Europe
  - GSM is king and there is basically 100% coverage all over Europe
    - Exceptions are valleys in the Alps where there are no ski hills and no people (but VERY SMALL percentage)
  - Dual Band means GSM 900 or GSM 1800
  - Phones are not subsidized anymore
    - Previously phones were given away if you locked into packages
  - SMS is like wildfire, everybody uses it
    - Providers tried to hike prices and an uproar was created
  - Still very little Internet

## 2002 And Where Are They Now? (cont.)

- Japan
  - Still has I-mode and doing ok with it
  - Introduced 3-G but it flopped (mostly)
- Korea
  - Introduced first 3-G network
  - Has taken the title for most wired and best wireless network of the world
  - Highest percentage of Internet penetration
  - **Nobody noticed!**
- China
  - Has bought into GSM in a big way
  - In terms of application development means ABSOLUTELY NOTHING

## Where Are We Going? (cont.)

- North America is becoming "GSM" compliant even though it is not being talked about
  - Equipment costs are cheaper
- I-mode is making headway into Europe because it provides coolness at a low cost
  - But provided by the smaller network providers that do not have global clout
  - Roaming with I-mode is not possible
- GPRS is here and it works (115K)
  - But no roaming and hence very little acceptance
  - No roaming is part of the artificial boundaries

## So What Is Going On?

- The wireless bubble burst before the music even started
- WAP FLOPPED!
  - Not technologies, but because of content
- I-Mode way cool and making headways into Europe
  - Surprise because this was not supposed to happen
- 3-G FLOPPED!
- People only want to use the cell phone for calling and not much more
  - SMS is exception

## Artificial Boundaries

- GSM is a victim of its own success
- 3-G is costing MUCHO DOLLARS!
  - Licenses were in the billions
  - Infrastructure are in the billions
  - What do you get?  
A movie in a 200x200 screen (Ooh weeee!)
- GPRS is 2.5 G
  - Works and is something people would want (cheaper price), but Network providers do not want it to be too successful, which would take momentum away from 3G

## Where Are We Going?

- At a cross-roads with no clear indication of final destination
- The key issue is money!!
- Wherever wireless did succeed it was because of low cost
  - I-mode in Japan was way cheaper than Internet
  - GSM in Europe is cheaper because local calls cost money
    - Also great coverage, anywhere anytime access
  - SMS is quick and cheap not a better experience

## Artificial Boundaries (cont.)

- Network providers are not giving the consumer choices and are force upgrading the clients
  - Anti-trust anyone? Not really...
  - More like the Mob!
- How force upgrade is happening? (Not related to phone calls)
  - Not subsidizing phone purchases
  - Selling more expensive richer devices and reducing the availability of cheaper devices
  - Not giving all of the services features on anything that competes with 3G
    - eg GPRS roaming

## HotSpot Technologies

- German study in 1997-1999 found that people do not want information everywhere, but in specific places
  - Study involved student information management habits at a University
  - Café, Airport, Airplane, Train station, etc
  - At other places information is a bonus, but not something that you would pay large amounts of money for

**Thanks!**

**Questions?**

## HotSpot Technologies (cont.)

- IEEE 802.11b wireless is the future of wireless information
  - Fast, cheap and accessible at hotspot places
  - Wireless hubs connect to high-speed backbones
  - Setup and maintenance costs are a fraction of 3G costs
- People are willing to pay roaming fees and the price to profit level is very consumer friendly
- Get full experience, whether it be watching movies or reading on the Web
  - Could be motivation for tablet computers (Hint!)

## Conclusion?

- 3G is basically dead!
  - Already there is talk regarding 4G
  - 3G here in the US is not real 3G, but 2.5G, but 3G is buzzword friendly
- Wireless networks will not be the same and become incompatible with each other so that profit can be maximized
  - Futile!
- Hot Spot is a cheap single world wide standard
  - Specialized devices for this type of information management will appear (already happening)