EnTel PCS Big 3G SucCesful in the ReGion

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entel

Agenda

- About EntelPCS
- 3G Services in the Region
- Why move towards LTE?
- Conclutions

About EntelPCS

General Information

- Chile, 90%+ mobile penetration
- 16+ Mill pop.
- Entel PCS 6+ Mill Subs
- 1900 MHz
- GSM Since 1998
- HSDPA 3.6 Mbps since Dec 2006
- LTE Trial from December 2009 to March 2010

Network Elements

ENTELPCS 2006 TO 2010 (Acummulative Values)						
		2006	2007	2008	2009	2010
2G	RBS	1746	2304	3254	3700	3748
	BSC	22	28	33	36	38
	MSC-S	3	8	9	9	9
	MGW	3	11	18	22	24
	HLR	4	4	5	5	5
		2006	2007	2008	2009	2010
3G	NODE B	0	253	736	1623	3026
			290%			
				220%		
					186%	
	RNC	0	1	14	23	25
	Exp. RNC	0	0	6	12	16
	CHE	0	16.192	108.928	285.952	390.208
	Capacity (Gbps)	0	0,4	1	3,2	8,6
			250%			
				320%		
					268%	

Growth Factors

EntelPCS' Competitors

movistar

Access Network		Core Network	Packet Core
2G	3G		
Nokia Siemens Networks	HUAWEI	ERICSSON	HUAWEI
	Nokia Siemens Networks		
	HUAWEI		

Claro

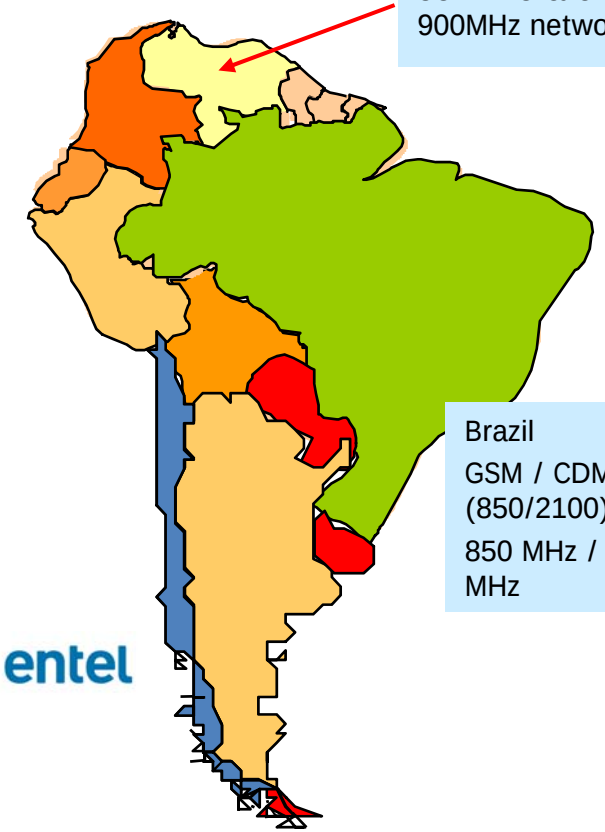
Access Network		Core Network	Packet Core
2G	3G		
Nokia Siemens Networks	Nokia Siemens Networks	ERICSSON	ERICSSON

3G Network in the Region

Mobile wireless outlook

HSDPA Deployment mainly in 850 MHz and 1900 MHz in band

3G HSDPA Deployment in South America	
2006	Chile
1H 2007	Argentina
2H 2007	Brazil, Paraguay, Uruguay
2008	Peru, Colombia, Ecuador, Bolivia



Venezuela
GSM / CDMA
850 MHz / 900 MHz /1900 MHz
3G EVDO & UMTS, First 3G 900MHz network in L.A.

Brazil
GSM / CDMA / 3G HSDPA (850/2100)
850 MHz / 900 MHz / 1800 MHz

HSDPA users in the region

HSDPA	Q2 2009	Q2 2010	GROWTH %	% Total
Argentina	490.598	1.510.627	207,92%	2,99 %
Bolivia	6.682	22.129	231,17%	0,40 %
Brazil	1.839.167	7.403.859	302,57%	3,95 %
Chile	321.726	1.004.355	212,18%	5,41 %
Colombia	478.555	1.695.411	254,28%	4,09 %
Paraguay	11.140	43.986	294,85%	0,71 %
Peru	40.813	126.094	208,96%	0,60 %
Uruguay	37.781	73.486	94,51%	2,32 %

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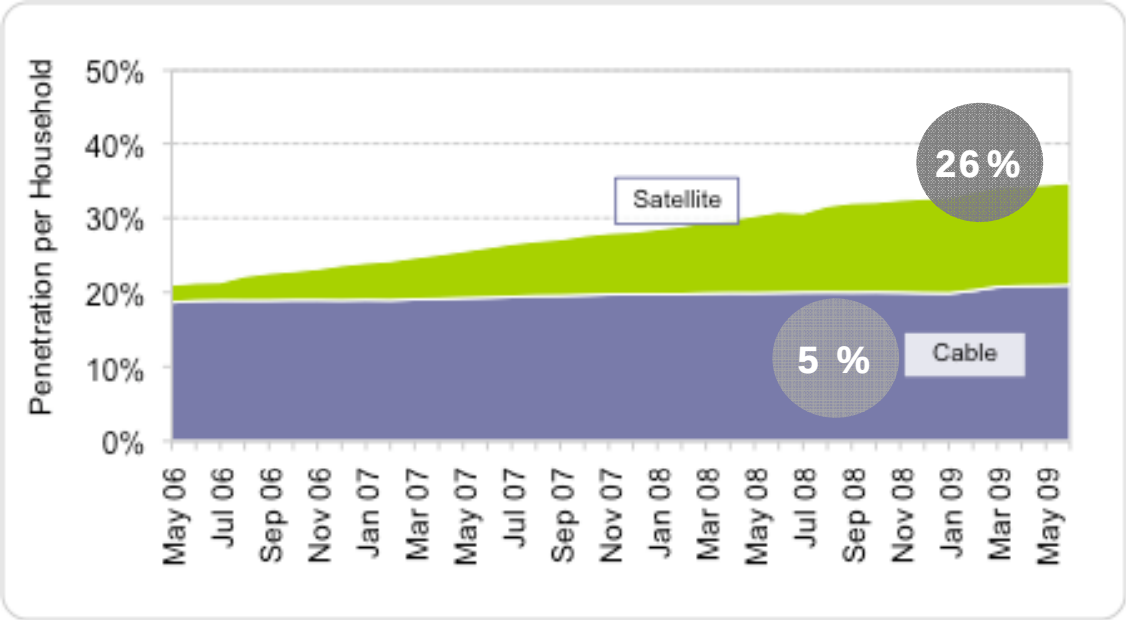
Source: Wireless Intelligence, Infocentre GSM

Why move towards LTE?

Coverage and price, satellite case (Chile)

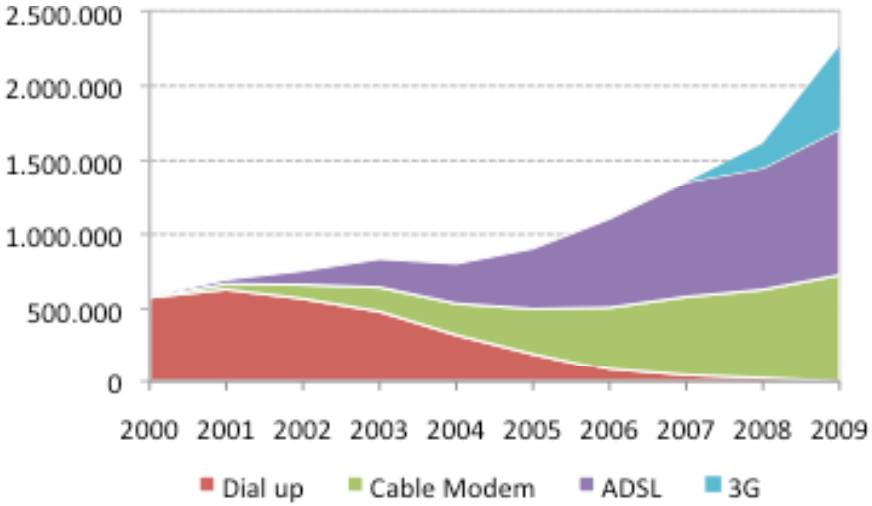
Number of TV subscribers, Chile



- Rapid uptake of satellite services
- Price reduction of STB
- Recent reduction in monthly fare and prepaid satellite (25 USD)
- Satellite in triple packs

The Satellite case proves that nationwide coverage with a wireless service, a lower price point and subsidized terminal can attract new segments.

Broadband penetration, Chilean case

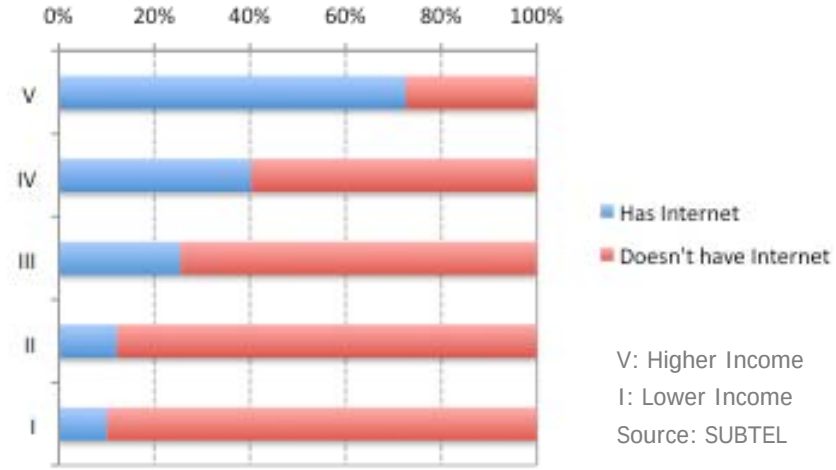


Almost Half of the households have access to Internet

Mobile Internet had a great user growth in 2010 (200%+) and is having a average monthly growth of 13% (VS 1% of Fixed)

Source: Chilean Telecoms Regulator (SUBTEL)
20010 estimate

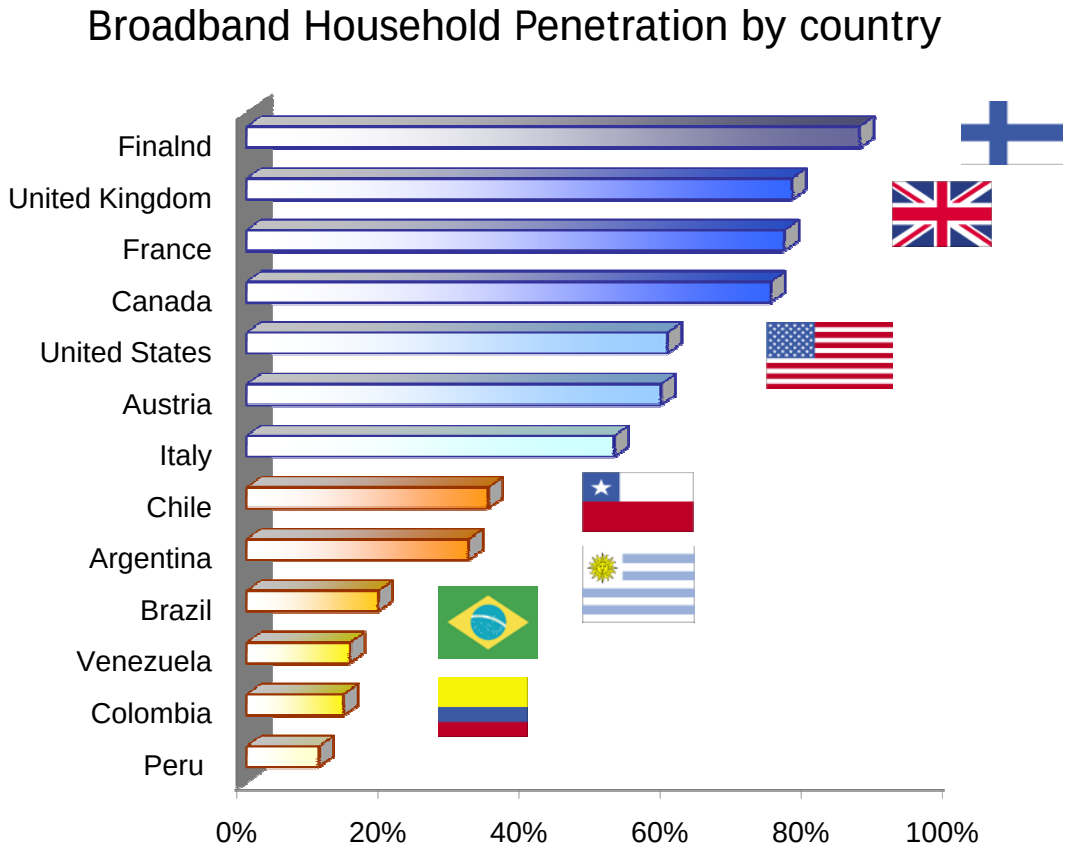
Internet penetration per Household Income



V: Higher Income
I: Lower Income
Source: SUBTEL

However the broadband service is present mainly in the higher income households (V and IV in the graphic)

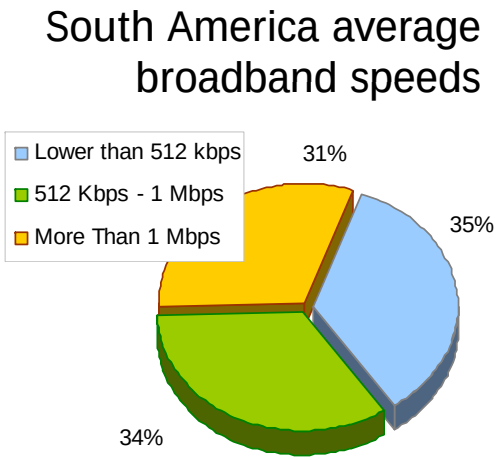
South America Broadband / Households



Source: CIA WF, Fitch, OECD, IDC

Compared with USA and Western European countries, the broadband per household penetration is very low

Also the average broadband speed in South America is lower than other regions. 69% of the connections are below 1 Mbps of speed



Technical characteristics of LTE

- Better indoor coverage with OFDM than WCDMA?
  - More than 30% of Actual 3G users have fixed indoor behavior
- Higher throughput and higher overall capacity?
  - Massive use of Internet in mobile handsets and video portals in mobile broadband will create congestion in urban areas
- A new technology in fresh spectrum?
  - The uptake in the number of connected devices and traffic is higher than the capacity to move GSM spectrum towards HSPA
- Harmonized spectrum and worldwide adoption will mean economies of scale in terminals to smaller operators?
  - This is the main difference with Wimax, the possibility of a truly global economy of scale in terminals and networks
- New interconnected devices and LTE in every machine?
  - Mayor operators are seeing LTE as a opportunity for new devices, M2M, smart meters, etc. this could drive several tangible services to improve the country lifestyle (ie, health)

Conclutions

- We need move towards LTE because we need more capacity for the users.
- All people want the maximum available data speed rate even for the current service like a newspaper in the web.
- LTE will make sense if covers new segments or if deliver cheaper capacity than current options for broadband service.
- For LTE is need carry out a high speed transport network project, otherwise could reduce the LTE scope only to highly dense area.
- Latam internet penetration is very low in comparison with U.S.A. and Europe, so the broadband service have a very big opportunity in the Region.

Thank you