Telefónica Czech Republic

Meeting with NCC

Telefonica

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Agenda

- **Topics**
  - International roaming
  - Operator's perspective on 4G mobile broadband, including future tariff design
  - Competition on Czech telecom market
  - IPTV service development
- **Specific questions**

1. What are the key success factors of 4G? e.g. evolution strategy from 3G to 4G? new applications? tariffs?

2. Do you have flat rate tariff or do you charge differently based on transmission volume?

3. What may be the reasons that the 4G take up rate is much lower in Europe than in the United States?

4. What are the challenges in offering mobile services in Czech? What are the bottlenecks?

5. Do you find it difficult in finding sites for base station? Are building owners willing to lease their rooftop for operators to erect base station antenna?

6. What regulatory measures do you wish CTO to do or not to do?

7. It would be beneficial to consumers of both Czech and Taiwan if the international roaming charges could be reduced. How can NCC and Telefonica collaborate to make that happen?

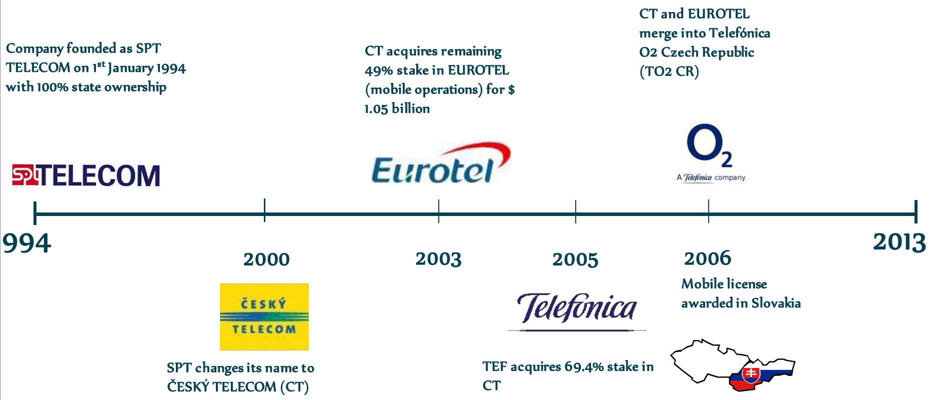
8. How well are O2's following tariffs received by consumers in the Czech mobile market?

- **The meeting**
  - Introductory presentations – 45-50 mins
  - Q&As session

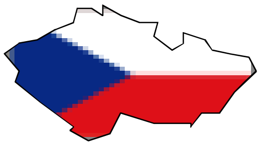
01

Introduction

Telefonica – evolution



Key figures



Population	10.6m	Mobile Customers	5m
Households	~4m	Fixed lines	1.4m
GDP	$196b	Fixed broadband	0.9m
GDP per capita	$18.6k	IPTV	0.15m

We recognise the value of the broader community through a number of successful initiatives

think big with O2

- European program for young people (13 – 26 years), who want to change something in their community
- We are giving them financial support (CZK 10 to70 thousand), training, mentoring from TEF employees and package of O2 services
- Since 2011, we have supported 550 projects by more than 29 million CZK

wayra.

- Start-up incubator
- Prague academy launched in 2013
- World class coaching and mentoring
- Up to €50,000
- Minimum 6 months working space
- Access to c. 300million Telefónica customers and further investment through a wide local & global network

02

Market context

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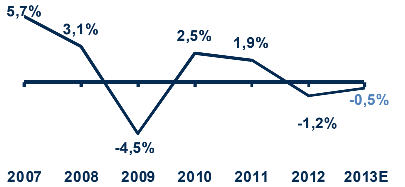
Czech macro economy – crisis impact visible, outlook for 2013 remains challenging

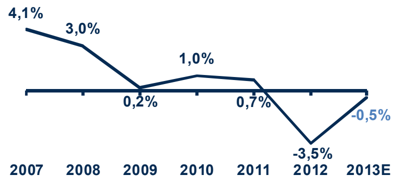
Real GDP growth

(year-on-year)



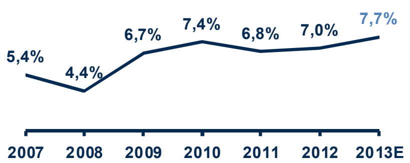
Private Consumption

(year-on-year)



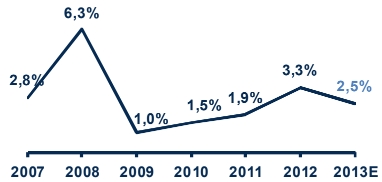
Unemployment rate

(average)



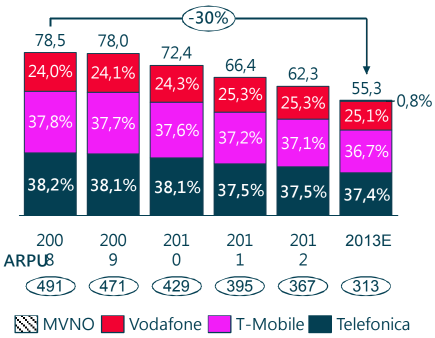
Inflation

(year-on-year)

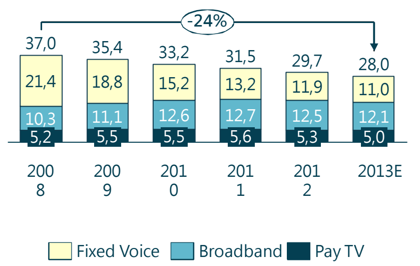


On a micro level we are experiencing the effects of a maturing market

Total mobile market service revenues
CZK billions



Total fixed market retail revenues
CZK billions



- Mobile market in steady decline with CAGR of -6%
- ARPU declining steadily at ~8% p.a. rate
- Fixed market in steady decline with CAGR of -5%
- Fixed market decline primarily driven by fixed voice

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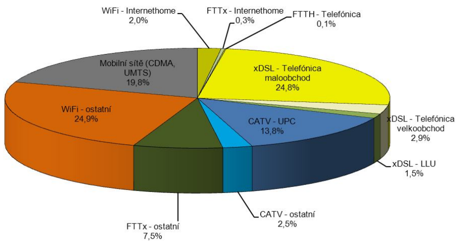
Retail Broadband market

- Total broadband market counts for 3 mil customers that is more than 2/3 of czech households
- Unique market sructure – WiFi providers
- Customers enjoy decreasing prices and they drive broadband demand



Source: CTO M5 draft analysis, 2013

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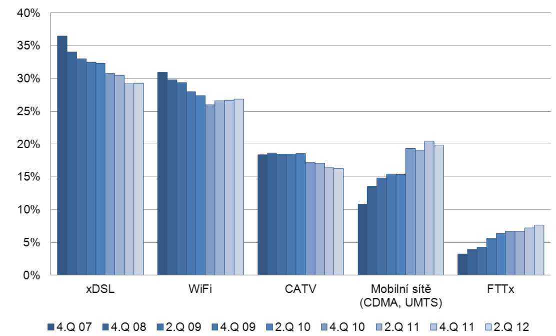
Broadband market share

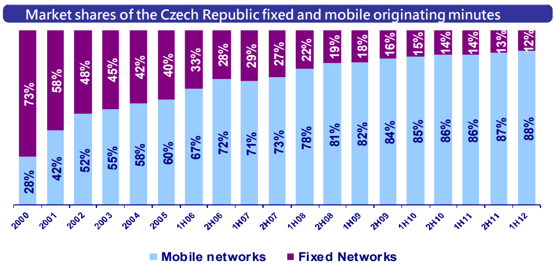
- Infrastructure competition proved to drive market growth
- Significant importance of mobile broadband – almost 20% share despite complementary usage to fixed broadband

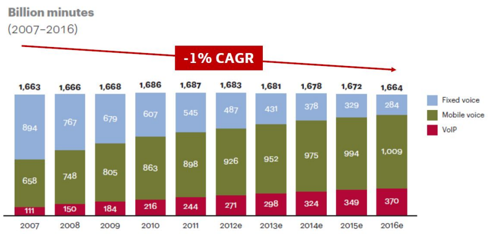


Source: CTO M5 draft analysis, 2013

Fixed voice

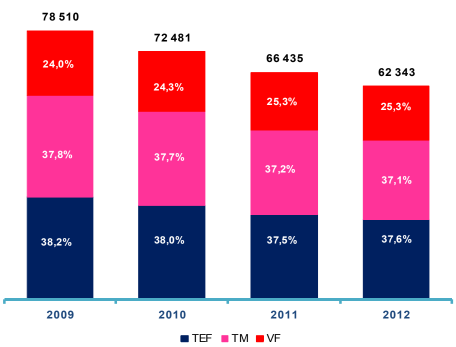
- Strong fix mobile substitution
- Fix penetration peak in 2001 (~3.8m lines), steady decrease since
- O2 Home concept since 2008. Traditional fixed voice add-on to fixed broadband



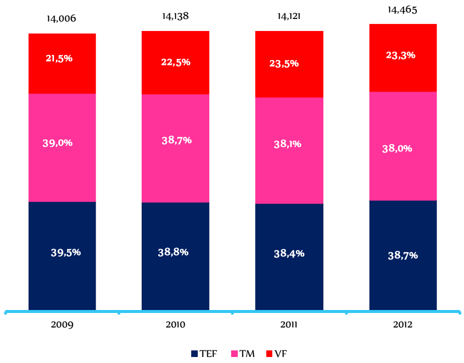


Mobile market shares

CZ mobile service revenues [CZK mil.]



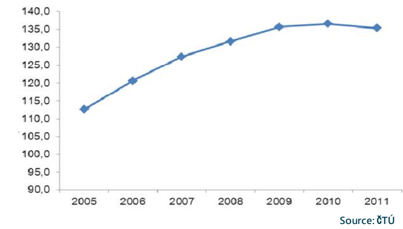
CZ mobile subscribers ['000 registered]



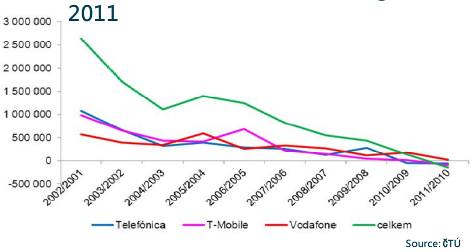
- **Total CZ mobile market size declined by 26% in last 5 years,** largely due to MTR cuts and competition

High mobile penetration & market expansion slow-down

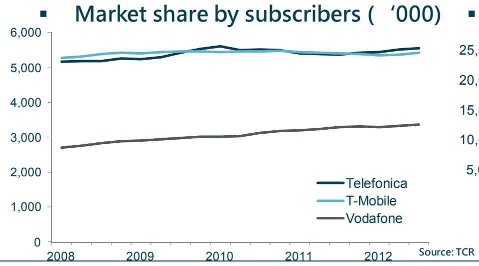
- SIMs penetration at 135%



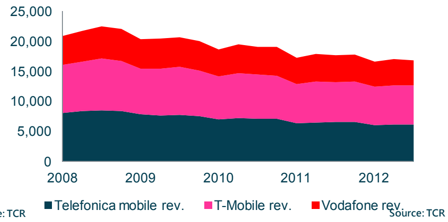
- New subscriber adds in the negative in 2011



- Market share by subscribers ('000)



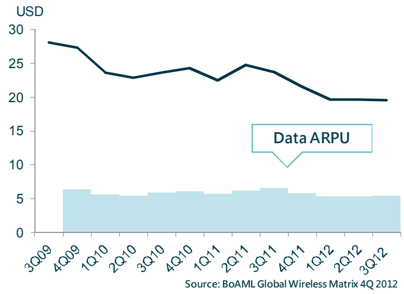
- Market shares by revenues



Mobile voice – retail prices and ARPU

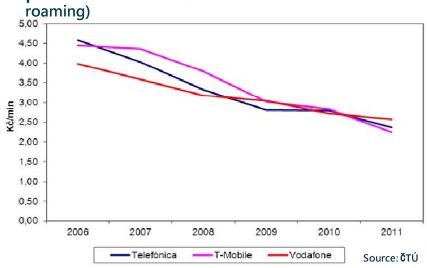
- 2006 to 2011: c.45% reduction in retail prices

- ARPU Czech Republic 2009-2012 dropped, then stagnation
- A slowly growing share of data on revenue from 23% in 2009 to 28% in 2012



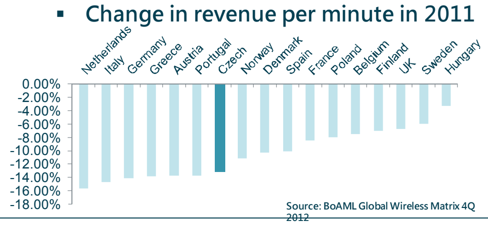
Source: BoAML Global Wireless Matrix 4Q 2012

- Continuous reduction of average price per real minute (excl. intl. calls and outbound roaming)



Source: ČTÚ

- Change in revenue per minute in 2011



Source: BoAML Global Wireless Matrix 4Q 2012

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Timeline: 36* MVNOs on CZ market since November 2012 – part 1

	Nov 7, 12 (O2)	April 11, 13	April 12, 13	April 12, 13	April 19, 13	May 13, 13 (T-M)	May 14, 13	May 23, 13
	BLESK mobil	O2	vodafone	T-Mobile	T-Mobile	MOBIL CZ	GTS	vodafone
DESCRIPTION	MVNO launch 1 PrP tariff with simple rates; no data incl. In tariff	O2 Free tariffs launch 5 new tariffs in O2 portfolio	VF 1st reaction on Free tariffs 2 unlimited tariffs (on-net&all-net)	T-M 1st reaction on Free tariffs 3 tariffs (full flat is copy of O2 Free CZ)	T-M 2nd reaction on Free tariffs Replaced last offer -> 3 new tariff (copy of O2)	MVNO launch Same prices as BLESK and IIH for free or as reward for top-up	MVNO + MVNE launch (T-Mobile) 4 tariffs for business customers combining mobile and fixed calls	VF RED tariffs launch 5 new tariffs derived from O2 Free proposition

	May 29, 13 (O2)	May 31, 13 (GTS)	June 1, 13 (GTS)	June 17, 13 (GTS)	June 20, 13 (GTS)	June 26, 13 (GTS)	June 27, 13 (GTS)	July 1, 13 (GTS)
	TESCO mobile	99 mobile	GoMobil	ha-loo	komujel	airtelecom	Orelax	voocall
DESCRIPTION	MVNO launch Prepaid tariff with option to have valuable voice&SMS package against 300 CZK MF	MVNO launch 4 PoP tariffs with free minutes; no data incl. in tariffs	MVNO launch 3 PoP tariffs with free minutes and data incl. in the highest tariff	MVNO launch Cheap PrP tariff combined with VoIP; reward CZK 0,05 for incom. calls	MVNO launch 3 PoP tariffs with quite similar proposition as 99mobile (is brand reseller)	MVNO launch 4 PoP tariffs with free unites and data incl. in 2 tariffs; flat tariff for CZK 690	MVNO launch 1 PoP tariff with 1 simple voice&SMS rate and PayGo (CZK 0,50/1MB)	MVNO launch 4 PoP tariffs combined with VoIP and data incl. in 2 higher tariffs

* Incl. 3 MVNE (**GTS** – T-Mobile, **Quadruple** – Vodafone, **DH Telecom** - Vodafone)

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Timeline: 36* MVNOs on CZ market since November 2012 – part 2

Date	MVNE	Brand	DESCRIPTION
July 1, 13	GTS	L-TEL	**MVNO launch** 4 PoP tariffs with data incl. in 2 higher tariffs and flat tariff for CZK 799
July 1, 13	GTS	StarTEL	**MVNO launch** 1 PoP tariff with simple rates; no data incl. in tariff
July 8, 13	GTS	FUN mobil	**MVNO launch** 3 PoP tariffs with free minutes; no data incl. in tariff
July 16, 13	GTS	Odorik.cz	**MVNO launch** 1 PrP tariff combined with VoIP, no data incl. in tariff
July 17, 13	GTS	MOBIL21	**MVNO launch** 2 PoP tariffs with free mins;no data incl. in tariffs (aggregator of small VoIP providers)
July 24, 13		airtelecom	**Proposition redesign** 6 PoP tariffs including youth and full flat. Other tariffs with free minutes&data
August 1, 13	Quadruple	Quadruple	**MNVE launch (Vodafone)** 2nd MVNE on the CZ market; no own offer for customers
August 5, 13		StarTEL	**Proposition redesign** +2 new PoP aggressive tariffs; still no data incl. in tariff
August 10, 13	GTS	ViralMobil	**MVNO launch** 3 PoP tariffs combined with VoIP; no data incl. in tariffs
August 12, 13	Quadruple	fayn	**MVNO launch** 3 PoP tariffs combined with VoIP; no data incl. in tariffs
August 13, 13	Quadruple	Žlutá simka	**MVNO launch** 6 PoP tariffs (individual and shared tariffs) with data incl. in 2 tariffs. Cheap data pack.
August 13, 13	GTS	Connectica	**MVNO launch** 6 PrP tariffs with various types of free units; no data incl. in tariffs
August 15, 13	DH Telecom	DH Telecom	**MVNE launch (Vodafone)** 3rd MVNE on the CZ market; offer through OpenCall
August 15, 13	Quadruple	opencall	**MVNO launch** 2 PrP simple tariffs with cheaper prices to International
August 19, 13	Grey VF	deník	**MVNO launch** 2 PoP tariffs only for subscribers of Regional Deník
August 27, 13	GTS	NETBOX MOBIL / aim MOBIL	**MVNO launch** 2 PoP tariffs with data incl.; No data packages, only PayGo

* Incl. 3 MVNE (**GTS** – T-Mobile, **Quadruple** – Vodafone, **DH Telecom** - Vodafone)

Timeline: 36* MVNOs on CZ market since November 2012 – part 3

Date	MVNE	Brand	DESCRIPTION
Septmr 9, 13	VF	studentfone	**MVNO launch** 1 PrP tariff with no data incl.; free 300 MB if top-up>200 CZK
Septmr 9, 13	VF	CENTROPOL	**MVNO launch** **5 PoP tariffs + 2 data tariffs w or w/o comm.; Data packages**
Septmr 9, 13	GTS	Telestica	**MVNO launch** 3 PoP tariffs w/o data incl.;Data pa- cks; Affiliate programm (MF discounts)
Septmr 7, 13	GTS	CALLPRO	**MVNO launch** **3 tariffs (both PrP or PoP) with very cheap data packages.**
Oct 1, 13	GTS	DRAGON	**MVNO launch** 4 PoP tariffs; Best prices per data packages but available only for flat tariff. (+MBB)
Oct. 8, 13		Kaktus	**Kaktus: T-M 2nd brand** PrP card with 9 packs of free mins,SMS and Data. On the level of MVNOs
Oct. 8, 13	GTS	SeniorTeL	MVNO launch 3 PoP tariffs for seniors from 55 years; 99mobile is brand reseller
Oct., 14, 13	GTS	PODA	MVNO launch Only for current customers; Free mins as reward according to mthly spend
Oct., 15, 13	O2	MOBIL.E	MVNO launch PrP tariff with voice and data packages (no comm.)
Oct. 15, 13	GTS	one mobile	**MVNO launch** **3 PoP tariffs (RES) and 1 PoP tariff (BS). On-net/all-net flat. (w or w/o comm)**
Oct. 22, 13	Quadruple	EUROPERATOR	**MVNO launch** **1st PrP MVNO with degressive price model. Data and on-net min/SMS packages.**
13	DH Telecom	MIKROTECH	**MVNO launch ??** 5 PrP tariffs w or w/o comm, GSM+VoIP. Cheap data packages

And new are coming every day…

- **29.10. - +4U**
- **1.11. – COOP mobil**
- **3.11. - Metronet**
- **4.11. – WIA mobil**

* Incl. 3 MVNE (**GTS** – T-Mobile, **Quadruple** – Vodafone, **DH Telecom** - Vodafone)

In April, we launched new FREE Tariffs, responding to market situation and customer needs…

WE ARE SIMPLIFYING our portfolio:

- THREE TARIFFS FOR ALL residential customers
- Unlimited calls and texts in each plan
- New FREE tariffs are both for new and current customers
- Available for everyone, including customers with a contract

- Handset purchase not tied to monthly fee. We bring you FREEDOM

Unlimited tariffs for a revolutionary price

A SIMPLE OFFER

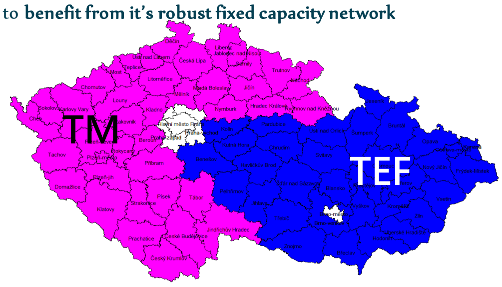
Name	Unlimited on-net calls	Unlimited on-net SMS	Internet in mobile	Unlimited off-net calls	Unlimited off-net SMS
FREE O2	✓	✓			
FREE O2 Plus	✓	✓	✓		
FREE CZ	✓	✓	✓	✓	✓

Before FREE launch, our customers used more than 200 tariff plans!

Network sharing with T-Mobile will bring significant value, leveraging the experience with MORAN [1)]

- The country will be broadly **divided into two areas**, based on the existing MORAN 3G division
- The innovative **MORAN scheme is in operation for 3 years at 1'000 sites**, being the first active 3G sharing initiative in Europe
- 2G and 3G networks of both partners will be consolidated into a **common grid**
- Both partners will share **active as well as passive** infrastructure
- The result will be a **more efficient network** with relevant savings
- Telefónica will continue to **benefit from it's robust fixed capacity network**

Proposed regional division
illustrative



1) Multi-Operator Radio Access Network – a current agreement with T-Mobile, sharing selected parts of 3G network in selected locations, to increase population coverage

03

Regulatory Environment

Regulatory Framework

- Czech Republic fully implemented the European Regulatory Framework
- Key responsibilities of the Regulator:
- *Ex-ante* market regulation
  - SMP (Significant Market Power) player designation
  - Imposing regulatory remedies (e.g. access, non-discrimination)
  - Price Regulation
- Spectrum Management
- Customer Protection

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Key Challenges

- Formalistic approach to market review process not allowing to fully reflect market realities
  - Relevant market definition – technological neutrality
  - Geographical segmentation – reflecting regional differences
- Pressure on termination fees
- “Recent” focus on mobile market
- Non-existence of efficient appeal mechanism against NRA’s decisions

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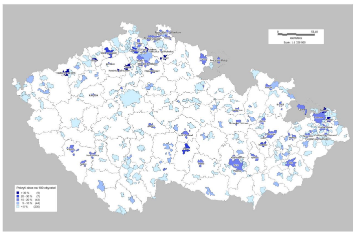
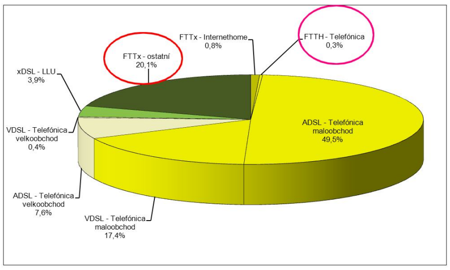
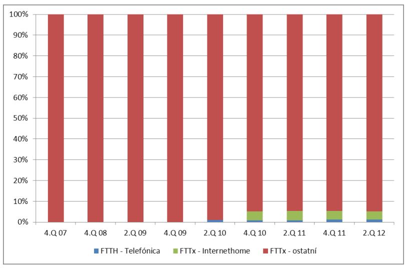
Fixed market – regulated infrastructures

- Regulator refused to include CATV and wireless in the unbundling and wholesale broadband markets
- Fiber considered only after consensus on fiber regulation was reached
- NGA (fiber) networks enjoy 8% market share on Broadband market.
- Fiber deployment driven so far by new entrants i.e. in unregulated environment
- Yet fiber bitstream and fiber unbundling will be imposed on TEF







Source: CTO analyses

Geographical segmentation

- In 2012 Geographic segmentation/partial deregulation was proposed by CTO:
  - Segment A – areas where TEF CR market share is bellow 40% and xDSL+WiFi+CATV/FTTX technologies are available (2/3 of Czech population)
  - Segment B – all other areas
- Proposal vetoed by the Commission despite supportive opinion of BEREC
- CTO withdrew the draft analysis and currently applies nation wide market definition

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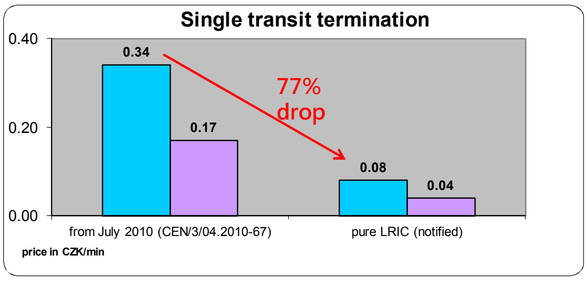
Fixed Termination Rates – pure LRIC

- Recommendation on termination rates applies also on fixed termination.
- CTO developed Bottom Up pure LRIC model and notified new costs to the Commission. Current rates for fixed termination were proposed to decrease 75%
- The Commission has started investigation, Article 7a
- Massive opposition from incumbent and alternative operators who expressed doubts about sustainable fixed voice market
- Following Commission's comments even fruther drop expected (CZK 0,03)



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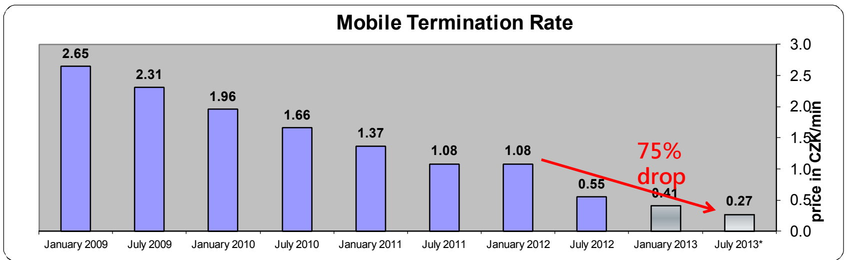
Mobile Termination Rates

- 75% drop in 12 months leads to massive revenue loss which cannot be covered by other services.
- Further degradation of the financial possibilities to invest in new network technologies and further extension of broadband networks
- Winner of a regulation based "pure LRIC" are those providers which do not operate an own mobile access network
- Mobile operators filed legal action against adopted „pure LRIC“ price decision, breach of national law



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Mobile origination market review

- Mobile origination market found competitive in 2006
- Considered competitive EU wide – removed from list
- Spring 2012 – market re-introduced in CR, analysis launched with the goal to impose mandatory wholesale obligations on MNOS
- Public consultation finished in FEB 2013, analysis put on ice
- CTO tried to prove collective dominance, but analysis is superficial
  - Majority of EU markets would be collusive
  - CTO refused to reflect market development in 2012/2013
- CTO still maintains its "market failure" position
- **Airtours criteria**

Common strategy	CTO failed to define (not to mention prove) any concrete common strategy
Coordination stability	CTO ignores "instability" on the market • Spectrum auction – will double mobile spectrum available • MVNOs entry
Retaliatory mechanisms	Bold "cross-border price war" theory

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2013 Spectrum Auction

- **2nd Atempt after the 1st Auction failure (spring 2013)**

- **Controversial rules**
  - **Set-aside spectrum for new entrants**
    - No analysis neither justification provided
    - Illegal state aid – breach of EU Treaty
    - Discriminatory & disproportionate
  - **National Roaming and MVNO obligations**
    - Illegal intervention to existing rights (allotments) in case of 2G/3G
    - Circumventing the due process (market review -> SMP designation -> access obligations)

- **The Czech Court dismissed TEF's action**
  - Dismissed on procedural grounds
  - Judicial review of the Auction rules possible only after Auction ends

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BACKUP

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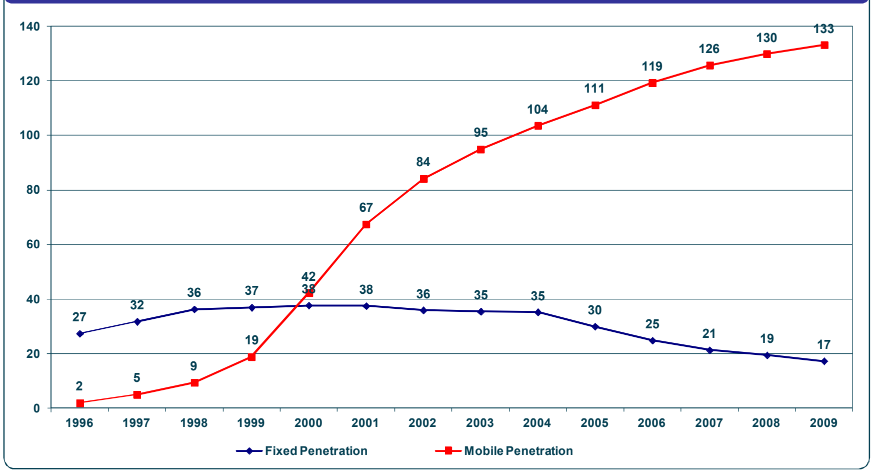
Fix-Mobile substitution: Mobile overtook fix in 2000

Czech Republic – fixed and mobile penetration



Worldwide mobile outlook

Europe is the only region in the world with no growth perspectives

Latam is the region with the biggest growth perspectives

Source: IDC Worlwide Blackbook 2013