Merging Fixed, Mobile And Internet Billing Functions

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Next Generation Billing

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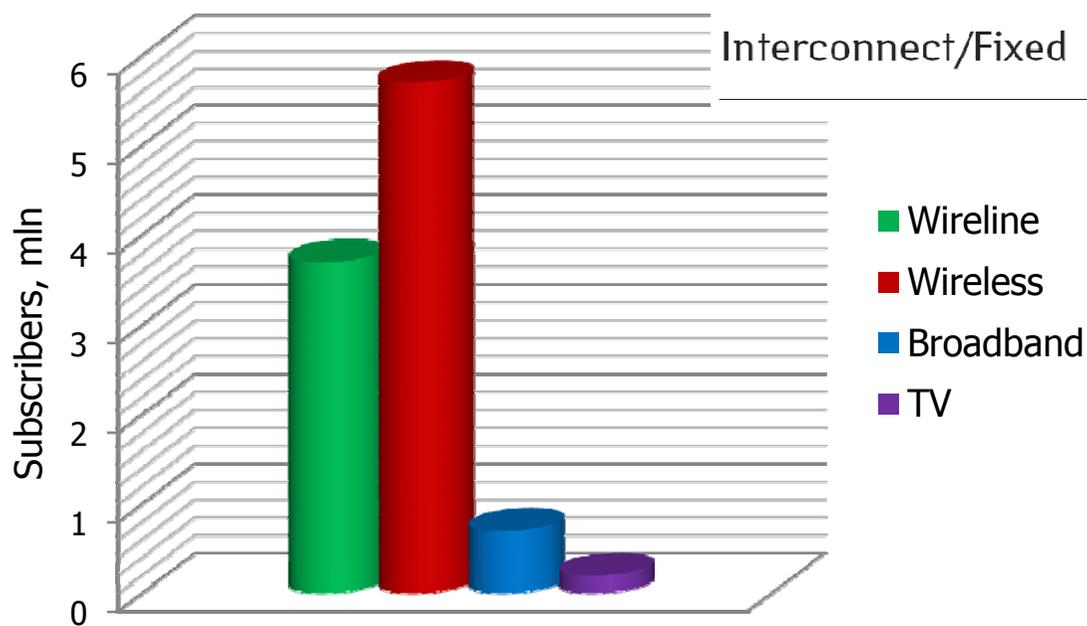# Agenda

- A few words about UralSvyazInform
- Billing transformation project
- Perspective

uralsvyazinform

The Urals

- 1.5 mln. sq. km
- Population of 15 mln.
- 19% of Russian GDP
- 20% of industrial production
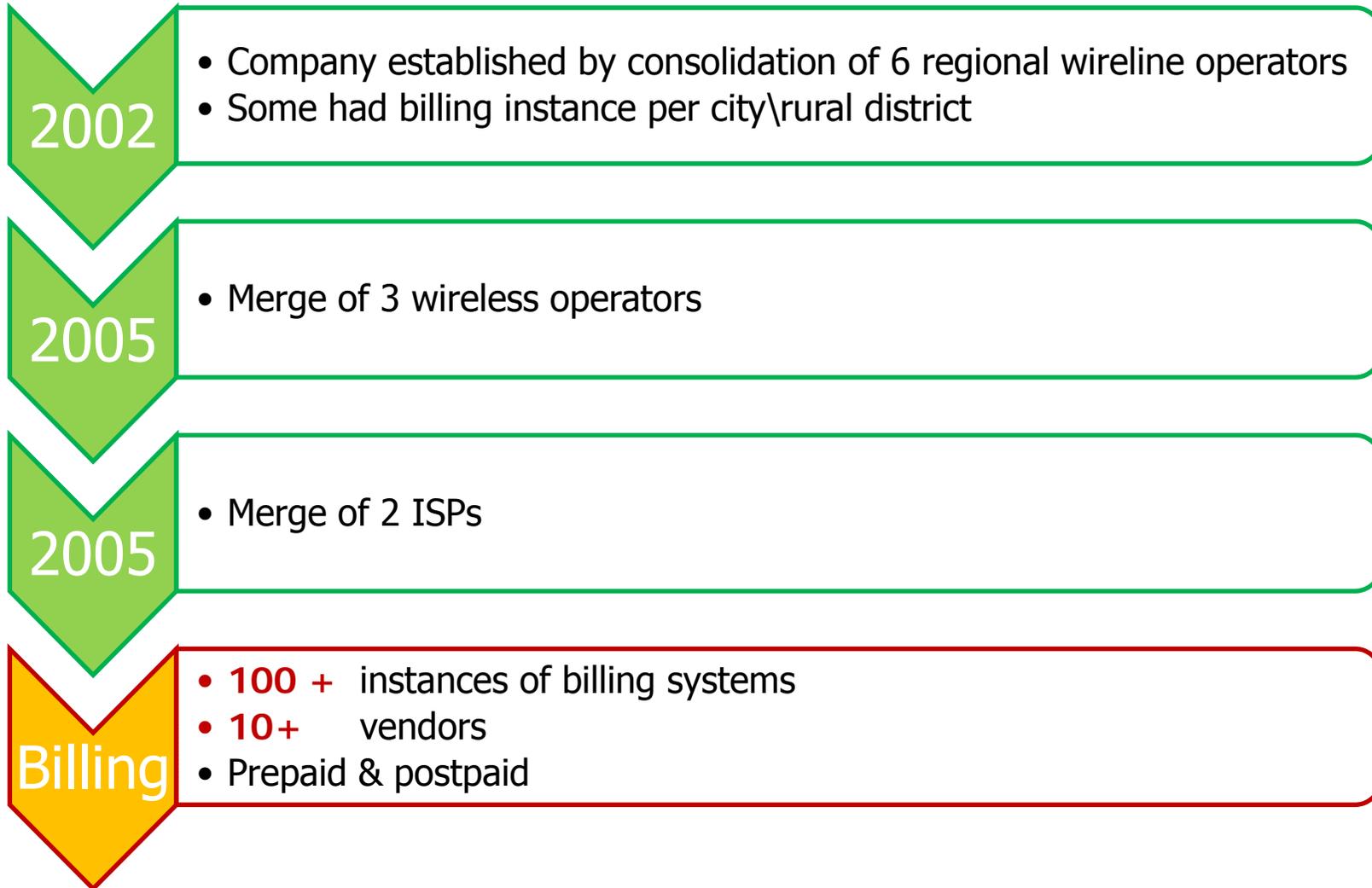- 92% of natural gas production
- 73% of oil production
- and so on …

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Services	Market Share	Competition
Fixed-voice/Local	72%	Level of competition - Medium Main competitors - few small localized urban-area operators
Fixed-voice/Intrazone	97%	Level of competition - Medium, will increase in future
Mobile	36%	Level of competition - High Main competitors - "The Big three" Federal operators + 1 local operator
Internet&Data	42%	Level of competition - High Main competitors - small localized urban-area providers + some federal operators
Interconnect/Fixed	79%	Level of competition - Medium, will increase in future

Subscribers, mln

- Wireline
- Wireless
- Broadband
- TV

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Billing @ USI - the cause

2002
- Company established by consolidation of 6 regional wireline operators
- Some had billing instance per city\rural district

2005
- Merge of 3 wireless operators

2005
- Merge of 2 ISPs

Billing
- **100 +** instances of billing systems
- **10+** vendors
- Prepaid & postpaid

Billing transformation project

- "Why" and "If" where not questioned

- The need to support further development as a fully integrated (mobile-fixed-internet) provider
  - Synergy and stable diversified development
  - Migration towards IMS
  - Application of the most effective technology to meet customer expectation
  - Converged services and service
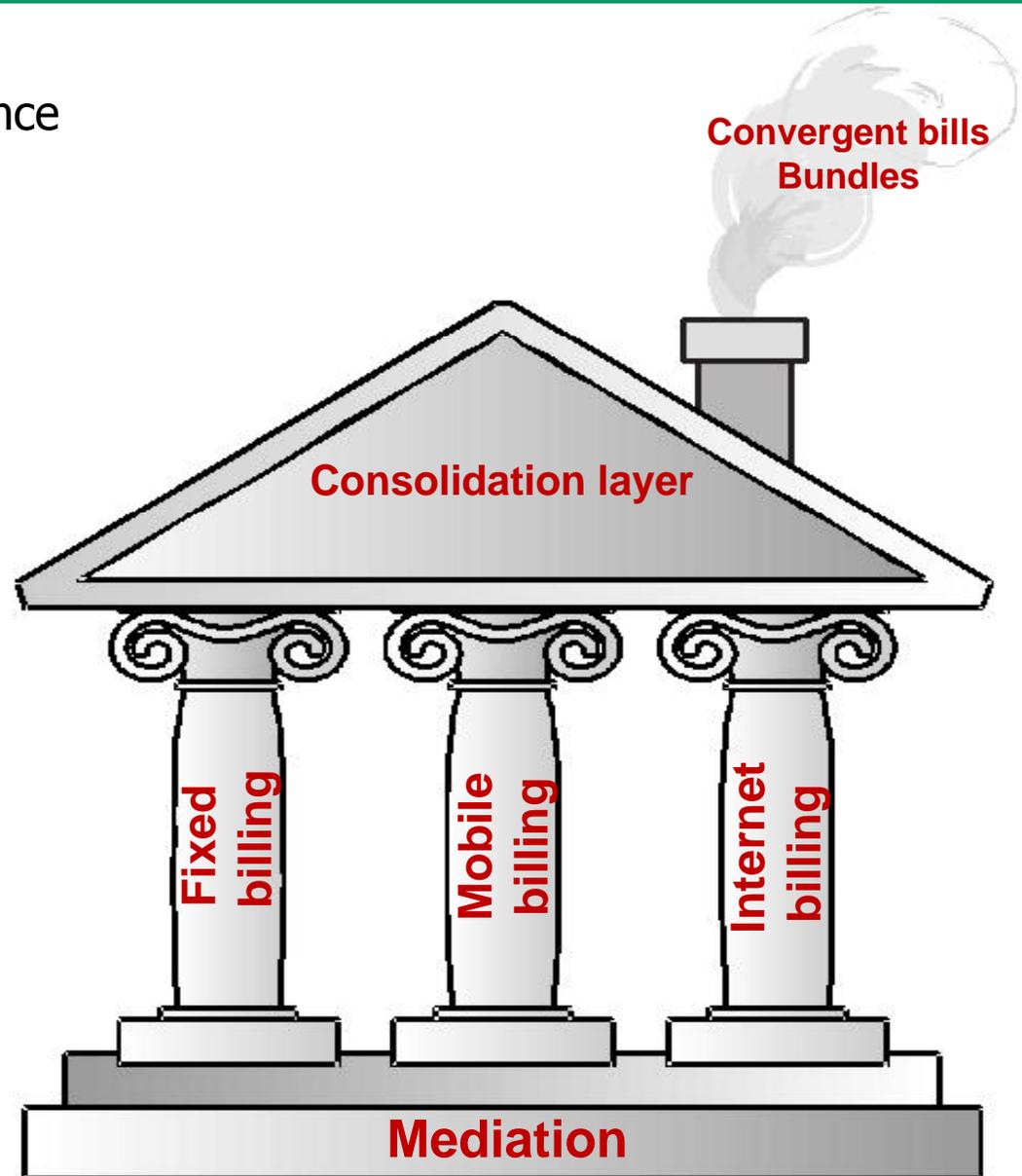 - Quadruple play dynamic packaging

- How ?

Consolidation layer approach

Pro
- An option to bring more competence
- "Quick" convergence
- Reduced risk

Contra
- Additional system = more costs
- Additional system = continuous integration

Convergent bills Bundles

Consolidation layer

Fixed billing

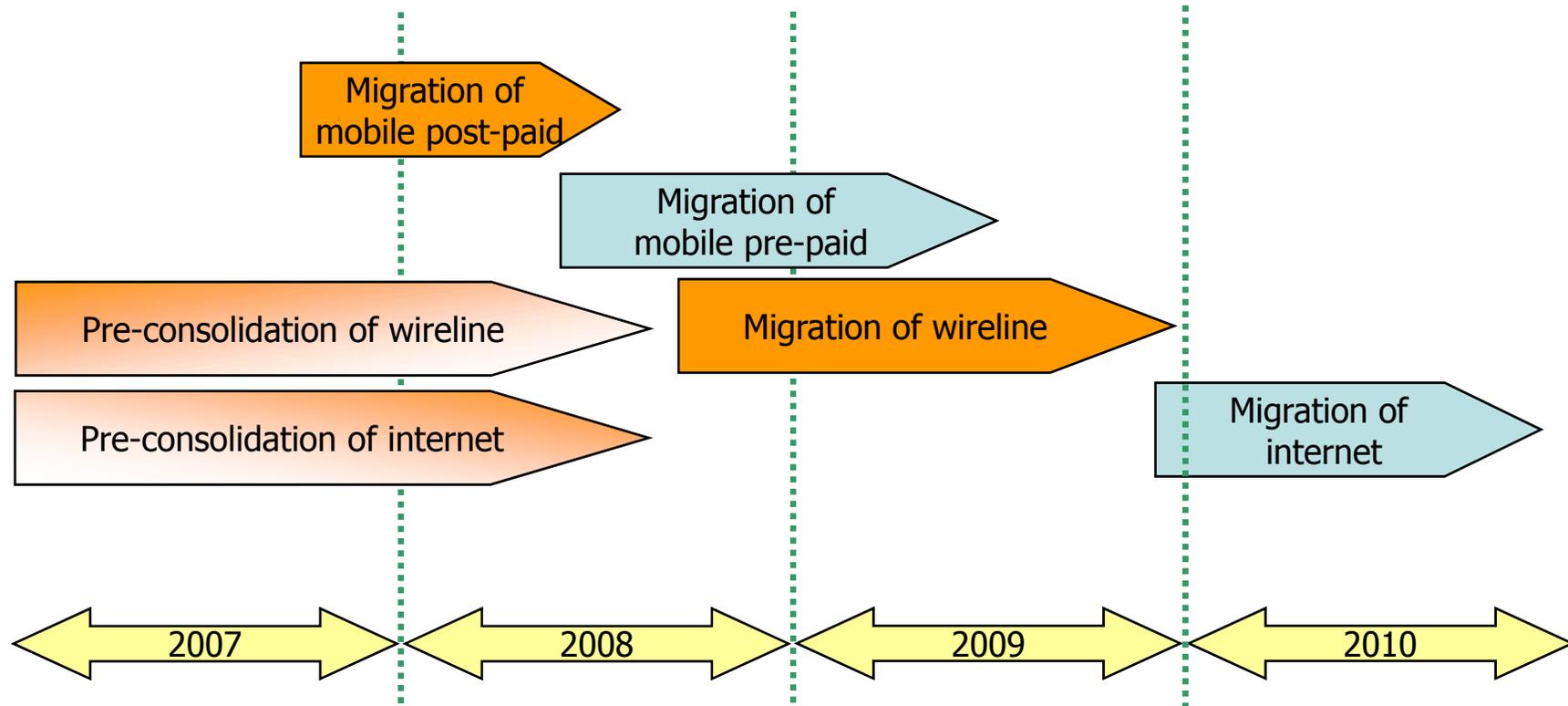**Mobile billing**

Internet billing

Mediation

Consolidation layer approach (2)

- Worked to some extend
  - A way to reduce the number of systems as quickly as possible
  - An option to create service bundles as soon as possible

- Was never fully implemented

- Flexibility and stability
  - Down to the lowest level of three systems
  - $1 + 1 + 1 < 3$

- Effectiveness
  - Three teams instead of one
  - For development and configuration
  - For operations

- Openness
  - Naturally becomes a "black box" due to custom integrations

True convergent billing system

- Mobile\Fixed\Internet
  - Mobile: Prepaid & Postpaid
  - Fixed: Traditional & NGN

- Single customer database

- Single tariff database

- Single charging subsystem
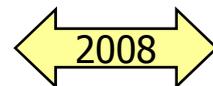
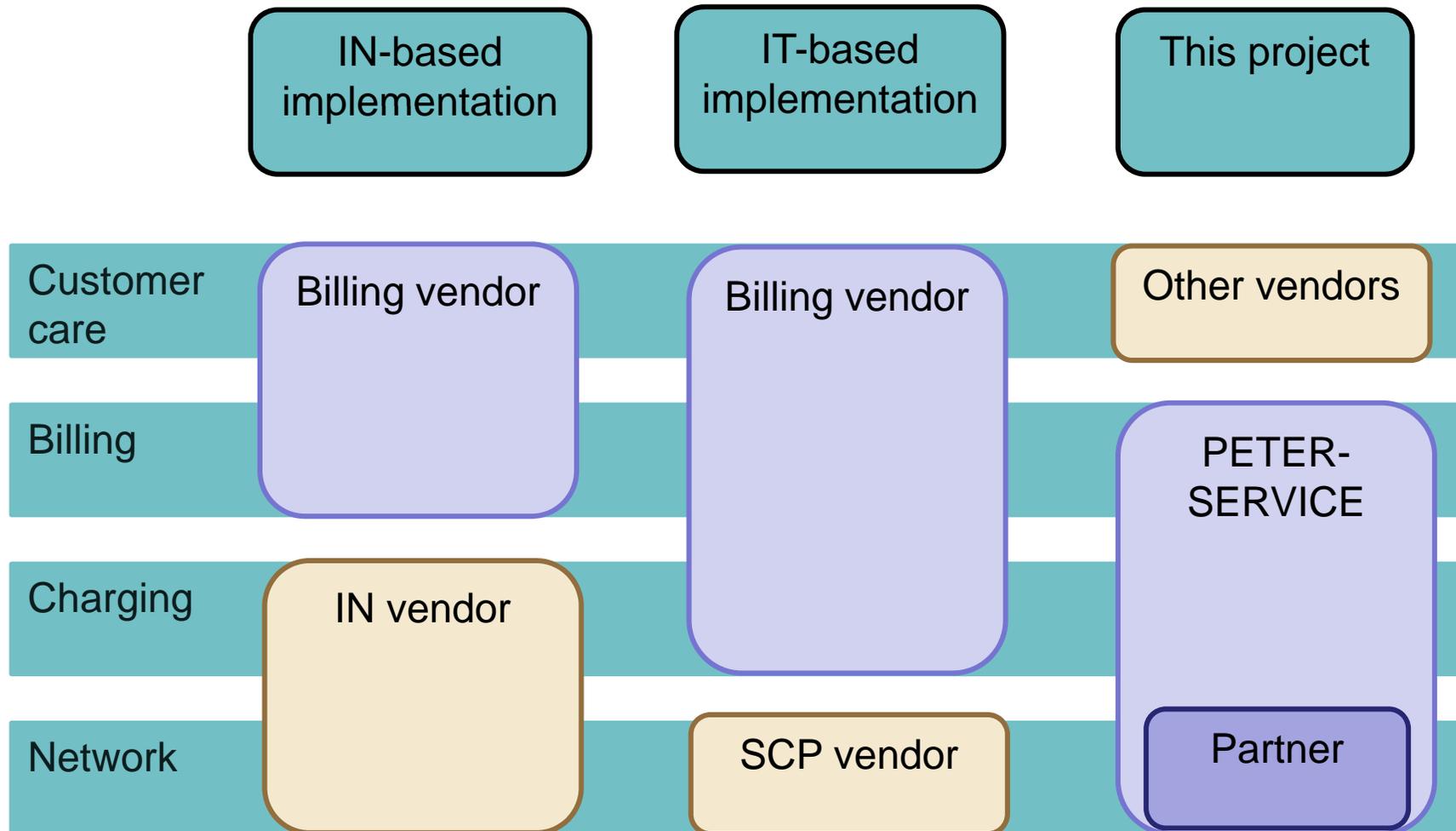- Single rating engine

Timeline

Migration of mobile post-paid

Migration of mobile pre-paid

Pre-consolidation of wireline

Migration of wireline

Pre-consolidation of internet

Migration of internet

2007   2008   2009   2010

Consolidation of multiply legacy systems

Migration from a single system

2008   Yes, this is the calendar year

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"IT-Based" implementation

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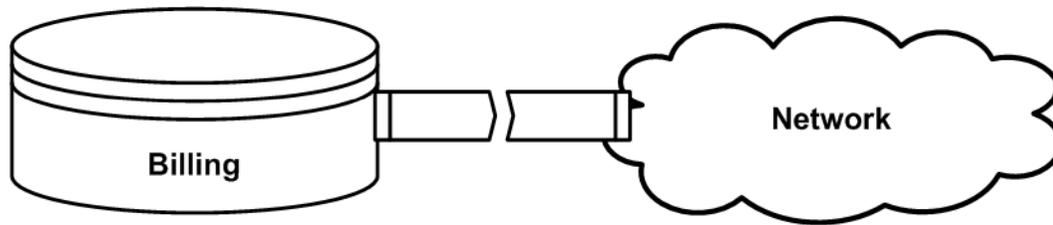# Prepaid\postpaid convergence first

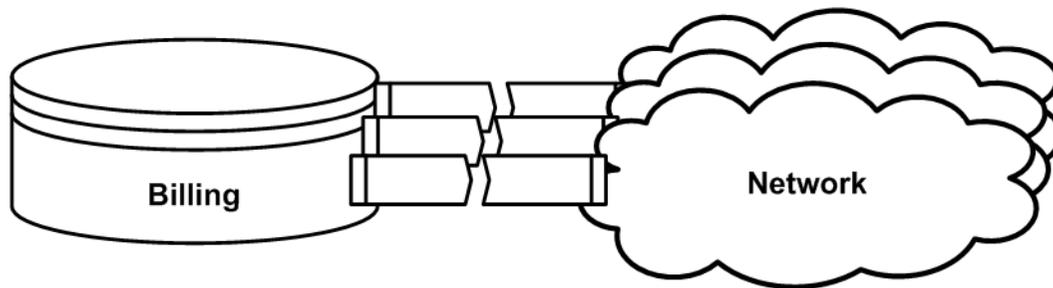- Real-time\offline convergence is a prerequisite for fixed\mobile\internet convergence

	Real-time	Offline
Fixed	◇	◇◇◇◇◇
Mobile	◇◇◇	◇◇◇
Internet	◇◇◇◇◇	◇

- Prepaid\postpaid convergence comes before or in line with fixed\mobile\internet convergence

- Design of prepaid\postpaid convergence defines implementation of fixed\mobile\internet convergence
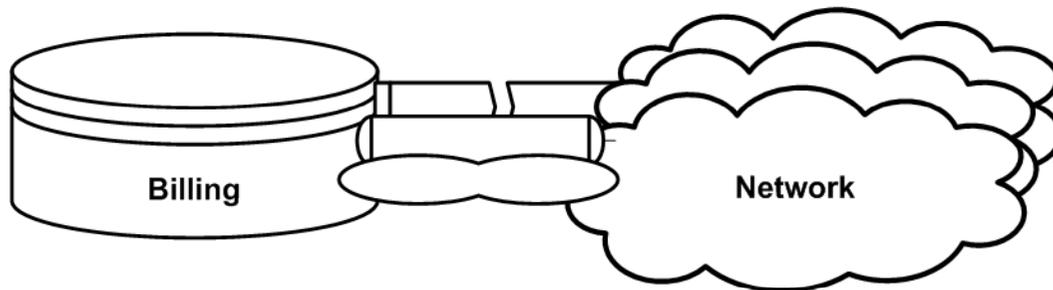
Engineering viewpoint

- Ideal
  - Single network
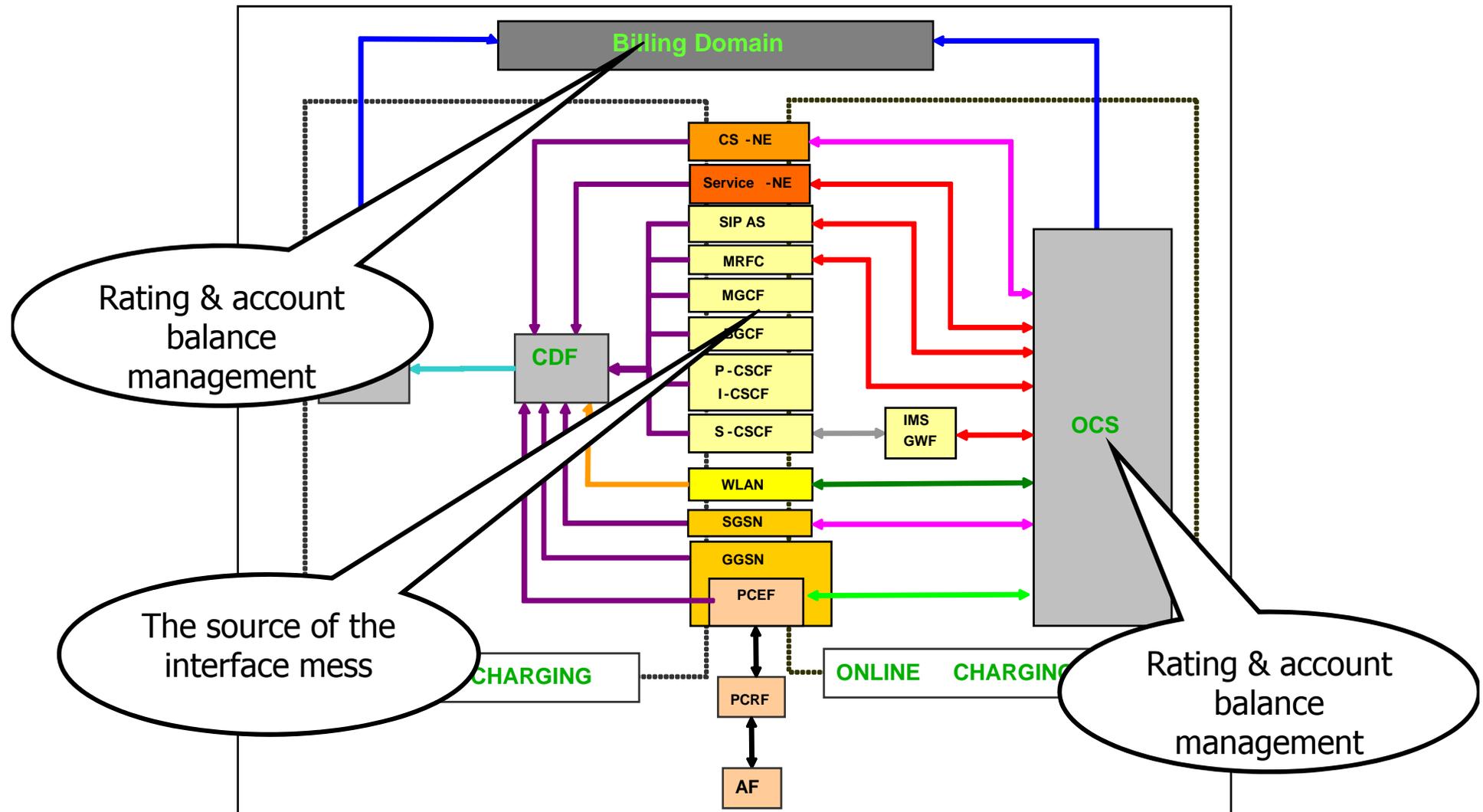
- Reasonable trade-off
  - Multiply standard interfaces

- Real life
  - Each interface is the best

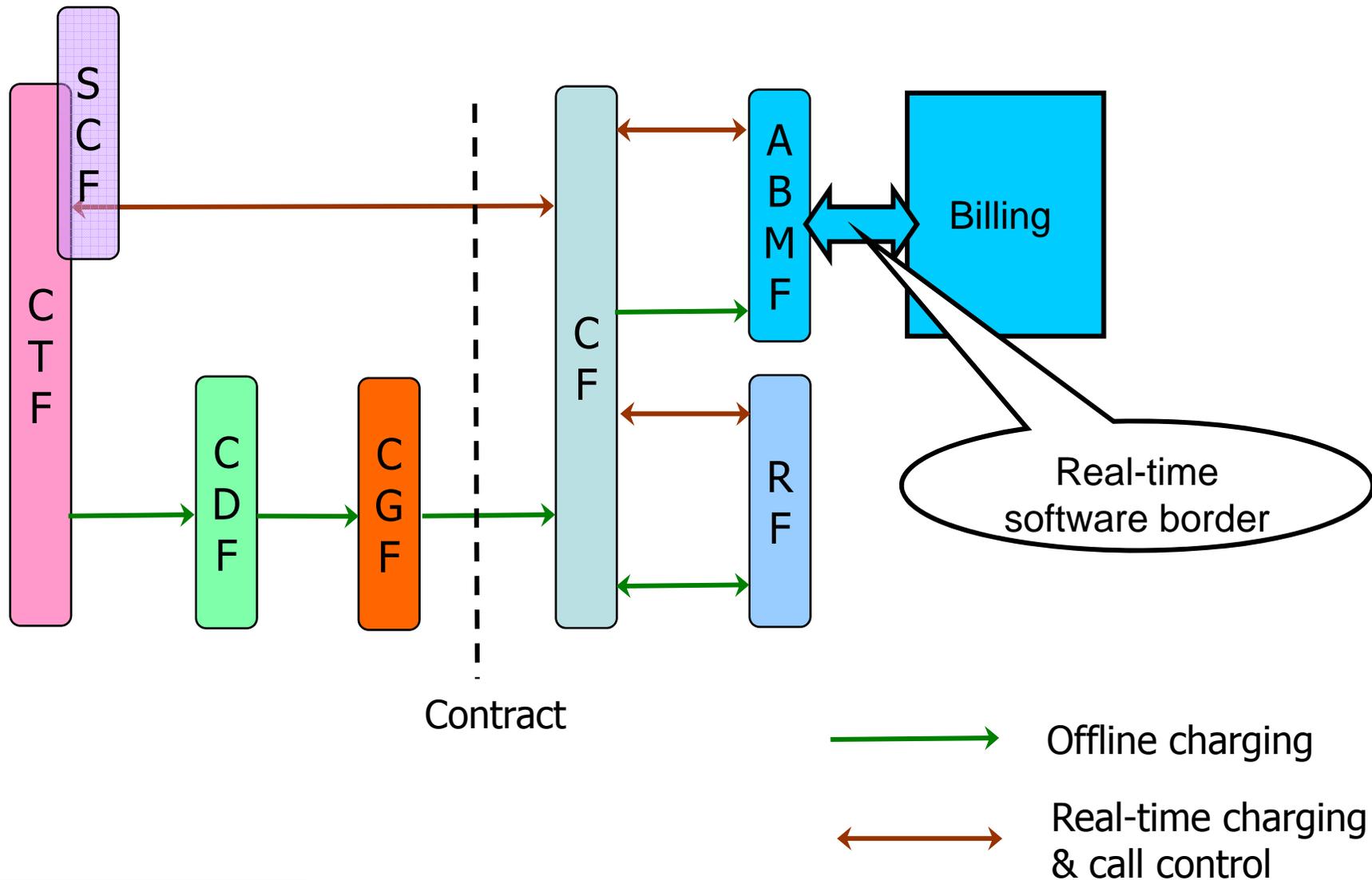# 3GPPs "Ubiquitous Charging Architecture"

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Impact of "ubiquitous" approach

- Unlimited number of service platform with tightly coupled charging functions

- Billing system with tightly coupled charging function

- Different values for online and offline rating

- No way to switch from online to offline charging

- Revenue loss due to faults and abnormal conditions in online charging

Streamlined charging architecture

Contract

Real-time
software border

→ Offline charging

↔ Real-time charging
& call control

SCF

CTF

CDF

CGF

CF

ABMF

RF

Billing

Impact of "ubiquitous" approach

- Convergent Fixed\Mobile\Internet billing is two steps away:
  - Implement real-time charging system that can also process CDRs
  - Manage to keep the number of interfaces to the network(s) reasonable

- (Convergent customer care is another story)

Thank you !

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