



Comverse Data Management & Monetization



Comverse **MOBILE INTERNET**
Data Management and Monetization

PCC Use Cases & Marketing Tools

Network Management & Basic Use Cases

- Network management
- Basic Tiering - bandwidth & quota

Defensive / Non-ARPU Affecting

- Fair Usage Policy
- Usage Steering
- Self-service portal
- Bill-Shock Prevention for roamers & local subscribers

ARPU-Affecting Marketing Tools

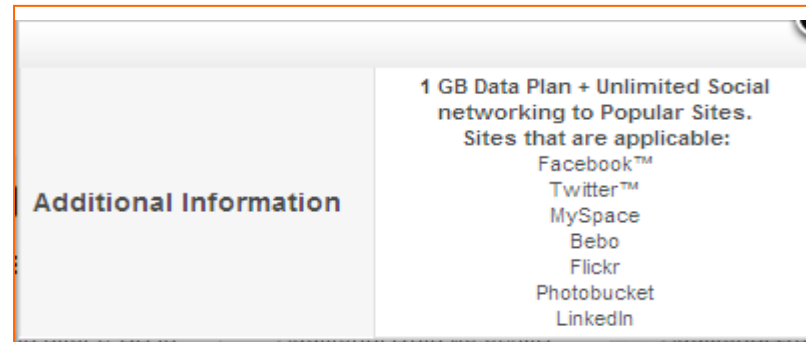
- Sharing - Joint plans for family members & multiple devices
- Upsell - Of speed, quota, next-tier plan, WEB-sites / apps
- Usage Promotions - of apps and WEB-sites
- Selective Discounts - For quota / content
- Parental Services - Filtering of WEB-sites & apps
- Priority Service - Guaranteed BW for sponsored / non-sponsored content & devices
- Two sided models with OTTs
- Prepaid Experience - Notifications & Recharging up sells

ARPU-Affecting Marketing Tools

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Source: Rogers



Popular social networks sites not counted against quota

Selective Discount

ARPU-Affecting Marketing Tools

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Vous êtes client Belgacom Internet

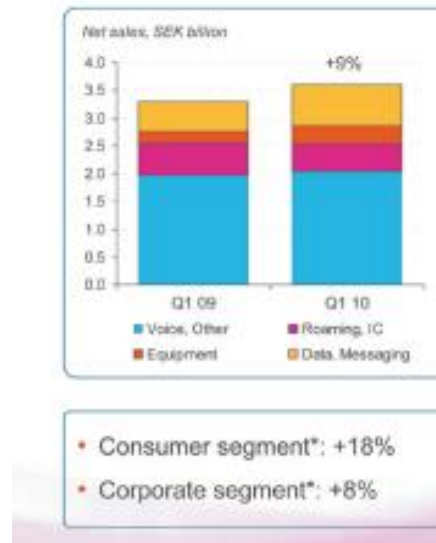
Abonnement	Prix/mois	Inclus	Si vous utilisez plus
Free Weekend	gratuit le weekend* et les jours fériés	500 MB	en semaine : € 2,49/heure après les 500 MB : € 0,03/MB

Source: Belgacom

“Free Weekend” Mobile Internet for Belgacom’s subscribers

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Source: Gerd Leonhard Futurist (Media & Communications) CEO of The Futures Agency

“Over the past year, the rise of Spotify subscriptions sold through Telia increased by 300%”

Andreas Liffgarden, Global Head of Telecom Biz Dev. at Spotify (Nov.2011)

Bill Shock Prevention

PCC Use Cases &
Defensive tools

Defensive / Non- ARPU Affecting

- Fair Usage Policy
- Usage Steering
- Self-service portal
- **Bill-Shock Prevention for roamers & local subscribers**

Using data abroad - Pay Monthly

O₂ UK

It's now much easier to keep track of costs when you use the internet abroad.



From 1 July we'll stop charging you for data abroad when your data usage reaches £40 (inc VAT) wherever you are in the world, you can then use up to 50MB without any additional charges.

We'll also send you alerts when you've spent £20 and £40; when you're nearing the 50MB limit and if you reach it. If you do reach 50MB; your data service will automatically stop, so if you want to use more you'll need to opt in to a higher spending cap (ideally before you go) by calling [Customer Services](#).

Here are our new data roaming rates which start on 1 July 2010.

Default spend cap (all customers)

Region	Cost per MB	Charge Limit per Month	Usage Limit per Month
Europe	£3	£40	50MB
Rest of World	£6	£40	50MB

Higher spend cap option

*Protecting customers from
unintentional spend while abroad*



Integrated Plan

Business Objective:
Brand image & Tiering

1

Pelephone's pricing strategy is based on 3 solutions; First, shifting to small data packages & upsale for additional usage

Solution # 1

Phase 1

Small data packages

Shifting from large packages (2GB/unlimited) to small packages (0.5GB)

Phase 2

"Rolling packages" plans

- Add automatically another 0.5 GB when customer reaches his limit (multiple - until 20 Euro)
- 5 Euro per package

On line tools to enlarge packages

- Based on PCRF system
- An automatic system propose customers (who don't have a rolling plan) to enlarge data package online



2

Second solution - launching variety of data services based on PCRF system

Solution # 2 – PCRF System enables:

Variety of data Services/packages

- Speed packages
- QOS packages
- Dedicated packages for specific sites, like Facebook
- Multiple devices, 1 packages

Data Services for business segment

- Quality Of service for specific web site
- Content provider prioritization

Billing & management tools

- Tethering billing
- Turbo Button
- IMEI ID management
- On line tools to enlarge packages

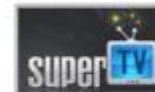
PCRF system enables Pelephone to provide more services and generate more revenues from new and current services



3

Third solution is launching high quality content services based on monthly fee

Solution # 3 – Advanced content services



- Video and Music applications
- Monthly subscription fee services (4 Euro each)
- Data usage is part of the subscription fee
- All customers must have an additional basic data packages
- Multiple platform and devices



Main Supported Protocols *

P2P

- AppleJuice
- Ares
- BitTorrent (encrypted and unencrypted)
- DirectConnect
- eDonkey
- Filetopia
- Freenet
- Gnutella
- iMesh
- KaZaa/Fasttrack
- Manolito
- Mute
- OpenFT
- OFF
- Pando
- SoulSeek
- Thunder/Webthunder
- WinMX
- Winny
- XDCC

IM

- Gadu-Gadu
- IRC
- PoPo
- QQ
- Jabber/Google Talk
- MSN
- Oscar
- Paltalk
- Yahoo

VoIP

- H.323
- IAX
- MGCP
- SIP
- Skinny
- Skype

Standard

- Citrix
- BGP
- DHCP
- DNS
- EGP
- FTP

- HTTP
- ICMP
- IGMP
- IMAP
- MySQL
- NFS
- NTP
- OSPF
- pcAnywhere
- POP3
- PostgreSQL
- RDP
- SMB/CIFS
- SMTP
- SNMP
- SSDP
- STUN
- Telnet
- Usenet
- VNC
- File hosting (DDL)

Streaming

- AVI
- Feidian

- Flash
- Icecast
- Kontiki
- MMS
- Move
- MPEG
- OGG
- ORB
- PPLive
- PPStream
- QuickTime
- Real Media Stream
- RTP
- RTSP
- SCTP
- SHOUTcast
- Slingbox
- SopCast
- TVAnts
- TVUPlayer
- UUSee
- V CAST
- VeohTV

- Windows Media Stream

- Zattoo

Tunneling

- SSL
- GRE
- HamachiVPN
- IPsec
- OpenVPN
- SoftEthernet
- SSH
- Tor
- VPN-X
- VTun

Gaming

- Battlefield
- Half-Life 2 and Mods
- Quake
- Steam
- World of Warcraft
- Xbox

Data Services Enabled/Enhanced by DPI

- **Traffic Management**
 - Traffic prioritization, shaping, blocking
- **Quota Management**
 - Manage quota per subscriber, application and group, with conditions based on the sub logic parameter
- **Reporting & Analytics**
 - Traffic and application statistics, subscribers and events (quota, security, etc.)
- **Charging**
 - Aware, Unaware
 - Per application, volume, event
- **Network Security**
 - Detect and report about security events (DoS, port scan, spam, etc)
- **Policy Management**
 - Smarter decisions based on additional information



DMM Analytics

Extensive subscriber & network intelligence providing complete & accurate picture of network usage:

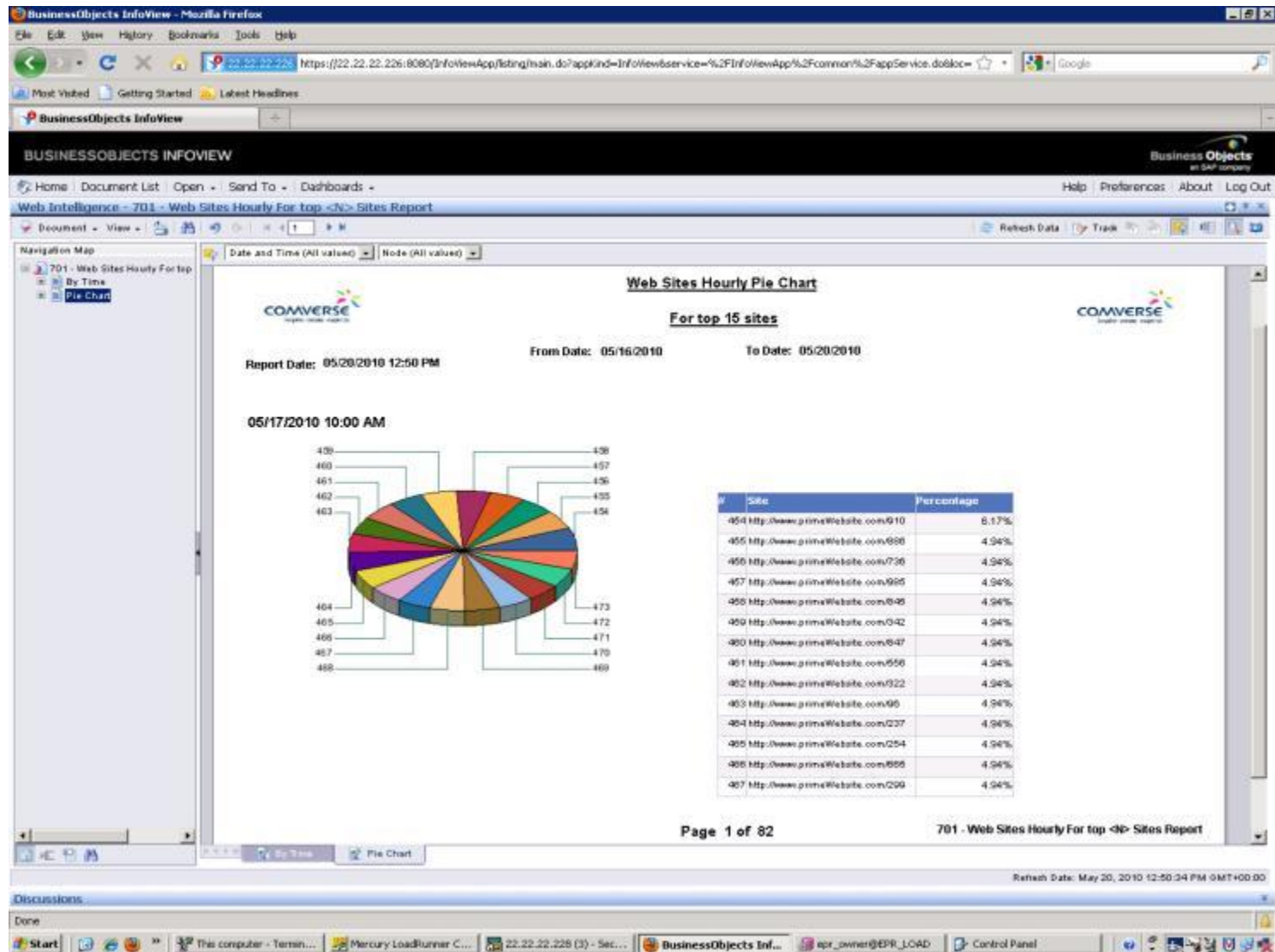
- Per application
- Per subscriber group
- Per device

Real time & long term monitoring reports:

- Trend Analysis
- Service Planning
- Capacity planning



DMM Analytics – Report Example



Comverse Delivers an E2E Solution:

Linking DMM Policy Manager with Comverse ONE

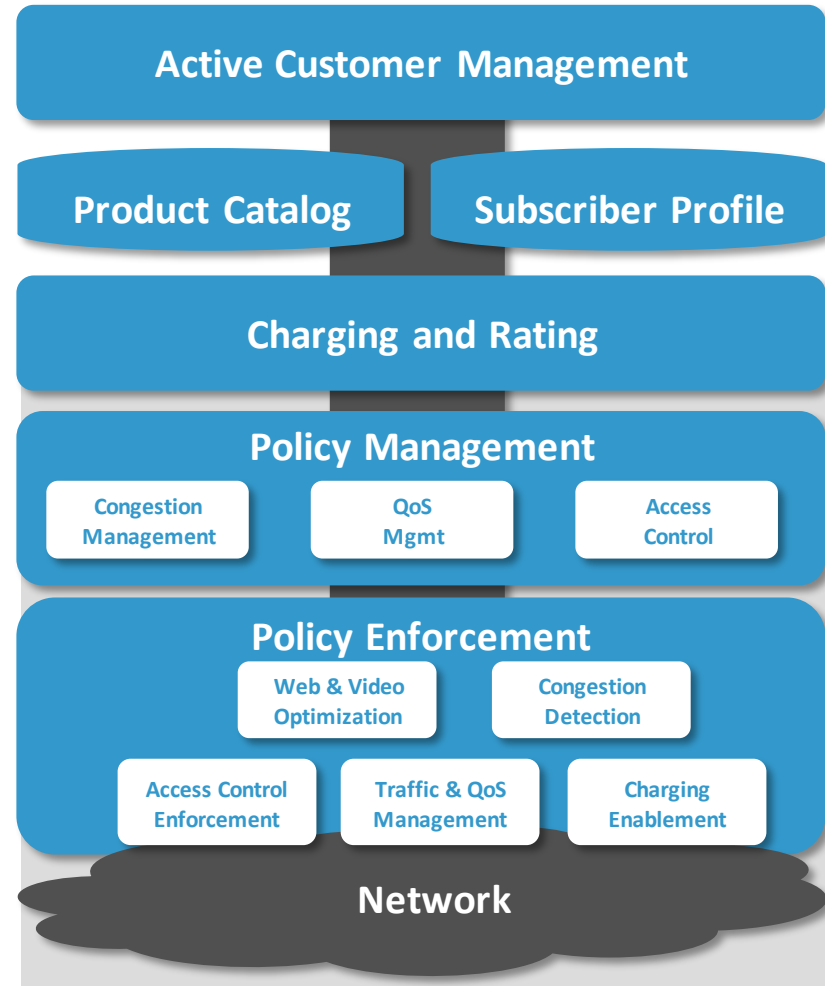
Modular solution that **bridges all functional domains:**

- From wire-level (DPI & PCEF)
- Through Policy Management & Control (PCRF)
- To BSS/CRM

Features a rich **BSS-PCRF-PCEF framework** covering 3GPP PCC use cases

Support for a predefined, **broad set of end-to-end use cases**

Lowers operational complexity with aligned **service data, policy provisioning, APIs, and customer care**



End-to-End Solution Eliminating Charging Integration Barriers

Comverse ONE & Comverse DMM

Out of the Box Support for Multiple Monetization Scenarios

Add-on Offers and Promotions

“Social Hub” Promotion



For every 1000 incoming off-net voice minutes get additional 1GB data of off-peak traffic

Roamer Package



Roaming at inter-operator rates, bill shock notification @\$50
Optionally: 30 MB @ \$ 15, video excluded

‘Night Owl ‘ Package



3Gb that can be used only for night browsing @\$10/month
80% notification possible through self-service

Birthday Bonus

Free browsing (except video) during birthday



Premium SLA: Congestion Compensation



During network congestion situations, traffic is zero rated

Smartphone-free School Policy



Browsing during school hours can optionally be blocked / lowered in priority

Comverse Mobile Internet Customer Success

Driving innovation and profitability through smart monetization

- TeliaSonera: Ucell, Geocell, Moldcell, Ncell
- Kyivstar, T1 in Ukraine
- Plus, Albania



Trusted partner of major T1s

- Verizon Wireless, Mega-T1 in the US
- Tracfone – T1 US MVNO



Enhancing User Experience with advanced video & data management

- Reliance, Mega-T1 in India



Comverse Mobile Internet Hub solution is strongly based on long lasted Mobile DNA

Eight years of mobile internet experience
Over 60 Mobile Internet customers worldwide
> 15 Policy Management Customers
Serving over 40% of Subscribers in North America
Supporting ultra high capacity traffic with 100% availability



Reference Example:

Supporting Innovative Data Plans

Comverse Solution

- Comverse Mobile Internet Hub was chosen to manage and monetize mobile data traffic growth
- Fully integrated with C1
- Win over incumbent vendor
- Services included:
 - Policy Management
 - Policy Enforcement
 - DPI
 - Traffic Optimization
 - Content Filtering
 - Mobile browsing & streaming
 - Data Charging Enablement
 - Quota Management

Operator Strategy: Smart Monetization

- Planning to implement a variety of segmented plans
- Using advanced charging and quota mechanism (per url, application and content type)



Reference Example: Handling All Mobile Broadband Traffic

Challenges

- Gain leadership in broadband market
- Increase Mobile Internet profitability
- Effectively handle all traffic – Video, P2P, Email etc.

Ukraine #1,
23M Subscribers



Comverse Solution

- End-to-End Mobile Internet HUB:
 - Centralized Policy Management
 - Broad Set of Enforcement Services including: DPI, Web Opt., Filtering etc.
 - Broadband Data Charging: pre-integrated with Comverse ONE BSS solution
- Win over Huawei E2E & Cisco DPI solutions

Mobile Broadband:

- Big & small screen offering
- Segmented data plans
- 3G roaming
- Expense control ('My Kyivstar')
- Fair usage policies



Reference Example: Reliance India

Compelling Event:

- Introduction of 3G network

Comverse Solution:

- Comverse DMM was chosen to control and optimize user experience with:
 - Video Optimization
 - Content Adaptation
 - Browsing services
- Joins existing Comverse Real-Time Rating, Charging and Billing solution

Mega Tier 1 Indian
Operator
>100M subscribers

RELIANCE



Reference Example: Dhiraagu Maldives (C&W Property)

Compelling Event:

- Data Monetization, Retain Leadership & Traffic Control

Comverse Solution:

- Comverse DMM was chosen to enhance data monetization, improve customer experience & traffic control:
 - PCRF(Service Policy Management)
 - Multiple PCEF support including DPI
 - Data Charging over OSA & Gy
 - Browsing GW with L7 proxy
- Joins existing Comverse Real-Time Rating & Charging solution
- Pre-Integrated PCRF-PCEF-DPI-Online charging solution to enable fastest TTM for launching new Data services in the Mkt.

Tier 1 Maldivian
Operator



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Reference Example: Hutch Sri Lanka

Challenges:

- Introduction of 3G network , Gain Market Differentiation, Increase Revenue
- Data Policy solution with minimized TCO

Comverse Solution:

- Comverse DMM:
 - PCRF(Service Policy Management)
 - Multiple PCEF support including DPI
 - Data Charging over Gy
 - Browsing GW with L7 proxy
- Pre-Integrated PCRF-PCEF-DPI-Online charging solution to enable fastest TTM for launching new Data services in the Mkt.

Tier 2 Sri Lankan
Operator
>100M subscribers





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Thank You