‘FMCA – Thought Leadership Paper’

The Road to full Convergence

Sophia Antipolis, 25th of May 2008
Frank Seifert, Swisscom
Full Convergence starts in 2008

Outline

- **New market opportunities**
  While revenues from voice services and broadband access are stagnating, the move to all-IP reveals business opportunities beyond FMC. Especially content & advertising services seamlessly integrated into core telco value propositions represent attractive customer offerings and new revenue sources for telcos.

- **New market players**
  New market players from the media and IT industry increasingly push into telco markets, and compete with telcos on customer attention. The FMCA can help to negotiate win-win partnerships between these globally operating players and operators.

- **Customer acceptance**
  The success of devices that combine entertainment and telephony functions such as the iPhone demonstrate consumer interest in innovative convergent solutions that move beyond FMC.

Boundary are blurring

Global Value of the converging ICT market (2007)

- Voice: 748
- Data: 726
- Portal/Apps: 556
- Broadband & Fixed Line: 1,474 bn $ (Total: 3,743 bn $)

Source: PWC Global Entertainment and Media Outlook; Gartner Dataquest Market Data Book
The Customer: The involuntary integrator of convergence

Examples for the need to ‘bring together’ media & communications
The FMCA “Customer Convergence Charter”

The value of convergence from a customer perspective

‘Convergence’ means:

bringing together
my communications, information, media, and transactions
from any of my service providers, on any of my devices,
with a consistent service experience, in a cost effective way
in order to manage and engage
in my personal, social and business life
anywhere
In Survey, to which 70% of the FMCA Carrier and 3 Vendors contributed, key customer trends were determined

### Consumer Trends

- **There are three key short term customer trends with high impact**
  - **Simplicity** - remove complexity, speed, and time constraints
  - Provide **wireless broadband** when at home and mobile
  - **Digital social networks** - the self as a brand; users generating content

- **During the next 2-3 years**
  - Integration of devices and user identities
  - Always in touch
  - “Snacking” Entertainment – spontaneous media consumption

- **A key 3-4 year/ high impact trend is**
  - Independent life - stay healthy and attractive in an increasingly individualistic and aging society

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**Speed of adoption** = in year x 25% of customers have embraced the trend
**Impact** on development towards full convergence
The key trends for business customers were mobile cooperation, business information management and cost control.

- **Short-term/ high impact**
  - **mobile collaboration** - Collaborating without wires and not being fixed to a desk
  - **managing more and more information** - Growing amount of data and need to manage it – the info-centric enterprise
  - **cost control and optimization of assets** - Lean operations and optimization of all assets, incl. ICT
  - **increased productivity** - Through real-time access to information and instant contactability

- **High impact during the next 2-3 years**
  - Customer service seen as key differentiator
  - Focus on security and minimizing risks
  - Use of business applications
  - Outsourcing of non-core activities

- **Medium impact in the next 3-5 years**
  - Globalization Materials, services and talent will increasingly be sourced on a global basis. Outsourcing of non-core activities has been rated with the slowest speed of adoption
Lessons from the Field: Our starting point

The FMCA has undertaken an in-depth analysis of members’ market and service experiences. 14 operators and 3 vendors gave us input on over 400 distinct offerings.

Understand the patterns of FMC market activities across a large variety of offerings

- Home Zone Offerings (FMS)
- Bundles (N-Play)
- Integrated VoiceMail
- IPTV / Cable Telephony
- Online Bill
- Access home/office storage
- Online music, online games
- Self Service VAS Portal
- Integrated Contacts (phone #’s)
- Home gateway
- Unified Messaging
- UMA
- Video Calls Mobile/PC
- Femtocell
- Remote Camera Monitoring
- Dual Connect Router (VPN)
- “One Phone” Offerings: GSM/PSTN (via WiFi or Bluetooth,...)
- Mobile TV (DVB-H, DMB)
- Blackberry™ (GSM/E-Mail)
Define the basis for analysing the strategic routes to success

Domains of Convergence

- User
  - Device
  - Marketing, Tariffs, Customer Care
  - Product/Service
  - Network

The FMCA Convergence Framework

- Increasing device integration
- Increasing service integration

Uniting
- multiple services can be accessed from one device.

Bridging
- single service can be accessed from multiple devices
Bridging Services

A single service can be accessed from multiple devices

**Converged Marketing, Tariffs, Customer Care**
- Bundles (N-Play)
- Online Bill
- Self Service VAS Portal

**Converged Services**
- Integrated VoiceMail
- Access home/office storage
- Integrated Contacts (phone #s)

**Interworking**
- Unified Messaging
- Video Calls Mobile/PC
- Remote Camera Monitoring
Uniting Services

Multiple services can be accessed from one device

<table>
<thead>
<tr>
<th>Converged Devices (separate infrastructure)</th>
<th>Converged Devices (converged services)</th>
<th>Consolidated Services (replacement)</th>
</tr>
</thead>
</table>
| ![Converged Devices Diagram](image1)
- “One Phone” Offerings: GSM/PSTN (via WiFi or Bluetooth, …)
- Mobile TV (DVB-H, DMB)
- Blackberry™ (GSM/E-Mail)
| ![Converged Devices Diagram](image2)
- UMA
- Femtocell
- Dual Connect Router (VPN)
| ![Consolidated Services Diagram](image3)
- Home Zone Offerings (FMS)
- IPTV / Cable Telephony
- Online music, online games
- Home gateway

**Notes:**
- **P/S** indicates a provider/service interface.
- **M/T/CC** indicates a mobility/telecommunication/communications interface.
- **Net** indicates a network interface.

**DETECON**
Overview on the FMCA Convergence Framework

Uniting

- Converged Devices only
- Converged Devices + Services
- Consolidated Services (Replacement)

Bridging

- Marketing, Tariff, Customer Care
- Converged Services
- Interworking

Increasing device integration

Increasing service integration
Our results give orientation and strategic direction.

<table>
<thead>
<tr>
<th>Analysis of operator's market offerings</th>
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<tbody>
<tr>
<td>Converged Devices only</td>
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<tr>
<td>Conv. Devices + Services</td>
</tr>
<tr>
<td>Consolidated Services</td>
</tr>
<tr>
<td><strong>Uniting</strong></td>
</tr>
<tr>
<td>(100)</td>
</tr>
<tr>
<td>Increasing device integration</td>
</tr>
<tr>
<td><strong>Marketing, Tariff, Cust. Care</strong></td>
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<td><strong>Converged Services</strong></td>
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<td><strong>Interworking</strong></td>
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<td><strong>Bridging</strong></td>
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<tr>
<td>Increasing device integration</td>
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<td>Increasing service integration</td>
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</tbody>
</table>

- **Converged Devices only**: (35)
- **Conv. Devices + Services**: (15)
- **Consolidated Services**: (50)
- **Marketing, Tariff, Cust. Care**: (65)
- **Converged Services**: (210)
- **Interworking**: (40)

(numbers of market offerings analyzed (rounded); indicative proportions)

- : Y
- : inconclusive
- : N

(...): number of market offerings analyzed (rounded); indicative proportions
The Road to full convergence and the opportunities ahead

- **Increasing device integration**
- **Uniting**
- **Consolidated Services**
- **Conv. Devices + Services**
- **Converged Devices only**
- **Marketing, Tariff, Cust. Care**
- **Interconnecting**
- **Converged Services**
- **Interworking Enhanced Simple**
- **no integration**
- **flexible, supply-driven integration**
- **tight integration**

- **Simple**
- **Enhanced**
- **Interworking**

- **Increasing infrastructure integration**

**Detecon**

- **success today, low hanging fruit**
- **future opportunities “beyond FMC”**
The key opportunities

Key success factors for full convergence

- **Converged Devices only**
  - reduce complexity of devices
  - increase availability and choice
  - be careful with price arbitrage

- **Conv. Devices + Services**
  - ensure sufficient service provider control over device
  - focus on seamless pre-integrated user experience

- **Consolidated Services**
  - entertainment and media moving onto single broadband infrastructures
  - nascent market offers many opportunities

- **Marketing, Tariff, Cust. Care**
  - need to be easy to understand
  - can offer good value for customer
  - good starting point for convergence offerings

- **Converged Services**
  - support multiple user experiences
  - leverage converged production platforms (SDP, OSS/BSS) and interconnected access networks

- **Interworking**
  - the strategic opportunity for the industry as a whole
  - build user communities across multiple networks

Uniting

Increasing device integration

Bridging

Increasing service integration

- future opportunities towards full convergence

- success today, low hanging fruit
Opportunities on the Road to Full Convergence

Executive Summary

1. Easily understood and perceived to be of value by the customer and valuable entry point for operators. Despite their success, **we do not consider** these “support” bridging services to be an effective **long-term competitive differentiator**.

2. Simplifying communications (e.g. integrated contacts and integrated messaging) with mixed success. The FMCA’s view is that **these will become an important portfolio element for creating additional revenues** in the near-term future if they are ‘plug & play’.

3. Given the historic success of voice and SMS interconnection including roaming, it is evident that service level interoperability between multi-devices and networks (e.g. video-telephony from 3G phone to PC) is a **strong growth opportunity**.

4. For example **IPTV and fixed-mobile substitution**, have **strong market appeal**. Meanwhile, CATV operators are seeking to capitalize from the consolidation opportunity as well.

5. Integrating new capabilities, such as mobile TV, into existing user equipment will drive more rich convergence bundles. Growth is based on advanced converged devices. Not only “multi-comms”, is needed, but also **“openness” of the solution stack** (standard OS, drivers or application enablers). Cooperation to achieve **“economy of scale”** is mandatory.
The focal point on the road to full convergence is shareholder value generated by recognised and effective value to the customer.

<table>
<thead>
<tr>
<th>Demonstrate value for the customer</th>
<th>Set-up a convergence-ready organization</th>
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<tbody>
<tr>
<td>Create a deep understanding of your customers’ needs</td>
<td>Structure of your company: Transform into an organization that is customer focused and not technology focused</td>
</tr>
<tr>
<td>Research the drivers in your customers’ business or lives – and involve your executives</td>
<td>Change Management Process: From old telco-oriented mindset to new converged mindset</td>
</tr>
<tr>
<td>Create a customer-focused definition of convergence: Make sure your organisation shares a common understanding</td>
<td>Position in the value chain: Being able to take on different positions in the value chain according to service / customer requirements</td>
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<tr>
<td>Focus on Services that can maximise success in your market - based upon the recommendations and learning from the convergence framework, find the right strategic partners</td>
<td>Cost optimization: Identify cost optimization opportunities from converged network/IT architecture and converged multi-skilled teams</td>
</tr>
<tr>
<td>- to deliver the convergence experience</td>
<td></td>
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<tr>
<td>- to enhance your market position</td>
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Communicate the value of your convergence strategy both externally and internally
Our mission is the Customer Convergence Charter. FMCA is the combined voice of the customers and the industry as a whole.

The FMCA Thought Leadership Paper

The Road to Full Convergence
Strategy & Directions
May 2008

www.thefmca.com

The Role of the FMCA

We will concentrate on the following Action Lines in order to:

1. Define critical customer requirements
2. Share our members learning
3. Demonstrate the economic value added
4. Share best practice to support members’ transformation programmes.
5. Develop business models to support interoperation trials between services and service providers
6. Help the FMCA membership to deliver the charter
7. Assist our member’s CEOs in the implementation