White Paper

Nokia Mobile Business Voice

New revenue opportunities from fixed to mobile substitution

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Increased operator revenues as mobile networks win business voice calls

The culture of voice communications has changed radically over the past few years, with mobility becoming more and more important. People use mobile phones because they want to be reachable while on the move. Additionally, people prefer to make mobile calls to fixed line calls for other reasons, such as convenience or the lower cost of mobile telephony.

The possibility of using mobile phones as a substitute for fixed voice lines has been debated since the early days of mobile networks. Now there is solid evidence in mature voice markets, such as Western Europe, that this fixed to mobile substitution is taking place. In growth markets where fixed line telephone services have not been widely available, people adopt mobile telephony as their sole means for telecommunication because of its faster and cheaper availability.

Fixed to mobile substitution opens up new revenue opportunities for mobile operators. The enterprise segment is particularly attractive because it already has a fixed to mobile substitution rate of 3% which is expected to rise in the coming years. This is because enterprises recognize the benefits of mobility and are starting to replace their fixed voice communications infrastructure with mobile phones as their primary device for voice communication.

The key benefit for enterprises is the cost reductions that can be achieved by conducting all voice communication over a single mobile infrastructure. Improved reachability and efficiency are further benefits.

This White Paper discusses the elements that enable fixed to mobile substitution among business users.

Mature mobile voice markets today

The challenge of moving voice traffic from fixed to mobile

During the 1990s the number of mobile phones exceeded the number of fixed phones in Western Europe, leading to a mobile penetration level of over 80% today. However, only 20% of all voice traffic is carried over mobile networks. Increasing the share of voice traffic in mobile networks through fixed to mobile substitution represents major growth potential for mobile operators. A 50% rise in voice calls originating from mobile networks would lead to network traffic growth of up to 150%.

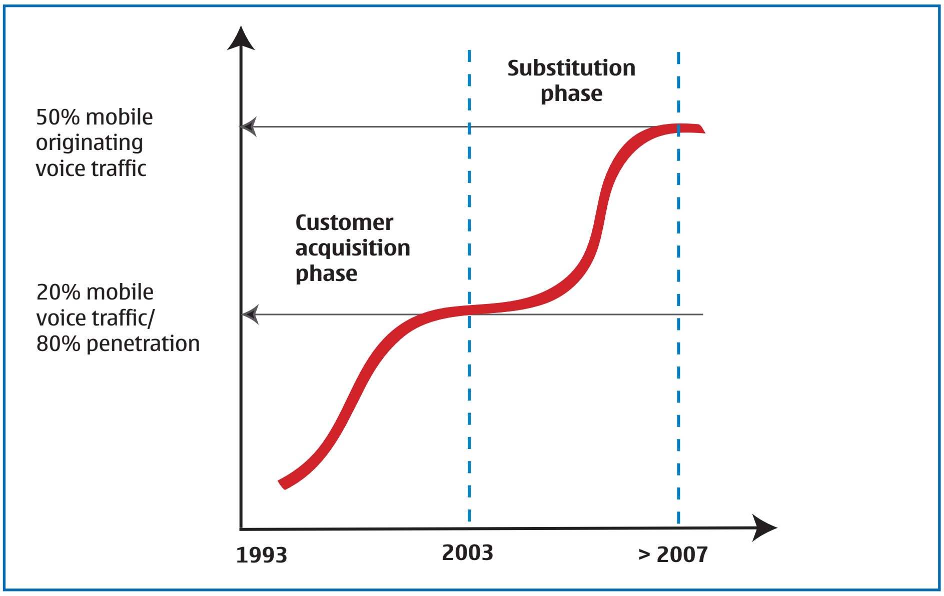


Figure 1: By 2007, half of all calls could be from mobiles

Accessible business voice market

The mobilization of entire enterprises with voice services is an unexploited segment for mobile operators, with 320 million fixed business lines worldwide carrying around 450 minutes per month and per line (Omsyc 2002). In Western Europe alone, 5 million enterprises are being served with 70 million business lines.

The fixed business market provides a fixed voice business service revenue of 33 billion euros (Gartner 2003) that can be redirected to mobile networks.

Mobile voice will continue to be the dominant service and will account for up to about 63% of total mobile market revenue for 2007. Even greater mobile voice revenue will be achieved by transferring the revenue that is currently generated by fixed lines to mobile networks.

Business market segmentation

In Western Europe, 20% of mobile subscribers are business users, generating 50% of total mobile revenue with an ARPU up to three times higher than that of consumers. This combination of high mobile penetration and very competitive enterprise markets calls for a solid enterprise segmentation strategy, one that balances cost against incremental revenue by providing the appropriate service offers.

Acquiring customers through fixed to mobile substitution requires market segmentation strategies that will drive revenue and profit in the long run.

For example, an organization's size and the industry in which it works have an effect on mobile service needs - small companies tend to use standard solutions limited to basic voice and data services, while large enterprises are more likely to customize solutions to provide a full set of IT and communications services to employees.

Pricing strategies turn out to be a vital marketing instrument to attract new enterprise customers and drive up mobile voice usage. Mobile telephony costs are made transparent with clear and simple pricing such as flat rates. Price differentiation allows operators to sell the same or similar services to different enterprise customers at different prices and thus to earn higher revenue. Thus, the total revenue is a function of the willingness to pay for voice services and the volume of calls made for a certain price.

Bundling services into attractive pricing packages, including voice services, subscriptions or terminals, for example, to extend the service offering and thus increase revenue, is an important way to encourage the adoption of mobile voice services.

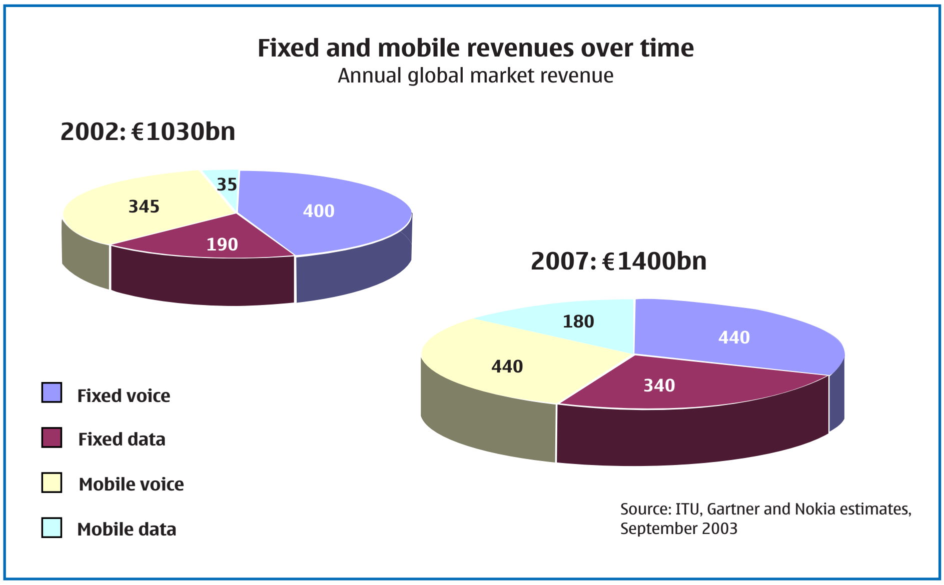
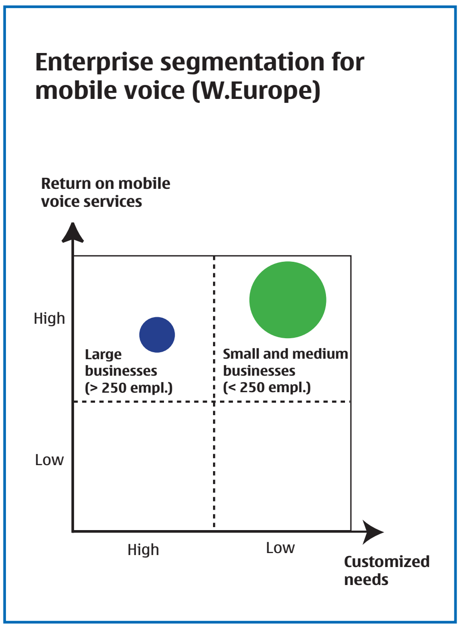


Figure 2: Mobile voice revenue has great potential for growth



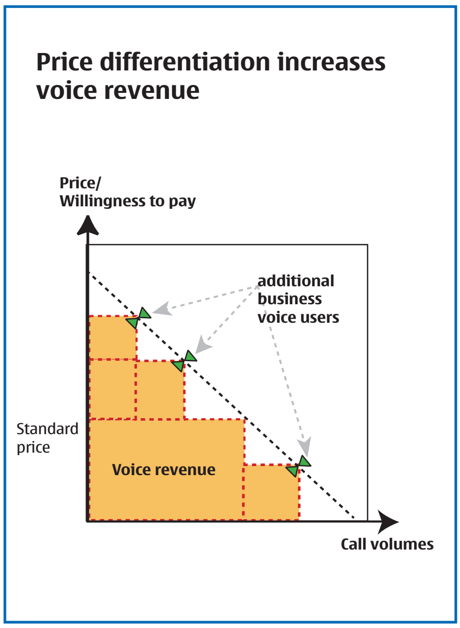


Figure 3: Precise marketing strategies are needed to drive up revenue

New services with minimal investment

Low CAPEX voice services for business users

Today's enterprise mobile voice communication is built mainly on the existing infrastructure of mobile networks, enhanced by key services for enterprise users. Established core network services such as GSM supplementary services, conference call, Multiple SIM card or Camel to enable the same services when roaming in other networks, all enhance enterprise communication.

In addition to these, there are several new key voice services for enterprise users that will encourage the adoption of the mobile phone as the primary phone both inside the office and on the move. These include short dialing based on enterprise numbering plans and user-group specific tariffing, switchboard attendant services for incoming calls to the main number, call queuing and distribution features, as well a electronic phonebook and support for WAP, SMS and E-mail for internal messaging.

All these mobile network-based services need no new infrastructure at the enterprise premises and can be used to enhance enterprise communication for both SMEs and large corporations. This results in virtually no start up investment for mobile voice services and keeps operational and maintenance costs low in the long run. Mobile network voice features can be integrated easily with enterprises' existing communication infrastructures and therefore have a short payback time. Current radio networks can support an increase in voice usage in terms of coverage, capacity and voice quality.

Increasing the use of mobile voice brings economies of scale to existing investments and mobile network running costs, such as site rental, maintenance and operation and leased lines. In particular, WCDMA networks remove any capacity constraints and improve the cost structure of mobile networks still further. This will accelerate the replacement of fixed voice because it opens the opportunity for competitive mobile tariffs to stimulate mass migration.

Lower costs for users, higher ARPU from full voice mobility

Full voice mobility makes enterprise communication more efficient, bringing all the convenient voice services that users are familiar with through their fixed line systems, as well as new features, such as short number dialing or making the corporate address book available over the mobile.

Most companies today have two infrastructures for voice, a fixed solution and a mobile solution. Switching to a single telephone system based on one mobile infrastructure brings substantial cost savings - monetary benefits result from lower costs for subscriptions and service fees, reduced maintenance of fixed lines and less administration with one bill for every employee. In addition to these recurring cost savings, enterprises also save call related costs. Competitive mobile to mobile tariffs in markets with high mobile penetration reduce the total mobile voice cost, because of the large proportion of mobile to mobile calls, which typically have lower tariffs than fixed to mobile calls.

Enterprises can cut day-to-day voice communications expenditure by up to 25%.

The enterprise benefits of reachability and cost savings are the new revenue opportunity for operators. Case experiences from Scandinavia prove that fully mobile enterprises bring up to 50% higher ARPU than normal business users, because of increased mobile voice usage when fixed voice lines are replaced and from higher termination revenue by moving more voice calls to mobile networks.

New subscriptions, basic voice and voice enhanced with enterprise-specific services, as well as multiple devices, are a solid foundation for gaining market share in the profitable business segment. In addition to higher voice usage among business users, mobile data usage through services such as SMS or WAP or other services over GPRS or HSCSD also increase. Mobile voice services for business users are future proof and can be enriched with presence information, complemented with push to talk over cellular or video telephony in WCDMA networks.

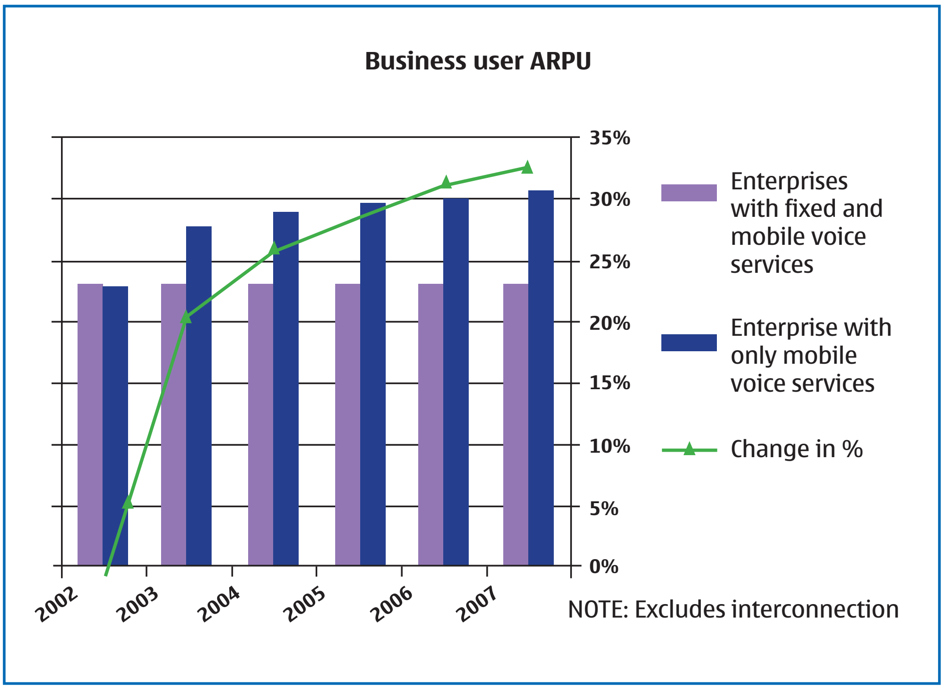


Figure 4: ARPU from enterprises with mobile voice only is predicted to rise significantly in the coming years

Key drivers for accelerating mobile business voice

A research study conducted in June 2003 in Western Europe, the Nordic countries and the United States revealed that fixed to mobile substitution is happening in enterprises. Enterprises place great emphasis on employee communication needs, such as reachability and organizational factors, when deciding on the mix of fixed and mobile subscriptions that they use.

The common perception amongst enterprises is that mobile telephony is more expensive than fixed telephony, thus companies are sometimes reluctant to increase the proportion of mobile telephony. This perception stems from mobile tariffs often appearing higher than fixed tariffs when one compares calling within the same type of network (fixed or mobile). As fixed-to-fixed calling has typically been cheaper than mobile-to-mobile calling, the largely prevalent thinking is that mobile calling is always more expensive.

This barrier of perceived high telephony cost due to higher mobile tariffs can be removed by mobile operators implementing the key drivers that will accelerate fixed to mobile substitution in enterprises. These have been identified and classified in this research as:

- Tariffs, subscriptions
- Simple pricing and invoicing

The operator itself has a direct influence on these key drivers and thus can increase mobile voice usage among business users. Crucial for selling voice services effectively are the commercial drivers such as tariffs and pricing structure.

In addition to these commercial drivers, voice and network quality as well as key PBX-like functions for mobile handsets need to be in place to accelerate fixed to mobile substitution in the enterprise segment.

A substantial number of respondents were very responsive to the idea of optimizing telephony costs by replacing fixed voice lines with mobile phones. Enterprises admit to a high level of equipment redundancy when mobile and fixed penetration is high. To conclude the fixed to mobile substitution logic, cost optimization in enterprises is based on savings from recurring cost of fixed voice infrastructure and call related costs with a high proportion of mobile to mobile calls.

The research reveals a profile of companies adopting most likely to the fixed to mobile substitution are companies in the business service sector (auditing, consulting, legal services, public relations, etc), finance, media and transportation industries. These segments traditionally enjoy a high proportion of mobile workforce and telecommuters. They are planning to substitute fixed with mobile telephony and point out that the most important factors in the choice of a service provider are tariffs, price simplicity of pricing plans, and network coverage, voice quality and key PBX service available to mobile networks.

Conclusion

Accelerating the fixed to mobile substitution among business users opens up a new revenue opportunity for mobile operators in established telecom markets. Radio network coverage and voice quality are mature and key PBX-like features are available in mobile networks today for a minimum of start up investment for the complete mobile business voice solution. Enterprises started to replace fixed voice lines with mobile phones because they clearly recognize the benefits of reachability inside and outside the office the cost saving possibility from infrastructure optimization. The key drivers to accelerate substitution in enterprises are attractive voice service prices and simple pricing structures. The telecom industry with mobile operators as the key players has all the means in its hands to generate new growth from fixed to mobile substitution.

Glossary of terms and abbreviations

ARPU	Average Revenue Per Users
Camel	Customized Applications for Mobile network Enhanced Logic - Application Protocol
GPRS	General Packet Radio Service
HSCSD	High Speed Circuit Switched Data
UMTS	Universal Mobile Telecommunications System
SIM	Subscriber Identity Module
SME	Small and Medium Enterprises
PBX	Private Branch exchange
WAP	Wireless Application Protocol
WCDMA	Wideband Code Division Multiple Access

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