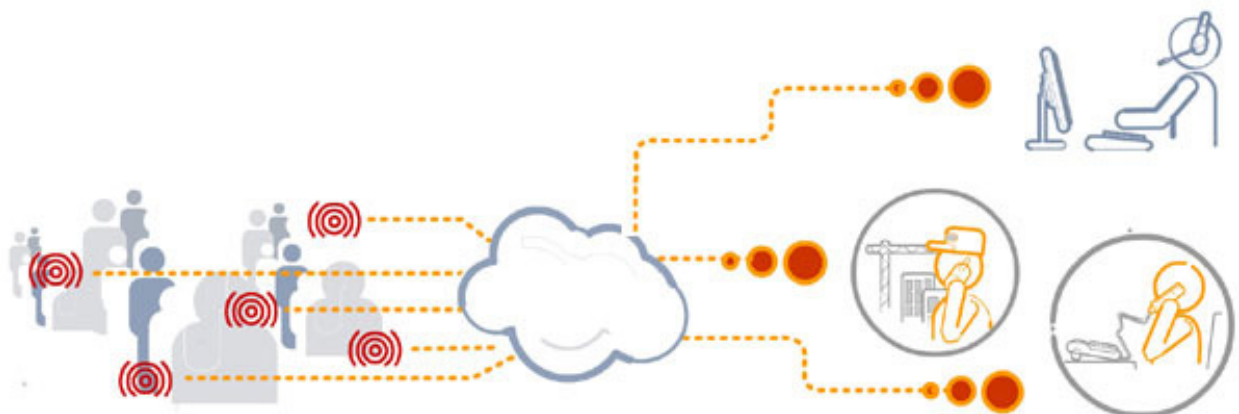


# Creating Differentiation and Value by Targeting the Business Community – A Challenge and an Opportunity for Service Providers

A Gintel White Paper





# White Paper

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## Executive Summary

Problems of competition and technology changes affect all operators, necessitating serious consideration of business strategy. With intense, price-driven competition in consumer markets, typified by the growth of specialist MVNOs, an alternative option for growth and profitability can be found in the enterprise market.

This has traditionally been served by Centrex solutions, hosted by operators. The advent of IP technology has contributed to the evolution of Centrex to IP architectures and delivery models. Analysts point to a growing opportunity for Centrex services in the enterprise market, driven by technology enhancements and growing acceptance of the “Software as a Service” business model.

However, the increased mobility of enterprise employees has not been addressed by either classical or IP Centrex. A new generation of Mobile PBX solutions allows operators to address this challenge, enabling service delivery across a wider cross-section of enterprises. There is a clear business case for the provision of Mobile PBX services, based on significant incremental revenue opportunities.

When coupled with the ability to support customization of services, service providers can deliver hosted Mobile PBX solutions that meet the current and changing needs of their customers, helping to capture new and profitable revenue streams. Gintel AS from Norway, offers a powerful Mobile PBX solution that is able to support full PBX functionality as well as connectivity to any available handset. With a comprehensive service composition toolkit, service providers can tailor make solutions to achieve differentiation, reducing churn and increasing customer recruitment.

## Introduction

Many operators around the globe are grappling with a number of challenges, such as declining ARPU, customer churn and maintaining profitability. Some of these problems stem from increased competition and an influx of new market entrants, while others are a result of demanding conditions within the market itself.

In the mobile domain, established players – particularly those that enjoyed rapid growth as markets developed – are now being forced to look for new opportunities as a result of market saturation and pricing pressures in their home territories. In response, some are looking to invest in emerging regions, but for others it means an on-going struggle against declining user prices.

Ofcom, the communications regulator in the UK, reported that the use of telecoms devices such as mobile phones has increased over a sustained period, but that pricing has fallen over the same timeframe<sup>1</sup>. This is something of a curate’s egg for operators: on the one hand, increased consumption of services increases revenue;

on the other, falling prices limit the amount that individuals pay for such services. This is clearly a challenge for service providers everywhere.

At the same time, there are major technology shifts underway; specifically, migration towards a next generation architecture with SIP at its core. This presents its own set of challenges, with uncertainty around business cases clouding investment decisions, in light of relatively unproven technology.

The market is also drawing new entrants; some basing their business model on a lowest-price strategy, with others seeking differentiation. Whatever the approach, the challenge is the same – to build a business for growth and profitability. How can this be achieved? This white paper will address this critical issue and propose a strategy that can help both existing players and new entrants establish a profitable foundation for growth and capturing market share.

## Problems of Maturity and Growth

The consumer market is a demanding environment. Consumers are increasingly price conscious and able to choose from a growing range of products and services. As a result, they are more likely to migrate to a new provider in search of a better service or offer as they arise. Differentiation can help an operator, but consumers will always be susceptible to the latest and greatest offer from a competitor. Price pressures will never disappear, even if new products can attract a premium for a short period of time. Naturally, this has led many operators and service providers to engage in extremely detailed segmentation of their market place, in the hope that provision of services specifically tailored to the needs of a particular user group or community will increase loyalty or enhance revenue potential.

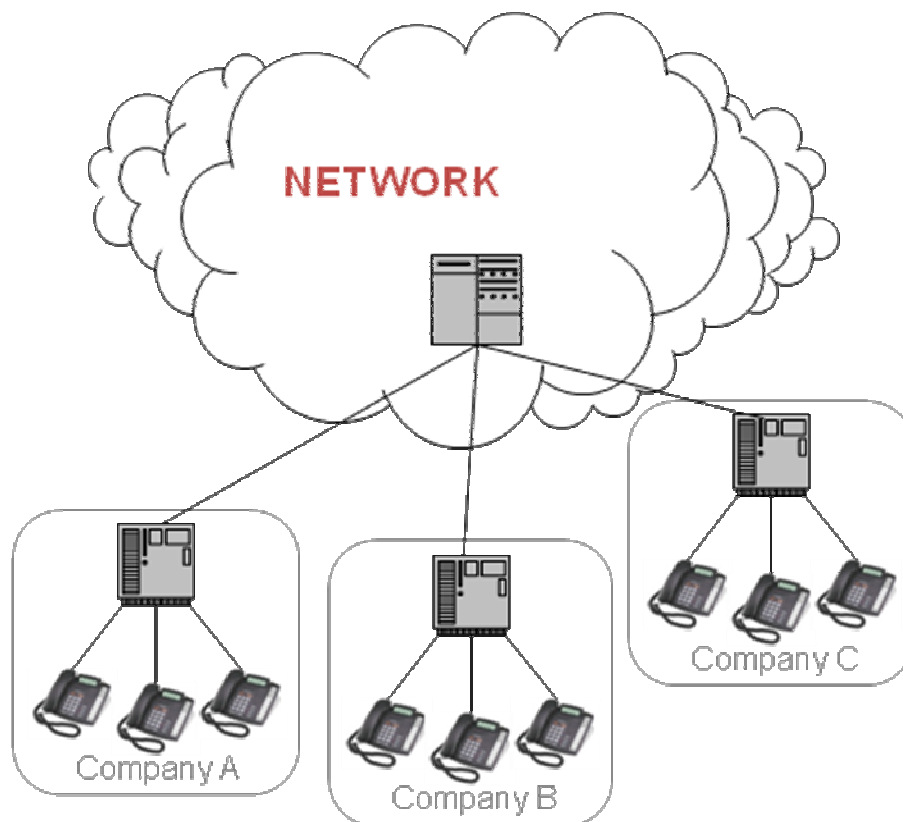
One approach to leveraging specialist knowledge of a particular community that has become attractive in the mobile domain is the MVNO. MVNOs effectively allow mobile operators to exploit particular interest groups by proxy – that is, by allowing a specialist to market a dedicated package to a specific segment. The mobile operator provides the network resources and capabilities, while the MVNO is hosted on their network and provides deep understanding of their chosen market and brand equity to attract users. For example, a number of European supermarkets, including Tesco, Lidl and Aldi, have launched MVNO offers based on their large user base. Other brands, such as IKEA and Disney, have adopted similar approaches based on the pioneering vision of Virgin, which kick-started the MVNO movement back in 1999.

The MVNO business model has met with varying degrees of success and the latest incarnation is the advertising-funded approach as typified by Blyk, which has launched services in a number of European countries. However, the common denominator of the MVNO approach is that it is usually founded on a combination of low prices and rewards that benefit the chosen user group. Although hosting an MVNO has benefits for the operator concerned, through increased traffic rates and leveraging the resources of a specialist to target a segment that the hosting operator

may be less able to address, it does not solve the problem of revenue decline and, in any event, can only be addressed by mobile network operators.

An alternative approach that offers much promise for operators and service providers is a focus on the business or enterprise community. Such an approach involves the provision of services by an operator or service provider directly to business customers. Although businesses have long been familiar with managed services, typified by bandwidth offers or connectivity solutions with associated service level agreements, a new class of hosted services is emerging.

The key example is Centrex. In a Centrex service model, the operator provides PBX capabilities to enterprises, but the switching equipment is based in the operator network rather than on the enterprise premises. In other words, the operator hosts the PBX on behalf of multiple enterprises. An example of such an architecture is illustrated in Figure 1. Such enterprises effectively share the resource, though each maintains its own numbering plan and may select a different feature package. The operator manages and maintains the infrastructure and the customers pay a subscription, or rental, for access to the services offered. Essentially, the operator delivers a fully managed voice service. This contrasts with a familiar situation in which a classical PBX is housed on the enterprise premises themselves. Centrex is not a new idea – the concept has been around since the 1960s – but it now appears that the conditions are ripe for an upsurge of interest in hosted PBX as a model of service delivery. There are a number of factors that support this trend, as outlined in the following paragraphs.

**Figure 1: Centrex Deployment**

There is recognition that traditional, premise-based PBXs are limited in a world of increasing mobility. Enterprise employees are increasingly mobile and nomadic; that is, they may move around from location to location, and may also have alternative workplaces, such as a home office. In such cases, a traditional PBX may not be able to deliver services across multiple devices, such as fixed extensions and mobile handsets, effectively excluding employees from the corporate network and creating a need for a more inclusive solution.

IP technology has led to the emergence of a new class of IP PBXs that can be hosted in the enterprise as replacements for classical, now legacy, TDM PBXs. IP PBXs have allowed previously monolithic applications embedded on costly hardware (traditional PBXs) to be made available as software processes running on COTS processor technology, dramatically increasing scale and performance. By the same token, IP technology and ubiquitous broadband have improved performance of hosted Centrex platforms through enhanced connection speeds and more efficient service access and delivery.

IP also stimulates simplicity, allowing voice and data to share the same network and underlying protocols. Centrex can help organisations manage CAPEX more effectively, as large capital expenditure is not required; rather a monthly service charge for the capabilities requested. This is related to the growing interest in Software as a Service (SaaS), in which organisations rent particular services from

hosted providers rather than investing in an on-premise version. Such an approach can also deliver OPEX benefits, as fewer resources are required in the organisation to manage the IT / voice infrastructure. Finally, there is recognition that there is a large class of users that has been beyond the reach of traditional premise-based PBX solutions, but which can benefit from a hosted service. Some of these will be explored in the section titled “Use Case Examples”.

Centrex, then, is a powerful application that can yield many benefits. Evolved versions of the service, such as IP Centrex, address the growing need to deliver universal services and access to multiple devices. But are there indications that these benefits are being recognised by the market?

### The Business Segment Opportunity

There has been considerable research into the opportunity for the provision of hosted services to the business market. As far back as 2005, research house In-Stat reported that IP PBX shipments to the enterprise had overtaken those of traditional TDM PBX solutions<sup>2</sup>. More recently, ABI Research forecast that shipments of hosted IP PBX lines – in other words IP Centrex - will exceed those of premise-based IP PBX solutions by 2012<sup>3</sup>.

Furthermore, there are replacement cycles in progress, whereby traditional systems are gradually removed from service and substituted by newer IP-based technology. This creates a much wider pool of opportunity. In a recent report, consultancy firm Arthur D Little forecast that 20% of all business lines would be based on IP Centrex by 2010<sup>4</sup>, which translates into 28 million IP Centrex lines in Europe alone. This growing body of data suggests that business and enterprise customers offer a significant opportunity for operators to deliver hosted voice services, specifically some form of IP Centrex.

In order to translate forecast demand into reality, operators need to consider the attributes of the market in question. The business and enterprise segment has several appealing characteristics:

- Consistent usage (call) volumes
- High, predictable, monthly spend
- Consistent and predictable demands

Of course, there are also specific demands that have to be addressed in order to meet the needs of this market:

- Service level assurance
- Service customisation
- Service consistency
- Service quality

This appears to introduce a discrepancy: How can consistency demands be compatible with the need for service customisation? This issue will be explored in the next section.

## Hosted Business Service Solutions

Although generically termed “IP Centrex”, there is actually considerable variation in the interpretation of such a service. Terms such as “Virtual PBX”, “Mobile Centrex”, “Mobile PBX” and “Hosted PBX” may also be encountered. These terms reflect the evolution of the Centrex concept. Centrex evolved from proprietary, premise-based platforms. A typical Centrex solution is also proprietary and may only offer connectivity to fixed lines. Some may even be geographically restricted to particular central office switch. An IP Centrex service may simply be an IP-based version of the classical model.

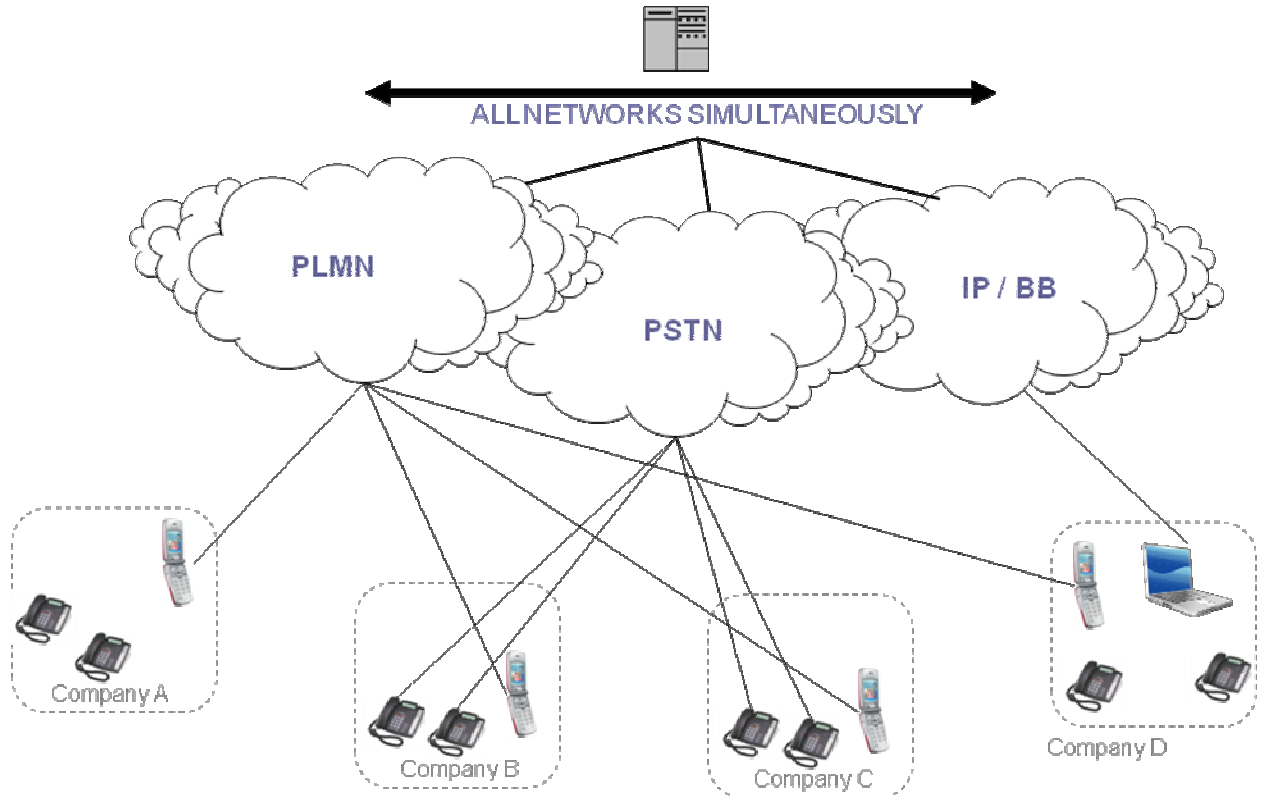
Mobile PBX and Virtual PBX, however, are synonyms for an approach that extends PBX capabilities to mobile handsets and treats them as either alternative extensions to fixed terminals, or as valid extensions in their own right, using a software architecture and non-proprietary platforms.

Mobile PBXs should be seen as an evolution of Centrex platforms, offering the ultimate realisation of Centrex capabilities. A Mobile PBX should have the following key characteristics:

- Full PBX functionality
- Ability to encompass mobile and fixed terminals
- Open standards based
- Ability to interface to IP world
- Network independence
- Virtual, software architecture

An example of such a Mobile Centrex architecture is illustrated in Figure 2.

Figure 2: Mobile Centrex Architecture



The advantage of this approach is that it takes into account increased use of mobiles as an alternative to fixed terminals, and the mobile and nomadic nature of many enterprise employees. With a Mobile PBX solution, mobile handsets can be identified within the numbering plan of the enterprise and have access to the same features and capabilities that a conventional handset would enjoy, such as the ability to transfer calls internally or externally, set up conference sessions, indicate availability, use short-cut dialling, *etc.* This provides all employees with a truly seamless service that is available to all connected devices at any time. Such a service can fully replace or simply complement an existing PBX deployment.

Of course, in some enterprises there may be a need for access to a hosted service, but concern about disruption to existing handsets and terminals. Cost benefits would rapidly disappear if the solution required expensive handset upgrades or new terminals. It is important, therefore, that the solution can be deployed as an overlay, without requiring any new physical devices.

However, Centrex services are not simply about voice, or about providing a one-size fits all package. As has been mentioned, individual users or individual enterprises expect consistency in the service to which they have subscribed, but it is important to recognise that the needs of different enterprises vary considerably. Moreover, organisations' requirements evolve over time, which must be mirrored by the

services on offer. It is therefore vital that service providers are able to both meet different user requirements and evolve their Centrex capabilities to keep pace with user demands. This issue is essential to maintaining and growing a competitive position. Any Centrex solution must therefore provide service customisation, as well as service evolution.

## Use Case Examples

For a certain size of enterprise, there may well be an advantage in owning and maintaining its own IP PBX infrastructure. But for many, there are significant advantages in not doing so. There is no ideal cut-off point, but an enterprise with fewer than 250 employees is often considered to be an optimum target for a hosted solution. Even this arbitrary demarcation point creates an enormous potential market. For example, the UK Department for Business Enterprise and Regulatory Reform (BERR) states that SMEs – which it defines as a business with fewer than 250 employees – account for 99.9% of all enterprises, and 59.2% of all private sector employment – or 13.5 million employees in the UK alone<sup>5</sup>.

Consider an enterprise with multiple sites and a nomadic workforce that travels between different sites, or operates in the field. Adopting a Mobile PBX solution could effectively allow it to replace the legacy communications infrastructure and deliver a unified communications solution that works seamlessly between fixed and mobile terminals. With the right capability set, users can define their location and presence status (fixed, mobile, offline, online) and ensure that they are always in contact. Incoming calls picked up by the switchboard, still an important feature in many companies, can be routed to the user with no knowledge on the part of the attendant as to their location: they simply appear as an extension in the standard dial plan.

Another example might be a business that wishes to replace its existing PBX infrastructure. The decision-makers recognise that employees increasingly prefer their mobile handsets, but require everyone to have access to familiar PBX capabilities and features. A Mobile PBX solution will solve this problem, by providing a complete infrastructure to preserve legacy features and to deliver a unified communications service with no disruption to the enterprise.

Mobility and home-working have increased dramatically in recent years. Employees that are highly mobile, or who work from home offices are often excluded from corporate numbering plans and cannot access the same feature set that is available in the main office. Mobile PBX solutions eliminate this problem, allowing them to enjoy the same capabilities as their colleagues, irrespective of location. This has the advantage of including them within a standard corporate billing plan with the chosen operator, as calling activity can be differentiated to ensure that “on-net” and “off-net” calls are billed appropriately, and ensuring no disadvantage in using a mobile to call a colleague in the same organisation.

There are many kinds of smaller enterprises, often with fewer than 10 employees – from professional partnerships, such as lawyers or doctors, to building or plumbing companies. For most, installing and managing a premise-based PBX is a burden that cannot be justified. Equally, most employees or partners in such enterprises have the same problems of mobility as those experienced in larger organisations. Again, a Mobile PBX solution can deliver significant benefits and provide them with capabilities that are typically associated with much larger companies.

Consider a building company based on a partnership. Both partners have mobile phones, and both have home office numbers and faxes. Which numbers should be displayed on their vans and in directories? Instead of prospective clients having to choose a number on which to reach them, a Mobile PBX solution could provide a single number that hunts between each member of the team to ensure that calls are answered and call response times are increased – potentially helping the company to capture more business.

In short, there are many types of organisation that could benefit from a Mobile PBX solution. As well as offering a considerable addressable market for operators and service providers, the technology has the potential to introduce new capabilities to all kinds of enterprises that have fallen beyond the radar of either traditional PBX resellers or the original Centrex products.

### Economic Rationale

Calculation of the full economic benefits of adopting and promoting a hosted Mobile PBX solution requires a wide range of inputs, but some measure of the advantages can be obtained by considering the upside potential of deploying a solution to an existing mobile operator.

In this case, consider an enterprise that has 30 employees, of which 10 already have mobile accounts paid for by the company. The fixed communication service is provided by an alternative operator. The first point is that the mobile operator obtains no revenue from the majority (20) of employees – this accrues to the competitor. Supposing that monthly revenue from the 10 mobile users is €50 per month, then:

$$(10 \times €50) \times 12 = €6,000 \text{ annual revenue from existing users}$$

However, migrating all users to the same mobile monthly plan would yield additional revenue of:

$$(20 \times €50) \times 12 = €12,000 \text{ annual upside revenue}$$

Imposing a monthly service charge for the full feature hosted Mobile PBX solution would add:

$$(30 \times €10^*) \times 12 = €3,600$$

Total revenue:

€6,000 + €12,000 + €3,600 = €21,600

Upside potential: €15,600

\*Estimated monthly service cost

Translated across the many thousands of enterprises in each market, this clearly represents a significant revenue potential for an operator or service provider. Of course, the simple calculation does not account for all factors, but it suggests both an opportunity for service providers and benefits for enterprises in that a modest monthly rental fee provides a unified voice communications solution, with valuable features. It also makes redundant any charges for the acquisition and maintenance of infrastructure, while allowing for future growth. Much more detailed calculations can be created for specific cases by contacting the authors of this paper.

## The Gintel Advantage

Gintel AS from Norway is an expert in the field of Centrex and Hosted Mobile PBX. Its products have been deployed by Tier 1 and competitive operators to help them differentiate their customer solutions for the business community. Gintel offers a Mobile PBX application, Easy Virtual PaBX, which meets all of an operator's needs. It provides full PBX functionality and, because it is a software application hosted by the operator, it allows any connected device, including mobile handsets, fixed terminals and softphone clients, to register and experience the same feature set as a traditional fixed PBX station device. Easy Virtual PaBX provides full switchboard capabilities, offering a console that can be used to manage user mobility and status, with self-provisioning options to ensure that the system is updated at all times to reflect user preferences.

Easy Virtual PaBX provides complete transparency, allowing any user on any network to connect to the platform. It does not require any upgrade to handsets, as it is a truly net-centric solution, and merely requires users to be registered for the service. Users can change their preferences via a web interface. It conforms to the emerging IMS service architecture, as it leverages application servers for the execution environment, allowing operators to easily incorporate it into any future network architecture. Most importantly, it includes a powerful service composition tool, Easy Virtual Composer.

Easy Virtual Composer enables operators to customise existing services and rapidly create new offers that enhance differentiation and increase customer stickiness. Services are assembled from a comprehensive palette of core capabilities, allowing operators and service providers to focus on meeting the demands of existing subscribers and supporting innovation to win new ones.

Easy Composer is revolutionary. New services can be designed and assembled "on-the-fly", within hours, not days or weeks, greatly reducing time to market and enhancing operator agility. Operators can both innovate within their markets and

respond rapidly to user demand and competitive threats. New services can be launched rapidly and at low cost, reducing the risk of service delivery. It helps operators to develop richer customer relationships, based on co-operation and support.

Easy Composer complements Gintel's other applications, allowing continual innovation and service differentiation. Gintel's unique capabilities allow operators and service providers to launch shrink-wrapped applications, such as Easy Virtual PaBX, and to supplement these with tailor made features and services to meet the needs of specific customers. This provides the additional differentiation that they need to carve out a niche in their market and build a platform for growth.

## Conclusion

Operators and service providers are constantly striving for ways to increase revenue growth and profitability. While the consumer market offers many attractions, the business community represents a significant source of opportunity and untapped potential. Mobile PBX solutions are now available that offer a new spin on classical Centrex, leveraging the best of IP technology. Enterprises demand solutions that offer both traditional features and new capabilities to unify diverse communications systems. Mobile PBX is an appealing and powerful solution that has the potential to meet these needs.

There is a compelling business case for addressing the SME market. But, it requires a clear focus. It needs a superior Mobile PBX platform. It requires the ability to customise and launch new services and features cost-effectively. It requires a supplier able to understand the demands of each domain and the implications of an evolving network architecture.

Operators should investigate this market, understand its potential and consider how to prepare for entry. By talking to Gintel, operators can benefit from years of experience in delivering solutions that can help them develop a profitable strategy for the business and, specifically, the SME segment. Talk to Gintel, discover how we can help you, and then launch a prototype to help unlock the potential of this rich resource.

## References

1. "The Communications Market 2008", Ofcom, August 2008
2. "IP PBXs: Emerging into Dominance", In-Stat, 2005
3. "The Evolution of Enterprise VoIP", ABI Research, 2007
4. "The Battle for the Business Customer", Arthur D Little, 2006

5. “Statistical Press Release”, BERR, July 2008

## Glossary

ARPU *Average Revenue Per User*

AMPU *Average Margin Per User*

CAPEX *Capital Expenditure*

COTS *Commercial, Off-The-Shelf*

MVNO *Mobile Virtual Network Operator*

OPEX *Operational Expenditure*

PBX / PaBX *Private Branch Exchange*

SaaS *Software as a Service*

SIP *Session Initiation Protocol*

SME *Small / Medium Enterprise*

TDM *Time Division Multiplexing*