

ІННОВАЦІЇ ТА ІНВЕСТИЦІЙНА ДІЯЛЬНІСТЬ

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WORLD BUSINESS IMPLICATIONS OF VOIP AND DEVELOPMENT OF INNOVATIVE BILLING SOLUTIONS IN UKRAINE

That is not breaking news to say that every type of business out there depends on innovations. With the coming of the digital age, the world pressure to do the business in the smartest way has never been stronger than now. It is worth to note, that the implications of innovation and competitiveness put forward the economic growth of each country. And innovative activities are critical for having a sustained business success in the market of telecommunications and in all other sectors. According to the observations over the last ten years, the high macro-economic level of the U.S was achieved through the ability to overturn business models in the entire economy, in particular in business practices referred to distribution, marketing, telecommunications, and others [4]. Therefore, the majority of companies does the best to hit their sales targets and become more customer-centric by using leading-edge approaches. At this time, VoIP technology assists them in these efforts.

This topic is relevant since we have the growing popularity of VoIP business models and the crossroad of fast economic and engineering developments. Ukraine expected to be able to use innovative models for reforming the business environment that is in a decrepit state. However, the opacity activities of the players in the Ukrainian telecommunications market and significant deficiencies in legislation contribute to the stagnating period. Hence, thoroughly and carefully investigate this issue is important.

Nowadays, the overall picture of VoIP business completes by providers of wholesale and retail service market. There are a lot of mobile and desktop applications, such as Skype, Viber, WhatsApp for end users and whole businesses relying on telecommunications. And each year the market expands and provides zillion ways to enlarge the VoIP business at all levels.

In the most basic terms, the Voice over Internet Protocol (VoIP) is simply a voice call that is digitized and broken up into packets, then it's transported across an Internet Protocol (IP) transport network [1, p. 8]. The following Internet telephony provides the telecommunications services over the public network, rather than via the PSTN (Public switched telephone network) [7]. Hence, there are available advanced voice-over-IP services: phone calls with video conferencing, e-mails, financial transactions, online payments and other functionality.

Also, VoIP offers huge cost savings and efficiency benefits for providers and customers. It doesn't need to be carried over expensive equipment that is used to be in the previous generation. Let us take a closer look at the VoIP that allow thriving businesses and economics. Firstly, it enables to reduce the cost and maintenance expenses for providers, and gives better multimedia services with higher throughput. Secondly, it allows getting urgent announcements, calls and e-mails on the go and in almost every part in the world. This point is extremely important, because even formerly unwired businesses like food trucks now rely on wireless data services for voice calls, to tweet their locations, to take orders via the Web, and even to complete credit card transactions [1, p. 5]. Thirdly, the enterprises of any industry can reduce their phone bills. In addition, fixed line and mobile operators invest in the better connection, significantly in the development of 4G, 5G connections.

In general, the VoIP market has two basic business models: wholesale and retail. Wholesale VoIP providers supply calling services between other smaller providers, whereas retail representatives provide the same activities between individuals. As it might be expected, wholesale VoIP providers handle larger traffic volumes than regular retail counterparts. It allows them to get rates that are more profitable from different carriers and thereby widen the margins [2]. What's more, now the global market has several business applications grounded on this technology. Therefore, these applications provide a chance to grow the retail and wholesale telecommunications businesses with new implementations. One of these implementations is an integrated billing system. Briefly, the telecommunications billing system is an application software that designed to support the activities and processes of communications service providers. Therefore, any commercial providers, regardless of their specializations: mobile wireless communication, VoIP companies, Internet and transit traffic providers, cable and satellite TV companies could not work without billing because it creates an economic value of their business [5]. The billing solution enables VoIP providers to set respective rates, plans and fees and invoice clients for all charges. Moreover, the companies-providers focus on stable and cost-effective billing and management solutions for making the business effortless [3]. For instance, one of the company-developers and integrators of billing software is the engineering enterprise JeraSoft with branch offices in USA, UK and Ukraine. It provides both wholesale and retail VoIP business models: prepaid and postpaid customers, call centers, calling cards, call shops, and custom services.

The image (Fig. 1) illustrates a simple scheme of VoIP providers act mode with billing solution.

The subscriber makes an outgoing call to another one. A call is coming into a VoIP gateway on a particular ingress carrier of the provider and then it is routed to an egress carrier of another provider. The subscriber on the other side receives an incoming call. At the same time, the billing software rates consumption, calculates the total time of calls for every tariff zone, counts traffic, discounts, charges for each customer, generates bills, maintains the customer's account and even could invoice the subscriber.

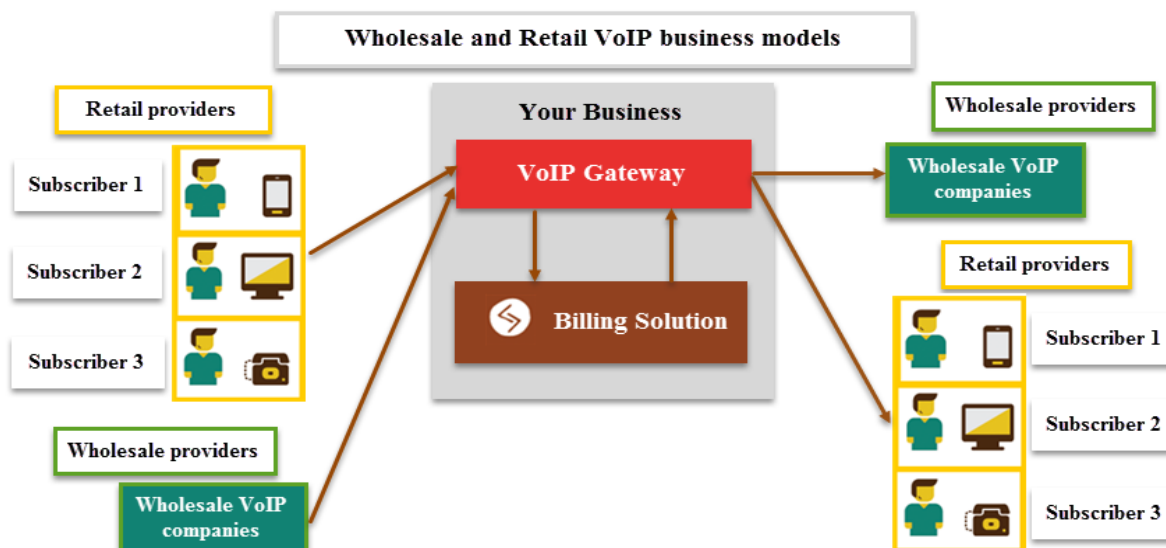


Fig. 1. Wholesale and retail VoIP business implications

Build by the author. Source: [3]

However, the VoIP business from the part of providers is not developing in Ukraine. But despite the enough skeptic attitude towards the Ukrainian market, the IT industry, particularly the development of billing solutions, streams forward. Consequently, there is a constant demand for the Ukrainian billing softwares in the world. There are several reasons for this. Primarily, the inexpensive services of low-paid Ukrainian specialists favor a lower overall cost of development. Then, our software and quality assurance engineers are highly skilled. Due to the high professional level with ongoing striving for perfection of our developers, the Ukrainian software products meet the international standards and the requirements of the most demanding customers. As a result, software companies of Ukraine develop high-quality and low-cost products. And it is expected that in 2016-2020 years, the total tax revenue from the IT segment will be UAH 36 billion, and the contribution of IT-industry in the GDP will reach 5.7% in 2020. Generally, similar solutions are implemented throughout the world. There are several small, medium and large companies with a respective product in the Europe, America, India and other countries, for example, Cisco, Phoenixsoft, Sansay, SpeedFlow, SwitchRay and others.

Unfortunately, nowadays the whole communications industry in Ukraine is masked by the political and economic cacophony. There is a significant amount of factors that hamper the development of VoIP service in our country. At least, one of them is the obligatory purchase of expensive licenses. In Ukraine under the Law on Communications, providers are required to have a license before starting an activity. License fees vary from around EUR 1.5 million for fixed international telephony, EUR 1,500 for network capacity and 10 000 telephone numbers. A 15-year national license for VoIP costs EUR 150,000 [6]. Moreover, all telecommunications providers have the right to create telecommunications networks in accordance with a plan that should be approved by the Ministry of Transport and Communications. Companies must submit their plans to Ukrtelecom or the local government to receive permission to develop telecom networks [6]. Hence, the liberalization of the

market, destruction of the Ukrtelecom monopolization, good strategy, and control mechanisms could improve the communications industry and allow to rapidly increase the numbers of VoIP providers with business solutions in Ukraine. All these aspects could lead to the growth of the country's economy.

To sum up, Ukraine has a very friendly environment for capital investments and have a possibility to grow the VoIP technology providing useful billing tools. But several economic and administrative factors stall the innovations and growth of VoIP providers business implementation in Ukraine.

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ІНВЕСТИЦІЙНИЙ ЛІЗИНГ

На сьогодні, на жаль, більшість підприємств користуються надто застарілим обладнанням. В основному рівень зносу основних виробничих засобів становить 50-60%, а про фінансування і допомогу у переоснащенні виробництва з боку держави, у зв'язку з нестабільною економічною і політичною ситуацією в країні, можна взагалі забути. Тому лізинг – це оптимальний шлях оновлення основних фондів підприємства.

Лізингова діяльність має позитивний результат для економіки країни. Це проявляється в ефекті нарощування виробничих потужностей, створенні додаткових стимулів для накопичення фінансових ресурсів, а також прискоренні процесу трансформації капіталу з позичкового у функціонуючий [2, с. 62].