

Thesis
VOICE OVER INTERNET PROTOCOL (VoIP) FROM INDONESIAN
AND INTERNATIONAL TELECOMMUNICATION LAW POINT OF
VIEW

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Written By:
AULIA GUMILANG ROSADI
03 140 258



Specialty Program: International Law

FACULTY OF LAW
ANDALAS UNIVERSITY
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ABSTRACT

As a social creatures, people needs a medium to interact each other, the simplest way in interaction is talking. For centuries, people wants to communicate to other in distance, it was the reason for telecommunication medium inventions. In the development of telecommunication medium, some countries had problem in regulating it. They could not imply the proper regulation for a new technology, like VoIP. In Indonesia it is also became a big problem, some telecommunication providers in Indonesia has started to apply VoIP in their services. At one hand it's being a solution for the lack of telecommunication services, in the other hand the Gol only have Indonesian Telecommunication Act of year 1999, which is not clearly mentioned about VoIP. There are some institutions in regulating and observing the development of telecommunication in Indonesia and so do international institutions. In Indonesia, it's Department of Communication and Information of Indonesia (Depkominfo) as the main regulators in telecommunication, and there is International Telecommunication Union for international telecommunication regulator under the UN. In the Act of Indonesia no.36 of year 1999, telecommunication was being regulated as national way to fulfill the communication needs of people, but there is no specific regulation mentioned VoIP. In this thesis, Writer tries to discuss about harmonization of National and International Law refers to VoIP application in public network, and also it implication on the regulation.

CHAPTER I

INTRODUCTION

A. BACKGROUND

Voice over Internet Protocol (VoIP) is a protocol optimized for transmission of voice through the Internet or other packet switched networks. VoIP is often used abstractly to refer to the actual transmission of voice (rather than the protocol implementing it). VoIP is also known as IP telephony, Internet telephony, Broadband telephony, Broadband Phone and Voice over Broadband. "VoIP" is pronounced *voyp*.

Voice over Internet Protocol (VoIP) has been a subject of interest almost since the discovers of computer network. People facing the problems in regulating VoIP since it first connection on public telecommunication medium. The problem consisting in promulgating a proper regulation for such medium like VoIP for international medium in telecommunication. It also consist of restructuring the institution which is liable for special telecommunication medium and regulating the institution or company which is eligible in providing VoIP technology in their service.

Companies providing VoIP service are commonly referred as providers, and protocols which are used to convey voice signals over the IP network are commonly referred as Voice over IP or VoIP protocols. They may be viewed as commercial realizations of the experimental Network Voice Protocol (1973)

invented for the ARPANET providers¹. Some cost savings are due to utilizing a single network to carry voice and data, especially where users have existing underutilized network capacity that can carry VoIP at no additional cost. VoIP to VoIP phone calls are sometimes free, while VoIP to Public Switched Telephone Network (PSTN), may have a cost that is borne by the VoIP user. Voice over IP protocols carry telephony signals as digital audio, typically reduced in data rate using speech data compression techniques, encapsulated in a data packet stream over IP.

There are two types of PSTN in VoIP services: Direct Inward Dialing (DID) and *access numbers*. Direct Inward Dialing (DID) will connect the caller directly to the VoIP user while *access numbers* require the caller to input the extension number of the VoIP user².

As the popularity of VoIP grows, and PSTN users switch to VoIP in increasing numbers, many states are becoming more interested in regulating VoIP in a manner similar to legacy PSTN services, especially with the encouragement of the state-mandated telephone monopolies/oligopolies in a given country, who see this as a way to stifle the new competition.

In the U.S., the Federal Communications Commission (FCC) now requires all VoIP operators not supporting Enhanced 911 to attach a sticker warning that traditional 911 services aren't available. The FCC recently required VoIP operators to support Communication Assistance for Law Enforcement Act

¹wikipedia.org

²wikipedia.org

(CALEA) wiretap functionality³. The US Telecommunications Act of 2005 ruled adding more traditional PSTN regulations, such as local number portability and universal service fees. Other future legal issues are likely to include laws against wiretapping and network⁴.

Some Latin American and Caribbean countries, fearful for their state owned telephone services, have imposed restrictions on the use of VoIP, including in Panama where VoIP is taxed. In Ethiopia, where the government is monopolizing telecommunication service, it is a criminal offense to offer services using VoIP.

The country has installed firewalls to prevent international calls being made using VoIP. These measures were taken after popularity of VoIP reduced the income generated by the state owned telecommunication company.

In the European Union (EU), the treatment of VoIP service providers is a decision for each member state's national telecoms regulator, which must use competition law to define relevant national markets and then determine whether any service provider on those national markets has "significant market power" (and so should be subject to certain obligations). A general distinction is usually made between VoIP services that function over managed networks (via broadband connections) and VoIP services that function over unmanaged networks (essentially, the Internet)⁵.

VoIP services that function over managed networks are often considered to be a viable substitute for PSTN telephone services (despite the problems of

³ FCC requirement on VoIP operators

⁴ wikipedia.org

⁵ European Union regulation on VoIP application within it countries

CHAPTER IV

CONCLUSION & SUGGESTIONS

A. Conclusion

The progress of VoIP is part of the movement towards convergence of communication from a circuit-switched architecture to a packet-switched architecture. The revenue models of the telecommunication institutions and government must be based on the current and future technologies, not the technologies of the past. As businesses and consumers move more towards VoIP, both local and central government agencies will be forced to classify this new technology, and enact necessary legislation.

Based on the topic of this thesis and its identification of the problem, there are several conclusions the Writer has made:

1. In identifying how Indonesia could regulate VoIP based on International rules and the harmonization between these laws.

The basic instruments of law on telecommunication in Indonesia are the Law of The Republic of Indonesia no. 36 of 1999 and its applications instruction, the Governmental Regulation no. 25 of 2000. They regulate several matters in telecommunication such as parties, services, application in telecommunication networks, tariffs, institution that regulate this matter.

There are no specific explanations in both regulation referring VoIP, but in

Directorate General of Posts and Telecommunications Act no.199 of 2001 Appendix, more details about VoIP will be identified. It contains specific instructions for applying VoIP in Indonesian telecommunication networks, how to starts VoIP business, tariffs, requirements as providers of VoIP or internet telephony.

Considering International Convention on Telecommunication 1982, Indonesia has ratified this convention into the Law of the Republic of Indonesia no.11 of 1985, but there is reservation on an Article in the convention. Indonesia rejects to ratify Compulsory Settlement of Disputes, which instructs the Member to solve problems in telecommunication with arbitration because it contradicts Indonesian foreign affairs political values.

In this thesis, the Writer tries to take some examples of VoIP applications in other states. It gave us description about how other states regulate VoIP in their jurisdictions. But it does not necessary mean that the Writer exposed the issues in this thesis in juridical empiric order, it just complimentary of the thesis.

2. In identifying the liabilities of national and international institution

regulating VoIP and how they regulate it.

Voice over Internet Protocol (VoIP) was a sub-section of telecommunication which was the authority of the Ministry of Communication and Information. Based on the hierarchy of authorities, Directorate General of Posts and Telecommunications is the institution under the Ministry of Communications and Information regulating the application and management of telecommunication networks in Indonesia. Many regulations, instructions, application guidance were made by this institution. It regulates telecommunication in many aspects including VoIP.

Practically, there is no significant distinction between VoIP applications in Indonesia with other countries, because VoIP has been promoted as one of telecommunication mediums. It provides low-cost communication activity beside PSTN.

Preventing monopoly in VoIP business, Dirjen Postel had set to authorize to PT Telkom as the main provider of state telecommunication, PT Indosat as private company and other telecommunication companies eligible in the business, and it needs some requirements that is visible in Directorate General of Posts and Telecommunications Act no.199 of 2001.

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Regulations

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