

Implementation of Remote Monitoring Security System

謝雅萍、黃培墳

E-mail: 374779@mail.dyu.edu.tw

ABSTRACT

In recent years, with the technological advances of the Internet, the Voice over Internet Protocol(VoIP) technology has become an increasingly popular communication tool. Up to now, there are more than 100 million users in the use of VoIP technology products. Due to the high popularity of Internet telephony, this thesis implemented an Asterisk system based security monitoring system. Traditional security monitoring systems only integrate with traditional telephone. Instead, this thesis proposes a security monitoring system integrated with traditional telephony and VoIP phone service. The advantage of proposed system is that the network is very common and low converse costs, low construction cost, and better scalability. The advantages of using a alarm system device is set up convenient, no wiring and maintenance more convenient. This thesis proposes using MySQL, PHP, HTML to build a Web-based management system, allowing administrators to monitor the security status of the household.

Keywords : VoIP、Asterisk、Alarm system、PHP

Table of Contents

封面內頁 簽名頁 中文摘要 iii 英文摘要 iv 誌謝 v 目錄 vi 圖目錄 viii 表目錄 x 第一章 緒論 1 第二章 相關研究 3 2.1 VoIP介紹 3
3.2.1.1 H.323通訊協定 4 2.1.2 SIP通訊協定 9 2.1.3 MGCP通訊協定 12 2.2 Asterisk簡介 13 第三章 PSTN/VoIP保全系統之實作 18
3.1 系統架構簡介 18 3.2 系統設計 20 3.2.1 管理介面網頁架構設計 20 3.2.2 Asterisk撥號計劃 24 3.3 系統實作與結果 29
3.3.1 架設系統伺服器 29 3.3.2 架設硬體設備 30 3.3.3 設定Asterisk和網頁 32 3.3.4 結果測試 33 第四章 結論 40 參考文獻 41

REFERENCES

- [1]Asterisk , <http://www.Asterisk.org/applications/pbx>.
- [2]OSSLab::開放軟體實驗室(Open Source Software Lab) , <http://www.osslab.com.tw/>.
- [3]秀娟，白中英，”Asterisk系?及其?用分析[J].中?科技?文在?精品?文”，2008，1(12):1365 ~ 1371。
- [4]VoIP Wiki , <http://www.VoIP-info.org/>.
- [5]賴薇如等，2007，網路電話系統與應用，台灣:教育部顧問室。
- [6]F. Iseki , Y. Sato and M.W. Kim , ” VoIP System based on Asterisk for Enterprise Network ” , in Proc. IEEE International Conference on Advanced Communication Technology (ICACT) , 2011.
- [7]ITU-T Recommendation H.323 , ” Packet-Based Multimedia Communication Systems ” , Nov.2000.
- [8] A. Johnston , S. Donovan , R. Sparks , C. Cunningham and K. Summers , ” Session Initiation Protocol (SIP) Basic Call Flow Examples ” , IETF RFC 3665 , Dec.2003.
- [9]J. Rosenberg , H. Schulzrinne , G. Camarillo , A. Johnston , J. Peterson , R. Sparks , M. Handley and E. Schooler , “ SIP: Session Initiation Protocol ” , RFC 3261 , Jun.2002.
- [10]M. Arango , A. Dugan , I. Elliott , C. Huitema and S. Pickett , ” Media Gateway Control Protocol(MGCP) ” , RFC 2705 , Oct.1999.
- [11]Alarm KingSR80E , <http://www.kaicong.net/word/BT99.pdf>.
- [12]IPF-2000 使用手冊 , <http://www.artdio.com.tw/>.
- [13]Engin SPA3102 , <http://forums.whirlpool.net.au/>.
- [14]MySQL , <http://www.MySQL.com/>.
- [15]PHP , <http://www.PHP.net/>.
- [16]陳惠貞，陳俊榮，2004，PHP5&MySQL 程式設計，台北:學貫。