

الإستهلال

قال تعالى:

{لَقَدْ جَاءَكُمْ رَسُولٌ مِّنْ أَنْفُسِكُمْ عَزِيزٌ عَلَيْهِ مَا عَنِتُّمْ حَرِيصٌ عَلَيْكُمْ
بِالْمُؤْمِنِينَ رَؤُوفٌ رَّحِيمٌ (128) فَإِنْ تَوَلَّوْا فَقُلْ حَسْبِيَ اللَّهُ لَا إِلَهَ إِلَّا هُوَ
عَلَيْهِ تَوَكَّلْتُ وَهُوَ رَبُّ الْعَرْشِ الْعَظِيمِ (129) }

سورة التوبة الآيات (128-129)

شكر و عرفان

أتقدم بأسمى آيات الشكر والامتنان والتقدير والمحبة إلى الذين حملوا
أقدس رسالة في الحياة...
إلى الذين مهدوا لي طريق العلم والمعرفة...
إلى جميع أساتذتي الأفاضل.....
"كن عالماً... فإن لم تستطع فكن متعلماً ، فإن لم تستطع فأحب
العلماء ، فإن لم تستطع فلا تبغضهم"

وأخص بالتقدير والشكر:

الدكتور / عبدالرسول جبار الزبيدي

الذي أقول له بشراك قول رسول الله صلى الله عليه وسلم:
"إن الحوت في البحر ، والطير في السماء ، ليصلون على معلم
الناس الخير"

الإهداء

إلى أهلي و أحبائي

إلى أصدقائي وزملائي

إلى كل من علمني حرفاً

إلى كل من له فضل علي

Abstract

Voice over Internet Protocol (VoIP) products use a broadband connection to provide voice call services using VoIP software from a computer with a dedicated traditional telephone handset using an adaptor or VoIP router.

VoIP services have the potential to deliver significant consumer benefits by reducing the cost of delivering existing services, enabling new and innovative services to emerge and increasing competition. However, VoIP services are still relatively new compared to PSTN services.

تجريد

منتجات نظام الصوت عبر ميثاق الانترنت (بروتوكولات الإنترنت) تستخدم كوسيلة إتصال ذات نطاق واسع لنقل الصوت عبر برمجيات خاصة ببروتوكولات الانترنت من جهاز حاسوب بإستخدام سماعة هاتف تقليدية عبر محول او جهاز توجيه عبر بروتوكولات الإنترنت.

خدمات الاتصال عبر بروتوكول الإنترنت لديها القدرة على تحقيق فوائد كبيرة للمستهلكين عن طريق خفض تكلفة تقديم الخدمات, مما يتيح تقديم خدمات جديدة ومبتكرة وزيادة المنافسة. ومع ذلك فإن خدمات الاتصال عبر بروتوكول الإنترنت لا تزال جديدة نسبياً بالمقارنة مع خدمات شبكة الهاتف العامة حتى الآن.

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Abbreviations

Voice over IP, VoIP: Voice over Internet Protocol.

IP: Internet Protocol.

VoBB: voice over broadband.

SMS: Short Message Service.

PSTN: public switched telephone network.

3G: Third Generation.

WIFI: Wireless Fidelity.

WiMAX: Worldwide Interoperability for Microwave Access.

IMS: IP Multimedia Subsystem.

MGCP: Media Gateway Control Protocol.

SIP: Session Initiation Protocol.

RTP: Real-time Transport Protocol.

SDP: Session Description Protocol.

P2P: Peer-to-Peer.

NATs: Networks Address Translation system.

STUN: Simple Traversal of User Datagram Protocol (UDP) through Network Address Translators.

ICE: Interactive Connectivity Establishment.

WLAN: wireless local area network.

VLAN: virtual local area network.

ISPs: Internet service provider system.

SRTP: Secure Real-time Transport Protocol.

ZRTP: Zimmermann Real-Time Transport Protocol.

ATAs: Analog Telephone Adapters.

DTMF: Dual-tone multi-frequency signaling.

AT&T: American Telephone and Telegraph Company.

LD: loop disconnect.

MF: Multi-frequency signaling.

ITT: International Telecommunication Union.

CCITT: Consultative Committee International Telecommunication Union.

ITU-T: ITU Telecommunication Standardization Sector.

HSUPA: High-Speed Uplink Packet Access.

HSDPA: High-Speed Downlink Packet Access.

HSPA: High-Speed Packet Access.

EUL: Enhanced Uplink.

3GPP: Third Generation Partnership Project.

E-DCH: enhanced dedicated channel.

HARQ (hybrid ARQ): Hybrid automatic repeat request.

UEs: Unified Energy System.

TTI: Travel Technology Initiative.

FTC: Federal Trade Commission.

TechEn: Technology Enterprises.

SS7: Signaling System #7.

GSM: Global System for Mobile.

CDMA: Code Division Multiple Access.

WCDMA: Wide Band Code Division Multiple Access.

EVDO: Evaluation Data Only.

IC: Integrated Circuit.

SCCP: Skinny Client Control Protocol.

ATA: analog telephone adapters.

IDs: Identity document.

PC: Personal Computer.

LE: Less than or equal.

GW: Gate Way.

QoS: Quality of Service.

ADSL: Analog Digital Subscriber Line.

DSL: Digital Subscriber Line.

USB: Universal Serial Bus.

ATM: Asynchronous Transfer Mode.

AAL5: ATM Adaptation Layer 5.

VCI: virtual circuit identifier.

VCs: virtual circuits.

PVC: packet virtual circuits.

MTU: maximum transmission unit.

TCP: Transmission Control Protocol.

VDSL: Very-high-bit-rate digital subscriber line (VHDSL).

IEEE: Institute of Electrical and Electronics Engineers.

DiffServ: Differentiated Services.

DoS: Denial-of-service attack.

FCC: Federal Communications Commission.

FSF: Free Software Foundation.

CALEA: Communications Assistance for Law Enforcement Act.

MSN: Microsoft Network.

IM: Instant messaging.

AOL: America Online.

LED: light-emitting diode.

DC: Direct Current.

HZ: Hertz.

EIA: Energy Information Administration.

IBM: International Business Machines Corporation.

SCSI: Small Computer System Interface.

IO: input/output.

LPT: Line Print Terminal.

EMF: Electromotive Force.

P-N: Positive – Negative.

FM: Frequency Modulation.

RC: resistor–capacitor circuit.

Est: Eastern Standard Time.

R: resistance.

RF: feedback resistance.

Vo: output voltage.

Vi: input voltage.