

Wireless Network Intelligence : Performance and Flexibility

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Abstract— Recently wireless subscribers are more sophisticated telecommunication users than they were five years ago, Today’s subscribers demand innovative ways to use the wireless phones. They crave numerous services that tolerate them select incoming call in variety of ways. Wireless market becomes significant to a triumphant wireless approach. Intelligent network solution have revolutionized wireless networks.

Keywords—Wireless Intelligent Network; Telecommunication Industry Associations; Personal Communication Service; SS7 Protocols; Signal Transfer Point; Service Switching Point; Service Control Point.

1. Introduction

The intelligent network was applied to the development of new services in wireless telephone networks. It has made it a natural platform-form to support the basic mobility function required in wireless mobile network. Intelligent networks standards project was initiated in the international telecommunication union. In wireless intelligent networks used SS7 protocols for the flexibility of telecommunications. It enhanced services applications can provide the help service providers desire to resolve the problems [2]. It supports a wide set of service applications and simplifies customized management of mobility and enhanced services. Wireless is an open source platform for arrange an pioneering and pragmatic policy for dissimilar services in wireless networks.

Telecommunication Industry Associations (TIA) is qualified by the ANSI to extend intentional, consensus-based engineering standards for a spacious multiplicity of data and ICT products, and at present symbolizes virtually 410 companies. TIA’s Standards and Technology division controls twelve engineering teams, which increase guidelines for secretive radio apparatus, cellular towers, data terminals, satellites multimedia multicast.

2. Personal Communication Service

It generally requires more cell transmitters for coverage, but has the advantage of fewer bind spots. Several technologies are used for pcs in the united states[10].They

areIts used by various radio communication technologies. It allows several users to share frequencies. Global system for mobile communication: The mobile telephone networks are becoming more popular by every day by day.[4]Global System for Mobile communication or Group Special mobile (GSM) is the most popular standard for mobile phone in the globe. It is urbanized in II generation. GSM standard urbanized to cater accent services and information liberation using digital intonation.

3. Issues

In wireless network we have many similarities exist between the ITU-INAP and MAP, these protocols are essentially different. The main difference is that MAP has been developed to support the basic wireless services such as roaming and call delivery. The wireless protocol predates standardized wire line IN and there has been a plethora of implementations based on the standard [5]. Nevertheless, while MAP has succeeded in supporting the basic wireless service, it has not been designed to support supplementary services. In order to achieve the latter, something new needs to be done. Hypothetically, MAP and INAP could be blended into same new “super INAP” protocol. Intelligent network solutions have revolutionized wireless networks.

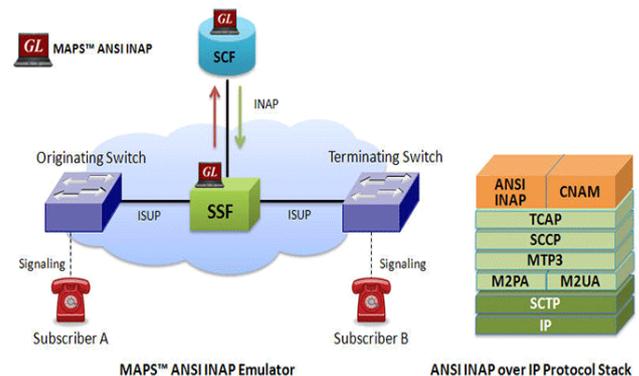


Fig.1: Personal communication networks

4. Services

Enhanced services are now limited in scope and are not transparent across networks will offer more services.

4.1 Hands-Free, Voice-Controlled Services

Voice-controlled services working voice-recognition equipment to permit the wireless consumer to manage features and services with instructions, names, and figures.

4.2 Voice-Controlled Dialing

VCD permits a subscriber to initiate calls by calling digits with vocal commands in its place of the keypad.

4.3 Voice-Based User Identification

VUD permits a subscriber to place limitations admission to services by with VUI to validate the identity of the speaker.

4.4 Wireless Intelligent Network Overview

The win solutions offer advantages because it:

- Supports a wide set of service applications.
- Simplifies database and services administration provides ubiquitous services.
- Helps get new services to market more quickly.

5. Methods

In wireless intelligent network can be used SS7 protocol for flexible telecommunication. It is a signaling network and protocol that is used globally to bring telecommunication networks both fixed line and cellular to life. SS7 has numerous applications and its at the very heart of telecommunication its settings up phone calls and providing cellular roaming and messages. SS7 functionality:

- Wireless services such as personal communication services and wireless roaming and mobile subscriber
- In SS7 protocol use three services for transfer the messages they are,
- *Signal Transfer Point*: It is accountable for the reassign of ss7 messages is neither the decisive alone STP
 - *Service Switching Point*: It process voice band traffic and performs ss7 signaling. They are local switches.
 - *Service Control Point*: It acts an interface between telecommunication databases and SS7.

6. Result

In wireless network intelligent is concept developed by telecommunications industry association standards committee. In wireless network chosen SS7 protocols is more flexible for telecommunication. Its support many

services such as telephone network and cellular roaming and mobile subscribers In SS7 protocols based on its three services that are used for signaling messages for transfer the data from source to destination. It is a signaling network and protocol that is used globally to bring telecommunication networks both fixed line and cellular to life.

7. Conclusion

In this paper wireless network was chosen SS7 protocol and is more flexible for telecommunication than used in INAP and MAP protocols. IN SS7 protocol setting up phone calls, providing cellular roaming, messages and wireless services such as personal communication services, wireless roaming and mobile subscribing.

8. Future Enhancement

As a future work, this wireless network can be attempted according to their different services that provided by the network.

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