

# Mobile Wireless Services

## Converged Multimedia Architecture

### Issue Summary

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Mobility and nomadicity are fast becoming integral parts of the chosen mode of the anytime, anywhere communications paradigm. Increasingly, service providers rely on multiple platforms for their communications access and core networks – wireline, cellular/PCS, and WiFi. At the same time, the end user community wants familiar – and often personalized – services, regardless of how they access the mode of communication. A consistent “branding” from a service provider’s point of view means that they offer continuity in terms of service attributes such as authentication, security, QoS, service management and control, reliability, and regulatory requirements among other issues. From the end users’ viewpoint, such branding results in a “comfort level” to which they have grown accustomed. The combination of these expectations results in a requirement that services should offer the same touch and feel regardless of the access method.

ATIS believes that these requirements can only be fulfilled through a convergence of wireline, PCS/cellular, and WiFi networks and services. Convergence needs to happen in terms of network interoperability and also in terms of various service and network attributes.

The ATIS Technology and Operations (TOPS) Council established a Mobile Wireless Services (MWS) focus group to create an industry technical work plan designed to identify needed standardization efforts pertaining to MWS. The ATIS MWS Work Plan will be completed and released in 4Q 2004.

### Work Plan Recommendations

Achieving convergence among three platform types is truly a major task. Getting to a point of total convergence should remain a goal, despite the need for a sustained effort over a long period of time. The ATIS TOPS Council MWS Work plan focuses on two major service categories – voice and presence/messaging. The work plan examines convergence issues in terms of these service categories and makes decisions on needed technical approaches. Areas of focus within the work plan are as follows:

#### Voice Services

- Voice Protocol – Architecture
- Security
- Performance (QOS)
- Voice Interoperability
- SIP-T Interoperability
- Network Configuration, Management and Control
- Mobility Management
- User Performance

#### Presence & Messaging Service

- Cross-Network Interoperability
- Protocol Architecture
- Network Configuration, Management & Control
- Security
- Performance (QOS)
- Inter-provider Usage Metering
- Messaging Cross-Network Interoperability

### Work Plan Recommendations

#### Federal Requirements

Multimedia Priority Service  
E911  
Local Number Portability  
LAES

#### Ordering, Billing and Provisioning

IMS Charging; usage collection;  
accounting information

Among the key conclusions of the MWS Work Plan:

- **Voice Protocol and Architecture:** IP Multimedia Subsystems (IMS) is the key platform to form the basis of multimedia convergence.
- **Cross Network Interoperability:** Session Initiation Protocol (SIP)/SIMPLE should be supported as a primary mechanism for inter-carrier presence protocol.
- **Presence and Messaging Service Security:** Support the Generic Authentication Architecture (GAA) established within the 3GPP. Transport Layer Security (TLS), Network layer Security and message based security mechanisms such as S/MIME should continue to provide fundamental security mechanisms across both SIP, web service, and XML service offerings.
- **Inter-provider Usage Metering:** The work plan recommends that the ATIS Ordering and Billing Forum study the need for inclusion of Presence service usage metering in its IP Services work and define a format for exchange of presence usage information between carriers.
- Steps must be taken to ensure **Presence services** are fully integrated into NGN solutions.

### Work Plan Status

The MWS Work Plan was announced in 4Q 2004. Copies of the work plan were distributed within ATIS committees that will facilitate completion of standardization activities outlined in the plan. Additionally, for collaborative purposes, work plan details were shared with various standards bodies external to ATIS that are engaged in MWS standardization activities identified within the work plan. Copies of the ATIS Work Plan for MWS are available to ATIS member companies.

ATIS – 1200 G Street NW  
Washington, DC 20005  
[www.atis.org](http://www.atis.org)