"IP Multimedia Subsystem (IMS)"

IMS is the new architecture that will merge, if not already, the Internet and the cellular world. It is an open and standardized architecture, for offering VoIP and multimedia services, originally defined by the 3rd Generation Partnership Project (3GPP). The standard supports multiple access types including fixed access (DSL, cable modems, Ethernet), mobile access (W-CDMA, CDMA2000, GSM, GPRS) and wireless access (WLAN, WiMAX), and utilizes IP protocols to provide cost-efficient operations and interoperable, flexible platform for services.

IMS is designed to make the development, deployment and delivery of new applications/services as quick and simple as possible in a standardized fashion; it will enable proliferation of new services. This is realized by defining functionalities, linked by standardized interfaces, such as charging, security, group and list management, and presence. These key functionalities are called service enablers; they represent generic and reusable building blocks for service creation.

The three-tiered IMS architecture separates the transport layer from call/session control and applications and services layer. The transport layer is concerned with access independence, roaming, Quality of Service (policed by the control layer), and interworking (media Gateway function). The control layer relies on SIP for call session control function; it contains a full suite of support functions, such as provisioning, charging and operation & management (O&M). The service/applications layer enables third party developers to have a standard access to common services; it contains application and content servers. IMS Service enablers (such as presence and group list management) are implemented as services in a SIP Application Server.

Operators look to IMS for quick and flexible ways to respond to new business opportunities; they want to be able to deliver a seamless and consistent user experience wherever and however the services are. In this special issue we intent to present tutorials, survey and original research articles that describe how IMS will (or will not) help operators make their wish a reality.

The purpose of this special issue is to expose the readership of JMM to the latest research and development progress in this hot and exciting area. The special issue will attempt to cover all aspects of the IMS issues related to the architecture, the protocols, and the applications/services. Original research and survey articles are solicited from all researchers and practitioners. Topics of interest include (but are not limited to):

IMS architecture
IMS services enablers and third-party services
IMS complexity and scalability
IMS Performance studies
IMS infrastructures interoperability

IMS and QoS
IMS Field trials and standardization activities
IMS Future

Manuscript Submission

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the guest editors. With regard to both the content and formatting style of the submissions,
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