

**MNCNA: Middleware for Next-generation Converged Networks and Applications**  
Workshop of the 8<sup>th</sup> International Middleware Conference  
Newport Beach, Orange County, California, USA  
Website: <http://research.ihost.com/mw07>  
November 26<sup>th</sup>, 2007

### Call for Papers

The fixed mobile convergence of telecommunication networks along with the telecom-IP network convergence have opened up prospects for a rich ecosystem of IP-based Next-Generation Converged Network technologies and applications. Emergence of principles and practices like Service-Oriented Architecture (SOA) and Web 2.0, along with gradual adoption of industry standards like Session Initiation Protocol (SIP), IP Multimedia Subsystem (IMS), and Java API for InterNetworking (JAIN) is making this convergence possible. The challenges to the telecom service providers stem from the fact that a converged network needs to carry a multitude of high-bandwidth triple-play (voice, video and data) services over a single network that is much more distributed, multipoint, diverse and interactive in nature. End users will interact with the network via sophisticated devices, and be able to select from a wide range of Quality-of-Service (QoS) options. To cater to these emerging service paradigms, network intelligence has to address several aspects including multimedia session management, co-ordination of multi-protocol connections, advanced security, etc. To stay ahead in the competition and provide market leading offerings, carriers further need to enable a global ecosystem of third party independent application developers to deliver converged services leveraging open standards-based service delivery platform. Finally, to establish a common architecture for the convergence among services and networks, standards and frameworks will be required to ensure the interoperability of networks and applications, and facilitate best utilization of the existing telecommunications infrastructure within the converged ecosystem.

It is in this setting of an *open services* market- with service operators, application developers as well as the IT infrastructure as stakeholders, the role of middleware is crucial. Middleware-enabled rapid development and deployment of new applications allows early introduction of value-added services to attract new customers and retain existing ones. Established telcos often have a plethora of legacy systems, such as Intelligent Networks (IN), Business/Operational Support Systems (BSS/OSS), Web-based systems and SIP/IMS-based services, which can all interoperate through open interfaces provided by the middleware layer, allowing a seamless, autonomic interaction between them. The arguments for a middleware-oriented consolidation of services in the telco service provider/carrier space are also largely applicable to the enterprise segment. There are, of course, differences in requirements and service expectations for corporate users as opposed to consumers; however the trend towards consolidation of IT and telecom architectures is just as compelling. Further, middleware approaches can offer scalability and load-balancing capabilities to critical infrastructure components. For example, the roll out of distributed/federated presence-based applications will necessitate management of huge amounts of subscriber data residing in the middleware. Finally, there are challenges of enabling guaranteed QoS and seamless access to triple-play services.

In this workshop, we seek original, unpublished papers on different aspects of middleware technologies for enabling Next-Generation Network (NGN) services and applications. Topics of submission include, but are not limited to:

- Middleware architecture for converged networks
- NGN Middleware for triple play services
- NGN Middleware for ad hoc, mobile and wireless services
- Publish/Subscribe middleware
- Presence and contextual data management
- Trust, security and privacy issues
- Scalable, Adaptive, and Self-Managing aspects of middleware
- Converged networks policy-based management, monitoring and control
- Middleware support for NGN inter-networking, non-NGN interoperability, migration
- QoS provisioning, service differentiation, accounting, and billing
- NGN Middleware for context-aware applications
- NGN Middleware for collaborative/P2P applications
- NGN Middleware for Enterprise applications
- Service Modeling and Composition
- Service Deployment and Orchestration
- Programming paradigms, Web 2.0, and mashups
- Web Service/Grid-enabled middleware for converged networks

### Program Co-Chairs

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### Important Dates

Submission Deadline: August 5<sup>th</sup>, 2007

Notification of Acceptance: September 15<sup>th</sup> 2007

Camera-ready Copy Due: October 1<sup>st</sup> 2007

Workshop Date: November 26<sup>th</sup>/(27<sup>th</sup>) 2007