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MSF Strategic and Technical Plan

2005-2006

MSF Technical Report Contribution

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Abstract: This white paper outlines the MSF 2005/2006 technical plan.

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1. **Overview**

For the past three years, the MSF has run its technical program in a cyclical mode, with each cycle building on the work done in the previous cycle and with each cycle including the following stages:

- Strategic analysis on member needs and industry drivers
- Membership review of the analysis
- Requirements capture
- Physical Architectural considerations and revision
- Choice of protocols for targeted interfaces
- Creation or revision of Implementation Agreements for each of the interfaces
- Design of interoperability tests
- Interoperability testing of the Implementation agreements
- Review of results and determination of goals for the next technical work cycle.

As GMI2004 approaches, the Board of Directors, Technical Committee leadership, and the membership have been in the process of analyzing carrier network requirements to determine the direction for MSF in the next eighteen to twenty four months. This technical report discusses the results of that initial analysis and outlines the first steps for the next technical cycle.

The MSF 2005/2006 strategy is composed of two major elements:

- Refine the MSF Release 2 physical architecture and implementation agreements based on the experience gained in GMI2004. The primary goal of this part of the plan is to bring MSF Implementation agreements to the point where they are ready for network deployment.
- Based on a strategic analysis of member concerns and needs, broaden the focus of MSF activity into several new areas.

Each of these elements will be discussed separately below.

2. **Making Release 2 components ready for carrier deployment**

GMI2004 will show that the MSF approach to Internet Telephony with Quality of Service and Security is a workable solution that can be used by service providers. There will, however, be further work that needs to be done in areas such as security, management and scalability before the MSF solution will be ready for wide multi-vender, multi-provider deployment. The goal of this element of the 2005/2006 program will be to bring the MSF solution to full deployability.

Doing this will involve work in the following areas:

- Revising Implementation Agreements (IA) to take into account any potential improvements that the GMI2004 event brings to light
- Fulfilling the original GMI2004 plan for adding security to the solution
- Further developing the bandwidth control solution for scalability, availability and recovery
- In cooperation with the MFA, developing an MPLS solution that satisfies the diverse requirements of telephony and multimedia applications.
- In cooperation with the TMF fulfilling the original GMI2004 plan for adding management to the solution including network resource, service and quality management
- Working with 3GPP to bring solutions into harmony with mobile requirements

3. Expanded focus into new areas

As the MSF looks forward to the need of carriers today and in the next few years, there are three areas that stand out as being open to MSF contribution.

3.1. (NGN) Fixed/Mobile convergence

- Unification of architecture (3GPP, Wireless)
- IPv6/IPv4 co-existence
- Broadband content delivery
- Point to point video
- Multi-media interconnect
- Service profile registration

3.2. NGN Service Assurance

- Measurement
- Management
- Diagnostics

3.3. Service Architecture

- Web service/ SIP service relationship
- Presence interoperability

4. Specific work items for increased depth

The three strategic directions outlined above, call out additional work items, among which are:

- Add IPV6 support for all MSF IAs
- Insure IPV6/IPV4 co-existence in the Physical Architecture and Scenarios
- Intelligent Testing of components
- Media Server for SIP Video Control
- SIP Resource Registries
- Agent and Active Networking components and interfaces
- Broaden the MPLS solution framework to include the use of MPLS VPNs
- Investigate new developments in Priority Signaling for any advantage they offer for broadening the QoS solution.
- Investigate need for IAs that define device control for session based services such as QoS, and bandwidth control.

5. Approach

As with the GMI2004 cycle, a series of white papers will be created to give an overview to the 2005/2006 technical direction. Initial drafts of the following papers should be created before the Q4 2004 MSF meeting:

- MSF Bandwidth management overview
- MSF Security overview
- MSF MPLS and VPN overview
- MSF Management overview
- MSF Service overview
- MSF Testability overview
- Comparison of the network architecture for fixed versus mobile voice delivery including requirements for 3GPP reconciliation

Additionally members and MSF partners are encouraged to contribute white papers on any aspect of the technical program that is being proposed in this report.

5.1. Requirements for a White Paper

Each White paper will need to include the following elements:

- Discussion of market requirements for the particular work item
- Survey of other work being done in the area, especially work being done by SDOs and other fora
- Explanation of the MSF's role in solving the problem and of how taking on the problem works to the membership's advantage
- Discussion of the technical requirements for solving the problems inherent in the work item
- Suggested solution paths including:

- Explanation of how the solution fits in the Rel 2 architecture including any necessary extensions to that architecture
- Discussion of existing protocols that should be studied and for which the MSF should create implementation agreements
- Suggestions of work that can be shared with partners.

6. Partnerships

The MSF will continue to develop joint programs with our current partners including:

- Develop programs with the MFA to cover advancement of the underlying MPLS and VPN substructure
- Develop programs with the TMF to create a management structure adequate to support the full complex of MSF components and services.
- Explore partnerships with 3GPP, TISPAN, ATIS

7. Events

- The MSF will schedule interoperability tests during 2005 to test specific Implementation Agreements.
- Discussing and planning for a GMI event will also be one of the work items planned for 2005.

8. Other Activities

Discussions are ongoing for activities, possibly income generating, in the following areas:

- Developing an educational series to educate both members and non-members alike on the work that has been done in the MSF. The curriculum for such an educational series would be the Physical Architecture and the IAs. The Physical Scenarios could be used as the basis for lectures.
- Exploring the possibilities of refining the test plans for use in helping independent laboratories create permanent MSF test beds where new products could be tested for interoperability.
- Exploring the possibility of creating a self-testing harness that would allow for a greater degree of self-certification. This program could be combined with a verification process.

While these, and other, programs will be explored; they will not be implemented without a full plan that is reviewed by the membership.