

MSF 2003
Technical Committee
Plans and Roadmap

Draft
5.0

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1. Introduction

With 2003 quickly approaching the time has come to finalize the technical plans and road maps for what the MSF and its membership would like to accomplish through 2003. The schedules and workload has been intense in 2002 and we have been very successful in meeting most of them. In order to maintain this high level of productivity and to continue having an impact on the industry in defining and proving the architectures that will be present in the telecommunication networks of the future we need to ensure that our plans and goals for 2003 will target the appropriate areas of need.

This will mean keeping our focus on the existing architecture and further refining it to better solidify the model, fill in the gaps and prove a full end to end model that will include services and applications.

2. Scope

The purpose of this document is to outline the plans of how the TC is proposing to move forward in 2003. This document will outline the technical goals, a method of how to drive our work, provide recommendations of what our focus needs to be in order to make 2003 a success and provide a meaningful output for our membership and the industry in general.

3. 2002 Accomplishments

3.1. *Architecture*

The Architecture working group continued to define the plans of how and what should be included in the Release 2 Architecture. This work made substantial progress over the year and with the groundwork defined the details continue to be moved forward.

3.2 *Protocol and Control*

The P&C working group has been focusing their efforts on defining the Implementation Agreements for supporting the Release 1 Architecture and in support of both the IA and GMI trials.

3.3 *Interoperability*

The Interoperability group placed their focus on defining the test plans and scenarios to aid in developing and staging the very successful GMI 2002 event which took place in Japan, Great Britain and the United States successfully and concurrently, in November of 2002. The primary protocols of focus for 2002 included H.248 and SIP from an IA perspective and also included SIP-t, BICC CS-1 and CS-2 for GMI event. The elements utilized included Media Gateway Controllers, Media Gateways, data switches and servers in support of next generation telephony applications.

3.4 *Management Committee*

The Management team changed its focus in 2002 and began to work across all three working groups to ensure that input from each area was taken into consideration. In the second half of 2002, a major initiative was launched to narrow the scope of work to focus on the management portions of the Service and Application plane.

4. 2003 Goals

With the successful execution of GMI2002, 2002 became a watershed year for the MSF. In order to maintain continuity with the work of 2002 and to make sure that all that can be learned from the successful completion of the GMI2002 event is learned, a thorough analysis of the results of that event will continue into the first quarter of 2003. Among the goals of this analysis are the following:

- Those IAs that need to be updated based on the results will be updated and will be brought back to the membership for approval,
- Information useful to the organization and deployment of a GMI event will be collected and used in the preliminary planning for GMI2004.

2003 looks to be an exciting year, with the achievement of the 2002 goals and with a set of more defined goals the MSF is on the verge of proving to the industry that a Multi-Service Switching architecture can be achieved and realized.

By focusing on specific areas of the technology and architecture the MSF can begin closing the technology gaps to complete a full end to end architecture. The Technical committee identified key areas of interest that would need to be investigated and identified work items to aid in completing the picture. The items listed below represent those areas and by creating white papers to address each these areas we can further define the work items that need to be addressed in order to close these gaps.

The proposed primary technical areas of focus for 2003 have been proposed to be:

- VoIP and IP Technologies
- Access/Enterprise Environments
- Service/Application Environments
- Client based inter-working
- Wireless integration into the architecture
- Security impacts and solutions
- Quality of Service
- Call Routing within the IP Space/Address Resolution
- Management

Another key area of interest is to maintain our Liaison activities to ensure our alignment with other forums and standards organizations that share similar goals. By using these Liaisons we can ensure that we are not duplicating work that is being addressed within the industry. Through this liaison activity we can provide input regarding our concerns and issues. By working closely with our peers we can make the MSF architecture a key to other Next Generation Service Models as well.

The list above is meant to cover these technologies in a broad sense and the Technical Committee is open to receiving proposals from the membership on items to be included as a part of the 2003 goals. If any member has items that they feel should be addressed by

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the MSF please contact any member on the TC. We will review any new ideas with you and create a proposal to be delivered to the TC for inclusion in the formal 2003 Plan of Record.

5. White Papers

The white paper objectives are to identify the key issues that arise when attempting to provide the referenced service, highlight these to the industry at large and to drive major issues into the MSF TC for further work if so required.

White papers should take a broad view of the problem space and should consider not only the narrow technical issues but also likely commercial and business models. It is important to look at specific technical solutions only when the real problem that must be solved has been clearly identified.

When considering commercial and business models the MSF antitrust guidelines apply and these can be found at the following location,
<http://www.msforum.org/private/antitrust.shtml>

5.1. *White Paper Format*

All white papers must contain the following broad sections

1. A statement of the problem under consideration and the scope of the white paper.
2. A description of the problem incorporating both technical and business issues.
3. An analysis of available solutions and work going on in industry fora or standards organizations that address the problem space.
4. A solution framework. This should identify the end to end solution at a high level and the components that are required to provide the solution. Appropriate technologies/solutions should be proposed for each component. At this stage options should be left open and solutions should be high level (e.g. where a protocol is required describe what it must do and what candidates exist, do not merely chose protocol X). It should be left to the MSF working groups to refine solutions and options. This section should identify any gaps in the solution that cannot be easily filled by existing industry work and be used to derive section 5.
5. A high level overview of required MSF or industry actions and work items.
6. A separate annex not to be included in the white paper but containing detailed proposals for MSF work items.

The white papers length should be around 10 pages in length.

5.2. *Architecture White Paper*

To include

- An end to end picture incorporating
 - Access networks
 - Core networks
 - Network boundaries
 - Signaling and control
- Applicable commercial models with regard to revenue for VoIP services and multiple/single service provider models.
- Identify high level functions and how they are likely to be realized in a deployed network (i.e. what components would I expect to deploy in order to create a commercially viable VoIP service).

5.3. *QoS White Paper*

To include

- Where should admission control be performed?
- What is required to guarantee acceptable service at:
 - Access networks
 - Core networks
 - Network boundaries
- Bandwidth management issues.
- Coping with network failures.
- Providing true end to end QoS.
- Supporting call signaling.
- Supporting emergency call and GETS mechanisms.
- A very high level consideration of security as it impacts QoS (reference the security white paper).

5.4. Security White Paper

To include

- How do you identify a subscriber?
- How do you provide non-repudiation?
- Securing allocated network resources (i.e. if flow x is authorized how do you ensure you actually carry flow x).
- Securing network boundaries.
- Trust models.
- Securing the management and control planes (i.e. protecting the management and call control entities, plus their signaling and control paths).
- A consideration of issues related to DoS.

5.5. Call Routing White Paper

To include

- Numbering plans and address resolution issues:
 - E.164 numbers and interaction with the PSTN.
 - SIP addressing schemes.
 - Allocation of numbers and number portability issues.
- Call routing:
 - Identifying a network path and carrying the call over the network.
 - Interaction with QoS mechanisms.
 - Supporting dynamic call routing mechanisms.
 - Handling GETS and emergency calls.
 - Behavior at network boundaries.
- End to end solution
 - Illustration of how a call can be routed across the world.

5.6. Service and Applications

To include

- A service architecture
 - Impacts to the existing architecture model
 - Deficiencies in the existing architecture
- Protocol interactions between the required nodes
 - Deficiencies in those protocols from either being non-standard or as non-interoperable in their current implementations
- Proposed applications and how they would be implemented
- Key work items that need to be addressed

5.7. Management

To include

- A proposed method of interaction between the different areas of the technology
- Key API's and protocols that could be used in defining the management model
- Impacts to existing OSS models
- Key work items that need to be addressed

6. Roadmap for 2003

The following list is a high level roadmap meant to represent the goals and targets needed to support the 2003 TC agenda and ensure that the work being proposed demonstrates value to the industry and to the members of the MSF.

2003 Roadmap

January	2003	Final White Papers Approved and Published First Submission for Work Items R2 Architecture Targets to Straw Ballot Draft Solution Framework Document Orlando TC Meeting GMI 2002 Membership Report
April	2003	TC Meeting – England Finalize Solution Framework Documents Draft Physical Architecture
August	2003	TC Meeting - Canada First Draft Implementation Agreements Protocol Selection Draft Test Scenarios
September	2003	IA Trial (TBD) Physical Architecture to Straw Ballot
October	2003	Finalize Scenario Set 2 Finalize Service Set Box Architecture to Final
November	2003	TC Meeting – Japan Final Ballot of 2003 Work Items GMI 2004 Event Outline Present 2004 Technical Goals Present GMI 2004 Plans