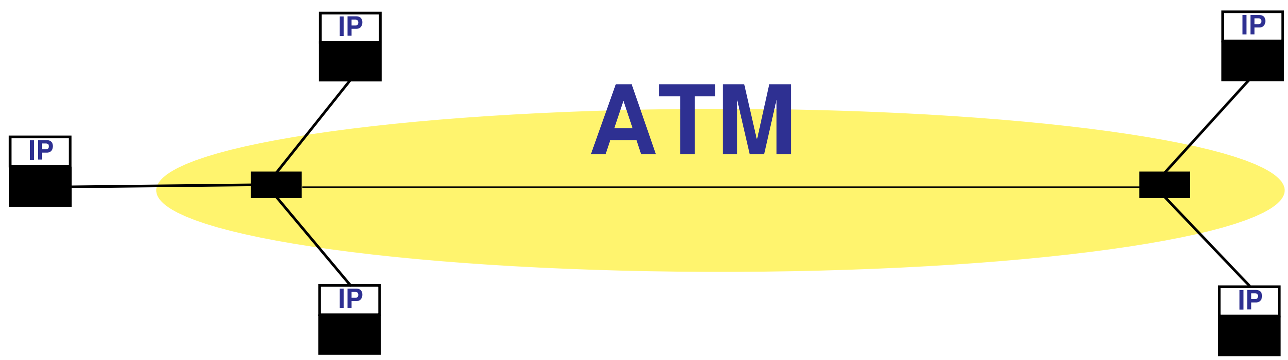
WELCOME TO THE

IP

over

ATM



WORKING GROUP

IP over ATM Working Group

Introduction

Email:

- **Mailing list: ip-atm@matmos.hpl.hp.com**
- **Un/Subscribe requests to majordomo@matmos.hpl.hp.com with the first line of the body:**

  subscribe ip-atm

- **The above are recited in the headers of every email message off the mailing list.**

Other:

- **Please sign the blue roster.**
- **Cruise the Web to http://www.com21.com/**
- **Please try and do the homework for the next meeting.**

Extra:

- **Cruise to http://www.itu.ch/**

IP over ATM Working Group

Agenda: Wednesday Afternoon 1300-1500

1. **Traditional agenda bashing**
2. **RFC1577 / 1483 / 1626 implementation reports**
3. **ATM Forum reports**
4. **RFC1577+ rewrite discussion**
5. **RFC1577+ MIB needed**
6. **draft-armitage-ipatm-ipmc-04.txt**
7. **Updated Framework document**
8. **IP Broadcast - what to do?**
9.
10.
11. **1995 WG work plan + Charter Update**
12. **Action items / Discussion view**

IP over ATM Working Group

1995 Work Plan

√ 1. UNI 3.0 Signaling draft -> Informational RFC (submitted)

√ 2. UNI 3.1 Signaling draft -> proposed (re-submitted 12/4)

3. Framework draft -> Informational RFC

4. Multicast draft (ipmc) -> proposed

5. RFC1483 proposed -> draft

6. RFC1577 + RFC1626 proposed -> RFC1577+ proposed

7. Applications over IPATM: Int-Serv and Applications ‘R’ ATM

8. UNI 3.1 Signalingdraft -> UNI 4.0 update

9. Multicast Systems Overview

10.

RFC1577 Rewrite Update
Part II

(Part I was presented at the joint IPATM/ROLC Meeting)

These slides have been updated to refect the comments and consensus made at the IPATM Working Group meeting on Wednesday, April 6th, 1995. The following notation have been used to indicate the working group consensus on the matter for the RFC1577 update.

A WG Action/Agreement on the issue

RFC1577+ Rewrite

Overview

√ • Changes to allow multiple ATMARP servers

√ • Server synchronization will be added

- RFC1626 will be folded into RFC1577+
- Client registration issue
- Variable length ATMARP packet format issue
- ARP_NAK format
- InARP problem
- Lacking MIB
- What else?

√ = already discussed at joint IPATM / ROLC session

RFC1577+ Address Resolution Service

Client Registration Problem

Intro:

- **ATMARP server registers clients via InATMARP_REQUEST**

Problem:

- **Race condition with connection setup in client**
- **IP subnet membership issues for server**

Proposed Solution:

- **Do away with server's first use of InATMARP**
- **Server becomes promiscuous and builds its table based on looking at source information in ATMARP_Requests**
- **Clients must first register and update by ARP'ing for themselves.**

A **Approved as stated**

RFC1577+ Rewrite

ATMARP Variable vs Fixed

Intro:

- **RFC1577 specifies a <u>variable</u> length packet format**

Problem:

- **Not every implementer read/understood this**

Proposed solution:

- **Just strengthen the text which says that it is a variable length packet format**
- **“null” means for xmit: zero length indicated no storage allocated, no field present - just like DNS**
- **Added note: when ATM addr len=0, the type field is “don’t care”.**

A Approved as stated. Null means zero length, no allocation. There will be consistency between InATMARP and ATMARP, and IPv4 with ATM addresses. IPv4 receipt of Len=4 with 0.0.0.0 value is ok, but Len=0 no storage for transmit.

RFC1577+ Rewrite

ARP_NAK Format

Issue:

- **RFC1577 is not completely clear on how to specific the ARP_NAK packet. Mark had thought that the best way was to just copy the packet to the output and just change the op code from a request to a nak, others prefer generating a new packet.**

Solution?

- **What do we really want?**

A **Refect (bcopy) what was received, and just change the opcode to a NAK.**

RFC1577+ Rewrite

InATMARP

Problem

- **Lack of specification of how null target protocol address is specified**

Solution?

- **RFC1293 null? ; i.e. 4 bytes with 0.0.0.0?, or**
- **RFC1577 null? ; length = 0, no storage/field**

A **To be consistent with ATMARP packet format, both forms are accepted for reception, the RFC1577 LEN=0 no storage is required for transmit.**

RFC1577+ Rewrite

What Else?

Issue?

- **Authenticated ARPs?**

Solution

A • **List as an open issue**

A • **Add information text in Appendix if appropriate**

A • **Condsider adding Type, Len, and Key fields to ATMARP packet**

A • **Check with other authentication folks**