

Schedule for IDRP Presentation

1:00 PM - 1:15 PM Schedule
Issues

1:15 PM - 2:00 PM IDRP, IS-IS,
CLNP changes,
need for ES-IS

2:00 PM - 2:45 PM Gated Intro

2:45 PM - 3:00 PM Break

3:00 PM - 3:15 PM BSDI and
GATED

3:15 PM - 4:30 PM IDRP GATED
Implementation

4:30 PM - 4:45 PM DEMO

4:45 PM - 5:15 PM Where from
Here?

1:00pm - 1:10 PM Schedule & Issues

1:00PM - 1:45 PM IDRP Intro
 ES-IS,
 CLNP changes,
 IS-IS issues

2:00PM - 2:45 PM Introduction
 to GATED
 - GATED Configurations
 - IDRP Configurations
 - GATED Internals
 Routing Table,
 Task,
 Timers,
 Re-initialization

2:45PM - 3:00PM Break

3:00PM - 3:15PM BSDI and gated
- Routing table Support
- Clnp support and NLPID

3:15PM - 4:30PM IDRP GATED code
MERIT Implementation
- Configuration format
- Design Document
Walk Through
- Code Walk Through
- Status
- current
- future

4:30 PM - 4:45 PM DEMO

4:45 PM - 5:15 PM Where from
Here?

Code Issues:

- 1) On-line Code and Design specification
- 2) Bug reports, Test lab, and Router Vendors
- 3) BSDI porting issues

Heading to Operation Issues

4) Progression of Support
through out Next Year

5) Fall Backs

- Static fallback
Inter-Domain
- Static fallback for IS-IS
- ES-IS and start-up

6) ES-IS start-up issues

7) IS-IS to IDRP definitions not
done

8) Alternative IDRP code

– Dave Katz's code to future

9) QOS and Aggregation and RDCs
next year's code

10) We bleed – you lead
How can we help succeed?

- 11) implications for IP land
reuse of work
- 12) NM management by CMIP
agent issues

IDRP Overview:

Slides for 10 hours

NSAPs – what, when
why on earth or
in the sky

ES-IS Start-up Issues
CLNP changes

IDRP protocol review

What's changed in DIS to IS
Specification

IDRP FSM fixed
- without fix failure to
test even (Dave Katz
thanks)

IDRP Flow control
- on in Established

Loosening of Overlapping
Routes

CleanUP!!

GDMO - my fault

IDRP Update

yes, no , and Maybe

no - bad pdu or loop

yes - install or policy

Maybe - routes from you
you transmitted back from
neighbor

Required for Reverse Path
Discovery and IDRP

PDU format changes

UPDATE changes

Thanks to Linda!!

- 1.) Route Separator
- 2.) LOCALLY DEFINED QOS
- 3.) other QOS out
- 4.) protocol identifier

Allowance of QOS and multiple attributes for the NLRI.

Nice!!

gateD

Picture a gate to the Deamon
-);

What for:

BSD systems

Glue for protocol
conversion

between lots of protocols

What designed for:

Single Thread

Modularity

Single kernel interface to
routing table

Rich Policy

gated Provides you

(Enough Rope and the chair)

Lots of protocols

Task Support

Tracing Support

Routing Table

Routing Table - My View

gated Provides you:

- Timer Support
- Socket Support
- Interface support
- Reconfiguration
- Policy language

See gated notes

Further Notes on Routing Table:

1) Phase 1 gives a most difficult sequence for gated

- Only active routes

2) Route table tries to protect against this

3) IP protocol BGP-4 ignores this part of specification.

Timers Support

- 1 second intervals
- 1 host or repeating
- correctable for drift
- handled on sorted queue

timer_create

timer_delete

timer_set

timer_reset

Socket Access:

- packet ready (task_recv)
- data ready (stream)
- ready for write (task_write)
- exception (task_except)
- connection complete (stream)
(task_connect)
- Incoming connection (stream)
(task_accept)

IOCTL and commons socket

- buffer size
- raw clnp, or IP or hopefully
IDRP

BSDI and Routing Table support

- BSDI 0.9

Crashed under ifconfig of SMC
Ethernet

would install is-is iso routes

would not handle Alpha-5 gated
without hang

- BSDI 1.0

Allows us to configure and
ping from interface

Can build with Alpha-5 fixed
into Beta

Anticipate that Routing Table
support will work, but
who knows.

- MITRE / BSD kernel
- ANTICIPATE CLNP bugs to
send IDRP packets and
receive them

RS6000 and AIX 3.2

- NSFNET support uses BSD Reno
Abstraction for sockets and
calls
- routes installed reliably
- CLNP packets sent, but garbled
between sendto system call
and clnp_output routine
- clnp_input will need fixes to
watch for NLPID for IDRP
in first Data byte

(Comments welcome on this
from Linda and Dallas)

- Next week we will spend with
IBM person in house

- Source Code to AIX 3.2 and BSD, and all the licenses you would want

CLNP Debugging Tool

- tcpdump for Sun System fixed
Francis Dupont of INRIA
- available for anonymous ftp
nic.switch.ch
- CLNP, ES-IS, and TP headers
- IDRP fixed once I send him
a working set of code.
- need all licenses above plus
Sun

Where from Here:

- Weekly Code Releases
- Delivery 1 -
Probably in 1 month or longer
- Delivery 2
Mib code partially done
parsing will be pushed to
get done by end of
contract
- Test Lab at MITRE
 - ATN project
- Test lab at MERIT
ATN may come on "low
budget" life or use
Internet to
access machines

- Alternative Design
 - Should we fund
 - design starts from PDUs and uses Dave Katz approach
- PDUs are 8 weeks
- Routing table code delta

Next Year's work for FAA

QOS - In Kernel and In IDRP
by February '93

QOS Global Security
by June '94

Aggregation - December '93

RDCs - June '94

This code goes where no network
has gone before