BREVI NORME OPERATIVE
PER LA GESTIONE DEL BUTTERFLY
INTERNET
GATEWAY

Rapporto Interno C88-36

15 Giugno 1988

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Prefazione

Questo documento è una raccolta di norme operative, ad uso interno, con lo scopo di effettuare la problem-determination e di facilitare la gestione operativa del Butterfly Internet Gateway.

Per informazioni complete fare riferimento al manuale della BBN: *Internet Gateway Shared Maintenance Site Representative's Manual*, Report No. 6721.

BUTTERFLY GATEWAY

1.0   Generalità sulla Macchina Butterfly

1.1   Cos'é il Butterfly Computer ?

Originariamente l' industria dei computer ha sviluppato sistemi di elaborazione guidati ciascuno da un singolo processore; questi computers a singolo-processore eseguivano programmi di istruzioni sequenziali. Con lo sviluppo delle nuove tecnologie, i sistemi a singolo-processore sono divenuti più veloci, più piccoli, meno costosi e possono memorizzare ed eseguire una grande quantità d' informazioni. Nonostante la loro velocità e capacità di memoria, i sistemi a singolo-processore sono capaci di eseguire programmi solamente elaborando un' istruzione alla volta, in un formato seriale (istruzioni seriali, flusso dati seriali). Ma se questi singoli processori sono connessi in parallelo ed eseguono le istruzioni programmate in parallelo, possono arrivare a potenze di calcolo mai raggiunte prima. Invece di una sola ed unica grossa unità operativa ad alta velocità, il processore in parallelo raggiunge velocità altissime usando molti microprocessori indipendenti che operano in parallelo.

Il Butterfly Computer della BBN è un sistema che opera in parallelo. Esso puo contenere fino a 256 microprocessori in un solo computer. La macchina Butterfly usa un flusso multiplo di istruzioni e dati, il formato MIMD (Multiple Instruction Multiple Data), che utilizza l' intera potenza di elaborazione degli n processori. Il formato MIMD distrubuisce porzioni di un programma uniformemente fra i processori. Ciascun processore può così eseguire la sua parte di programma e fornire i risultati. In effetti, nel tempo totale questo porta un computer a singolo-processore ad eseguire una istruzione, mentre il butterfly computer, con i suoi n processori, può eseguire n istruzioni; questo incremento di velocità è appena uno dei maggiori vantaggi che un sistema a processori in parallelo ha su un sistema a singolo-processore.

Attualmente il Butterfly computer fa parte della seconda generazione di processori in parallelo disegnati dalla BBN. Il Pluribus™ computer, disegnato nei primi anni del 1970, era basato sull' uso in parallelo di minicomputers. La macchina Butterfly adopera il microprocessore Motorola MC68000 per ciascuno dei suoi processori in parallelo.

1.2   Il Sistema Operativo

Il sistema operativo del Butterfly è conosciuto con il nome di Chrysalis™. Chrysalis fornisce un ambiente di esecuzione dei programmi in cui i task possono essere distribuiti fra i processori (conosciuti anche come Processor Nodes) ed in cui ha poca importanza la locazioni fisica dei dati associati con i tasks, perché il Butterfly utilizza un' architettura di memoria globale o condivisa fra i suoi processori. Ciascun processore contiene 1 megabyte di memoria principale (espandibile fino a 4 megabyte). Comunque, ciascun processore può aver accesso ad una qualsiasi altra memoria all' interno del sistema usando il Butterfly Switch. Il Butterfly Switch è l' elemento fondamentale del Butterfly. Esso provvede alla funzione di comunicazione fra i processori.

1.3   Scopo di questo manuale

Il Butterfly Computer può essere usato in un vasto raggio di applicazioni. Questo documento descrive solamente il Butterfly Internet Gateway, con una breve descrizione dell' hardware e del software, per poterne effettuare una prima ed immediata problem-determination e facilitarne la gestione operativa.
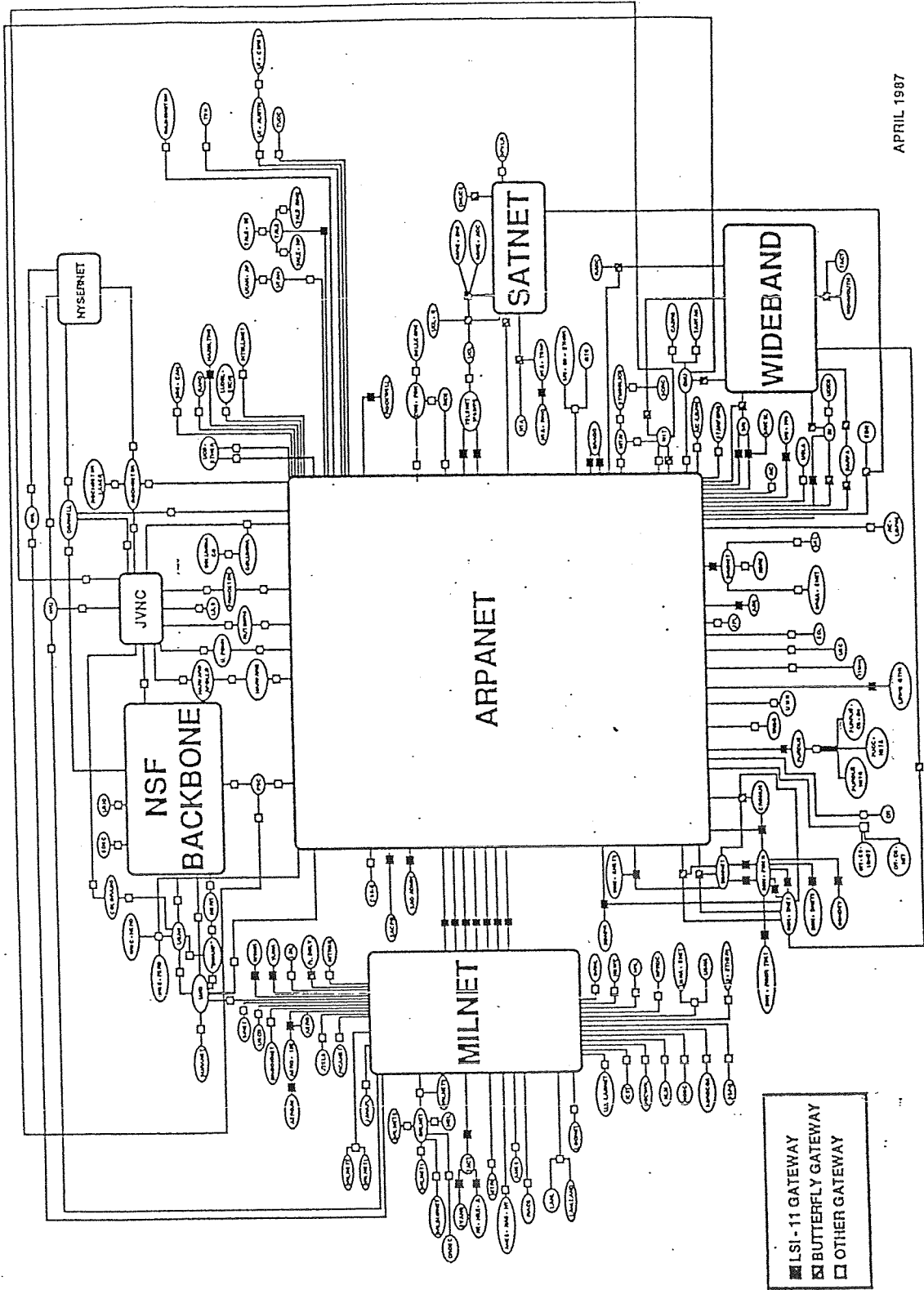
Figura 1. Il Sistema di Reti Internet

2.0 Descrizione generale

2.1 Cos'é un Gateway ?

Un Gateway è un dispositivo che permette a due o più reti di comunicare tra loro. Può fare conversioni di protocollo fra reti, trasmettere traffico a senso unico o in entrambe le direzioni, effettuare controlli e/o filtri sul traffico ed essere usato in una quantità di altre diverse applicazioni specifiche. Di seguito è una descrizione del Butterfly Internet Gateway.
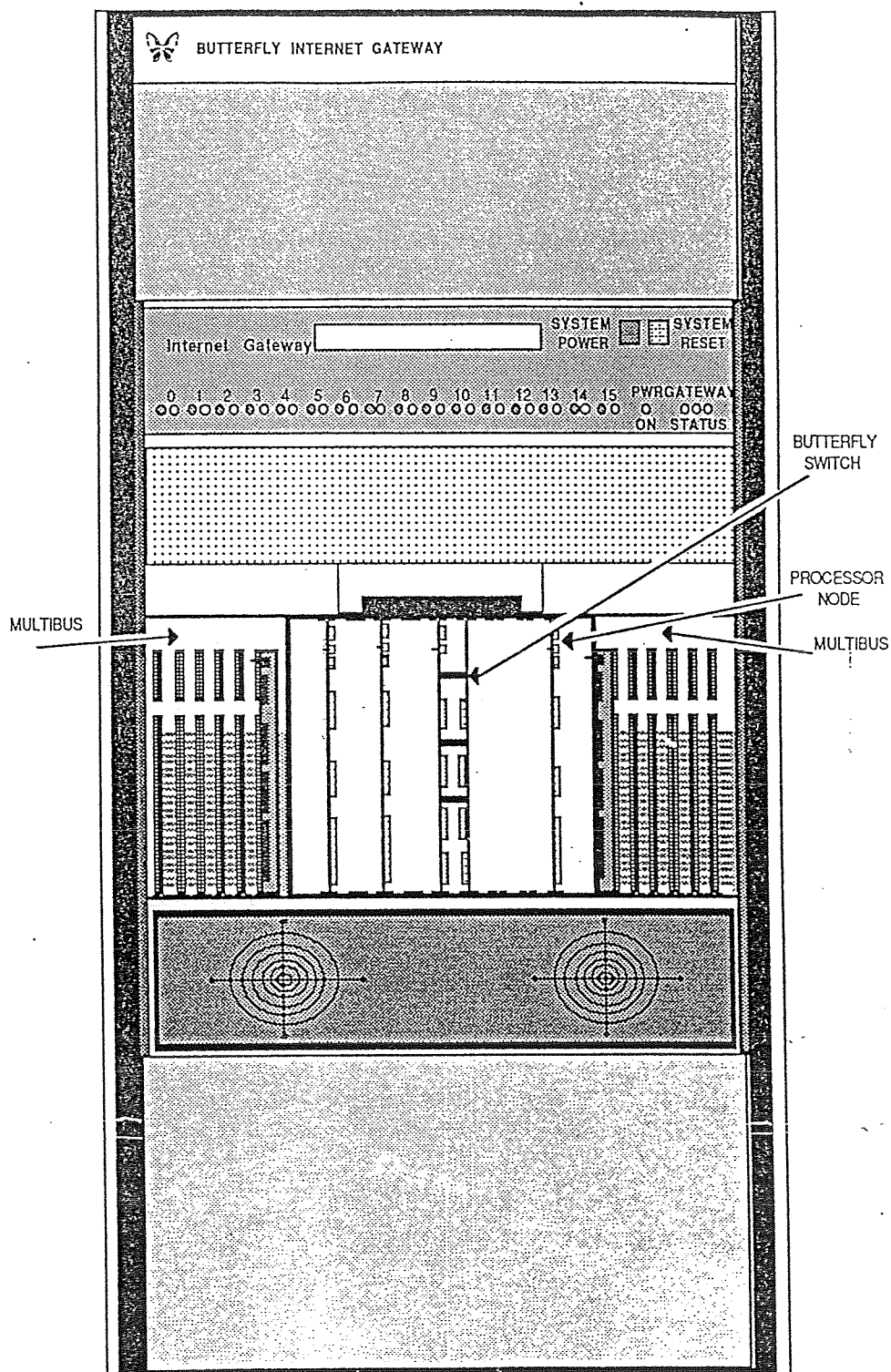
2.2 Il Sistema Internet

Il sistema di reti Internet, sponsorizzato dal DARPA (Defence Advanced Research Projects Agency), è usato per connettere tra loro una grande quntità di reti. I computers utilizzati per svolgere le funzioni di Gateway tra le principali reti sono, per la maggior parte, degli LS-11, ma un numero crescente di essi viene rimpiazzato da Butterfly.

2.3 Il Butterfly Internet Gateway

Il Butterfly è un Gateway che può essere usato per connettere vari tipi di reti a commutazione di pacchetto, per creare una rete Internet e può anche funzionare come un general packet switch quando è connesso ad altri Butterfly attraverso linee di collegamento. Le features del Butterfly Internet Gateway sono:

- Un' architettura basata sul multiprocessore MC-68000 che permette alla configurazione hardware di far fronte alle performance richieste. Il numero dei processori usati è in funzione del numero e della velocità delle reti interconnesse.
  Nel caso del Butterfly Gateway del CNUCE i processori sono tre.

- Supporto del DoD Internet Protocol (IP) e Internet Control Message Protocol (ICMP).

- Interfaccia ad uno svariato tipo di reti a commutazione di pacchetto, includendo ARPANET, Ethernet, Satnet, Wideband e X.25, e in futuro anche Packet Radio e Pronet Ring.

- Supporto di linee di collegamento ad alta velocità fra gateways Butterfly, i quali possono operare a velocità superiori a 1.5 Mbit/sec (T1 rates).

- Un instradamento dinamico basato sull' algoritmo ARPANET SPF (Shortest Path First) usato per dirigere il traffico sulla migliore strada disponibile e provvedere in trasparenza a percorsi alternativi.

- Supporto del protocollo EGP (Exterior Gateway Protocol) per far sì che i gateway Butterfly si scambino informazioni di instradamento con altri sistemi di gateway.

- Monitoraggio remoto e misurazioni statistiche per il centro supporto e controllo.

2.4 Descrizione dell' Hardware

Front View of Butter'ly Internet Gateway

Figura 2. Vista anteriore

Pannelo connessioni esterne (Fantail) ------->

Alimentatore ----------------------------->

Vista posteriore
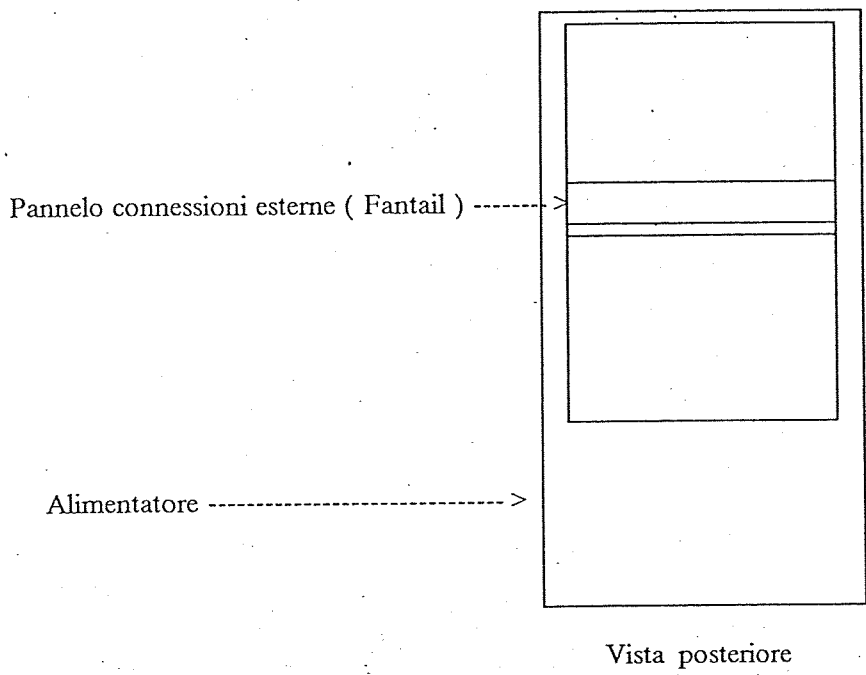
FANTAIL LOCATED IN REAR OF BUTTERFLY INTERNET GATEWAY

TO MULTIBUS #2   TO BGM   TO MULTIBUS #1

| H O S T | C O N S O L E | E T H E R | E T H E R | H O S T 3 | H O S T 2 | S Y N C 3 | S Y N C 2 | S P A R E | S Y N C 1 | S Y N C 0 | H O S T 1 | H O S T 0 | E T H E R | E T H E R | C O N S O L E | H O S T |

TO BMA
MULTIBUS #2

TO BMA
MULTIBUS #1
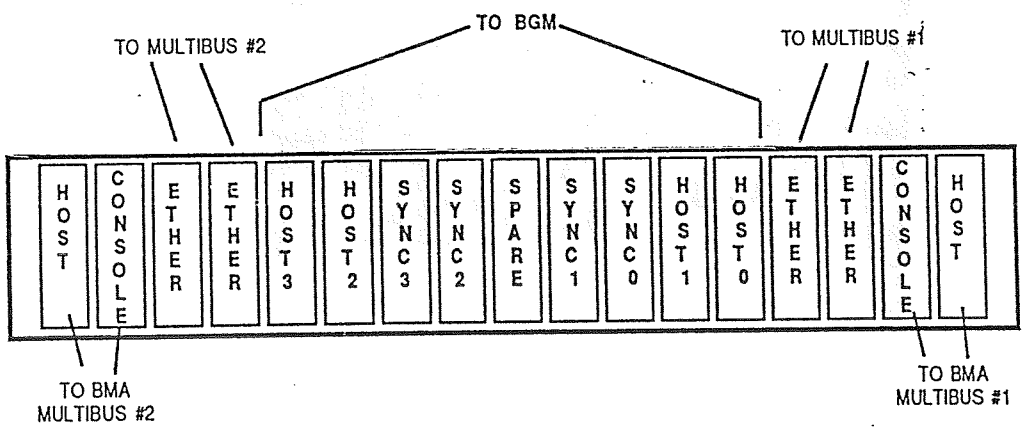
Figura 3. Fantail (particolare)

2.5 Led sul Pannello di Controllo

| LED 0 | Verde | = | Modem (linea Pisa-Fucino) OK |
| | Rosso | = | Modem (linea Pisa-Fucino) OFF (Testare modem e/o linea) |

| LED 1 | Verde | = | Rete locale ETHERNET OK |
| | Rosso | = | Rete locale ETHERNET OFF |

| POWER | Verde | = | ON |

GATEWAY STATUS	Verde	=	Running
	Giallo	=	Loading
	Rosso	=	Crashing
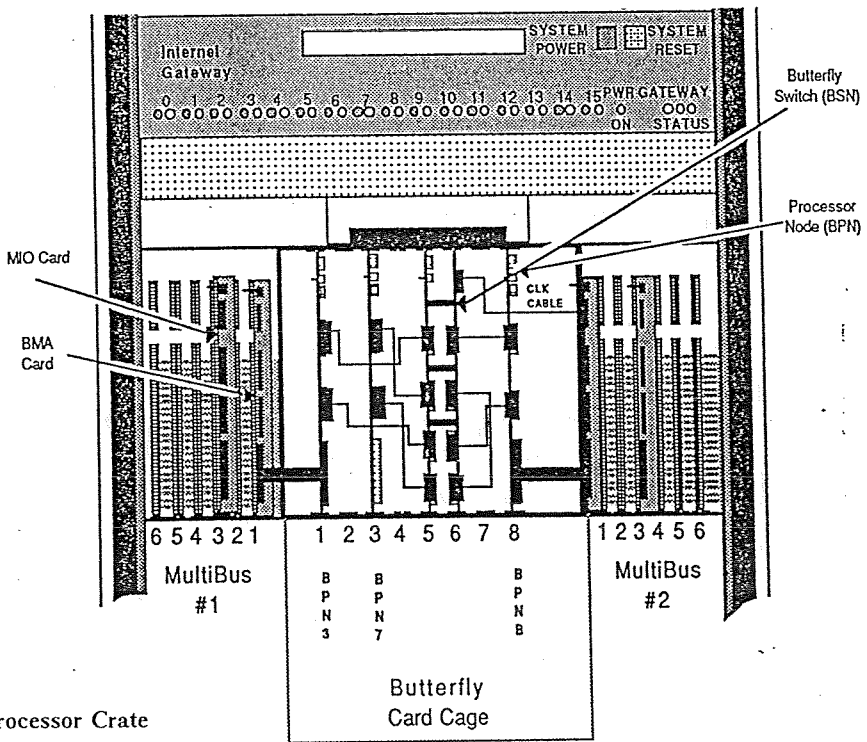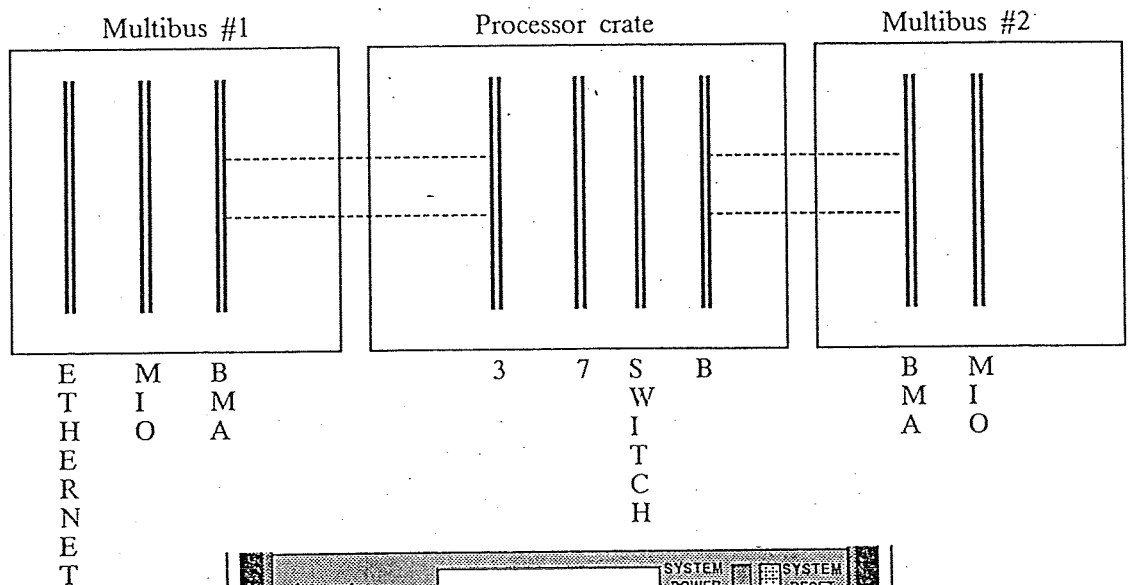
Figura 4. Processor Crate

2.6 Processor Crate

All' interno del Processor Crate sono alloggiate tre Processor Board identificate dai numeri esadecimali 3, 7, B . Ogni Board ha un indicatore a led verde e rosso più un commutatore micro switch (power On/Off). Ogni Board contiene un microprocessore 68000 e 1 Mega byte di memoria.

I Processor sono interconnessi tramite la **Switch Board** (scheda doppia). Essa ha un led verde ed un commutatore. Il Processor 3 è connesso tramite la scheda BMA (Butterfly Multibus Adapter) al Multibus Crate #1. Il Processor B è connesso tramite BMA al Multibus Crate #2. I Processors sono detti anche "Processor Nodes" o "Nodes".

I Processor 3 e B sono pure collegati tramite la Mother Board ai connettori del pannello posteriore. Il Macintosh è collegato tramite il pannello posteriore al Processor B.

Il Processor B è detto il King Node in quanto è il primo ad essere caricato ("IPL") e provvede poi a caricare gli altri.

2.7 Multibus Crate #1

All'interno del Multibus Crate #1 sono alloggiate tre schede : Ethernet, MIO, BMA.

Ethernet : E' una scheda della EXCELAN. E' collegata al pannello posteriore dove c'è il connettore per il cavo del transceiver Ethernet.

MIO : E' una scheda della BBN. Può servire a gestire una linea sincrona secondo le specifiche degli standard internazionali V.35, RS232, etc. (configurabili sulla Motherboard) o una linea 1822 (standard BBN). Questa scheda non è attualmente utilizzata al CNUCE.

BMA : Butterfly Multibus Adapter. E' una scheda della BBN. Serve ad interfacciare il Bus esterno Multibus ad un Processor Node. E' collegata al Processor 3.

2.8 Multibus Crate #2

All'interno del Multibus Crate #2 sono alloggiate due schede : MIO e BMA.

MIO : Vedi sopra. Questa scheda gestisce la linea V.35 (connettore sul pannello posteriore) che collega il Butterfly Gateway tramite una linea a 48 Kbps, con il SIMP al FUCINO.

BMA : Vedi sopra. E' collegata al processor B.

3.0 Procedure Operative

3.1 Attivazione

- Premere POWER ON e attendere finché le luci rosse dei Processors non siano spente (effettuazione del self-test).
  Nota tra un Power Off ed il successivo Power On attendere almeno un minuto.

- Inserire i dischetti nei drive del Macintosh. Il dischetto marcato "INTERNAL DRIVE" va nel drive interno, quello marcato "EXTERNAL DRIVE" va nel drive esterno.

- Premere il tasto di RESET del GATEWAY.

- Quando il caricamento del software ha inizio, sullo schermo del Macintosh vengono stampati dei puntini ed alcuni messaggi. Il caricamento prosegue per circa 25 minuti. Normalmente l'ultimo messaggio sullo schermo è : Created process alpha: gateether 01d 3001818

- Il Macintosh mostra una sola "finestra" (window 0) dalla quale non è possibile dare comandi. Creando una seconda finestra (con CTL-G S, vedi prossimo paragrafo) si ottiene anche il "prompt" di accettazione dei comandi (vedi paragrafo 3.3).

3.2 Comandi Immediati

Il tasto CONTROL (CTL) è quello marcato ⌘ (clover key). Esso va tenuto premuto contenporaneamente ad un altro tasto per ottenere i comandi seguenti :

CTL-G S   Split screen: crea una nuova finestra.

CTL-G D   Delete window : elimina una finestra.

CTL-G +n   Amplia le dimensioni della finestra corrente di n righe.

CTL-G -n   Riduce le dimensioni della finestra corrente di n righe.

CTL-G n   Sposta il cursore sulla n-esima finestra.

CTL-G K   Kill: uccide il processo che sta girando in quella finestra.

CTL-P   Previous: richiama l' ultimo comando lanciato.

3.3 Comandi

I seguenti comandi vanno dati da una finestra che non sia la 0. Quindi se esiste solo la finestra 0 è necessario creare la finestra 1 con il comando CTL-G S (split).

Gstatus   gateway status

Ghalt   gateway halt

Gwinit -o   inizializza modo operativo (va dato dalla finestra 0).

TRAP   attivazione (disattivazione) della traccia selettiva.

     Trap p +n   attiva la stampa locale della traccia.

Trap p	-n	disattiva la stampa locale della traccia.
Trap n	+n	attiva l' invio al NOC della traccia.
Trap n	-n	disattiva l'invio al NOC della traccia.
Trap oper		ripristina il default.

Principali numeri delle trap (vedi elenco completo in appendice).

325	trap "link come up .... times".
326	trap HDLC link (linea Fucino-Pisa) checksum errors, hardware errors dall' ultimo reset.
327	trap numero dei frames HDLC.
328	trap numero dei frames HDLC con dati.
521	trap sulla board MIO.
522	trap sulla board MIO

Per mettere (togliere) la trappola, dopo aver aperto la finestra, si deve dare il comando:
Trap +(-) n

Proute   stampa il contenuto delle routing tables; ogni riga ha il seguente tracciato:

Dest-Net-Address   #of hops   Next-gateway   Interface-id

Showmem   display della memoria per ogni processor.

Rm " processname "   rimuove dalla memoria il processo specificato.

Kick -daddr **-s**addr **-p**n **-r**m **-t**i   Questo comando invia pacchetti di test.

     daddr   indirizzo del destinatario

     saddr   indirizzo del mittente

      n   numero di pacchetti al secondo (consigliato 1, comunque < 20)

      m   durata in secondi dell'invio

      i   tipo del pacchetto (normalmente 8 = echo request)

Printstats   mostra il risultato del comando Kick. (Da dare trascorsi gli m secondi).

Esempio : Verificare se l' IBM del CNUCE risponde e quindi quindi anche Ethernet funziona.
      Kick -d 192.12.192.2 -s192.12.192.1 -p1 -r3 -t8
      Printstats   dovrà stampare: packets sent 3 packet received 3.

3.4   *In caso di : CRASH*

Il crash del Gateway può essere riscontrato localmente o venire segnalato dal NOC (Network Operation Center).

In ogni caso occorre :

1. Riempire in ogni sua parte il modulo Malfunction Report (nella cartellina presso il Gateway) specificando il proprio nome, data e ora in cui è stato riscontrato il crash, stato delle luci sul pannello esterno e sulle board interne, messaggi che appaiono sullo schermo del Macintosh (ricordarsi di aumentare la

luminosità girando il nottolino sotto lo schermo) e le eventuali azioni intraprese per ripristinare il corretto funzionamento

2. Chiamare il NOC (se non si è stati da loro chiamati) 001 - 617 - 873 - 2900.

3. Segnalare lo stato della macchina e seguire le loro indicazioni.

4.0 Appendice

4.1 *Procedure Operative : Diagnostica*

Quando si accende (POWER ON) il Gateway i led verdi dei tre processor board si accendono. Viene effettuato un self-test segnalato dall' accensione dei led rossi per 30 secondi circa, trascorsi i quali, se qualche led rosso rimane acceso, questo indica un malfunzionamento sulla relativa scheda; a questo punto si può provare a rifare il power on di questa scheda usando il relativo micro switch.

Per caricare i diagnostici è necessario espellere i dischetti operativi.
Per espellere i dischetti : premere il bottone di reset del Macintosh (sul fianco sinistro il primo bottone verso la parte frontale) **mentre** si tiene premuto il bottone del mouse.

Inserire il dischetto dei diagnostici nel drive interno. Premere Reset sul pannello frontale.
(Il sottolineato va battuto a tastiera).

Terminal type :   larva < CR >
Shell to use   :   < CR >

SYSCHECK   Test generale

Switch 2 columns 1 path
Memory 3.00 m
3 1M Nodes
3 Nodes
Cage : 0 1 2 3 .... 7 .... B
               1   1   1
(N.B. : Ignorare i messaggi di errore seguenti)

POOLTEST   Test di Comunicazione tra i Processor

Any changes ?	< CR > (il default è YES)
Add node 3 ?	< CR >
Add node 7 ?	< CR >
Add node B ?	< CR >
Any changes ?	N
Any changes ?	< CR >

. . . .
. . . .

Verbosity level	0	
Loop on error	N	per fermarsi al primo errore incontrato.
	Y	per continuare il test ed avere il risultato finale.
Any changes ?	N	
Pooltest >	A	
Pooltest >	4	
Any changes ?	N	
Start test ?	Y	

(mentre il test gira si può ottenere il sommario degli errori battendo e).

Battere q una prima volta per fermare il test
Battere q una seconda volta per tornare al S.O.

<u>ETHER</u>   Test della Scheda Ethernet

Enter processor number : <u>3</u>
(La scheda Ethernet essendo sul Multibus #1 è gestita dal processor 3).
(Il test va in loop scrivendo "My Ethernet address is ..... ").

Battere <u>< CR ></u> per fermare il test.

<u>MEMTEST</u>   Test della Memoria

Memtest 3 range 20000 fffff (per la memoria del processor 3).
Memtest 7 range 20000 fffff (per la memoria del processor 7).

(Deve essere l' ultimo test perché distrugge il contenuto della memoria ed anche il Sistema Operativo).

Loop for ever ?   <u>Y</u>   (Ignorare i primi messaggi di errore).

Battere q per fermare il test. (Si ferma a completamento del passo di esecuzione).

4.2   Indirizzi   Utili

192.12.192.1	BUTTERFLY GW CNUCE	(lato Ethernet)
4.0.0.39	BUTTERFLY GW CNUCE	(lato Satnet)
192.12.192.2	CNUCE - VM	(IBM 3081)
192.12.192.30	CNUCE VAX	(Vax 8200)
192.12.192.4	CNUCE SUN	(Sun 3/140)
192.12.192.9	Token Ring GW	(Lato Ethernet)
192.12.193.9	Token Ring GW	(Lato Token Ring)
4.0.0.40	Echo SIMP	
4.0.0.93	Fucino Echo	
4.0.0.61	GW CSS	(Satnet)
10.2.0.28	GW CSS	(Arpanet)
4.0.0.24	GW DCEC	(Satnet)
10.1.0.20	GW DCEC	(Arpanet)
28.37.0.0	GW DCEC	(Wideband)
7.0.0.2	GW DCEC	(Edn)
4.0.0.38	GW NTARE	(Satnet)
4.0.0.60	UCL GW	(Satnet) Butterfly Inghilterra
4.0.0.25	RSRE-GW	(Satnet) Butterfly Inghilterra
10.0.0.51	SRI - NIC	

4.3   Conclusioni

Come si può ben vedere sono molti gli indirizzi di nodi di rete ai quali si può accedere mediante il Butterfly. Per poter tenere sotto controllo lo stato dei collegamenti fra le reti, che maggiormente interessano al CNUCE, ci si avvale di un PC su cui gira un programma che fa un monitoraggio delle reti in questione (ARPANET - SATNET - ETHERNET) e mostra i malfunzionamenti onde poter prendere quanto prima gli opportuni provvedimenti.

In allegato sono tre tavole molto semplici e di facile comprensione, che mostrano rispettivamente la situazione della linea a 48 kbps fra il Fucino e Pisa, la rete SATNET e la situazione delle principali reti sotto monitor del PC; segue, a termine, l' elenco completo delle **Trap** che si possono utilizzare.

Figura 5.

Arpa-Internet

1) BGsatnet (Butterfly lato Satnet)

2) BGether (Butterfly lato Ethernet)

3) dcecGsat (Butterfly lato Satnet)

4) dcecGarp (Butterfly lato Arpanet)

5) TRGW-eth (Gateway lato Ethernet)

6) TRG-tr (Gateway lato Token Ring)

7) VM

8) VAX

9) SUN

10) NTARE-GW (Gateway Norvegia)

11) UCL-GW (Gateway Inghilterra)

12) RSRE-GW (Gateway Inghilterra)

DCEC

4

3

10

Satnet

11

1

12

CNUCE

2

E t h e r n e t

7 8 9 5

VM VAX SUN GW

6

Token Ring
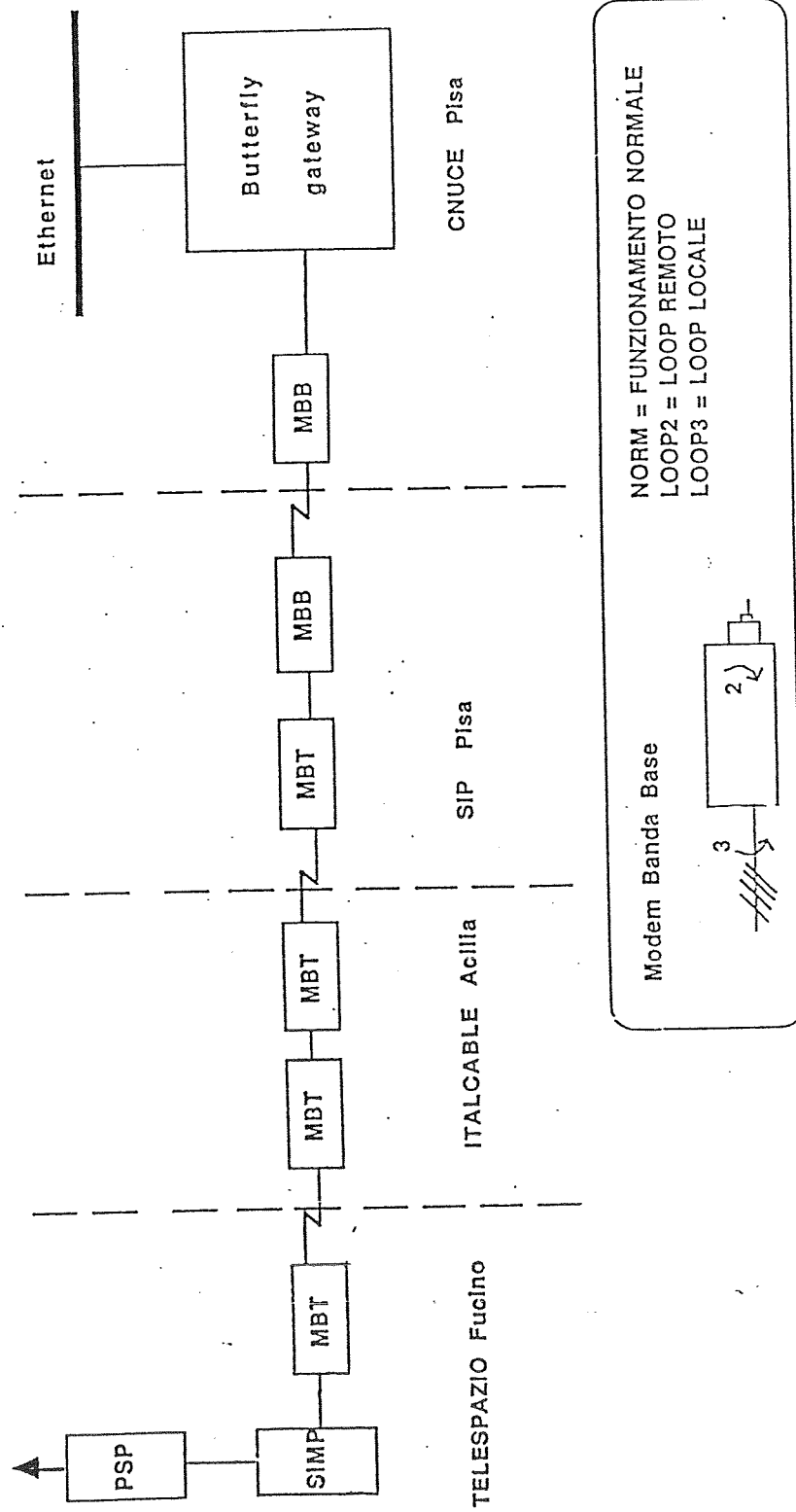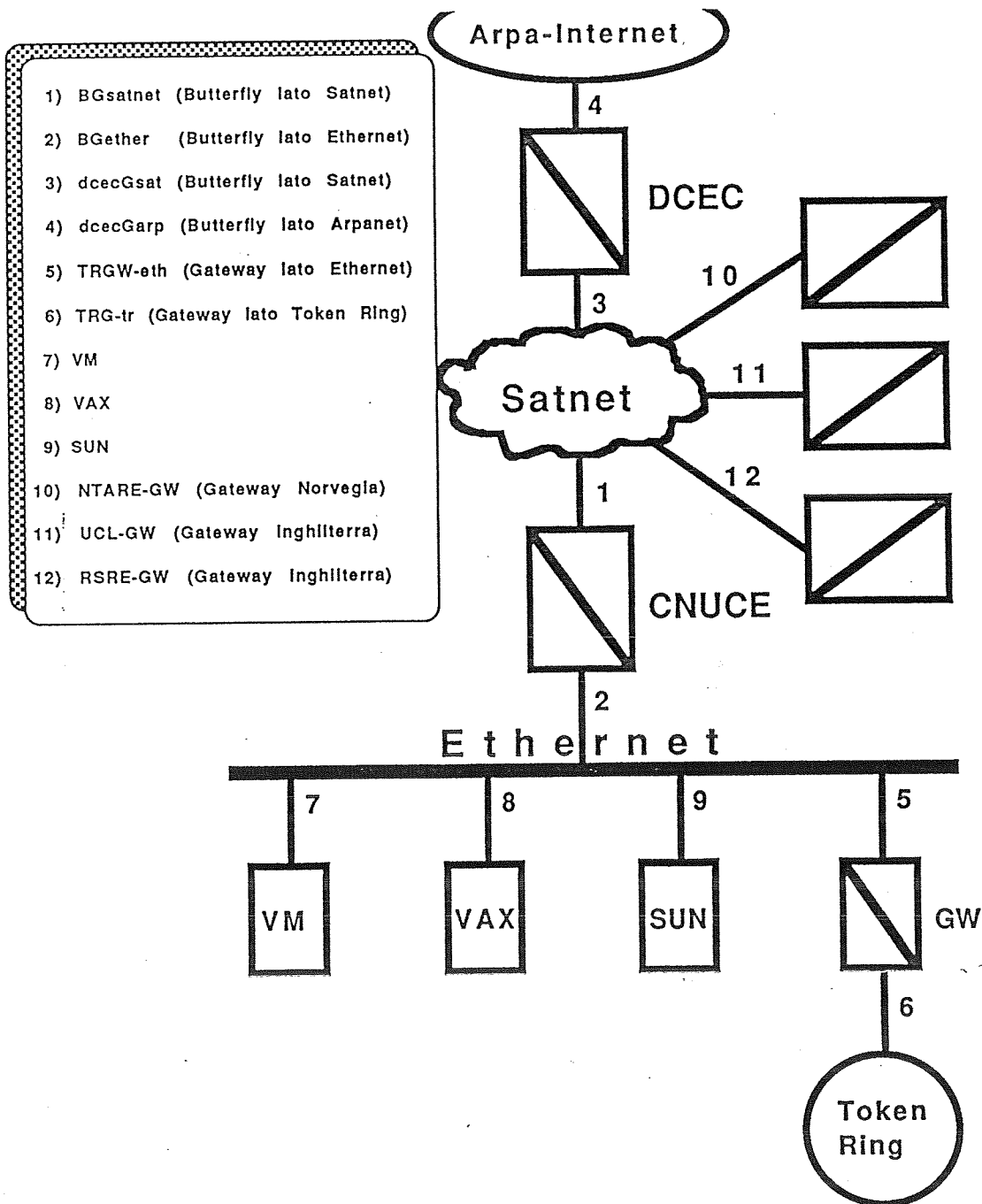
Figura 6.

SATNET
THE ATLANTIC PACKET SATELLITE NETWORK

INTELSAT V
ATLANTIC OCEAN REGION
MAJOR PATH 1
SATELLITE

NOC
CAMBRIDGE
MASS

NTA–TIU

NTA –
RING

TANUM
SWEDEN

NTARE
NORWAY

U.S.
ARPA
NET

G CSS

S — P

RAISTING
W. GERMANY

LOCAL
NET

ROARING CREEK
PENN
U.S.A.

G DCEC

Formerly at DFVLR
To be re-installed
at FGAN

CNUCE
NET

FUCINO
ITALY

CNUCE

SATNET

GOONHILLY
U.K.

G
UCL

RSRE – NULL

G
RSRE

UCL NET

RSRE–ACC

RSRE–EXP
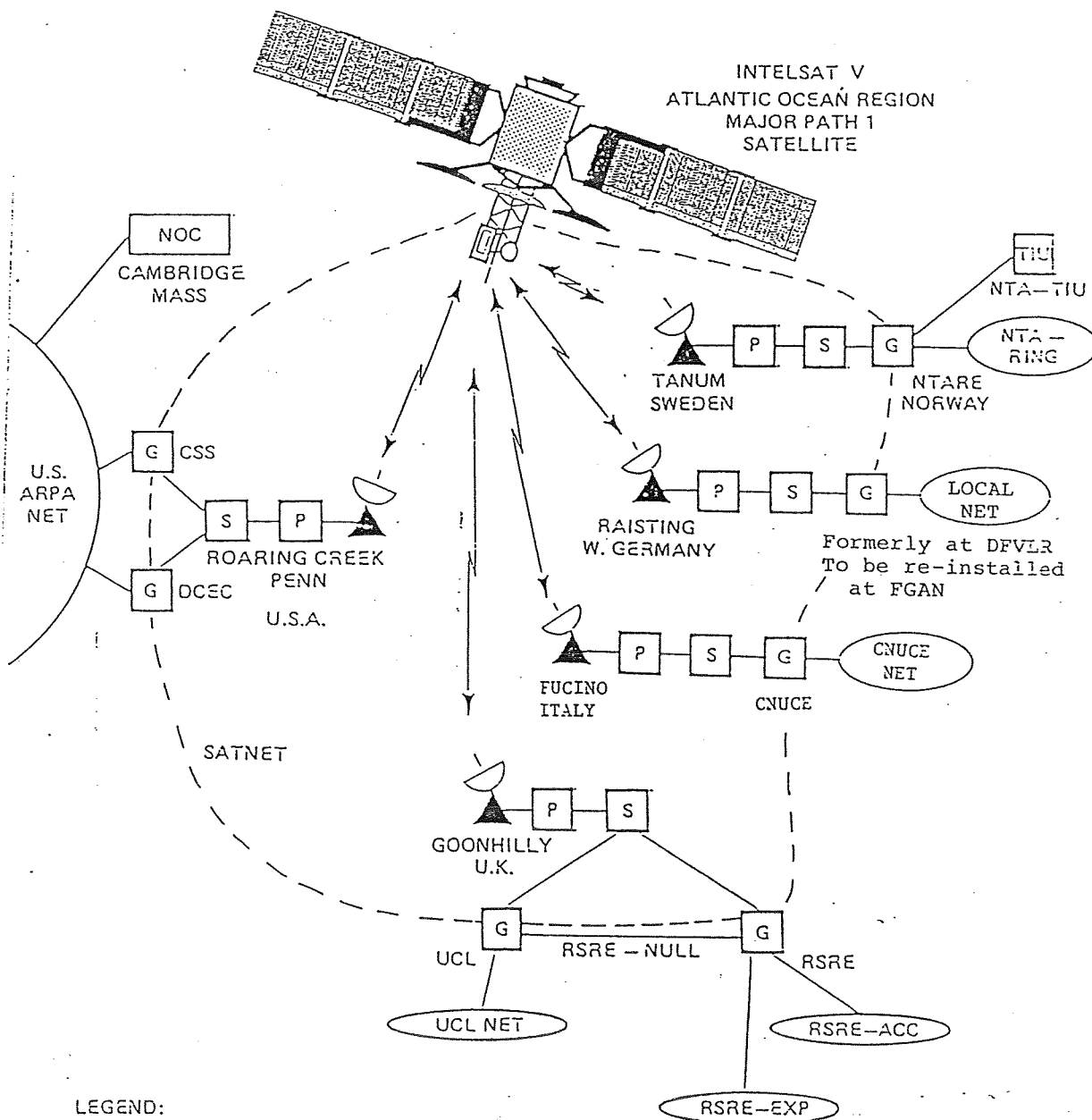
LEGEND:

G: INTERNET GATEWAY
NOC: BBN NETWORK OPERATIONS CENTER
P: ·   PACKET SATELLITE PROGRAM TERMINAL
S: SATELLITE INTERFACE MESSAGE PROCESSOR
TAC: TERMINAL ACCESS CONTROLLER
TIU: TERMINAL INTERFACE UNIT

Figura 7. Il Sistema di Reti SATNET

4.4 Elenco TRAP

```
./ahip/ahip.c 1042 Crash0  "" **PREV CRASH** AHIP requires no module above and one fo
./ahip/ahip.c 1043  TRAP_DEBUG  "d" AHIP IndexAsUpper is %d
./ahip/ahip.c 1044 Crash0  "" **PREV CRASH** AHIP requires module below and none foun
./ahip/ahip.c 1129  TRAP_FIRE  "dxx" AHIP: %d SubmitPacket reached when flow cntrlled
./ahip/ahip.c 1130 TRAP_FIRE "d" AHIP: %d dropped packet
./ahip/ahip.c 1136 TRAP_FIRE "d" AHIP: %d dropped SavePkt
./ahip/ahip.c 196 Crash2  "xd" **PREV CRASH** Pkt %x too long: %d bytes
./ahip/ahip.c 577  TRAP_DEBUG  "xx" AhipOutputAccept(%x, %x)
./ahip/ahip.c 578  TRAP_DEBUG  "dxx" AHIP: %d Flow Controlled by lower level, Pkt %x
./ahip/ahip.c 579  TRAP_DEBUG  "xx" AhipProduceEvent SavePkt = %x EH = %x
./ahip/ahip.c 580 TRAP_DEBUG "dx" AHIP: %d received and dropped packet with bad forma
./ahip/ahip.c 581 TRAP_DEBUG "ddd" AHIP: %d DATA packet size wrong (%d should be %d)
./ahip/ahip.c 582 TRAP_FIRE "dd" AHIP: %d Input on bad link %d
./ahip/ahip.c 583 TRAP_FIRE "dd" AHIP: %dIMP leader error, subtype %d
./ahip/ahip.c 584 TRAP_FIRE "d" AHIP: %d IMP going down
./ahip/ahip.c 585 TRAP_FIRE "dd" AHIP: NOP rcved with addr host %d imp %d
./ahip/ahip.c 586 TRAP_DEBUG "dddd" AHIP: %d Host %d Imp %d DEAD, subtype %d
./ahip/ahip.c 588 TRAP_DEBUG "ddd" AHIP: %d RFNM from IMP for host %d imp %d
./ahip/ahip.c 589 TRAP_DEBUG "dddd" AHIP: %d INCOMPLETE Received for Host %d Imp %d s
./ahip/ahip.c 590 TRAP_DEBUG "d" AHIP: %d IMP data error
./ahip/ahip.c 591 TRAP_FIRE "d" AHIP: %d RESET from IMP
./ahip/ahip.c 592 TRAP_DEBUG "dd" AHIP: %d Bad IMP type field (%d)
./ahip/ahip.c 593 TRAP_DEBUG "x" AHIP: received output packet for %x
./ahip/ahip.c 598 TRAP_DEBUG "dddd" AHIP: %d Host %d Imp %d DEAD STATUS, status = %d
./ahip/ahip.c 599 TRAP_FIRE "dx" AHIP: %d Bad address in nop %x
./ahip/ahip.c 835 TRAP_FIRE  "d" AHIP: %d dropped packet
./ahip/ahip.c 836 TRAP_DEBUG  "d" AHIP %d dropped packet
./ahip/ahip.c 838 TRAP_DEBUG "dxx" AHIP: %d host %d/%d appears to be DEAD
./ahip/ahip.c 839 TRAP_FIRE "d" AHIP: %d Unable to dequeue enough buffers for probe
./ahip/ahip.c 841  TRAP_FIRE  "d" AHIP: %d ProbeTimer fired; interface is down
./ahip/ahip.c 842  TRAP_DEBUG  "x" AHIP:Output output is %x
./ahip/ahip.c 890 TRAP_DEBUG  "xx" AHIP:Priority output is bufid %x bufptr %x
./ahip/ahip.c 895  TRAP_DEBUG  "sxd" AHIP %s Pkt %x nbytes %d
./ahip/ahip.c 896  TRAP_DEBUG  "sxd" AHIP %s Pkt %x nbytes %d
./ahip/ahip.c 949 TRAP_DEBUG "" AHIP: Driver is up was posted \n
./ahip/ahip.c 950 TRAP_DEBUG "" AHIP: RdyComeUp was posted \n
./ahip/ahip.c 951 TRAP_DEBUG "d" AHIP: %d Unable to dequeue enough buffers for NOPs\n
./ahip/ahip.c 954 TRAP_FIRE "" AHIP: %d is looped
./ahip/ahipmio.c 1132 Crash3 "xdd" **PREV CRASH** CheckUseCount: buf %x bad use_cnt %
./ahip/ahipmio.c 596  TRAP_DEBUG  "d" DriverInputDispose(%d bytes)
./ahip/ahipsyn.c 1018  TRAP_DEBUG  "xd" /*AhipOutputDispose %x, PktLength %d
./ahip/ahipsyn.c 1019  TRAP_DEBUG  "xx" /*HdhOutputDispose(%x, %x)
./ahip/ahipsyn.c 1020  TRAP_DEBUG  "x" /*HdhInputDispose(%x)
./ahip/ahipsyn.c 1021  TRAP_DEBUG  "x" /*AhipInputDispose(%x)
./ahip/hosts.c 1008 TRAP_DEBUG "dd" AHIP: Timed out free host block for %d/%d
./ahip/hosts.c 1009 TRAP_DEBUG "dd" AHIP: Timed out dead host block for %d/%d
./ahip/hosts.c 1045 TRAP_DEBUG "x" queue address: %x
./ahip/hosts.c 1137 TRAP_DEBUG "dddd" AHIP: # %d rxdata %d rxcntrl %d active host blo
./ahip/hosts.c 576 TRAP_DEBUG "ddd" Freed rfnm slot %d for %d/%d
./ahip/hosts.c 600 TRAP_DEBUG "ddd" GetBucket: imp(%d), host(%d) maps to %d
./ahip/hosts.c 601 TRAP_FIRE "dd" MakeHostEntry:cannot allocate AHIPHOSTBLOCK for %d/
./ahip/hosts.c 602 TRAP_DEBUG "dd" AHIP: FindHostEntry:cannot get the slot for %d/%d
./ahip/hosts.c 603 TRAP_DEBUG "dd" AHIP:FindHostEntry: No match found for %d/%d
./ahip/hosts.c 604 TRAP_FIRE "" AHIP:FindHostEntry:unable to make a new 1822 entry
./ahip/hosts.c 605 TRAP_DEBUG "ddx" AHIP:FindHostEntry: Found a match for %d/%d at %x
./ahip/hosts.c 606 TRAP_DEBUG "ddd" AHIP:Freeing unused rfnm slot %d for %d/%d
```

```
./ahip/hosts.c 607 TRAP_OPER "xx" Consistency: received rfnm for record %x with bad m
./ahip/hosts.c 806 TRAP_DEBUG "x" block address:      %x
./ahip/hosts.c 807 TRAP_DEBUG "x" block next:         %x
./ahip/hosts.c 808 TRAP_DEBUG "x" block prev:         %x
./ahip/hosts.c 809 TRAP_DEBUG "x" block queue:        %x
./ahip/hosts.c 810 TRAP_DEBUG "d" block id:           %d
./ahip/hosts.c 811 TRAP_DEBUG "d" block host:         %d
./ahip/hosts.c 812 TRAP_DEBUG "d" block imp:          %d
./ahip/hosts.c 813 TRAP_DEBUG "d" block status:       %d
./ahip/hosts.c 814 TRAP_DEBUG "x" block status date: %x
./ahip/hosts.c 815 TRAP_DEBUG "d" block rfnm count:   %d
./ahip/hosts.c 816 TRAP_DEBUG "dd" block %d ttl = %d
./ahip/hosts.c 817 TRAP_DEBUG "x" queue first:     %x
./ahip/hosts.c 818 TRAP_DEBUG "x" queue last:      %x
./ahip/hosts.c 819 TRAP_DEBUG "x" queue count:    ·%x
./ahip/hosts.c 821 TRAP_DEBUG "dddddx" AHIP: %d Host slot %d for %d/%d rfnm cnt %d w
./ahip/hosts.c 822 TRAP_DEBUG "ddd" AHIP:Timed out rfnm %d for %d/%d
./ahip/hosts.c 824 TRAP_DEBUG "dd" AHIP:Rfnm waitq exceeded for %d/%d so buffer is dr
./ahip/hosts.c 826 TRAP_DEBUG "d" block waitq count: %d
./biosyn/biosyn.c 861  TRAP_FIRE "" BioSyn LOOPED (BeLooped)
./biosyn/biosyn.c 862  TRAP_FIRE "" BioSyn UNLOOPED (BeUnlooped)
./biosyn/biosyn.c 878  TRAP_DEBUG "d" BioSyn IndexAsLower is %d
./biosyn/biosyn.c 879 Crash0 "" **PREV CRASH** BioSyn requires module above and none
./biosyn/biosyn.c 880 Crash0 "" **PREV CRASH** BioSyn requires no module below and o
./biosyn/biosyn.c 881 Crash4 "ssxd" **PREV CRASH** %s throwtext: %s, throwvalue 0x%x
./biosyn/biosyn.c 882  TRAP_OPER "s" BIO FAILED to %s
./biosyn/biosyn.c 883 Crash0 "" **PREV CRASH** BIO FAILED to unloop at initializatio
./biosyn/biosyn.c 888  TRAP_DEBUG "s" BioSyn setting event IS UP %s
./biosyn/biosyn.c 889  TRAP_DEBUG "" BioSyn setting event IS DOWN (SYNDisable)
./dispatch/dinit.c 253 Crash0 "" **PREV CRASH** something was on the Dispatch queue!
./dispatch/dispatch.c 1006 TRAP_FIRE "" Disp: Bad GGVER, dropping packet
./dispatch/dispatch.c 1017 TRAP_DEBUG "aaadddd" Disp: src %a: dest %a: next hop %a, o
./dispatch/dispatch.c 1032 TRAP_DEBUG "d" Disp: OUTPUT queue full; dropping packet -
./dispatch/dispatch.c 1046 TRAP_DEBUG "d" Disp: dropping packet; failed to charge to
./dispatch/dispatch.c 1095 TRAP_DEBUG "aaddd" Disp: src %a: dest %a, o_set %d, nbytes
./dispatch/dispatch.c 1115 TRAP_DEBUG "ddd" packets dropped copy %d, not copy %d not
./dispatch/dispatch.c 141 TRAP_FIRE "d" Disp: dropping packet from device %d; no IP H
./dispatch/dispatch.c 144 TRAP_DEBUG "d" Disp: dropping packet; failed to charge to d
./dispatch/dispatch.c 145 TRAP_DEBUG "" Disp: FORUS queue full; dropping packet
./dispatch/dispatch.c 146 TRAP_FIRE "I" Disp: dropping packet; don't fragment %I
./dispatch/dutil.c 1091 TRAP_FIRE "aaa" Disp: packet too short src %a: dest %a prev h
./dispatch/dutil.c 1108 TRAP_FIRE "aaa" Disp: packet too short src %a: dest %a prev h
./dispatch/dutil.c 114 TRAP_FIRE  "dd" Disp: bad IP version %d ( != %d)
./dispatch/dutil.c 115 TRAP_FIRE  "dd" Disp: bad IHL %d ( < %d )
./dispatch/dutil.c 116 TRAP_FIRE  "d" Disp: bad packet length %d
./dispatch/dutil.c 117  TRAP_FIRE  "xI" Disp: bad IP header cksum 0x%x %I
./dispatch/dutil.c 142 TRAP_DEBUG  "I" Disp: Time To Live expired on %I
./dispatch/dutil.c 149 Crash0 "" **PREV CRASH** MarkBuffers - too many buffers\n
./dispatch/dutil.c 150 Crash0 "" **PREV CRASH** MarkBuffers - too few buffers\n
./dispatch/dutil.c 151 Crash0 "" **PREV CRASH** CopyDirectly:not enough buffers\n
./dispatch/dutil.c 152 Crash0 "" **PREV CRASH** CopyDirectly:buffers left over\n
./dispatch/fragment.c 1014 TRAP_DEBUG "d" Disp: frag dropping packet on device %d
./dispatch/fragment.c 1014 TRAP_DEBUG "d" Frag: some buffer left %d
./dispatch/fragment.c 1014 TRAP_DEBUG "d" Frag: some buffer left %d
./dispatch/fragment.c 1029 TRAP_DEBUG "dd" Disp frag: data sent %d IP->FO %d
./dispatch/fragment.c 1030 TRAP_DEBUG "dd" Disp frag: IP->TL %d IP->MF %d
```

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```
./dispatch/fragment.c 1031 TRAP_DEBUG "dd" Disp frag: data sent %d IP->FO %d
./dispatch/fragment.c 1039 TRAP_DEBUG "dd" Disp frag:IP->TL %d IP->MF %d
./dispatch/fragment.c 1040 TRAP_DEBUG "dddd" BuffData %d nbytes %d, max %d, Buff %d
./dispatch/fragment.c 1096 TRAP_DEBUG "ddd" MTU %d, data_size %d ip->TL %d
./dispatch/fragment.c 1097 TRAP_DEBUG "xxddd" Disp: npkt %x: bnxt %x: maxs %d: nbytes
./dispatch/fragment.c 333 Crash0 "" **PREV CRASH** eek!! ran out of buffers
./dispatch/options.c 390 TRAP_DEBUG "xxI" Disp: parameter problem byte %x option %x I
./dispatch/routing.c 1022 TRAP_DEBUG "aaad" Disp GG src %a: dest %a: next hop %a: dev
./dispatch/routing.c 1023 TRAP_DEBUG "aaad" source %a dest %a next hop %a device %d
./dispatch/routing.c 1037 TRAP_DEBUG "a" Disp entering hash route with net %a
./dispatch/routing.c 629 TRAP_DEBUG "aaad" Disp IGP source %a: dest %a: next hop %a:
./dispatch/routing.c 775 TRAP_FIRE "aa" Disp gateway was invalid exit: source %a - de
./dispatch/routing.c 775 TRAP_FIRE "daa" Disp gateway was invalid exit: entry gwy %d
./dispatch/routing.c 775 TRAP_FIRE "daa" Disp gateway was invalid exit: entry gwy %d
./dispatch/routing.c 785 TRAP_DEBUG "aaad" Disp EGP source %a: dest %a: next hop %a:
./dispatch/routing.c 906 TRAP_DEBUG "aa" Disp src %a dest %a, can't find next hop
./egp/egp.c 1057  TRAP_DEBUG  "addsddds" EGP: %a R=%d S=%d %s Ht=%d Pt=%d St=%d%s
./egp/egp.c 1058  TRAP_DEBUG  "add"    net %a dist %d ttl %d
./egp/egp.c 1059  TRAP_DEBUG  "axxx" EGP: CntUp %a, bits %x, jk %x, jj %x
./egp/egp.c 1060  TRAP_DEBUG  "axxx" EGP: CntDn %a, bits %x, jk %x, kk %x
./egp/egp.c 1061 Crash1  "d" **PREV CRASH** CONFIG: EGP info has only %d numbers
./egp/egp.c 459 Crash4  "axdd" **PREV CRASH** EGP Event: neighbor %a (blk 0x%x) event
./egp/egp.c 462  TRAP_OPER  "a" EGP (CRASH!) should not send to indirect neighbor %a
./egp/egp.c 463  TRAP_FIRE  "ad" EGP neighbor %a using my AS# %d
./egp/egp.c 464  TRAP_FIRE  "Sxxa" EGP %s was %x, should be %x, from %a
./egp/egp.c 465  TRAP_FIRE  "dda" EGP length was %d, should be .ge. %d, from %a
./egp/egp.c 466  TRAP_FIRE  "ads" EGP new neighbor %a, auton sys %d, snd hlo=%s
./egp/egp.c 467  TRAP_DEBUG  "asss" EGPEvent: nbr %a, event %s, state %s->%s, action
./egp/egp.c 468  TRAP_FIRE  "adxxx" EGP: err msg from %a, code %d, hdr %x %x %x
./egp/egp.c 469  TRAP_FIRE  "a" EGP can't get buffer to send to %a
./egp/egp.c 735  TRAP_DEBUG  "aS" EGP -to- %a %s
./egp/egp.c 741  TRAP_OPER  "a" EGP: cannot remove %a because it is not a neighbor
./egp/egp.c 742  TRAP_DEBUG  "a" EGP FreeVars: drop neighbor %a
./egp/egp.c 745  TRAP_DEBUG  "aS" EGP from %a %s
./egp/egp.c 764  TRAP_DEBUG  "s" EGP pkt -- %s
./egp/egp.c 891  TRAP_OPER  "sdddddddddd" EGPInit: core=%s AS#=%d nets=%d nbrs=%d/%d P
./egp/egp.c 983  TRAP_FIRE  "a" EGP: no table space to add neighbor %a
./egp/egp.c 984  TRAP_OPER  "a" CONFIG: EGP no table space to initiate neighbor %a
./egp/egp.c 992  TRAP_FIRE  "ad" EGP SEND: interface to nbr %a down (%d)
./egp/gateegp.c 253 Crash0  "" **PREV CRASH** something was on the EGP queue!
./egp/gateegp.c 253 Crash0  "" **PREV CRASH** something was on the EGP queue!
./egp/gateegp.c 639  TRAP_FIRE  "a" EGP dropping packet to %a because DispatchQ is fu
./egp/gateegp.c 993  TRAP_FIRE  "aS" EGP neighbor %a is %S
./egp/getpacket.c 311  TRAP_DEBUG  "" /*GetPacket can't get first buffer
./egp/getpacket.c 313  TRAP_DEBUG  "dd" /*GetPacket only got %d bytes, wants %d
./egp/getpacket.c 317  TRAP_DEBUG  "d" /*GetPacket called for %d data bytes
./egp/maktab.c 1386  TRAP_FIRE  "d" EGP dispatch table lock waited %d time(s)
./egp/maktab.c 1387  TRAP_DEBUG  "ddd" EGP dispatch table switch to # %d, unused %d/%
./egp/maktab.c 1388  TRAP_OPER  "da" EGP disp table neighbor size %d overflow with nl
./egp/regp.c 1052  TRAP_DEBUG  "aa" EGP: no room for indirect nbr %a from %a
./egp/regp.c 1053  TRAP_FIRE  "aa" EGP: off-net routing request by nbr %a for net %a
./egp/regp.c 1054  TRAP_DEBUG  "sx" EGP RcvUpdate: throw because %s, val %x
./egp/regp.c 1055  TRAP_DEBUG  "aa" egp: IGNORE REPORT from %a about neighbor %a
./egp/regp.c 1056  TRAP_DEBUG  "ada" egp: route to net %a is %d hop(s) via %a
./egp/regp.c 1377  TRAP_DEBUG  "dx" EGP rcvd NR msg of %d bytes fm nbr %a
./egp/segp.c 1376  TRAP_DEBUG  "dxd" EGP sent NR msg of %d bytes to nbr %a (trunc = %
```

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```
./egp/segp.c 1378   TRAP_FIRE   "a"  EGP route: Net unreachable %a
./egp/segp.c 1379   TRAP_DEBUG  "xada" EGP SnarfNet: 0x%x, hop %a, dist %d, net %a
./egp/segp.c 1380   TRAP_DEBUG  "aa"   EGP omit route about self %a on comm net to nbr
./egp/segp.c 1381   TRAP_DEBUG  "ada"  EGP omit route(s) via nbr %a on same AS %d as
./egp/segp.c 1382   TRAP_DEBUG  "da"   EGP omit interior dist %d to int nbr %a
./egp/segp.c 1383   TRAP_DEBUG  "da"   EGP omit exterior dist %d to ext nbr %a
./egp/segp.c 1384   TRAP_DEBUG  "aa"   EGP omit our common net %a to rcvr %a
./egp/segp.c 1385   TRAP_DEBUG  "aada" EGP info to nbr %a: use %a, dist %d to %a
./egp/segp.c 945    TRAP_FIRE   "aa"  EGP: nbr %a polled us, asking for remote net %a
./ether/ether.c 1121  TRAP_DEBUG  "d6X" Ether#%d: IP broadcast from %6X dropped
./ether/ether.c 407   TRAP_FIRE   "d6Xdd" Ether#%d: ARP from %6X only %d long, need %d
./ether/ether.c 408   TRAP_FIRE   "d6Xdd" Ether#%d: ARP from %6X ar_hardware %d instead
./ether/ether.c 409   TRAP_FIRE   "d6Xdd" Ether#%d: ARP from %6X ar_hlen %d instead of
./ether/ether.c 410   TRAP_DEBUG  "dx6X" Ether#%d: unknown type 0x%x from %6X
./ether/ether.c 411   TRAP_FIRE   "d6Xdd" Ether#%d: ARP from %6X only %d long. Need %d
./ether/ether.c 412   TRAP_FIRE   "d6Xdd" Ether#%d: ARP from %6X, ar_plen %d instead of
./ether/ether.c 413   TRAP_FIRE   "d4D6X4D6X" Ether#%d: ARP from %6X, %4D->%6X claims o
./ether/ether.c 414   TRAP_FIRE   "d6X4D6X" Ether#%d: ARP from %6X, reply spoofs MYSELF
./ether/ether.c 415   TRAP_FIRE   "d6Xd" Ether#%d: ARP from %6X operation %d not recogn
./ether/ether.c 416   TRAP_DEBUG  "d4D6X" Ether#%d: flush address map entry %4D->%6X
./ether/ether.c 417   TRAP_DEBUG  "d4D6X" Ether#%d: install address map entry %4D->%6X
./ether/ether.c 418   TRAP_FIRE   "d4D6X6X" Ether#%d: IP %4D new EADDR %6X (old %6X)
./ether/ether.c 419   TRAP_DEBUG  "d4D" Ether#%d: send request for IP address %4D
./ether/ether.c 420   TRAP_DEBUG  "d4D" Ether#%d: output to %4D dropped; init not fini
./ether/ether.c 421   TRAP_DEBUG  "d4D" Ether#%d: still waiting for ARP reply from %4D
./ether/ether.c 422   TRAP_DEBUG  "d4D6X" Ether#%d: aged - remove map entry %4D->%6X
./ether/ether.c 898   TRAP_FIRE   "dd"  Ether#%d: arp table room for %d entries
./ether/ether.c 905   TRAP_DEBUG  "dx6X" Ether#%d: probe (type 0x%x) from %6X
./ether/exos.c 1122   Crash1  "d"  **PREV CRASH** Ether#%d: writeportB could not write t
./ether/exos.c 236    TRAP_FIRE   "dx" Ether#%d: SQE absent (xmit err code %x)
./ether/exos.c 237    TRAP_FIRE   "d"  Ether#%d: excessive collisions for transmission
./ether/exos.c 238    TRAP_FIRE   "d"  Ether#%d: no carrier.  Connected to net?
./ether/exos.c 239    TRAP_FIRE   "dx" Ether#%d: xmit length not in range (err cod %x)
./ether/exos.c 240    TRAP_FIRE   "dx" Ether#%d: xmit_err code %x
./ether/exos.c 241    TRAP_OPER   "ddd" Ether#%d: transmit %d .gt. max (%d) bytes?
./ether/exos.c 242    TRAP_OPER   "ddd" Ether#%d: transmit %d .gt. max (%d) buffers?
./ether/exos.c 243    TRAP_FIRE   "dx" Ether#%d: rcv error code %x
./ether/exos.c 244    TRAP_DEBUG  "d6X" Ether#%d: my local address is %6X
./ether/exos.c 246    TRAP_OPER   "dxxx" Ether#%d: mode (%x) is not %x or %x - making it
./ether/exos.c 429    TRAP_DEBUG  "dddddddd" Ether#%d: software maxru=%d in=%d out=%d c
./ether/exos.c 430    TRAP_DEBUG  "dddddddd" Ether#%d: board snt=%d col=%d tdr=%d rcd=%
./ether/exos.c 433    TRAP_FIRE   "d"  Ether#%d: Excelan reset timed out
./ether/exos.c 434    TRAP_FIRE   "d"  Ether#%d: board configuration timeout
./ether/exos.c 435    TRAP_FIRE   "dx" Ether#%d: board configuration fails - errcode 0x
./ether/exos.c 436    TRAP_OPER   "dxSxx" Ether#%d: writeportB throw cod 0x%x %s val 0x%
./ether/exos.c 437    TRAP_OPER   "dx" Ether#%d: exos bad reply code 0x%x
./ether/exos.c 438    TRAP_OPER   "dxd" Ether#%d: MULTICAST ADR?? rmask 0x%x aslot %d
./ether/exos.c 445    TRAP_OPER   "dxx" Ether#%d: no ethernet hardware on node '%x' at (
./ether/exos.c 446    Crash3  "ddx" **PREV CRASH** Ether: %d buffers do not have %d byte
./ether/exos.c 447    TRAP_OPER   "d"  Ether#%d: board waiting for alloc_request
./ether/exos.c 899    TRAP_FIRE   "dxdddd" Ether#%d: exos ioadr %x, msgs to %d, fm %d, m
./ether/gateether.c 1  Crash1  "d"  **PREV CRASH** Ether#%d: CONFIG Data not provided
./ether/slowdown.c 1146  TRAP_FIRE  "dd" process# %d: shutdown in %d seconds
./ether/we.c 1107   TRAP_FIRE   "dxx" Ether#%d: DOWN going from %x to %x (not 0 means d
./ether/we.c 900    TRAP_FIRE   "dxx" Ether#%d: UP going from %x to %x (0 means up)
./forus/amgen.c 311  TRAP_DEBUG   ""  /*GetInputPacket can't get first buffer
```

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```
./forus/amgen.c 313   TRAP_DEBUG  "dd" /*GetInputPacket only got %d bytes, wants %d
./forus/amgen.c 317   TRAP_DEBUG  "d" /*GetInputPacket called for %d data bytes
./forus/amgen.c 319   TRAP_DEBUG  "Id" MsgGen sending packet %I, Identifier=%d
./forus/amgen.c 406   TRAP_DEBUG  "Id" MsgGen received pkt %I, identifier=%d
./forus/forus.c 1033 Crash0  "" **PREV CRASH** something was on the ForUs queue!
./forus/forus.c 1100  TRAP_OPER  "" Gateway starting; no previous crash
./forus/forus.c 158 Crash2  "dd" **PREV CRASH** ForUs got pkt with IPHeaderOffset %d
./forus/forus.c 252   TRAP_DEBUG  "dI" ForUs: Protocol %d not implemented %I, sending
./forus/forus.c 476   TRAP_DEBUG  "I" ForUs: sending pkt: %I
./forus/forus.c 770   TRAP_DEBUG  "I" /*ForUs got pkt: %I
./forus/hmp.c 1034 Crash1  "d" **PREV CRASH** CollectMonitoreeResponses: Req %d not p
./forus/hmp.c 1035 Crash1  "x" **PREV CRASH** Only traps so far, got monitoree resp %
./forus/hmp.c 261   TRAP_OPER  "xI" Bad HMP checksum %x for %I
./forus/hmp.c 272   TRAP_OPER  "d" illegal constant part of HMP poll, byte # %d
./forus/hmp.c 278   TRAP_DEBUG  "" /*Monitoring tick occurred
./forus/hmp.c 279   TRAP_DEBUG  "d" Starting Monitoring state machine %d
./forus/hmp.c 280   TRAP_DEBUG  "x" /*Sending Monitoring request %d to monitorees
./forus/hmp.c 284   TRAP_OPER  "d" HMP R-Subtype %d is illegal
./forus/hmp.c 287   TRAP_OPER  "" Incomplete HMP parameter received
./forus/hmp.c 288   TRAP_OPER  "" Incomplete HMP parameter value received
./forus/hmp.c 329   TRAP_OPER  "" Can't get buffers for HMP reply
./forus/hmp.c 334   TRAP_OPER  "" Packet physically too short for fixed part of HMP he
./forus/hmp.c 335   TRAP_OPER  "" Packet physically too short for end of HMP header
./forus/hmp.c 336   TRAP_OPER  "d" IP pkt TotalLen %d too short for HMP header
./forus/hmp.c 337   TRAP_OPER  "d" IP pkt TotalLen %d too short for end of HMP header
./forus/hmp.c 448   TRAP_FIRE  "d" Illegal or unimplemented HMP poll %d
./forus/hmp.c 630   TRAP_OPER  "d" Unknown HMP control parameter %d ignored
./forus/hmp.c 631   TRAP_OPER  "" Gateway restart requested; crashing
./forus/hmp.c 632 Crash3  "dsA" **PREV CRASH** Restart requested; crashing; Test junk
./forus/hmp.c 865   TRAP_OPER  "d" Illegal HMP system type %d
./forus/icmp.c 1074  TRAP_FIRE  "" Unable to build ICMP Error msg; freeing buf
./forus/icmp.c 1075  TRAP_FIRE  "I" ICMP: Error checksumming packet
./forus/icmp.c 256   TRAP_FIRE  "xI" Bad ICMP checksum %x for pkt %I; packet dropped
./forus/icmp.c 257   TRAP_FIRE  "I" ForUs: rcvd ECHO REQUEST %I
./forus/icmp.c 258   TRAP_FIRE  "I" ForUs: rcvd TIMESTAMP REQUEST %I
./forus/icmp.c 450   TRAP_DEBUG  "I" ICMP: Can't get buf re: %I
./forus/icmp.c 451   TRAP_FIRE  "I" ForUs: rcvd ECHO REPLY %I
./forus/icmp.c 452   TRAP_FIRE  "dI" ICMP type %d not impl, pkt %I
./forus/icmp.c 453   TRAP_FIRE  "I" ForUs: rcvd TIMESTAMP REPLY %I
./forus/icmp.c 723   TRAP_DEBUG  "daI" Sending ICMP Unreachable, code %d to %a re: %I
./forus/icmp.c 724   TRAP_FIRE  "daI" Sending ICMP Source Quench, code %d to %a re: %I
./forus/icmp.c 726   TRAP_DEBUG  "daaI" Sending ICMP Redirect, code %d via %a to %a re
./forus/icmp.c 727   TRAP_FIRE  "daI" Sending ICMP Time Exceeded, code %d to %a re: %I
./forus/icmp.c 728   TRAP_FIRE  "ddaI" Sending ICMP Parameter Problem, code %d at offs
./forus/icmp.c 729   TRAP_FIRE  "ddxaI" Sending ICMP error, type %d, code %d, misc %x
./forus/ipassemble.c 1015  TRAP_FIRE  "I" ForUs: first fragment ignored: %I
./forus/ipassemble.c 1389  TRAP_FIRE  "xx" ForUs: bad protocol %x from %x
./forus/ipassemble.c 1390  TRAP_FIRE  "aax" IPAssemble: no table room; drop %x->%x id
./forus/ipassemble.c 1391  TRAP_FIRE  "xdd" IPAssemble: fragment at 0x%x with %d buff
./forus/ipassemble.c 1392  TRAP_DEBUG  "xdddd" IPAssemble: frag at 0x%x with %d buffs
./forus/ipassemble.c 1393  TRAP_FIRE  "xdddd" IPAssemble: overlap pkt from %x; lo %d
./forus/ipassemble.c 1394  TRAP_DEBUG  "xxxdd" IPAssemble: part %x->%x id/pr %x, byte
./forus/ipassemble.c 1395  TRAP_FIRE  "xdd" IPAssemble: Crash? pkt %x returning %d bu
./forus/ipassemble.c 1396  TRAP_DEBUG  "aadxx" IPAssemble: complete pkt %x->%x len %d
./forus/ipassemble.c 1397  TRAP_DEBUG  "xdd" Merge: pkt1 at 0x%x lo byt %d hi byt %d
./forus/ipassemble.c 1398  TRAP_DEBUG  "xdd" Merge: pkt2 at 0x%x lo byt %d hi byt %d
```

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./forus/ipassemble.c 1399  TRAP_FIRE   "aaxdd" IPAssemble: timeout pkt %x->%x id/pr %x
./forus/ipassemble.c 255   TRAP_FIRE   "I" ForUs: IP non-first fragment ignored: %I
./forus/mgen.c 1213  TRAP_OPER   "dd" On previous Message generator run: packets sent=
./forus/mgen.c 259   TRAP_OPER   "dddaa" Msg Gen starting, Time %d, Interval %d, TotalL
./forus/mgen.c 260   TRAP_OPER   "dd" Message generator off. Packets Sent: %d Rcvd: %d
./forus/mgen.c 289   TRAP_OPER   "" /*Msg Gen On
./forus/mgen.c 290   TRAP_OPER   "" /*Msg Gen Off
./forus/mgen.c 310   TRAP_DEBUG  "20X" /*Msg Gen on request, parameters %20X
./forus/mgen.c 311   TRAP_DEBUG  "" /*GetInputPacket can't get first buffer
./forus/mgen.c 311   TRAP_DEBUG  "" /*GetInputPacket can't get first buffer
./forus/mgen.c 313   TRAP_DEBUG  "dd" /*GetInputPacket only got %d bytes, wants %d
./forus/mgen.c 313   TRAP_DEBUG  "dd" /*GetInputPacket only got %d bytes, wants %d
./forus/mgen.c 314   TRAP_OPER   "" /*Can't get complete msg gen packet
./forus/mgen.c 317   TRAP_DEBUG  "d" /*GetInputPacket called for %d data bytes
./forus/mgen.c 317   TRAP_DEBUG  "d" /*GetInputPacket called for %d data bytes
./forus/mgen.c 319   TRAP_DEBUG  "I" MsgGen sending packet %I
./forus/mgen.c 319   TRAP_DEBUG  "I" MsgGen sending packet %I
./forus/mgen.c 392   TRAP_DEBUG  "d" /*MsgGen processing return token %d
./forus/mgen.c 393   Crash0  "" **PREV CRASH** MsgGen return queue started out nonempty
./forus/mgen.c 406   TRAP_DEBUG  "I" MsgGen received pkt %I
./forus/mgen.c 406   TRAP_DEBUG  "I" MsgGen received pkt %I
./forus/mgen.c 423   TRAP_FIRE   "dd" error in mgen data, expected %d, got %d
./forus/mgen.c 424   Crash2  "dd" **PREV CRASH** MsgGen tried to write hdr %d bytes, wr
./forus/mgen.c 425   Crash2  "dd" **PREV CRASH** MsgGen tried to write pattern %d bytes
./forus/mgen.c 439   TRAP_OPER   "" Attempt to start already-running msg gen ignored
./forus/oldggp.c 634   TRAP_DEBUG  "Id" OldGGP pkt %I rcvd, oldggp type %d
./forus/oldggp.c 635   TRAP_FIRE   "d" OldGGP type %d not implemented
./forus/oldggp.c 637   TRAP_FIRE   "d" OldGGP packet with use count=%d
./gwinit/comminit.c 1047  Crash0  "" **PREV CRASH** gwint: Can't find net in table\n
./gwinit/comminit.c 1048  Crash0  "" **PREV CRASH** gwinit: Can't find net in table\n
./gwinit/comminit.c 1049  Crash0  "" **PREV CRASH** gwinit: Can't find net in table\n
./gwinit/gwinit.c 283   Crash1   "" **PREV CRASH** gwinit arg must be 0-%d characters lo
./gwinit/gwinit.c 626   TRAP_OPER "sddd" GATEWAY - %s; number %d version %d started %d
./hap/hapcontrol.c 348   TRAP_DEBUG   "" /*HAP status message while disabled
./hap/hapcontrol.c 349   TRAP_DEBUG   "" /*HAP RR message while disabled
./hap/hapcontrol.c 350   TRAP_DEBUG   "" /*HAP RC message while disabled
./hap/hapcontrol.c 351   TRAP_DEBUG   "d" /*Bogus HAP event %d while disabled
./hap/hapcontrol.c 353   TRAP_DEBUG   "" /*HAP status msg during restart
./hap/hapcontrol.c 354   TRAP_DEBUG   "a" HAP %a RR_SNT: Received RR
./hap/hapcontrol.c 355   TRAP_DEBUG   "a" HAP RR_SNT: Received RC
./hap/hapcontrol.c 356   TRAP_DEBUG   "d" Bogus HAP event %d
./hap/hapcontrol.c 358   TRAP_DEBUG   "a" HAP %a RC_SNT: Recieved RR: resetting
./hap/hapcontrol.c 359   TRAP_DEBUG   "a" HAP %a RC_SNT: Recieved RC: starting
./hap/hapcontrol.c 360   TRAP_DEBUG   "d" Bogus HAP event %d
./hap/hapcontrol.c 361   TRAP_OPER    "a" HAP Link %a up
./hap/hapcontrol.c 362   TRAP_DEBUG   "" /*HAP_on: No event
./hap/hapcontrol.c 363   TRAP_OPER    "a" %a HAP status timeout; taking link down; reset
./hap/hapcontrol.c 364   TRAP_FIRE    "a" %a HAP_ON: Received RestartRequest; resetting
./hap/hapcontrol.c 365   TRAP_DEBUG   "a" %a HAP_ON: Received RC
./hap/hapcontrol.c 366   TRAP_DEBUG   "d" Bogus HAP event %d
./hap/hapcontrol.c 367   TRAP_DEBUG   "d" Bogus HAP state %d.
./hap/hapcontrol.c 368   TRAP_DEBUG   "s" /*HAP Can't make %s message
./hap/hapcontrol.c 369   TRAP_DEBUG   "as" HAP %a Sent %s message
./hap/hapcontrol.c 370   TRAP_DEBUG   "as" HAP %a: can't send %s message
./hap/hapcontrol.c 371   TRAP_DEBUG   "xdd" HAP Control Pkt Illegal Len: mcw=%x Length
./hap/hapcontrol.c 372   TRAP_DEBUG   "xx" Bad HAP Checksum: theirs was %x mine was %x
```

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./hap/hapcontrol.c 373   TRAP_DEBUG   "a" HAP %a: Received AR message
./hap/hapcontrol.c 374   TRAP_DEBUG   "a" HAP %a: Received UR message
./hap/hapcontrol.c 375   TRAP_DEBUG   "ad" HAP %a: Recd NOP msg with bad length, %d
./hap/hapcontrol.c 376   TRAP_DEBUG   "a" HAP %a: Received NOP message
./hap/hapcontrol.c 379   TRAP_DEBUG   "x" /*HAP Bogus control message, mcw=%x
./hap/hapcontrol.c 897   TRAP_FIRE    "axx" Hap %a dropping Pkt %x in order to save RR %
./hap/hapevents.c 386    TRAP_DEBUG   "adddddddd" HAP at %a sent status msg # %d:  rne %
./hap/hapevents.c 952    TRAP_DEBUG   "a" HAP %a ProduceEvent couldn't dispose of SavePk
./hap/hapin.c 339   TRAP_DEBUG   "xd" Hap Data Pkt %x Illegal Length: %d
./hap/hapin.c 340   TRAP_DEBUG   "" Hap STREAM pkt received
./hap/hapin.c 341   TRAP_DEBUG   "x" Hap pkt %x without IP header received
./hap/hapin.c 342   TRAP_DEBUG   "xx" Bad HAP Checksum: theirs was %x mine was %x
./hap/hapin.c 343   TRAP_DEBUG   "" HAP Forwarding received pkt with data error
./hap/hapin.c 344   TRAP_DEBUG   "2D" Hap destination %2D is not us(%2D)
./hap/hapin.c 345   TRAP_OPER    "" Detected Hap LOOP
./hap/hapin.c 346   TRAP_DEBUG   "x" HAP hdwr fmt err: %x
./hap/hapin.c 347   TRAP_DEBUG   "x" HAP Pkt %x:  received HARDWARE checksum error
./hap/hapin.c 381   TRAP_DEBUG   "xdxx" /*HAP IN:  Pkt %x Length %d MCW %x Checksum %x
./hap/hapinit.c 352   TRAP_DEBUG  "a" Hap Link %a down
./hap/hapinit.c 827 Crash0 "" **PREV CRASH** Hap requires no module above and one fou
./hap/hapinit.c 828   TRAP_DEBUG  "sd" Hap IndexAs%s is %d
./hap/hapinit.c 829 Crash0 "" **PREV CRASH** Hap requires module below and none foun
./hap/hapintmod.c 830   TRAP_DEBUG   "s" HAP setting command %s
./hap/hapintmod.c 831   TRAP_OPER    "as" HAP at %a %s link as requested
./hap/hapintmod.c 941   TRAP_DEBUG   "" HAP DeviceReset
./hap/hapintmod.c 943   TRAP_DEBUG   "axx" HapLowerIsUp %a, WaitingForUpEvent %x, SaveP
./hap/hapout.c 380   TRAP_DEBUG   "xdxx" /*HAP OUT:  Pkt %x Length %d MCW %x Checksum %
./hap/hapout.c 944   TRAP_DEBUG   "s" %s waiting for lower is up event
./hap/hapout.c 947   TRAP_DEBUG   "x" %a HapSend already have SavePkt %x
./hap/hapsyn.c 305   TRAP_DEBUG   "xx" /*HapOutputDispose(%x, %x)
./hap/hapsyn.c 894   TRAP_DEBUG   "xd" /*HapInputDispose Pkt %x Length %d
./hdh/hdhcontrol.c 470   TRAP_DEBUG   "sx" Hdh%s:  saving control frame %x
./hdh/hdhevents.c 1117   TRAP_DEBUG   "dddd" HDH:  DataStopped %d DataGoAhead %d CtlSto
./hdh/hdhevents.c 1118   TRAP_DEBUG   "x" HDHFragSendEvent couldn't dispose of SaveFrag
./hdh/hdhevents.c 1119   TRAP_DEBUG   "sxxx" HDH%s couldn't dispose of SaveCtl %x (Save
./hdh/hdhevents.c 483   TRAP_DEBUG   "x" HdhFragSendEvent SaveFrag = %x, SavePkt = %x
./hdh/hdhevents.c 484   TRAP_DEBUG   "sx" Hdh%sEvent SavePkt = %x
./hdh/hdhevents.c 485   TRAP_DEBUG   "xx" HdhFragBufferEvent BUFID %x, NewFragBuf %x
./hdh/hdhevents.c 486   TRAP_DEBUG   "ddddddd" HDH FRAMES: sent %d; rcvd %d; BYTES: se
./hdh/hdhevents.c 492   TRAP_OPER    "d" HDH host declared LINE DOWN after %d secs
./hdh/hdhevents.c 494   TRAP_DEBUG   "x" HdhCtlBufferEvent BUFID = %x
./hdh/hdhevents.c 498   TRAP_DEBUG   "x" HdhCtlOutEvent SaveCtl = %x
./hdh/hdhin.c 456   TRAP_DEBUG   "x" /*HdhInputAccept(%x)
./hdh/hdhin.c 457   TRAP_OPER    "s" HDH detected %s
./hdh/hdhin.c 488   TRAP_FIRE    "xdd" HDH protocol violation:  Pkt %x; ByteCount %d; Pk
./hdh/hdhin.c 489   TRAP_FIRE    "xdd" HDH Pkt %x rcvd with ByteCount %d when MaxLength
./hdh/hdhin.c 491   TRAP_FIRE    "x" HdhMessageModeInput:  SOM and EOM not both set in P
./hdh/hdhin.c 495   TRAP_FIRE    "x" HDH:  no SOM rcvd for pkt %x -- discarding
./hdh/hdhin.c 638   TRAP_DEBUG   "xd" /******HDH pkt mode: L3 gets pkt with 1st buf_nby
./hdh/hdhin.c 801   TRAP_DEBUG   "x" /*HDH dropping frame %x: rcvd seq break and no SOM
./hdh/hdhin.c 804   TRAP_FIRE    "x" HDH:  no EOM for Pkt %x; discarding
./hdh/hdhinit.c 1051   TRAP_DEBUG   "ss" HDH: %s seq break (%s)
./hdh/hdhinit.c 789   TRAP_DEBUG   "sd" Hdh IndexAs%s is %d
./hdh/hdhinit.c 790 Crash1 "s" **PREV CRASH** Hdh requires module %s and none found
./hdh/hdhintmod.c 788   TRAP_DEBUG   "s" Hdh setting %s
./hdh/hdhonly.c 496   TRAP_DEBUG   "x" /*HdhInputDispose(%x)
```

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./hdh/hdhonly.c 497   TRAP_DEBUG   "xx" /*HdhOutputDispose(%x, %x)
./hdh/hdhonly.c 507   TRAP_DEBUG   "xx" /*HdlcOutputDispose(%x, %x)
./hdh/hdhonly.c 508   TRAP_DEBUG   "sxd" /*%sInputDispose(%x), length %d
./hdh/hdhonly.c 509   TRAP_DEBUG   "x" /*HdlcInputDispose(%x)
./hdh/hdhout.c 487    TRAP_DEBUG   "xxxxx" /*HdhOutputAccept(%x, %x) LineIsUp %x, SavePk
./hdh/hdhout.c 608    TRAP_DEBUG   "xd" /*HDH EOM for Pkt %x data frags %d
./hdh/hdhout.c 610    TRAP_DEBUG   "xd" /*HDH CalculateNumFrags:  buf_nbytes 0x%x = %d
./hdh/hdhout.c 611    TRAP_DEBUG   "dd" /*---HDH Middle frag: NBytes %d, buf_nbytes %d
./hdh/hdhout.c 633    TRAP_DEBUG   "xxxddd" /*HDH BuildNextFrag: Pkt %x buf_next %x buf_
./hdh/hdhout.c 636    TRAP_DEBUG   "d" /*========HDH NumDataFragsNeeded is %d
./hdh/hdhout.c 687    TRAP_DEBUG   "xd" /*HDH EOM for %x going out is %d
./hdh/hdhout.c 805    TRAP_FIRE    "xx" HDH inconsistency:  OrigPkt is %x but have a new
./hdlc/hdlconly.c 192 TRAP_DEBUG   "xx" /*HdlcOutputDispose(%x, %x)
./hdlc/hdlconly.c 194 TRAP_DEBUG   "x" /*HdlcInputDispose(%x)
./hdlc/hdlconly.c 892 TRAP_DEBUG   "xx" /*L3InputDispose(%x), length %d
./hdlc/l2_act.c 1071  TRAP_DEBUG   "x" HDLC: vszero SavePkt is %x
./hdlc/l2_act.c 183   TRAP_OPER    "" HDLC Link Up
./hdlc/l2_act.c 184   TRAP_OPER    "" HDLC Link Down
./hdlc/l2_act.c 199   TRAP_FIRE    "xxx" Hdlc: sending FRMR, bytes %x %x %x.
./hdlc/l2_events.c 216 TRAP_DEBUG  "x" /*HdlcNewPktEVENT:  SavePkt is %x
./hdlc/l2_events.c 217 TRAP_DEBUG  "x" HdlcRetransEVENT SavePkt %x
./hdlc/l2_events.c 321 TRAP_DEBUG  "dd" HDLC STATS FOR LAST %d SECONDS:  link came u
./hdlc/l2_events.c 322 TRAP_DEBUG  "dd" HDLC %d checksum errors, %d hardware errors
./hdlc/l2_events.c 323 TRAP_DEBUG  "dddd" HDLC ALL traffic:  FRAMES:  %d in; %d out;
./hdlc/l2_events.c 324 TRAP_DEBUG  "dddd" HDLC DATA traffic:  FRAMES:  %d in; %d out
./hdlc/l2_events.c 325 TRAP_DEBUG  "d" HDLC CUMULATIVE STATS:  link came up %d times
./hdlc/l2_events.c 326 TRAP_DEBUG  "dd" HDLC %d checksum errors; %d hardware errors
./hdlc/l2_events.c 327 TRAP_DEBUG  "dddd" HDLC ALL traffic:  FRAMES:  %d in; %d out;
./hdlc/l2_events.c 328 TRAP_DEBUG  "dddd" HDLC DATA traffic:  FRAMES:  %d in; %d out
./hdlc/l2_in.c 1082   TRAP_DEBUG   "sxx" HDLC: %s flushing pkt %x addr %x
./hdlc/l2_in.c 1083   TRAP_DEBUG   "x" HDLC l2_in, keep is 0, so flushing pkt %x
./hdlc/l2_in.c 193    TRAP_DEBUG   "x" /*HdlcInputAccept(%x)
./hdlc/l2_in.c 197    TRAP_DEBUG   "sx" HDLC:  output ok now; %s posting %x
./hdlc/l2_in.c 227    TRAP_FIRE    "dxxx" /*HDLC l2_MATCH case #%d, actions=%x, out rsp=%
./hdlc/l2_in.c 269    TRAP_DEBUG   "x" Hdlc rcvd hardware error pkt %x
./hdlc/l2_in.c 270    TRAP_DEBUG   "x" Hdlc rcvd hdwr checksum error pkt %x
./hdlc/l2_init.c 1005 TRAP_DEBUG   "sd" Hdlc IndexAs%s is %d
./hdlc/l2_intmod.c 782 TRAP_DEBUG  "s" Hdlc setting %s
./hdlc/l2_out.c 1081  TRAP_DEBUG   "sxx" HDLC: %s pkt %x control %x
./hdlc/l2_out.c 1103  TRAP_DEBUG   "x" HDLC RetransFrame %x
./hdlc/l2_out.c 1104  TRAP_DEBUG   "x" HDLC IFrame %x flow controlled
./hdlc/l2_out.c 1124  TRAP_FIRE    "" HDLC called while module above is flow controlled
./hdlc/l2_out.c 230   TRAP_DEBUG   "" /*HDLC l2_out_ok xbusy
./hdlc/l2_out.c 231   TRAP_DEBUG   "" /*HDLC l2_out_ok timer-rec, LAPB
./hdlc/l2_out.c 232   TRAP_DEBUG   "d" /*HDLC l2_out_ok exhausted localk=%d
./hdlc/l2_util.c 1069 TRAP_DEBUG   "xddd" HDLC: l2_k_out flushing %x oftab[%d], usecn
./hdlc/l2_util.c 198  TRAP_DEBUG   "ssxddddd" /*HDLC l2_%s  State=%s  SCond=%x Vs=%d
./hdlc/l2_util.c 200  TRAP_DEBUG   "xxd" /*HDLC l2_get: GetInputBuffer(%x, %x, %d): NU
./hdlc/l2_util.c 206  TRAP_DEBUG   "dx" **********>HDLC ACK %d pkt %x
./hdlc/l2_util.c 207  TRAP_DEBUG   "xd" HDLC l2_flush:  BUFID %x, usecnt %d
./hdlc/l2_util.c 208  TRAP_FIRE    "xdxx" HDLC l2_print:  buffer = %x,  len = %d(dec),
./hdlc/l2_util.c 209  TRAP_FIRE    "d" HDLC l2_print:  Frame too short, length is %d.
./hdlc/l2_util.c 210  TRAP_FIRE    "x" HDLC l2_print:  Illegal address: %x
./hdlc/l2_util.c 211  TRAP_FIRE    "sdddd" HDLC l2_print:  %s IFRAME: N(S) = %d, N(R) =
./hdlc/l2_util.c 212  TRAP_FIRE    "sd" HDLC l2_print:  %s IFRAME too short, length %d
./hdlc/l2_util.c 214  TRAP_FIRE    "xd" HDLC l2_print:  S frame too long, control is %x
```

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./hdlc/l2_util.c 215  TRAP_FIRE   "sdd" HDLC l2_print:  %s, N(R) = %d, P/F = %d
./hdlc/l2_util.c 218  TRAP_FIRE   "xd" HDLC l2_print:  Incorrect U frame length, contr
./hdlc/l2_util.c 219  TRAP_FIRE   "sd" HDLC l2_print:  %s, P/F = %d
./hdlc/l2_util.c 220  TRAP_FIRE   "xxx" HDLC l2_print:  Rejected bytes:  %x, %x, %x
./hdlc/l2_util.c 791  TRAP_OPER   "ds" Hdlc device %d acting %s
./hsp/hspcontrol.c 640  TRAP_DEBUG   "d" HSP Control Pkt Illegal Length %d
./hsp/hspcontrol.c 641  TRAP_DEBUG   "s" HSP %s message while disabled
./hsp/hspcontrol.c 642  TRAP_DEBUG   "d" Bogus HSP event %d
./hsp/hspcontrol.c 644  TRAP_DEBUG   "s" HSP_init: rcvd %s
./hsp/hspcontrol.c 645  TRAP_DEBUG   "" HSP_waiting: Rcvd RR: resetting
./hsp/hspcontrol.c 646  TRAP_DEBUG   "" HSP_waiting: Rcvd RC: starting
./hsp/hspcontrol.c 647  TRAP_OPER   "" HSP Link up
./hsp/hspcontrol.c 648  TRAP_OPER   "" HSP resetting DRIVER due to 30 sec with nothing
./hsp/hspcontrol.c 649  TRAP_OPER   "" HSP_ON: Received RR; resetting HSP protocol lin
./hsp/hspcontrol.c 650  TRAP_DEBUG   "" HSP_ON: Received RC
./hsp/hspcontrol.c 651  TRAP_DEBUG   "d" Bogus HSP state %d.
./hsp/hspcontrol.c 652  TRAP_DEBUG   "s" /*HSP Can't make %s message
./hsp/hspcontrol.c 653  TRAP_DEBUG   "s" HSP Sent %s message
./hsp/hspcontrol.c 654  TRAP_DEBUG   "s" HSP: can't send %s message
./hsp/hspcontrol.c 656  TRAP_DEBUG   "dd" HSP FormatError for MSGID %d, code %d
./hsp/hspcontrol.c 657  TRAP_DEBUG   "x" HSP:  Bogus control type %x rcvd
./hsp/hspcontrol.c 800  TRAP_DEBUG   "xx" HSP dropping Pkt %x in order to save RR %x
./hsp/hspevents.c 659  TRAP_DEBUG   "x" /*HspBufferEvent BUFID %x
./hsp/hspevents.c 660  TRAP_DEBUG   "s" /*Hsp%sTimer
./hsp/hspevents.c 661  TRAP_DEBUG   "dddddddddd" HSP:  %d link restarts; ALL msgs: %d s
./hsp/hspin.c 662  TRAP_DEBUG   "xd" /*HSP IN:  Pkt %x Length %d
./hsp/hspin.c 663  TRAP_OPER   "as" HSP at %a detected %s
./hsp/hspin.c 664  TRAP_DEBUG   "" HSP:  Received pkt with data error; discarding
./hsp/hspin.c 665  TRAP_DEBUG   "x" Illegal Hsp piggyback control code %x
./hsp/hspin.c 666  TRAP_DEBUG   "d" Hsp Data Pkt Illegal Length: %d
./hsp/hspin.c 667  TRAP_DEBUG   "ds" Hsp data word length %d doesn't match %s block le
./hsp/hspin.c 668  TRAP_DEBUG   "d" Hsp illegal block length %d
./hsp/hspin.c 669  TRAP_DEBUG   "" Hsp STREAM pkt received
./hsp/hspin.c 670  TRAP_DEBUG   "x" /*Hsp pkt %x without IP header received
./hsp/hspin.c 671  TRAP_DEBUG   "dd" Hsp destination %d is not us(%d)
./hsp/hspinit.c 643  TRAP_DEBUG   "" HSP Link down
./hsp/hspinit.c 792  CrashO   "" **PREV CRASH** Hsp requires no module above and one fo
./hsp/hspinit.c 793  CrashO   "" **PREV CRASH** Hsp requires module below and none foun
./hsp/hspinit.c 794  TRAP_DEBUG   "sd" Hsp IndexAs%s is %d
./hsp/hspintmod.c 795  TRAP_DEBUG   "s" HSP setting command %s
./hsp/hspintmod.c 796  TRAP_OPER   "as" HSP at %a %s link as requested
./hsp/hspmio.c 677  TRAP_DEBUG   "x" /*HspInputDispose(%x)
./hsp/hsponly.c 674  TRAP_DEBUG   "xd" /*HspOutputDispose %x, PktLength %d
./hsp/hsponly.c 675  TRAP_DEBUG   "xx" /*HdhOutputDispose(%x, %x)
./hsp/hsponly.c 676  TRAP_DEBUG   "x" /*HdhInputDispose(%x)
./hsp/hsponly.c 678  TRAP_DEBUG   "xx" /*HdlcOutputDispose(%x, %x)
./hsp/hsponly.c 680  TRAP_DEBUG   "xd" DriverInputDispose(%x), length %d
./hsp/hsponly.c 681  TRAP_DEBUG   "x" /*HdlcInputDispose(%x)
./hsp/hspout.c 682  TRAP_DEBUG   "d" /*HSP NextMsgId is %d
./hsp/hspout.c 683  TRAP_FIRE   "" /*HSP send window closed
./hsp/hspout.c 684  TRAP_DEBUG   "xd" /*HSP OUT:  Pkt %x Length %d
./hsp/hspout.c 798  TRAP_DEBUG   "xd" /*HspOutputAccept(%x, %d)
./hsp/hspout.c 853  TRAP_DEBUG   "sxx" %s not IP pkt %x TOS word %x
./imbtest/hdh.c 754  TRAP_DEBUG   "d" HdhBit%d event
./imbtest/hdh.c 755  TRAP_DEBUG   "d" HdhBit%d command
./imbtest/hdh.c 759  TRAP_DEBUG   "d" Hdh IndexAsLower is %d
```

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```
./imbtest/hdh.c 759   TRAP_DEBUG  "d" Hdh IndexAsUpper is %d
./imbtest/hdh.c 760 Crash1  "s" **PREV CRASH** Hdh requires module %s and none found
./imbtest/hdlc.c 756  TRAP_DEBUG  "d" HdlcBit%d event
./imbtest/hdlc.c 757  TRAP_DEBUG  "d" HdlcBit%d command
./imbtest/hdlc.c 759  TRAP_DEBUG  "d" Hdlc IndexAsLower is %d
./imbtest/hdlc.c 759  TRAP_DEBUG  "d" Hdlc IndexAsUpper is %d
./imbtest/hdlc.c 761 Crash1  "s" **PREV CRASH** Hdlc requires module %s and none foun
./imbtest/hsp.c 751   TRAP_DEBUG  "d" HspBit%d event
./imbtest/hsp.c 752   TRAP_DEBUG  "x" IMBTEST discarding pkt %x from dispatch
./imbtest/hsp.c 753   TRAP_DEBUG  "x" Hsp setting command bit %x
./imbtest/hsp.c 759   TRAP_DEBUG  "d" Hsp IndexAsUpper is %d
./imbtest/hsp.c 759 Crash1  "s" **PREV CRASH** Hsp requires %s in tables!
./imbtest/imbtest.c 769  TRAP_DEBUG  "x" InterModuleTable is %x
./imbtest/mio.c 758   TRAP_DEBUG  "d" MioBit%d command
./imbtest/mio.c 759   TRAP_DEBUG  "d" Mio IndexAsLower is %d
./imbtest/mio.c 759   TRAP_DEBUG  "d" Mio IndexAsLower is %d
./imbtest/mio.c 762 Crash1  "s" **PREV CRASH** Mio requires %s found in tables!
./imbtest/mio.c 763   TRAP_DEBUG  "sx" IMBitTest after %s %x
./lib/btrace.c 1101 TRAP_FIRE "xddx" Trace table full: bufid %x module %d status %d o
./lib/btrace.c 1102 TRAP_DEBUG "ddddxx" Buffertrace: module %d >= %d or status %d >=
./lib/bufferlib.c 1140 Crash1  "d" **PREV CRASH** GetOutputPacket: device #%d shared+
./lib/bufferlib.c 1141 Crash2  "dd" **PREV CRASH** GetOutputPacket: device #%d gettin
./lib/bufferlib.c 128 Crash0  "" **PREV CRASH** FindBPB:  no bufferpool on specified p
./lib/bufferlib.c 130 Crash3 "xxd" **PREV CRASH** MakeInputBuffer: Free buffer ID %x
./lib/bufferlib.c 131 Crash1 "x" **PREV CRASH** Discharge: buffer %x was uncharged\n
./lib/bufferlib.c 132 Crash1 "x" **PREV CRASH** Discharge: illegal Pool Charged buffe
./lib/bufferlib.c 133 Crash2 "xd" **PREV CRASH** FreeBuffer: usecount of %x is %d \n
./lib/bufferlib.c 383 Crash0 "" **PREV CRASH** FreePacket: Return queue was full
./lib/bufferlib.c 71  TRAP_DEBUG  "d" bufferlib: could not charge to output for dev %
./lib/bufferlib.c 939 Crash2 "dd" **PREV CRASH** ChargeToOutput: POBC %d SOBC %d
./lib/bufferlib.c 940 Crash4  "sxds" **PREV CRASH** Discharge: %s gbuffer %x %s now %
./lib/checksum.c 134 Crash0  "" **PREV CRASH** checksum starting on odd byte\n
./lib/checksum.c 286  TRAP_FIRE  "dd" FileChecksum: tried to checksum %d bytes, did %
./lib/devicedisp.c 1114  TRAP_DEBUG "ddddd" %x %x %x %x %x
./lib/devicedisp.c 854  TRAP_OPER  "da" Illegal GG type %d, prev hop %a; dropping
./lib/devicedisp.c 855  TRAP_FIRE  "da" Illegal IP Ver or GG Disting %d, prev hop %a;
./lib/enqordrop.c 856  TRAP_FIRE  "xa" Queue %x full; packet from %a dropped
./lib/enqordrop.c 857  TRAP_FIRE  "a" Trying to enq pkt from %a onto null queue; pack
./lib/events.c 112 Crash2  "xx" **PREV CRASH** bad event %x subtype %x
./lib/events.c 113 Crash1  "x" **PREV CRASH** too many events to call %x
./lib/gateboss.c 1106 Crash5  "dxxsx" **PREV CRASH** THROW: proc %d loc %x, cod %x, t
./lib/intermodule.c <valid crash number> Crash1  "s" **PREV CRASH** Hdlc requires mod
./lib/logtable.c 426  TRAP_DEBUG  "xxx" LogReplace: moving item %x, top %x, from %x
./lib/logtable.c 427  TRAP_DEBUG  "4Xxxxx" LogRemove: key %4X table %x item %x top %x
./lib/logtable.c 428  TRAP_DEBUG  "xx" LogFind: return %x, pointer %x
./lib/logtable.c 440  TRAP_FIRE  "4Xx" LogRemoveOldest: %a not in table %x
./lib/logtable.c 441  TRAP_FIRE  "d4X" LogReplace: table full (%d entries), removing
./lib/logtable.c 617 Crash2  "4Xx" **PREV CRASH** LogReplace: can't delete oldest ent
./lib/logtable.c 618 Crash4  "xxxx" **PREV CRASH** LogFind: fence 1 (%x) is %x, fence
./lib/logtable.c 619 Crash1  "d" **PREV CRASH** LogFind: claims 2<<%d more than 2<<14
./lib/monitoree.c 472  TRAP_DEBUG  "dd" /*DoMonRequests: Monitoree %d, ReqNumber %d
./lib/monitoree.c 888  TRAP_DEBUG  "dxxx" /*MonitoreeNumber %d, enqueueing %x, Segmen
./lib/monitoree.c 888  TRAP_DEBUG  "dxxx" /*MonitoreeNumber %d, enqueueing %x, Segmen
./lib/noop.c 471  TRAP_FIRE  "d" Monitoree %d got unknown monitoring request
./lib/qroutines.c 1004  TRAP_DEBUG  "" QPrint:  queue is empty
./lib/qroutines.c 273  TRAP_DEBUG  "x" QPrint:  %x
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./lib/shutdown.c 1145 TRAP_DEBUG "d" ShutDown: library shutdown routine, process %d
./lib/shutdowneh.c 1144 TRAP_DEBUG "dx" HandleShutDownEH: shutdown event posted, proc
./lib/slurpdualq.c 164 Crash0  "" **PREV CRASH** SlurpDualQ: somebody waiting on my q
./lib/slurpdualq.c 250  TRAP_DEBUG  "d" /*SlurpDualQ: Slurping at most %d items
./lib/traps.c 1098  TRAP_FIRE  "cxx" Bad Crash Format char %c (0x%x), val %x
./lib/traps.c 511  TRAP_FIRE  "dxxS" Trap %d caused throw; code %x, value %x, text %s
./lib/util.c 139 Crash0 "" **PREV CRASH** Allocate ran out of space
./mio/mio_bcb.c 572 TRAP_DEBUG "x" MIO:Attempting tx restart, virp = %x
./mio/mio_display.c 516 TRAP_DEBUG "xxxxx" MIO:bcb addr: %x next: %x size: %x count:
./mio/mio_display.c 517 TRAP_DEBUG "x" MIO:board address = %x
./mio/mio_display.c 518 TRAP_DEBUG "x" MIO:microcode version # = %x
./mio/mio_display.c 519 TRAP_DEBUG "dxdx" register %3d/ %6x  register %3d/ %6x
./mio/mio_display.c 520 TRAP_DEBUG "xxxxxxxx" %6x/ %4x %6x/ %4x %6x/ %4x %6x/ %4x
./mio/mio_display.c 521 TRAP_DEBUG "sdddd" MIO: %s: device# %d txbcbs %d txpackets %d
./mio/mio_display.c 522 TRAP_DEBUG "sdddd" MIO:%s: device# %d rxbcbs %d rxpackets %d
./mio/mio_display.c 523 TRAP_DEBUG "sddd" MIO:%s: device %d: rxbuffers %d desiredbuff
./mio/mio_display.c 524 TRAP_DEBUG "sdddd" MIO:%s: device %d: txbuffers %d maximumbuf
./mio/mio_display.c 525 TRAP_DEBUG "x" Memory Register Block:\n STx Current  0x%x
./mio/mio_display.c 526 TRAP_DEBUG "x" SRx Current  0x%x
./mio/mio_display.c 527 TRAP_DEBUG "x" Tx Current  0x%x
./mio/mio_display.c 528 TRAP_DEBUG "x" Rx Current  0x%x
./mio/mio_display.c 529 TRAP_DEBUG "x" STx Post  0x%x
./mio/mio_display.c 530 TRAP_DEBUG "x" SRx Post  0x%x
./mio/mio_display.c 531 TRAP_DEBUG "x" Tx Post  0x%x
./mio/mio_display.c 532 TRAP_DEBUG "x" Rx Post  0x%x
./mio/mio_display.c 533 TRAP_DEBUG "x" Board Addr  0x%x
./mio/mio_display.c 534 TRAP_DEBUG "x" 1822 Vir Dev 0x%x
./mio/mio_display.c 535 TRAP_DEBUG "x" Sync Vir Dev 0x%x
./mio/mio_display.c 536 TRAP_DEBUG "d" Initialized  %d
./mio/mio_display.c 537 TRAP_DEBUG "d" Board Number  %d
./mio/mio_display.c 538 TRAP_DEBUG "d" STx Latency  %d
./mio/mio_display.c 539 TRAP_DEBUG "d" Mbus Int Lev  %d
./mio/mio_display.c 540 TRAP_DEBUG "d" Mbus Except  %d
./mio/mio_post.c 1000 TRAP_OPER "" MIO: MultibusError threw clearing status
./mio/mio_post.c 1112 TRAP_DEBUG "ddd" IBC %d POBC %d SOBC %d
./mio/mio_post.c 1135 TRAP_OPER "x" MIO: STxPost found multibuffer packet %x
./mio/mio_post.c 541 TRAP_OPER "dxx" MIO: %d multibus interrupt from board %x with st
./mio/mio_post.c 542 Crash2 "dx" **PREV CRASH** [MIO: %d board %x: bus timeout inter
./mio/mio_post.c 543 Crash2 "dx" **PREV CRASH** [MIO: %d board %x: memory timeout in
./mio/mio_post.c 545 TRAP_DEBUG "dx" MIO: %d STxPost reached with board status of %x
./mio/mio_post.c 547 TRAP_DEBUG "dd" MIO: %d TxPost: sent %d bytes
./mio/mio_post.c 548 TRAP_DEBUG "d" MIO: %d SRxPost reached with board status of %x
./mio/mio_post.c 549 TRAP_DEBUG "dxx" MIO: %d SRxPost: count %x, status %x.
./mio/mio_post.c 550 TRAP_DEBUG "dx" MIO: %d RxPost reached with board status of %x
./mio/mio_post.c 551 TRAP_DEBUG "dxx" MIO: %d RxPost: count = %x, status = %x
./mio/mio_post.c 552 Crash2 "dx" **PREV CRASH** [MIO: %d board %x: tx fifo error]
./mio/mio_post.c 553 TRAP_OPER "dx" [MIO: %d board %x: rx fifo error]
./mio/mio_post.c 554 TRAP_OPER "dx" [MIO: %d board %x: tx 2652 underrun error]
./mio/mio_post.c 555 TRAP_OPER "dx" [MIO: %d board %x: rx 2652 overrun error]
./mio/mio_post.c 556 TRAP_OPER "dx" [MIO: %d board %x: bus timeout interrupt]
./mio/mio_post.c 557 TRAP_OPER "dx" [MIO: %d board %x: memory timeout interrupt]
./mio/mio_post.c 558 TRAP_DEBUG "dddd" MIO:%d TxPoke: flow cntrlled txq=%d freeq=%d c
./mio/mio_post.c 559 Crash1 TRAP_FIRE **PREV CRASH** MIO: %d TxPoke: can't get a bcb
./mio/mio_post.c 563 TRAP_FIRE "d" MIO: %d AddReceiveBuffers can't get a bcb
./mio/mio_post.c 564 TRAP_DEBUG "dd" MIO: %d RequeueRxBuffers: count = %d
./mio/mio_post.c 565 TRAP_FIRE "d" MIO: %d RequeueRxBuffers can't get bcb
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./mio/mio_post.c 566 TRAP_FIRE "d" MIO:RequeueRxBuffers can't get a buffer
./mio/mio_post.c 901 TRAP_OPER "" MIO:RequeueRxBuffers threw on poke
./mio/mio_post.c 902 TRAP_OPER "" MIO:AddReceiveBuffers threw on poke
./mio/mio_post.c 903 TRAP_OPER "" MIO:TxPoke threw on poke
./mio/mio_post.c 994 TRAP_OPER "" MIO:STxPost threw on poke
./mio/mio_post.c 996 TRAP_OPER "" MIO:SRxPost threw on poke
./mio/mio_queue.c 1007 TRAP_OPER "" Ahip Hash Queue %x has been trashed
./mio/mio_queue.c 573 Crash1 "x" **PREV CRASH** MIO:Queue element not free. %x
./mio/mio_queue.c 574 Crash0 "" **PREV CRASH** MIO:Queue Header is bad.
./mio/mio_queue.c 575 TRAP_OPER "" MIO:Dequeued from an empty queue.
./mio/mio_util.c 1001 Crash0 "" **PREV CRASH** There appears to be no MIO Board
./mio/mio_util.c 1041 TRAP_DEBUG "d" ClearMIOInterface: cleared %d rx buffers
./mio/mio_util.c 568 TRAP_OPER "" MIO:1822 remote ready line has just come up
./mio/mio_util.c 569 TRAP_DEBUG "" MIO:1822 remote ready line is up
./mio/mio_util.c 570 TRAP_OPER "" MIO:1822 remote ready line has just gone down
./mio/mio_util.c 571 TRAP_DEBUG "" MIO:1822 remote ready line is down
./mio/mio_util.c 594 TRAP_DEBUG "" MIO:Sync Clear to Send is not asserted
./mio/mio_util.c 595 TRAP_DEBUG "" MIO:Sync Carrier Detect is not asserted
./mio/mio_util.c 597 TRAP_DEBUG "" MIO:Sync Data Set Ready is not asserted
./mio/mio_util.c 844 TRAP_DEBUG "" MIO: Driver setting status UP (reset)
./mio/mio_util.c 845 TRAP_DEBUG "" MIO: Driver clearing status UP RDYCOMEUP (BeDown)
./mio/mio_util.c 847 TRAP_DEBUG "d" MIO: Driver IndexAsLower is %d
./mio/mio_util.c 848 Crash0 "" **PREV CRASH** Driver requires module above and none
./mio/mio_util.c 849 TRAP_FIRE "" MIO: Driver doesn't know how to ActUnlooped
./mio/mio_util.c 850 TRAP_FIRE "" MIO: Driver doesn't know how to ActLooped
./mio/mio_util.c 851 TRAP_DEBUG "" MIO: Driver clearing status LOOPED (BeUnLooped)
./mio/mio_util.c 852 TRAP_DEBUG "" MIO: Driver setting status LOOPED (BeLooped)
./mio/mio_util.c 904 TRAP_DEBUG "d" ClearMIOInterface: cleared %d tx buffers
./mio/mio_util.c 948 TRAP_DEBUG "" MIO: Driver setting status UP (BeUp)\n
./nullmodules/fakedriver.c 258 TRAP_DEBUG "xxd" FakeDriver: OldPkt=%x, FRESHPKT=%x
./nullmodules/fakedriver.c 258 TRAP_DEBUG "xxd" FakeDriver: OldPkt=%x, FRESHPKT=%x
./nullmodules/fakedriver.c 265 TRAP_DEBUG "x" FakeDriver: RandomFlush FLUSHING Pkt
./nullmodules/fakedriver.c 268 TRAP_DEBUG "" FakeDriver OutputAccept: GetInputBuffe
./nullmodules/fakedriver.c 771 Crash0 "" **PREV CRASH** Fake Driver requires module
./nullmodules/fakedriver.c 772 Crash0 "" **PREV CRASH** Fake Driver requires no modu
./nullmodules/fakedriver.c 773 TRAP_DEBUG "d" Fake Driver IndexAsLower is %d
./nullmodules/fakedriver.c 774 TRAP_FIRE "" BeLooped rcvd: Fake Driver is always 1
./nullmodules/fakedriver.c 780 TRAP_FIRE "s" %s rcvd: Fake Driver doesn't know how
./nullmodules/fakedriver.c 781 TRAP_DEBUG "s" Fake Driver setting %s
./nullmodules/fakedriver.c 787 TRAP_DEBUG "" FakeDriver LoopIn reached input limit
./nullmodules/l3_minimal.c 776 Crash0 "" **PREV CRASH** L3Minimal: requires no modul
./nullmodules/l3_minimal.c 777 TRAP_DEBUG "d" /*L3Minimal: IndexAsUpper is %d
./nullmodules/l3_minimal.c 778 Crash0 "" **PREV CRASH** L3Minimal: requires module b
./nullmodules/l3_minimal.c 779 TRAP_DEBUG "ds" L3Minimal: Interface device number %
./nullmodules/l3_minimal.c 783 TRAP_DEBUG "d" L3Minimal setting command %d
./nullmodules/l3_minimal.c 843 TRAP_FIRE "sxd" /*L3Minimal: %s Pkt %x nbytes %d
./nullmodules/l3_minimal.c 893 TRAP_FIRE "x" /*L3Minimal: PriorityOutput bufid %x
./nullmodules/l3_trunk.c 1063 Crash3 "sdd" **PREV CRASH** %sBufferSize is %d and nee
./nullmodules/l3_trunk.c 1064 TRAP_DEBUG "ds" L3 TRUNK: Interface device number %d
./nullmodules/l3_trunk.c 1065 Crash0 "" **PREV CRASH** L3 TRUNK: requires no module
./nullmodules/l3_trunk.c 1066 Crash0 "" **PREV CRASH** L3 TRUNK: requires module bel.
./nullmodules/l3_trunk.c 1067 TRAP_DEBUG "xdd" /*L3 TRUNK: L3CompactPkt starting %x
./nullmodules/l3_trunk.c 1068 TRAP_DEBUG "sxd" /*L3 TRUNK: %s %x, bytes %d
./routing/configtemp.c 953 Crash2 "dd" **PREV CRASH** size of routing config area is
./routing/configtemp.c 956 Crash1 "d" **PREV CRASH** MaxGatewayNumber in routing conf
./routing/configtemp.c 957 Crash1 "d" **PREV CRASH** MaxComponents in routing config
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./routing/configtemp.c 958 Crash1 "d" **PREV CRASH** MaxUpDownNeighbors in routing co
./routing/configtemp.c 959 Crash1 "dd" **PREV CRASH** MaxNeighbors in routing config
./routing/configtemp.c 960 Crash1 "d" **PREV CRASH** NumTokens in routing config must
./routing/configtemp.c 961 Crash1 "d" **PREV CRASH** MaxPieces in routing config must
./routing/configtemp.c 962 Crash1 "d" **PREV CRASH** MaxPreProcess in routing config
./routing/configtemp.c 963 Crash1 "d" **PREV CRASH** MaxDBConnectionPairs in routing
./routing/configtemp.c 964 Crash1 "d" **PREV CRASH** MaxDBInterfaces in routing confi
./routing/configtemp.c 965 Crash1 "d" **PREV CRASH** MinMaxNetMsg in routing config m
./routing/configtemp.c 966 Crash1 "d" **PREV CRASH** MaxInteriorNets in routing confi
./routing/configtemp.c 967 Crash1 "d" **PREV CRASH** HashTableSize in routing config
./routing/configtemp.c 968 Crash1 "d" **PREV CRASH** RoutingTableWait in routing conf
./routing/configtemp.c 969 Crash1 "d" **PREV CRASH** RoutingTableMaxWait in routing c
./routing/configtemp.c 970 Crash1 "d" **PREV CRASH** RupGenRetryInterval in routing c
./routing/database.c 746 Crash0 "" **PREV CRASH** ran out of interface entries for ro
./routing/database.c 747 Crash0 "" **PREV CRASH** ran out of neighbor entries for rou
./routing/database.c 915 TRAP_DEBUG "" SPF: Printing SPFDatabase:
./routing/database.c 916 TRAP_DEBUG "ddd" SPF: Node %d  NumNeighbors = %d  NumInterfa
./routing/database.c 917 TRAP_DEBUG "ddd" SPF:    Neigh = %d  Distance = %d Tree = %d
./routing/database.c 918 TRAP_DEBUG "a" SPF:    Interface %a
./routing/flooding.c 1092 Crash3 "ddd" **PREV CRASH** found cell %d in flooding colum
./routing/flooding.c 1093 TRAP_DEBUG "d" SPF: ClearAgedRup: removing gwy %d from floo
./routing/flooding.c 1111 TRAP_DEBUG "ad" SPF: BringUpComponent: %a is new best comp
./routing/flooding.c 396 Crash2 "da" **PREV CRASH** GetComponentIndex couldn't find c
./routing/flooding.c 397 Crash1 "d" **PREV CRASH** BringDownComponent could not find
./routing/flooding.c 398 Crash2 "xd" **PREV CRASH** RemoveFromList called with empty
./routing/flooding.c 399 Crash2 "dx" **PREV CRASH** PeekAtList called with empty list
./routing/flooding.c 6 TRAP_DEBUG "adddd" SPF: brought up comp %a for gwy %d pos %d N
./routing/flooding.c 6 TRAP_DEBUG "adddd" SPF: entering comp %a for gwy %d NumComp %d
./routing/flooding.c 6 TRAP_DEBUG "adddd" SPF: removed %a as component for gwy %d pos
./routing/flooding.c 748 TRAP_OPER "da" SPF: EnterComponent: no room for component; c
./routing/flooding.c 748 TRAP_OPER "da" SPF: no available flooding columns; can't bri
./routing/flooding.c 748 TRAP_OPER "da" SPF: no available flooding columns; can't bri
./routing/flooding.c 823 TRAP_DEBUG "dd" SPF: %d cells put on coming-up list for neig
./routing/flooding.c 919 TRAP_DEBUG "" SPF: Printing ResourceList:
./routing/flooding.c 920 TRAP_DEBUG "ddd" SPF:   %d: Backward = %d  Forward = %d
./routing/flooding.c 987 Crash1 "d" **PREV CRASH** EnterComponent - couldn't find fre
./routing/flooding.c 988 Crash2 "dd" **PREV CRASH** RemoveComponent found NumComponen
./routing/flooding.c 989 Crash1 "d" **PREV CRASH** Routing: ChooseComponent found no
./routing/flooding.c 990 Crash2 "dd" **PREV CRASH** ChooseUpComponent found NumCompon
./routing/flooding.c 991 Crash2 "dd" **PREV CRASH** ChooseComponent found NumComponen
./routing/init.c 825 TRAP_DEBUG "d" SPF: starting spf sequence number at %d
./routing/interfaceevent.c 706 TRAP_FIRE "dd" SPF: got status event from interface %d
./routing/interfaceevent.c 707 TRAP_FIRE "d" SPF: interface %d went down
./routing/interfaceevent.c 738 TRAP_FIRE "da" SPF: interface %d came up: IP address i
./routing/interfaceevent.c 921 TRAP_DEBUG "" SPF: Printing Interface Table
./routing/interfaceevent.c 922 TRAP_DEBUG "dd" SPF: interface %d:   Status = %d
./routing/interfaceevent.c 972 TRAP_FIRE "ad" SPF: omitting neighbor with my own addr
./routing/msglibadd.c 401 Crash2 "dd" **PREV CRASH** in RtgWrite, numbytes = %d avail
./routing/msglibadd.c 402 Crash2 "dd" **PREV CRASH** in RtgWrite, MG_Write wrote %d b
./routing/neighborroutines.c 739 TRAP_OPER "da" SPF: bringing up gateway %d (%a)
./routing/neighborroutines.c 740 TRAP_OPER "dad" SPF: bringing down connection to gwy
./routing/neighborroutines.c 923 TRAP_DEBUG "" SPF: Printing NeighborTable
./routing/neighborroutines.c 924 TRAP_DEBUG "d" SPF:   interface %d
./routing/neighborroutines.c 925 TRAP_DEBUG "a" SPF:      %a
./routing/neighborroutines.c 937 TRAP_DEBUG "d" SPF: Gathering configured neighbors o
./routing/neighborroutines.c 938 TRAP_DEBUG "dadd" SPF: on interface %d neighbor %a d
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./routing/resourcelist.c 1085 TRAP_DEBUG "dddd" SPF: BuildRup: bad rup about %d to %d
./routing/resourcelist.c 749 TRAP_OPER "dd" SPF: maximum retransmissions of update ab
./routing/resourcelist.c 750 Crash2 "dd" **PREV CRASH** update of %d bytes ; %d is ma
./routing/resourcelist.c 797 TRAP_FIRE "d" SPF: output queue %d full; dropping routin
./routing/resourcelist.c 909 TRAP_DEBUG "dd" SPF: Routing: in PrintUpdate,length of m
./routing/resourcelist.c 910 TRAP_DEBUG "addd" SPF: PrintUpdate:NextHop=%a tok=%d len
./routing/resourcelist.c 911 TRAP_DEBUG "ddddd" SPF:    about %d: seq=%d ExplicitAck=%
./routing/resourcelist.c 912 TRAP_DEBUG "a" SPF:      %a
./routing/resourcelist.c 913 TRAP_DEBUG "dd" SPF:      %d   (distance %d)
./routing/returnqevent.c 403 Crash3 "ddd" **PREV CRASH** token from update to %d abou
./routing/routing.c 709 TRAP_DEBUG "" SPF: Routing initialization completed
./routing/routinginit.c 710 TRAP_OPER "dd" SPF: CAUTION! MaxNeighbors = %d; should no
./routing/routinginit.c 982 TRAP_OPER "dd" SPF: Configured MaxNeighbors was too big (
./routing/routingqevent.c 1076 TRAP_FIRE "dddd" SPF: msglength %d numbytes %d numupda
./routing/routingqevent.c 1077 TRAP_FIRE "ddddd" SPF: ggheader: Dist %d Ver %d GGType
./routing/routingqevent.c 1078 TRAP_FIRE "ddd" SPF: rmheader: Checksum %d NumBytes %d
./routing/routingqevent.c 1079 TRAP_FIRE "ddddddd" SPF: rup: Src %d Seq %d Age %d Ret
./routing/routingqevent.c 1080 TRAP_FIRE "d" SPF: rup data: NeighborNumber on erroneo
./routing/routingqevent.c 1086 TRAP_OPER "da" SPF: got malformed rup (too short) : in
./routing/routingqevent.c 1087 TRAP_OPER "da" SPF: got malformed rup (too short) : in
./routing/routingqevent.c 1088 TRAP_OPER "da" SPF: got malformed rup (too short) : in
./routing/routingqevent.c 1090 TRAP_OPER "ddda" SPF: rcvd rup with age=0 source gw %d
./routing/routingqevent.c 1094 TRAP_OPER "dda" SPF: illegal gwy number (%d): interfac
./routing/routingqevent.c 1169 TRAP_FIRE "da" SPF: got malformed rup (too short) : in
./routing/routingqevent.c 711 TRAP_FIRE "d" SPF: flushing routing update sent by down
./routing/routingqevent.c 712 Crash3 "ddd" **PREV CRASH** found cell %d in flooding c
./routing/routingqevent.c 713 Crash0 "" **PREV CRASH** illegal value returned by Upda
./routing/routingqevent.c 714 Crash3 "dd" **PREV CRASH** illegal state in SendNewUpda
./routing/routingqevent.c 721 TRAP_OPER "da" SPF: got malformed rup (too short) : int
./routing/routingqevent.c 730 TRAP_OPER "dda" SPF: unknown gg ver num (%d) on rup : i
./routing/routingqevent.c 731 Crash3 "ddx" **PREV CRASH** bad pkt on routing q; wrong
./routing/routingqevent.c 732 TRAP_OPER "dda" SPF: ExitGwy in ggheader on rup = %d :
./routing/routingqevent.c 733 TRAP_OPER "dda" SPF: unknown rupmsgheader ver num (%d)
./routing/routingqevent.c 734 TRAP_OPER "dda" SPF: illegal EntryGwy in ggheader on ru
./routing/routingqevent.c 736 TRAP_OPER "dda" SPF: illegal source gwy number on rup (
./routing/routingqevent.c 737 TRAP_OPER "dda" SPF: illegal distance (%d) : interface
./routing/routingqevent.c 744 TRAP_DEBUG "ddddd" SPF: got current update about %d fro
./routing/routingqevent.c 744 TRAP_DEBUG "ddddd" SPF: got new update about %d from %d
./routing/routingqevent.c 744 TRAP_DEBUG "ddddd" SPF: got new update about %d from %d
./routing/routingqevent.c 744 TRAP_DEBUG "ddddd" SPF: got old update about %d from %d
./routing/routingqevent.c 799 TRAP_OPER "xda" SPF: bad checksum (%x) on rup : interfa
./routing/routingqevent.c 907 TRAP_DEBUG "ddd" SPF: Routing: update from %d being pre
./routing/routingqevent.c 946 Crash1 "d" **PREV CRASH** discovered another gateway wi
./routing/routingqevent.c 971 TRAP_OPER "ddda" SPF: got new rup expl ack about %d seq
./routing/routingtable.c 715 TRAP_DEBUG "x" SPF: must wait to get old routing table %
./routing/routingtable.c 716 Crash1 "d" **PREV CRASH** timed out waiting to get routi
./routing/routingtable.c 718 TRAP_DEBUG "dd" SPF: got routing table %d back after %d
./routing/routingtable.c 926 TRAP_DEBUG "xa" SPF: New Routing Table:  default next ho
./routing/routingtable.c 927 TRAP_DEBUG "" SPF: Reachable Gateways:
./routing/routingtable.c 928 TRAP_DEBUG "dad" SPF:     %d : next hop %a interface %d
./routing/routingtable.c 929 TRAP_DEBUG "" SPF: Reachable Nets:
./routing/routingtable.c 930 TRAP_DEBUG "ad" SPF:     %a directly connected on interfac
./routing/routingtable.c 931 TRAP_DEBUG "add" SPF:     %a Exit Gateway = %d  Distance =
./routing/routingtimer.c 908 TRAP_DEBUG "dd" SPF: Routing: requesting retransmission
./routing/rupgen.c 400 Crash1 "d" **PREV CRASH** NumComponents>0  for neigh %d but Ch
./routing/rupgen.c 6 TRAP_DEBUG "" SPF: TypeOfChange was RUP_RIGHTAWAY
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./routing/rupgen.c 6 TRAP_DEBUG "" SPF: TypeOfChange was RUP_WAITALITTLE and RupGenWa
./routing/rupgen.c 6 TRAP_DEBUG "" SPF: TypeOfChange was RUP_WAITALITTLE and RupGenWa
./routing/rupgen.c 6 TRAP_DEBUG "" SPF: TypeOfChange was RUP_WAITALITTLE and RupGenWa
./routing/rupgen.c 743 TRAP_DEBUG "dd" SPF: Generating rup : %d neighbors %d interfac
./routing/spf.c 719 Crash1 "d" **PREV CRASH** bug in PrepareTree: Dest %d reachable b
./routing/spf.c 720 Crash1 "d" **PREV CRASH** bug in Search: node %d has no backlink
./routing/spf.c 932 TRAP_DEBUG "" SPF: Printing SPF tree
./routing/spf.c 933 TRAP_DEBUG "ddd" SPF: distance to %d is %d  parent = %d
./routing/spf.c 934 TRAP_DEBUG "dd" SPF: distance to %d is %d
./routing/timingsystem.c 174 Crash1 "d" **PREV CRASH** DeleteTimer called with illega
./routing/timingsystem.c 177 Crash2 "xx" **PREV CRASH** bug in timing heap : posted t
./routing/timingsystem.c 431 Crash1 "d" **PREV CRASH** Timerevent: unknown heap type
./routing/timingsystem.c 704 Crash1 "%d" **PREV CRASH** routing heap overflow: type %
./routing/timingsystem.c 935 TRAP_DEBUG "d" SPF: Printing Timing Heap: HeapEnd = %d
./routing/timingsystem.c 936 TRAP_DEBUG "ddx" SPF:     time = %d type = %d pointer = %
./routing/token.c 405 Crash1 "d" **PREV CRASH** AddToTokenTable found no room in toke
./routing/updownqevent.c 140 Crash1 "x" **PREV CRASH** newly-created queue %x was not
./routing/updownqevent.c 165 TRAP_OPER "dda" SPF: no room in Up/Down for neighbor %d
./routing/updownqevent.c 168 TRAP_OPER "add" SPF: neighbor number of %a changed: was
./routing/updownqevent.c 691 TRAP_DEBUG "dddd" SPF: received HELLO from gwy %d interf
./routing/updownqevent.c 692 TRAP_DEBUG "dddd" SPF: received IHY from gwy %d interfac
./routing/updownqevent.c 693 TRAP_DEBUG "x" SPF: received %x on down interface
./routing/updownqevent.c 694 TRAP_DEBUG "da" SPF: moving %d (%a) into SYNCHRONIZING s
./routing/updownqevent.c 695 TRAP_DEBUG "da" SPF: moving %d (%a) into ESTABLISHING st
./routing/updownqevent.c 697 TRAP_DEBUG "da" SPF: received all routing info from %d (
./routing/updownqevent.c 699 Crash2 "da" **PREV CRASH** slave told by %d (%a) without
./routing/updownqevent.c 700 TRAP_DEBUG "daddd" SPF: sending ihy to gwy %d (%a) on in
./routing/updownqevent.c 973 TRAP_OPER "dda" SPF: received up/down with unknown versi
./routing/updownqevent.c 974 TRAP_FIRE "ddda" SPF: received up/down from AS %d (my AS
./routing/updownqevent.c 976 TRAP_OPER "dda" SPF: unknown gg ver num (%d) on updown :
./routing/updownqevent.c 977 Crash3 "ddx" **PREV CRASH** bad pkt on updown q; wrong g
./routing/updownqevent.c 978 TRAP_OPER "dda" SPF: illegal EntryGwy in ggheader on upd
./routing/updownqevent.c 979 TRAP_OPER "da" SPF: got malformed updown packet (too sho
./routing/updownqevent.c 981 TRAP_OPER "xda" SPF: bad checksum (%x) on updown pkt : i
./routing/updowntimer.c 166 TRAP_FIRE "da" SPF: no buffer to send a hello/IHY to %d (
./routing/updowntimer.c 167 TRAP_FIRE "dad" SPF: can't queue hello/ihy to gwy %d (%a)
./routing/updowntimer.c 178 Crash1 "d" **PREV CRASH** UpDown: illegal state %d detect
./routing/updowntimer.c 701 TRAP_DEBUG "da" SPF: moving %d (%a) from RESET to DISESTA
./routing/updowntimer.c 702 TRAP_DEBUG "da" SPF: oving %d (%a) into RTGEXCHANGE state
./routing/updowntimer.c 703 TRAP_DEBUG "daddd" SPF: sending hello to gwy %d (%a) on i
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