



A User Experience with Ferret: An APPN/HPR Monitoring and Management Tool



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Session 3734



About Fiserv



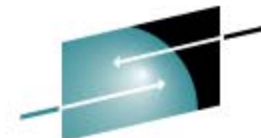
- Fortune 500 company providing information management and electronic commerce systems and services to the financial and insurance industries for more than 30 years
- 25,000 employees in more than 250 locations
- More than 18,000 clients in 66 countries worldwide
 - Banks; Credit Unions; Thrifts; Mortgage Lenders; Lease Companies; Automotive Lenders; Telecommunications; Utilities; Brokerages; Investment Firms; Healthcare Providers; Insurance Carriers; Insurance Agents, Brokers, Distributors and their Affiliates; Pharmacies
- U.S. market leader in core processing services
- Largest independent U.S. check processor
- Leading Internet banking services provider
- Leading provider of bill payment and presentment services

Business Problems Solved

- Netview no longer useful in diagnosing SNA Problems after Migration To APPN
- Needed to Retain NCCF type function for Operations and Support Users
- Operations /Helpdesk having great difficulty determining State of EE Nodes
- Helpdesk lacked the tools for Supporting SNA after migration to APPN
- Lack of Traffic Statistics for Problem Determination and Tuning
- Many VTAM displays required to gather PD Information
- Significant Skill required to solve routine problems after APPN

Fiserv Physical Configuration

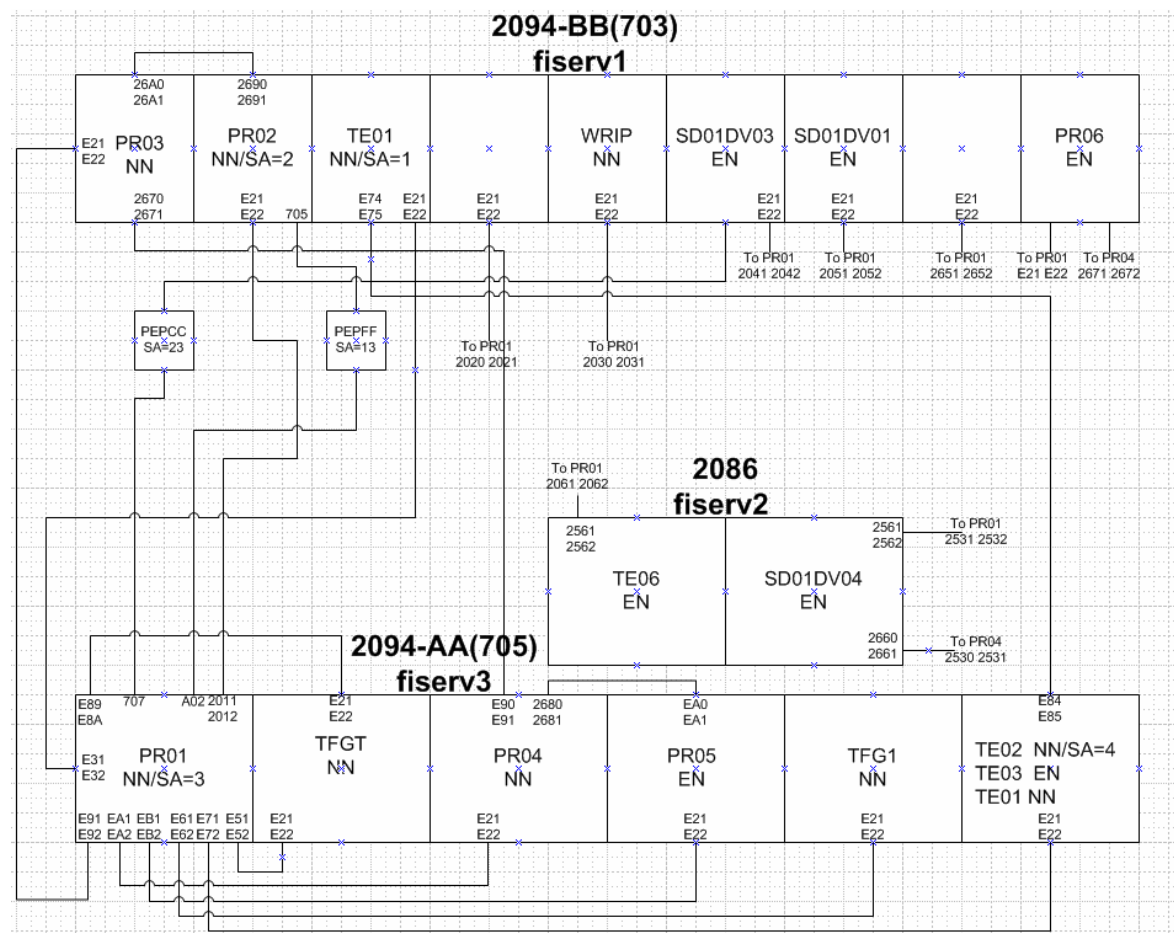
- 3 CECs total of 4500.5 MIPS
- 11 Production LPARS 4 test
- 3 Sysplexes and 2 stand-alone LPARs
- 1 Interchange Node and 3 Network Nodes
- Network Aligned with Business Units
- 4 OSA's per LPAR - 2 Internet facing, 2 facing Core
- OSPF used on Core, RIPV2 used on Internet DMZ



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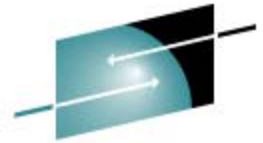
Fiserv VTAM Configuration



Installation

- Download from Web Site
- Get Key from WDS
- SMP/E Installation
- Installs in about 2-4 hours
- Self Configuring
- Easy to Use
- Browser based

Ferret Home View



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WILLIAM
DATA SYSTEMS

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks
ControlPoints
EE Nodes
Paths
Alerts
Tools
Admin

Top RTPs : Highest LU-LU Session Count

RTP Name	COS	ARB Netid	CPName	LU-LU
CNR00032	#CONNECT	USFISE01	CDRMPR03	1132
CNR0006A	#CONNECT	USFISE01	CDRMPR03	631
CNR00076	#CONNECT	USFISE01	CDRMPR04	332
CNR00077	#CONNECT	USFISE01	CDRMPR05	250
CNR00035	#CONNECT	USFISE01	CDRMPR02	237

Top RTPs : Highest RTT

RTP Name	COS	ARB Netid	CPName	RTT
CNR00154	SNASVCMG	USFISE01	MCGBARR	1053
CNR0009D	RSETUP	NETMPS	XD01	898
CNR0026A	RSETUP	USFISE01	BARRENR	885
CNR00070	CPSVCMG	USMELN01	CDRMBD	883
CNR0008E	RSETUP	NETSILR1	SSCP3A3	881

Top RTPs : Highest SendRate

RTP Name	COS	ARB Netid	CPName	SendRate
CNR00032	#CONNECT	USFISE01	CDRMPR03	123
CNR00079	#CONNECT	FHLBNET	CDWRIP03	77
CNR0007A	#CONNECT	USMELN01	CDRMNJ	72
CNR000B3	#INTER	NETMI	MIXD1	67
CNR00007	CPSVCMG	FHLBNET	CDWRIP03	53

Top RTPs : Most Path switches

RTP Name	COS	ARB Netid	CPName	Switches
CNR00001	CPSVCMG	USFISE01	CDRMPR02	21
CNR0002A	#CONNECT	USFISE01	SD01DV01	3
CNR0006F	CPSVCMG	USMELN01	CDRMBD	3
CNR00086	CPSVCMG	USMELN01	CDRMIQ	3
CNR0007B	#CONNECT	USMELN01	CDRMBK	2

System Summary

Resource	Total	LastMin
Detected CPs	62	0
Detected EE IP Addresses	33	0
Active EE Connections	26	0
Active RTPs	146	0
Active LU-LU Sessions	3245	▲ 2
Average smoothed RTT	326	0
Average send rate	7	0
Total path switches	37	0
Total queued packets	56	▲ 3
Total retransmitted packets	29830	0
RTPs in ARB Green State	127	▲ 4
RTPs in ARB Yellow State	7	▼ -1
RTPs in ARB Red State	12	▼ -3

Top RTPs : Queued packets

RTP Name	COS	ARB Netid	CPName	QPkets
CNR002AB	#CONNECT	USFISE01	BARRLSB	25
CNR0002A	#CONNECT	USFISE01	SD01DV01	3
CNR00032	#CONNECT	USFISE01	CDRMPR03	3
CNR00071	#INTER	CIR	CDRMX04	3
CNR00079	#CONNECT	FHLBNET	CDWRIP03	3

Top RTPs : Most retransmissions

RTP Name	COS	ARB Netid	CPName	ReTran
CNR00287	#CONNECT	USFISE01	BARRFULT	12306
CNR0003D	#CONNECT	USFISE01	USBBARR1	9290
CNR002AB	#CONNECT	USFISE01	BARRLSB	3786
CNR00047	#CONNECT	USFISE01	RMT302	2554
CNR0004D	#CONNECT	USFISE01	BARRWAY	1735

TG View

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Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks ▾ ControlPoints ▾ EE Nodes ▾ Paths ▾ Alerts ▾ Tools ▾ Admin ▾

11:41:41 Transmission Groups

Netid	CP Name	TGN	Status	Type
CIR	CDRMX04	21	● ●	INTERCLUST
DLXNETA	DXHOST31	21	● ●	INTERCLUST
FHLBNET	CDWRIP03	21	● ●	INTERCLUST
NETMI	MIXD1	21	● ●	INTERCLUST
NETMI	MIXD3	22	● ●	INTERCLUST
NETMPS	XD01	22	● ●	INTERCLUST
NETMPS	XD01	21	● ●	INTERCLUST
NETMPS	XD51	22	● ●	INTERCLUST
NETMPS	XD51	21	● ●	INTERCLUST
NETSILR1	SSCPSA3	21	● ●	INTERCLUST
NETSILR1	CDRMSA6	1	● ●	INTERCLUST
USFISE01	RMT302	21	● ●	ENDPT
USFISE01	BARRWAY	21	● ●	ENDPT
USFISE01	USBARR2	21	● ●	ENDPT
USFISE01	BARRFULT	21	● ●	ENDPT
USFISE01	CDRMTE02	1	● ●	INTERM
USFISE01	BARRFULT	22	● ●	ENDPT
USFISE01	BARRMTA	21	● ●	ENDPT
USFISE01	CDRMPR04	21	● ●	INTERM
USFISE01	SD01DV01	21	● ●	ENDPT
USFISE01	CDRMPR03	1	● ●	INTERM
USFISE01	BARRLSB	21	● ●	ENDPT
USFISE01	SD01DV03	21	● ●	ENDPT
USFISE01	BARRMTA	22	● ●	ENDPT
USFISE01	CDRMPR05	21	● ●	ENDPT
USFISE01	SD01DV04	21	● ●	ENDPT
USFISE01	CDRMFTGT	21	● ●	INTERM

Active CP View

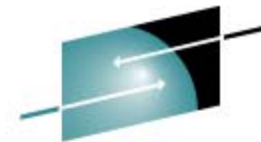
ferret WI
O A T

Ferret v1.1 Level FEE1119 Sysid.SP01.90#B (SSCP USFISE01.CDRMB)

Networks ControlPoints EE Nodes Paths Alerts Tools Admin

11:44:43 CP List with active CP-CP sessions

Netid	CPName	Type	CP	ARB	RTT	Paths	Alerts	Switches	RTPs	RTT	250ms	500ms	750ms	1000ms
USFISE01	BARREN	EN	●	●	●	1	15		5	617	██████████	██████████	██████████	██████████
USFISE01	BARRFULT	EN	●	●	●	1	830	1	5	630	██████████	██████████	██████████	██████████
USFISE01	BARRLSB	EN	●	●	●	1	2953		5	617	██████████	██████████	██████████	██████████
USFISE01	BARRMTA	EN	●	●	●	1	278		5	606	██████████	██████████	██████████	██████████
USFISE01	BARRWAY	EN	●	●	●	1	3775		5	615	██████████	██████████	██████████	██████████
USMELN01	CDRMBCB	NN	●	●	●	1	5		2	478	██████████	██████████	██████████	██████████
USMELN01	CDRMBD	NN	●	●	●	1	10	2	3	761	██████████	██████████	██████████	██████████
USMELN01	CDRMIQ	NN	●	●	●	3	204	3	4	150	██████████	██████████	██████████	██████████
USMELN01	CDRMNJ	NN	●	●	●	3	16	1	4	490	██████████	██████████	██████████	██████████
USFISE01	CDRMPPR02	NN	●	●	●	3	2434	94	4	41	██████████	██████████	██████████	██████████
USFISE01	CDRMPPR03	NN	●	●	●	3	3202	1	5	50	██████████	██████████	██████████	██████████
USFISE01	CDRMPPR04	NN	●	●	●	1	1411		3	8	██████████	██████████	██████████	██████████
USFISE01	CDRMPPR05	EN	●	●	●	1	187		3	18	██████████	██████████	██████████	██████████
USFISE01	CDRMPPR06	EN	●	●	●	2	271		3	14	██████████	██████████	██████████	██████████
NETSILR1	CDRMSA6	NN	●	●	●	2	4		3	121	██████████	██████████	██████████	██████████
WSDNET	CDRMSYSC	NN	●	●	●	1	24		4	164	██████████	██████████	██████████	██████████
USFISE01	CDRMTE01	NN	●	●	●	1	2372	10	4	105	██████████	██████████	██████████	██████████
USFISE01	CDRMTFGT	NN	●	●	●	1	1452		4	199	██████████	██████████	██████████	██████████
CIR	CDRMX04	NN	●	●	●	1	1090	1	5	27	██████████	██████████	██████████	██████████
FHLBNET	CDWRIP03	NN	●	●	●	1	1837		3	58	██████████	██████████	██████████	██████████
DLXNETA	DXHOST31	NN	●	●	●	1	920		5	251	██████████	██████████	██████████	██████████
WSDNET	ITCDRM56	NN	●	●	●	2	62	1	5	103	██████████	██████████	██████████	██████████
USFISE01	MCGBARR	EN	●	●	●	1	245		5	705	██████████	██████████	██████████	██████████
NETMI	MIXD1	NN	●	●	●	2	19		4	250	██████████	██████████	██████████	██████████
NETMI	MIXD3	NN	●	●	●	1	4		3	444	██████████	██████████	██████████	██████████
USFISE01	RMT302	EN	●	●	●	1	3856		5	544	██████████	██████████	██████████	██████████
USFISE01	SD01DV01	EN	●	●	●	1	1597	3	3	66	██████████	██████████	██████████	██████████
USFISE01	SD01DV03	EN	●	●	●	1	1193	1	3	74	██████████	██████████	██████████	██████████
USFISE01	SD01DV04	EN	●	●	●	1	289		3	11	██████████	██████████	██████████	██████████
NETSILR1	SSCPA3	NN	●	●	●	1	77		3	325	██████████	██████████	██████████	██████████
USFISE01	USBBARR1	EN	●	●	●	1	517		5	618	██████████	██████████	██████████	██████████



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Enterprise Extender View

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DATA SYSTEMS

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Networks | ControlPoints | EE Nodes | Paths | Alerts | Tools | Admin

10:44:37 EE Connections

PU Name	Line Name	State	Local IP Address	Remote IP Address	Netid	CP Name	RTPs	LU-LU	LSAP	RSAP	Started
■ CN0000AF	EL1006	●			NETMI	MIXD1	4	3	8	4	27 Jul 05:25:31
■ CN000033	EL2031	●			USMELN01	CDRMBCB	2	2	8	4	27 Jul 03:32:55
■ CN000036	EL2030	●	IP Addresses removed at Security Officer's request		USMELN01	CDRMIQ	10	66	8	4	27 Jul 03:32:58
■ CN000038	EL1030	●			NETMPS	XD51	2	2	8	4	27 Jul 03:28:28
■ CN00005D	EL1029	●			NETMPS	XD01	2	2	8	4	27 Jul 03:28:34
■ CN00006E	EL2030	●			USMELN01	CDRMBD	3	2	8	4	27 Jul 03:29:19
■ EEDS01PU	EL102B	●			USFISE01	CDRMPR03	2	632	8	4	27 Jul 03:28:52
■ EEENR1PU	EL2003	●			DLXNETA	DXHOST31	5	116	8	4	27 Jul 03:28:40
■ EEFID1PU	EL1003	●			USMELN01	CDRMNJ	4	3	8	4	27 Jul 03:32:02
■ EEFID2PU	EL1005	●			WSDNET	CDRMSYSC			8	4	*
■ EEFTR1PU	EL1000	●			USFISE01	CDRMTE02			8	4	29 Jul 12:21:35
					WSDNET	CDRMSYSC	3	2	4	8	27 Jul 03:52:50
					WSDNET	ITCDRM56			4	8	*
					WSDNET	ITCDRM56	6	6	8	4	27 Jul 03:54:48
					USFISE01	BARRDSO			4	4	27 Jul 03:28:28
					USFISE01	BARRENR	5	13	4	4	29 Jul 11:16:47
					NETSILR1	CDRMSA6	4	3	4	8	27 Jul 03:32:48
					NETSILR1	SSCP3A3	4	3	4	8	27 Jul 03:32:48
					NETMPS	XD01	2	1	4	8	27 Jul 03:32:48

Context menu for EEDS01PU:

- Show historical statistics
- Start monitor
- Ping
- Trace Route
- Define Exigence trace
- View Exigence traces
- View Implex EE Activity data
- View Implex EE Node data

Alert View

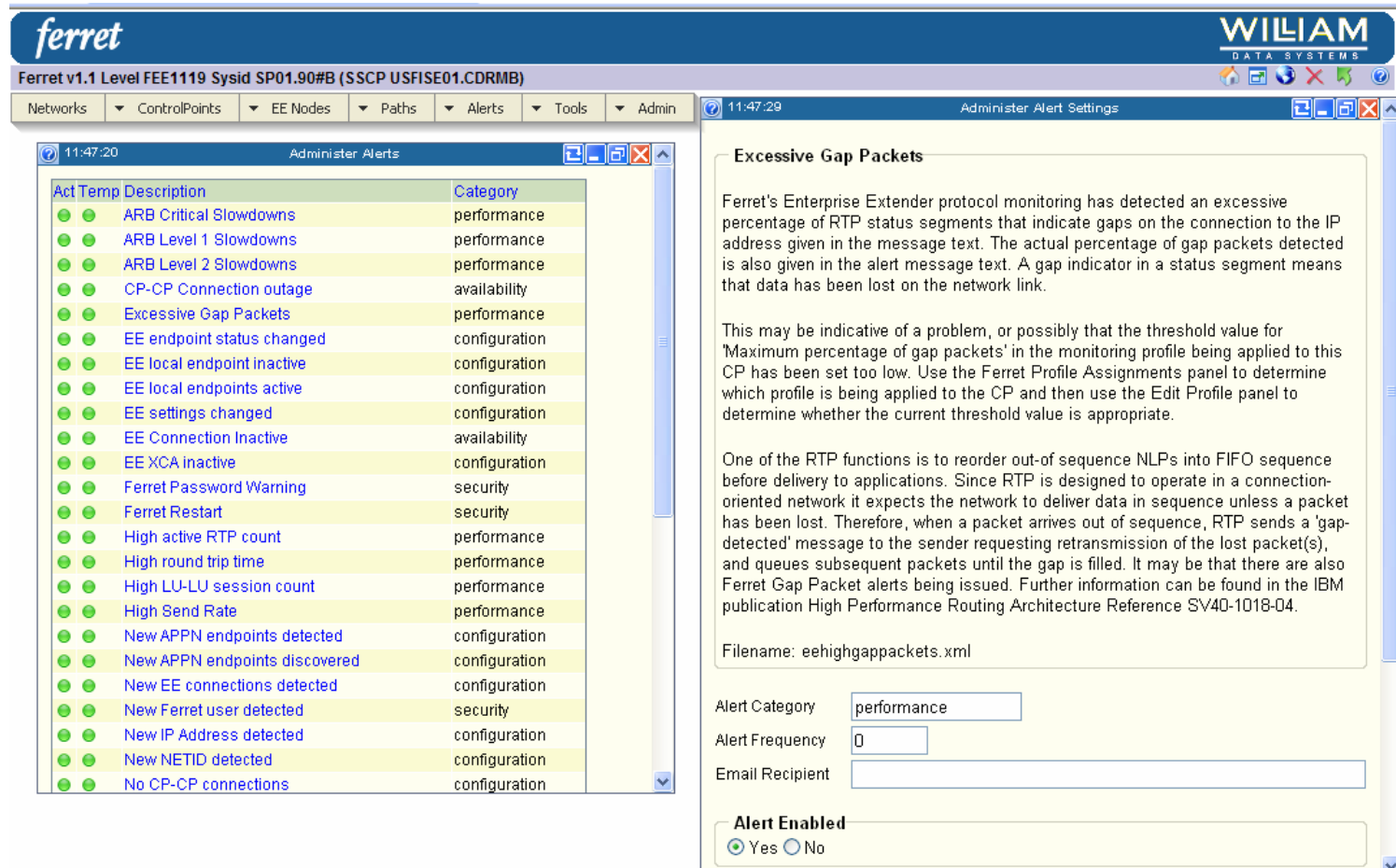
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Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks ▾ ControlPoints ▾ EE Nodes ▾ Paths ▾ Alerts ▾ Tools ▾ Admin

■	27 Jul	03:28:25	Excessive RTT to USFISE01.CDRMPR03	
■	27 Jul	03:28:25	CP-CP Session with DLXNETA.DXHOST30 inactive	
■	27 Jul	03:28:25	CP-CP Session with USFISE01.BARRBETA inactive	
■	27 Jul	03:29:00	Excessive RTT to USFISE01.BARRWAY	
■	27 Jul	03:29:00	Excessive RTT to DLXNETA.DXHOST31	
■	27 Jul	03:29:00	Excessive RTT to USFISE01.USBBARR1	
■	27 Jul	03:29:00	Excessive RTT to USFISE01.USBBARR2	
■	27 Jul	03:29:00	Excessive RTT to USFISE01.RMT302	
■	27 Jul	03:29:00	Excessive RTT to NETMPS.XD51	
■	27 Jul	03:29:00	Excessive RTT to NETMPS.XD01	
■	27 Jul	03:30:00	Excessive RTT to USMELN01.CDRMBD	
■	27 Jul	03:31:00	Excessive RTT to USMELN01.CDRMNJ	
■	27 Jul	03:33:00	Excessive RTT to USMELN01.CDRMBCB	
■	27 Jul	03:33:00	Excessive RTT to NETSILR1.CDRMSA6	
■	27 Jul	03:33:00	Excessive RTT to USMELN01.CDRMIQ	
■	27 Jul	03:33:00	Excessive RTT to NETSILR1.SSCP3A3	
■	27 Jul	03:41:00	RTP CNR00066 (CPSVCMG) to USFISE01.CDRMPR04 in ARB yellow state	
■	27 Jul	03:55:00	Excessive RTT to WSDNET.ITCDRM56	
■	27 Jul	04:06:00	Excessive RTT to NETMI.MIXD3	
■	27 Jul	05:26:00	Excessive RTT to NETMI.MIXD1	
■	27 Jul	05:46:00	RTP CNR00008 (CPSVCMG) to USFISE01.CDRMTFGT in ARB red state	
■	27 Jul	08:05:00	NLPs on outbound send queue to USFISE01.SD01DV03	

Administering Alerts



ferret **WILLIAM DATA SYSTEMS**

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

11:47:29 Administer Alert Settings

Act	Temp	Description	Category
●●		ARB Critical Slowdowns	performance
●●		ARB Level 1 Slowdowns	performance
●●		ARB Level 2 Slowdowns	performance
●●		CP-CP Connection outage	availability
●●		Excessive Gap Packets	performance
●●		EE endpoint status changed	configuration
●●		EE local endpoint inactive	configuration
●●		EE local endpoints active	configuration
●●		EE settings changed	configuration
●●		EE Connection Inactive	availability
●●		EE XCA inactive	configuration
●●		Ferret Password Warning	security
●●		Ferret Restart	security
●●		High active RTP count	performance
●●		High round trip time	performance
●●		High LU-LU session count	performance
●●		High Send Rate	performance
●●		New APPN endpoints detected	configuration
●●		New APPN endpoints discovered	configuration
●●		New EE connections detected	configuration
●●		New Ferret user detected	security
●●		New IP Address detected	configuration
●●		New NETID detected	configuration
●●		No CP-CP connections	configuration

Excessive Gap Packets

Ferret's Enterprise Extender protocol monitoring has detected an excessive percentage of RTP status segments that indicate gaps on the connection to the IP address given in the message text. The actual percentage of gap packets detected is also given in the alert message text. A gap indicator in a status segment means that data has been lost on the network link.

This may be indicative of a problem, or possibly that the threshold value for 'Maximum percentage of gap packets' in the monitoring profile being applied to this CP has been set too low. Use the Ferret Profile Assignments panel to determine which profile is being applied to the CP and then use the Edit Profile panel to determine whether the current threshold value is appropriate.

One of the RTP functions is to reorder out-of sequence NLPs into FIFO sequence before delivery to applications. Since RTP is designed to operate in a connection-oriented network it expects the network to deliver data in sequence unless a packet has been lost. Therefore, when a packet arrives out of sequence, RTP sends a 'gap-detected' message to the sender requesting retransmission of the lost packet(s), and queues subsequent packets until the gap is filled. It may be that there are also Ferret Gap Packet alerts being issued. Further information can be found in the IBM publication High Performance Routing Architecture Reference SV40-1018-04.

Filename: eehighgapackets.xml

Alert Category:

Alert Frequency:

Email Recipient:

Alert Enabled

Yes No

Network Log

ferret

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks ControlPoints EE Nodes Paths Alerts Tools Admin

11:49:09 Network Log

Message 57187 of 65536

Find Next Previous First Last

```
11.46.47 +CSRO21I ACB CONVERTED TO USE VSAM LSR. DDNAME=A19MCRED
11.46.47 CSRO20I BUFSI=512, BUFSD=18432, BUFNI=10240, BUFND=284, HBUFNI=0, HBUFND=0, SHRPOOL=
11.46.47 CSRO22I STNMO=16, ACB RMODE31=ALL, RMODE31=ALL. DDNAME=A19INTRT
11.46.47 +CSRO21I ACB CONVERTED TO USE VSAM LSR. DDNAME=A19INTRT
11:47:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00047 CP: USFISE01.RMT302
11:47:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00066 CP: USFISE01.CDRMPRO4
11:47:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00091 CP: DLXNETA.DXHOST31
11:47:00 FEE4019I Excessive outbound NLPs being queued: RTP: CNR00091 CP: DLXNETA.DXHOST31
11:47:00 FEE4021I Excessive RTT: RTP: CNR00091 CP: DLXNETA.DXHOST31
11:47:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR002AB CP: USFISE01.BARRLSB
11:47:06 IST663I BIND FAIL REQUEST RECEIVED, SENSE=080A0000
11:47:06 IST664I REAL OLU=USFISE01.FP000108 REAL DLU=USFISE01.LEX00025
11:47:06 IST889I SID = D60B016DA3D7584C
11:47:06 IST1669I IPADDR..PORT 166.73.235.70..49976
11.47.06 +SQP5VTAM - NS USEREXIT RECEIVED PROCEDURE ERROR RU
11:47:06 IST891I USFISE01.CDRMB GENERATED FAILURE NOTIFICATION
11:47:06 IST893I ORIGINAL FAILING REQUEST IS BIND
11:47:06 IST314I END
11.47.10 IEF450I HOKRPG $$$TSLO00 $$$TSLO00 - ABEND=S522 U0000 REASON=00000000
11.47.10 TIME=11.47.10
11.47.10 IEF450I H8BJPG $$$TSLO00 $$$TSLO00 - ABEND=S522 U0000 REASON=00000000
11.47.10 TIME=11.47.10
11.47.13 CMB103I - 08212, 11:47, SNA REMOTE LOGON FOR RMT=ARTELSPC RUSIZE=4096 SEND BLKSIZE=40
11.47.21 IEF234E K OF10,950414,PVT,DFHSMB,DFHSMB
```

Command

Network Log (continued)

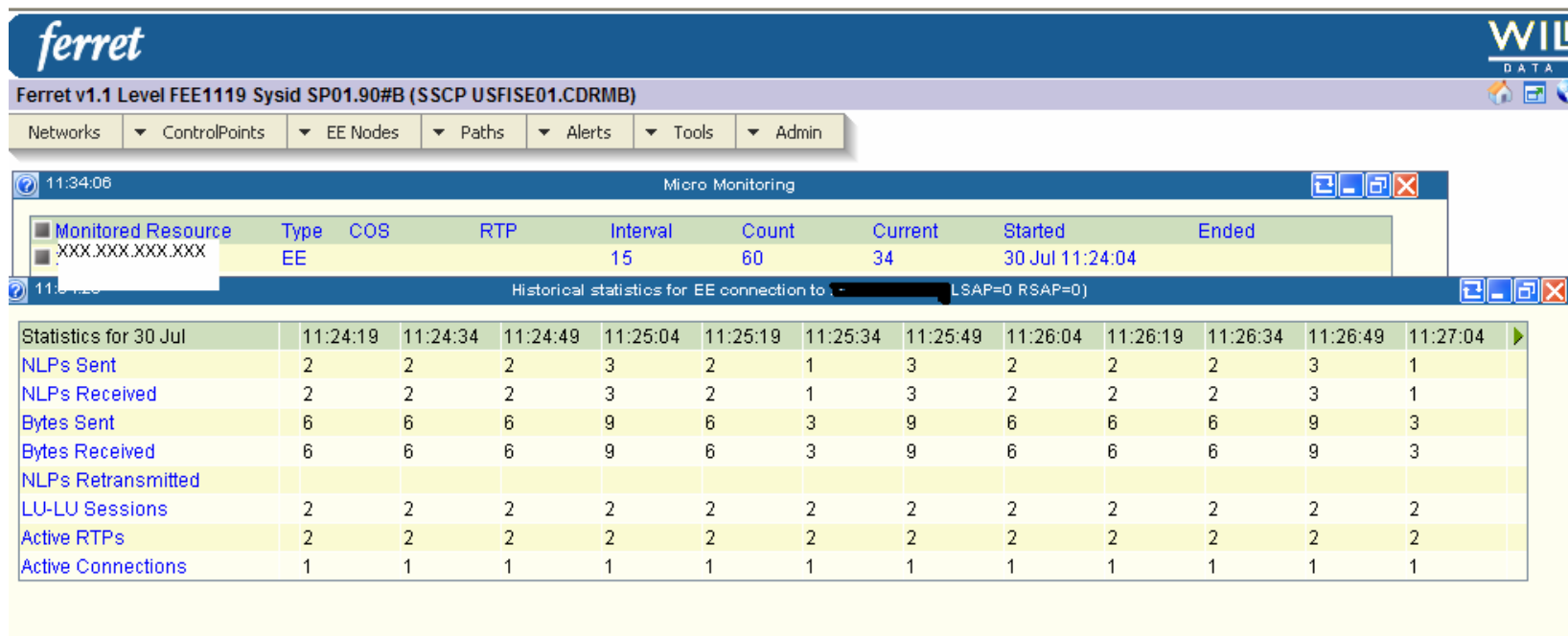
- Used this function to replace NCCF
- Includes Security and Command translation exit
- Ported Netview Clists for ease of Use for Operations
- Security Implemented via USERID

Troubleshooting Tools

- Micro Monitoring
- Ping
- APPN APING
- APPN Route Display
- Interfaces with Other WDS Products

Tools (Continued)

- Micro Monitoring



ferret WIL DATA S

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

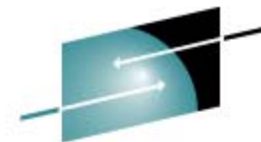
Networks ▾ ControlPoints ▾ EE Nodes ▾ Paths ▾ Alerts ▾ Tools ▾ Admin

11:34:06 Micro Monitoring

Monitored Resource	Type	COS	RTP	Interval	Count	Current	Started	Ended
XXX.XXX.XXX.XXX	EE			15	60	34	30 Jul 11:24:04	

11:34:06 Historical statistics for EE connection to [redacted] (LSAP=0 RSAP=0)

Statistics for 30 Jul	11:24:19	11:24:34	11:24:49	11:25:04	11:25:19	11:25:34	11:25:49	11:26:04	11:26:19	11:26:34	11:26:49	11:27:04
NLPs Sent	2	2	2	3	2	1	3	2	2	2	3	1
NLPs Received	2	2	2	3	2	1	3	2	2	2	3	1
Bytes Sent	6	6	6	9	6	3	9	6	6	6	9	3
Bytes Received	6	6	6	9	6	3	9	6	6	6	9	3
NLPs Retransmitted												
LU-LU Sessions	2	2	2	2	2	2	2	2	2	2	2	2
Active RTPs	2	2	2	2	2	2	2	2	2	2	2	2
Active Connections	1	1	1	1	1	1	1	1	1	1	1	1



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Historical Data View

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DATA SYSTEM

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks | ControlPoints | EE Nodes | Paths | Alerts | Tools | Admin

11:56:12 Historical statistics for EE connection to xxxxxxxxxxxx (SAP=8 RSAP=4)

Statistics for 30 Jul	00:15:00	00:30:00	00:45:00	01:00:00	01:15:00	01:30:00	01:45:00	02:00:00	02:15:00	02:30:00	02:45:00	03:00:00
NLPs Sent	15639	8221	35274	26668	35519	30854	56224	52541	34042	47973	40750	35731
NLPs Received	28854	8294	103722	78562	111937	101252	182255	177162	91216	140361	122275	111977
Bytes Sent	1264020	838577	2332208	1818243	2418455	2065602	3465507	3197879	2102376	2889140	2445979	2279729
Bytes Received	21897480	1848745	104185801	77604944	115675848	104757960	191265690	186251131	93439646	144995909	125965544	114171969
NLPs Retransmitted	1	1	1	1	1	1	1	1	1	1	1	1
LU-LU Sessions	572	571	568	567	568	569	566	565	561	563	562	562
Active RTPs	2	2	2	2	2	2	2	2	2	2	2	2
Active Connections												

EE Detailed Node Information

- Useful interfaces to Exigence and Implex

ferret

Ferret v1.1 Level FEE1119 Sysid SP01.90#B (SSCP USFISE01.CDRMB)

Networks ControlPoints EE Nodes Paths Alerts Tools Admin

11:51:19 Implex EE Activity

Packets/Minute		
Priority	Inbound	Outbound
Signal	347	348
Network	44	44
High	5	5
Medium	5135	5345
Low		

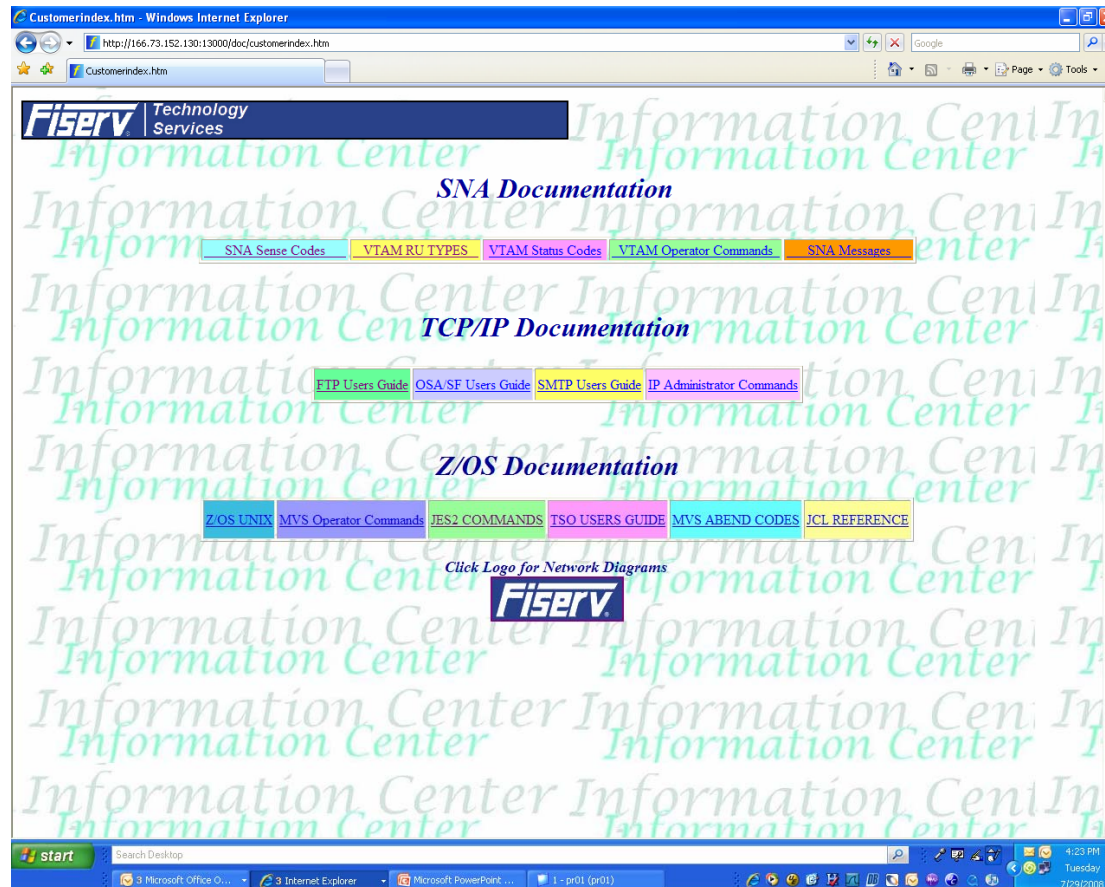
Remote IP Address	Direction		Priority				Total Pkts/Min				
	Inbound	Outbound	Signal	Network	High	Medium	Low	2600	5200	7800	10400
XXX.XXX.XXX.XXX	344	332		73		604					

Ferret Log

```
1 - pr01 (pr01)
File Edit Transfer Fonts Options Tools View Window Help
BROWSE - TUEJUL29 FERRET FERRET - Page 1 Line 864 Cols 1-132
COMMAND ==>
00:08:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00048 CP: USFISE01.BARRDSO
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00076 CP: USFISE01.CDRMPR04
00:08:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00040 CP: USFISE01.BARRWAY
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR0002A CP: USFISE01.SD010VB1
00:08:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR0015E CP: USFISE01.BARRLSB
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR0015E CP: USFISE01.BARRLSB
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00024 CP: USFISE01.CDRMPR03
00:08:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00047 CP: USFISE01.AMT302
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00001 CP: USFISE01.CDRMPR02
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00074 CP: USFISE01.CDRMPR06
00:08:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR00032 CP: USFISE01.CDRMPR03
00:10:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00048 CP: USFISE01.BARRDSO
00:10:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR00040 CP: USFISE01.BARRWAY
00:10:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR0002C CP: USFISE01.SD010VB3
00:10:00 FEE4017I Excessive NLPs being retransmitted: RTP: CNR0015E CP: USFISE01.BARRLSB
00:10:00 FEE4014I Excessive NLPs waiting acknowledgement: RTP: CNR0006A CP: USFISE01.CDRMPR03
00:10:11 IST663I INIT OTHER REQUEST FAILED , SENSE=08570003
00:10:11 IST664I REAL OLU=USFISE01.FP020362 REAL OLU=USFISE01.FSCICF
00:10:11 IST889I SID = D60B016DA3D4468A
00:10:11 IST264I REQUIRED RESOURCE FSCICF NOT ACTIVE
00:10:11 IST314I END
00:10:11 IST663I INIT OTHER REQUEST FAILED , SENSE=087D0001
00:10:11 IST664I REAL OLU=USFISE01.FP020362 ALIAS OLU=USFISE01.CL907I00
00:10:11 IST889I SID = D60B016DA3D44686
F1=HELP F2=SPLIT F3=END F4=RETURN F5=RFIND F6=RCHANGE F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE
1 Sess-1 166.73.152.130 2/15
start Search Desktop
Microsoft Office O... Internet Explorer Microsoft PowerPoint ... 1 - pr01 (pr01)
4:19 PM Tuesday 7/29/2008
```

User Help Pages

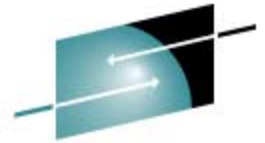
- Online Documentation for Help Desk



Summary

- Retains logging and NCCF functions of Netview at considerable cost savings
- Provides Security based on Userid for Command entry
- Retains Netlog information
- Provides detailed Information on EE and HPR Connections
- Alerts and Messages can be customized
- Easy to use
- Easy to install
- Requires minimal training for Support Staff
- Provides important Historical Information
- Clear picture of VTAM Network from one location

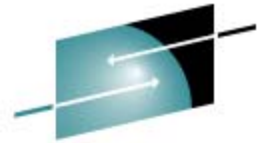
Live Demo



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Questions?



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