

Willkommen
Welcome
Bienvenue
欢迎光临

SAN (Broadcom) monitoring
with rest-api, syslogs & dashboard

Tarik Aslan 塔里克 - 2020.10.22

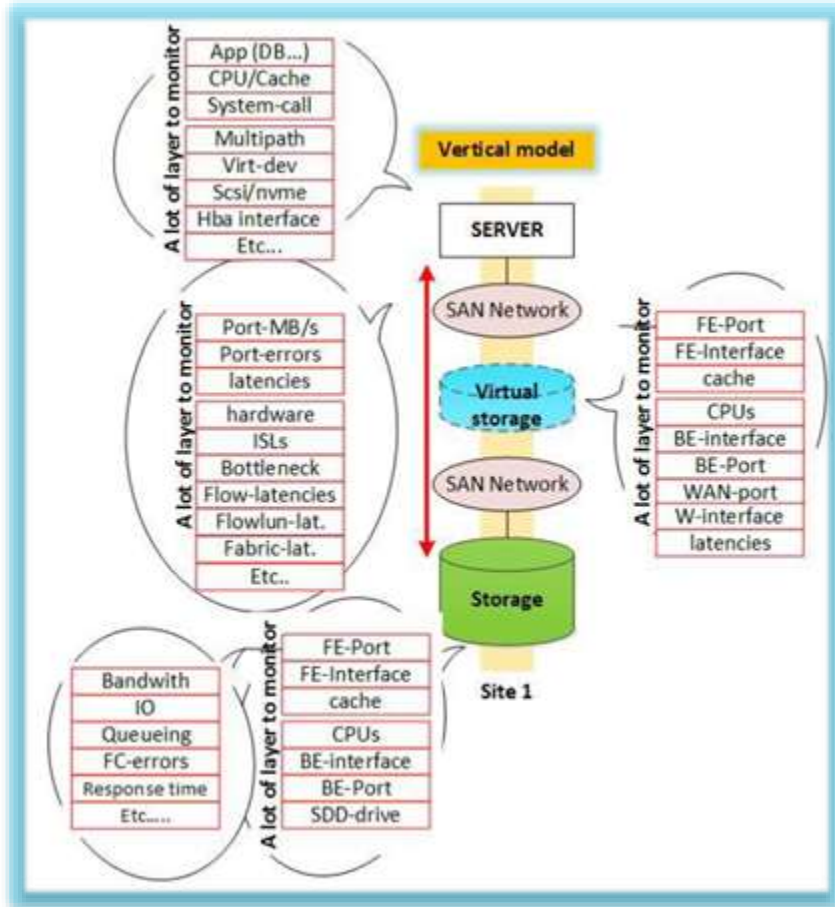
Inhalt

- Introduction
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- Sfind tool
- Graphical dashboard
- AMP & X6 Configuration
- Maps Configuration
- Configurations



Introduction

Incidents life



Latencies : How much?

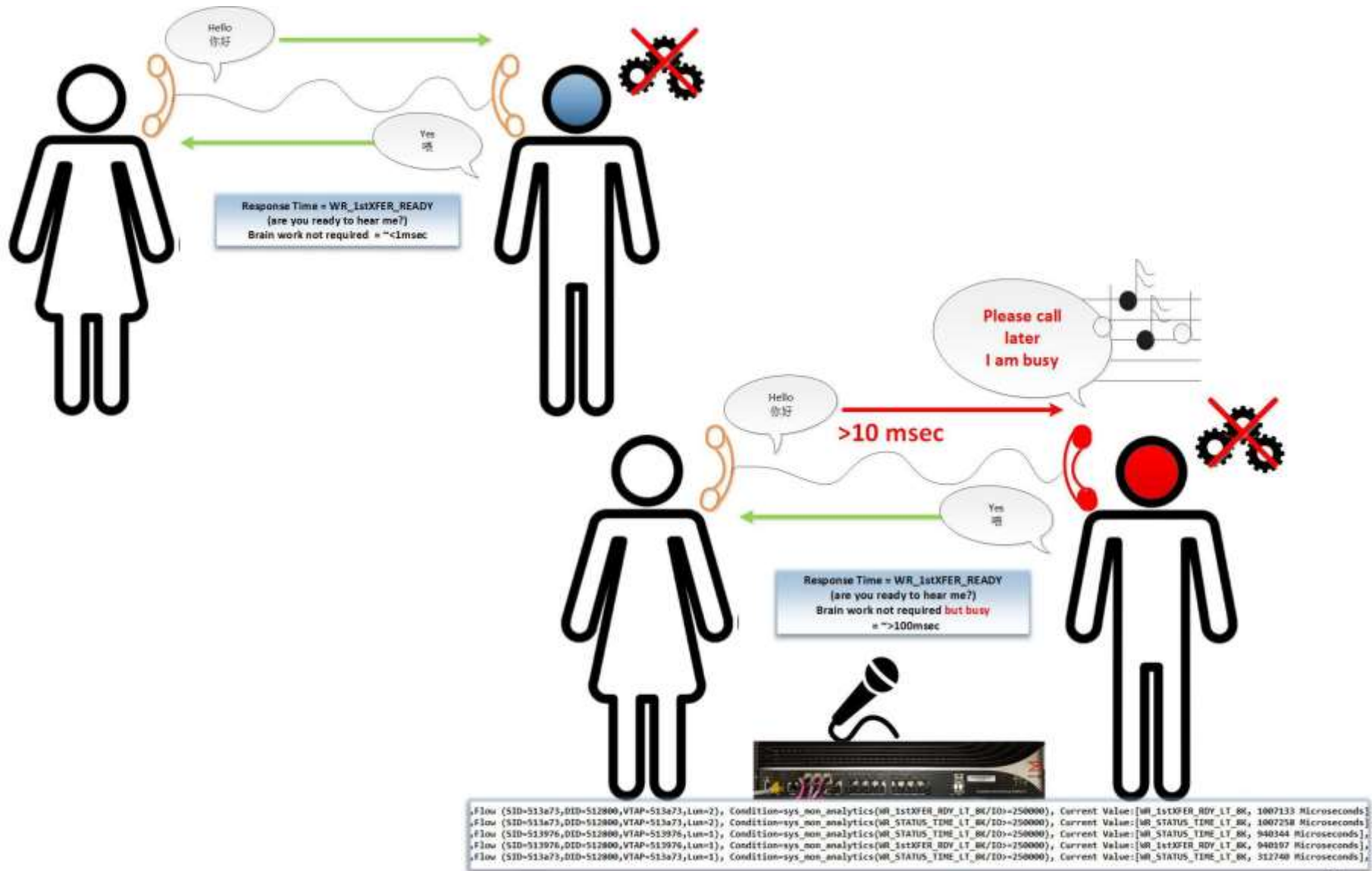
By purchasing a storage, you are signing an SLA agreement with the storage vendor. By signing a data storage service contract with your IT-provider, you also sign an SLA agreement. Part of the SLA agreement includes the guarantee that the average Read/Write response time will not exceed a maximum value of millisecond, perhaps also defined in data-block size/response time. Is your average value defined for 1 min/5min/10min/15min or 30min? Let's compare the effect of 1,10 and 100 IOs 1sec and 10sec latency peaks in your average window and see what effect it has on the average.

1000 IOs/sec 2ms/IO	"Realtime-near" Avr 30sec	SLA/tool Avr 5min	SLA/tool Avr 10min	SLA/tool Avr 15min
0 IO 10sec	2ms	2ms	2ms	2ms
1 IO 10sec	2.3ms	2,0ms	2,0ms	2,0ms
10 IOs 10sec	5.3ms	2,3ms	2,2ms	2,1ms
100 IOs 10sec	35.3ms	5,3ms	3,7ms	3,1ms

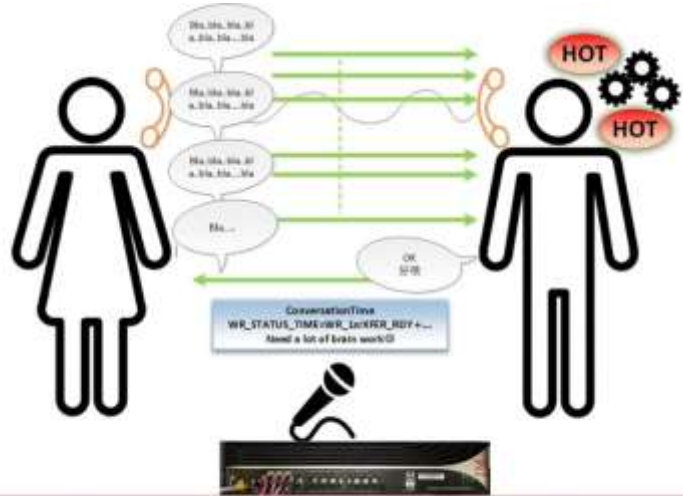
In fact, 10 IO peaks 10sec can exist without affecting SLA and classical monitoring tool, but E-Commerce, Bank applications or DB will have very poor performance or freeze. The root cause of these high latency spikes can only be analyzed after you see that they exist. Up to this point, every player (server, storage, os-team) will confirm that they have no problem. In order to open a service request with the storage supplier you have to prove that there is a problem, describe it in detail and prove it with numbers otherwise it will not be investigated. This already show you why latency monitoring is required at IO level. Peaks of 1sec would also be critical but more difficult to find it inside the average value.

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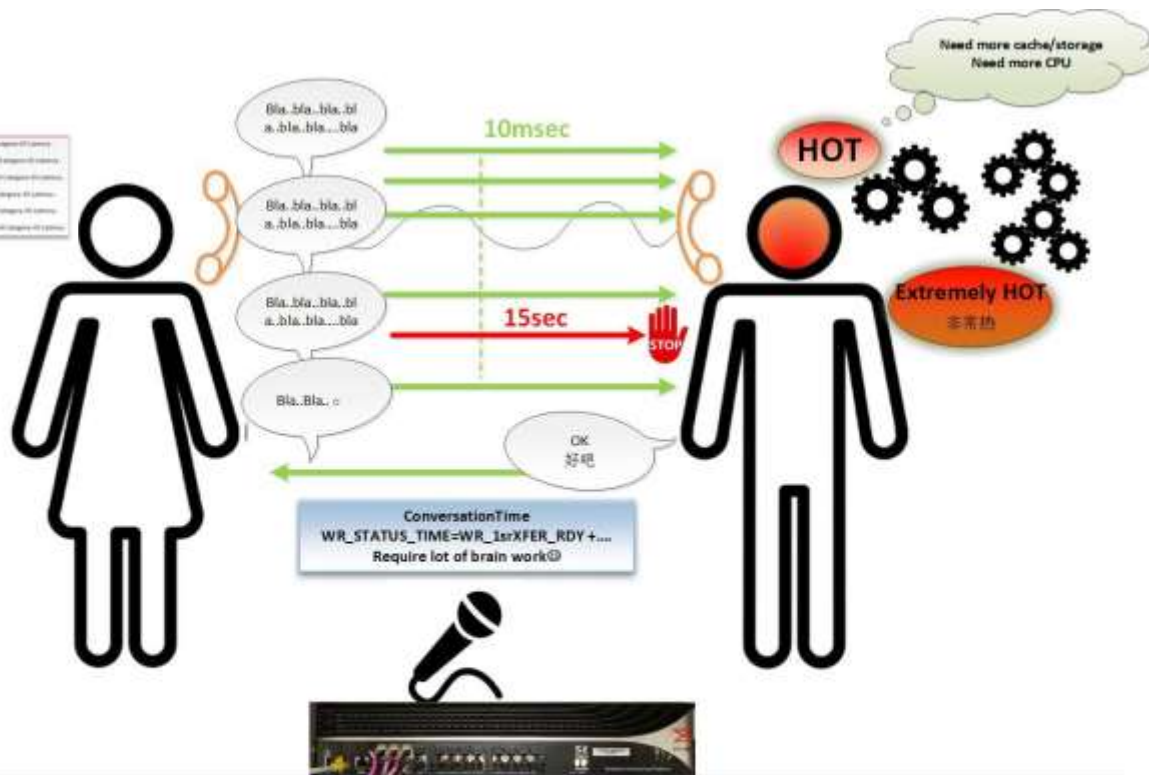
SCSI basis – 1rst response latencies



SCSI basis – Completion latencies



Flow (SID=511373,DID=512800,VTAP=513a73,Lun=1), Condition=sys_mon_analytics(WR_1stXFER_RDY_LT_RK/10>250000), Current Value:[WR_1stXFER_RDY_LT_RK, 1007133 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=2), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 1007238 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=3), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 940344 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=4), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 940197 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=5), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 312740 Microseconds]

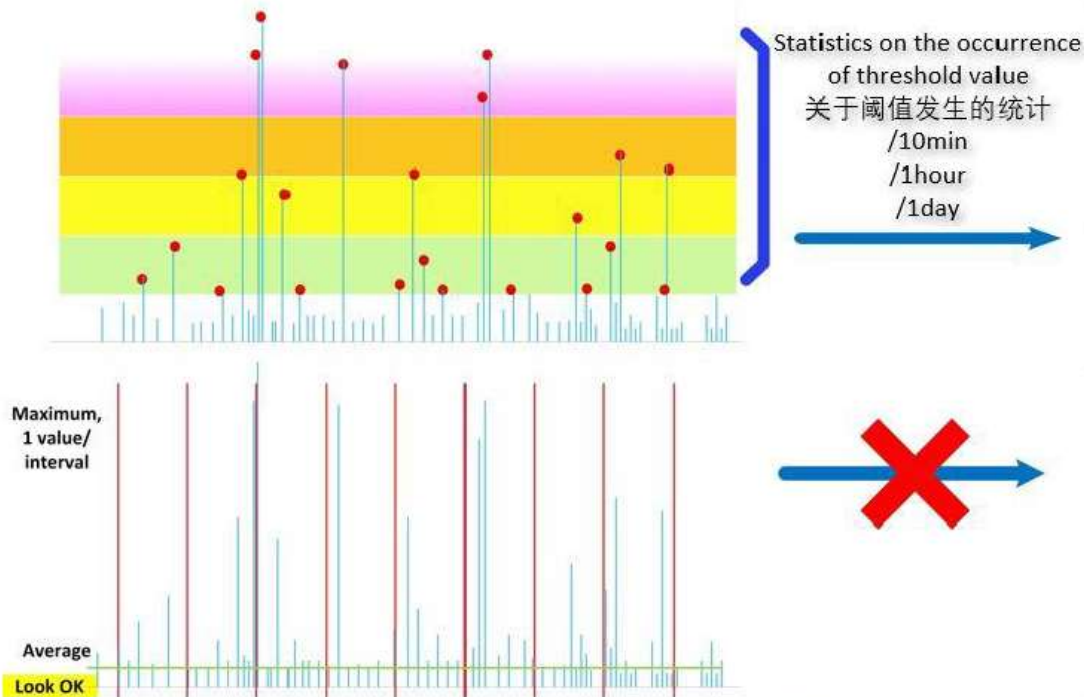


Flow (SID=511373,DID=512800,VTAP=513a73,Lun=2), Condition=sys_mon_analytics(WR_1stXFER_RDY_LT_RK/10>250000), Current Value:[WR_1stXFER_RDY_LT_RK, 1007133 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=3), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 1007238 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=4), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 940344 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=5), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 940197 Microseconds]
 Flow (SID=511373,DID=512800,VTAP=513a73,Lun=6), Condition=sys_mon_analytics(WR_STATUS_TIME_LT_RK/10>250000), Current Value:[WR_STATUS_TIME_LT_RK, 312740 Microseconds]

Alert or information?

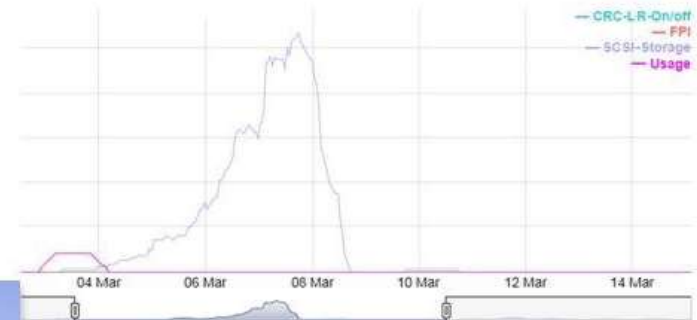
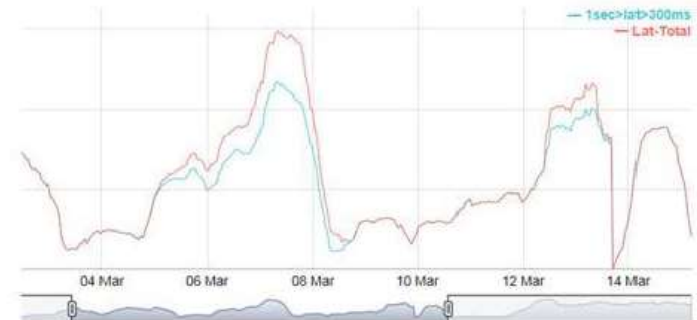
Usually, threshold messages are treated as warnings, not as performance data, and are usually ignored or considered only after an event has occurred.

传统上，阈值消息被视为警告，而不是性能数据，并且通常仅在事件发生后被忽略或考虑



Usually, the average and maximum values in a time interval are the performance data.

通常，时间间隔中的平均值和最大值是性能数据



1st Response time ratio

Here is the definition:

$$1st\ Response\ Ratio = \frac{(Nr\ of\ 1st\ response\ Latency \times 100)}{Nr\ of\ completion\ Latency} \%$$

if Nr of completion Latency = 0 (means no latency), 1st Response Ratio = -1

Completion time = 1st response time + data transfer time

Completion time ≥ 1st response time

Here is the interpretation:

1st Response Ratio	1st Response time	Data Transfer time	Completion Time
0%	0%	100%	100%
50%	50%	50%	100%
100%	100%	0%	100%



Nvme data storage performance problem and 1st response time ratio

Nvme 数据存储服务性能问题及第一响应时间比

本文主要介绍 Nvme 数据存储服务性能问题及第一响应时间比。Nvme 是新一代非易失性存储接口，具有高性能、低延迟、低功耗等优点。在 Nvme 存储系统中，数据读写速度非常快，但有时会出现性能问题，导致数据读写延迟增加。本文将介绍 Nvme 数据存储服务性能问题的原因及解决方法，并重点介绍第一响应时间比的概念及计算方法。

The article introduces the Nvme data storage performance problem and the first response time ratio. Nvme is a new generation of non-volatile storage interface, which has the advantages of high performance, low latency, and low power consumption. In the Nvme storage system, data read and write speed is very fast, but sometimes performance problems will occur, leading to an increase in data read and write latency. This article will introduce the causes and solutions of Nvme data storage performance problems, and focus on the concept and calculation method of the first response time ratio.

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- At the storage port level:
 - 1st Response ratio >50%-100% too many IO/s at this port, you should use more path to other storage ports
 - 1st Response ratio = 0% possible storage Back-End performance problem or slow-drain, or data transfer blocks size >512KB
- At the storage director level:
 - 1st Response ratio >50-100% too many IO/s for this director, too few cores available (cores may be reserved for other purposes, such as synchronous replication between 2 storages and not normal traffic available)
- At the complete storage level:
 - 1st Response ratio 20-50% = too much IO/s for this storage, you are waiting for the "I am ready"
 - 1st Response ratio >50% global storage performance issue, means the central unit responsible for many services can slow down your global traffic (i.e. by deduplication check the block footprint) if one of these services is not performant (code) enough. All your data transfers are waiting for the "I am ready"

The idea The decision



AMP: The idea

Monitor 5 000 000 IO/s
=
Xxxx storage ports
continuously

Just monitor 20000 I/O flow
=
1 machine of 10000
But which one?
Why just choose this one?

Just use to solve incidents
=
When is the next?
1 day?
1 week later?
1 Month later?



X6 : The idea

- X6 are beginning to be intelligent, but limited (only latency/min, and IO/sec)
- you can only produce a few flow monitoring (some ports)
- If you like SM, you will have fun with.

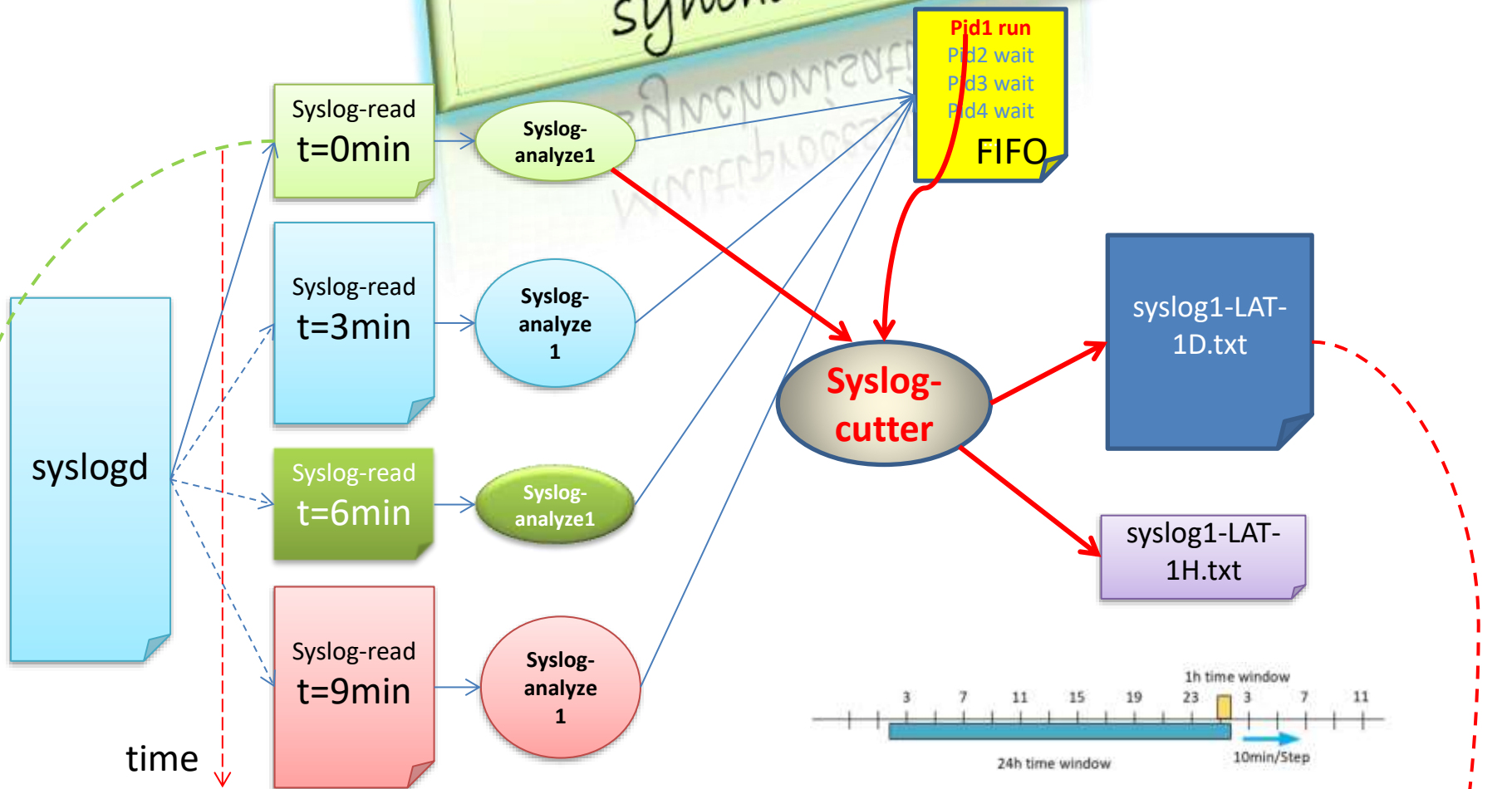
The solution :

- Find the way to add all Fports to a latency port monitor group and define the maps
- It is easy, works for all F-Port 24h/24h
- It is integrated in the dashboard

This configuration allow to monitor the latency and IONr of all F-Ports without an AMP

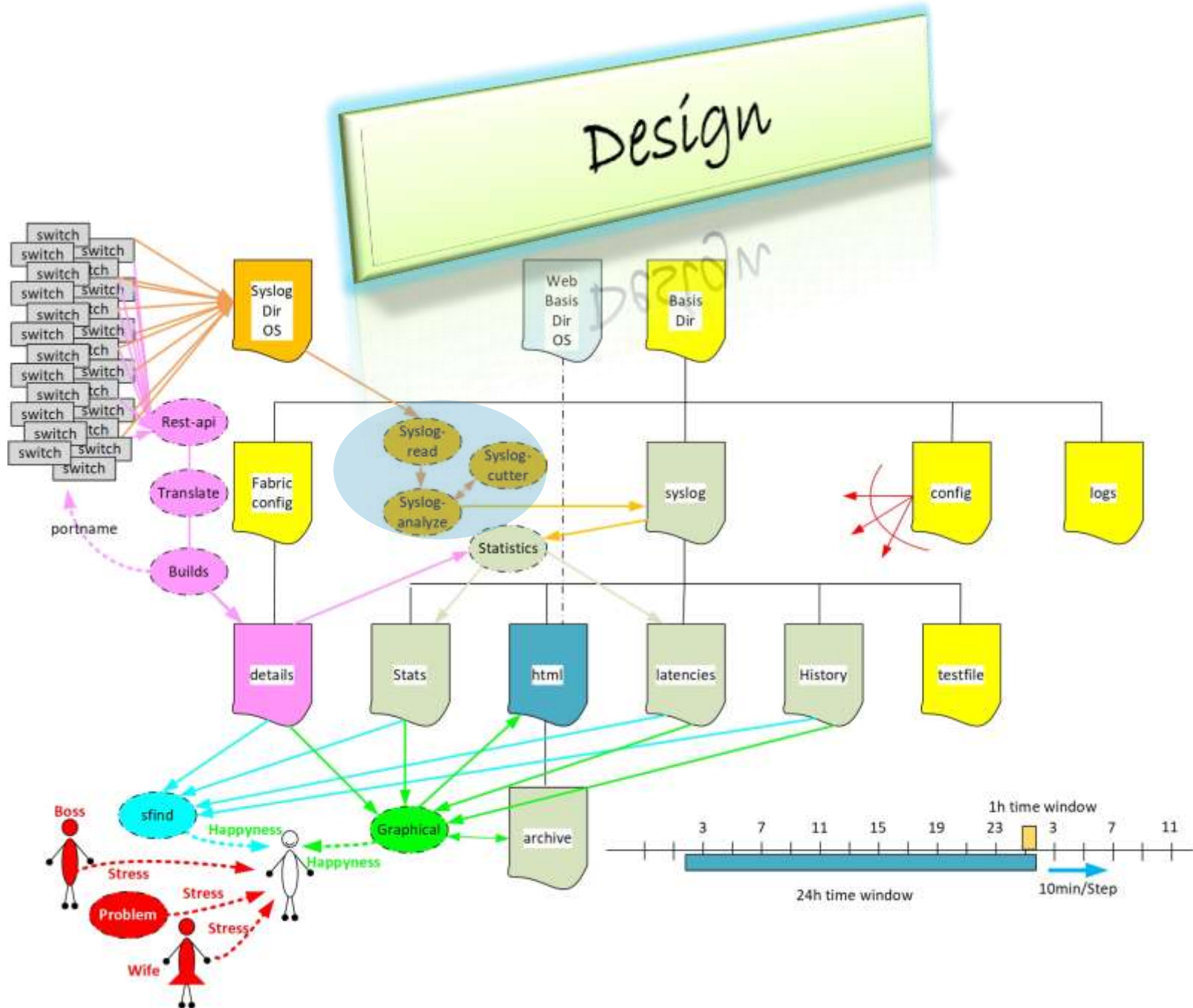
- `flow --activate sys_mon_all_fports`
- `mapsconfig --import sys_mon_all_fports`

Multiprocessing synchronisation



```
2020/10/20-09:30:03|amkb01|128|MAPS-1003|1|1|Flow (SID=77ab00|DID=93cc81|VTAP=93cc81|Lun=184)|Condition=sys_mon_analytics(WR_STATUS_TIME_LT_8K/IO>150000)|Current Value:[WR_STATUS_TIME_LT_8K| 188232 Microseconds]
2020/10/20-09:27:43|amkb01|128|MAPS-1003|1|1|Flow (SID=775a00|DID=93e981|VTAP=93e981|Lun=1)|Condition=sys_mon_analytics(WR_1stXFER_RDY_LT_8K/IO>100000)|Current Value:[WR_1stXFER_RDY_LT_8K| 155632 Microseconds]
2020/10/20-09:31:28|amfb01|128|MAPS-1003|1|1|Flow (SID=779e80|DID=73f701|VTAP=73f701|Lun=13)|Condition=sys_mon_analytics(WR_STATUS_TIME_LT_8K/IO>150000)|Current Value:[WR_STATUS_TIME_LT_8K| 193745 Microseconds]
```

```
|0|2020/10/20-09:06:58|amfb01|798d80|fzm12_ae13_svg6nn01_nn_pci3_2|PRSAN_B|prfb05|1/37|73c981|frnac32n04_9bv021fc052_sol_pg02|prfb02|9/33|73c981|15|WR_STATUS_TIME_LT_8K/IO|425515 uS|x4x|
|0|2020/10/20-09:06:58|amfb01|798d80|fzm12_ae13_svg6nn01_nn_pci3_2|PRSAN_B|prfb05|1/37|73c981|frnac32n04_9bv021fc052_sol_pg02|prfb02|9/33|73c981|8|WR_STATUS_TIME_LT_8K/IO|312001 uS|x4x|
|0|2020/10/20-09:06:58|amfb01|798d80|fzm12_ae13_svg6nn01_nn_pci3_2|PRSAN_B|prfb05|1/37|73c981|frnac32n04_9bv021fc052_sol_pg02|prfb02|9/33|73c981|8|WR_STATUS_TIME_LT_8K/IO|312083 uS|x4x|
```

Rest-API - level 0

019V9J-19A-f299

API basis command

```
case $CMD in
chassisshow)          COMMAND="running/brocade-chassis/chassis";;
hashow)               COMMAND="running/brocade-chassis/ha-status";;
fabricshow)           COMMAND="running/fabric/fabric-switch";;
switchshow)           COMMAND="running/fabric/fabric-switch/name/$3";;
fdmi-devices-hba)     COMMAND="running/brocade-fdmi/hba";;
fdmi-devices-port)    COMMAND="running/brocade-fdmi/port";;
portcfgshow)          COMMAND="running/brocade-interface/fibrechannel";;
portstatsshow)        COMMAND="running/brocade-interface/fibrechannel-statistics";;
logicalswitchshow)    COMMAND="running/logical-switch/fibrechannel-logical-switch";;
switchshow2)          COMMAND="running/switch/fibrechannel-switch";;
bladeshow)            COMMAND="running/brocade-fru/blade/";;
fanshow)              COMMAND="running/brocade-fru/fan";;
psshow)               COMMAND="running/brocade-fru/power-supply";;
trunkshow)            COMMAND="running/brocade-fibrechannel-trunk/trunk";;
trunk-performance)    COMMAND="running/brocade-fibrechannel-trunk/performance";;
maps-group)           COMMAND="running/brocade-maps/group";;
maps-policy-status)   COMMAND="running/brocade-maps/switch-status-policy-report";;
mapsrulesshow)        COMMAND="running/brocade-maps/rule";;
mapspolicyshow)       COMMAND="running/brocade-maps/maps-policy";;
mapsconfigshow)       COMMAND="running/brocade-maps/maps-config";;
systemresource)       COMMAND="running/brocade-maps/system-resources";;
sfpsshow)             COMMAND="running/brocade-media/media-rdp";;
nsshow)               COMMAND="running/brocade-name-server/fibrechannel-name-server";;
defzoneshow)          COMMAND="running/zoning/defined-configuration";;
actzoneshow)          COMMAND="running/zoning/effective-configuration";;
syslogdshow)          COMMAND="running/brocade-logging/syslog-server";;
*)                    echo "wrong command"; exit;;
esac

curl -v -k -X post -H "accept:application/yang-data+xml" -u ,xxxxxx:yyyyyyyyy' https://${SWITCH}/rest/login >${TMPFILE01} 2>&1
TOKEN1=`cat ${TMPFILE01} |grep "Authorization: Custom_Basic"|cut -d ":" -f 2| awk '{ print $2}'|tr -d '\040\011\012\015'`
TOKEN="Authorization: Custom_Basic ${TOKEN1}"
if [[ -z $TOKEN1 ]]; then
    CMD="aploginhistory --show|grep \"ta2elcc, curl/7.59.0-DEV\""
    ssh $SWITCH -l admin $CMD |tail -3| awk '{ print $5}'| sed -e 's/,//g'>${TMPFILE02}
    CMDDEL=""
    while read TOKENZEILE
    do
        CMDDEL=${CMDDEL}"mgmtapp --terminate ${TOKENZEILE};"
    done<${TMPFILE02}
    ssh $SWITCH -l admin $CMDDEL
    #####
    # connect again
    #####
    curl -v -k -X post -H "accept:application/yang-data+xml" -u ,xxxxxx:yyyyyyyyy' https://${SWITCH}/rest/login >${TMPFILE01} 2>&1
    TOKEN1=`cat ${TMPFILE01} |grep "Authorization: Custom_Basic"|cut -d ":" -f 2| awk '{ print $2}'|tr -d '\040\011\012\015'`
    TOKEN="Authorization: Custom_Basic ${TOKEN1}"
fi

curl -k -X GET -H "Content-Type: application/yang-data+xml" -H "${TOKEN}" https://${SWITCH}/rest/${COMMAND}
curl -k -X POST -H "${TOKEN}" https://${SWITCH}/rest/logout
```

Build scripts - level 1

Build scripts - level 1

Build-Global-show.ksh

Build-detail-Liste.ksh

Require the switch liste : config/Master_List.txt
Require the script : Build-detail-Liste.ksh <switch>
Results in : fabric_config/details

every 5min ZONEFLAG=0, All switch/fabric

- **Analyze-fabricshow.ksh** <SWITCHNAME>
 - Result in Result in \${SWITCHSHORT}_portperfshow.txt
 - Get the bandwidth

Every 1h ZONEFLAG=1, One switch/fabric

- **Analyze-fabricshow.ksh** <SWITCHNAME>
 - Result in <fabricname>_fabric.txt
- **Analyze-defzonecfg.ksh** <SWITCHNAME>
 - Result in <fabricname>-defzoneshow-liste.txt
- **Analyze-actzonecfg.ksh** <SWITCHNAME>
 - Result in <fabricname>-alias-liste.txt
 - Result in <fabricname>-Actcfg.txt
- **Analyze-nsshow.ksh** <SWITCHNAME>
 - Result in <fabricname>_nsshow.txt

Every 1h ZONEFLAG=0, All switch/fabric

- **Analyze-portstatshow.ksh** <SWITCHNAME>
 - Result in <switchname>_portstatshow.txt
- **Analyze-fdmi-port.ksh** <SWITCHNAME>
 - Result in <switchname>_fdmi-devices.txt
- **Analyze-sfpshow.ksh** <SWITCHNAME>
 - Result in <switchname>_sfpshow.txt
- **Analyze-portcfgshow.ksh** <SWITCHNAME>
 - Result in <switchname>_portcfgshow.txt
- **Analyze-portname.ksh** <SWITCHNAME>
 - Result in <switchname>-portname.txt
- **Analyze-trunk.ksh** <SWITCHNAME>
 - Result in <switchname>_trunk.txt



sfind tool

2find tool

Sfind tool

syslog-read require
syslog-analyze require
Result in syslog

: raw syslog file
: output of syslog-read
: syslog1-LAT-1D.txt
: syslog1-LAT-1H.txt
: syslog-others.txt

Syslog1-Lat-1x format:

1. Epoch time =0
2. Date
3. Message source
4. Source PID
5. Source name
6. Fabric
7. Souce Switchname
8. Source SlotPort
9. Destination PID
10. Destination name
11. Destination Switchname
12. Destination SlotPort
13. VTAP PID
14. LUN
15. Message Threshold
16. Actual value
17. Message category

Message category

x1x	I0 lat >5s
x2x	5s > I0 lat >1s
x3x	1s > I0 lat >500ms
x4x	500ms > I0 lat >300ms
x5x	300ms > I0 lat >150ms
x6x	I0s >100Kios
x7x	100Kios > I0s >50Kios
x8x	50Kios > Ios >30Kios
x9x	30Kios > Ios >20Kios
x10x	20Kios > I0s >10Kios
x11x	RX/TX/UTIL /min (>85%)
x12x	LR/STATE_CHG/ITW/LOSS_SIGNAL/CRC
x13x	DEV_LATENCY_IMPACT/Slow Drain/C3TXTO/C3RXTO
x14x	VTAP
x15x	SCSI-T0/Ab
x16x	UNROUTE / DU Frames /Frame Loss
x17x	SFP Powers
x18x	Fabric Latency >15000us
x19x	I0queuing >1500 I0s
x20x	1500I0s > I0queuing >750 I0s
x21x	750 I0s > I0queuing >300 I0s
x22x	IT_FLOW (>16)
x23x	ELS

```
[0|2020/10/20-08:00:59|amfa01|769380|fzm22_am16_svg2fn01_nn_pci3_0|PRSAN_A|prfa04|2/43|729881|frnac32n01_1dv02lfc007_sol_pg04|prfa02|2/32|729881|4|WR_STATUS_TIME_LT_8K/IO|172448 uS|x5x|
[0|2020/10/20-08:00:59|amfa01|76c300|fzm12_bc23_svg8fn01_nn_pci3_1|PRSAN_A|prfa04|9/19|72c981|frnac32n04_1bv02lfc051_sol_pg02|prfa02|9/33|72c981|69|WR_STATUS_TIME_LT_8K/IO|479699 uS|x4x|
[0|2020/10/20-08:00:59|amfa01|76c300|fzm12_bc23_svg8fn01_nn_pci3_1|PRSAN_A|prfa04|9/19|72c981|frnac32n04_1bv02lfc051_sol_pg02|prfa02|9/33|72c981|69|WR_STATUS_TIME_LT_8K/IO|479778 uS|x4x|
[0|2020/10/20-08:00:59|amfa01|76c480|fzm22_bc20_svg6rn01_nn_pci3_1|PRSAN_A|prfa04|9/44|70cc81|frnac32n06_1av02lfc081_sol_pg01|prfa01|9/36|70cc81|17|WR_STATUS_TIME_LT_8K/IO|636640 uS|x3x|
[0|2020/10/20-08:00:59|amfa01|76d300|fzm12_am16_svg8fn03_nn_pci3_1|PRSAN_A|prfa04|10/19|72c981|frnac32n04_1bv02lfc051_sol_pg02|prfa02|9/33|72c981|55|WR_STATUS_TIME_LT_8K/IO|255293 uS|x5x|
```

sfind.ksh <search-param> <option1> <option2>

sfind.ksh <search-param> <option1> <option2>

<option1>

- empty
- zone
- latency
- Latencydetail <opt : datum>
- sfp
- hba

search-param can be any things
Name part, wwn part, slot port, index, pid, fabric, switch, time , sfpspeed, etc....

Special keywords

- | | |
|----------------------------------|------------------------------------|
| • sfind.ksh OZON zone | : OhneZone (without zone) |
| • sfind.ksh OALI zone | : OhneAlias (without alias) |
| • Sfind.ksh HiPo sfp | : High Power (>800mW) |
| • sfind.ksh LoPo sfp | : Low Power (<200mW) |
| • sfind.ksh CRC sfp | : Sfp with CRC |
| • sfind.ksh CRC latencydetail | : all CRC entry |
| • sfind.ksh C3TXTO latencydetail | : all C3TX entry |
| • sfind.ksh SCSI latencydetail | : all SCSI entry |
| • etc.... | |

Sfind.ksh <pattern>

AZON = **Activ Zoned**
 OZON = **Ohne Zone**
 OALI = **Ohne Alias**

ITFL : nr of Host zoned
 TaIn : **T**arget / **I**niator
 AMP : connected to which AMP

Speed : active speed
 Sfp : max Sfp speed

Aliases/Portname	WWN	Fabric	Switch	PID	SIPO	Ind	Speed	SFP	Port	type	Status	AMP	Zoned	ITFL	TaIn
frnac3ln01_lav02lfc001_aix_pg01	20:7f:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x708c01	1/28	140	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	16	Targl
frnac3ln03_lav02lfc033_sol_pg01	20:1f:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x708d01	1/29	141	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	17	Targl
frnac3ln05_lav02lfc065_sol_pg01	20:3e:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x708e01	1/30	142	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	9	Targl
frnac3ln07_lav02lfc097_sol_pg01	20:5f:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x708f01	1/31	143	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	2	Targl
frnac3ln01_lcv02lfc005_win_pg03	20:03:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x709e01	2/28	156	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	1	Targl
frnac3ln03_lcv02lfc037_sol_pg03	20:23:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x709d01	2/29	157	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	16	Targl
frnac3ln05_lcv02lfc069_lnx_pg03	20:43:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x709e01	2/30	158	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	12	Targl
frnac3ln07_lcv02lfc101_lnx_pg03	20:63:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x709f01	2/31	159	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	20	Targl
frnac3ln01_2av02lfc009_vms_pg05	20:07:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70ac01	3/28	172	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	9	Targl
frnac3ln03_2av02lfc041_vms_pg05	20:27:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70ad01	3/29	173	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	9	Targl
frnac3ln05_2av02lfc073_sol_pg05	20:47:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70ae01	3/30	174	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	14	Targl
frnac3ln07_2av02lfc105_sol_pg05	20:67:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70af01	3/31	175	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	16	Targl
frnac3ln01_2cv02lfc013_lnx_pg07	20:0b:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70bc01	4/28	188	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	17	Targl
frnac3ln03_2cv02lfc045_sol_pg07	20:2b:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70bd01	4/29	189	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	17	Targl
frnac3ln05_2cv02lfc077_sol_pg07	20:4b:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70be01	4/30	190	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	11	Targl
frnac3ln07_2cv02lfc109_sol_pg07	20:6b:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70bf01	4/31	191	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	4	Targl
frnac3ln02_lav02lfc017_aix_pg01	20:0f:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70cc01	9/28	204	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	16	Targl
frnac3ln04_lav02lfc049_sol_pg01	20:2f:00:a0:98:ef:37:56	PRSAN_A	prfa01	0x70cd01	9/29	205	16Gb	16Gb	F-Po	NPIV	online	_AMFA01	AZON	17	Targl
frnac3ln02_l0dv02lfc032_sol_pg08	20:1e:00:a0:98:ef:37:56	PRSAN_B	prfb02	0x73fc01	12/28	252	16Gb	16Gb	F-Po	NPIV	online	_AMFB01	AZON	14	Targl
frnac3ln04_l0dv02lfc064_lnx_pg08	20:3e:00:a0:98:ef:37:56	PRSAN_B	prfb02	0x73fd01	12/29	253	16Gb	16Gb	F-Po	NPIV	online	_AMFB01	AZON	32	Targl
frnac3ln06_l0dv02lfc096_sol_pg08	20:5e:00:a0:98:ef:37:56	PRSAN_B	prfb02	0x73fe01	12/30	254	16Gb	16Gb	F-Po	NPIV	online	_AMFB01	AZON	12	Targl
frnac3ln08_l0dv02lfc128_xxx_pg08	20:7e:00:a0:98:ef:37:56	PRSAN_B	prfb02	0x73ff01	12/31	255	16Gb	16Gb	F-Po	NPIV	online	_AMFB01	OZON	0	Targl
=====															
Elements : 128 Online : 128 Offline : 0 AZON : 124 OZON : 4 OALI : 0															
=====															
Linux : 32 VMS : 12 AIX : 6 XXX : 4 Solaris : 68 ESX : 0															
=====															
4Gb : 0 8Gb : 0 16Gb : 128 32Gb : 0 AMP : 128															
=====															

ta2elcc@stifrp03:/netapp/san/new_scripts/SAN\$./sfind-test2.ksh 32G

Aliases/Portname	WWN	Fabric	Switch	PID	SIPO	Ind	Speed	SFP	Port	type	Status	AMP	Zoned	ITFL	TaIn
teshds31_c1la_adm_pg01	50:06:0e:80:12:cc:7b:00	DESAN_A	defa03	0xb44d00	9/13	77	32Gb	32Gb	F-Po	Physical	online	no	AZON	14	Targl
50:06:0e:80:12:cc:7b:20	50:06:0e:80:12:cc:7b:20	DESAN_A	defa03	0xb45d00	10/13	93	32Gb	32Gb	F-Po	Physical	online	no	OALI		
50:06:0e:80:12:cc:7b:40	50:06:0e:80:12:cc:7b:40	DESAN_A	defa03	0xb46d00	11/13	109	32Gb	32Gb	F-Po	Physical	online	no	OALI		
teshds31_c12a_adm_pg01	50:06:0e:80:12:cc:7b:10	DESAN_B	defb03	0xb54d00	9/13	77	32Gb	32Gb	F-Po	Physical	online	no	AZON	14	Targl
50:06:0e:80:12:cc:7b:30	50:06:0e:80:12:cc:7b:30	DESAN_B	defb03	0xb55d00	10/13	93	32Gb	32Gb	F-Po	Physical	online	no	OALI		
50:06:0e:80:12:cc:7b:50	50:06:0e:80:12:cc:7b:50	DESAN_B	defb03	0xb56d00	11/13	109	32Gb	32Gb	F-Po	Physical	online	no	OALI		

sfind.ksh <pattern> zone

Act = **A**ctive configuration

Def = **D**efined configuration

Ali = Number of elements in zone

ITFL = Zone Number to this target

```
./sfind-test3.ksh svq3y zone
```

Alias	AliasMNH	Fabric	CfgName	Zone	Ali	Act	Zone Member	Switch	SlPo	PID	AMP	Tain	Status	Speed	ITFL
fms12_acl7_svs3yn01_nn_pc13_0	21:00:00:0e:1e:e3:01:00	FRSAN_A	FRSAN_A	svq3yn01	3	Act	fms12_acl7_svs3yn01_nn_pc13_0 defrahd312_c11a_acl_pg01 dekelhd312_c11a_acl_pg01	prfa06 prfa01 prka01	1/14 1/18 1/18	780e00 780e00 908e00	NOAMP AMFA01 AMXA01	Init Targ Targ	online online online	16Gb 14Gb 14Gb	1 5 3
		FRSAN_A	FRSAN_A	svq3yn01_evt05	3	Def	fms12_acl7_svs3yn01_nn_pc13_0 ftrcvn05_08g0_ncoe_pgxx kelevn05_08g0_ncoe_pgxx	prfa05 prfa01 prka01	1/14 3/18 3/18	780e00 78a200 90a200	NOAMP NOAMP NOAMP	Init Targ Targ	online online online	16Gb 8Gb 8Gb	1 0 0
fms12_acl7_svs3yn01_nn_pc13_1	21:00:00:0e:1e:e3:01:01	FRSAN_B	FRSAN_B	svq3yn01	3	Act	fms12_acl7_svs3yn01_nn_pc13_1 defrahd312_c11a_acl_pg01 dekelhd312_c11a_acl_pg01	prfb06 prfb01 prka01	1/14 1/18 1/18	790e00 718e00 918e00	NOAMP AMFB01 AMXB01	Init Targ Targ	online online online	16Gb 16Gb 14Gb	1 5 3
		FRSAN_B	FRSAN_B	svq3yn01_evt05	3	Def	fms12_acl7_svs3yn01_nn_pc13_1 ftrcvn05_08g0_ncoe_pgxx kelevn05_08g0_ncoe_pgxx	prfb05 prfb01 prka01	1/14 3/18 3/18	790e00 81a200 71a200	NOAMP NOAMP NOAMP	Init Targ Targ	online online online	16Gb 8Gb 8Gb	1 0 0
fms12_acl7_svs3yn03_nn_pc13_0	21:00:00:0e:1e:28:26:10	FRSAN_A	FRSAN_A	svq3yn03	3	Act	fms12_acl7_svs3yn03_nn_pc13_0 defrahd312_c11a_acl_pg01 dekelhd312_c11a_acl_pg01	prfa05 prfa01 prka01	2/14 1/18 1/18	781e00 780e00 908e00	NOAMP AMFA01 AMXA01	Init Targ Targ	online online online	16Gb 14Gb 14Gb	1 5 3
		FRSAN_A	FRSAN_A	svq3yn03_evt05	3	Def	fms12_acl7_svs3yn03_nn_pc13_0 ftrcvn05_08g0_ncoe_pgxx kelevn05_08g0_ncoe_pgxx	prfa05 prfa01 prka01	2/14 3/18 3/18	781e00 78a200 90a200	NOAMP NOAMP NOAMP	Init Targ Targ	online online online	16Gb 8Gb 8Gb	1 0 0

PID = Element PID AMP = dedicated AMP for this element

On the <target AMP> : flow --show sys_mon_analytics -srcdev <Init-PID> -dstdev <Targ-PID>

defrahd311_c13g_acl_pg24	50:06:0e:80:07:2e:60:2e	FRSAN_A	FRSAN_A	svq3rn01	3	Act	fms22_acl4_svs3rn01_nn_pc13_1 defrahd311_c13g_acl_pg24 dekelhd311_c13g_acl_pg24	prfa04 prfa01 prka01	2/41 9/19 9/19	769100 72c300 92c100	NOAMP AMFA01 AMXA01	Init Targ Targ	online online online	9Gb 16Gb 16Gb	1 2 2
		FRSAN_A	FRSAN_A	svq3rn02	3	Act	krs41_acl4_svs3rn02_nn_pc13_1 defrahd311_c13g_acl_pg24 dekelhd311_c13g_acl_pg24	prka03 prfa02 prka02	2/41 9/19 9/19	949100 72c300 92c100	NOAMP AMFA01 AMXA01	Init Targ Targ	online online online	9Gb 16Gb 16Gb	1 2 2
defrahd311_c13r_acl_pg32	50:06:0e:80:07:2e:60:2f	FRSAN_A	FRSAN_A					prfa01	11/13	72c300	AMFA01	Targ	online	16G	
defrahd311_c14c_acl_pg19	50:06:0e:80:07:3e:60:32	FRSAN_B	FRSAN_B	svq3gn01	3	Act	fms22_acl7_svs3gn01_nn_pc13_2 defrahd311_c14c_acl_pg19 dekelhd311_c14c_acl_pg19	prfb04 prfb02 prka02	3/45 9/16 9/16	77a300 73c000 930000	NOAMP AMFB01 AMXB01	Init Targ Targ	online online online	16Gb 16Gb 16Gb	1 4 4
		FRSAN_B	FRSAN_B	svq3gn02	3	Act	krs41_acl4_svs3gn02_nn_pc13_2 defrahd311_c14c_acl_pg19 dekelhd311_c14c_acl_pg19	prkb03 prfb02 prka02	3/4 9/16 9/16	953400 73c000 930000	NOAMP AMFB01 AMXB01	Init Targ Targ	online online online	16Gb 16Gb 16Gb	1 4 4
		FRSAN_B	FRSAN_B	svq3gn03	3	Act	fms22_acl7_svs3gn03_nn_pc13_2 defrahd311_c14c_acl_pg19 dekelhd311_c14c_acl_pg19	prfb04 prfb02 prka02	4/45 9/16 9/16	77b900 73c000 930000	NOAMP AMFB01 AMXB01	Init Targ Targ	online online online	16Gb 16Gb 16Gb	1 4 4
		FRSAN_B	FRSAN_B	svq3gn04	3	Act	krs41_acl4_svs3gn04_nn_pc13_2 defrahd311_c14c_acl_pg19 dekelhd311_c14c_acl_pg19	prkb03 prfb02 prka02	4/4 9/16 9/16	953400 73c000 930000	NOAMP AMFB01 AMXB01	Init Targ Targ	online online online	16Gb 16Gb 16Gb	1 4 4

sfind.ksh <pattern> sfp

RxPw/TxPw : power mW

T.C : sfp Temperature

λ : wave length

OuRKb/InRKb : Out/ In rate kByte

MxORK/MxIRK : max out/in Rate KByte

RDY : Too Many RDYS

IncE : Increment error

Prim : Primitives error

LoSi : Loss of Signal

LoSy : Loss of sync

C3oD : C3Out Discard

C3iD : C3InDiscard

FBus : FbusyFrames

PBus :PBusyFrames

EooF : EncodingOutsideFrame

InOrS : Invalid Order Set

BEofR : BadEndOfSRec

InBuf : in Buffer Full

[illegible]

```
sfind.ksh LoPo sfp
```

[illegible]

sfind.ksh <pattern> hba

SfpTy : Speed available for this sfp
Spee : actual Speed
Fdm name : fdmi registered name
Model : HBA model
OEM : HBA OEM Model

Driver : HBA driver
Bios : HBA Bios
Firmware : HBA Firmware
OS : Host OS

./sfind-test2.ksh 8.07.00.26 hba
./sfind-test2.ksh PX2810403-26 hba
./sfind-test2.ksh Linux 2.6.32-754.28.1.el6.x86_64 hba
./sfind-test2.ksh QLE2562 hba
./sfind-test2.ksh tes11_ca34 hba

Depending on hba & configuration, it can happen that there is no information available

Alias	Fabric	Switch	Type	SFPs	SfpTy	Spee	Fdm name	FID	Model	OEM	Driver	Bios	FIRMWARE	OS
tes11_c130_lvga0fmi05_nn_pc15_0	DESAN	defa03	Init	0/36	10G 20G 40G 80G	80G	lvga0fmi05	b4c030	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_cq30_lvga1fmi01_nn_pc1_5_1	DESAN	defa03	Init	3/43	10G 20G 40G 80G	80G	lvga1fmi01	b4b330	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_ha34_lvga9fmi02_nn_pc11_1	DESAN	defa03	Init	5/39	80G 160G 320G	80G	(none)	b4af30	QLE2562	BK3210407-25	8.07.00.26.06.6-9	3.62	8.08.231	Linux 2.6.32-754.20.1.el6.x86_64
tes11_ch30_lvga0fmi06_nn_pc16_0	DESAN	defa03	Init	10/36	10G 20G 40G 80G	80G	(none)	b4d030	QLE2562	PX2810403-75	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_hm14_sv136258_nn_pc11_0	DESAN	defa03	Init	4/31	40G 80G 160G	80G	sv136258	b4f530	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_c122_scrapfmi03_nn_pc16_0	DESAN	defa03	Init	12/29	80G 160G 320G	80G	(none)	b4f930	QLE2562	BK3210407-25	8.07.00.26.06.6-9	3.62	8.07.90	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hm14_sv136254_nn_pc11_0	DESAN	defa03	Init	5/31	40G 80G 160G	80G	sv136254	b4af30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_hq22_sv136239_nn_pc11_0	DESAN	defa03	Init	4/34	40G 80G 160G	80G	sv136239	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_ch26_lvga3fmi02_nn_pc15_0	DESAN	defa03	Init	4/10	10G 20G 40G 80G	80G	lvga3fmi02	b4f130	QLE2562	PX2810403-65	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.20.1.el6.x86_64
tes11_hq22_sv136236_nn_pc11_0	DESAN	defa03	Init	3/34	40G 80G 160G	80G	sv136236	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_hq22_sv136301_nn_pc11_0	DESAN	defa03	Init	6/34	40G 80G 160G	80G	sv136301	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_hq22_sv136302_nn_pc11_0	DESAN	defa03	Init	9/34	40G 80G 160G	80G	sv136302	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_cq30_lvga5fmi03_nn_pc15_0	DESAN	defa03	Init	5/42	10G 20G 40G 80G	80G	lvga5fmi03	b4a330	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hq34_lvga9fmi01_nn_pc11_1	DESAN	defa03	Init	4/39	20G 160G 320G	80G	(none)	b4f530	QLE2562	BK3210407-25	8.07.00.26.06.6-9	3.62	8.08.231	Linux 2.6.32-754.20.1.el6.x86_64
tes11_hm14_sv136252_nn_pc11_0	DESAN	defa03	Init	3/31	40G 80G 160G	80G	sv136252	b4f530	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_hq07_sv136274_nn_pc15_0	DESAN	defa03	Init	12/42	40G 80G 160G	160G	sv136274	b4f230	QLE2562	H08310405-27	3.1.16.0	6.21	8.06.207	Vmware ESXi-6.7.0
tes11_hq14_lvga6fmi03_nn_pc13_1	DESAN	defa03	Init	5/30	10G 20G 40G 80G	80G	(none)	b4ae30	QLE2562	PX2810403-75	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.20.1.el6.x86_64
tes11_hq07_sv136273_nn_pc15_0	DESAN	defa03	Init	12/41	40G 80G 160G	160G	sv136273	b4f130	QLE2562	H08310405-27	3.1.16.0	6.21	8.06.207	Vmware ESXi-6.7.0
tes11_hm14_sv136246_nn_pc11_0	DESAN	defa03	Init	4/38	40G 80G 160G	80G	sv136246	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_cq34_lvga0fmi01_nn_pc16_0	DESAN	defa03	Init	3/36	10G 20G 40G 80G	80G	(none)	b4dc30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_hq07_sv136272_nn_pc15_0	DESAN	defa03	Init	12/40	40G 80G 160G	160G	sv136272	b4f130	QLE2562	H08310405-27	3.1.16.0	6.21	8.06.207	Vmware ESXi-6.7.0
tes11_cq36_lvga8fmi02_nn_pc12_1	DESAN	defa03	Init	4/30	10G 20G 40G 80G	80G	(none)	b4ae30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.20.1.el6.x86_64
tes11_ca34_lvga8fmi01_nn_pc16_0	DESAN	defa03	Init	3/42	10G 20G 40G 80G	80G	lvga8fmi01	b4ef30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hm14_sv136249_nn_pc15_0	DESAN	defa03	Init	2/38	40G 80G 160G	80G	sv136249	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_cq30_lvga6fmi04_nn_pc16_0	DESAN	defa03	Init	6/42	10G 20G 40G 80G	80G	lvga6fmi04	b4b530	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hq30_lvga1fmi03_nn_pc1_5_1	DESAN	defa03	Init	5/43	10G 20G 40G 80G	80G	lvga1fmi03	b4a330	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hq10_lvga3fmi03_nn_pc16_0	DESAN	defa03	Init	5/15	10G 20G 40G 80G	80G	(none)	b4cf30	QLE2562	PX2810403-83	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_cq34_lvga6fmi02_nn_pc16_0	DESAN	defa03	Init	4/42	10G 20G 40G 80G	80G	lvga6fmi02	b4f230	QLE2562	PX2810403-75	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hm14_sv136150_nn_pc11_0	DESAN	defa03	Init	6/38	40G 80G 160G	80G	sv136150	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_cq30_lvga2fmi05_nn_pc16_1	DESAN	defa03	Init	11/30	10G 20G 40G 80G	80G	(none)	b4ee30	QLE2562	PX2810403-75	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_hq30_scrapfmi02_nn_pc13_1	DESAN	defa03	Init	10/31	10G 20G 40G 80G	80G	(none)	b4ef30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.20.1.el6.x86_64
tes11_hq30_lvga7fmi02_nn_pc16_1	DESAN	defa03	Init	8/30	10G 20G 40G 80G	80G	lvga7fmi02	b4ef30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_hq35_scrapfmi01_nn_pc13_1	DESAN	defa03	Init	9/31	10G 20G 40G 80G	80G	scrappfmi01	b4cf30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.11.1.el6.x86_64
tes11_hm14_sv136234_nn_pc11_0	DESAN	defa03	Init	9/28	40G 80G 160G	80G	sv136234	b4fa30	QLE2562	BK3210407-92	3.1.31.0	6.30	8.06.231	Vmware ESXi-6.7.0
tes11_hq34_lvga5fmi04_nn_pc16_0	DESAN	defa03	Init	6/36	10G 20G 40G 80G	80G	lvga5fmi04	b4b530	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64
tes11_cq34_lvga2fmi01_nn_pc15_1	DESAN	defa03	Init	6/30	10G 20G 40G 80G	80G	(none)	b4dc30	QLE2562	PX2810403-79	8.07.00.26.06.6-9	3.45	7.03.00	Linux 2.6.32-754.23.1.el6.x86_64

sfind.ksh <pattern> latency <optional date>

- The both latency options are based on the syslog maps messages completed with restAPI.
- 2 kind of infos are provided, based on 2 moving windows 24h & 1h (moving step is 3min).
- The information delay is 3min for syslog reading step and 4 min computing, means around 7-8 min delay.
- optional date = <YY>_<MM>_<DD>, ie 20_08_12

- IO level latency : lat>5sec, 5sec>lat>1sec, 1sec>lat>500ms, 500ms>lat>300ms, 300ms>lat>100ms
- Ratio : Ratio 1st Responsetime to Completion Time
- IO/s : IOs>100K, 100K>IOs>50K, 50K>IOs>30K, 30K>IOs>20K, 20K>IOs>10K
- Rx,Tx,Util >85%
- SCSI : SCSI-Timout, SCSI-abts
- IO-queuing : IOqu>1k5, 1k5>IOqu>750, 750>IOqu>300

- ITFL : Number of Zone

ca2e1cc8atirfp01:/metapp/asn/new_scripts/SAB4 ./afind-test2.ksh kelinec31 latency

| Latency 24h State |

Alias	Time	Fabric	Switch	SLP	AMP	Lat	5s>	1s>	500ms>	300ms>	100ms>	100K>	50K>	30K>	20K>	10K>	TX	Stat	Slow	VFAP	SCSI	Unru	SFF	Lat	IOqu	IOqul	IOqil	ITFL
						>5s	>1s	>500ms	>300ms	>100ms	%	>100K	>50K	>30K	>20K	>10K	UTIL	ITM	Drain			Pz		>1k5	>750	>300		
kelinec31	12:35:00	26-08-2020	nk	nk	nk	no	0	17	1398	4371	21235	23	0	0	0	0	457	0	0	0	0	0	0	0	0	0	0	832
kelinec31n01	12:35:00	26-08-2020	nk	nk	nk	no	0	0	17	28	250	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182
kelinec31n01_10av021fc010_vsw_pg05	12:35:00	26-08-2020	FRSAN_B	prkb01	3/28	AMQ001	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
kelinec31n01_10bv021fc012_vsw_pg06	12:35:00	26-08-2020	FRSAN_B	prkb02	3/28	AMQ001	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
kelinec31n01_10cv021fc014_lnx_pg07	12:35:00	26-08-2020	FRSAN_B	prkb01	4/28	AMQ001	0	0	6	8	33	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n01_10dv021fc016_sol_pg08	12:35:00	26-08-2020	FRSAN_B	prkb02	4/28	AMQ001	0	0	0	0	9	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
kelinec31n01_1av021fc001_aix_pg01	12:35:00	26-08-2020	FRSAN_A	prke01	1/28	AMQ001	0	0	1	12	24	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
kelinec31n01_1bv021fc003_aix_pg02	12:35:00	26-08-2020	FRSAN_A	prke02	1/28	AMQ001	0	0	0	0	34	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n01_1cv021fc004_vsw_pg03	12:35:00	26-08-2020	FRSAN_A	prke01	2/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
kelinec31n01_1dv021fc007_sol_pg04	12:35:00	26-08-2020	FRSAN_A	prke02	2/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n01_1av021fc009_vsw_pg05	12:35:00	26-08-2020	FRSAN_A	prke01	3/28	AMQ001	0	0	0	0	6	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
kelinec31n01_1bv021fc011_vsw_pg06	12:35:00	26-08-2020	FRSAN_A	prke02	3/28	AMQ001	0	0	0	0	6	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
kelinec31n01_1cv021fc013_lnx_pg07	12:35:00	26-08-2020	FRSAN_A	prkb01	4/28	AMQ001	0	0	10	8	44	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n01_1dv021fc015_sol_pg08	12:35:00	26-08-2020	FRSAN_A	prkb02	4/28	AMQ001	0	0	0	0	6	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
kelinec31n01_1av021fc003_vsw_pg05	12:35:00	26-08-2020	FRSAN_B	prkb01	1/28	AMQ001	0	0	0	0	15	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
kelinec31n01_1bv021fc004_aix_pg02	12:35:00	26-08-2020	FRSAN_B	prkb02	1/28	AMQ001	0	0	0	0	28	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n01_1cv021fc006_vsw_pg03	12:35:00	26-08-2020	FRSAN_B	prkb01	2/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
kelinec31n01_1dv021fc008_sol_pg04	12:35:00	26-08-2020	FRSAN_B	prkb02	2/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n02	12:35:00	26-08-2020	nk	nk	nk	no	0	14	133	361	1231	18	0	0	0	0	208	0	0	0	0	0	0	0	0	0	0	182
kelinec31n02_10av021fc016_vsw_pg05	12:35:00	26-08-2020	FRSAN_B	prkb01	11/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
kelinec31n02_10bv021fc018_vsw_pg06	12:35:00	26-08-2020	FRSAN_B	prkb02	11/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
kelinec31n02_10cv021fc020_lnx_pg07	12:35:00	26-08-2020	FRSAN_B	prkb01	12/28	AMQ001	0	0	18	11	50	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n02_10dv021fc022_sol_pg08	12:35:00	26-08-2020	FRSAN_B	prkb02	12/28	AMQ001	0	0	2	2	34	195	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
kelinec31n02_1av021fc021_aix_pg01	12:35:00	26-08-2020	FRSAN_A	prke01	9/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
kelinec31n02_1bv021fc019_aix_pg02	12:35:00	26-08-2020	FRSAN_A	prke02	9/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n02_1cv021fc021_vsw_pg03	12:35:00	26-08-2020	FRSAN_A	prke01	10/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
kelinec31n02_1dv021fc023_sol_pg04	12:35:00	26-08-2020	FRSAN_A	prke02	10/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n02_1av021fc025_vsw_pg05	12:35:00	26-08-2020	FRSAN_A	prke01	11/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
kelinec31n02_1bv021fc027_vsw_pg06	12:35:00	26-08-2020	FRSAN_A	prke02	11/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
kelinec31n02_1cv021fc029_lnx_pg07	12:35:00	26-08-2020	FRSAN_A	prke01	12/28	AMQ001	0	0	8	11	46	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n02_1dv021fc031_sol_pg08	12:35:00	26-08-2020	FRSAN_A	prke02	12/28	AMQ001	0	0	9	63	349	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
kelinec31n02_1av021fc019_aix_pg01	12:35:00	26-08-2020	FRSAN_B	prkb01	9/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
kelinec31n02_1bv021fc020_aix_pg02	12:35:00	26-08-2020	FRSAN_B	prkb02	9/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n02_1cv021fc022_vsw_pg03	12:35:00	26-08-2020	FRSAN_B	prkb01	10/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
kelinec31n02_1dv021fc024_sol_pg04	12:35:00	26-08-2020	FRSAN_B	prkb02	10/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n03	12:35:00	26-08-2020	nk	nk	nk	no	0	11	204	375	3255	21	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	302
kelinec31n03_10av021fc042_vsw_pg05	12:35:00	26-08-2020	FRSAN_B	prkb01	3/28	AMQ001	0	0	0	0	1	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
kelinec31n03_10bv021fc044_sol_pg06	12:35:00	26-08-2020	FRSAN_B	prkb02	3/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
kelinec31n03_10cv021fc046_lnx_pg07	12:35:00	26-08-2020	FRSAN_B	prkb01	4/28	AMQ001	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n03_10dv021fc048_sol_pg08	12:35:00	26-08-2020	FRSAN_B	prkb02	4/28	AMQ001	0	0	0	0	0	86	174	1594	73	0	0	0	0	0	0	0	0	0	0	0	0	22
kelinec31n03_1av021fc033_aix_pg01	12:35:00	26-08-2020	FRSAN_A	prke01	1/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
kelinec31n03_1bv021fc035_lnx_pg02	12:35:00	26-08-2020	FRSAN_A	prke02	1/28	AMQ001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10

sfind.ksh <pattern> latencydetail <optional date>

```
ta2elcc@stifrp03:/netapp/san/new_scripts/SAN$ ./sfind-test2.ksh franac31n05_1dv021fc071_lnx_pg04 latencydetail
```

```
=====
| Time          | Amp  || SID  | SID alias          | Fabric  | SID Switch  | SS1Po|| DID  | DID alias          | DID Switch  | DS1Po|| VTAP  | LUN  | Condition          | Actual Value |
=====
| latency > 5sec |
=====

| 5sec > latency > 1sec |
=====

| 1sec > latency > 500ms |
=====

| 2020/08/23-10:30:59 | amfa01 || 785300 | fzm12_aw19_lvg13fm1p02_nn_pci6_0 | PRSAN_A | prfa05 | 10/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | WR_1stXFER_RDY_8_64K/IO | 567854 uS |
| 2020/08/23-10:30:59 | amfa01 || 785300 | fzm12_aw19_lvg13fm1p02_nn_pci6_0 | PRSAN_A | prfa05 | 10/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | WR_1stXFER_RDY_LT_8K/IO | 558020 uS |
| 500ms > latency > 300ms |
=====

| 2020/08/23-11:11:29 | amfa01 || 785300 | fzm12_aw19_lvg13fm1p02_nn_pci6_0 | PRSAN_A | prfa05 | 10/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | WR_1stXFER_RDY_LT_8K/IO | 379081 uS |
| 2020/08/23-11:11:29 | amfa01 || 785300 | fzm12_aw19_lvg13fm1p02_nn_pci6_0 | PRSAN_A | prfa05 | 10/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | WR_STATUS_TIME_LT_8K/IO | 379217 uS |
| 300ms > latency > 150ms |
=====

| 270 Latencies (300ms > latency > 150ms) only 100 will be display. Please refere to logs for details /netapp/san/new_scripts/SAN/syslog/syslog1-LAT-1D.txt |
=====

| 2020/08/24-01:31:09 | amfa01 || 785300 | fzm12_aw19_lvg13fm1p02_nn_pci6_0 | PRSAN_A | prfa05 | 10/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | WR_STATUS_TIME_LT_8K/IO | 199871 uS |
| 2020/08/24-01:55:19 | amfa01 || 984300 | krz41_eb41_lvg13fm2p01_nn_pci6_0 | PRSAN_A | prka05 | 9/3 || 729e01 | franac31n05_1dv021fc071_lnx_pg04 | prfa02 | 2/30 || 729e01 | 2 | RD_1stDATA_TIME_LT_8K/IO | 267351 uS |
=====
| Time          | Amp  || SID  | SID alias          | Fabric  | SID Switch  | SS1Po|| DID  | DID alias          | DID Switch  | DS1Po|| VTAP  | LUN  | Condition          | Actual Value |
=====
| I/Os > 100k |
=====

| 100K > I/Os > 50K |
=====

| 50K > I/Os > 30K |
=====

| 30K > I/Os > 20K |
=====

| 20K > I/Os > 10K |
=====

| I/OQueueing > 1500 |
=====

| 1500 > I/OQueueing > 750 |
=====

| 750 > I/OQueueing > 256 |
=====

| FabricLatency > 15000us |
=====

| RX/TX/UTIL /min |
=====

| LR/STATE_CHG/ITW/LOSS_SIGNAL/CRC |
=====

| DEV_LATENCY_IMPACT/Slow Drain/C3TXTO/C3RXTO |
=====

| SCSI TO/abords |
=====

| UNROUTE / DU Frames |
=====

| SFP Powers |
=====

| IT FLOW |
=====

| ELS PLOGI |
=====
```

sfind.ksh <pattern> latencydetail <optional date>

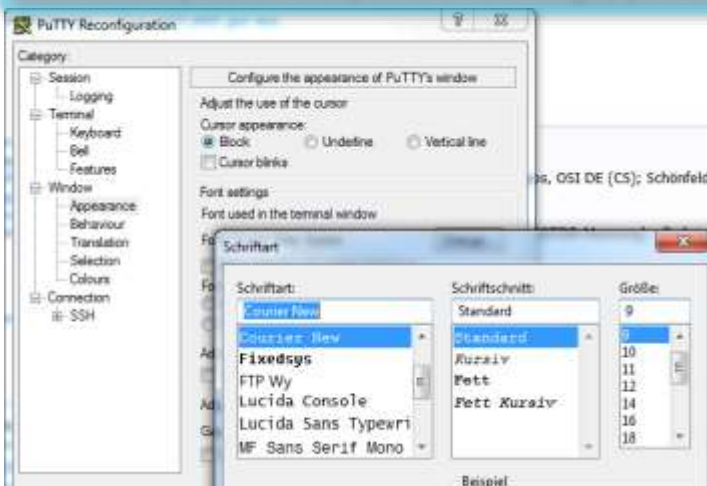
Latency detail response are a mix of informations (IO>10K,queueing etc..) and errors message(LR,C3,LS, etc)

- sfind.ksh SCSI latencydetail deliver all SCSI-errors
- sfind.ksh C3 latencydetail deliver all C3 TO
- sfind.ksh prf latencydetail deliver on all fab prf

sfind.ksh <pattern> latencydetail <optional date>

optional date = <YY>_<MM>_<DD>, ie 20_08_12

NB: latency detail output is a few large, you can set your putty on a smaller char



Sfind.ksh <Alias> history <optional NROfDay>

Interval : 20min

Moving Time Window : 1h

Default display : 36h

```
tail -n 100 /etc/passwd | grep /bin/bash | awk '{print $1}' | xargs -I {} sh -c 'cat /dev/null > {}' &&
```

```
**** Statistic of 1h moving window ****
```

[illegible]

Sfind.ksh <Alias> history <optional NROfDay>

By hds the storage ports are defined with a,b,c,d,e,f,g,hj,k,l,m,n,p,q,r
Storage alias are ie <storagename>_cl<dir><port> : dekelhds32_cl1n

By netapp :the storage ports are defined with

1a,1b,1c,1d,2a,2b,2c,2d,9a,9b,9c,9d,10a,10b,10c,10d

Storage alias are ie <storagename>n0<dir>_<port> : franac08n07_2d

sfind.ksh <Storage-ALIAS> history <optional: number of day>

sfind.ksh <Storage-ALIAS> history DIR <optional: number of day>

sfind.ksh <Storage-ALIAS> history STOR <optional: number of day>

sfind.ksh defrahd31_cl4c_sol_pg19 history 3 =all stats of *defrahd31_cl4c* last 3 d

sfind.ksh defrahd31_cl4c_sol_pg19 history DIR 3 = all stats of *defrahd31_cl4* last 3 d

sfind.ksh defrahd31_cl4c_sol_pg19 history STOR 3 = all stats of *defrahd31* last 3 d

sfind.ksh franac31n01_1av02lfc001_aix_pg01 history 3 =all stats of *franac31n01_1a* last 3 d

sfind.ksh franac31n01_1av02lfc001_aix_pg01 history DIR 3 = all stats of *franac31n01* last 3 d

sfind.ksh franac31n01_1av02lfc001_aix_pg01 history STOR 3 = all stats of *franac31* last 3 d

Sfind added functions

```
sfind.ksh xxx htmlsyslogother <destination file> <sourcefile>  
sfind.ksh xxx htmllatencydetail <destination file> <sourcefile>  
sfind.ksh xxx htmlshortlatencydetail <destination file> <sourcefile>  
sfind.ksh <searchpattern> htmlzone <destination file>
```

The destination file get the output in html language



Graphical dashboard

Global level

Top level SAN

Search

```

find time : Thu Oct 22 11:30:04 MEST 2020
AMP monitored ports : 1202
Syslog useful msgs last 24h : 566838
Flooding last 24h : 818

```

offed History	2020.10.21	2020.10.20	2020.10.18	2020.10.18	2020.10.17	2020.10.16	2020.10.15	2020.10.14
---------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Last 24h max storage latency

devnac31	devnac32	francac03	francac04	francac06	francac08	francac09	francac11
francac31	francac32	francac01	francac02	francac04	francac16	kelnac03	kelnac06
kelnac08	kelnac11	kelnac31	kelnac32	kelnac01	kelnac02	kelnac03	kelnac16
tesnac03	tesnac04						
devnah031	devnah032	devnah033	devnah034	devnah035	devnah036	devnah037	devnah038

Expanda	$\text{latency} = 9\text{ns}$	$9\text{ns} = \text{latency} = 9\text{ns}$	$9\text{ns} = \text{latency} = 90\text{ns}$	$90\text{ns} = \text{latency} = 300\text{ns}$	$300\text{ns} = \text{latency} = 180\text{ns}$	No latency over 180ns
---------	-------------------------------	--	---	---	--	-----------------------

- 1H TimeWindow (upto 7 days)
- 24h TimeWindow (upto 3 months)
- 24h PRSAN sfind latency/detail short
- 24h DESAN sfind latency/detail short
- 24h synops other messages

Total 1 Hour-timewindow

Total-H - IO Latencies >150ms



- Logicalis icon bring to the top level
- Commerzbank icon bring one level up

PRSAN(short) sfind; latencydetail

Time	Tag	URI	URI alias	URI, Schemes, MD5s, MD5	URI alias	URI, Schemes, MD5s, MD5	Location	Actual Date
January - June								
200002-201736	msd001	215000	200002-201736	msd001	2017	200002	200002-201736	200002-201736
200003-201736	msd001	215000	200003-201736	msd001	2017	200003	200003-201736	200003-201736
June - January - June								
20000200002-201736 - 200002 201736 200002								
20000200002-201736	msd001	215000	20000200002-201736	msd001	2017	200002	20000200002-201736	20000200002-201736
20000200003-201736	msd001	215000	20000200003-201736	msd001	2017	200003	20000200003-201736	20000200003-201736
20000200004-201736	msd001	215000	20000200004-201736	msd001	2017	200004	20000200004-201736	20000200004-201736
20000200005-201736	msd001	215000	20000200005-201736	msd001	2017	200005	20000200005-201736	20000200005-201736
20000200006-201736	msd001	215000	20000200006-201736	msd001	2017	200006	20000200006-201736	20000200006-201736
20000200007-201736	msd001	215000	20000200007-201736	msd001	2017	200007	20000200007-201736	20000200007-201736
20000200008-201736	msd001	215000	20000200008-201736	msd001	2017	200008	20000200008-201736	20000200008-201736
20000200009-201736	msd001	215000	20000200009-201736	msd001	2017	200009	20000200009-201736	20000200009-201736
20000200010-201736	msd001	215000	20000200010-201736	msd001	2017	200010	20000200010-201736	20000200010-201736
20000200011-201736	msd001	215000	20000200011-201736	msd001	2017	200011	20000200011-201736	20000200011-201736
20000200012-201736	msd001	215000	20000200012-201736	msd001	2017	200012	20000200012-201736	20000200012-201736
20000200013-201736	msd001	215000	20000200013-201736	msd001	2017	200013	20000200013-201736	20000200013-201736
20000200014-201736	msd001	215000	20000200014-201736	msd001	2017	200014	20000200014-201736	20000200014-201736
20000200015-201736	msd001	215000	20000200015-201736	msd001	2017	200015	20000200015-201736	20000200015-201736
20000200016-201736	msd001	215000	20000200016-201736	msd001	2017	200016	20000200016-201736	20000200016-201736
20000200017-201736	msd001	215000	20000200017-201736	msd001	2017	200017	20000200017-201736	20000200017-201736
20000200018-201736	msd001	215000	20000200018-201736	msd001	2017	200018	20000200018-201736	20000200018-201736
20000200019-201736	msd001	215000	20000200019-201736	msd001	2017	200019	20000200019-201736	20000200019-201736
20000200020-201736	msd001	215000	20000200020-201736	msd001	2017	200020	20000200020-201736	20000200020-201736
20000200021-201736	msd001	215000	20000200021-201736	msd001	2017	200021	20000200021-201736	20000200021-201736
20000200022-201736	msd001	215000	20000200022-201736	msd001	2017	200022	20000200022-201736	20000200022-201736
20000200023-201736	msd001	215000	20000200023-201736	msd001	2017	200023	20000200023-201736	20000200023-201736
20000200024-201736	msd001	215000	20000200024-201736	msd001	2017	200024	20000200024-201736	20000200024-201736

DESAN(short) sfind; latencydetail

[illegible]

Syslog other-messages (not related to a storage)

Time	Switch	VF	MapID	Message
2020-10-21 17:05:09	grf667		HEL-1313	Fan speed of all the fan PFCs is increasing to 1300 RPM as per environmental specifications
2020-10-21 16:52:31	grf667		HEL-1317	Fan speed of all the fan PFCs decreasing to 1200 RPM as per environmental specifications
2020-10-21 17:12:01	grf662		HEL-1317	Fan speed of all the fan PFCs decreasing to 1200 RPM as per environmental specifications
2020-10-21 17:20:56-49	grf662		HEL-1313	Fan speed of all the fan PFCs is increasing to 1300 RPM as per environmental specifications
2020-10-21 17:02:34	grf662		HEL-1308	Ph 1 ACPS/DCU connection (Switch) has been manually disconnected
2020-10-21 16:49:37	grf662		HEL-1317	Fan speed of all the fan PFCs decreasing to 1200 RPM as per environmental specifications
2020-10-21 16:45:37	grf662		HEL-1317	Fan speed of all the fan PFCs decreasing to 1200 RPM as per environmental specifications

Graphics for Nr Syslog msg and flooding are also provided in the day time window

[index](#)

Storage layer

```
kelmac31
sfind Thu Oct 22 11:30:08 MEST 2020
AMP monitored ports : 128
```

56561 history	2020-10-11	2020-10-18	2020-10-19	2020-10-20	2020-10-27*	2020-10-28	2020-10-31	2020-10-31
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Last 1h

dir	1a	1b	1c	1d	2a	2b	2c	2d	9a	9b	9c	9d	10a	10b	10c	10d
dir01	dir01_1a	dir01_1b	dir01_1c	dir01_1d	dir01_2a	dir01_2b	dir01_2c	dir01_2d	dir01_9a	dir01_9b	dir01_9c	dir01_9d	dir01_10a	dir01_10b	dir01_10c	dir01_10d
dir02	dir02_1a	dir02_1b	dir02_1c	dir02_1d	dir02_2a	dir02_2b	dir02_2c	dir02_2d	dir02_9a	dir02_9b	dir02_9c	dir02_9d	dir02_10a	dir02_10b	dir02_10c	dir02_10d
dir03	dir03_1a	dir03_1b	dir03_1c	dir03_1d	dir03_2a	dir03_2b	dir03_2c	dir03_2d	dir03_9a	dir03_9b	dir03_9c	dir03_9d	dir03_10a	dir03_10b	dir03_10c	dir03_10d
dir04	dir04_1a	dir04_1b	dir04_1c	dir04_1d	dir04_2a	dir04_2b	dir04_2c	dir04_2d	dir04_9a	dir04_9b	dir04_9c	dir04_9d	dir04_10a	dir04_10b	dir04_10c	dir04_10d
dir05	dir05_1a	dir05_1b	dir05_1c	dir05_1d	dir05_2a	dir05_2b	dir05_2c	dir05_2d	dir05_9a	dir05_9b	dir05_9c	dir05_9d	dir05_10a	dir05_10b	dir05_10c	dir05_10d
dir06	dir06_1a	dir06_1b	dir06_1c	dir06_1d	dir06_2a	dir06_2b	dir06_2c	dir06_2d	dir06_9a	dir06_9b	dir06_9c	dir06_9d	dir06_10a	dir06_10b	dir06_10c	dir06_10d
dir07	dir07_1a	dir07_1b	dir07_1c	dir07_1d	dir07_2a	dir07_2b	dir07_2c	dir07_2d	dir07_9a	dir07_9b	dir07_9c	dir07_9d	dir07_10a	dir07_10b	dir07_10c	dir07_10d
dir08	dir08_1a	dir08_1b	dir08_1c	dir08_1d	dir08_2a	dir08_2b	dir08_2c	dir08_2d	dir08_9a	dir08_9b	dir08_9c	dir08_9d	dir08_10a	dir08_10b	dir08_10c	dir08_10d
dir09	dir09_1a	dir09_1b	dir09_1c	dir09_1d	dir09_2a	dir09_2b	dir09_2c	dir09_2d	dir09_9a	dir09_9b	dir09_9c	dir09_9d	dir09_10a	dir09_10b	dir09_10c	dir09_10d

Last 24h

itr	1a	1b	1c	1d	2a	2b	2c	2d	3a	3b	3c	3d	4a	4b	4c	4d
ci1001	ci1001_1a	ci1001_1b	ci1001_1c	ci1001_1d	ci1001_2a	ci1001_2b	ci1001_2c	ci1001_2d	ci1001_3a	ci1001_3b	ci1001_3c	ci1001_3d	ci1001_4a	ci1001_4b	ci1001_4c	ci1001_4d
ci1002	ci1002_1a	ci1002_1b	ci1002_1c	ci1002_1d	ci1002_2a	ci1002_2b	ci1002_2c	ci1002_2d	ci1002_3a	ci1002_3b	ci1002_3c	ci1002_3d	ci1002_4a	ci1002_4b	ci1002_4c	ci1002_4d
ci1003	ci1003_1a	ci1003_1b	ci1003_1c	ci1003_1d	ci1003_2a	ci1003_2b	ci1003_2c	ci1003_2d	ci1003_3a	ci1003_3b	ci1003_3c	ci1003_3d	ci1003_4a	ci1003_4b	ci1003_4c	ci1003_4d
ci1004	ci1004_1a	ci1004_1b	ci1004_1c	ci1004_1d	ci1004_2a	ci1004_2b	ci1004_2c	ci1004_2d	ci1004_3a	ci1004_3b	ci1004_3c	ci1004_3d	ci1004_4a	ci1004_4b	ci1004_4c	ci1004_4d
ci1005	ci1005_1a	ci1005_1b	ci1005_1c	ci1005_1d	ci1005_2a	ci1005_2b	ci1005_2c	ci1005_2d	ci1005_3a	ci1005_3b	ci1005_3c	ci1005_3d	ci1005_4a	ci1005_4b	ci1005_4c	ci1005_4d
ci1006	ci1006_1a	ci1006_1b	ci1006_1c	ci1006_1d	ci1006_2a	ci1006_2b	ci1006_2c	ci1006_2d	ci1006_3a	ci1006_3b	ci1006_3c	ci1006_3d	ci1006_4a	ci1006_4b	ci1006_4c	ci1006_4d
ci1007	ci1007_1a	ci1007_1b	ci1007_1c	ci1007_1d	ci1007_2a	ci1007_2b	ci1007_2c	ci1007_2d	ci1007_3a	ci1007_3b	ci1007_3c	ci1007_3d	ci1007_4a	ci1007_4b	ci1007_4c	ci1007_4d
ci1008	ci1008_1a	ci1008_1b	ci1008_1c	ci1008_1d	ci1008_2a	ci1008_2b	ci1008_2c	ci1008_2d	ci1008_3a	ci1008_3b	ci1008_3c	ci1008_3d	ci1008_4a	ci1008_4b	ci1008_4c	ci1008_4d
ci1009	ci1009_1a	ci1009_1b	ci1009_1c	ci1009_1d	ci1009_2a	ci1009_2b	ci1009_2c	ci1009_2d	ci1009_3a	ci1009_3b	ci1009_3c	ci1009_3d	ci1009_4a	ci1009_4b	ci1009_4c	ci1009_4d

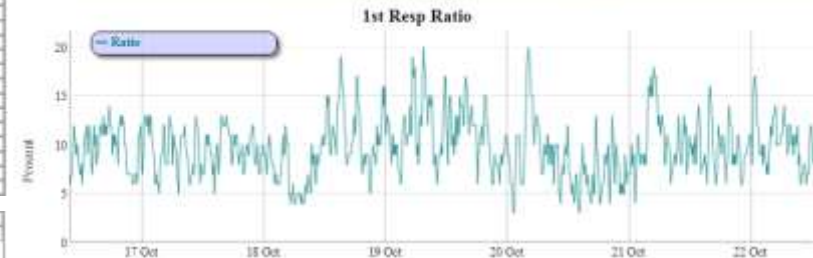
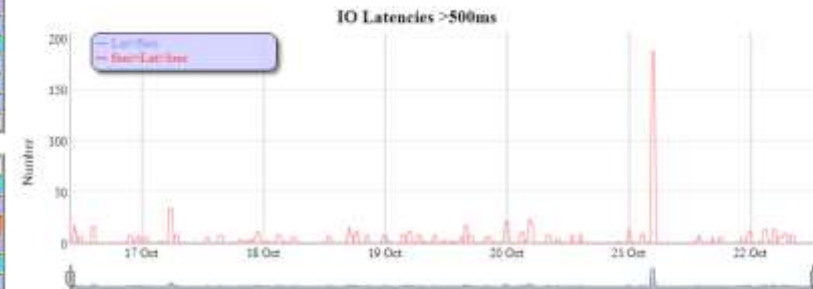
legende	latency > 400ns	400ns > latency > 300ns	300ns > latency > 200ns	200ns > latency > 100ns	100ns > latency > 50ns	50ns > latency > 10ns	10ns > latency > 0ns	No latency over 100ns
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- [1H TimeWindow \(upto 7 days\)](#)
- [24h TimeWindow \(upto 3 Months\)](#)
- [Last 24h ofind latencydetail](#)

kelnac31 sfind latencydetail

[illegible]

kelnac31 1H Timewindow



Port layer

kelnac32n04_9b-021fc052_scl_pg02	Fab - PRSAN_B	prkb02-9/31	online	Speed = 16Gb	sfp = 16Gb	
Thu Oct 22 08:30:03 MEST 2020	RxP : 555 mW	TsP : 452 mW	ITFL = 12	ITW = 0	BEndOff = 0	CRC = 0
20:34:00:a0:98:ef:37:66	AMP: ANKB01	LF : 1	LSi : 1	C3eD : 0	C3iD : 0	InOrS = 0

Used history: 2020-10-21 2020-10-24 2020-10-19 2020-10-18 2020-10-17 2020-10-16 2020-10-15 2020-10-14 2020-10-13

Legend: Latency > 1ms (Blue) Latency > 2ms (Red) Latency > 500ms (Green) 500ms > Latency > 300ms (Yellow) 300ms > Latency > 150ms (Cyan) No latency over 100ms (Grey)

- 1H TimeWindow (upto 7 days)
- 24h TimeWindow (upto 3 months)
- Zoning
- Last 24h Sfpd latency/detail

kelnac32n04_9b 1 Hour-timewindow

kelnac32n04_9b-H - IO Latencies >500ms



kelnac32n04_9b-H - IO Latencies >150ms



kelnac32n04_9b-H - 1st Resp Ratio



kelnac32n04_9b-H - 30k> Ios >10k



kelnac32n04_9b-H - OutRate InRate



kelnac32n04_9b-D - IO Latencies >500ms



kelnac32n04_9b-D - IO Latencies >150ms



[illegible]

Lun latency statistic 24h

Lun	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lun	15	17	140	88	111	96	105	17	155	43	53	849	197	42	
Lun	18	17	18	19	20	21	22	23	24	28	27	28	29	30	
	72	122	121	49	122	831	188	33	26	210	422	98	54	110	
Lun	31	32	33	34	38	36	37	38	39	40	41	43	44	46	
	1194	271	127	113	687	601	610	692	860	1033	748	1114	1116	122	
Lun	48	48	49	50	52	55	56	58	59	61	62	63	64	66	
	171	100	129	29	158	28	21	16	27	53	31	55	52	87	
Lun	66	70	71	72	73	74	75	76	77	78	80	81	82	83	
	54	127	148	55	59	110	88	62	73	312	13	54	199	278	
Lun	84	96	101												
	14	2	1												
Legend	Latency > 10000	10000 > Latency > 1000	1000 > Latency > 100	100 > Latency > 10	10 > Latency > 5	5 > Latency > 1	1 > Latency								

Lun IO statistic

[illegible]

41	WR STATUS TIME 1F 8K 30	1092229.6
40	WR STATUS TIME 1F 8K 30	1092231.9
39	WR STATUS TIME 1F 8K 30	1092234.0
38	WR STATUS TIME 1F 8K 30	1092237.8
37	WR STATUS TIME 1F 8K 30	1092240.5
36	WR STATUS TIME 1F 8K 30	1092243.2
35	WR STATUS TIME 1F 8K 30	1092246.0
34	WR STATUS TIME 1F 8K 30	1092248.7
33	WR STATUS TIME 1F 8K 30	1092251.5
32	WR STATUS TIME 1F 8K 30	1092254.2
31	WR STATUS TIME 1F 8K 30	1092257.0
30	WR STATUS TIME 1F 8K 30	1092259.7
29	WR STATUS TIME 1F 8K 30	1092262.5
28	WR STATUS TIME 1F 8K 30	1092265.2
27	WR STATUS TIME 1F 8K 30	1092268.0
26	WR STATUS TIME 1F 8K 30	1092270.7
25	WR STATUS TIME 1F 8K 30	1092273.5
24	WR STATUS TIME 1F 8K 30	1092276.2
23	WR STATUS TIME 1F 8K 30	1092279.0
22	WR STATUS TIME 1F 8K 30	1092281.7
21	WR STATUS TIME 1F 8K 30	1092284.5
20	WR STATUS TIME 1F 8K 30	1092287.2
19	WR STATUS TIME 1F 8K 30	1092290.0
18	WR STATUS TIME 1F 8K 30	1092292.7
17	WR STATUS TIME 1F 8K 30	1092295.5
16	WR STATUS TIME 1F 8K 30	1092298.2
15	WR STATUS TIME 1F 8K 30	1092301.0
14	WR STATUS TIME 1F 8K 30	1092303.7
13	WR STATUS TIME 1F 8K 30	1092306.5
12	WR STATUS TIME 1F 8K 30	1092309.2
11	WR STATUS TIME 1F 8K 30	1092312.0
10	WR STATUS TIME 1F 8K 30	1092314.7
9	WR STATUS TIME 1F 8K 30	1092317.5
8	WR STATUS TIME 1F 8K 30	1092320.2
7	WR STATUS TIME 1F 8K 30	1092323.0
6	WR STATUS TIME 1F 8K 30	1092325.7
5	WR STATUS TIME 1F 8K 30	1092328.5
4	WR STATUS TIME 1F 8K 30	1092331.2
3	WR STATUS TIME 1F 8K 30	1092334.0
2	WR STATUS TIME 1F 8K 30	1092336.7
1	WR STATUS TIME 1F 8K 30	1092339.5

Dir layer

kelnac32

kelnac32m02
sfind time Thu Oct 22 11:50:04 MEST 2020
AMP monitored ports : 16

Sfnd history 2020.10.21 2020.10.22 2020.10.23 2020.10.24 2020.10.27 2020.10.28 2020.10.29 2020.10.30

Last 1 h

dir	1a	1b	1c	1d	2a	2b	2c	2d	9a	9b	9c	9d	10a	10b	10c	10d
kelnac32m02_1a	kelnac32m02_1b	kelnac32m02_1c	kelnac32m02_1d	kelnac32m02_2a	kelnac32m02_2b	kelnac32m02_2c	kelnac32m02_2d	kelnac32m02_9a	kelnac32m02_9b	kelnac32m02_9c	kelnac32m02_9d	kelnac32m02_10a	kelnac32m02_10b	kelnac32m02_10c	kelnac32m02_10d	

Last 24 h

dir	1a	1b	1c	1d	2a	2b	2c	2d	9a	9b	9c	9d	10a	10b	10c	10d
kelnac32m02_1a	kelnac32m02_1b	kelnac32m02_1c	kelnac32m02_1d	kelnac32m02_2a	kelnac32m02_2b	kelnac32m02_2c	kelnac32m02_2d	kelnac32m02_9a	kelnac32m02_9b	kelnac32m02_9c	kelnac32m02_9d	kelnac32m02_10a	kelnac32m02_10b	kelnac32m02_10c	kelnac32m02_10d	

legende latency > 5sec latency > 1sec latency > 500ms 500ms > latency > 300ms 300ms > latency > 150ms No latency over 150ms

- 1H TimeWindow (upto 7 days)
- 24h TimeWindow (upto 3 months)
- last 24h sfind latency detail

5sec> Latencies > 1sec



1sec> Latencies > 500ms



500msec> Latencies > 300ms

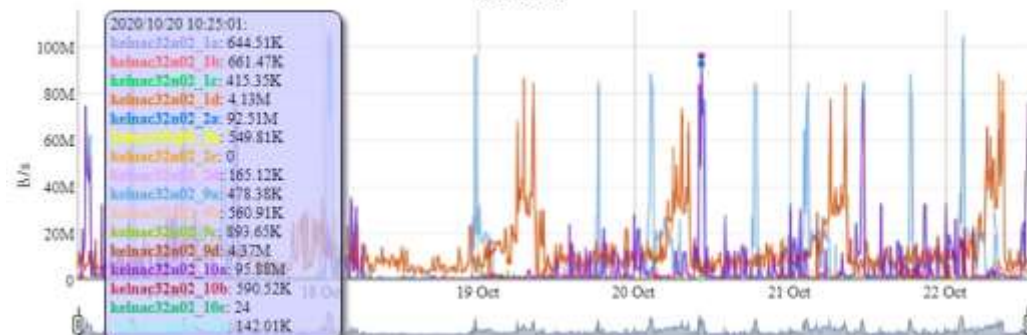


Inrate are data coming to the switch
OutRate are data going out from switch

InRate



OutRate



Allow to produce a report for server(s) upto 16 storage ports



support 2,4,8,16 storage port simultan display

- [Zoning](#)
- [Sfind latency detail](#)
- [IH.TanrWindow](#)

ignores	latency = fast	Fast = latency + fast	fast = latency + 100ms	100ms = latency + 100ms	100ms = latency + 100ms	No latency over 100ms
---------	----------------	-----------------------	------------------------	-------------------------	-------------------------	-----------------------

ChgName	Zone	Alt	AcDs	ZoneMember	Switch	VIDs	VID	AMP	Inn	Status	Speed	PTI
FRSAG_A	rsgm05_012	3	Act	frs02_wn04_rsgm05_wa_psl_1	prb04	231	76900	NOAMP	Int	online	16Gb	
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
FRSAG_A	rsgm05_0c12	3	Act	frs02_wn04_rsgm05_wa_psl_1	prb04	231	76900	NOAMP	Int	online	16Gb	
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
				frs022607_1_rsgm05011_wa_psl0	prb01	1307	90381	AMEA01	Targ	online	16Gb	18
FRSAG_B	rsgm05_012	3	Act	frs02_wn04_rsgm05_wa_psl_2	prb04	231	77900	NOAMP	Int	online	16Gb	
				frs022607_2_rsgm05091_wa_psl0	prb01	1307	71383	AMEB00	Targ	online	16Gb	18
				frs022607_2_rsgm050111_wa_psl0	prb01	1307	71481	AMEB00	Targ	online	16Gb	18
				frs022607_2_rsgm050111_wa_psl0	prb01	1307	71481	AMEB00	Targ	online	16Gb	18
FRSAG_B	rsgm05_0c12	3	Act	frs02_wn04_rsgm05_wa_psl_2	prb04	231	77900	NOAMP	Int	online	16Gb	
				frs022607_2_rsgm05091_wa_psl0	prb01	1307	71383	AMEB00	Targ	online	16Gb	18
				frs022607_2_rsgm050111_wa_psl0	prb01	1307	71481	AMEB00	Targ	online	16Gb	18
				frs022607_2_rsgm050111_wa_psl0	prb01	1307	71481	AMEB00	Targ	online	16Gb	18



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10. *How many times have you been in a fight with a friend or family member in the last 12 months?*

optimal time

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
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1.4. *Methodology* – 100 pp. 100 pp.

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398</
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1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398</
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[illegible]

Let's build new car

First Data New com

take some time

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Search-graphData.ksh

Lun latency statistic 1h

Lun	2	47	59	59	78	93	94	94	97	98	102	106	118	120
	6	5	1	3	2	4	6	7	4	8	8	4	1	94
Lun	121	122	123	124	125	126	127	128	130	137	177	188		
	114	143	120	123	107	114	106	107	132	1	24	8		
Legend	Latency > 1000 1000 > Latency > 500 500 > Latency > 100 100 > Latency > 50 50 > Latency > 10 10 > Latency													

Lun latency statistic 24h

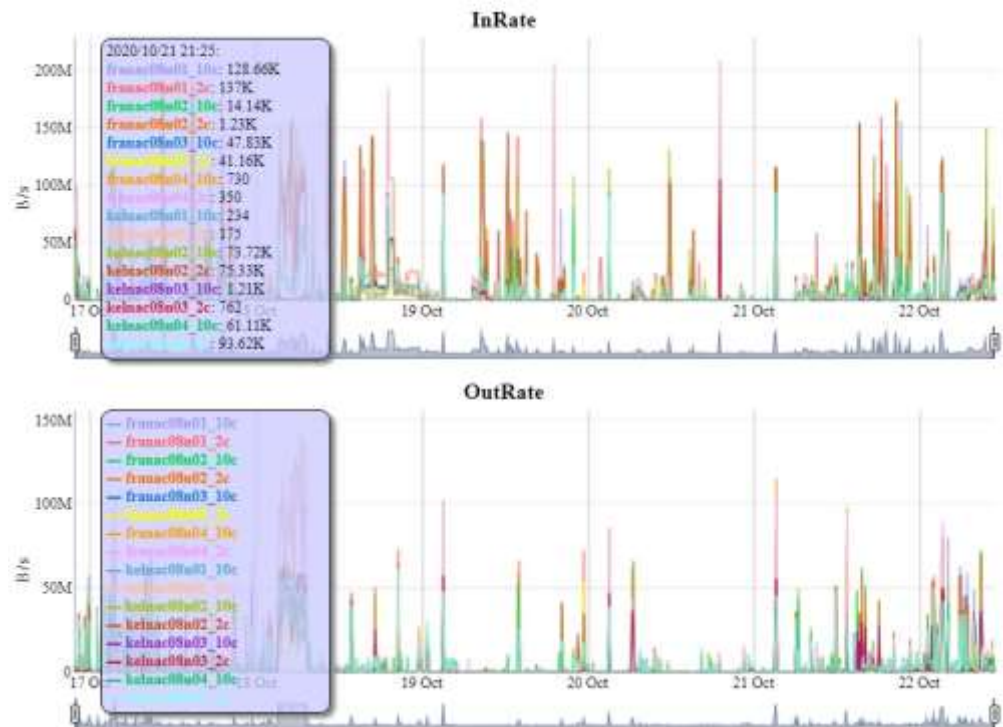
Lun	2	3	6	7	8	9	10	11	12	13	14	15	16	
	38	239	4	18	18	22	8	34	22	18	14	48	8	22
Lun	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	7	24	17	39	10	30	30	4	22	38	44	20	52	
Lun	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	24	49	6	57	10	40	9	19	20	12	14	14	17	21
Lun	45	46	47	48	49	50	51	52	53	54	55	56	57	58
	5	30	21	20	8	20	18	30	44	42	9	14	11	10
Lun	59	60	61	62	63	64	65	66	67	68	69	70	71	73
	9	29	26	13	24	25	4	27	35	49	13	18	28	44
Lun	74	75	76	77	78	79	80	81	82	83	84	93	94	95
	10	13	12	20	12	24	16	8	7	17	109	86	66	161
Lun	97	98	99	100	101	102	104	105	106	118	120	121	122	123
	141	63	38	94	59	34	20	112	268	28	3280	3357	3033	5142
Lun	124	125	126	127	128	131	149	169	156	187	165	172	178	177
	3622	3185	3454	3490	3290	3457	6	8	32	25	39	14	60	207
Lun	183	184	185	186	187	188	195	196	197	198	199	200	201	202
	1897	1834	1905	1881	1340	1887	1205	1431	1409	1390	1433	1203	2439	2962
Lun	203	204												
	2824	2811												
Legend	Latency > 10000 10000 > Latency > 5000 5000 > Latency > 1000 1000 > Latency > 500 500 > Latency > 100 100 > Latency													

Lun IO statistic

Lun	xx	201	203											
	8119	1	2											
Legend	IO > 5000 5000 > IO > 1000 1000 > IO > 500 500 > IO > 100 100 > IO > 50 50 > IO													

Lun IOs : If a lun Nr appear inside the IOs msg, it is show as a lun-level Ios msg. All other are xx IOs-port-level msg.

In the search_graphdata.ksh situation
InRate are data going from storage to server
OutRate are data going from server to Storage



Report export setting

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caution : the bank dont allow cgi-bin and php, so i could not implement a menu generating the page automatically
to execute the search : "incapp/an/new_scripts/SANSearch-GraphData.ksh search_name" and refresh the page after

support 2.4.8.16 storage port simulation display

Result for sv06633	
Mon Sep 21 11:26:44 MEST 2020	

sv06633 Zone

Inputs	Latency > 50ms	Latency > 100ms	Latency > 200ms	Latency > 300ms	Latency > 400ms	Latency > 500ms	Latency > 600ms	Latency > 700ms	Latency > 800ms	Latency > 900ms	Latency > 1000ms	Latency > 1100ms	Latency > 1200ms	Latency > 1300ms	Latency > 1400ms	Latency > 1500ms	Latency > 1600ms	Latency > 1700ms	Latency > 1800ms	Latency > 1900ms	Latency > 2000ms
CfgName	Zone	Alt	Active	Zone/Member	Switch	SNPs	PID	AMP	Tide	Status	Speed	PTH									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	4400	760000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	722601	AMFA01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	722601	AMFA01	Targ	online	1002b	17									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	4400	760000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKA00	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKA00	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	4400	760000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	722601	AMFB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	722601	AMFB01	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	4400	760000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKB01	Targ	online	1002b	17									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	9400	762000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKA00	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKA00	Targ	online	1002b	17									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	9400	762000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKA00	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKA00	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	9400	762000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	722601	AMFB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	722601	AMFB01	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	9400	762000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKB01	Targ	online	1002b	17									
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				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	722601	AMFA01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	722601	AMFA01	Targ	online	1002b	17									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	1400	760000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKA00	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKA00	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	1400	760000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	722601	AMFB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	722601	AMFB01	Targ	online	1002b	17									
PISAN_B	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	1400	760000	AMFB01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKB01	Targ	online	1002b	17									
				Host1 ac26 sv06633_44p2k4_kst4_3	per002	9228	922601	AMKB01	Targ	online	1002b	17									
PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	2400	760000	AMFA01	Unden	online	802b										
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PISAN_A	sv06633_kst4_kst1	3	Act	Host1 ac26 sv06633_44p2k4_kst4_1	per007	2400	760000	AMFA01	Unden	online	802b										
				Host1 ac26 sv06633_44p2k4_kst4_2	per002	1228	922601	AMKA00	Targ	online	1002b	17									
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Search history

The search reports are stored, and can be recalled at anytime

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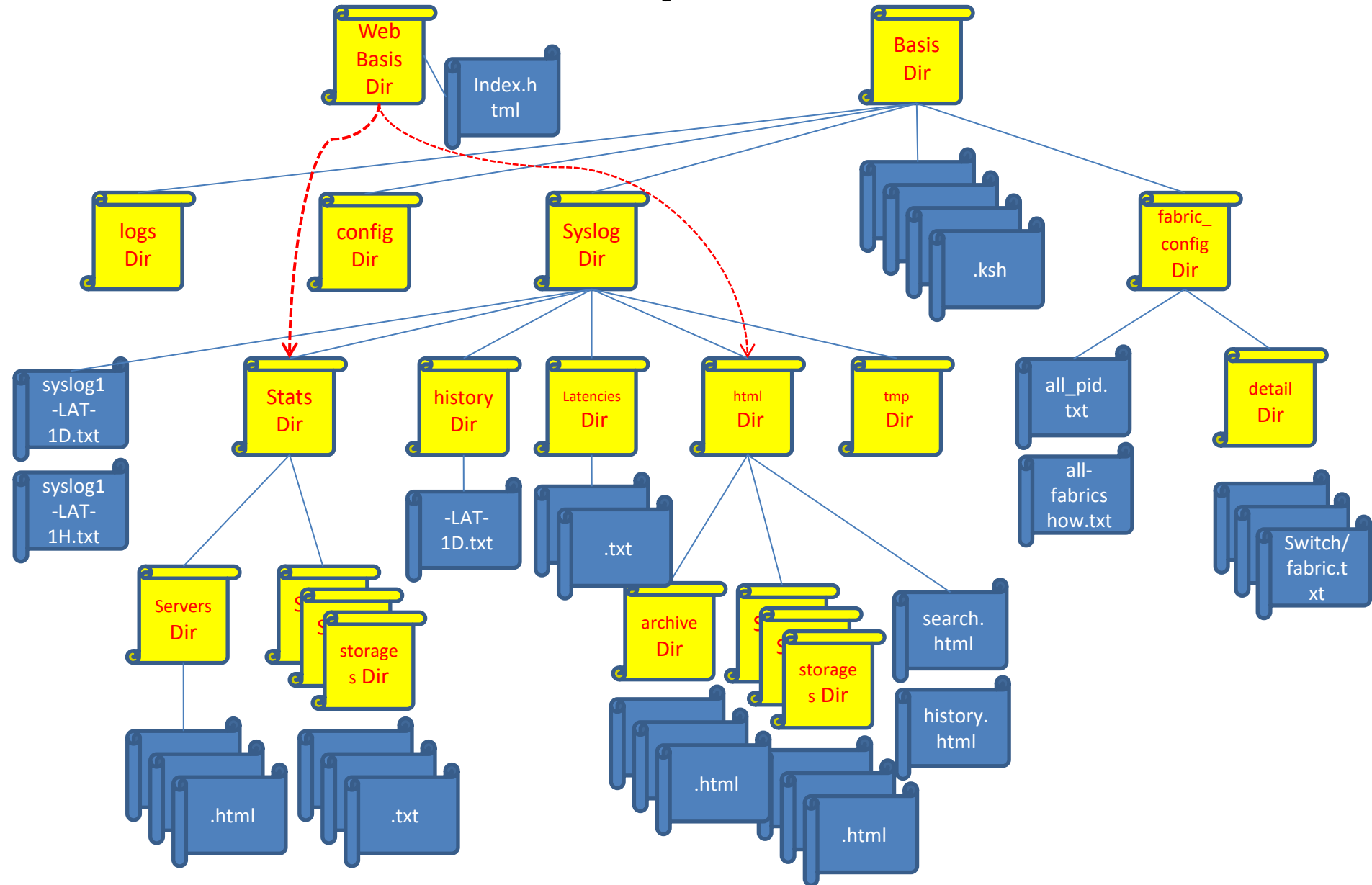
Search reports history

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krz41_ei41_sol05-2020_10_14.html	krz41_ei41_sol05-2020_10_15.html		
sv06633			
sv06633-2020_10_14.html			
sv06635			
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svg1w-2020_10_19.html			
svg5r			
svg5r-2020_10_20.html			
svg5rn07			
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svg8zn01-2020_10_19.html	svg8zn01-2020_10_20.html	svg8zn01-2020_10_21.html	svg8zn01-2020_10_22.html
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configurations, Amp, X6, Maps

configurations, Amp, X6, Maps

Directory structure



Contact:

Email : 3559870647@qq.com

Wechat : tarikbeijing (www.wechat.com – wechat app)

Whatapps : +8618612856430

Mobile : +86-186-1285-6430 +49-171-2026-150

Linkedin : <https://www.linkedin.com/in/tarik-jean-luc-aslan-45a0a93b>

Webpage : <http://www.tangta-technology.com>

