

# spec-list-old.sh

## record\_specs.sh

### Purpose

Used to collect and record server hardware specifications.

### Script Description

The script collects hardware information from several system tools and formats the result into one inventory line.

It records:

- Server product name
- Delivery destination entered by the user
- Product serial number
- CPU model and quantity
- Memory size, quantity, and DIMM part number
- Onboard NIC information
- Intel i350, X540, and X550 NICs
- Mellanox ConnectX-4 NICs
- Emulex HBAs
- LSI 3008 IT/IR controllers
- LSI 3108 RAID controller
- Attached disks
- NVMe devices
- NVIDIA GPUs

### Requirements

The script expects the following commands or tools to be available, depending on the hardware installed:

```
ipmitool
dmidecode
lspci
hbacmd
sas3ircu
```

```
storcli64
nvme
nvidia-smi
```

The script also expects this directory to exist:

```
/mac_sn/spec_list
```

## Output

The output is appended to a file named by year and month:

```
/mac_sn/spec_list/YY-MM.txt
```

Example:

```
/mac_sn/spec_list/26-06.txt
```

Each server is written as one line using `||` separators.

General format:

```
ProductName || Date || DeliveryLocation || SerialNumber || HardwareSpecification
```

## Notes

This script is written for a specific server preparation environment. It assumes that hardware detection tools such as `ipmitool`, `dmidecode`, `storcli64`, and `sas3ircu` are installed and that the server hardware follows expected naming patterns.

Some sections are tightly coupled to specific hardware models, including Intel i350, X540, X550, Mellanox ConnectX-4, Emulex HBAs, LSI 3008, and LSI 3108 controllers.

The script appends directly to `/mac_sn/spec_list/<YY-MM>.txt`, so the target directory must already exist before running the script.

## Script Contents

```
#!/bin/bash
echo " runing . . . . ."

#delivery
#cpu;
#meminfo;
#onbor;
#server;
#i350;
#x540;
#connectx;
#hba;
#card3008;
#hard;
#onhardchek;
#nvME;

server(){
#echo "name in"
pname=`ipmitool fru |grep 'Product Name'| head -n1 |awk '{print $4}'`
}

cpu(){
#echo "cpu in"
cpuname=`dmidecode |grep -i cpu |grep Intel| head -n1 |awk '{print $4,$5}'` #cpu name
cpuqty=`dmidecode |grep -i cpu |grep -c "$cpuname"` #cpu qty
}

onbor(){
#echo "onbord nic in"
oncardall=`dmidecode |grep -ic "Onboard X722 NIC*"` #phy10G-2 / 1G - 4
if [ "$oncardall" != "0" ];then
  if [ $oncardall = "2" ];then
    oncard=`echo "/ 10Gb DP PHY *1"`
  elif [ $oncardall = "4" ];then
    oncard=`echo "/ 1Gb QP PHY *1"`
  fi
fi
}

delivery(){
```

```

#echo "date in"
read -p " where is server delivered ? : " deli
}

meminfo(){

#echo "memory in"
local i=1
local j=2
memqty0=1
memqty1=0

memqty=`dmidcode |grep "Size: ..... MB" |awk '{print $2}'|sed 's/...$//'|grep -v Si |wc -l`
#mem all qty
mem0=`dmidcode |grep "Size: ..... MB" |awk '{print $2}'|sed 's/...$//'|grep -v Si |head -n1
|tail -n1`

if [ "$memqty" != "0" ];then
[]while [ "$i" -lt "$memqty" ]
[]do
[]mem1=`dmidcode |grep "Size: ..... MB" |awk '{print $2}'|sed 's/...$//'|head -n+$j |tail -
n+$j`
[]if [ "$mem0" = "$mem1" ]; then
[]memsize0=$mem0
[]let memqty0=$memqty0+1
[]elif [ "$mem0" != "$mem1" ]; then
[]memsize1=$mem1
[]let memqty1=$memqty1+1
[]fi

[]let i=$i+1
[]let j=$j+1
[]done

[]if [ "$memqty1" = "0" ];then
[]memory=`echo "$memsize0 GB DDR4 *$memqty0"`
[]else
[]memory=`echo "$memsize0 GB DDR4 *$memqty0" / $memsize1 GB DDR4 *$memqty1`

[]fi

```

```

if [ -z "$memsize0" ];then #one memory
memsize0=`dmi decode |grep "Size: ..... MB" |awk '{print $2}'|sed 's/...$//'\`
memory=`echo "$memsize0 GB DDR4 *1" `
fi

elif [ "$memqty" = "0" ];then
memqty0=1
memqty1=0
memqty=`dmi decode |grep "Size: .. GB" |grep -v Range |awk '{print $2}' |wc -l` #mem all qty
mem0=`dmi decode |grep "Size: .. GB"|grep -v Range |awk '{print $2}'|head -n1 |tail -n1`
i=1
memsize0=$mem0
while [ "$i" -lt "$memqty" ]
do
mem1=`dmi decode |grep "Size: .. GB"|grep -v Range |awk '{print $2}'|head -n+$j |tail -n+$j`

if [ "$mem0" = "$mem1" ]; then
memsize0=$mem0
let memqty0=$memqty0+1
elif [ "$mem0" != "$mem1" ]; then
memsize1=$mem1
let memqty1=$memqty1+1
fi

let i=$i+1
let j=$j+1
done

if [ "$memqty1" = "0" ];then
memory=`echo "$memsize0 GB DDR4 *$memqty0" `
else
memory=`echo "$memsize0 GB DDR4 *$memqty0" / $memsize1 GB DDR4 *$memqty1`

fi

if [ -z "$memsize0" ];then #one memory
memsize0=`dmi decode |grep "Size: .. GB" |grep -v Range |awk '{print $2}'`
memory=`echo "$memsize0 GB DDR4 *1" `
fi

fi

```

```

mem_dimm=`dmidecode -t 17 |grep Part |grep -v "NO DIMM"|awk '{print $3}'|head -n1`
#mem_dimm_qty=`dmidecode -t 17 |grep Part |grep -vc "NO DIMM"`
mem_dimm_qty=`dmidecode -t 17 |grep -ic "$mem_dimm "`
mem_type="($mem_dimm *$mem_dimm_qty)"

mem_dimm_qty=`dmidecode -t 17 |grep Part |grep -v "NO DIMM" |grep -vc "$mem_dimm"`

if [ "$mem_dimm_qty" != "0" ];then
mem_dimm1=`dmidecode -t 17 |grep Part |grep -v "NO DIMM" |grep -v "$mem_dimm" |awk '{print $3}'|head -n1`
mem_dimm_qty=`dmidecode -t 17 |grep -c "$mem_dimm1"`
mem_type="$mem_type/($mem_dimm1 *$mem_dimm_qty)"
fi

}

i350(){
#echo "i350 in "
i350all=`lspci |grep -ic i350`
if [ "$i350all" != "0" ]; then
[i350t2=`lspci |grep -i i350 |awk '{print $1}' | sed 's/.....//'|grep -ic 0`
[i350t4=`lspci |grep -i i350 |awk '{print $1}' | sed 's/.....//'|grep -ic 3`

let i350t2=$i350t2-$i350t4

if [ "$i350t4" = "0" ];then
[i350t=`echo "/ i350-T2 *$i350t2"`
elif [ "$i350t2" = "0" ];then
[i350t=`echo "/ i350-T4 *$i350t4"`
else
[i350t=`echo "/ i350-T2 *$i350t2 / i350-T4 *$i350t4"`
fi
fi
}

x540(){
#echo "x540 in"
x540all=`lspci |grep -ic x540`
if [ "$x540all" != "0" ]; then
[x540t2=`lspci |grep -ic x540`

```

```

[]let x540t2=x540t2/2
[]x540t2=`echo "/ X540-T2 *$x540t2"`
fi
}

x550t2=`lspci |grep -i x550 -c`
if [ $x550t2 -eq 2 ]; then
[]x550t2=`echo " / X550-T2 *1"`
fi

connectx(){
#echo "10G DP NIC in"
conn=`lspci |grep -ic 'connectX-4'`
if [ "$conn" != "0" ]; then
[]dp10g=`lspci |grep -i 'connectx-4' |awk '{print $1}' | sed 's/.....//' |grep -ic 0`
[]qp10g=`lspci |grep -i 'connectx-4' |awk '{print $1}' | sed 's/.....//' |grep -ic 3`
        x550t2=`lspci |grep -i x550 -c`
[]if [ $x550t2 -eq 2 ]; then
[]x550t2=`echo " / X550-T2 *2"`
[]fi

[]let dp10g=$dp10g-$qp10g

[]if [ "$qp10g" = "0" ];then
[][]connX=`echo "/ Mellanox 10G DP NIC *$dp10g"`
[]elif [ "$dp10g" = "0" ];then
[][]connX=`echo "/ Mellanox 10G QP NIC *$qp10g"`
[]else[]
[][]connX=`echo "/ Mellanox 10G DP NIC *$dp10g / Mellanox 10G QP NIC *$qp10g"`
[][]
[]fi
fi
}

hba(){
#echo "hba in"
hball=`lspci |grep -ic emulex`
if [ "$hball" != "0" ];then
[]hba16g=`hbacmd listhbas| grep -ic 'LPe16002B-M6'`
[]if [ "$hba16g" != "0" ];then
[][]let hba16g=$hba16g/2

```

```

[]hba16g=`echo "/ Emulex 16G HBA *$hba16g"`
[]fi
[]hba8g=`hbacmd listhbas| grep -ic 'LPe12002'`
[]if [ "$hba8g" != "0" ];then
[]let hba8g=$hba8g/2
[]hba8g=`echo "/ Emulex 8G HBA *$hba8g"`
[]fi
fi
}

card3008(){
#echo "3008 in"
c3008=`lspci |grep -c 3008`
local i=0

if [ "$c3008" != "0" ]; then
#sas3008ir=`sas3ircu list |grep -ic "sas3ir"`
#sas3008it=`sas3ircu list |grep -ic "sas3it"`
sas3008ir=`sas3ircu 0 display |grep -i "raid support"|grep -ic yes`
sas3008it=`sas3ircu 1 display |grep -i "raid support"|grep -ic no`

[]if [ "$sas3008ir" = "1" ]; then
[]sas3008ir=`echo '/ LSI3008IR *1'`
[]elif [ "$sas3008ir" = "2" ]; then
[]sas3008ir=`echo '/ LSI3008IR *2'`
[]elif [ "$sas3008ir" = "0" ]; then
[]sas3008ir=""
[]fi

[]if [ "$sas3008it" = "1" ]; then
[]sas3008it=`echo '/ LSI3008IT *1'`
[]elif [ "$sas3008it" = "2" ]; then
[]sas3008it=`echo '/ LSI3008IT *2'`
[]elif [ "$sas3008it" = "0" ]; then
[]sas3008it=""
[]fi

hard3008=`sas3ircu 0 display |grep -i "model number"|grep -vc Cub`
[]until [ "$hard3008" = "0" ];
[]do
[]case $i in

```

```

0)
[[hard3008_0=`sas3ircu 0 display |grep -i "model number" |awk '{print $4 , $5}'|head -n1|tail -n1`
[[hard3008qty0=`sas3ircu 0 display |grep -ic "$hard3008_0"`
[[hard3008all=`echo "/ $hard3008_0 *$hard3008qty0"`
[[let hard3008=$hard3008-$hard3008qty0
;;
1)
[[hard3008_1=`sas3ircu 0 display |grep -i "model number"|awk '{print $4 , $5}'|grep -v "$hard3008_0" |head -n1|tail -n1`
[[
[[hard3008qty1=`sas3ircu 0 display |grep -ic "$hard3008_1"`
[[hard3008all=`echo "/ $hard3008_0 *$hard3008qty0 / $hard3008_1 *$hard3008qty1"`
[[
[[let hard3008=$hard3008-$hard3008qty1
;;
2)
[[hard3008_2=`sas3ircu 0 display |grep -i "model number" |awk '{print $4 , $5}'|grep -ve "$hard3008_0" -e "$hard3008_1"|head -n1|tail -n1`
[[hard3008qty2=`sas3ircu 0 display |grep -ic "$hard3008_2"`
[[hard3008all=`echo "/ $hard3008_0 *$hard3008qty0 / $hard3008_1 *$hard3008qty1 / $hard3008_2 *$hard3008qty2"`
[[
[[let hard3008=$hard3008-$hard3008qty2
;;
3)
[[hard3008_3=`sas3ircu 0 display |grep -i "model number" |awk '{print $4 , $5}'|grep -ve "$hard3008_0" -e "$hard3008_1" -e "$hard3008_3"|head -n1|tail -n1`
[[hard3008qty3=`sas3ircu 0 display |grep -ic "$hard3008_3"`
[[hard3008all=`echo "/ $hard3008_0 *$hard3008qty0 / $hard3008_1 *$hard3008qty1 / $hard3008_2 *$hard3008qty2 / $hard3008_3 *$hard3008qty3"`
[[
[[let hard3008=$hard3008-$hard3008qty3
;;
esac
[[let i=$i+1
done

local i=0
hard3008t=`sas3ircu 1 display |grep -ic "model number"`
[[if [ "$hard3008t" != "0" ]; then

```

```

until [ "$hard3008t" = "0" ];
do
case $i in
0)
echo "0a"
hard3008t_0=`sas3ircu 1 display |grep -i "model number" |awk '{print $4 , $5}'|head -n1|tail
n1`
hard3008tqty0=`sas3ircu 1 display |grep -ic "$hard3008t_0"`
echo
hard3008tall=`echo "/ $hard3008t_0 *$hard3008tqty0"`
echo
let hard3008t=$hard3008t-$hard3008tqty0
;;
1)
echo 1b
hard3008t_1=`sas3ircu 1 display |grep -i "model number"|awk '{print $4 , $5}'|grep -v
"$hard3008t_0" |head -n1|tail -n1`
hard3008tqty1=`sas3ircu 1 display |grep -ic "$hard3008t_1"`
echo
hard3008tall=`echo "/ $hard3008t_0 *$hard3008tqty0 / $hard3008t_1 *$hard3008tqty1"`
echo
let hard3008t=$hard3008t-$hard3008tqty1
;;
2)
echo 2b
hard3008t_2=`sas3ircu 1 display |grep -i "model number" |awk '{print $4 , $5}'|grep -ve
"$hard3008t_0" -e "$hard3008t_1"|head -n1|tail -n1`
hard3008tqty2=`sas3ircu 1 display |grep -ic "$hard3008t_2"`
echo
hard3008tall=`echo "/ $hard3008t_0 *$hard3008tqty0 / $hard3008t_1 *$hard3008tqty1 /
$hard3008t_2 *$hard3008tqty2"`
echo
let hard3008t=$hard3008t-$hard3008tqty2
;;
3)
echo 3b
hard3008t_3=`sas3ircu 1 display |grep -i "model number" |awk '{print $4 , $5}'|grep -ve
"$hard3008t_0" -e "$hard3008t_1" -e $hard3008t_3|head -n1|tail -n1`
hard3008tqty3=`sas3ircu 1 display |grep -ic "$hard3008t_3"`
echo
hard3008tall=`echo "/ $hard3008t_0 *$hard3008tqty0 / $hard3008t_1 *$hard3008tqty1 /

```

```

$hard3008t_2 *$hard3008tqty2 / $hard3008t_3 *$hard3008tqty3"`
[[[
[[[let hard3008t=$hard3008t-$hard3008tqty3
[[;;

[[esac
[[[let i=$i+1
[[done

[[fi

fi
}

hard(){
c3108=`lspci |grep -i raid |wc -l`
if [ "$c3108" -gt "0" ];then
lsi3108=`echo "/ LSI3108 *1"`
i=0
[[hardall=`storcli64 /c0 show |grep -i 512B`
[[hardallc=`storcli64 /c0 show |grep -ic 512B`
[[until [ "$hardallc" = "0" ];
[[do
[[[case $i in
[[[0)
[[[hard0=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|head -n1|tail -n1`
[[
[[[hardqty0=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ic
"$hard0"`

[[[hard3108all=`echo "/ $hard0 *$hardqty0"`
[[[let hardallc=$hardallc-$hardqty0
[[;;
[[[1)
[[[hard1=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -v
"$hard0"|head -n1 |tail -n1`

[[[hardqty1=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ic
"$hard1"`
[[

```

```

hard3108all=`echo "/ $hard0 *$hardqty0 / $hard1 *$hardqty1"`
let hardallc=$hardallc-$hardqty1

;;
2)
hard2=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ve "$hard0" -
"$hard1"|head -n1 |tail -n1`

hardqty2=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ic
"$hard2"`

let hard3108all=`echo "$hard0 *$hardqty0 / $hard1 *$hardqty1 / $hard2 *$hardqty2"`
let hardallc=$hardallc-$hardqty2

;;
3)
hard3=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ve "$hard0" -
"$hard1" -e "$hard2" |head -n1 |tail -n1`

hardqty3=`storcli64 /c0 show |grep -i 512B |awk '{print $5$6,$7,$12, $13}'|grep -ic
"$hard3"`

let hard3108all=`echo "$hard0 *$hardqty0 / $hard1 *$hardqty1 / $hard2 *$hardqty2" / $hard3
*$hardqty3`
let hardallc=$hardallc-$hardqty3

;;
esac
let i=$i+1

done

plus3108all=`cat /proc/scsi/scsi|grep -ve LSI -e AVAGO -e D51B |grep -ic Model`
if [ "$plus3108all" != "0" ];then
plus3108all=`cat /proc/scsi/scsi|grep -ve LSI -e AVAGO -e D51B |grep -ic Model`
i=0
until [ "$plus3108all" = "0" ];
do
case $i in
0)
plus3108on=`cat /proc/scsi/scsi|grep -ve LSI -e AVAGO -e D51B |grep -i Model |awk '{print $4,

```

```

$5}' |head -n1|tail -n1`
[[plus3108qty=`cat /proc/scsi/scsi|grep -ve LSI -e AVAGO -e D51B |grep -i Model |awk '{print $4
$5}'| grep -ic "$plus3108on"`
[[plus3108a=`echo "/ $plus3108on *$plus3108qty"`
[[let plus3108all=$plus3108all-$plus3108qty
[[;;
[[1)
[[plus3108on1=`cat /proc/scsi/scsi |grep -ve LSI -e AVAGO -e D51B |grep -i Model |awk '{print
$4, $5}' |grep -v "$plus3108on" |head -n1|tail -n1`
[[plus3108qty1=`cat /proc/scsi/scsi |grep -ve LSI -e AVAGO -e D51B|grep -i Model |awk '{print
$4, $5}'| grep -ic "$plus3108on1"`

[[plus3108a=`echo "/ $plus3108on *$plus3108qty / $plus3108on1 *$plus3108qty1"`
[[let plus3108all=$plus3108all-$plus3108qty1
[[echo "$plus3108on1 $plus3108qty1"
[[;;
[[esac
[[let i=$i+1
[[done
fi

fi
}

onhardchek(){
nohard=`lspci |grep -ie 3108 -e 3008 |wc -l`
if [ "$nohard" = "0" ];then
[[onhard=`cat /proc/scsi/scsi |grep -i Model |awk '{print $4, $5}' |wc -l`
i=0
[[until [ "$onhard" = "0" ];
[[do
[[case $i in
[[0)
[[onhard0=`cat /proc/scsi/scsi |grep -i Model |awk '{print $4, $5}' |head -n1|tail -n1`
[[onhardqty0=`cat /proc/scsi/scsi |grep -i Model |awk '{print $4, $5}'| grep -ic "$onhard0"`
[[onhardall=`echo "/ $onhard0 *$onhardqty0"`
[[let onhard=$onhard-$onhardqty0
[[;;
[[1)
[[onhard1=`cat /proc/scsi/scsi |grep -i Model |awk '{print $4, $5}' |grep -v "$onhard0" |head -

```

```
n1|tail -n1`
onhardqty1=`cat /proc/scsi/scsi |grep -i Model |awk '{print $4, $5}'| grep -ic "$onhard1"`

onhardall=`echo "/ $onhard0 *$onhardqty0 / $onhard1 *$onhardqty1"`
let onhard=$onhard-$onhardqty1
;;

esac
let i=$i+1
done

fi

}

nvME(){
nvMe=`lsblk |grep -ic nvme`
if [ "$nvMe" != "0" ]; then
echo in
nvMe0=`nvme list |grep -i nvme |awk '{print $6, $7}'|head -n1`
nvName0=`nvme list |grep -i nvme |awk '{print $4}'`
nvMeqty0=`nvme list |grep -i nvme |grep -c "$nvName0"`
nvMeall=`echo "/ $nvMe0 Nvme *$nvMeqty0"`
[]

fi
}

gpu_ck(){
gpucheck=`lspci |grep -ic nvidia`
if [ "$gpucheck" != "0" ]; then
gpuname=`nvidia-smi -a |grep -i "Product Name"|head -n1|awk '{print $4,$5}'`
gpunum=`nvidia-smi -a |grep -ic "Product Name"`
gpuall=`echo "/ $gpuname *$gpunum"`
fi
}

seri=`ipmitool fru |grep -i "product serial"|head -n1 |awk '{print $4}'`

delivery
```

```
cpu;
meminfo;
onbor;
server;
i350;
connectx;
x540;
hba;
card3008; #check
hard; □ #check
onhardchek;
nvME;
gpu_ck;
cd /mac_sn/spec_list
echo "$pname || `date +%Y-%m-%d` || $deli || $seri || $cpuname *$cpuqty / $memory
$mem_type $lsi3108 $sas3008ir $sas3008it $onhardall $hard3008all $nvMeall $hard3008tall
$hard3108all $plus3108a $oncard $i350t $x540t $x550t2 $connX $hba16g $hba8g $gpuall" >> `date
+%y-%m.txt`

cat -n `date +%y-%m.txt`

#mkdir `date +%Y-%m`
```

---

Revision #2

Created 2026-06-09 07:24:34 UTC by Admin

Updated 2026-06-09 19:33:16 UTC by Admin