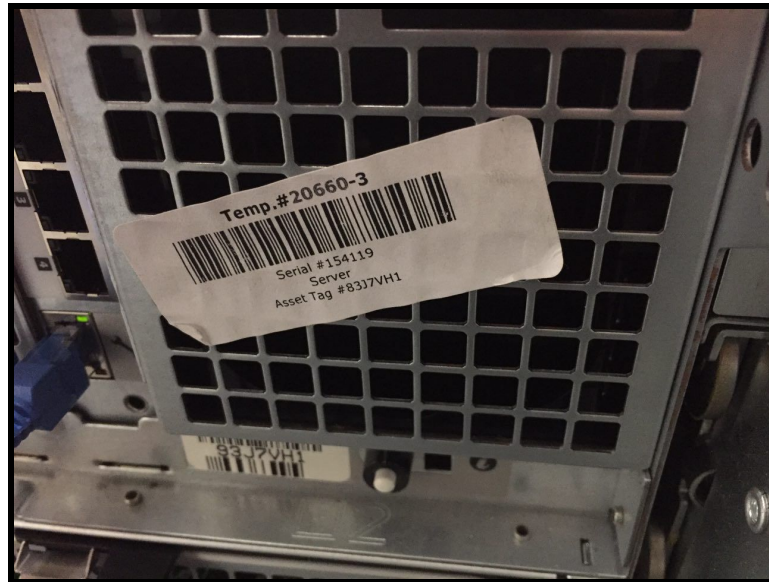


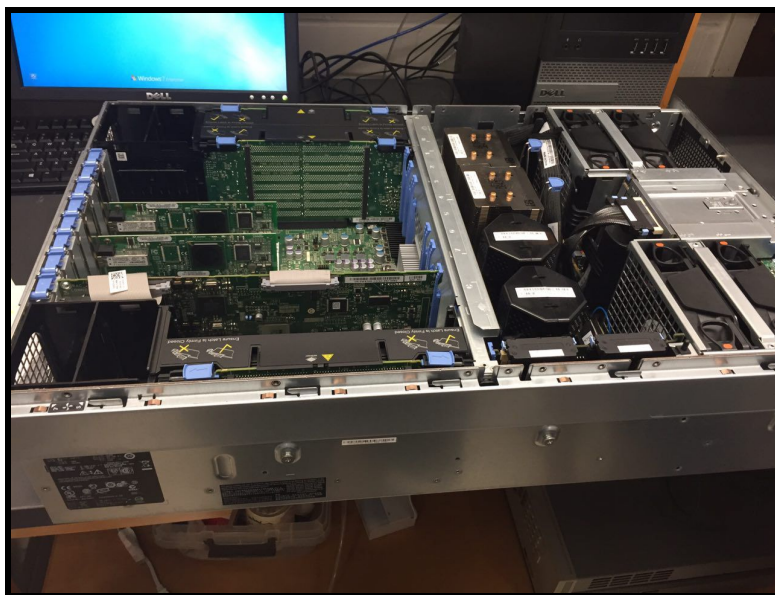
Meet the Server:

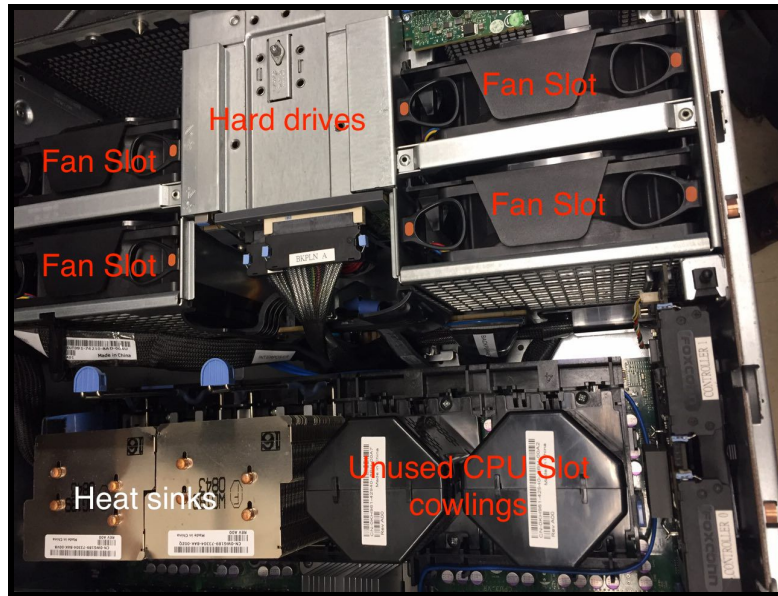
The service tag as seen from the back of the chassis. It is #83J7VH1



Poke around inside:

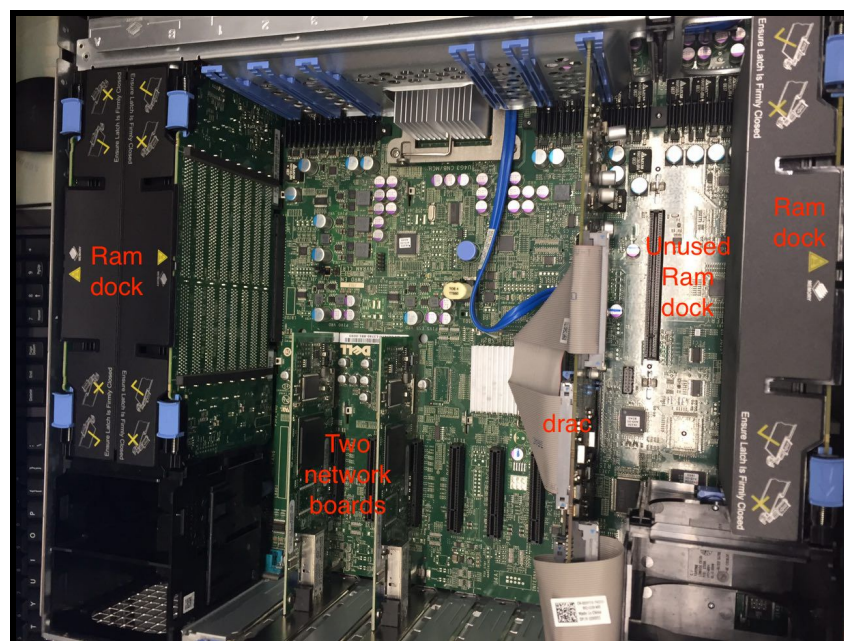
Wide angle shot of the whole chassis



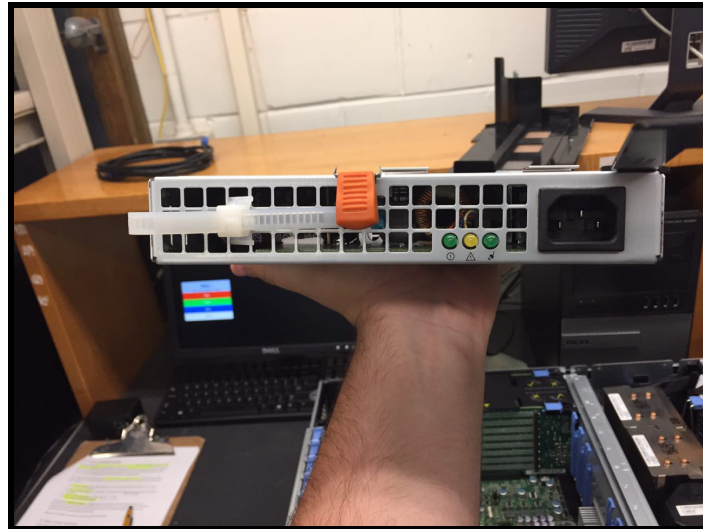


CPU Heatsinks as seen on left (above), unused CPU slot cowlings on right. Servers have the most amazing slot in fan systems that I wish consumer desktops had.

On the right and left (below) are the ram docks (the one from the left is removed in this photo). In the middle are two network control boards (I believe for fiber channel/optic). On the right with the thick ribbon is the ethernet network card and DRAC.



This is a photo of one of the two power supply (removed from the back bottom of the chassis)

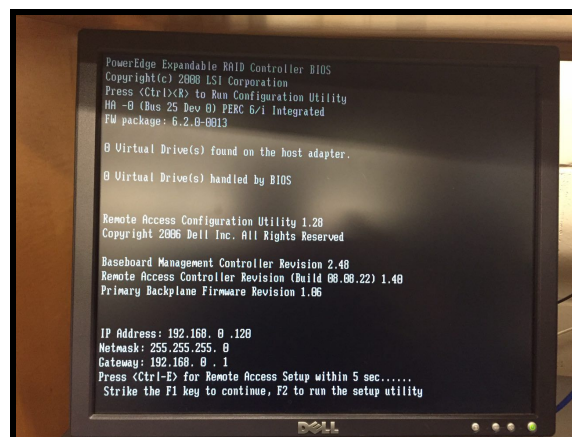


In terms of RAM:

1. 4 RAM boards
 - a. Each with 4 sticks
2. Each stick: 4GB 2RX4 PC2-5300F-555-11-E0
 - a. DDR2-667 (up to 667 MHz of reach)
 - b. ECC (can correct errors)
3. Total: 64 GB

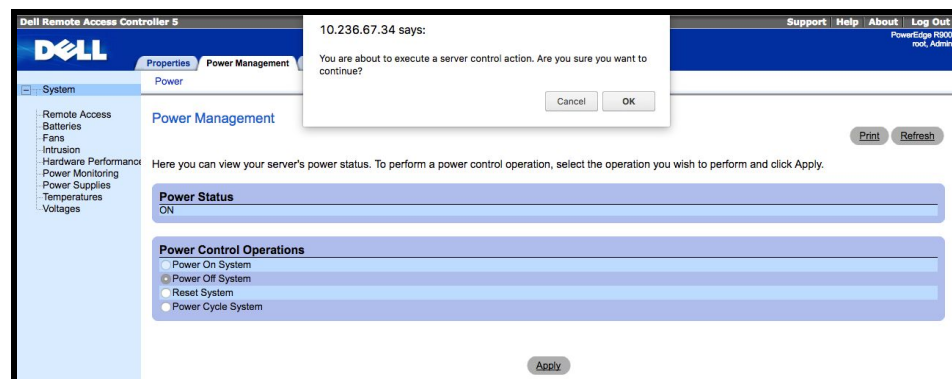
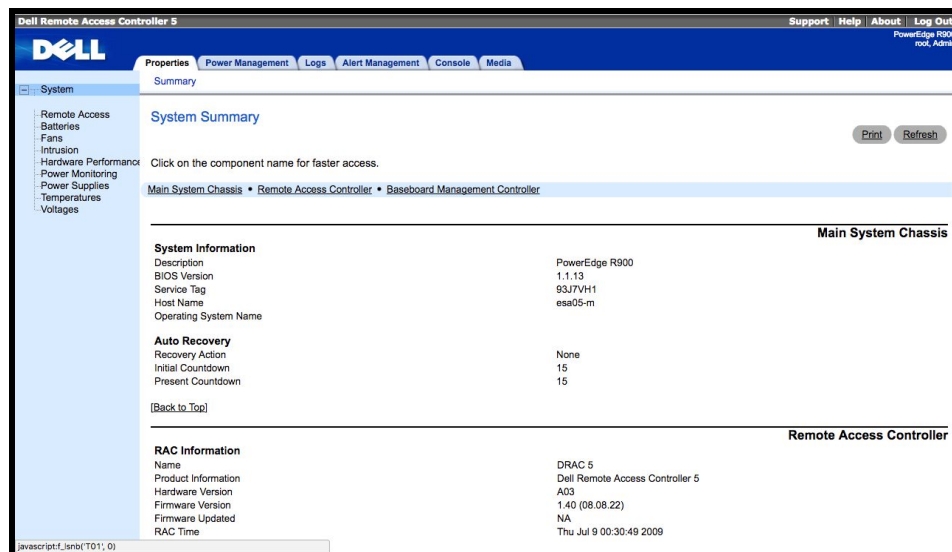
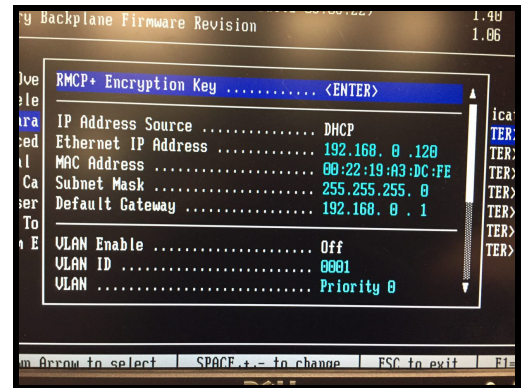
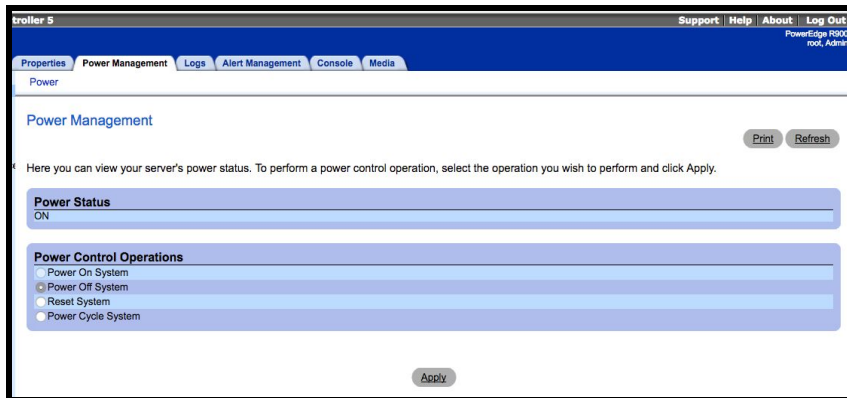
Boot the Server:

We booted the server, and got to see some lovely BIOS. In this photo you can see the RAID controller section (accessible by Ctrl-R) and the DRAC section as these boot up.



Set Up Remote Access:

We set up the remote access through the DRAC's BIOS menu. Then we played around with the newly set up access site



Shown below is the working remote console (this is shown with Ubuntu installed later but as requested by the report). Note that on machine startup I was able to access BIOS GUIs from this console

```

root@PowerEdge-000:~#
File View Macros Tools Help

TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

lo
  Link encap:Local Loopback
  inet addr:127.0.0.1 Bcast:255.0.0.0
  inet6 addr: ::1:1:1 Scope:Host
  UP LOOPBACK RUNNING MTU:65536 Metric:1
  RX packets:2896 errors:0 dropped:0 overruns:0 frame:0
  TX packets:2896 errors:0 dropped:0 overruns:0 carrier:0
  collisions:0 txqueuelen:1
  RX bytes:216064 (216.0 KB) TX bytes:216064 (216.0 KB)

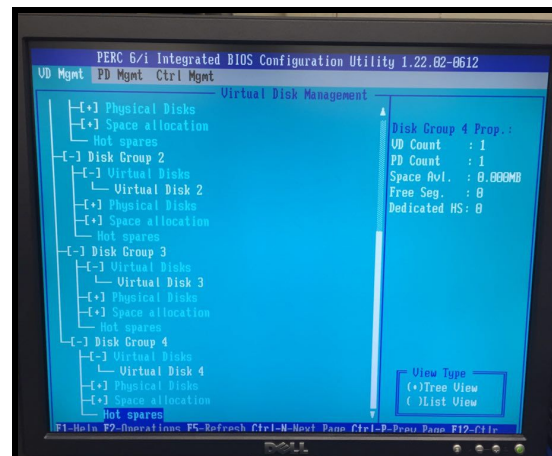
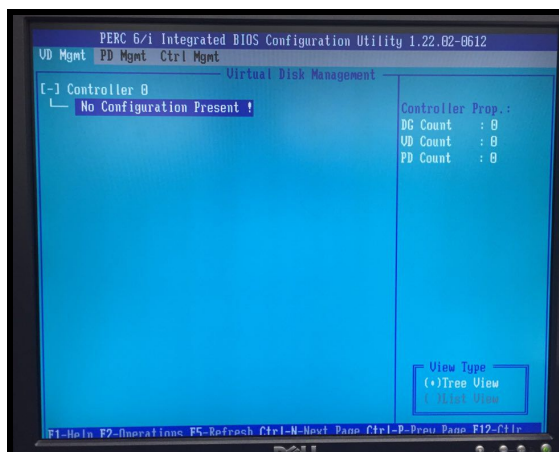
flovesa05:~$ cat /proc/cpuinfo | grep processor
processor       : 0
processor       : 1
processor       : 2
processor       : 3
processor       : 4
processor       : 5
processor       : 6
processor       : 7
processor       : 8
processor       : 9
processor       : 10
processor       : 11
flovesa05:~$ cat /proc/
Display all 255 possibilities? (y or n)
flovesa05:~$ cat /proc/
Display all 255 possibilities? (y or n)

```

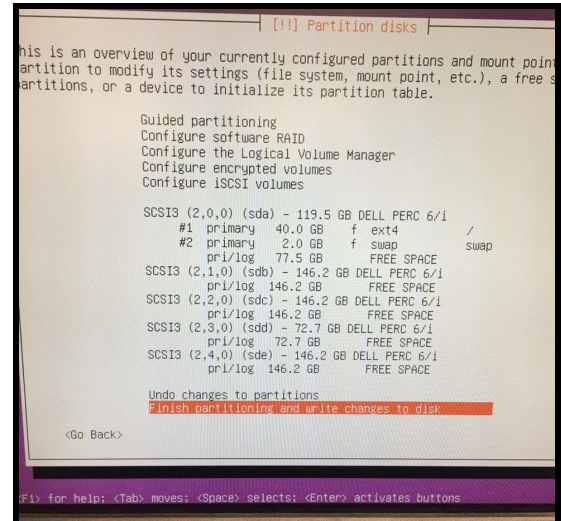
1/	159/	18/	38/	67/	88/	990/	locks
10/	1575/	1042/	39/	68/	81/	991/	mdstat
1003/	1577/	1044/	4/	69/	82/	scsi/	meminfo
1004/	1583/	1047/	40/	7/	828/	busdinfo	misc
1061/	1585/	1051/	41/	70/	83/	bus/	modules
11/	1587/	105/	42/	71/	84/	cgroups	mounts
112/	1590/	1073/	43/	72/	85/	cmdline	net/
113/	1593/	1074/	45/	73/	854/	consoles	net/
114/	160/	1080/	46/	732/	86/	cpuinfo	parttableinfo
115/	1606/	1090/	47/	734/	87/	crypto	partitions
116/	1612/	19/	474/	735/	88/	devices	sched_debug
117/	1630/	193/	475/	74/	881/	diskstats	schedstat
118/	1632/	194/	476/	744/	882/	dns	scsi/
1189/	1634/	2/	477/	749/	89/	driver/	self/
1191/	1651/	20/	478/	75/	9/	condomains	slabinfo
12/	1652/	21/	48/	750/	90/	fb	softirqs
120/	1654/	22/	5/	751/	91/	filesystems	stat
121/	1655/	23/	50/	752/	93/	fs/	swaps
1214/	1656/	245/	51/	753/	933/	interrupts	sys/
122/	1658/	246/	52/	754/	934/	ionon	sysrq-trigger
123/	1663/	25/	53/	755/	94/	reports	sysvipc/
124/	1672/	26/	55/	756/	941/	ipmi/	thread-self/

Install Drives:

The PERC configuration tool is shown before the logical drives were set up. Later you can see the drive tree after the logical drives were set up.

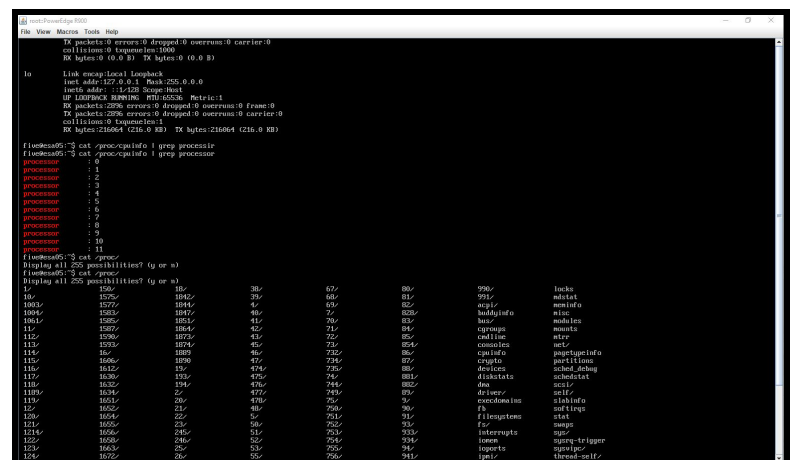


We booted from the Linux CD and began to install the OS. Below you can see the language selection.



Next you can see the end partitions of the disks.

We could both manually SSH in via a terminal and via the console on the web.



Nick Lockett(nsl8), Matthew Wu(mlw55)
George Bernard(ghb5), Ryan St. Pierre(ras70)

The output from our look at the partition tables using `fdisk` (it goes off the screen) shown beside the output from the `meminfo` “file”.

```

processor       : 0
processor       : 9
processor       : 10
processor       : 11
five@esa05:/proc$ cd
five@esa05:~$ sudo fdisk -l /dev/sd?
[sudo] password for five:
Disk /dev/sda: 111.3 GiB, 119453777920 bytes, 233308160 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0xbf5ead2b

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 78125055 78123008 37.3G 83 Linux
/dev/sda2 78125056 82030591 3905536 1.9G 82 Linux swap / Solaris
Disk /dev/sdb: 136.1 GiB, 146163105792 bytes, 285474816 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x00000000

Device Boot Start End Sectors Size Id Type
/dev/sdb1 * 0 0 0 0B 0 Empty
Disk /dev/sdc: 136.1 GiB, 146163105792 bytes, 285474816 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x00000000

Device Boot Start End Sectors Size Id Type
/dev/sdd1 * 0 0 0 0B 0 Empty
Disk /dev/sde: 67.8 GiB, 72746000576 bytes, 142082048 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x00000000

Device Boot Start End Sectors Size Id Type
/dev/sde1 * 0 0 0 0B 0 Empty
five@esa05:~$

```

```

five@esa05:/proc$ cat meminfo
MemTotal:        65968452 kB
MemFree:         65538504 kB
MemAvailable:    65267476 kB
Buffers:         10740 kB
Cached:          164996 kB
SwapCached:      0 kB
Active:          72360 kB
Inactive:        127512 kB
Active(anon):    27172 kB
Inactive(anon):  8488 kB
Active(file):    45188 kB
Inactive(file):  119024 kB
Unevictable:     3660 kB
Mlocked:         3660 kB
SwapTotal:       1952764 kB
SwapFree:        1952764 kB
Dirty:           52 kB
Writeback:       0 kB
AnonPages:       27832 kB
Mapped:          34812 kB
Shmem:           9072 kB
Slab:            52308 kB
SReclaimable:    19704 kB
SUnreclaim:      32604 kB
KernelStack:     4000 kB
PageTables:      2164 kB
NFS_Unstable:    0 kB
Bounce:          0 kB
WritebackTmp:    0 kB
CommitLimit:     34936988 kB
Committed_AS:    251416 kB
VmallocTotal:    34359738367 kB
VmallocUsed:      0 kB
VmallocChunk:    0 kB
HardwareCorrupted: 0 kB
AnonHugePages:   6144 kB
CmaTotal:        0 kB
CmaFree:         0 kB
HugePages_Total: 0
HugePages_Free:  0
HugePages_Rsvd:  0
HugePages_Surp:  0
Hugepagesize:    2048 kB
DirectMap4k:     103112 kB
DirectMap2M:     67000320 kB
five@esa05:/proc$

```

Rackmount installation:



Our server is the one on top in this picture. George and Ryan were both unable to make it, due to personal reasons.