```
Ready; T=0.01/0.01 20:49:10
ipl 160 clear
zIPL v1.8.0-44.45.2 interactive boot menu

 0. default (ipl)

 1. ipl

Note: VM users please use '#cp vi vmsg <number> <kernel-parameters>'

Please choose (default will boot in 10 seconds):
Booting default (ipl)...
Initializing cgroup subsys cpuset
Initializing cgroup subsys cpu
Linux version 2.6.32.36-0.5-default (geeko@buildhost) (gcc version 4.3.4 [gcc-4_3-
branch revision 152973] (SUSE Linux) ) #1 SMP 2011
-04-14 10:12:31 +0200
setup.1a06a7: Linux is running as a z/VM guest operating system in 64-bit mode
Zone PFN ranges:
  DMA      0x00000000 -> 0x00080000
  Normal   0x00080000 -> 0x00080000
Movable zone start PFN for each node
early_node_map[1] active PFN ranges
    0: 0x00000000 -> 0x00020000
PERCPU: Embedded 11 pages/cpu @0000000000e92000 s12544 r8192 d24320 u65536
pcpu-alloc: s12544 r8192 d24320 u65536 alloc=16*4096
pcpu-alloc: [0] 00 [0] 01 [0] 02 [0] 03 [0] 04 [0] 05 [0] 06 [0] 07
pcpu-alloc: [0] 08 [0] 09 [0] 10 [0] 11 [0] 12 [0] 13 [0] 14 [0] 15
pcpu-alloc: [0] 16 [0] 17 [0] 18 [0] 19 [0] 20 [0] 21 [0] 22 [0] 23
pcpu-alloc: [0] 24 [0] 25 [0] 26 [0] 27 [0] 28 [0] 29 [0] 30 [0] 31
pcpu-alloc: [0] 32 [0] 33 [0] 34 [0] 35 [0] 36 [0] 37 [0] 38 [0] 39
pcpu-alloc: [0] 40 [0] 41 [0] 42 [0] 43 [0] 44 [0] 45 [0] 46 [0] 47
pcpu-alloc: [0] 48 [0] 49 [0] 50 [0] 51 [0] 52 [0] 53 [0] 54 [0] 55
pcpu-alloc: [0] 56 [0] 57 [0] 58 [0] 59 [0] 60 [0] 61 [0] 62 [0] 63
Built 1 zonelists in Zone order, mobility grouping on.  Total pages: 129280
Kernel command line: root=/dev/disk/by-path/ccw-0.0.0160-part1
TERM=dumb BOOT_IMAGE=0
PID hash table entries: 2048 (order: 2, 16384 bytes)
Dentry cache hash table entries: 65536 (order: 7, 524288 bytes)
Inode-cache hash table entries: 32768 (order: 6, 262144 bytes)
Memory: 499540k/524288k available (4393k kernel code, 0k reserved, 2104k data, 228k
init)
Write protected kernel read-only data: 0x100000 - 0x5fffff
Hierarchical RCU implementation.
console [ttyS0] enabled
allocated 5242880 bytes of page_cgroup
please try 'cgroup_disable=memory' option if you don't want memory cgroups
pid_max: default: 65536 minimum: 512
Security Framework initialized
AppArmor: AppArmor initialized
Mount-cache hash table entries: 256
Initializing cgroup subsys ns
Initializing cgroup subsys cpuacct
Initializing cgroup subsys memory
Initializing cgroup subsys devices
Initializing cgroup subsys freezer
Initializing cgroup subsys net_cls
cpu.33a262: 1 configured CPUs, 0 standby CPUs
cpu.17772b: Processor 0 started, address 0, identification 018942
```

```
Brought up 1 CPUs
devtmpfs: initialized
NET: Registered protocol family 16
bio: create slab <bio-0> at 0
NetLabel: Initializing
NetLabel:  domain hash size = 128
NetLabel:  protocols = UNLABELED CIPSOv4
NetLabel:  unlabeled traffic allowed by default
AppArmor: AppArmor Filesystem Enabled
NET: Registered protocol family 2
IP route cache hash table entries: 4096 (order: 3, 32768 bytes)
TCP established hash table entries: 16384 (order: 6, 262144 bytes)
TCP bind hash table entries: 16384 (order: 6, 262144 bytes)
TCP: Hash tables configured (established 16384 bind 16384)
TCP reno registered
NET: Registered protocol family 1
Unpacking initramfs...
Freeing initrd memory: 5647k freed
audit: initializing netlink socket (disabled)
type=2000 audit(1311986968.620:1): initialized
HugeTLB registered 1 MB page size, pre-allocated 0 pages
VFS: Disk quotas dquot_6.5.2
Dquot-cache hash table entries: 512 (order 0, 4096 bytes)
msgmni has been set to 246
alg: No test for stdrng (krng)
Block layer SCSI generic (bsg) driver version 0.4 loaded (major 254)
io scheduler noop registered
io scheduler anticipatory registered
io scheduler deadline registered (default)
io scheduler cfq registered
cio.b5d5f6: Channel measurement facility initialized using format extended (mode
autodetected)
TCP cubic registered
registered taskstats version 1
Freeing unused kernel memory: 228k freed
doing fast boot
Creating device nodes with udev
udevd version 128 started
```

dasd-eckd.90fb0d: 0.0.0160: New DASD 3390/0C (CU 3990/01) with
10017 cylinders, 15 heads, 224 sectors
dasd-eckd.412b53: 0.0.0160: DASD with 4 KB/block, 7212240 KB
total size, 48 KB/track, compatible disk layout
 dasda:VOL1/ 0X0160: dasda1 dasda2 dasda3

```
mount: devpts already mounted or /dev/pts busy
mount: according to mtab, devpts is already mounted on /dev/pts
Boot logging started on /dev/ttyS0(/dev/console) at Fri Jul 29 20:49:29 2011
kjournald starting.  Commit interval 15 seconds
EXT3 FS on dasda1, internal journal
EXT3-fs: mounted filesystem with ordered data mode.
resume device  not found (ignoring)
```

Waiting for device /dev/disk/by-path/ccw-0.0.0160-part1 to
appear: ok

```
fsck from util-linux-ng 2.16
[/sbin/fsck.ext3 (1) -- /] fsck.ext3 -a /dev/dasda1
/dev/dasda1: clean, 4185/102400 files, 65982/102396 blocks
fsck succeeded. Mounting root device read-write.
```

Mounting root /dev/disk/by-path/ccw-0.0.0160-part1

```
mount -o rw,acl,user_xattr -t ext3 /dev/disk/by-path/ccw-
0.0.0160-part1 /root
INIT: version 2.86 booting
System Boot Control: Running /etc/init.d/boot
Mounting sysfs at /sys..done
Mounting debugfs at /sys/kernel/debug..done
Copying static /dev content..done
Mounting devpts at /dev/pts..done
Boot logging started on /dev/ttyS0(/dev/console) at Fri Jul 29 20:49:32 2011
udevd version 128 started
SCSI subsystem initialized
vmur.c793e5: z/VM virtual unit record device driver loaded.
lcs.4fa72b: Loading LCS driver
qeth.87067b: loading core functions
lcs.0aabaa: LCS device eth0 without IPv6 support
lcs.86dbe7: LCS device eth0 with Multicast support
Adding 524872k swap on /dev/dasda2.  Priority:-1 extents:1 across:524872k
device-mapper: uevent: version 1.0.3
device-mapper: ioctl: 4.15.0-ioctl (2009-04-01) initialised: dm-devel@redhat.com
Starting udevd: ..done
Loading drivers, configuring devices: ..done
Activating swap-devices in /etc/fstab...
..done
Setting up the System Clock..done
..done
Activating device mapper...
..done
Loading required kernel modules
..done
Starting MD Raid ln: creating symbolic link `/var/run/mdadm': No such file or
directory
..unused
Waiting for udev to settle...
Scanning for LVM volume groups...
  Reading all physical volumes.  This may take a while...
  Found volume group "vg1" using metadata type lvm2
Activating LVM volume groups...
  6 logical volume(s) in volume group "vg1" now active
..done
blogd: no message logging because /var file system is not accessible
Waiting for /dev/vg1/usrx . no more events
Checking file systems...
fsck from util-linux-ng 2.16
Checking all file systems.
[/sbin/fsck.ext3 (1) -- /home] fsck.ext3 -a /dev/mapper/vg1-home
/dev/mapper/vg1-home: clean, 30/25600 files, 1863/25600 blocks
[/sbin/fsck.ext3 (1) -- /opt] fsck.ext3 -a /dev/mapper/vg1-opt
/dev/mapper/vg1-opt: clean, 11/19456 files, 1647/19456 blocks
[/sbin/fsck.ext2 (1) -- /repository] fsck.ext2 -a /dev/mapper/vg1-vmarc
/dev/mapper/vg1-vmarc: clean, 3477/131072 files, 14677/524288 blocks
[/sbin/fsck.ext3 (1) -- /tmp] fsck.ext3 -a /dev/mapper/vg1-tmp
/dev/mapper/vg1-tmp: clean, 303/76800 files, 13287/76800 blocks
[/sbin/fsck.ext3 (1) -- /usr] fsck.ext3 -a /dev/vg1/usrx
fsck.ext3: No such file or directory while trying to open
/dev/vg1/usrx
/dev/vg1/usrx:
```

The superblock could not be read or does not describe a correct ext2
filesystem. If the device is valid and it really contains an ext2
filesystem (and not swap or ufs or something else), then the superblock
is corrupt, and you might try running e2fsck with an alternate superblock:
    e2fsck -b 8193 <device>

[/sbin/fsck.ext3 (1) -- /var] fsck.ext3 -a /dev/mapper/vg1-var
/dev/mapper/vg1-var: clean, 1887/103808 files, 79400/103424 blocks
..failed
fsck failed for at least one filesystem (not /).
Please repair manually and reboot.
The root file system is is already mounted read-write.

Attention: Only CONTROL-D will reboot the system in this
maintanance mode. shutdown or reboot will not work.

Give root password for login:
passwordforroot

(repair filesystem) #
df
Filesystem   1K-blocks   Used Available Use% Mounted on
/dev/dasda1   396728   251072   125180 67% /
(repair filesystem) #
mount
/dev/dasda1 on / type ext3 (rw,acl,user_xattr)
(repair filesystem) #
cd /etc/
(repair filesystem) #
cat fstab
/dev/disk/by-path/ccw-0.0.0160-part2 swap   swap   defaults
0 0
/dev/disk/by-path/ccw-0.0.0160-part1 /   ext3   acl,user_xattr
1 1
/dev/vg1/home   /home   ext3   acl,user_xattr   1 2
/dev/vg1/opt   /opt   ext3   acl,user_xattr   1 2
/dev/vg1/vmarc   /repository   ext2   acl,user_xattr   1 2
/dev/vg1/tmp   /tmp   ext3   acl,user_xattr   1 2
/dev/vg1/usrx   /usr   ext3
acl,user_xattr   1 2
/dev/vg1/var   /var   ext3   acl,user_xattr   1 2
proc   /proc   proc   defaults   0 0
sysfs   /sys   sysfs   noauto   0 0
debugfs   /sys/kernel/debug   debugfs   noauto   0 0
devpts   /dev/pts   devpts   mode=0620,gid=5   0 0
(repair filesystem) #

```
sed -e 's/usrx/usr/' fstab
/dev/disk/by-path/ccw-0.0.0160-part2 swap                swap        defaults
0 0
/dev/disk/by-path/ccw-0.0.0160-part1 /                   ext3        acl,user_xattr
1 1
/dev/vg1/home          /home               ext3        acl,user_xattr      1 2
/dev/vg1/opt           /opt                ext3        acl,user_xattr      1 2
/dev/vg1/vmarc         /repository         ext2        acl,user_xattr      1 2
/dev/vg1/tmp           /tmp                ext3        acl,user_xattr      1 2
/dev/vg1/usr           /usr                        ext3
acl,user_xattr         1 2
/dev/vg1/var           /var                ext3        acl,user_xattr      1 2
proc                   /proc               proc        defaults            0 0
sysfs                  /sys                sysfs       noauto              0 0
debugfs                /sys/kernel/debug   debugfs     noauto              0 0
devpts                 /dev/pts            devpts      mode=0620,gid=5     0 0
(repair filesystem) #
sed -i -e 's/usrx/usr/' fstab
(repair filesystem) #
# mount -a
#
exit
Unmounting file systems (ignore error messages)
/dev/dasda1 umounted
md: stopping all md devices.
zIPL v1.8.0-44.45.2 interactive boot menu

 0. default (ipl)

 1. ipl

Note: VM users please use '#cp vi vmsg <number> <kernel-parameters>'

Please choose (default will boot in 10 seconds):
```