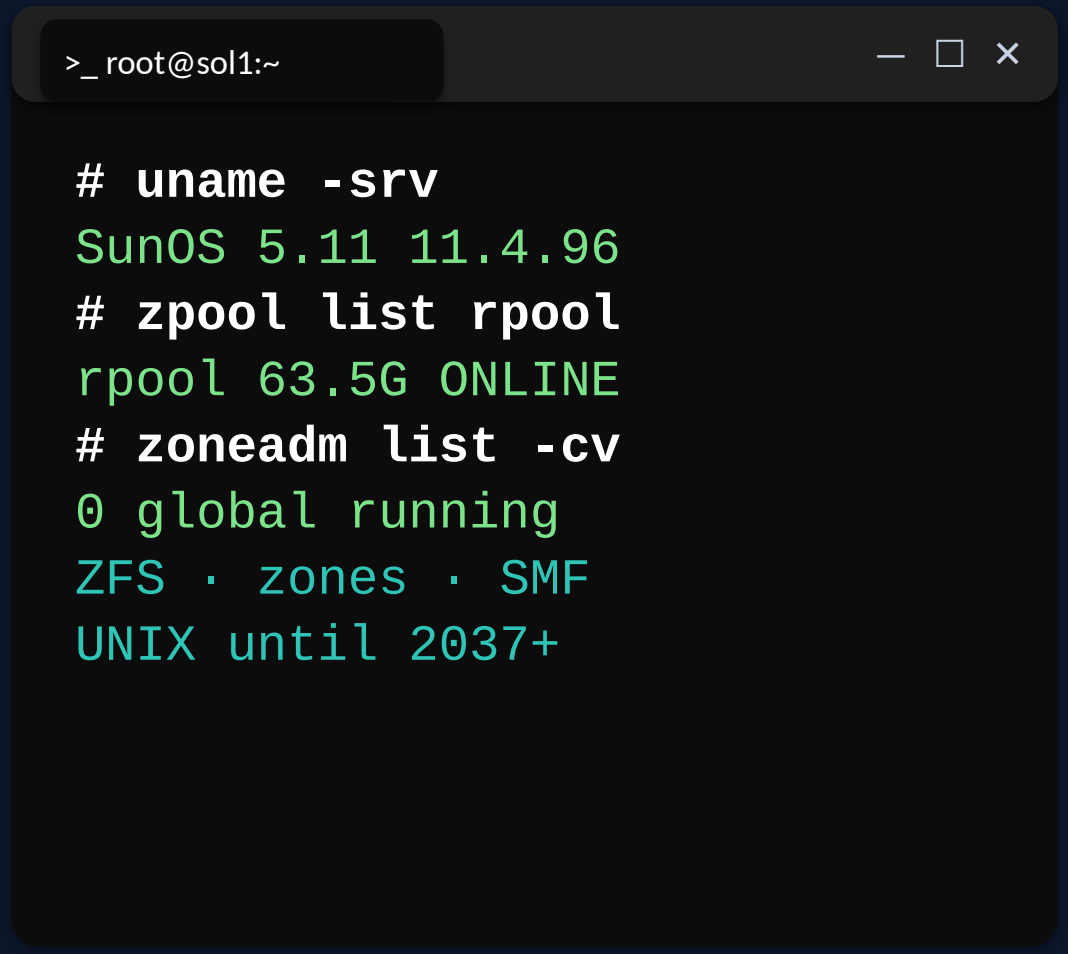


LESSON 12 OF 12

Oracle Solaris 11.4

ZFS · Zones · SMF · LDoms · OLVM

Migrating to 11.4, Solaris vs Linux & Next Steps

Full Course · Solaris 11.4 SRU96 · OVM (Nov 2026)

What You Will Learn in Lesson 12

- Why move now: 10 and 11.3 Extended Support ends 2027
- 11.3 → 11.4: pkg update with a new boot environment
- Solaris 10 → 11.4: solaris10 branded zones, P2V and V2V
- SPARC hardware refresh and LDoms migration
- Solaris vs Linux: what maps to what
- Choosing a platform: stay, modernize, or move
- Learning path, certification and careers

Migration Paths

From	To 11.4 — how
Solaris 11.3	pkg update to 11.4 in a new BE (check driver/app support)
Solaris 11.0–11.2	Update to 11.3 first, then to 11.4
Solaris 10 (physical)	P2V into a solaris10 branded zone on 11.4
Solaris 10 zone	V2V: move the zone into a solaris10 zone on 11.4
Old SPARC server	LDoms migrate-domain or zone migration to T8/M8/S7
Apps that need rebuild	Recompile on 11.4; Studio / GCC; test in a clone

11.3 → 11.4 Upgrade

```
root@old113:~# pkg info entire | grep Version        # e.g. 0.5.11-0.175.3.x
root@old113:~# pkg publisher                         # support repo for 11.4
root@old113:~# beadm create pre-11.4 ; zfs snapshot -r rpool@pre-11.4
root@old113:~# pkg update -nv --accept entire@latest  # preview
root@old113:~# pkg update --accept --be-name s11.4-sru96
root@old113:~# init 6
root@new114:~# uname -v ; svcs -x ; zoneadm list -cv
# Non-global zones are updated with the global zone
# Problem? beadm activate pre-11.4 ; init 6
```

Solaris 10 → solaris10 Branded Zone (P2V)

```
# On the old Solaris 10 system: create a flash archive
bash-3.2# flarcreate -S -n s10app -L cpio /net/nfs1/archives/s10app.flar
# On Solaris 11.4: install the brand and configure a zone
root@sol1:~# pkg install system/zones/brand/brand-solaris10
root@sol1:~# zonecfg -z s10app 'create -t SYSsolaris10; set zonepath=/system/zones/s10app'
root@sol1:~# zoneadm -z s10app install -a /net/nfs1/archives/s10app.flar -u
root@sol1:~# zoneadm -z s10app boot ; zlogin s10app uname -r
5.10
# Source system must meet the documented minimum Solaris 10 patch level
```

Solaris vs Linux: What Maps to What

Solaris 11.4	Linux (RHEL / Oracle Linux)
IPS: pkg install / update	dnf install / update
Boot environments (beadm)	Snapper / bootc / image mode
SMF: svcs, svcadm	systemd: systemctl
ZFS (native)	XFS + LVM, Stratis; OpenZFS (add-on)
Zones / kernel zones	Podman containers / KVM VMs
dladm / ipadm	nmcli / ip
RBAC (pfexec, roles)	sudo, polkit; SELinux
DTrace, mdb	bpftrace / eBPF, perf, crash
FMA (fmadm)	rasdaemon, mcelog, kdump

Choosing a Platform

Situation	Common choice
Stable Solaris app, vendor-certified	Stay on 11.4 — supported to 2037+
Old Solaris 10 app, no source	solaris10 branded zone on 11.4
SPARC M-series / Oracle DB on SPARC	Refresh to M8/T8 with LDoms
New cloud-native development	Oracle Linux / RHEL + containers
Oracle VM x86 estate	OLVM (lesson 10) or another KVM platform
Skills and staffing	Plan training; Solaris experts are rare and valued

Learning Path and Careers

Step	Resource / Role
Practice	Solaris 11.4 CBE in VirtualBox; redo every homework
Docs	docs.oracle.com/en/operating-systems/solaris (11.4 library)
Community	Oracle Solaris blog and community forums
Certification	Check Oracle University for current Solaris 11 exams
Linux too	RHEL, Rocky, Oracle Linux courses on MyWebUniversity
Roles	UNIX/Solaris administrator, SPARC/virtualization engineer, migration consultant
Industries	Banks, telecoms, government, airlines, ERP/database hosting

Course Summary

- 1–3: Solaris today, CBE install, IPS, SRUs, boot environments
- 4–6: SMF and FMA, ZFS, dladm / ipadm / pf networking
- 7–8: RBAC, compliance, security; zones, immutable and kernel zones
- 9–10: LDoms on SPARC; OVM x86 to Oracle Linux KVM + OLVM
- 11–12: DTrace and troubleshooting; migration and careers
- Final project: sol1 with ZFS pool, web zone, pf, RBAC role, compliance report

Thank You! 🙏

Free videos & PDFs: www.MyWebUniversity.com

Slides for this lesson: MyWebUniversity.com/presentations

YouTube: @MyWebUniversity · @MyWebUniversity-Dari

Wahidullah Lutfy — Founder and Director of IT of MyWebUniversity, and CS teacher

Book: The Direct Path to Linux Ubuntu (Amazon · Barnes & Noble)

Learn it, then pass it on.