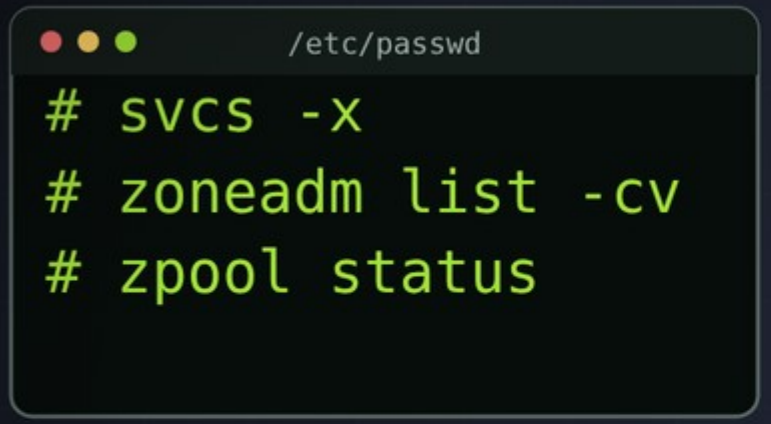
LESSON 7



UNIX

Solaris & SunOS

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UNIX OS

LESSON 7

Solaris and SunOS

SunOS 4 to Solaris 2, Solaris Express and OpenSolaris, IPS packages, SMF, ZFS, zones and D

From SunOS to Solaris

UNIX OS · 7

Year	Release	Note
1982	SunOS 1–4	BSD-based
1992	Solaris 2 (SunOS 5)	System V R4
2005	Solaris 10	ZFS, zones, DTrace, SMF
2005–10	Solaris Express · OpenSolaris	preview and open source
2018–	Solaris 11.4	Oracle, continuous updates

- Sun Microsystems shipped SunOS, based on BSD, in 1982. In 1992 Sun moved to System V …
- Solaris Express provided preview builds, OpenSolaris opened the code in 2008, and after …

01

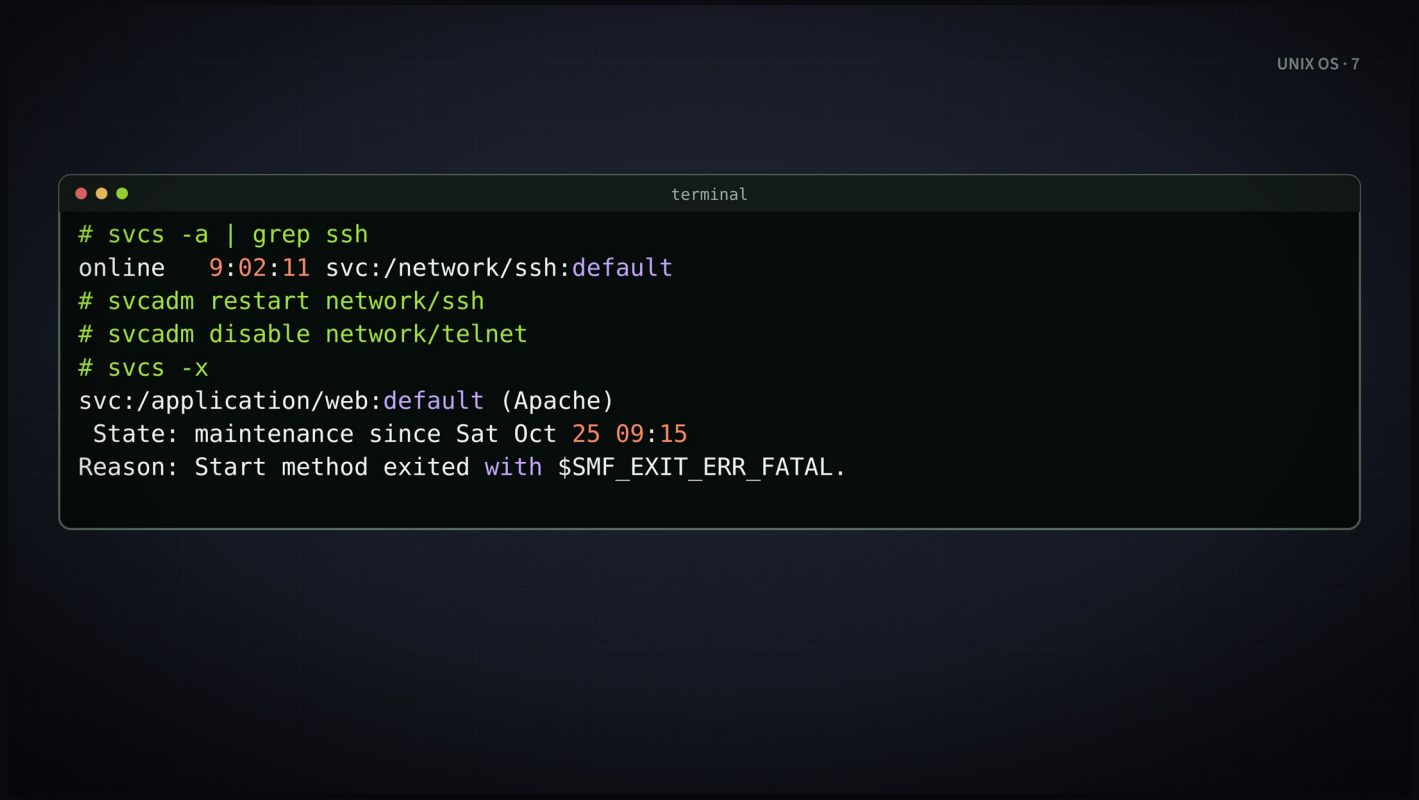
Packages with IPS



- Solaris 11 uses the Image Packaging System. pkg install, pkg update and pkg list manage …
- Each update creates a new boot environment automatically, so a failed upgrade can be undone …

02

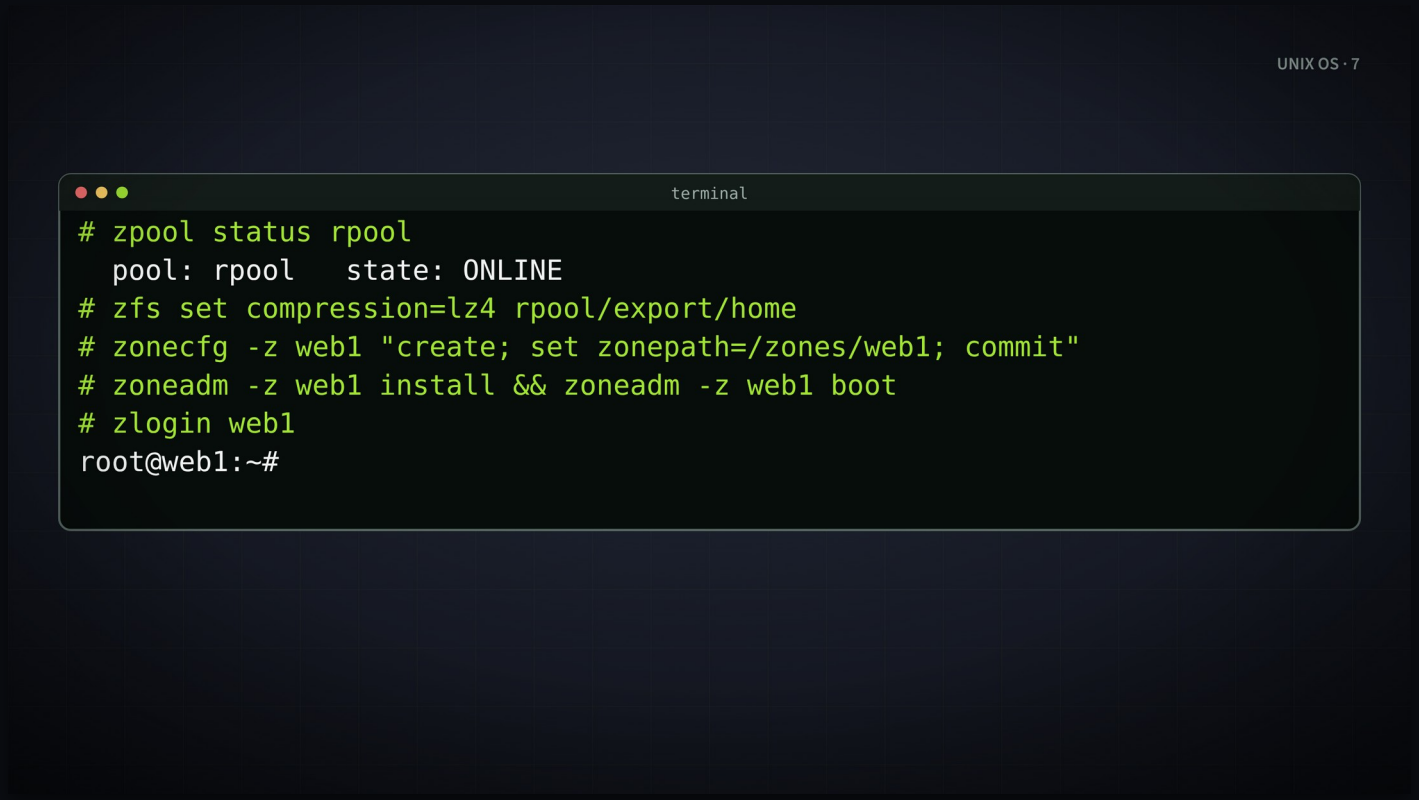
SMF: Service Management Facility



- Solaris 10 replaced old rc scripts with SMF. Services have names called FMRIs, restart …
- svcs lists services, svcadm enables, disables and restarts them, and svcs dash x explains …

03

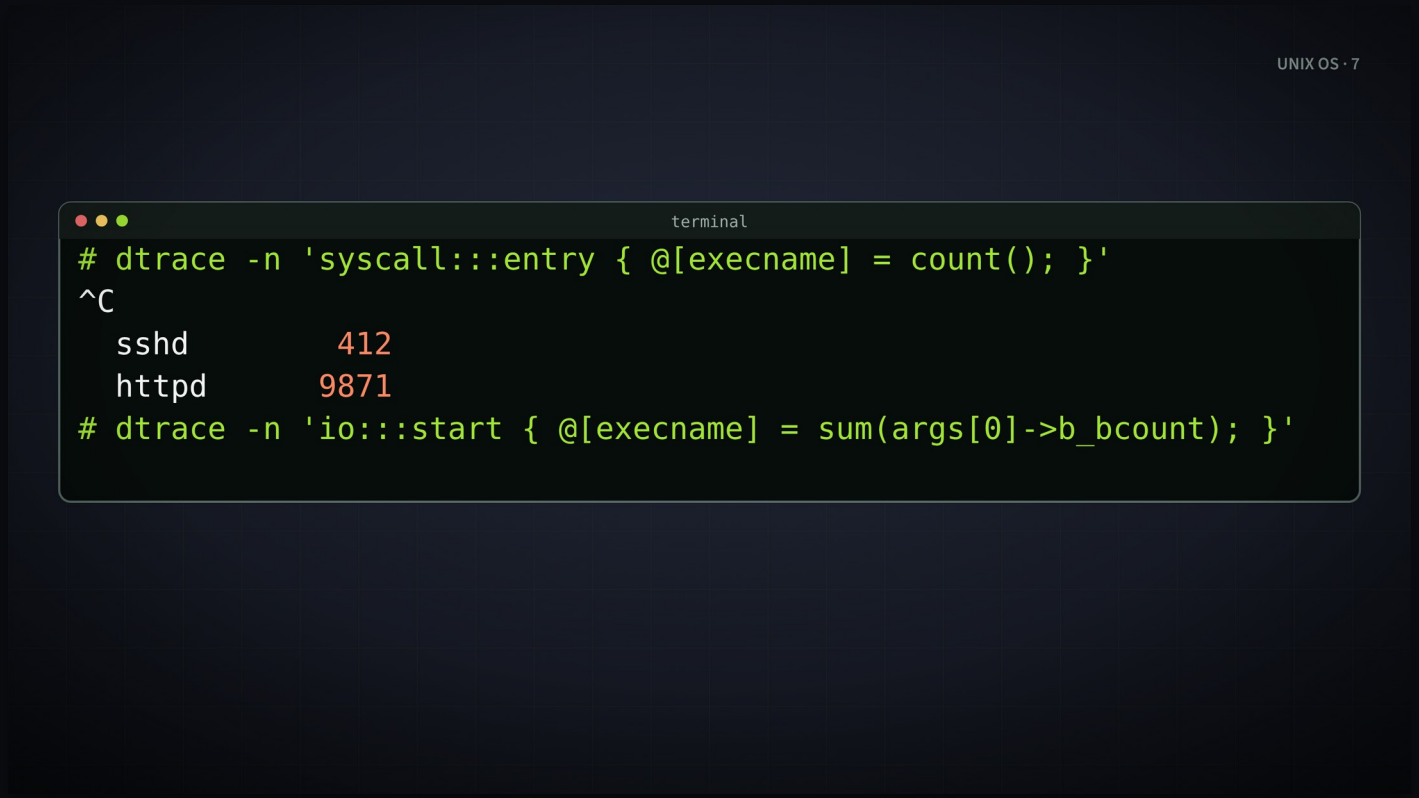
ZFS and Zones



- Solaris created ZFS: zpool and zfs commands manage pools, datasets, snapshots and …
- Zones run isolated Solaris environments on one kernel, like FreeBSD jails or containers. …

04

DTrace



- DTrace, introduced in Solaris 10, can safely trace almost anything in a running production …
- It was so influential that it was ported to macOS and FreeBSD and inspired Linux's eBPF tools.

05

Lesson Map


1
From SunOS to Solaris
2
Packages with IPS
3
SMF: Service Management Facility
4
ZFS and Zones
5
DTrace

Sources and Further Reading

UNIX OS · 7

Year	Release	Note
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terminal

```
# svcs -a | grep ssh
online   9:02:11 svc:/network/ssh:default
# svcadm restart network/ssh
# svcadm disable network/telnet
# svcs -x
svc:/application/web:default (Apache)
 State: maintenance since Sat Oct 25 09:15
Reason: Start method exited with $SMF_EXIT_ERR_FATAL.
```

Thank you for watching

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