

Sunday, January 21, 2007

What's your favourite Solaris Feature? And what's your top annoyance?

So, the article "Solaris != Linux + ZFS" gave me an idea: A series to explain the lesser known features of Solaris. Know i have a different view to Solaris than other people, so i want to start with a small poll:

1. What are the top three cool features of Solaris 10? (The big three doesn't count: dtrace,zfs,zones)
2. What are the top three annoyances in Solaris 10? (every annoyance counts)

Please answer with a short explanation. I will collect and count them. I will write about them in descending order of the count of their naming.

Update: I will count the pros and cons next saturday.

Posted by Joerg Moellenkamp at 08:31

Top Features:

Zones: Better system utilisation, almost all management tools have to be installed/configured only in global zone. Overall, huge timesaver. For our environment Zones make more sense than any other virtualisation technology.
SMF: After writing your first manifest, it is a lot easier to do complex services than with init.d-scripts
ZFS: Very promising, where I have used it so far. Best practices have to be gathered first

Annoyances:

Jumpstart: Even with JET it is a mess sometimes to setup clients. Every machine supports different installation methods...not really a Solaris thing maybe...

Version 1 Problem: Some of the new features are not yet complete, and are still under development (ZFS on root/live upgrade on zones etc.) but we're getting there

Marketing: Get the voice out, that Solaris is the most advanced OS (at least UNIX) in the world.

Anonymous on Jan 21 2007, 10:07

But indeed the "big three" are what probably has made Solaris users out of people like me who used to "just" be interested in the OS before.

However, aside these, I'd agree with Mika and add +1 for SMF, which simply is awesome. Plus, as far as I can tell by now, it seems to do better on x86 SMP machines.

More about that later, I guess, once I dived a little deeper into it.

Anonymous on Jan 21 2007, 10:18

Oh, ZFS and dtrace dont count...

Top Features:

- Fire Engine (E420R is up to 60% faster compared to Sol8 running the same application on the same hardware)
- Choice of CPU: US-IV, Niagara, Opteron and maybe Xeon in the near future)
- Virtualisation (Zones, Resource Management and soon LDOMs and Crossbow)

Annoyances:

- SMF-Errormessages not useful:

(Example: NFS-Share in vfstab, but you need a static route to reach the NFS-Server. So you have to write an SMF-Routing-Script, because legacy /etc/init.d-stuff is executed after reading /etc/vfstab. The messages generated are not useful, as you can see here:

```
dibbler # svcs -xv
```

```
svc:/network/nfs/client:default (NFS client)
```

```
State: offline since Wed Oct 04 09:55:50 2006
```

```
Reason: Start method is running.
```

```
See: http://sun.com/msg/SMF-8000-C4
```

```
See: man -M /usr/share/man -s 1M mount_nfs
```

```
See: /var/svc/log/network-nfs-client:default.log
```

```
Impact: 4 dependent services are not running:
```

```
svc:/system/dumpadm:default
```

```
svc:/system/fmd:default
```

```
svc:/milestone/multi-user:default
```

```
svc:/milestone/multi-user-server:default
```

Because multi-user could not be reached, sshd would not be started.

Anonymous on Jan 21 2007, 11:52

Tops (I've more than 3):

Blog Export: c0t0d0s0.org, http://www.c0t0d0s0.org/

- SMF: Finally a init system that works as an init system should work. Plus it's really good tools to manage these (I even accept that the manifests are written in XML *brrrr*)
- Processor Sets: I love it to balance given resources to different services/zones/whatever. It's pretty easy to manage and is really cool.
- Don't know if this counts as well, but the SUN Cluster 3.x is a real good addition for everyone who wants a stable system with a pretty cool HA functionality
- Solaris is damn stable. Even if your system freaks out, you are able to work on it and control it. One of my production databases (Fire E2900) had a freaked out oracle lately and was at a load of 100 but I was still able to work on that box as usual. Linux sucks when the load goes as twice as high as the no. of CPUs
- Solaris performs pretty good. I've found a benchmark PostgreSQL/MySQL on Solaris/Linux lately. The Solaris/PostgreSQL combination won with pretty good performance values.
- Of course all the big features as Zones, ZFS (we did some benchmarks Linux/XFS vs. Solairs/ZFS lately- guess who won)

Contras:

- Solaris still has some services that are too old-fashioned and suck when you need to configure them. I was fighting with in.dhcpd some days ago- OMFG!! I'd love to see that Solaris gets some state-of-the-art tools adapted
- Jumpstart: No comment....
- I still wonder why Solaris still has no good syslogd configuration out-of-the-box. The log messages that Solaris is logging by default (guys- just to one directory please /var/adm and /var/log sucks) nearly nothing. Every state-of-the-art system logs pretty informational out of the box- Solaris doesn't

All in all. I was a big BSD fan, but in the last four years I started playing with Solaris and it is really really cool. Currently I mostly recommend Solaris for nearly any system (followed by my good old favour: OpenBSD)

Anonymous on Jan 21 2007, 12:14

another annoyance:

renaming the module for Intel-NICs from ipge to e1000g in Sol10U3 (T2000 also uses e1000g0-3 now).

Anonymous on Jan 21 2007, 13:34

Forgot to mention security in general (RBAC, least privilege model, integration of those...

Anonymous on Jan 21 2007, 14:18

pros:

- smf, a breath of fresh air to service management, no more playing with sysv init scripts thank god. Plus it has profiles and manages faults gracefully
- rbac: good bye sudo. we dont need you anymore, plus this is fully integrated with another great solaris feature: auditing
- least privilege principle and secure by default : this is the path to a more secure world, we have to live with software bugs, yes but this is a hell of a way to mitigate the related problems

cons

- lack of regular workstation software like an updated flash player, adobe reader and skype (you could use a linux branded zone but it's an ugly workaround)
- the installer, slow and outdated, there is jumpstart but it doesnt cut it when you have only a few workstations
- the smc, it should die a painfull death, it's fscking slow, you could start it, take a coffee break and it would still be loading

Anonymous on Jan 21 2007, 18:15

PROS: Flash Archives - this is a great way to have a custom image that you roll out to all your systems.

Multi-Threading: in my experience, the Solaris multi-threading is far superior to Linux. Perhaps this has changed in Linux's favor over the past 2 years.

CONS:

Weird boot-slices on Solaris CDROMs means that they are a pain to mount on non-Solaris systems

Net-installing could be made easier I think.

No automated patch updates and installation like Debian apt-get or RedHat/CentOS yum update .

Anonymous on Jan 21 2007, 18:36

CONS (REALLY BIG !):

lack of package system (like apt-get in debian or ports in *BSD)

Anonymous on Jan 21 2007, 23:08

I have only tried to use Solaris a couple of times, but here's my list, from a Linux-user/developer perspective:

Cool features (besides the 3 main ones, of course):

- SMF
- Stability. I think the Solaris development process is really good and it's what separates it from the rest.

Annoyances:

- Lack of full-featured package system!!
- No GNU tools
- No simple, to-the-point documentation like the Linux HOWTOs.

Blog Export: c0t0d0s0.org, <http://www.c0t0d0s0.org/>

- Development process should be more open.
- The OpenSolaris bug database and the ARC case database are useless for most purposes.
- The license (I hope they change it to the GPL).

(I know the first 2 annoyances are solved by NexentaOS, that's why I use it when I need it .
Anonymous on Jan 22 2007, 05:43

SMF - people who understand its power know what it can provide from "keep" the service running standpoint. Think SLA, Software Service quality ...

FMA - The ability to detect hardware errors and offline problem components.

Many Many supported x86 platforms
Anonymous on Jan 26 2007, 00:53

Adding to the the beforementioned points:
(Open)Solaris is very well documented.
The man pages are fantastic. docs.sun.com is very ressourceful. I spend months in there.
Anonymous on Jan 27 2007, 13:46