

The logo consists of the letters 'LAX' in a bold, sans-serif font. The letters are white with a grey shadow effect, set against a solid orange square background.

A toolset for network administration

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LAX

is a collection of scripts for administrators

uses a network directory, (still) a KDE3 portal
and openssh autologin channels to remote hosts

Is in development, growing, moving

Revite on the network

Say you are a IT administrator of a midsize company. You probably need LAX because you should

- know (and remember) **what** you have
- know if **it** works
- be able to control **it**

Overpower entropy!

Use LAX to

- collect: directory of network objects
- monitor: grab state of network objects
- alert: notification, reaction, escalation
- visualize: show network objects
- control: manage network objects

is an administration machine only

LAXdb: Openldap using a special scheme

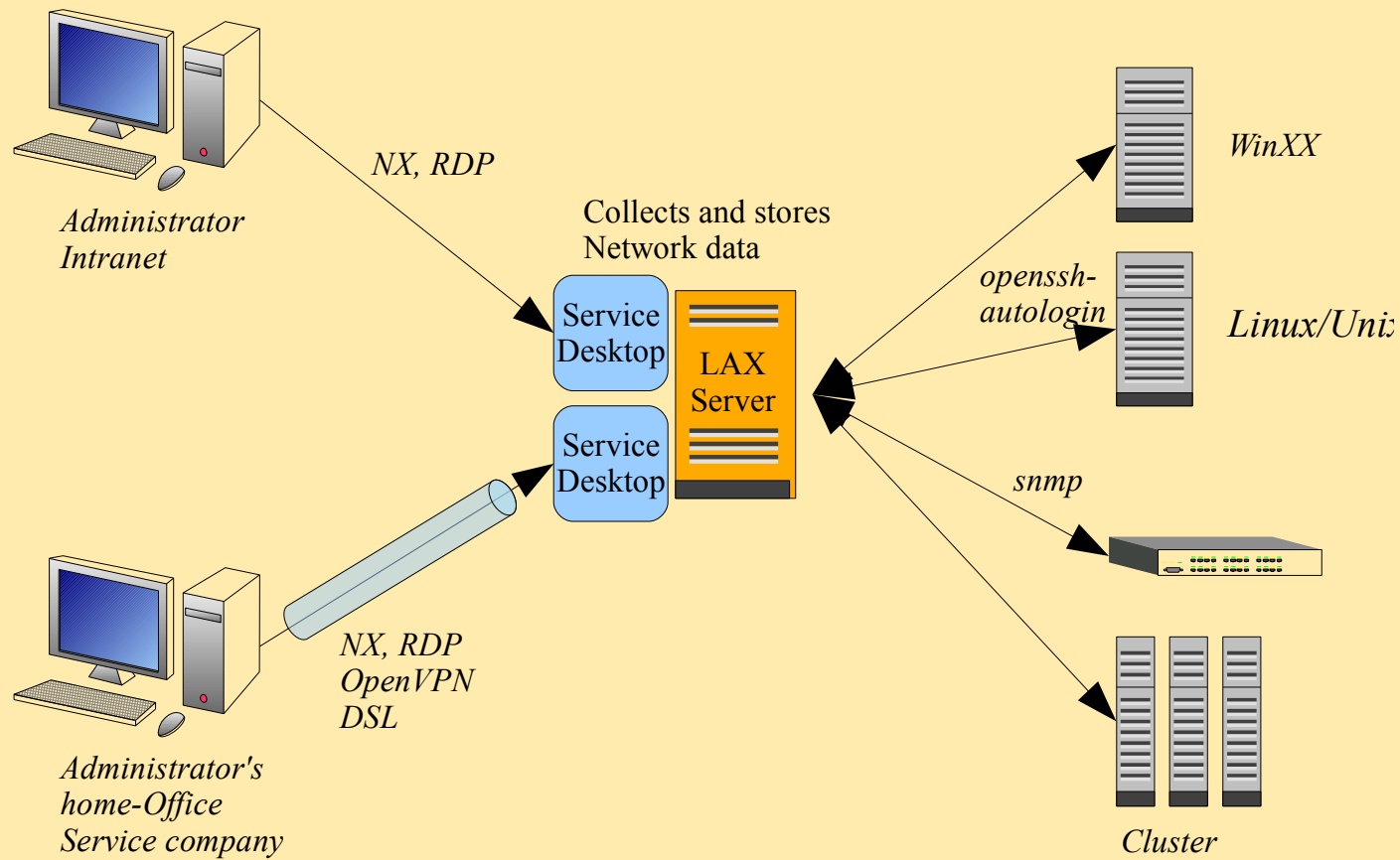
Network operations start here (openssh)

Information is collected here (postgres)

Administrator desktops (KDE / NX / RDP)

special accounts reflection areas of interest

Do not run production services here



is s administrators automation technology

The administrator puts its know how to the script

realize a single administration task per script

Systematicly develop and organize scripts

create an administration library

Example:

```
vx-start dicl mserver
```

We prefer this name scheme

Module-function-subfunc option parameter

Simple „development“ tool

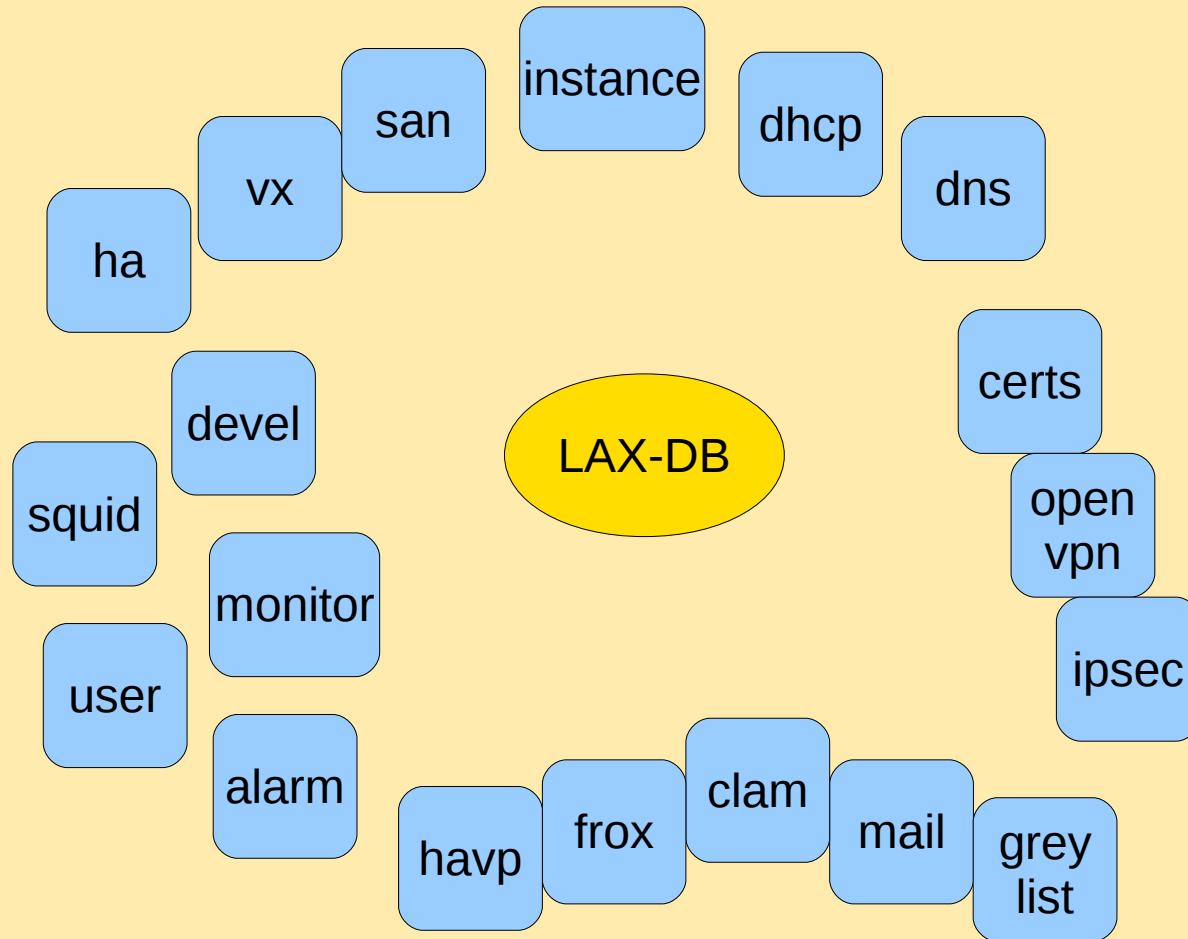
Groups of network objects

- enumerated or built by a script at runtime
- a group can contain other groups

Transactions

- repeat operations on / with multiple hosts
- parallel | sequential

modules



/opt/lax all the software, scripts delivered

modules

<module>

api here are the scripts

gui mostly kommander scripts

templates

/var/lib/lax the local configurations

modules

<module>

api

...

Openldap, hierarchical structure

```
ou=lax
  o=organization_name
    laxnet=networkname
      host=hostname
        laxservice=service_name
        laxdevice=hostname
        laxservice=service_name
ou=administrators
ou=laxgroups
ou=transactions
```

Scripts and a gui to manage your network objects



```
laxdb-host-add pc34 192.168.30.77 Windows
```

LAXDB: Netzwerk-Objekte

Netzwerk **buero** Segment Gruppe Org **teegee** Objekte 16 [Hilfe](#)

Hosts **Services** Gruppen IP-Liste Objekt-Baum

Service	auf Host	Beschreibung
Alarmierung	clusterlax	beobachtet offene Alarme
hoth-firewall	hoth	iptables Firewall
hoth-internet	hoth	smpppd DSI-Internetverbindung - opensuse
hoth-openvpn	hoth	der OpenVPN Server
mail-amavis	mail	der amavis Mailscanner
mail-capisuite	mail	Server für Faxempfang
mailer-postfix	mailer	der neue Postfix Mailserver
mail-freshclam	mail	der Dienst für die Aktualisierung der clamav-Vi
mailserver	mail	unser Standard Postfix Mailserver
Monitoring	clusterlax	beobachtet Monitoring-Fehler
Printserver	mail	Printserver auf Mail
snoopy-distri	snoopy	freier Speicherplatz auf /distri
teegee-Intranet	snoopy	ein Apache2 Webserver
teegee-nameserver	snoopy	der teegee Nameserver
teegee-Timeserver	herkules	der teegee Timeserver
teegee-wiki	juno	teegee wiki

online  

ServiceType: [leeren](#)

Servicename: *Name, 1 Wort*

Host: *laxHost*

Beschreibung:

Start-Programm:

Stop-Programm:

Status-Programm:

IP-Port: *z.B. 80*

IP-Protokoll: *udp | tcp (tcp ist Standard)
bei ServiceType Internet: Interface, z.B. dsl0*

Check-Delta: *Minuten*

Client-Programm: [?](#)

extra Status-Programm: [?](#)

spezielles Programm um Service aktiv zu testen, z.B. wget

teegee-Intranet snoopy ein Apache2 Webserver /etc/init.d/apache2 start /

Service

One (lax's) openssh public key for all administrators connections as **root@<ip>**

Operations on hosts

```
lax-run „df -h“ intraweb
lax-login intraweb
lax-scp intraweb:/srv(www/htdocs/index.html .
konsole -e lax-run „yast2 network“ intraweb
```

Network transactions

```
laxs „ipconfig /all | grep Suffix“ xp-clients
laxta-run RP 2 „df -h | grep -w '/'“ linux
```

x.509 certificate management for openvpn,
apache2 and racoon (ipsec)
install certs and revocation list at servers
distribute certs to users by eMail

aide host based intrusion detection

Control of online virus scanners (squid/havp) and
ftp (frox) by clamav

Control of mailserver **postfix** including
greylisting, clamav virus scanner
spamassasin Spamfilter (soon)
automatic mail attention (soon)

Local installation and **update server** for
openSUSE



lowest interval: **1** minute

every network object can have its individual value

an **alarm script** can be assigned to each object
Individual alarm scripts are possible

runs the alarm script if the object's checks fails

base for HA features at virtualization cluster



Control of Xen based virtualisation systems
install from templates
manage virtual machines
save and restore virtual machines

for

single virtualisation server
2-node active-active cluster
HA cluster

based on iSCSI, DRBD, LVM, Xen

The screenshot displays the LAX Cluster Manager interface. At the top left, a 'Cluster-Baum (Doppelklick)' tree shows a hierarchy with 'diel' selected, containing sub-nodes 'cs1' and 'cs2', and 'intra'. To the right, the 'Eigenschaften Clusterserver' panel shows 'freier Speicher (MB)', 'CPU', and 'Eigenschaften' sections, with a 'Disk:' section indicating 'sancl: 193.76G'. Below this, a 'virtuelle Maschinen' control bar includes buttons for 'Stop', 'Kill', 'Move', 'Defs', 'New', 'vm', 'dat', 'Con', 'SSH', 'RDP', and 'VNC'. A 'RUHENDE' button is also present. The main area is titled 'AKTIVE virtuelle Maschinen' and contains a table with the following data:

Maschine	Server	Speicher	vCPU	Status	Zeit	Prio	Disk	MAC	IP	Template	OS	Info
debil	cs2	512	1	-b----	38.3	2	4G	00:16:3E:F5:1C:34	192.168.30.212	debian	Linux	Testmaschine_debian
debtest	cs2	256	1	-b----	37.5	2	10G	00:16:3E:3D:3E:D9	192.168.30.142	debian	Linux	Test
my10-1	cs2	512	1	-b----	2386.0	3	5G	00:16:3E:61:B1:68	-	CD	Linux	suse10.1
newjoomla	cs1	512	1	-b----	186.7	2	4G	00:16:3E:31:EC:7A	192.168.30.157	joomla	Linux	Beschreibung
pc1	cs1	212	1	-b----	30.2	3	3G	00:16:3E:DA:06:8B	192.168.30.137	debian	Linux	Test_Lenny
susemini	cs1	212	1	-b----	55.8	3	30G	00:16:3E:54:33:D5	192.168.30.213	opensuse11.0-base	Linux	test
t1	cs1	1024	1	-b----	64.8	1	6G	00:16:3E:6F:FD:43	192.168.30.158	os11.1-base	Linux	Beschreibung_t1
win3	cs2	512	1	-b----	7073.1	3	4G	00:16:3E:DD:B7:7D	192.168.30.140	wxp	Windows	test_windows

LAX

plan

design virtual networks

deeper development of existing
modules

Available at

source.net/projects/lax

www.teegee.de/lax



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