

Solaris 11 Deployment – Willkommen in der Neuzeit

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Damit die beiden Demos aus der Präsentation nachvollzogen werden können, beschreibe ich in nachfolgendem Dokument Schritt für Schritt die Konfigurationen von Jumpstart beziehungsweise Automated Installer.

Tools, Wissenswertes:

- **VMWare Workstation 7.0.2 oder höher**
- **Je ein host-only-Netzwerk**
- **ACHTUNG: Default dhcp Service wird in diesem Script nicht deaktiviert!**

1. Demo Solaris 10 - Jumpstart

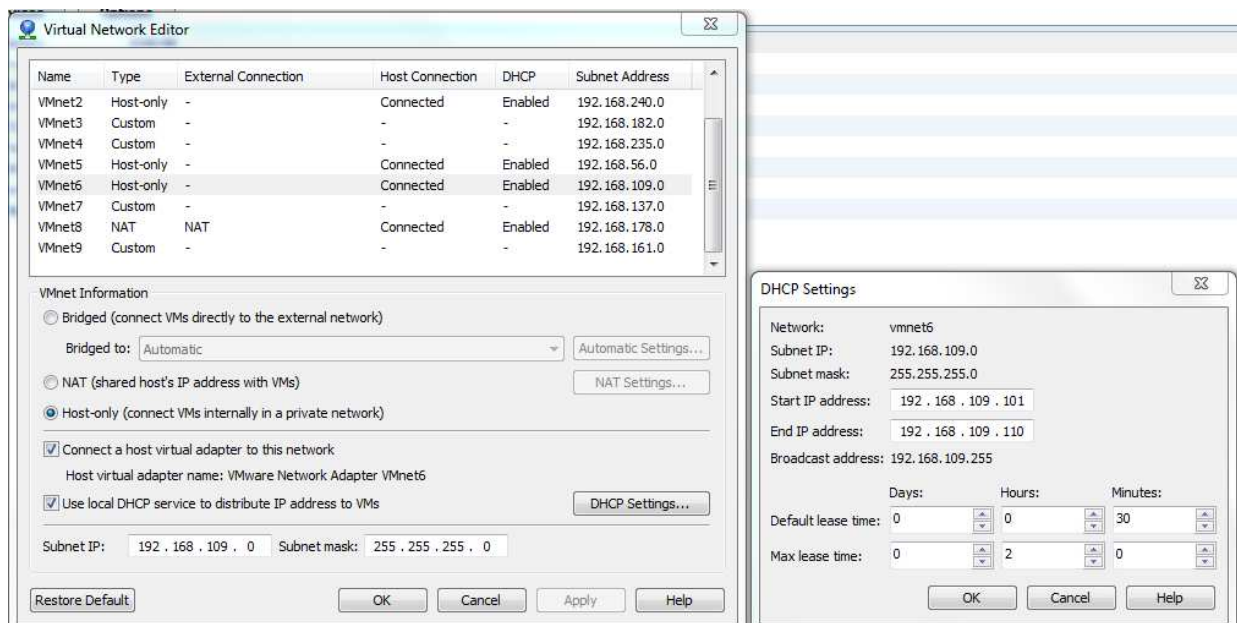


Abb. 1: Konfiguration des Host-only Netzwerkes



Solaris 10 - Server

State: Powered off
Guest OS: Solaris 10
Location: D:\90_VM\Solaris 10 - Server\Solaris 10 - Server.vmx
Version: Workstation 6.5-7.x virtual machine
Snapshot: Before DOAG

Commands	
	Power on this virtual machine
	Edit virtual machine settings
	Enable ACE features (What is ACE?)

Devices	
	Memory 2048 MB
	Processors 1
	Hard Disk (IDE) 10 GB
	Hard Disk 2 (IDE) 20 GB
	CD/DVD (IDE) Using file D:\99_TEMP\sol-10-u10-ga2-x86-dvd.iso
	Floppy Auto detect
	Network Adapter Custom (VMnet6)
	Sound Card Auto detect
	Display Auto detect

Abb. 2: Konfiguration der Server-VM

Solaris 10 - Client

State: Powered off
Guest OS: Solaris 10 64-bit
Location: D:\90_VM\Solaris 10 - Client\Solaris 10 - Client.vmx
Version: Workstation 6.5-7.x virtual machine
Snapshot: Before Demo

Commands	
	Power on this virtual machine
	Edit virtual machine settings
	Enable ACE features (What is ACE?)

Devices	
	Memory 2048 MB
	Processors 1
	Hard Disk (SCSI) 20 GB
	CD/DVD (IDE) Auto detect
	Floppy Auto detect
	Network Adapter Custom (VMnet6)
	Sound Card Auto detect
	Display Auto detect

Abb. 3: Konfiguration der Client-VM

MAC-Adresse des Clients:

00:0C:29:8B:C4:B6

Vorbereitende Tasks auf dem Server:

```
# pkgadd SUNWdhcsu  
# pkgadd SUNWdhcsr  
# pkgadd SUNWdhcsb  
# pkgadd SUNWdhcm  
# svcadm enable rarp  
# ./setup_install_server /export/install
```



NFS-Shares vorbereiten:

```
# echo "192.168.109.102 TVD-SOL-10-CLIENT" >> /etc/hosts
# echo "share -F nfs -o ro,anon=0 /export/install" >> /etc/dfs/dfstab
# echo "share -F nfs -o ro,anon=0 /export/config" >> /etc/dfs/dfstab
# svcadm enable nfs/server
# shareall
# share
-           /export/install   ro,anon=0   ""
-           /export/config   ro,anon=0   ""
```

Sysidcfg-File erstellen:

```
# vi /export/config/sysidcfg
system_locale=de_CH.UTF-8
install_locale=de_CH.UTF-8
timezone=Europe/Berlin
terminal=vt100
keyboard=Swiss-German
security_policy=none
root_password=Sk9z8uNVk0Cek
timeserver=localhost
name_service=none
network_interface=e1000g0 { hostname=TVD-SOL-10-CLIENT
                             ip_address=192.168.109.102
                             protocol_ipv6=no
                             netmask=255.255.255.0
                             default_route=192.168.109.1 }

nfs4_domain=dynamic
auto_reg=disable
```

Rules-File erstellen:

```
# vi /export/config/rules
hostname TVD-SOL-10-CLIENT begin_TVD-SOL-10-CLIENT profile_TVD-
SOL-10-CLIENT finish_TVD-SOL-10-CLIENT
```

Profile-File erstellen :

```
# vi /export/config/profile_TVD-SOL-10-CLIENT
install_type initial_install
system_type standalone
cluster SUNWCuser
fdisk all solaris all
root_device clt0d0s0
pool rpool auto auto auto rootdisk.s0
```

Begin- und Finish-Scripts erstellen:

```
# vi /export/config/begin_TVD-SOL-10-CLIENT
#!/bin/sh
echo "Begin Script for JumpStart TVD-SOL-10-CLIENT..."

# vi /export/config/finish_TVD-SOL-10-CLIENT
#!/bin/sh
echo "Finish Script for JumpStart TVD-SOL-10-CLIENT..."
```



Rechte anpassen:

```
# chmod 755 /export/config/*
```

Check durchführen:

```
# cp /export/install/Solaris_10/Misc/jumpstart_sample/check
/export/config
# cd /export/config
# ./check
    Validating rules...
    Validating profile profile_TVD-SOL-10-CLIENT...
    The custom JumpStart configuration is ok.
```

DHCP-Server konfigurieren:

```
# dhcpconfig -D -r SUNWfiles -p /var/dhcp
    Created DHCP configuration file.
    Created dhcptab.
    Added "Locale" macro to dhcptab.
    Added server macro to dhcptab - TVD-SOL-10-JUMPSTART.
    DHCP server started.

# dhcpconfig -N 192.168.109.0 -t 192.168.109.1
    Added network macro to dhcptab - 192.168.109.0.
    Created network table.

# pntadm -A 192.168.109.102 -c TVD-SOL-10-CLIENT -f DYNAMIC -m
192.168.109.0 -y -s 192.168.109.101 192.168.109.0
```

Client hinzufügen :

```
# cd /export/install/Solaris_10/Tools
# ./add_install_client -d -s 192.168.109.101:/export/install -c
192.168.109.101:/export/config -p 192.168.109.101:/export/config -e
00:0C:29:8B:C4:B6 i86pc
    enabling tftp in /etc/inetd.conf
    Converting /etc/inetd.conf
    enabling network/tftp/udp6 service
    copying boot file to /tftpboot/pxegrub.I86PC.Solaris_10-1
```

If not already configured, enable PXE boot by creating a macro named 01000C298BC4B6 with:

```
    Boot server IP (BootSrvA) : 192.168.109.101
    Boot file      (BootFile)  : 01000C298BC4B6
```

```
# dhtadm -A -m 01000C298BC4B6 -d
':BootFile=01000C298BC4B6:BootSrvA=192.168.109.101:'
# dhtadm -P
    Name                                Type                                Value
    =====
    01000C298BC4B6                      Macro
:BootFile=01000C298BC4B6:BootSrvA=192.168.109.101:
    192.168.109.0                      Macro
:Subnet=255.255.255.0:Router=192.168.109.1:Broadcst=192.168.109.255:
    TVD-SOL-10-JUMPSTART                Macro
:Include=Locale:Timeserv=192.168.109.101:LeaseTim=86400:LeaseNeg:
    Locale                              Macro                                :UTCoffst=3600:
```



```
# pntadm -L
    192.168.109.0

# pntadm -P 192.168.109.0
    Client ID      Flags   Client IP      Server IP      Lease
Expiration        Macro   Comment
    00            00      192.168.109.102 192.168.109.101 Zero
192.168.109.0    TVD-SOL-10-CLIENT
```

Abschliessende Tasks:

```
# vi /tftpboot/menu.lst.01000C298BC4B6
    default=0
    timeout=5
    min_mem64 1024
    title Installing Solaris 10 with Jumpstart at DOAG 11/12
        kernel$ /I86PC.Solaris_10-1/multiboot kernel/$ISADIR/unix -
install dhcp -B
install_config=192.168.109.101:/export/config,sysid_config=192.168.10
9.101:/export/config,install_media=192.168.109.101:/export/install,in
stall_boot=192
        .168.109.101:/export/install/boot
        module$ /I86PC.Solaris_10-1/$ISADIR/x86.miniroot
# svcadm restart dhcp-server
# svcs "*tftp*"
    STATE          STIME      FMRI
    online          9:55:10    svc:/network/tftp/udp6:default

# grep tftp /etc/vfstab
    /export/install/boot - /tftpboot/I86PC.Solaris_10-1 lofs - yes
ro

# svcs -p dhcp-server
    STATE          STIME      FMRI
    online          9:57:03    svc:/network/dhcp-server:default
                    9:57:03      1175 in.dhcpd
```



2. Demo Solaris 11 - Automated Installer

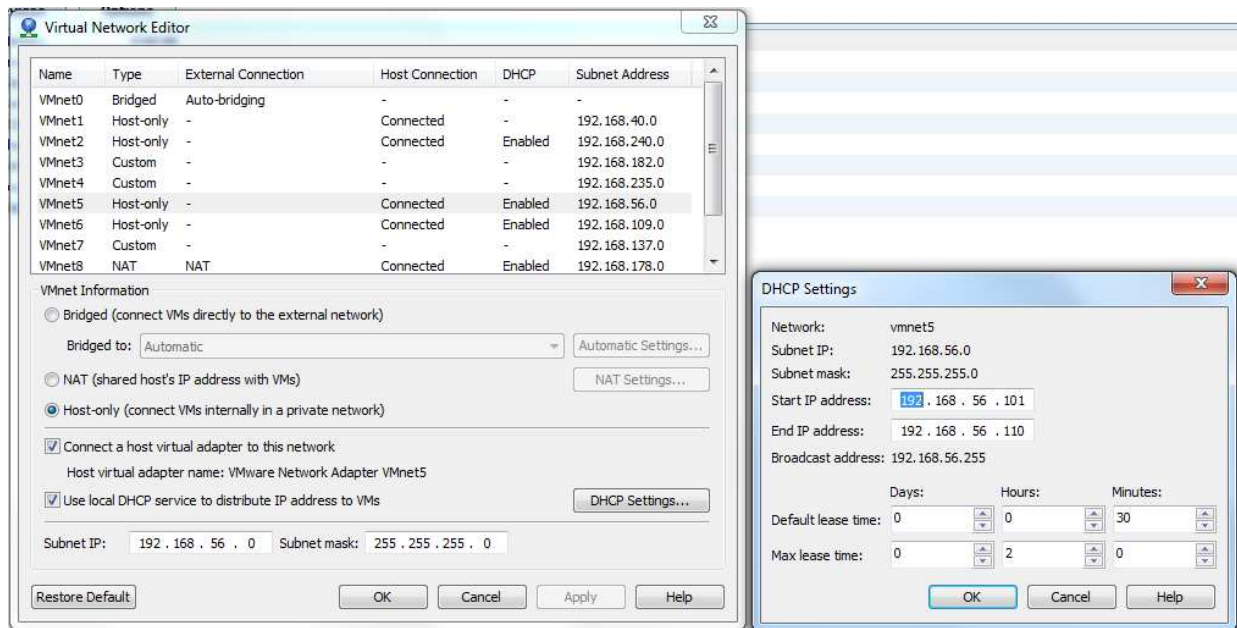


Abb. 4: Konfiguration des Host-only Netzwerkes

Solaris 11 - Server

State: Powered off
Guest OS: Solaris 10 64-bit
Location: D:\90_VM\Solaris 11 - Server\Solaris 11 - Server.vmx
Version: Workstation 6.5-7.x virtual machine
Snapshot: Before DOAG

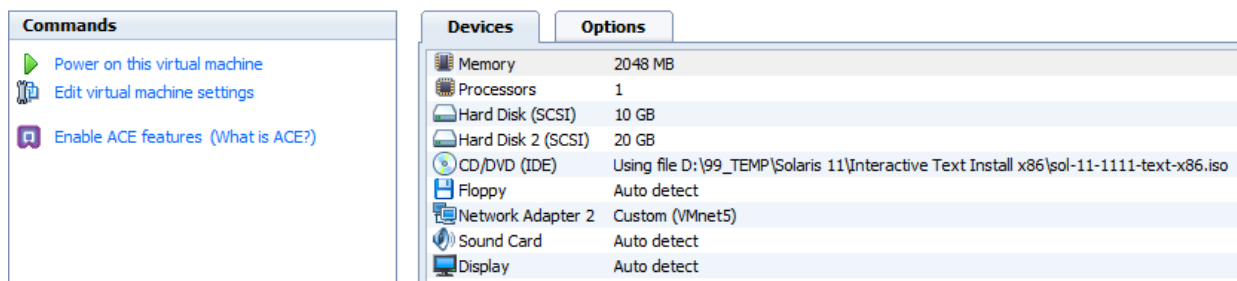


Abb. 5: Konfiguration der Server-VM



Solaris 11 - Client Demo

State: Powered off
Guest OS: Solaris 10 64-bit
Location: D:\90_VM\Solaris 11 - Client Demo\Solaris 11 - Client Demo.vmx
Version: Workstation 6.5-7.x virtual machine
Snapshot: Before Demo

Commands	Devices	Options
<ul style="list-style-type: none">▶ Power on this virtual machine🔧 Edit virtual machine settings🔒 Enable ACE features (What is ACE?)	<ul style="list-style-type: none">Memory 2048 MBProcessors 1Hard Disk (SCSI) 10 GBHard Disk 2 (SCSI) 20 GBCD/DVD (IDE) Auto detectFloppy Auto detectNetwork Adapter Custom (VMnet5)Sound Card Auto detectDisplay Auto detect	

Abb. 6: Konfiguration der Client-VM

MAC-Adresse des Clients:

00:0C:29:4A:89:2B

Vorbereitende Tasks auf dem Server:

```
# svcadm enable /network/dns/multicast
# svcadm enable /network/tftp/udp6
# svcadm enable /system/install/server
# installadm create-service -n sol1111x86 -s
/export/auto_install/sol-11-1111-ai-x86.iso -d
/export/auto_install/sol1111x86 -B 192.168.56.101 -i 192.168.56.101 -
c 9
# cd /export/repo
# cat sol-11-1111-repo-full.iso-a sol-11-1111-repo-full.iso-b > sol-
11-1111-repo-full.iso
# rm -f sol-11-1111-repo-full.iso-a
# rm -f sol-11-1111-repo-full.iso-b
# mount -F hsfs sol-11-1111-repo-full.iso /mnt
# rsync -aP /mnt/repo/ /export/repo/sol1111
# umount /mnt
# rm -f sol-11-1111-repo-full.iso
# pkgrepo -s /export/repo/sol1111 refresh
```

Repos erstellen:

```
# svccfg -s application/pkg/server setprop
pkg/inst_root=/export/repo/sol1111
# svccfg -s application/pkg/server setprop pkg/readonly=true
# svccfg -s application/pkg/server setprop pkg/port=9000
# svcadm refresh application/pkg/server
# svcadm enable application/pkg/server
+++ Now you can check the repo in the browser:
http://192.168.56.101:9000 +++
# pkgrepo create /export/repo/TVD
# pkgrepo set -s /export/repo/TVD publisher/prefix=TVD
```




```
# svccfg -s pkg/server add TVD
# svccfg -s pkg/server:TVD addpg pkg application
# svccfg -s pkg/server:TVD setprop pkg/port=10000
# svccfg -s pkg/server:TVD setprop pkg/inst_root=/export/repo/TVD/
# svccfg -s pkg/server:TVD setprop pkg/readonly=false
# svccfg -s pkg/server list
    :properties
    default
    TVD

# svccfg -s pkg/server:TVD addpg general framework
# svccfg -s pkg/server:TVD addpropvalue general/complete astring: TVD
# svccfg -s pkg/server:TVD addpropvalue general/enabled boolean: true
# svcadm refresh application/pkg/server:TVD
# svcadm enable application/pkg/server:TVD
# pkgrepo info -s /export/repo/TVD
    PUBLISHER PACKAGES STATUS          UPDATED
    TVD        0          online      2012-11-26T10:01:11.886203Z

# pkgrepo get -s /export/repo/TVD
    SECTION    PROPERTY VALUE
    publisher  prefix    TVD
    repository version  4

# pkgrepo -s /export/repo/TVD/ refresh
```

Client erstellen:

```
# installadm create-client -e 00:0C:29:4A:89:2B -n sol1111x86
```

Manifest-Files erstellen :

```
# installadm export -n sol1111x86 -m orig_default -o
/export/manifest/TVD-SOL-11-CLIENT.xml
# vi more /export/manifest/TVD-SOL-11-CLIENT.xml
<!DOCTYPE auto_install SYSTEM "file:///usr/share/install/ai.dtd.1">
<auto_install>
  <ai_instance auto_reboot="true" name="TVD-SOL-11-CLIENT">
    <target>
      <disk whole_disk="true" in_zpool="rpool">
        <disk_name name="c4t0d0" name_type="ctd"/>
      </disk>
      <disk whole_disk="true" in_zpool="zonepool">
        <disk_name name="c4t1d0" name_type="ctd"/>
      </disk>
      <logical>
        <zpool name="rpool" is_root="true">
          <filesystem name="export" mountpoint="/export"/>
          <filesystem name="export/home"/>
          <be name="solaris"/>
        </zpool>
        <zpool name="zonepool" is_root="false">
          <filesystem name="zones" mountpoint="/zones"/>
        </zpool>
      </logical>
    </target>
    <software type="IPS">
```



```
<destination>
  <image>
    <!-- Specify locales to install -->
    <facet set="false">facet.locale.*</facet>
    <facet set="true">facet.locale.de</facet>
    <facet set="true">facet.locale.de_DE</facet>
    <facet set="true">facet.locale.en</facet>
    <facet set="true">facet.locale.en_US</facet>
  </image>
</destination>
<source>
  <publisher name="solaris">
    <origin name="http://192.168.56.101:9000"/>
  </publisher>
<publisher name="TVD">
  <origin name="http://192.168.56.101:10000"/>
</publisher>
</source>
<!--
  By default the latest build available, in the specified IPS
  repository, is installed. If another build is required, the
  build number has to be appended to the 'entire' package in
```

the

following form:

```
    <name>pkg:/entire@0.5.11-0.build#</name>
-->
<software_data action="install">
  <name>pkg:/entire@latest</name>
  <name>pkg:/group/system/solaris-small-server</name>
<name>pkg:/diagnostic/top</name>
  <name>pkg:/finish-script</name>
</software_data>
<software_data action="uninstall">
<name>pkg:/system/manual</name>
</software_data>

</software>

  <configuration type="zone" name="TVD-SOL-11-CLIENT-Z1"
source="http://192.168.56.101/zones/TVD-SOL-11-CLIENT-Z1.cfg"/>
  <configuration type="zone" name="TVD-SOL-11-CLIENT-Z2"
source="http://192.168.56.101/zones/TVD-SOL-11-CLIENT-Z2.cfg"/>

  </ai_instance>
</auto_install>

# installadm export -n sol1111x86 -m zone_default.xml -o
/export/manifest/TVD-SOL-11-CLIENT-Z1.xml
# installadm export -n sol1111x86 -m zone_default.xml -o
/export/manifest/TVD-SOL-11-CLIENT-Z2.xml

# vi more /export/manifest/TVD-SOL-11-CLIENT-Z1.xml
<?xml version="1.0" encoding="UTF-8"?>
<!--
```



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```
-->
<!DOCTYPE auto_install SYSTEM "file:///usr/share/install/ai.dtd.1">

<auto_install>
  <ai_instance name="TVD-SOL-11-CLIENT-Z1">
    <target>
      <logical>
        <zpool name="rpool">
          <filesystem name="export" mountpoint="/export"/>
          <filesystem name="export/home"/>
          <be name="solaris">
            <options>
              <option name="compression" value="on"/>
            </options>
          </be>
        </zpool>
      </logical>
    </target>

    <software type="IPS">
      <destination>
        <image>
          <!-- Specify locales to install -->
          <facet set="false">facet.locale.*</facet>
          <facet set="true">facet.locale.de</facet>
          <facet set="true">facet.locale.de_DE</facet>
          <facet set="true">facet.locale.en</facet>
          <facet set="true">facet.locale.en_US</facet>
        </image>
      </destination>
      <software_data action="install">
        <name>pkg:/group/system/solaris-small-server</name>
        <name>pkg:/system/manual</name>
        <name>pkg:/diagnostic/top</name>
        <name>pkg:/finish-script</name>
      </software_data>
    </software>
  </ai_instance>
</auto_install>

# vi more /export/manifest/TVD-SOL-11-CLIENT-Z2.xml
<?xml version="1.0" encoding="UTF-8"?>
<!--
```

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```
-->
<!DOCTYPE auto_install SYSTEM "file:///usr/share/install/ai.dtd.1">

<auto_install>
```



```
<ai_instance name="TVD-SOL-11-CLIENT-Z2">
  <target>
    <logical>
      <zpool name="rpool">
        <filesystem name="export" mountpoint="/export"/>
        <filesystem name="export/home"/>
        <be name="solaris">
          <options>
            <option name="compression" value="on"/>
          </options>
        </be>
      </zpool>
    </logical>
  </target>

  <software type="IPS">
    <destination>
      <image>
        <!-- Specify locales to install -->
        <facet set="false">facet.locale.*</facet>
        <facet set="true">facet.locale.de</facet>
        <facet set="true">facet.locale.de_DE</facet>
        <facet set="true">facet.locale.en</facet>
        <facet set="true">facet.locale.en_US</facet>
      </image>
    </destination>
    <software_data action="install">
      <name>pkg:/group/system/solaris-small-server</name>
      <name>pkg:/system/manual</name>
      <name>pkg:/diagnostic/top</name>
      <name>pkg:/finish-script</name>
    </software_data>
  </software>
</ai_instance>
</auto_install>
```



Zonen-Files erstellen :

```
# zonecfg -z TVD-SOL-11-CLIENT-Z1
# zonecfg:TVD-SOL-11-CLIENT-Z1> create
# zonecfg:TVD-SOL-11-CLIENT-Z1> set zonepath=/zones/TVD-SOL-11-
CLIENT-Z1
# zonecfg:TVD-SOL-11-CLIENT-Z1> set autoboot=true
# zonecfg:TVD-SOL-11-CLIENT-Z1> set ip-type=shared
# zonecfg:TVD-SOL-11-CLIENT-Z1> add net
# zonecfg:TVD-SOL-11-CLIENT-Z1:net> set physical=net0
# zonecfg:TVD-SOL-11-CLIENT-Z1:net> set address=192.168.56.103/24
# zonecfg:TVD-SOL-11-CLIENT-Z1:net> set defrouter=192.168.56.1
# zonecfg:TVD-SOL-11-CLIENT-Z1:net> end
# zonecfg:TVD-SOL-11-CLIENT-Z1> commit
# zonecfg:TVD-SOL-11-CLIENT-Z1> exit
# zonecfg -z TVD-SOL-11-CLIENT-Z1 export -f /export/zones/TVD-SOL-11-
CLIENT-Z1.cfg
# zonecfg -z TVD-SOL-11-CLIENT-Z1
# zonecfg:TVD-SOL-11-CLIENT-Z1> delete
    Are you sure you want to delete zone TVD-SOL-11-CLIENT-Z1
(y/[n])? y

# zonecfg:TVD-SOL-11-CLIENT-Z1> exit
# zonecfg -z TVD-SOL-11-CLIENT-Z2
# zonecfg:TVD-SOL-11-CLIENT-Z2> create
# zonecfg:TVD-SOL-11-CLIENT-Z2> set zonepath=/zones/TVD-SOL-11-
CLIENT-Z2
# zonecfg:TVD-SOL-11-CLIENT-Z2> set autoboot=true
# zonecfg:TVD-SOL-11-CLIENT-Z2> set ip-type=shared
# zonecfg:TVD-SOL-11-CLIENT-Z2> add net
# zonecfg:TVD-SOL-11-CLIENT-Z2:net> set physical=net0
# zonecfg:TVD-SOL-11-CLIENT-Z2:net> set address=192.168.56.104/24
# zonecfg:TVD-SOL-11-CLIENT-Z2:net> set defrouter=192.168.56.1
# zonecfg:TVD-SOL-11-CLIENT-Z2:net> end
# zonecfg:TVD-SOL-11-CLIENT-Z2> commit
# zonecfg:TVD-SOL-11-CLIENT-Z2> exit
# zonecfg -z TVD-SOL-11-CLIENT-Z2 export -f /export/zones/TVD-SOL-11-
CLIENT-Z2.cfg
# zonecfg -z TVD-SOL-11-CLIENT-Z2
# zonecfg:TVD-SOL-11-CLIENT-Z2> delete
    Are you sure you want to delete zone TVD-SOL-11-CLIENT-Z2
(y/[n])? y

# zonecfg:TVD-SOL-11-CLIENT-Z2> exit
```

Manifeste und Profiles erstellen :

```
# installadm create-manifest -n sol1111x86 -f /export/manifest/TVD-
SOL-11-CLIENT.xml -m TVD-SOL-11-CLIENT -c mac="00:0C:29:4A:89:2B"
# installadm create-manifest -n sol1111x86 -f /export/manifest/TVD-
SOL-11-CLIENT-Z1.xml -m TVD-SOL-11-CLIENT-Z1 -c zonename="TVD-SOL-11-
CLIENT-Z1"
# installadm create-manifest -n sol1111x86 -f /export/manifest/TVD-
SOL-11-CLIENT-Z1.xml -m TVD-SOL-11-CLIENT-Z2 -c zonename="TVD-SOL-11-
CLIENT-Z2"
# sysconfig create-profile -o /export/profiles/TVD-SOL-11-CLIENT.xml
```



```
# sysconfig create-profile -o /export/profiles/TVD-SOL-11-CLIENT-
Z1.xml
# sysconfig create-profile -o /export/profiles/TVD-SOL-11-CLIENT-
Z2.xml
# installadm create-profile -n sol1111x86 -f /export/profiles/TVD-
SOL-11-CLIENT.xml -p TVD-SOL-11-CLIENT -c mac="00:0C:29:4A:89:2B"
# installadm create-profile -n sol1111x86 -f /export/profiles/TVD-
SOL-11-CLIENT-Z1.xml -p TVD-SOL-11-CLIENT-Z1 -c zonename="TVD-SOL-11-
CLIENT-Z1"
# installadm create-profile -n sol1111x86 -f /export/profiles/TVD-
SOL-11-CLIENT-Z2.xml -p TVD-SOL-11-CLIENT-Z2 -c zonename="TVD-SOL-11-
CLIENT-Z2"
```

Zusammenfassung anzeigen :

```
# installadm list -n sol1111x86 -m -c -p
      Service Name Client Address      Arch  Image Path
      -----
      sol1111x86    00:0C:29:4A:89:2B  i386
/export/auto_install/sol1111x86
```

Manifest	Status	Criteria
-----	-----	-----
TVD-SOL-11-CLIENT		mac = 00:0C:29:4A:89:2B
TVD-SOL-11-CLIENT-Z1		zonename = TVD-SOL-11-CLIENT-Z1
TVD-SOL-11-CLIENT-Z2		zonename = TVD-SOL-11-CLIENT-Z2
orig_default	Default	None

Profile	Criteria
-----	-----
TVD-SOL-11-CLIENT	mac = 00:0C:29:4A:89:2B
TVD-SOL-11-CLIENT-Z1	zonename = TVD-SOL-11-CLIENT-Z1
TVD-SOL-11-CLIENT-Z2	zonename = TVD-SOL-11-CLIENT-Z2



Finish-Script erstellen :

```
# mkdir /export/packages/finish-script > /dev/null 2>&1
# vi /export/packages/finish-script/finish-script-manifest.xml
<?xml version="1.0"?>
<!DOCTYPE service_bundle SYSTEM
"/usr/share/lib/xml/dtd/service_bundle.dtd.1">

<service_bundle type='manifest' name='Finish:finish-script'>

<service
  name='system/finish-script'
  type='service'
  version='1'>

  <create_default_instance enabled='true' />

  <single_instance />

  <dependency name='autofs' grouping='require_all'
restart_on='none' type='service'>
    <service_fmri
value='svc:/system/filesystem/autofs:default' />
  </dependency>

  <dependency name='multi-user' grouping='require_all'
restart_on='none' type='service'>
    <service_fmri value='svc:/milestone/multi-
user:default' />
  </dependency>

<exec_method
  type='method'
  name='start'
  exec='/usr/bin/finish-script.sh'
  timeout_seconds='0'>
</exec_method>

<exec_method
  type='method'
  name='stop'
  exec=':true'
  timeout_seconds='0'>
</exec_method>

  <property_group name='startd' type='framework'>
    <propval name='duration' type='astring'
value='transient' />
  </property_group>

</service>
</service_bundle>

# vi more /export/packages/finish-script/finish-script.sh
#!/bin/sh
svcadm disable sendmail > /dev/null 2>&1
```



```
svcadm disable sendmail-client > /dev/null 2>&1
echo "set -o vi" >> /etc/profile
ed - << EOF
r /etc/ssh/sshd_config
/PermitRootLogin/
c
PermitRootLogin yes
.
/X11Forwarding/
c
X11Forwarding yes
.
w
q
EOF
svcadm refresh ssh > /dev/null 2>&1
ed - << EOF
r /rpool/boot/grub/menu.lst
/timeout 30/
c
timeout 5
.
w
q
EOF
cd /boot/grub
mv splash.xpm.gz splash.xpm.gz_old
wget 192.168.56.101/splash.xpm.gz > /dev/null 2>&1
cd /rpool/boot/grub/
cp menu.lst save_menu.lst
echo "splashimage /boot/grub/splash.xpm.gz" > menu.lst
cat save_menu.lst >> menu.lst
echo "alias ll='ls -la'" >> /etc/profile
svcadm disable finish-script
at now + lmin <<< "pkg uninstall finish-script"
exit 0

# eval ``pkgsend -s http://192.168.56.101:10000/ open finish-
script@1.0\`
# pkgsend -s http://192.168.56.101:10000/ add file
/export/packages/finish-script/finish-script-manifest.xml mode=0555
owner=root group=bin path=/var/svc/manifest/system/finish-script-
manifest.xml restart_fmri=svc:/system/manifest-import:default
# pkgsend -s http://192.168.56.101:10000/ add file
/export/packages/finish-script/finish-script.sh mode=0555 owner=root
group=bin path=/usr/bin/finish-script.sh
# pkgsend -s http://192.168.56.101:10000/ close
PUBLISHED
pkg://TVD/finish-script@1.0,5.11:20121126T100337Z

# pkgrepo -s /export/repo/TVD refresh
# pkg rebuild-index
PHASE                                ITEMS
Indexing Packages                    461/461
```