Standard Operating Procedure (SOP)

Arch Linux Server Installation & Post-Deployment Configuration

Version: 2.0
Repository: https://github.com/rupakjangra/arch-installation

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1. Objective

To standardize installation, configuration, validation, and driver deployment of Arch Linux servers using automated bootstrap scripts and repository-driven configuration.

2. Scope

Applicable to all bare-metal deployments using:

- OS Version: archlinux-2022.12.01-x86_64
- Kernel Version: 5.15.77

3. Pre-Requisites

- Arch Linux ISO (2022.12.01)
- Stable Internet connectivity
- SSH Client (PuTTY/OpenSSH)
- Access to Git repository: https://github.com/rupakjangra/arch-installation

4. Installation Procedure

4.1 Initial System Preparation

```
passwd
systemctl start sshd
ip a
ping 8.8.8.8
ssh root@<server_ip>
```

4.2 Disk Cleanup & Preparation

```
lsblk
parted /dev/sda
rm 1  # Remove existing partitions
```

4.3 Bootstrap Script Execution

```
vi bootstrap.sh
chmod 777 bootstrap.sh
sh bootstrap.sh
```

4.4 Install Git & Clone Repository

```
pacman -S git
git clone https://github.com/rupakjangra/arch-installation
cp base.pkg /mnt/var/cache/pacman/pkg
```

4.5 Complete Bootstrap Configuration

```
sh bootstrap.sh  # Until profile 'mgmt' prompts for interface
sh bootstrap.sh  # Provide interface name and configuration details
```

4.6 Chroot & Final System Configuration

```
arch-chroot /mnt
passwd
exit
systemctl restart sshd
reboot
```

5. Post-Installation Validation

```
ip a
vim checklist.sh
sh checklist.sh
vim reboot.sh
sh reboot.sh
sh checklist.sh
```

6. Environment Customization

```
pacman -U gentoo-bashrc
pacman -S mprime
pacman --gendb  # Optional
```

7. Exanic Driver Installation

```
cd arch-installation
chmod 777 setup_git_lfs.sh
sh setup_git_lfs.sh
chmod 777 exa-driver-install
sh exa-driver-install
```

8. Completion Criteria

- System boots without errors
- SSH access verified
- Network properly configured
- checklist.sh validation successful
- Drivers installed successfully