УДК 004.91

BUILDING MANAGEABLE AND PREDICTABLE PLATFORMS FOR MODERN SERVERS USING CENTOS 7

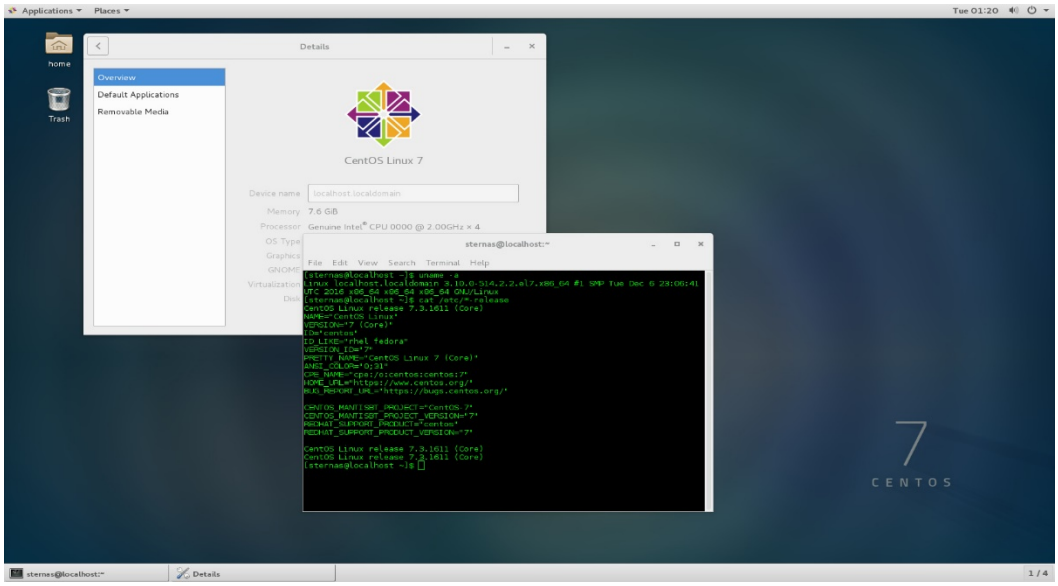
Qodirov Farrux Ergash o‘g‘li
Student 4th course
Berdiyev Sardor Sobir o’g’li
Student 4th course
Abdirasulov Javohir Ulug’bek o’g’li
Student 2nd course

Annotation The CentOS (Community Enterprise Operating System) Linux distribution is a stable, predictable, manageable and reproducible platform derived from the sources of Red Hat Enterprise Linux (RHEL). Prior to becoming known under its current name, CentOS originated as a build artifact of CAOS Linux, which was started by Gregory Kurtzer.The first CentOS release in May 2004, numbered as CentOS version 2, was forked from RHEL version 2.1AS.

Keywords: CentOS, CAOS Linux, Physical Address Extension, Power ISA, Xen4CentOS

The CentOS (Community Enterprise Operating System) Linux distribution is a stable, predictable, manageable and reproducible platform derived from the sources of Red Hat Enterprise Linux (RHEL). Prior to becoming known under its current name, CentOS originated as a build artifact of CAOS Linux, which was started by Gregory Kurtzer.The first CentOS release in May 2004, numbered as CentOS version 2, was forked from RHEL version 2.1AS. Since the release of version 7.0, CentOS officially supports only the x86-64 architecture, while versions older than 7.0-1406 also support IA-32 with Physical Address Extension (PAE). As of December 2015, AltArch

releases of CentOS 7 are available for the IA-32 architecture, Power ISA, and for the ARMv7hl and AArch64 variants of the ARM architecture.



Pic.1 Default GNOME Classic desktop in CentOS 7

CentOS Linux is developed by a small but growing team of core developers. In turn the core developers are supported by an active user community including system administrators, network administrators, managers, core Linux contributors, and Linux enthusiasts from around the world. The CentOS Project is modelled on the structure of the Apache Foundation, with a governing board that oversees various semi-autonomous Special Interest Groups or 'SIGs'. These groups are focused on providing various enhancements, addons, or replacements for core CentOS Linux functionality. A few notable examples of SIGs are:

- Core - Building and releasing the core CentOS Linux platform.
- Xen4CentOS - Providing Xen4 support for CentOS 6
- CentOS Design - Improving the user experience with high quality artwork

CentOS 7 is compatible with the upstream vendor's redistribution strategy and gains full industry support with security updates and training material. In fact, CentOS is the only OS compatible with the popular cPanel web hosting control panel.

When CentOS 7 is properly configured, and running on quality hardware, it is a very stable server operating system, with very few (if any) problems. There is reduced risk of crashes and errors, as it runs only stable versions of packaged software.

With CentOS Linux distribution you can get the advantage of open source server software such as Apache Web Server, Samba, Sendmail, CUPS, vsFTPd, MySQL, and BIND.You may improve performance and load-balance resources by configuring computers to work collectively, with a group of servers sharing a common file system, and offering high-availability applications.CentOS 7 users have access to updated enterprise-level security features, including a powerful firewall and the SELinux policy mechanism. With a new CentOS install, users get long term support for six years, with security updates and critical patches maintained for a decade after the initial release.

CentOS 7, just like the Linux based OS ,has moved to systems with 64-bit processing and memory addressing. That said, 32bit libraries will allow you to run 32bit applications if needed. This advanced stable build of the Linux distribution now fully supports the virt-v2v command-line tool, TLS connections in OpenJDK 7, TPM 2.0 driver, nanosecond timestamps support in tcpdump, the GNOME 3.14 and KDE 4.14 desktop environments, X.Org Server 1.17 display server, LibreOffice 4.3.7 office suite, and OpenLDAP 2.4.40. A heavy website, a web portal, a social network, a network game – these are big internet projects that need hosting with exclusive requirements.

There are no limitations in disk space. There are a memory drives with capacity of a few terabytes, so the memory limitation can be considered as notional. With all these upgrades and changes, it is no wonder that CentOS remains one of the most popular Linux distributions for web servers, with its speed, stability and improved performance over its peers. When it comes to enterprise level operating systems, you could not ask for anything better.

References:

1. https://www.centos.org/
2. CentOS 7 Linux Server Cookbook. Oliver Pelz, Jonathan Hobson. 2014 y.
3. CentOS System Administration Essentials. Endro Mallet. 2014 y.
4. CentOS High Availability. Mitja Resman. 2015 y.
5. Troubleshooting CentOS. Jonathan Hobson. 2015 y.