Linux Services

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Revisions:

Introduction

This document lists the majority of services available in most linux distributions. The list includes a description of each service and a comment on whether it's typically required or not. This listing is not specifically directed at desktop or server installations, although at the end there is a list specific to a Fedora Core 5 desktop installation as an example.

Complete List (or relatively so)

Service Name	Required	Description
acon	**no**	**Language Support** - Specifically for the right to left written languages: Arabic, Farsi and Hebrew
acpid	**yes**	**Advanced Configuration and Power Interface** – daemon which controls and allows interfacing to power management and certain input devices. It is recommended to be enabled for all laptops, and most desktops. Some servers may not require acpi. Common things supported are the "Power Switch", "Battery Monitor", "Laptop Lid Switch", "Laptop Display Brightness", "Hibernate", "Suspend", "Laptop Battery Fan", etc.
anacron	**no**	**Scheduler** – Anacron is a periodic command scheduler. It executes commands at intervals specified in days. Unlike cron, it does not assume that the system is running continuously. Every time Anacron is run, it reads a configuration file that specifies the jobs Anacron controls, and their periods in days. If a job wasn't executed in the last n days, where n is the period of that job, Anacron executes it. Anacron then records the date in a special timestamp file that it keeps for each job, so it can know when to run it again.
apmd	**no**	**Power Management** – Is used by some laptops and older hardware. If your computer supports acpi, then apmd should probably be disabled.
atd	**no**	**Scheduler** – Runs jobs queued by the at command.

auditd	**no**	**Audit** – This saves audit records generated by the kernel. Not entirely sure how this information is used, however it is useful for diagnosing issues with SELinux. This is optional, however it may useful for servers or machines with multiple users and highly recommended for SELinux users.
autofs	**yes**	**Automount Service** – This mounts removable disks (such as USB harddrives) on demand. It is recommended to keep this enabled if you use removable media.
avahi-daemon	**no**	**Zeroconf** – Avahi is an implementation of zeroconf and is useful for detecting devices and services on local network without a DNS server. This is also the same as mDNS. Useful for booting diskless and thin clients.
avahi-dnsconfd	**no**	**Zeroconf** – Avahi is an implementation of zeroconf and is useful for detecting devices and services on local network without a DNS server. This is also the same as mDNS. Useful for booting diskless and thin clients.
bluetooth	**no**	**Bluetooth Services –** Bluetooth is for portable local wireless devices (NOT wifi,802.11). Some laptops come with bluetooth support. There are bluetooth mice, headsets and cell phone accessories. Most people do not have bluetooth support or devices, and should disable this. Other services with bluetooth: **hcid** manages all devices, **hidd** provides support for input devices (keyboard, mouse).
chargen	**no**	**Character Generator –** Used for testing and measurement purposes. More commonly performed with ping and traceroute.
chargen-udp	**no**	**Character Generator –** UDP listener for chargen.
cpufreq cpufreqd	**no**	**CPU Frequency –** Probes and configures CPU frequency daemon modules.
cpuspeed	**maybe**	**CPU Speed** – This throttles your CPU runtime frequency to save power. Many modern laptop CPU's support this feature and now some desktops also support this. Most people should **enable only if** they are users of *Pentium-M, Centrino, AMD PowerNow, Transmetta, Intel SpeedStep, Athlon-64* hardware.
crond	**yes**	**Scheduler** – anacron, atd, cron are **schedulers** with each having slightly different purposes. It is recommended you keep the general purpose scheduler cron enabled, especially if you keep your computer running for long periods of time. If you are running a server look into which schedulers you require. Most likely atd and anacron should be disabled for desktops/laptops. Please note that some sheduled tasks such as cleaning /tmp or /var may require anacron.

cups	**no**	**Common UNIX Printing System –** Used for printing. These should be **enabled only if** you have a CUPS compatible printer.
cups-config-daemon	**no**	**Printing –** Used for printing. These should be **enabled only if** you have a CUPS compatible printer.
cups-lpd	**no**	**CUPS Line Printer Daemon –** Support legacy clients that use the LPD protocol. Typically an xinted based service.
cvs	**no**	**Concurrent Versioning System –** For managing multi-user documents and files.
daytime	**no**	**Daytime –** The Daytime Protocol (Internet RFC 867) is a simple protocol that allows clients to retrieve the current date and time from a remote server. While useful at a bsic level, the Daytime protocol is most often used for debugging purposes rather than actually acquire the current date and time. The daytime protocol is available on TCP port 13.
daytime-udp	**no**	**Daytime –** The Daytime Protocol (Internet RFC 867) is a simple protocol that allows clients to retrieve the current date and time from a remote server. While useful at a bsic level, the Daytime protocol is most often used for debugging purposes rather than actually acquire the current date and time. UDP version.
dc_client	**no**	**Distributed Session Caching** (Distcache) – It is primarily for SSL/TLS servers. Apache can use this. Most desktop users should have these **disabled**.
dc_server	**no**	**Distributed Session Caching** (Distcache) – It is primarily for SSL/TLS servers. Apache can use this. Most desktop users should have these **disabled**.
dhcdbd	**no**	**DHCP DBUS** – This basically an interface for the DBUS system to control DHCP on your computer. Used with the Network Manager service. Useful for switching between wired and wireless networks.
diskdump	**no**	**Diskdump** – Diskdump is a mechanism to help debug kernel crashes. It save a "dump" which can be later analyzed. Netdump does something similar over the network.
echo	**no**	**Echo** – Service for testing, everything you send to TCP port 7 (echo) would be sent back to you.
echo-udp	**no**	**Echo** – Service for testing, everything you send to UDP port 7 (echo) would be sent back to you.
eklogin	**no**	**Remote Login** – A “kerberized” remote login. Typically found as an xinetd service.

firstboot	**no**	Firstboot – This service is specific to Fedora's installation process meant to perform certain tasks that should only be executed once upon booting after installation. After the installation process completes, it can be disabled.
gpm	**yes**	**General Purpose Mouse** – This is the text console mouse pointer (not x-windows).
gssftp	**no**	**GSS FTP Server** – A FTP server that uses Kerberos for authenticaiton. Typically found as an xinetd service.
haldaemon	**no**	**Hardware Abstraction Layer Daemon** – Used to merge information from various sources such that desktop applications can locate and use hardware devices.
hidd	**no**	**Bluetooth Service –** Bluetooth is for portable local wireless devices (NOT wifi,802.11). Some laptops come with bluetooth support. There are bluetooth mice, headsets and cell phone accessories. Most people do not have bluetooth support or devices, and should disable this. Other services with bluetooth: **hcid** manages all devices, **hidd** provides support for input devices (keyboard, mouse).
hplip hpiod hpssd	**no**	**HP Printing** – These services support HP printers in Linux, including *Inkjet, DeskJet, OfficeJet, Photosmart, Business Inkjet and some LaserJet printers*. This supported by HP through HP Linux Printing Project. Services should be **enabled only if** you have a supported compatible printer.
httpd	**maybe**	**Apache Web Server –** Web server
ipmi	**no**	**Intelligent Platform Management Interface –** Interface to the hardware IPMI controller, used to monitor and manage system health.
iptables	**yes**	**IPTables Firewall –** This is the standard Linux software firewall. It's a kernel-based, stateful packet filtering firewall.
irda	**no**	**InfraRed Data Association –** Infrared device support
irqbalance	**maybe**	This service is to increase performance across processors on a multiprocessor system. Most desktops & laptops should have this disabled, while multiprocessor servers would have it enabled. However I do not know how it affects *multi-core CPU's* or *hyperthreaded CPU's* (?). There should be no problems on single CPU systems that do not use these technologies.
isdn	**no**	**ISDN Modem Support** – Exactly what it sounds like, a service that runs ISDN modem devices
klogin	**no**	**Remote Login –** A "kerberized" remote login service, typically found running as an xinetd service.
krb5-telnet	**no**	**Telnet Server –** A "kerberized" telnet server, typically found running as an xinetd service.
kshell	**no**	**Remote Shell –** A "kerberized" remote shell, typically found running

		as an xinetd service.
kudzu	**yes**	**Hardware Probe** (“Plug n Pray”) – This runs the hardware probe, and optionally configures changed hardware. If you swap hardware or need to detect/re-detect hardware this can be left **enabled**. However most desktop or servers can disable this and run it only when necessary.
lisa	**no**	**LISa –** LISa is a small daemon which is intended to run on end user systems. It provides something like a "network neighborhood", but only relying on the TCP/IP protocol stack, no smb or whatever. The information about the hosts in your "neighborhood" is provided via TCP port 7741. To use it: from a client computer, open konqueror and type `lan://targetIP` More information: http://lisa-home.sourceforge.net/
lm_sensors	**maybe**	**LM Sensor –** Measure system voltages, temperatures, and fan speeds
mdadm	**no**	**Multi Path Device Administration** – Used for monitoring Software RAID or LVM information. It is not a critical service and be **disabled**.
mdmonitor	**no**	**Multi Path Device Monitor** – Used for monitoring Software RAID or LVM information. It is not a critical service and be **disabled**.
mdmpd	**no**	**Multi Path Device Daemon** – Used for monitoring Software RAID or LVM information. It is not a critical service and be **disabled**.
messagebus	**yes**	**IPC** – This is an IPC (Interprocess Communication) service for Linux. Specifically this communicates with `dbus`, a critical component.
microcode_ctl	**maybe**	**Microcode Updater –** For use with Intel IA32 processors only. It decodes and sends new microcode to the kernel driver to be uploaded to Intel IA32 processors. (Pentium Pro, PII, PIII, Pentium 4, Celeron, Xeon etc - all P6 and above, which does NOT include pentium classics)
mysqld	**maybe**	**MySQL Server –** Database server
named	**no**	**BIND –** The (in)famous BIND DNS Server
netdump	**no**	**Netdump** – Diskdump is a mechanism to help debug kernel crashes. It save a "dump" which can be later analyzed. Netdump does something similar over the network.

netfs	**maybe**	**Network File Share <u>Client</u>** – This is used for automatic mounting of any shared network file space such as NFS, Samba, etc on bootup. Useful if you connect to another server or filesharing on your *local* network.
netplugd	**no**	**Network Plug** – Netplugd can monitor network interfaces and executes commands when their state changes. It can monitor if the interface is up, if it's running, if a network beat link is detected, if the cable is plugged into the network, etc.
network	**yes**	**Network –** Network subsystem functionality, including network cards, wireless cards, modems, routing, etc.
NetworkManager	**no**	**NetworkManager** – A daemon meant to automate switching between network connections. Many laptop users who switch between *Wireless WiFi* connections and *Ethernet* connections may find this useful. Most stationary computers would have this **<u>disabled</u>**.
NetworkManager Dispatcher	**no**	**NetworkManager** – A daemon meant to automate switching between network connections. Many laptop users who switch between *Wireless WiFi* connections and *Ethernet* connections may find this useful. Most stationary computers would have this **<u>disabled</u>**.
nfs	**maybe**	**Network File Share <u>Server</u> (**or **Network File System)** – This the standard network file sharing for Unix/Linux/BSD style operating systems. Unless you are a file server, **<u>disable</u>** this.
nfslock	**maybe**	**Network File Share <u>Locking</u>** – Also part of the standard network file sharing for Unix/Linux/BSD style operating systems. Unless you are a file server, **<u>disable</u>** this.
nscd	**no**	**Name Service Caching –** Caches name service lookups. Helps improve performance for slow protocols like NIS+, ldap and hesiod.
ntpd	**maybe**	**Network Time Protocol (NTP) –** This automatically updates the system time from an NTP server. Can be configured as client, server or both.
oki4daemon	**no**	**Okidata Printing Support –** Useful only for compatability with Okidata4 printers
omni	**no**	**Printing –** The omni printer driver provides support for over 300 printers using the Ghostscript framework.
omni	**maybe**	**HP DataProtector –** The other omni service that might exist runs as an xinetd service but is related to the HP Data Protector. For some reasn HP decided to use the same service name but run it on port 5555.

pcmcia	**maybe**	**PCMCIA –** Laptop support for PCMCIA slots
portmap	**maybe**	**RPC Support** – This is complementary service to NFS (file sharing) and/or NIS (authentication). Is used to make RPC calls. Unless you are a server for those services you should **disable** this.
random	**no**	**Random** – Initialize kernel random number generator
rawdevices	**maybe**	**Raw Devices** – Block devices. Links hardware to devices that store data.
rdisc	**no**	**Router Discovery –** Used for RIP routing
readahead	**yes**	**Read-Ahead** – This services is to improve startup performance by preloading certain applications into memory. If you wish to startup faster leave this **enabled**.
readahead_early	**yes**	**Read-Ahead** – This services is to improve startup performance by preloading certain applications into memory. If you wish to startup faster leave this **enabled**.
rhnsd	**maybe**	**Red Hat Network Service** – Keeps your system updated. Informs you about official security and bug updates for your system.
rpcgssd rpcidmapd rpcsvcgssd	**no**	**RPC Daemons** – Used for NFS v4. Unless you require or use NFS v4, these should be **disabled**.
rsync	**no**	**File Transfer –** Utility that provides fast incremental file transfer. Typically found as an xinetd service.
saslauthd	**no**	**SASL (Simple Authentication and Security Layer) Authentication Server** – Used for authentication and authorization in Internet protocols.
sendmail	**maybe**	**Sendmail MTA** – Unless you run a server or you like to transfer or support a locally shared IMAP or POP3 service, most people do NOT need a mail transport agent (MTA). If you check your mail on the web (hotmail/yahoo/gmail) or you use a mail program such as Thunderbird, Kmail, Evolution, etc. then you should **disable** this.
sgi_fam	**maybe**	**File Alteration Monitor** – provides an API that applications can use to be notified when specific files or directories are changed. For example, consider a graphical file manager, when the user removes a file thru the file manager, their changes are visible immediately.
smartd	**yes**	**SMART Disk Monitoring Daemon** – Used to monitor and predict disk failure or problems on hard disk that support this. Most desktop users may not need this, but is it recommend to be left **enabled** (especially for servers)

smb	**maybe**	**SAMBA** – The SAMBA daemon is *required to share files from Linux to Windows*. This should be **enabled only if** you have windows computers that require file access to Linux.
snmpd	**maybe**	**Simple Network Management Protocol –** SNMP client
snmptrapd	**no**	**SNMP Trap –** This is an SNMP application (server)that recieves and logs SNMP TRAP and INFORM messages. Uses UDP port 162.
spamassasin	**no**	**SpamAssassin** – Email spam filtering server.
squid	**no**	**SQUID Caching Proxy** – Used to cache web pages and DNS entries.
sshd	**yes**	**Secure Shell** – SSH allows other users to log into or run applications on your computer from another computer on your network or remotely securely.
swat	**no**	**Samba Web Administration Tool –** A web based admin tool for adminstrating a Samba server.
syslog	**yes**	**System Logging** – Controls all logging on the local system. Can also be configured as a server service to receive logs from other systems.
time	**no**	**Time** – Retrieve the date and time from a host or hosts on the network and set the local system time -- TCP version.
time-udp	**no**	**Time** – Retrieve the date and time from a host or hosts on the network and set the local system time -- UDP version.
tux	**no**	**TUX Web Server** – The TUX Web Server is an HTTP daemon for Linux . The TUX Web Server is different from other Web servers in that it runs partially from within the Linux kernel as a module, or kernel subsystem. Given sufficient networking cards, it enables direct scatter-gather direct memory access (DMA) and hardware-based TCP/IP checksums from the page cache (the Linux file data cache) directly to the network, avoiding extra data copies.
vncserver	**no**	**Virtual Network Computing Server** – It is remote control software which allows you to view and interact with one computer (the "server") using a simple program (the "viewer") on another computer anywhere on the Internet. More information: http://www.realvnc.com/
vsftpd	**no**	**Very Secure FTP Server** – Secure FTP daemon. More information: http://vsftpd.beasts.org/
webmin	**no**	**Web Administration** – Remote web administration tool

winbind	**no**	**Samba Name Server** – Maps user and group data from a Windows network to the linux workstation. Used for logging in via LDAP, Active Directory or NT domain.
wpa_supplicant	**maybe**	**Wireless WPA Support** – Daemon that supports WPA and WPA2 for wireless networks.
xfs	**yes**	**X Font Server** – Required to run the X windows GUI.
xinetd	**no**	**Internet Services daemon** – This is a special service that monitors and controls other services. It can launch multiple services based on a request to a specific port, thereby freeing up CPU resources for low-use servers (such as SSH). For example: `telnet` is typically connected to port 23. If there is a request for telnet access that `xinetd` detects on port 23, then only will the telnet daemon be executed.
ypbind	**no**	**YP Name Server** – Name Server for Sun's YP server, based on GLIBC
yum	**maybe**	**Yellow Dog Updater, Modified** - Yum is an automatic updater and package installer/remover for rpm systems. It automatically computes dependencies and figures out what things should occur to install packages. It also makes it easier to maintain groups of machines without having to manually update each one using rpm.

Typical Desktop Services Running

Service Name	Required	Description
acpid	**yes**	**Advanced Configuration and Power Interface** – daemon which controls and allows interfacing to power management and certain input devices. It is recommended to be enabled for all laptops, and most desktops. Some servers may not require acpi. Common things supported are the "Power Switch", "Battery Monitor", "Laptop Lid Switch", "Laptop Display Brightness", "Hibernate", "Suspend", “Laptop Battery Fan”, etc.
autofs	**yes**	**Automount Service** – This mounts removable disks (such as USB harddrives) on demand. It is recommended to keep this enabled if you use removable media.
cpuspeed	**maybe**	**CPU Speed** – This throttles your CPU runtime frequency to save power. Many modern laptop CPU's support this feature and now some desktops also support this. Most people should **enable only if** they are users of *Pentium-M, Centrino, AMD PowerNow, Transmetta, Intel SpeedStep, Athlon-64* hardware.
crond	**yes**	**Scheduler** – anacron, atd, cron are **schedulers** with each having slightly different purposes. It is recommended you keep the general purpose scheduler cron enabled, especially if you keep your computer running for long periods of time. If you are running a server look into which schedulers you require. Most likely atd and anacron should be disabled for desktops/laptops. Please note that some sheduled tasks such as cleaning /tmp or /var may require anacron.
gpm	**yes**	**General Purpose Mouse** – This is the text console mouse pointer (not x-windows).
haldaemon	**no**	**Hardware Abstraction Layer Daemon** – Used to merge information from various sources such that desktop applications can locate and use hardware devices.
iptables	**yes**	**IPTables Firewall –** This is the standard Linux software firewall. It’s a kernel-based, stateful packet filtering firewall.
irqbalance	**maybe**	This service is to increase performance across processors on a multiprocessor system. Most desktops & laptops should have this disabled, while multiprocessor servers would have it enabled. However I do not know how it affects *multi-core CPU's* or *hyperthreaded CPU's* (?). There should be no problems on single CPU systems that do not use these technologies.
kudzu	**yes**	**Hardware Probe** (“Plug n Pray”) – This runs the hardware probe, and optionally configures changed hardware. If you swap hardware or need to detect/re-detect hardware this can be left **enabled**. However most desktop or servers can disable this and run it only when necessary.
messagebus	**yes**	**IPC** – This is an IPC (Interprocess Communication) service for Linux. Specifically this communicates with dbus, a critical component.

network	**yes**	**Network –** Network subsystem functionality, including network cards, wireless cards, modems, routing, etc.
readahead	**yes**	**Read-Ahead** – This services is to improve startup performance by preloading certain applications into memory. If you wish to startup faster leave this **enabled**.
readahead_early	**yes**	**Read-Ahead** – This services is to improve startup performance by preloading certain applications into memory. If you wish to startup faster leave this **enabled**.
smartd	**yes**	**SMART Disk Monitoring Daemon** – Used to monitor and predict disk failure or problems on hard disk that support this. Most desktop users may not need this, but is it recommend to be left **enabled** (especially for servers)
sshd	**yes**	**Secure Shell** – SSH allows other users to log into or run applications on your computer from another computer on your network or remotely securely.
swat	**no**	**Samba Web Administration Tool –** A web based admin tool for adminstrating a Samba server.
syslog	**yes**	**System Logging** – Controls all logging on the local system. Can also be configured as a server service to receive logs from other systems.
xfs	**yes**	**X Font Server** – Required to run the X windows GUI.