

Inveneo Hub Linux

Advantages of IHL



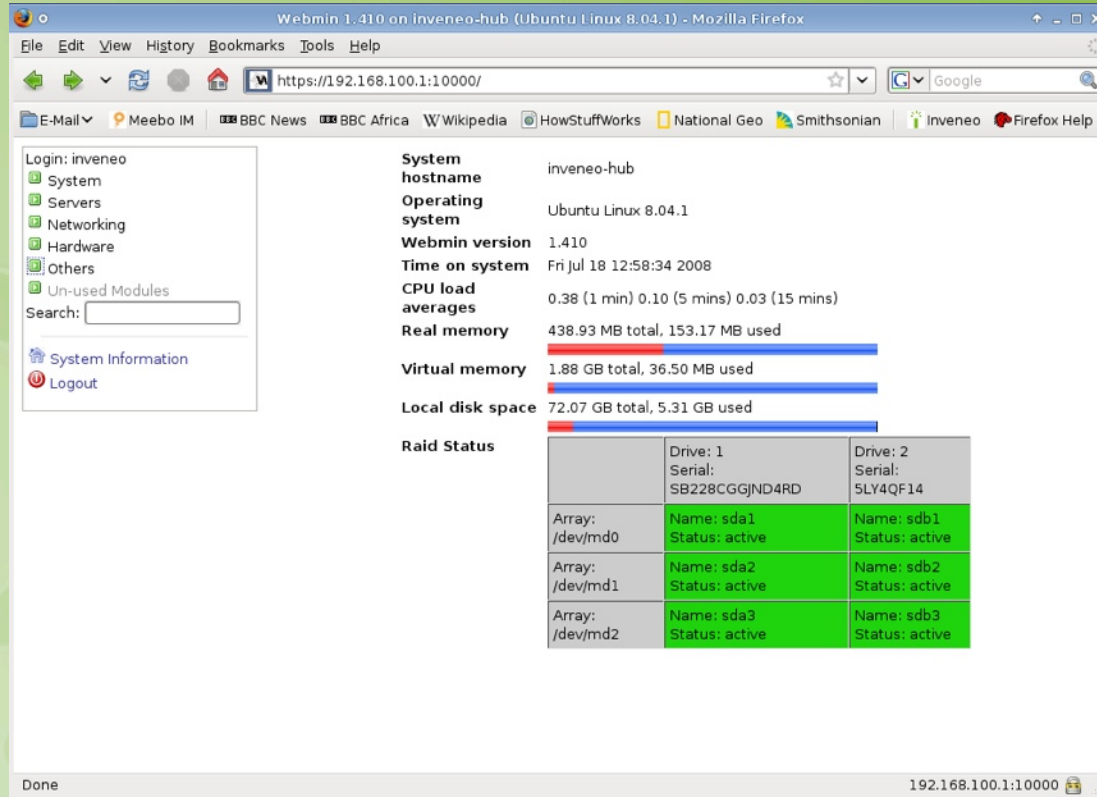
Advantages of IHL



Based on Gnu/Linux FOSS

- No licensing fees or activation keys
- Almost no viruses or spyware

Webmin



Webmin 1.410 on inveneo-hub (Ubuntu Linux 8.04.1) - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://192.168.100.1:10000/

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Login: inveneo

- System
- Servers
- Networking
- Hardware
- Others
- Un-used Modules

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System Information Logout

System

hostname inveneo-hub

Operating system Ubuntu Linux 8.04.1

Webmin version 1.410

Time on system Fri Jul 18 12:58:34 2008

CPU load averages 0.38 (1 min) 0.10 (5 mins) 0.03 (15 mins)

Real memory 438.93 MB total, 153.17 MB used

Virtual memory 1.88 GB total, 36.50 MB used

Local disk space 72.07 GB total, 5.31 GB used

Raid Status

	Drive: 1 Serial: SB228CGGJND4RD	Drive: 2 Serial: SLY4QF14
Array: /dev/md0	Name: sda1 Status: active	Name: sdb1 Status: active
Array: /dev/md1	Name: sda2 Status: active	Name: sdb2 Status: active
Array: /dev/md2	Name: sda3 Status: active	Name: sdb3 Status: active

Done 192.168.100.1:10000

All of IHL's functions can be managed using the webmin, which is accessed via an Internet browser on a client machine.

IHL Functions

- File Sharing
 - Secure storage
 - Files available to all stations
- Dynamic Network Configuration (DHCP)
- Web Caching and Proxy
- Web Server
- VOIP
- Security (Firewall, NAT)
- RAID 1 mirroring
- Other Services (Database and Locally Stored Content)

Turning On and Off Services

Login: inveneo

- System
 - Bootup and Shutdown
 - Inveneo Asterisk Configuration
 - Inveneo Network Management
 - Inveneo Raid Notification Management
 - Inveneo Share Management
 - Inveneo Time Management
 - Inveneo User Management
- Servers
 - Apache Webserver
 - BIND DNS Server
 - DHCP Server
 - MySQL Database Server
- Networking
 - Network Configuration
- Hardware
 - CD Burner
 - Linux RAID
 - Partitions on Local Disks
 - Printer Configuration
- Others
 - File Manager
 - SSH/Telnet Login
 - System and Server Status
- Un-used Modules

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Module Config

Bootup and Shutdown

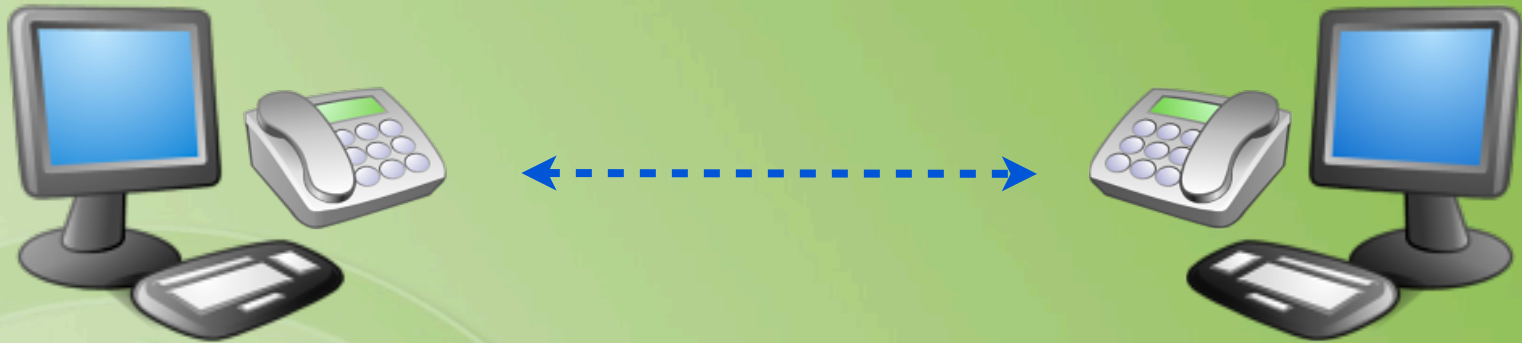
Create a new bootup and shutdown action.

Action	At boot?	Description
<input type="checkbox"/> acpid	Yes	Check for daemon presence
<input type="checkbox"/> apache2	Yes	Start/stop apache2 web server
<input type="checkbox"/> apparmor	No	AppArmor rc file. This rc script inserts the apparmor
<input type="checkbox"/> mysql-ndb	Yes	Controls the MySQL NDB Data Node daemon "ndbd".
<input type="checkbox"/> mysql-ndb-mgm	Yes	Controls the MySQL NDB Management Node daemon "ndb_mgmd".
<input type="checkbox"/> networking	No	Raise network interfaces.
<input type="checkbox"/> ntp	Yes	Start NTP daemon
<input type="checkbox"/> nvidia-kernel	Yes	
<input type="checkbox"/> pcmciautils	No	This service provides PCMCIA hardware support for
<input type="checkbox"/> pppd-dns	No	Restore resolv.conf if the system crashed.
<input type="checkbox"/> procps	No	Loads kernel parameters that are specified in /etc/sysctl.conf
<input type="checkbox"/> quagga	Yes	Quagga is a routing suite for IP routing protocols like
<input type="checkbox"/> rc.local	Yes	
<input type="checkbox"/> reboot	No	
<input type="checkbox"/> reconstruct-mirror.sh	No	looks for new drives to fix degraded RAID1 arrays
<input type="checkbox"/> rnmologin	Yes	This script removes the /etc/nologin file as the
<input type="checkbox"/> rsync	Yes	rsync is a program that allows files to be copied to and
<input type="checkbox"/> samba	Yes	start Samba daemons (nmbd and smbdc)
<input type="checkbox"/> samba-shares.sh	Yes	generates /etc/inveneo/samba/shares.conf
<input type="checkbox"/> screen-cleanup	No	screen sessions cleaning
<input type="checkbox"/> sendsigs	No	
<input type="checkbox"/> single	No	executed by init(8) upon entering runlevel 1 (single).
<input type="checkbox"/> slapd	Yes	OpenLDAP standalone server (Lightweight Directory Access Protocol)
<input type="checkbox"/> smartmontools	Yes	init.d startup script
<input type="checkbox"/> squid3	Yes	Squid HTTP Proxy version 3.0
<input type="checkbox"/> ssh	Yes	OpenBSD Secure Shell server
<input type="checkbox"/> stop-bootlogd	No	See the bootlogd script
<input type="checkbox"/> stop-bootlogd-single	No	See the bootlogd script
<input type="checkbox"/> sysklogd	Yes	System logger
<input type="checkbox"/> udev	No	init script for udev Check the package is still installed
<input type="checkbox"/> udev-finish	No	init script to finish up udev Check the package is still installed
<input type="checkbox"/> ufw	No	start firewall
<input type="checkbox"/> umountfs	No	
<input type="checkbox"/> umountnfs.sh	No	Also unmounts all virtual filesystems (proc, devfs, devpts,
<input type="checkbox"/> umountroot	No	Mount the root filesystem read-only.
<input type="checkbox"/> urandom	No	Save and restore random seed between restarts.
<input type="checkbox"/> waitnfs.sh	No	Network file systems are mounted in the background when
<input type="checkbox"/> webmin	Yes	Start/stop Webmin
<input type="checkbox"/> wpa-ifupdown	No	Run ifdown on interfaces authenticated via
<input type="checkbox"/> x11-common	No	
<input type="checkbox"/> zaptel	Yes	Configures zaptel kernel modules. Waits until

Create a new bootup and shutdown action.

Click this button to switch your system from the current runlevel to the selected one. This will cause all the actions in the current level to be stopped, and then all the actions in the new runlevel to be started.
 Click on this button to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started.
 Click on this button to immediately shutdown the system. All services will be stopped, all users disconnected and the system powered off (if your hardware supports it).

Asterisk



Provides free phones calls among people using the same LAN.

A basic Asterisk system works as if all its phones were within one office building, but the offices can be many kilometers apart.





The basic asterisk configuration does NOT connect to the cellular network.

Network Management

Login: inveneo

- System
 - Bootup and Shutdown
 - Inveneo Asterisk Configuration
 - Inveneo Configuration Server
 - Inveneo Network Management
 - Inveneo Raid Notification Management
 - Inveneo Share Management
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Module Index

Inveneo Network Management

Hub Hostname:

CONNECTION TO THE INTERNET

☒ WAN Port connection to Internet

☒ DHCP provides setup

☐ Static setup

IP Address:

Netmask:

Gateway:

☐ Modem connection to Internet

Modem Device:

Phone Number:

Username:

Password:

Baud Rate:

Idle (secs):

Init String 1:

Init String 2:

☐ LAN Port connection to Internet

Gateway:

External DNS Server(s):

CONNECTION TO LOCAL AREA NETWORK

Hub's address on LAN:

Netmask:

☒ Hub is a DHCP server

Address range: to

☐ Hub is not serving DHCP



Mirror RAID

IHL uses RAID 1, which means that the server's 2 hard drives store identical information. Each hard drive is a mirror image of the other.



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RAID 1 provides data redundancy. If one hard drive fails, the other hard drive will take over. Thus, the user does not lose their files or functionality of the server.

A repair technician can later replace the failed drive, and the system will automatically re-copy data from the working drive.



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The webmin home page shows RAID array status.

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Webmin version	1.410													
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Share and User Management



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Share is another
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Similar to file sharing on Windows, IHL offers shared or private file storage.



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Adding users in IHL is not the same as creating users in Windows, who can log directly into the server. In IHL, users merely own shares. The user who owns the share determines which users can access information in the share.



Time



IHL acts as a NTP time server, so that clients can automatically display the time set in IHL. *Note: Clients don't set their own time zones, so the time zone must be set on the clients.*

[Help..](#)
[Module Config](#)

Inveneo Time Management

Set time
Change timezone

Inveneo Time Management

Day	Date	Month	Year	Hour, minute and second
Friday	25 ▾	July ▾	2008 ▾	13 ▾ : 54 ▾ : 23 ▾

Apply

The time management console in IHL webmin

Printing



IHL can share a USB printer with clients on the network. The printer is first installed on the server, then client machines install the network printer. Any client machine, even if it is not in the same building as the server, will be able to print to the shared printer.

Adding Content

When an Internet connection is slow or there is no Internet connection, content can be stored on the server.



Schools and community centers can benefit greatly from having locally stored content, like Wikipedia.

Exercise

1. Set time and time zone
2. Set static IP on WAN
3. Install printer
4. Create users and shares