

Inveneo Hub Linux

Advantages of IHL



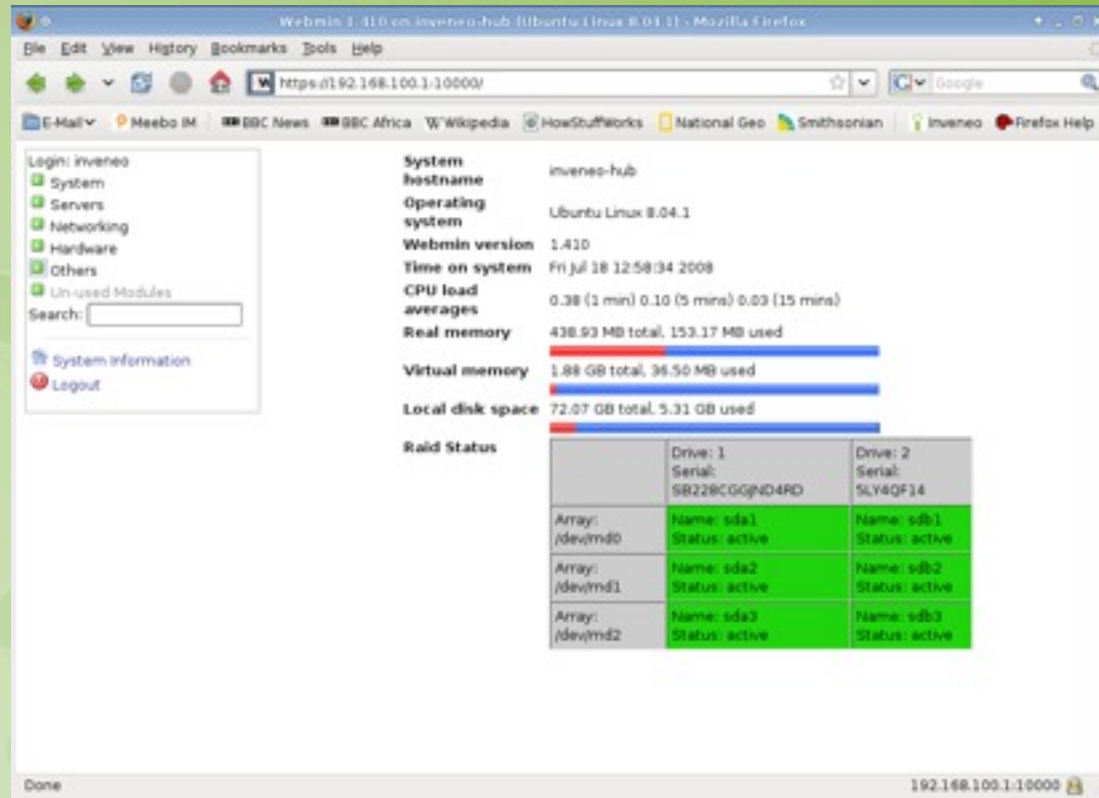
Based on Gnu/Linux FOSS

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

Tight integration with Inveneo Desktop Linux

- Automatic IDL discovery of IHL
- Smooth file sharing

Webmin



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
- Unused Modules

Search:

System Information

Login

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"/> nvme-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"/> procs | 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"/> rmnologin | 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 (smbd and smbd) |
| <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"/> sendmail | 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"/> slurmmonitools | 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"/> umountfs.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"/> wsdmfs.sh | No | Network file systems are mounted in the background when |
| <input type="checkbox"/> webmin | Yes | Start/stop Webmin |
| <input type="checkbox"/> wpa-fu2down | No | Run f2down on interfaces authenticated via |
| <input type="checkbox"/> x11-common | No | |
| <input type="checkbox"/> zapfel | Yes | Configures zapfel kernel modules. Waits until |

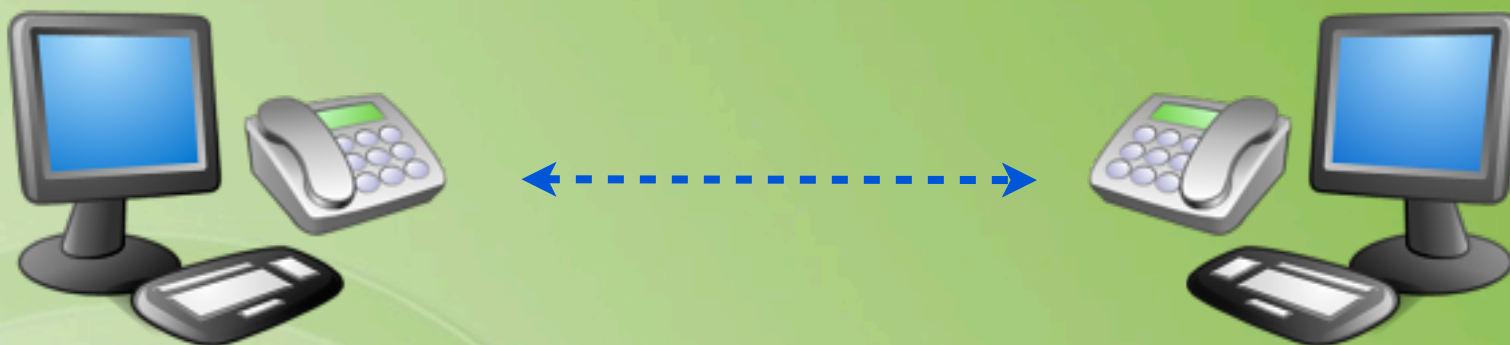
Create a new bootup and shutdown action.

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
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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 images of the other.

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.

The webmin home page shows RAID array status.

| 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 | <table border="1"> <thead> <tr> <th></th><th>Drive: 1 Serial: SB228CGGJND4RD</th><th>Drive: 2 Serial: 5LY4QF14</th></tr> </thead> <tbody> <tr> <td>Array: /dev/md0</td><td>Name: sda1 Status: active</td><td>Name: sdb1 Status: active</td></tr> <tr> <td>Array: /dev/md1</td><td>Name: sda2 Status: active</td><td>Name: sdb2 Status: active</td></tr> <tr> <td>Array: /dev/md2</td><td>Name: sda3 Status: active</td><td>Name: sdb3 Status: active</td></tr> </tbody> </table> | | | Drive: 1 Serial: SB228CGGJND4RD | Drive: 2 Serial: 5LY4QF14 | 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 |
| | Drive: 1 Serial: SB228CGGJND4RD | Drive: 2 Serial: 5LY4QF14 | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | |

Share and User Management



Share is another name for folder.



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



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 IDL clients can automatically display the time set in IHL. *Note: IDL does set its own time zone, so IHL and IDL must be set to the same time zone.*

[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