

Your world @ your finger tips for under USD 1000

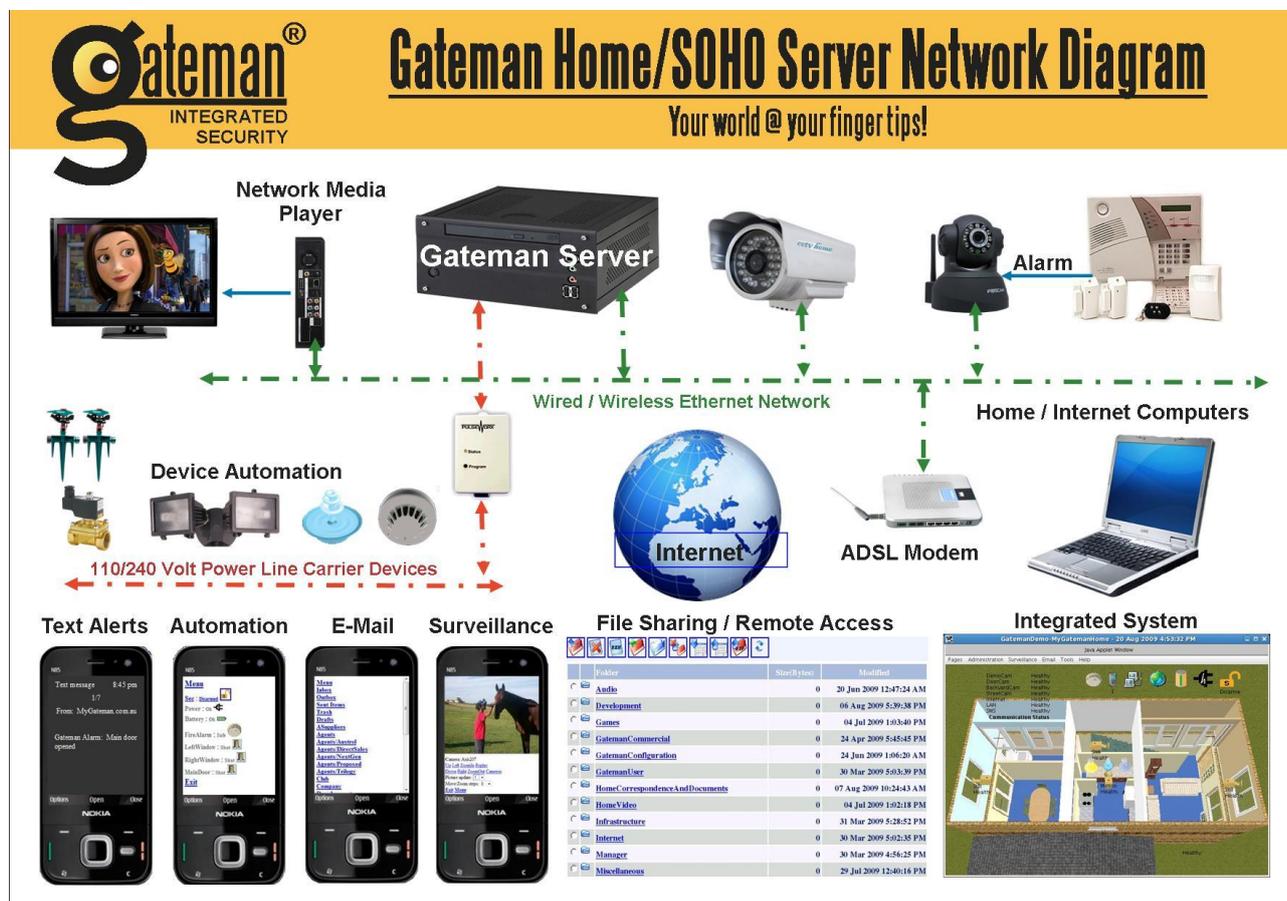
Difficulty Level – Moderate – requires basic IT skills

Gateman Home Server – Serving the purpose not just the file!

Picture this: Access to everything at home from your laptop or mobile phone including

- Secured access to all your data including emails, documents, music, movies, photographs and security video from everywhere.
- Live video of your premises
- Text alerts on security alarms with immediate live/recorded video
- Control of electrical devices from anywhere in the world
- NAS box access from all computers and Network Media players on the LAN
- Restricted access to friends and relatives as required
- With a personalized desktop others would kill for

You can put together just such a system in a weekend from parts bought on the internet for under 1000 dollars **including all hardware and software**. If this interests you, then read on...



Live Demos - Have a play with live demo systems available at <http://scu.mygateman.org> (Research Lab, Santa Clara University) and <http://www.mygateman.com.au> (an Australian SOHO demonstration).

Parts List

Item	Cost (USD)
Headless PC with Atom 330 motherboard, 500GB SATA drive, DVD Drive, 2GB DDR2 RAM, and suitable case (substitute PC components as desired)	350
2 cameras – a Foscam FI8908 wireless IP camera with 1 digital input and 1 digital output and night vision for the foyer and FI8905 wireless IP camera with night vision (waterproof) for outdoor use	160
UPB Serial Interface module (PIM)	100
UPB 600Watt Lamp module (for outdoor security lights)	100
Gateman Home Server Premium Software	120

Note:

1. UPB stands for Universal Powerline Bus – All signals are sent on your mains power cable so you do not need to run any special wiring and can easily retrofit your home with some automation if desired. See [UpbDeviceSelection.pdf](#) for information on the selection of UPB devices.
2. The document [PcHardwareSupportedByCentOS5.3.pdf](#) provides a list of Gateman supported hardware

Installation of Cameras and UPB home automation devices

1. Configure the Foscam cameras using the software provided by the camera manufacturer as detailed in [CameraFoscamIntegration.pdf](#). You just need to configure the IP Address, picture size to VGA and select the mode as 50Hz (240Volt power) or 60Hz (110 Volt power) or Outdoor if used outside the home.
2. Connect your existing Security System Alarm output into your Gateman Home Server as detailed in [IntegratingSecuritySystem.pdf](#), or use a Normally Closed door sensor wired to the front door. You can also create your own security system by integrating door, glass breakage, motion and smoke sensors as required.
3. Wire in or plug in the UPB automation devices as required (see documents that come with the units for wiring details). Plug in the Serial PIM to a wall socket while connecting the other end to a Windows PC. Download and install the UPStart programming software and configure the devices as explained in [UpbConfigurationGuide.pdf](#).

Installation of your Home Server

The following steps guide you through the installation, configuration and administrative tasks to complete your Gateman Server project.

1. Assemble the PC (server) hardware
2. Turn on your PC and put in the Gateman Installation DVD and follow the instructions given in [Chapter 2 of the Gateman Installation Manual](#). The installation is completely automated barring a few post installation tasks and after completion of this stage your Gateman Home Server PC will be accessible from all PCs on the network.
3. Next configure your Gateman Home Server to talk with all your devices. Please see the '[Gateman Server Configuration Basics](#)' presentation for step by step instructions on how to do this. The presentation '[Surveillance and Security Examples](#)' gives you additional insights into more detailed configuration aspects. You can also [download the sample configuration file](#) for the parts list described. You will need to modify the IP addresses and other communications parameters and if required, modify the other configuration to suit your needs. You may also use this configuration file as the starting point and add additional cameras and other devices to suit your needs.

4. You can use the Gateman Client Configuration program to customise your browser applet window and give your system a professional look and feel found in factory automation systems costing tens of thousands of dollars. See these video presentations – [Gateman Client Configuration Part 1](#) and [Part 2](#) for step by step instructions. This step is optional and can be carried out later as well.
5. You can optionally use the Gateman Mobile Configuration program to customise your HTML pages in your mobile phone window. This step is optional and can be done later as well. See the Gateman [Mobile Configuration manual](#) for details
6. Upload your configuration files to your Gateman Server

You are now on the home straight; just a few more administrative tasks are required to be completed before your Gateman Server is completely functional. ***You need to log in to your Gateman system as the administrator, and perform the various tasks listed below from the ‘Administration’ menu.*** Remember that tooltips and context sensitive help is available by pressing the F1 key throughout your system. The [Administration Manual](#) provides you with detailed help on administrative tasks.

1. Register your Gateman system to [activate the license key](#)
2. Create your shared folders and user groups for your [Gateman File Server](#) and give the appropriate permissions to the various groups.
3. [Restrict access to various hardware devices](#) (cameras and automation) and [create your device user groups](#) and [give these groups the appropriate permissions to the devices](#)
4. Create your Gateman Home Server users and assign them to the various groups. The user configuration is launched from the ‘Administration -> Users’ menu. The wizard guides you through the various steps of creating a user and setting the appropriate privileges.
5. Set the Start and End times for the required timers that you created within the Server configuration program from the ‘Administration -> Devices’ menu. Click the ‘Cyclic Timer’ button and configure the times as required for each of the timers that were created.
6. Add the mobile numbers to the SMS groups and email addresses to the Email groups that were created within the Server Configuration program from the ‘Administration – Devices’ menu. The SMS numbers can be entered for each of the configured SMS groups by clicking on the ‘SMS Groups’ button. The Email addresses can be entered for each of the configured Email groups by clicking on the ‘Email Groups’ button.
7. Configure camera hotspots in the event you wish to trigger recording when motion is detected within a selected area of the image. This configuration is done by selecting ‘Administration -> Devices’ and then clicking the ‘Camera Settings’ button.
8. [Subscribe to the SMS service](#)

Configuring your ADSL router to access your Gateman Home Server from the Internet

You will also need to configure the ‘Virtual Server’ port forwarding rules in your ADSL router to forward the following ports:

- TCP traffic on Port 80 and port 443 (HTTP and HTTPS ports) are forwarded to your Gateman Home Server’s IP address.
- If you are using Gateman Home Ultimate, you will also need to provide ‘Virtual Server’ port forwarding rules to forward TCP traffic for port 25 and 465 (SMTP and SMTPS), 143 and 993 (IMAP and IMAPS)
- If you are using Axis or A-soni cameras instead of Foscam cameras, you will also need to forward TCP traffic on port 554 for streaming (RTSP), and UDP traffic on ports 60000 to 60999 (RTP traffic)

You will need a static IP to access your Gateman system from the internet or will require to subscribe to the Gateman DNS service.



Further Reading

You may also wish to take a look at:

1. Gateman Home Server Ultimate additionally provides a complete Email Server with virus scanner with synchronized email access from your desktop, laptop and mobile phone! You can also attach 4 cameras.
2. [Gateman Business Server](#) which provides Access and Attendance for your business.