

Shanock.com

Familiarization Guide

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I. Introduction

A. Welcome

Welcome to Shanock.com! This document is meant to introduce you to the basics of the Shanock.com server's features. If you are already experienced with Linux, you may want to skim over this document anyway so that you know what you have to work with. If you are new to UNIX-like operating systems, the learning curve can be steep, but you don't need a degree in Computer Science to be productive.

This document uses technical terms and acronyms where appropriate. If you are unfamiliar with any, you can look them up on [Wikipedia](#) for a crash course. This document is *not* intended to teach you everything you need to know, but it will give you a good starting point to do research on your own. UNIX has been around for a long time, and there are plenty of online tutorials and guides to help you along.

This document assumes that your personal computer is using [Microsoft Windows](#), that you are familiar with general computer terms (download, execute, task bar, Start Menu, etc), and that you are familiar with navigating your operating system. You should know with how to set up the browser and email client of your choice. If not, please consult your software's documentation or third-party guides.

A convention of this document, when instructing the reader to type a command, will

format the relevant text in a **monospace and bolded** font. Such text should be copied verbatim, including any quotes and symbols, with attention to case sensitivity (you may ignore underlines or colors). Another convention is to use `username` in places where you should substitute your own account login name.

B. About the Server

Shanock.com utilizes an operating system called [Gentoo Linux](#). [Linux](#) is designed to behave and interact like [UNIX](#), leading to the classification of Linux as a [UNIX-like operating system](#). Linux is extremely adaptable, able to be tailored to operate at peak efficiency on a wide variety of devices, including PDAs, smart phones, servers, desktop computers, and more. Gentoo is, in turn, a highly flexible [distribution](#) of Linux and its attendant software, allowing for optimization towards any task on any hardware. In this case, the task is to be the Shanock.com server.

With your Shanock.com account, you receive 5GB of total storage space. This is absurdly plenty to take advantage of everything Shanock.com can offer.

These are the specifications that may be relevant to you as a Shanock.com account holder:

Processor	AMD Athlon 64 3200+ (2.0ghz)
Memory	2x 512MB Crucial DDR400 (Single-Channel)
Power Supply	ThermalTake TR2-430W
Motherboard	FIC K8M-800M
Hard Drive	1x 1TB Seagate Barracuda LP SATA 5900RPM 1x 1TB Western Digital Caviar Green SATA 5400RPM
Network	Integrated RTL8100B
Battery	CyberPower CP1000AVRLCD Backup Battery

II. Shell Access

A. What is a shell account?

The basic user environment for UNIX-like operating systems is called the [shell](#), which at first looks like nothing more than a text-based command prompt. If you are new, think of [DOS](#). While you may have seen demonstrations or personally tried distributions of Linux with pretty [graphics, windows, and buttons](#), that's not what Linux really is. What you saw was just a graphical interface program running on top of a shell. All file management, email, editing, and configuration needs can be handled using the shell alone.

The beauty of UNIX-like operating systems is that because of the simple but all-powerful interface, using your account from home is virtually the same as if you were physically accessing the server's keyboard and mouse.

B. Accessing the shell

1. Via [telnet](#)

To log in to your shell account, you must use a telnet or SSH (Secure Shell) client. Almost every operating system has a telnet client built in, including all versions of Windows since '95. **

To access your shell account via telnet:

- 1) Open your Start Menu and select "Run..."
- 2) Type `telnet shanock.com` and press Enter
- 3) Log in with your username and password

4) That's it!

** Microsoft, in its infinite wisdom, decided to disable access to the telnet client by default in Vista and 7, so you will need to enable it via Control Panel > Programs and Features > Turn Windows features on or off.

2. Via [SSH](#)

While telnet is easy and convenient, it is not very secure, lacks features, and behaves oddly sometimes. I highly recommend using SSH for all of your shell access needs. An excellent yet free SSH program is [PuTTY](#). It is highly configurable and feature-rich.

3. Via the Web

Shanock.com has a web-based shell interface for users on the go. You can access it from any computer with web access by visiting <http://www.shanock.com/> and clicking on the "telnet" button at the bottom of the page.

C. Familiarizing yourself with the shell

Now that you've logged in, you're greeted with a text logo and a short welcome message. Near the bottom, you see something like:

```
username@shanock ~ $
```

Before I tell you what you can do from here, I should tell you where you are. The tilde (~) is a shorthand symbol for your "home directory", which is /home/username. This is your personal space, where all of your files and configuration settings are stored. There are many other files and directories on the server, but most of them are restricted in various ways. Your home directory is the only place where you have full control over files.

For a beginner's tutorial on how to use the shell, see:

LinuxCommand.org: Learning the Shell

You should consider learning the basics of shell use before continuing with this guide.

Here's a list of useful commands (that may or may not have been mentioned in the tutorial):

- man** - view an on-screen manual for a command (press q to exit)
- passwd** - changes your password
- pine** - check your email
- nano** - simple, easy text editor (beginner)
- emacs** - full-featured text editor (advanced)
- vi** - efficient text editor (advanced)
- mc** - file manager
- gftp** - FTP client
- irssi** - IRC chat client
- 7z** - [7-zip](#) efficient file compression
- crontab** - task scheduler

There are a great deal more commands available, but you can accomplish most common tasks with these. Also be aware that Shanock.com provides the [GCC compiler](#) and a number of other programming/scripting languages ([perl](#), [bash](#), [python](#), etc.) that allow advanced users to compile their own programs. In the event that you need a specific program that is not already provided, please email me (shanock@shanock.com) before installing it in your home directory - I may be able to install it system-wide, thereby making the program available to everyone and saving you account space.

D. Uploading and downloading files

Shanock.com provides three primary means of transferring files to and from your home computer. These are [File Transfer Protocol](#) (FTP), [Secure FTP](#), and [Secure Copy](#) (SCP). Windows Explorer built-in support for two-way FTP by typing the following into an explorer address bar: <ftp://www.shanock.com>

There are several good third-party programs available that grant access to FTP, SFTP, and SCP. If Windows Explorer is not to your liking, I recommend you try the free program, [WinSCP](#).

E. Using the virtual desktop via VNC

There is one more important way to access general tools on your account. When physically accessing a Linux system, many people use fancy graphical user interfaces for ease of use and image-dependent applications. While you are unlikely to ever access Shanock.com physically, you can simulate the experience by using what's called [Virtual Network Computing](#). Basically, we will create a window on your computer which will act as an imaginary monitor. and connect it to the Shanock.com server. Any commands you input in this virtual desktop will be executed on the server.

To access a virtual desktop, download the latest copy of [TightVNC](#). Install or extract the program, then execute it. You will be presented with a prompt asking for a VNC server and other options. For the server, you will enter one of the following:

shanock.com:50 for a 640x480 window with 8-bit color
shanock.com:51 for a 800x600 window with 8-bit color
shanock.com:55 for a 1024x600 window with 8-bit color
shanock.com:61 for a 800x600 window with 16-bit color
shanock.com:62 for a 1024x768 window with 16-bit color
shanock.com:63 for a 1280x1024 window with 16-bit color
shanock.com:65 for a 1024x600 window with 16-bit color
shanock.com:66 for a 1366x768 window with 16-bit color
shanock.com:67 for a 1680x1050 window with 16-bit color

A window should pop up asking you to log in. Do so, and you will be presented with an empty desktop. Right-click anywhere, and you will see a menu with the various applications that are available to you. The speed of this method depends on the bandwidth and latency between your computer and the server. If you find that the desktop is too slow for you, you may want to try more conservative settings.

III. Using your email account

A. Accessing your email

Your email address is `username@shanock.com`. Shanock.com provides a variety of easy and secure ways to access your email. You can use [POP3](#), [IMAP](#), [POP3-SSL](#), [IMAP-SSL](#), secure webmail (<https://mail.shanock.com>), Pine (when logged into the shell), and Thunderbird (through VNC). Any modern (and most old) email client can be configured to work with one of the available protocols. Please consult your email client's documentation.

Whichever access method you choose, the server name for all methods is `mail.shanock.com`. If you wish to use the Shanock.com [SMTP](#) service, be sure to enable SMTP Authentication in your email client, and use your normal login and password.

I would recommend using IMAP over POP3, unless you are having server space issues or use an email client that doesn't support it. The reason for this is that IMAP leaves

copies of your email and folders on the server. You can access your email from home, through the web, or from the shell, and still be able to use the same set of folders. Furthermore, Shanock.com utilizes a [RAID](#) array to protect against hard drive failure, helping to keep your email safe from data loss. POP3 clients, on the other hand, generally download the messages to your computer and delete them from the server.

If your email client or browser complain about the security risk of a "self-signed certificate," go ahead and accept it. I can guarantee with absolute certainty that shanock.com is authorized by shanock.com to authenticate shanock.com.

If you use your Shanock.com account for purposes other than email (i.e. via the shell or FTP), note that your mail is saved in the `~/maildir` directory. Try not to accidentally delete it, because I will not be able to recover it.

B. Email Forwarding

If you already have an email account and don't want another, Shanock.com can forward email (including administrative notices) to your existing address. If you would like to enable mail forwarding, create a file named ".forward" in your home directory with the email address you would like to forward to. One way to do this would be, at the command prompt, to type the following command with the address you want mail forwarded to, followed by the enter key:

```
echo "email@domain.com" > .forward
```

Alternatively, you can use FTP, SFTP, or your favorite text editor to upload or create the .forward file with your email address.

C. Spam protection

Shanock.com utilizes a few simple techniques that drastically reduce [spam](#) without endangering your legitimate emails. None of them require any interaction on your part - they are enabled automatically. However, you should be aware that one of the methods used is [greylisting](#), which may delay the first few emails you receive from any individual by several hours. After the Shanock.com server trusts that the sender is not a spammer, email will be instantaneous.

Note that while most spam is blocked, you will still receive some. Shanock.com is configured so that if there is any possibility that an email is legitimate, it will be delivered, and you will never miss a message. Since I cannot predict how you will use your email account, Shanock.com does not run content-based spam filtering (such as [SpamAssassin](#)) which may produce false positives. This means that the remainder of spam-filtering responsibility rests on you, the user. Programs such as [Thunderbird](#) and SpamAssassin (configured for your own needs) will help you virtually eliminate spam forever.

D. Virus Protection

Shanock.com does not offer server-side virus protection, which uses a great deal of processor power, can produce false positives, and does not replace a true virus scanner installed on your own computer. Since you should have a virus scanner on your PC anyway, running one on the server would be redundant. I'd highly recommend installing the free edition of [AVG](#), a virus scanner that does not use many resources or slow your computer unreasonably. Note that [ClamWin](#), an open-source alternative, is also an option, but may not yet support on-access scanning.

IV. Setting up a website

A. Prerequisites

While Shanock.com provides web space, it does not provide any web-based content creation tools for beginners, such as those you might find on commercial sites. In order to create a web site on Shanock.com, you must either know a web programming language ([HTML](#), [XHTML](#), [PHP](#), [CSS](#), etc.), know how to use a web-authoring tool ([Dreamweaver](#), [KompoZer](#), etc.), or find someone who has one of the aforementioned skills to do it for you. That said, a web-authoring tool ([quanta](#)) is provided on Shanock.com, but you will need to utilize VNC to use it (read through Section II: Shell Access). Furthermore, any word processor that can save HTML files can be used to create rudimentary web pages ([OpenOffice](#) is also provided via VNC).

B. Web hosting features

Explaining the function of the following features is beyond the scope of this document. If you don't know what these are, then you probably don't need to worry about them. If you do know what they are but need help, there are plenty of online guides detailing what they are and how to use them.

[PHP5](#) - a programming language for creating dynamic web pages

[CGI](#) - an interface that allows execution of internal programs

[Server-Side Includes](#) - allows CGI to be inserted into web pages

Virtual domains: enables `http://username.shanock.com` subdomains

[.htaccess](#) support - enables customization (like passwords) to your website

[MySQL](#) - database for CGI and PHP

Domain name hosting - additional charges may apply

Shanock.com does not currently offer DNS services. If you need them for any reason, you will need to set them up on your own. I recommend [ZoneEdit](#), which offers free DNS hosting for up to 5 domains.

C. Where files go

When you log in to your account via the shell or FTP, you might notice some pre-supplied directories, one being `~/public_html`. This is the directory where all normal web content is stored, including HTML documents, CSS files, PHP, images, downloads, and almost anything else you want to be available from the web. You can create new directories inside of this one, which is good for organization of web content. Files in `~/public_html` can be read, but not executed by visitors.

If you look inside `~/public_html`, you will find a placeholder file called `index.html`. To build your web site, you will need to edit or replace this placeholder. This file is the default page that will be loaded any time someone visits your website without requesting a specific file. If `index.html` does not exist, the server will look for `index.htm`, `index.php`, or `index.shtml`. If a visitor accesses `http://username.shanock.com` but there is no index page, then the server will automatically generate a directory listing of the files in `~/public_html`.

A second directory is `~/cgi-bin`. CGI scripts are programs that can be executed on-demand as a web page loads. They are often used for dynamic content such as hit counters, guest books, and much more. Since such wide-ended programs are a potential security risk, they are kept in the `~/cgi-bin` directory which is outside of `~/public_html`, and can be executed but not read or downloaded by visitors. The server fakes the location of this directory so that a visitor will see `~/cgi-bin` at `http://username.shanock.com/cgi-bin`.

Under normal conditions, any files that are not inside `~/public_html` or `~/cgi-bin` will be inaccessible to visitors.

D. Creating your own web pages from scratch

Teaching you how to create web pages is beyond the scope of this document. However, there are numerous HTML tutorials and web creation tools available on the Internet. Here are some tutorials that may help you get started:

[Small Planet Communications: Create Your Own Webpage](#)

[PageTutor.com: HTML Tutorial](#)

[W3Schools.com: Introduction to HTML](#)

You will need a text editor to create plain HTML. A word processor such as Microsoft Word will not work correctly unless you use very specific settings. For the sake of simplicity, I recommend using Notepad or [EditPad Lite](#) for your HTML-editing needs.

Note that while HTML files are typically in plain-text format, in order to be accessed as a web page by a visitor's browser it needs to have one of the following extensions: `.html`, `.htm`, `.shtml`, or `.php`. If in doubt, use `.html`. If the file has a `.txt` extension, visitors will see the HTML code instead of the design you had intended. Most other extensions will be treated as a file download.

From personal experience, I find that the best way to learn web design is simply to observe what others have done to achieve various effects. You can view the HTML code of almost any website by using the "view source" function of your browser.

E. CGI scripts

Again, teaching you the ins-and-outs of the various web programming languages is beyond the scope of this document. There is an example `hello.cgi` file in your `~/cgi-bin` directory that can be accessed at `http://username.shanock.com/cgi-bin/hello.cgi`

This said, there are some things you need to know that a tutorial may not mention. First, CGI scripts must be saved in UNIX text format or you may encounter errors. You can either specify UNIX in an advanced text editor like EditPad, or after uploading a CGI file you can edit and save it using a linux-based text editor like nano.

Second, you need to set read and execute permissions on CGI files or else you will encounter errors. This can be done with most FTP clients, including Windows Explorer (right-click > properties). Alternatively, you can use the shell command `chmod`, i.e. `chmod 755 hello.cgi`.

Third, you can execute a CGI script directly from inside a web page, so that dynamic content is transparently added to your websites. This is called "server-side includes," and you can see a working example by placing the following in a `.htm`, `.html`, or `.shtml` file:

```
<!--#include virtual="/cgi-bin/hello.cgi"-->
```

V. Addendums

A. Technical support

If you are experiencing difficulties with a service of Shanock.com and have good reason to suspect that the problem may be a server-side issue, contact me at shanock@shanock.com or walter.heitman@gmail.com. Common problems may be permissions errors (i.e. files in your home directory being marked as belonging to someone else), MySQL access issues, and programs with broken dependencies.

Note that I *DO NOT* provide instruction for any software you find on the server or technical support for your personal computer or any software installed on it. Please seek online support. That's where I learned everything I know and where I would find any answer that I could tell you. If the Internet can't help you, I can't either.

B. Availability of service

As I use Shanock.com for my personal email, webhosting, and internet needs, I try my very best to keep the server up and running 24/7 at full capacity.

However, Shanock.com is a piecemeal computer built from spare parts, running on a budget infrastructure, and connected to the Internet through a residential cable modem. That's not a great deal of bandwidth, certainly not enough to handle commercial traffic. The CPU frequently overheats and crashes, electrical storms regularly cut off the power supply (sometimes for hours), and Oklahoma tornadoes constantly loom on the horizon. This server is not a significant source of income for me and I, as the sole maintainer, cannot always be available to fix immediate problems.

Let's face it. This is, at best, a third-rate hosting service. You probably only have an account on Shanock.com because you know me personally, need a feature that other services don't provide, or enjoy the low expense that the trade-off of unreliability provides. As such, I can offer no guarantees about anything. Make regular backups of all your data, and if Shanock.com becomes unstable or goes [FUBAR](#) altogether, find another provider. I only charge for delivered services, so if at any time you decide to leave, please accept whatever service time I hadn't yet billed you for as a parting gift.

That said, I have run this server for many years and intend to continue until the day I die. And maybe a little after, if I can help it.

C. Legal issues

The Shanock.com system does not utilize any proprietary software. All services and utilities are open source, and usage is provided at no additional charge. All of them can be downloaded and run on a modern Linux system, and many even have free Windows versions available from the authors. All third-party programs explicitly recommended in this guide are legally free. Any fees that may be associated with your Shanock.com account are intended to cover labor, maintenance, and bandwidth costs.

As previously stated, the server can die at any time, and while I make a reasonable effort to prevent data loss, there are no guarantees. This server employs RAID hard drive redundancy (similar to a real-time backup), numerous methods to resist hacking, and is frequently updated with the latest software fixes. However, there is no such thing as 100% security. Do not make a habit of storing sensitive information on the Shanock.com server.

In conclusion, don't sue me, because I don't have any money. If I did, I could afford more reliable hardware and a support staff.