



Keep unwanted Web Content out of your environment

created by: Rainer Bemsel - Version 1.0 - Dated: Apr/6/2003

My initial requirement to use a Web Filtering product was related to protect my family from bad stuff, or better described as unwanted web stuff. It was quiet easy to find products with parental control or web blocking technology, but all of those products are either running on every single workstation or restrict web content right in front of my router for all users. This leads to restrict all of them or the products are far too expensive for my budget. A "Go - No-Go" feature was the fact, to allow certain web access to some users, while other users are not allowed to access these websites. Basically a group and / or individual policy driven profiling would be the best fit. I found a product, which is very well designed to run in large environments, but for m personal use, I only need to protect a handful people.

On following pages I explain the steps to be performed, for having this Web Filtering product installed.

My main requirement was to protect my kids from pornography and other bad stuff, providing myself with different reports, where my kids would have been connected to, and keep all web content open to myself.

Mark Riley from Content Keeper explained to me the product and honestly, my research was over. This was exactly I was looking, although this product is designed to run in business, educational and public environment. An ISP will find additional revenue potential as well. Anyhow, I'm glad to run this product and you may too.



System Minimum Requirements: (as of this writing)

Dedicated Intel based PC

1 Ghz Processor

512 MB RAM

20 GB HDD

3x NICs based on Intel 82557 or 82559 chipset. This is used in most NICs.

RedHat Linux v.7.3 (preinstalled, when downloading the packages only)

You can download a complete ISO Image (280MB) from www.contentkeeper.com. This provides you with an Auto installer CD and there is no need to pre-install RedHat Linux in advance. The alternative installation method is for you to manually install Redhat Linux (instructions will be provided) and the ContentKeeper. This requires a much smaller download (appr. 4MB). I've used an Auto installer CD, as it was a really straightforward installation.

When requesting an evaluation copy, please let them know you heard about them from **Rainer Bemsel** in **Germany**.



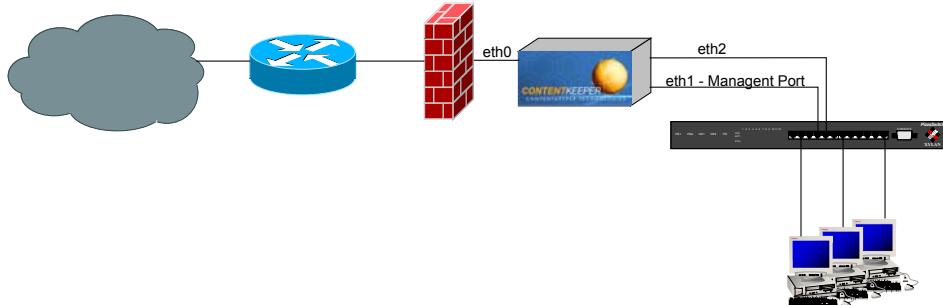
DISCLAIMER

This Technical Tip or TechNote is provided as information only. I cannot make any guarantee, either explicit or implied, as to its accuracy to specific system installations / configurations. Readers should consult each Vendor for further information or support.

Although I believe the information provided in this document to be accurate at the time of writing, I reserve the right to modify, update, retract or otherwise change the information contained within for any reason and without notice. This technote has been created after studying the material and / or practical evaluation by myself. All liability for use of the information presented here remains with the user.

Network Drawing

This is my network drawing. You should familiarize yourself with your network environment, before deploying ContentKeeper. Content Keeper's Administrators Guide describes different scenarios, on how to implement it into a network.



Computer Specs I've used

Compaq EVO D300 Desktop PC
 Intel Pentium 4
 1.5 Ghz
 629 MB RAM
 20 GB Harddisk
 CD ROM
 3x Intel Pro/100 (PCI)

Installation parameters

First I've collected some mandatory parameters where I will be asked during installation. Not all of them I have to use, but you maybe will.

- ✓ IP Address for Management Port _____
- ✓ Host Name for Management Port _____
- ✓ Management Port Netmask _____
- ✓ Proxy Server IP Address _____
- ✓ Proxy Server Port Number _____
- ✓ Proxy Server Authentication yes / no
- ✓ Proxy Bypass possible yes / no
- ✓ Gateway IP Address _____
- ✓ Gateway passes TCP Port 80 yes / no
- ✓ DNS IP Address _____
- ✓ Domain Suffix _____
- ✓ Firewall Internal IP Address _____
- ✓ Firewall Caching Proxy Server Port Numer _____
- ✓ Directory Service _____
- ✓ Fiber-Optic Network Connectivity _____
- ✓ Network Bandwidth _____



Like I said, you may not need all of those parameters. At Content Keeper's Administration Guide, there is every parameter explained and why you are asked for them. It's a very good guide, you should have available, when installing the product.

You can also download them from www.contentkeeper.com in the documentation section.

Install Red Hat Linux

I've used to run the installation a complete ISO image, which had Red Hat Linux 7.3 and Content Keeper 117.9 loaded. This is a self-bootable CD ROM and all what you have do as preparation is to run your computer's bios setup to have CD ROM as first boot device set. Also make sure, that you have onboard Ethernet Controller disabled. Have at least your management Ethernet cable plugged in.

1. Startup Computer with ContentKeeper CDROM inserted.

```
ContentKeeper Auto Installer

Welcome to ContentKeeper Internet Content Filtering System. Visit the
ContentKeeper web site at http://www.contentkeeper.com for news on events and
system updates.

The autoinstaller will now install ContentKeeper version 117.9 and Red Hat
Linux 7.3.

This auto installer defaults to US keyboard layout. Press F3 to view
information on selecting an alternate keyboard layout.

Type install and press ENTER to continue or eject the CD and reboot the system
to abort.

Warning! Warning! Warning! Warning! Warning! Warning! Warning! Warning!
All data and partitions on the local hard drive will be
destroyed during this operation!
Warning! Warning! Warning! Warning! Warning! Warning! Warning! Warning!
[F1 - Welcome Message] [F2 - System Requirements] [F3 - Keyboard Layout]
boot:install <enter>
```

There will be a couple of automatic scripts running and XWindows will start as well. All partitions and required RPMs will be installed automatically and there's not much more to do during this part of setup.



When first setup has been done you will get the license agreement.

```
*****
*           ContentKeeper Setup           *
*           Version: 117.9                *
*           Build Date:27-Feb-2003        *
*****

NOTIFICATION OF COPYRIGHT AND LICENSE AGREEMENT
(ck-license020821.doc;DW)

< all text >

<Press any key to continue reading>

**** End of ContentKeeper License agreement ****
Accept all terms of license agreement ? Enter Yes, No or Again:
```

When accepting the license agreement with Yes, all ContentKeeper files will be extracted.

Install Content Keeper

```
ContentKeeper Setup, Version 1179, 27-Feb-2003
-----
Some network and administrative information is required to install
ContentKeeper. You will be prompted to answer questions about this network and
administrative information.

<more text>

Press enter to continue the installation <enter>
```

You will get some details about you computer:

```
Internal RAM Installed           : 629 MB
Intenal SWAP Installed           : 1036 MB

Parameter Configuration Settings:
-----
To continue ContentKeeper Setup you must have 3 Ethernet Devices Installed.
Only one of the devices (Management Port) will have an IP Address bound to it.
You must assign a different device to each port.

Correctly installed Ethernet devices.
Eth0 - MAC:00:97:90:AA:AA:AA
Eth1 - MAC:00:08:C7:BB:BB:BB
Eth2 - MAC:00:08:C7:CC:CC:CC
```



1. Device Name for first bridging interface (H-Help) <eth0>: <enter>
2. Device Name for management port (Middle) (H-Help) <eth1>: <enter>
3. Device Name for first bridging interface (H-Help) <eth2>: <enter>

4. Port Numbers for Filtering:
Use '|' as separator, (H-Help) <80|3128|8080> : <enter>

5. Client IP Address configuration settings:

IP Address for management port: (H-Help) <xxx.xxx.xxx.xxx>: 192.168.10.251

6. Host Name for management port: (H-Help) <contentkeeper> : <enter>

7. Management Port Netmask: (H-Help)<255.255.255.0> : <enter>

8. Use Proxy (H-Help) <No> : <enter>

9. Gateway IP Address (H-Help) <xxx.xxx.xxx.xxx> : 192.168.10.254

10. DNS IP Address (H-Help) <xxx.xxx.xxx.xxx> : 192.168.10.254

11. Domain Suffix (H-Help) <mycompany.com> : <enter>

Network Address: 192.168.10.0
Broadcast Address: 192.168.10.255

Now, you will be asked about Customer Details. Although, you are running an evaluation product, you should add your details, unless you don't want to install everything again, when deciding to use to product.

Customer Details:

Your ContentKeeper Administrator's Name: _____
Your ContentKeeper Billing Contact Name: _____
Your Company Name: _____
Your Address 1: _____
Your Address 2: _____
Your City: _____
Your State: _____
Your Zip Code: _____
Your Country: _____
Your Telephone: country code: <49 - Germany> _____
Your Telephone area code: _____
Your Telephone number: _____
Your Fax number: _____
Your Email Address: _____

ContentKeeper is now complete. Press enter to continue <enter> : <enter>



Please wait, Updating ContentKeeper Configuration

```
*****
* Please remove the CD from the CDROM drive when it ejects! *
* Press any key to reboot the server now *
*****
```

The Server will now eject the CDROM and restarts. Please make sure you have CD removed before computer restarts.

When server has been restarted you will have a status screen like this

Content Keeper – Version No: 1179, Version Date: 27-Feb-2003 Copyright (C) , ContentKeeper Technologies, Canberra, Australia			
Contentkeeper 192.1168.10.151 0080C7BBBBBB Sat Apr 5 06:12:16 2003			
Reg. ID:	XX-XXX-XXXXX	RX bytes (eth0):	0 Kbits/sec
Company:	rainer	RX packets (eth0):	0 Packets/sec
Date:	06-Apr-2003 (GMT)	RX bytes (eth2):	0 Kbits/sec
		RX packets (eth2):	0 Packtes/sec
Contacts:-			
Technical:	Rainer Bemsel	Mem/Swap install:	628.5MB / 1026.2MB
Billing:	Rainer Bemsel	Mem/Swap usage:	97.4MB / 0.0 MB
Address:	<Streetname>	CPU load/Threads:	0.05 / 9
	<Address 1>		
	<Address 2>	Failed Connections:	0
	<State><Zip>	Machine Uptime:	0 Days, 00:12:24
	<Country>	Process Uptime:	0 Days, 00:11:21
		DB-Status:	28.0%
Phone:	<phone number>	License Type:	Full
Fax:	<fax number>	Time Left:	364 Days, 23:48:39

Well, this is pretty much the installation itself. To fill the database, you will have to allow the device updating. This took with DSL 768kb around 55 minutes. To verify, that updating is in progress, just watch the DB-Status. This will change until it reaches 100%. During the database update, I only have Management port attached, so you won't see any traffic on eth0 and eth2, which are my two bridging interfaces.

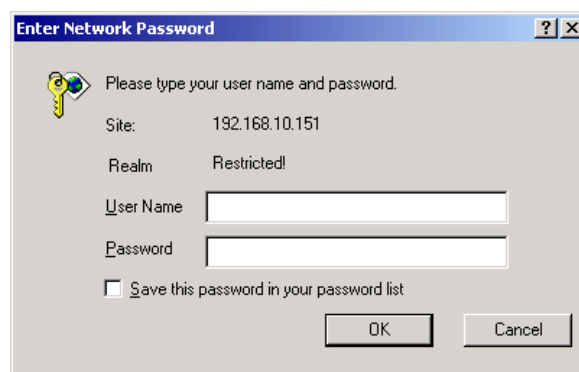


Based on this configuration, my ContentKeeper Appliance is already blocking sites, by default. In this example, a pornography related website is blocked.



Attach Management Port and log on to the WBI (Web Interface)

To access the appliance with a browser type as URL: `http://<ip address of your ContentKeeper Appliance>`. You will be requested to add your user name and password.



Default User Name: **admin**

Default Password: **ck2001**

Note: Make sure, first thing you do is to change the password!



Configuration of Content Keeper

When logged in you have the main configuration page. Everything can be done out of this.

Current Status	Restart	Administration	Miscellaneous
Status Information	Restart ContentKeeper	Change Administration Password	Registration Details
Current Internet Activity	Reboot ContentKeeper Appliance	View/Edit Reclassified URLs	Set/Adjust Date and Time
Current Blocking Activity	Stop ContentKeeper	Block URLs in Control List	ContentKeeper Agent
View/Download Report Logs	Shutdown ContentKeeper Appliance	Unblock URLs in Control List	Appliance Configuration Settings
Webalizer Reports		ContentKeeper Backups	
Blocking Criteria	General Settings	Operational Settings	Authentication
Create & Edit Policies	General Parameters	Management Port Proxy Settings	Site/Domain Authentication
Display Policies	Excluded/Included IP Addresses	High Availability Module (H.A.M)	Local Groups
Category Aliases	Blockpage Customisation	URL Reclassification Settings	Departmental Report Setup
	Username Resolution	Bridge Device Settings	

[Back](#) [About](#) [Logout](#)

Basic Configuration Steps:

1. Change admin password

To change admin password, go to **ADMINISTRATON** on the main screen and click on **CHANGE ADMINISTRATION PASSWORD**

Change ContentKeeper Administration Password

Enter New Password	<input type="password"/>
Enter New Password Again	<input type="password"/>
<input type="button" value="Save"/>	



2. Synchronize time with your management station

For proper time logging you can synchronize the ContentKeeper Appliance with the exact timing of your management station. To do so, go to [MISCELLANEOUS](#) on the main screen and click on [SET/ADJUST DATE AND TIME](#)

Set/Adjust ContentKeeper Date and Time

Local Time on the computer you are browsing from.

06-Apr-2003 10:15:30

Time on ContentKeeper appliance.

06 Apr 2003 09 : 15 : 47

Select **Update** after adjusting time manually (see above fields)

OR

Select **Synchronize** to set ContentKeeper appliance time to match local time
(The time on computer you are browsing from)

Update

Synchronize

Refresh

3. Maintain and Create ContentKeeper Local User

This feature allows users to access the requested URL, once they have authenticated. In the case of IT administration or Web Research, you may need to access to a classified URL, you will have to authenticate in order to access the website, i.e., www.playboy.com is classified and all your users are blocked, but by authenticating, you will be able to access www.playboy.com. To create and/or disable a specific user go to [AUTHENTICATION](#) on main screen and click on [SITE/DOMAIN AUTHENTICATION](#)

This makes certain categories available to be browsed by authenticated users.

For example, I'd like to browse to a website, which has been set to authenticate. Usually, this website is blocked by ContentKeeper. In the notification window of ContentKeeper, you will have the possibility to authenticate. When authentication was successful, you will be redirected to this website.



Site/Domain Authentication

Authenticate Against	Local Users ▾
Authentication Period	Browser Session ▾

Save

Select **Clear** to remove and clear all Authentication Tokens.
This will force all users to re-authenticate on all previously authenticated sites!

ContentKeeper Local Users

Index	UserName	Password	Mode
1	user	*****	Disable ▾
2	rbemsel	*****	Enable ▾
3			Enable ▾
4			Enable ▾
5			Enable ▾
6			Enable ▾
7			Enable ▾

Save

In future versions of ContentKeeper you will be able to use this feature to specify whether user authentication is against the Local User Database, a domain based directory service or various network authentication mechanisms, e.g., Radius or LDAP.

Content Keeping and Reporting:

To describe all the possibilities, this document may be overloaded. The administrator Guide is around 170 pages and provides a great description on every possibility. You can download the guide on <http://www.contentkeeper.com> under documentation.

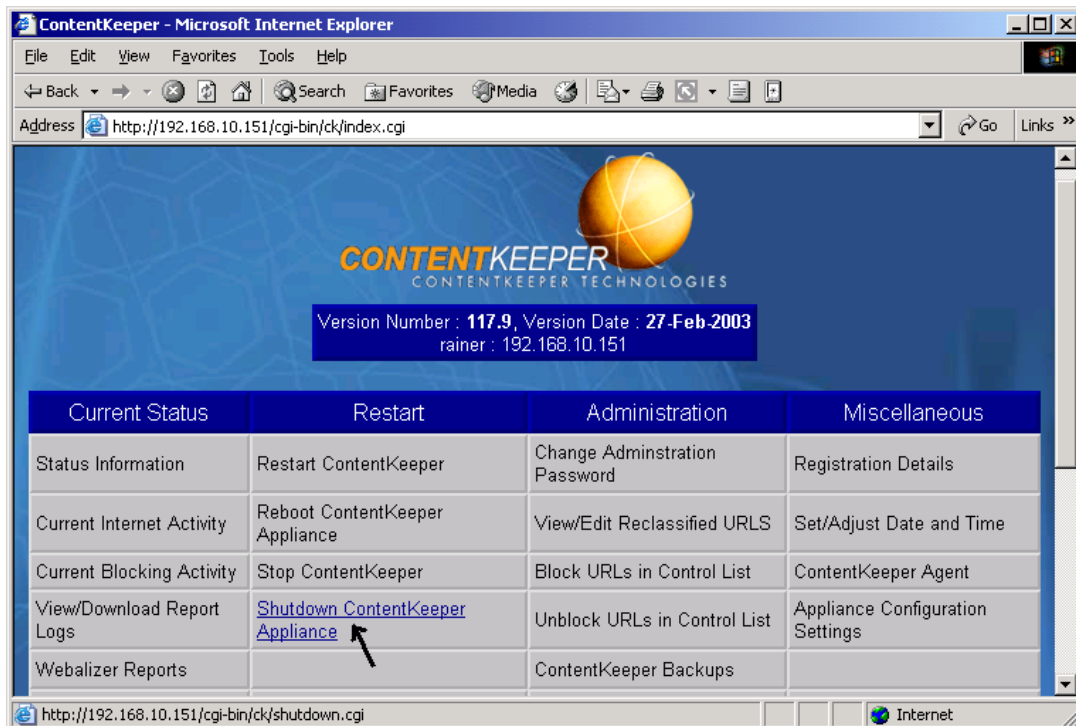


Stopping ContentKeeper:

You can stop ContentKeeper using the Webinterface or on console login.

Using Web Interface

Logon to ContentKeeper Appliance and go to **RESTART** on main screen and select **SHUTDOWN CONTENTKEEPER APPLIANCE**



Using Console

1. <shift> - q
2. login as root (default password: ck2001)
3. halt

Well that's pretty much everything for a basic installation and have your network environment already protected. The installation could be done within 30 minutes.

