



BitNinja Integration

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Virtuozzo International GmbH

Vordergasse 59

8200 Schaffhausen

Switzerland

Tel: + 41 52 632 0411

Fax: + 41 52 672 2010

<https://virtuozzo.com>

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CHAPTER 1

Integration Overview

In this document, when we refer to BitNinja integration, we are referring to the ways in which a cloud provider can make the BitNinja Full-Server Protection Service available on their Billing Platform marketplace.

The installation of the BitNinja Full-Server protection software itself to protect a workload is very simple, it's just a one-line installation step which we will also describe.

Our goal is to help cloud providers drive consumption, by simplifying how the end user can purchase the BitNinja Solution Software and offer it as a service on the cloud provider's Billing/Marketplace platforms integrated with our solutions (VHI, VHS and OnApp).

We will discuss the following methods:

- WHMCS's BitNinja Marketplace module (Free).
- HostBill's BitNinja Marketplace module (Available with the "All inclusive" HostBill License or the developer addon \$99 one-time purchase).

WHMCS and HostBill are billing platforms which also offer leverage a marketplace where the cloud provider can create VPSs packages or sell additional services. We recommend using the available modules for WHMCS and HostBill.

This guide will provide a basic overview of the BitNinja solution, enumerate minimum system requirements for the workloads to be protected, and will walk you through the different integration methods. We will also look at the limitations, available support, and documentation for the BitNinja Full-stack server protection on Virtuozzo Hybrid Infrastructure.

CHAPTER 2

What is BitNinja?

BitNinja is an easy-to-use, security-as-a-service modular and multi-layered server security defense tool. It protects your server from hackers, botnets, attackers, and malicious activities with minimal effort and maintenance required from your side.

BitNinja's modular security approach, means that each module is designed to prevent, identify and mitigate different types of attacks (or intrusions) in order to keep your servers Safe. Once the BitNinja agent is installed on the workload you wish to protect, BitNinja will actively monitor your incoming and outgoing network traffic, and defend your Servers against already known attacking IPs found in their large IP Reputation pool containing millions of these addresses, and badly behaving new ones.

The BitNinja agent also has a Malware Scanner module for detecting already existing infected files on the installed server. BitNinja is also equipped with a WAF module for stopping incoming attacks directed at known vulnerabilities in Web Applications, for example, SQL injections, remote and local file inclusions and other attacks.

These are just a few of the modules that BitNinja uses to defend your servers against hackers. You can find all of their available modules listed on their documentation page here:

<https://docs.bitninja.io/docs/modules/sqlcleaning/>.

CHAPTER 3

SECaaS Service Offering with WHMCS BitNinja Module

3.1 Downloading Module

The WHMCS module can be downloaded from [here](#) or using the following command:

```
# wget https://downloads.bitninja.io/BitNinja_plugin_for_whmcs.zip
```

3.2 Activating Module WHMCS

1. Once the module has been downloaded unzip the module to your “/{user}/modules/” directory:

```
# unzip BitNinja_plugin_for_whmcs.zip
```

2. This will unzip all the contents to “/{user}/modules/servers/bitninja”.
3. Copy the contents from the previous directory to your content directory, e.g.:

```
# cp -r /{user}/modules/servers/bitninja/ /var/www/html/modules/servers/bitninja
```

3.3 Creating BitNinja Product and Service

In order to create the new Product/Service you will need to first get your API Key from [reseller.bitninja.io](#). Login with your user account generate the Key. This API Key will be used in the next step along with your reseller e-mail account.

BITNINJA
RESELLER PANEL

Users
License Keys
Servers
Preferences
Payment
Partner Kit
API

API

[GENERATE NEW API KEY](#)

With API you are able to integrate your existing services with BitNinja Reseller Panel. You can register a customer, list all your customers, list all your servers or by customer, list all your licenses, attach license to a server, detach license from a server, detach a customer (only available from API at the moment), get installation instructions for a customer.

In order to use API, you have to generate API key on the Reseller Panel. Once you've generated API key, it will no longer be available from Reseller Panel, but you can generate a new one anytime. Every API call works only by sending access token in request header.

For documentation of API endpoints click [here](#)

Usage

```
curl -X POST "https://reseller-api.bitninja.io/oauth/access_token" \  
  -F "grant_type=client_credentials" \  
  -F "client_id=your@loginemail.com" \  
  -F "client_secret=api_key"
```

1. In order to add a new product go to **Setup (spanner icon) > System Settings > Servers > Create a new Server:**

- *Module* - Choose the BitNinja Module
- *Hostname* - api.bitninja.io
- *Username* - the e-mail account used to

[Go to Advanced Mode](#)

Module BitNinja Server Security ▾
Choose the control panel the server uses

Hostname or IP Address api.bitninja.io
Used to connect to your servers API

Username reseller-email@yourcompar

Password

Access Hash

[Test Connection »](#) [Continue Anyway](#)

2. To add a new Product Group go to **Setup (spanner icon) > System Settings > Products/Services > Create new Group:**

Products/Services
Create Group

Product Group Name BitNinja Full-Stack Server Protection

URL http://whmcs-support.onappdev.com/index.php?r=store/bitninja-full-stack-server-protection This URL is already used.

Product Group Headline Select Your Perfect Plan

Product Group Tagline eg. With our 30 Day Money Back Guarantee You Can't Go Wrong!

Group Features You must save the product group for the first time before you can add features

Order Form Template

Available Payment Gateways ☒ Bank Transfer

Hidden ☐ Check if this is a hidden group

[Save Changes](#) [Cancel Changes](#)

3. Now create each one or more Products by going to **Setup (spanner icon) > System Settings > Products/Services > Create new Product:**

- Fill in the *Details* information for your product.

Products/Services

Edit Product

Details Pricing Module Settings Custom Fields Configurable Options Upgrades Free Domain Other Links

Product Type: Other

Product Group: BitNinja Full-Stack Server Protection

Product Name: BitNinja for VHI (from 0 to 1 users)

URL: <http://whmcs-support.onappdev.com/index.php?r=store/bitninja-full-stack-server-protection/bitninja-for-vhi>

Product Description:
 You may use HTML in this field

 New line
 Bold Bold
 Italic Italic

Welcome Email: Other Product/Service Welcome Email

Require Domain: ☐ Check to show domain registration options

Stock Control: ☐ Enable - Quantity in Stock: 0

Apply Tax: ☐ Check to charge tax for this product

Featured: ☐ Display this product more prominently on supported order forms

Hidden: ☐ Check to hide from order form

Retired: ☐ Check to hide from admin area product dropdown menus (does not apply to services already with this product)

Save Changes Cancel Changes

- Add Pricing

Products/Services

Edit Product

Details Pricing Module Settings Custom Fields Configurable Options Upgrades Free Domain Other Links

Payment Type: ☐ Free ☐ One Time ☒ Recurring

Currency	One Time/Monthly	Quarterly	Semi-Annually	Annually	Biennially	Triennially
EUR	Setup Fee					
	Price					
	Enable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
USD	Setup Fee	0.00				
	Price	15.00				
	Enable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Allow Multiple Quantities: ☒ No
☐ Yes - Multiple Services: Each unit represents its own individual service instance
☐ Yes - Scaling Service: Each service instance allows a quantity to be defined

Recurring Cycles Limit: 0 To limit this product to only recur a fixed number of times, enter the total number of times to invoice (0 = Unlimited)

Auto Terminate/Fixed Term: 0 Enter the number of days after activation to automatically terminate (eg. free trials, time limited products, etc...)

Termination Email: None Choose the email template to send when the fixed term comes to an end

Prorate Billing: ☐ Check to enable

Prorate Date: 0 Enter the day of the month you want to charge on

Charge Next Month: 0 Enter the day of the month after which the following month will also be included on the first invoice

Save Changes Cancel Changes

- Also configure the *Module Settings* to define at what point the product is setup.

Products/Services

Edit Product

Details Pricing Module Settings Custom Fields Configurable Options Upgrades Free Domain Other Links

Module Name: BitNinja Server Security

Server Group: None

☐ Automatically setup the product as soon as an order is placed

☐ Automatically setup the product as soon as the first payment is received

☒ Automatically setup the product when you manually accept a pending order

☐ Do not automatically setup this product

Save Changes Cancel Changes

4. Now your new service will be available on the service portal for the end-users

BitNinja Full-Stack Server Protection

BitNinja for VHI (from 0 to 1 users)

\$15.00/mo

Order Now

BitNinja for VHI (from 2 to 40 users)

\$30.00/mo

Order Now

BitNinja for VHI (from 41 to 250 users)

\$45.00/mo

Order Now

BitNinja for VHI (250+ Users)

\$60.00/mo

Order Now

Powered by WHMCompleteSolution

CHAPTER 4

SECaaS Service Offering with HostBill BitNinja Module

HostBill is a web-based billing and invoicing solution that can be integrated with any of our Solutions (VHS, VHI, OnApp). Thanks to the HostBill BitNinja module you can start reselling BitNinja licenses, either as a separate product or as a sub-product to your existing hosting services. This section aims to explain how a cloud provider can configure the BitNinja module on HostBill.

4.1 Activating Module HostBill

The module is included with the “All Inclusive” HostBill License. If this is the case you can download it from your client portal. Alternatively, you can purchase the module from HostBill’s market place (one-time fee **\$99**).

After downloading the module, extract the module in the main HostBill directory then go to **Settings > Modules > Hosting Modules** and activate the BitNinja module.

4.2 Connecting HostBill to BitNinja

In order to add the new service, you will need your reseller API key and your reseller e-mail address. You can obtain your API key from your reseller panel by clicking generate API key.

BITNINJA
RESELLER PANEL

Users
License Keys
Servers
Preferences
Payment
Partner Kit
API

API

[GENERATE NEW API KEY](#)

With API you are able to integrate your existing services with BitNinja Reseller Panel. You can register a customer, list all your customers, list all your servers or by customer, list all your licenses, attach license to a server, detach license from a server, detach a customer (only available from API at the moment), get installation instructions for a customer.

In order to use API, you have to generate API key on the Reseller Panel. Once you've generated API key, it will no longer be available from Reseller Panel, but you can generate a new one anytime. Every API call works only by sending access token in request header.

For documentation of API endpoints click [here](#)

Usage

```
curl -X POST "https://reseller-api.bitninja.io/oauth/access_token" \  
  -F "grant_type=client_credentials" \  
  -F "client_id=your@loginemail.com" \  
  -F "client_secret=api_key"
```

Go to **Settings > Apps > Add new App** then from applications list select BitNinja. You will need to provide the following information:

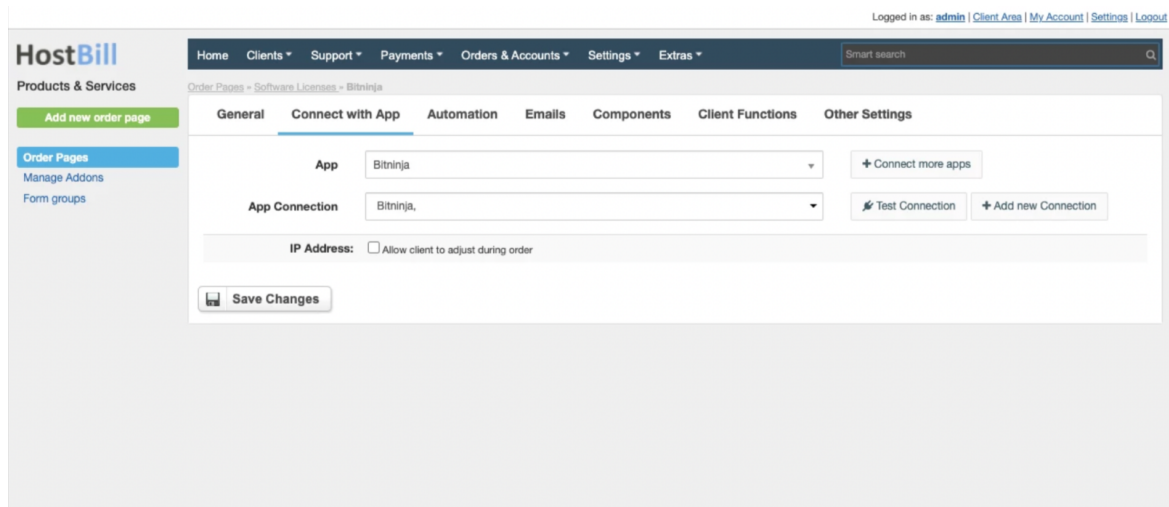
1. *Name* - name of this connection.
2. *Username* - reseller email address from the BitNinja reseller panel.
3. *API KEY* - API Key generated from the BitNinja reseller panel.

The screenshot shows the HostBill web interface. At the top, there's a navigation bar with links: Home, Clients, Support, Payments, Orders & Accounts, Settings, and Extras. A user is logged in as 'admin'. The main content area is titled 'Apps Connections' and 'Add new Connection'. It features a form with the following fields: 'Application' (a dropdown menu currently showing 'Bitninja'), 'Name' (a text input field), 'Username' (a text input field), and 'API Key' (a text input field). To the right of the 'Name' field is a 'Test Configuration' button. Below these fields is a 'Monthly Costs' section with a text input field. At the bottom of the form are two buttons: 'Add new Connection' (in blue) and 'Or Cancel' (in red).

4. Verify the connection by clicking *Test Configuration*.
5. Save the changes.

4.3 Adding New BitNinja Service (Product)

1. Now we will create a new service, go to **Settings > Products & Services**, and **Add new order Page**. From **Order Types** select **Other**. After Creating the order page, you can now add a new product. Provide a name and make sure to save the changes.
2. In the product configuration section proceed to Connect with App, make sure you select the BitNinja module and App server created in the previous steps.
3. Mark the "Allow Client to adjust during order" next to "IP Address". This will allow the user to provide an IP address which will be associated with a license later on. To use the BitNinja product as a subproduct check <https://hostbill.atlassian.net/wiki/spaces/DOCS/pages/377553192/Sub-products>.



4. Click on save changes.

4.4 Configuring Client Functions

In **Products & Services > Your Order Page > Your Product > Client Functions** you can control what features the customer will have access to in the client portal, by clicking **Enable/Disable** next to the given option. Use the **Edit** button to adjust function appearance in the client portal.

For more information about [standard client functions](#).

CHAPTER 5

BitNinja Full-Stack Server Protection Agent Requirements

The following section describes, what are the minimum requirements needed for the BitNinja agent, what Operating Systems are supported and also information about required ports for BitNinja and compatibility matrix for the interoperation of BitNinja with other tools in the market. We will also look at how to protect a workload by installing the BitNinja Full-stack server protection agent.

5.1 System Requirements

Minimum server requirements for the flawless operation of BitNinja.

- RAM: 512 MB
- Dual-core: CPU or 2vCPUs
- Storage: 1024 MB
- Internet Access

Note: The information above refers to the minimum number of resources used by BitNinja agent on the installed resource. When sizing your instances plan for (Number of resources needed by your services) + (Number of resources needed by BitNinja).

For more up-to-date information please check:

https://doc.bitninja.io/docs/Installation/system_requirements#hardware-requirements.

5.2 Software Requirements

BitNinja supports most modern Linux distributions. They have packages for .deb and .rpm-based Linux systems and do automatic testing for the following distributions:

- CentOS 6 64 bit
- CloudLinux 6
- Debian 6 64 bit
- Debian 7 64 bit
- Ubuntu 14 64 bit

BitNinja is also compatible with these Linux distributions:

- CentOS 7 and up
- CloudLinux 7 and up
- Debian 8 and up
- RedHat 6 and up
- Ubuntu 15 and up
- AlmaLinux 8.4 and up
- VzLinux 7 and up

For more up-to-date information please check:

https://doc.bitninja.io/docs/Installation/system_requirements#software-requirements.

5.3 Package Dependencies

Refer to the official documentation:

https://doc.bitninja.io/docs/Installation/system_requirements#package-dependencies.

5.4 Virtual Server Port Requirements

Some BitNinja modules require certain ports to be open on the server and on the firewall in front of the server (if there is one). The ports need to be open for both inbound and outbound connections. The following port numbers are the default values.

Protocol	Port	BitNinja module(s)
TCP	60412	CaptchaHttp, CaptchaSmtP
TCP	60413, 60418*	CaptchaHttps
TCP	25	CaptchaSmtP
TCP	60201	CaptchaSmtP
TCP	60210	CaptchaFtp (active)
TCP	60211-60250	CaptchaFtp (passive)
TCP	60300	WAF HTTP
TCP	60301	WAF HTTPS
TCP	60414, 60415	SslTerminating
TCP	60416	TrustedProxy HTTP
TCP	60417	TrustedProxy HTTPS

Note: Port 60418 is only required for the CaptchaHttps service if you are using cPanel/WHM. Otherwise, it's not required.

Note: The web server has to accept connections from 127.0.0.1 to `http://<server_ip>:80` and to `https://<server_ip>:443` in order for the WAF module to work.

5.5 Software Compatibility Matrix

BitNinja Software interoperability and compatibility matrix

<https://doc.bitninja.io/docs/Installation/compatibility>.

CHAPTER 6

Installing BitNinja Agent

Once the end-user has purchased the BitNinja License, they only need to run a one-line command to install the BitNinja agent.

Overview

BitNinja is a general purpose security-as-a-service server defense tool powered by a social defense system and many active defense modules. Its main purpose is to protect your server with less effort and maintenance from you. BitNinja does its job silently in the dark and using powerful tools. BitNinja fights against hackers, botnets, attackers, and malicious activities. All of the Ninja servers form a huge honey farm to collect and analyze attacks from different botnets and then use this knowledge to form an even harder shield for all the Ninja servers.

Installation Instructions

1. Log in to your server as root
2. Run the following command

```
curl https://get.bitninja.io/install.sh | /bin/bash -s -- --license_key=0
```

Product Details

Registration Date	Tuesday, June 21st, 2022
Product/Service	VHI - BitNinja for VHI
IP Address	185.209.82.166
Payment Method	Bank Transfer
First Payment Amount	\$10.00 USD
Recurring Amount	\$10.00 USD
Next Due Date	Tuesday, June 21st, 2022
Billing Cycle	Monthly
Status	Active

Fig. 6.1: Example WHMCS BitNinja service view.

Installation starts, it takes approximately one minute to finish.

1 Install BitNinja



You can easily install BitNinja by following the instructions of our universal installer script. To install BitNinja on your server, copy this one line and run it on your server as root.

Copy

```
# curl https://get.bitninja.io/install.sh | /bin/bash -s - --license_key=
```

See BitNinja system requirements [here](#).



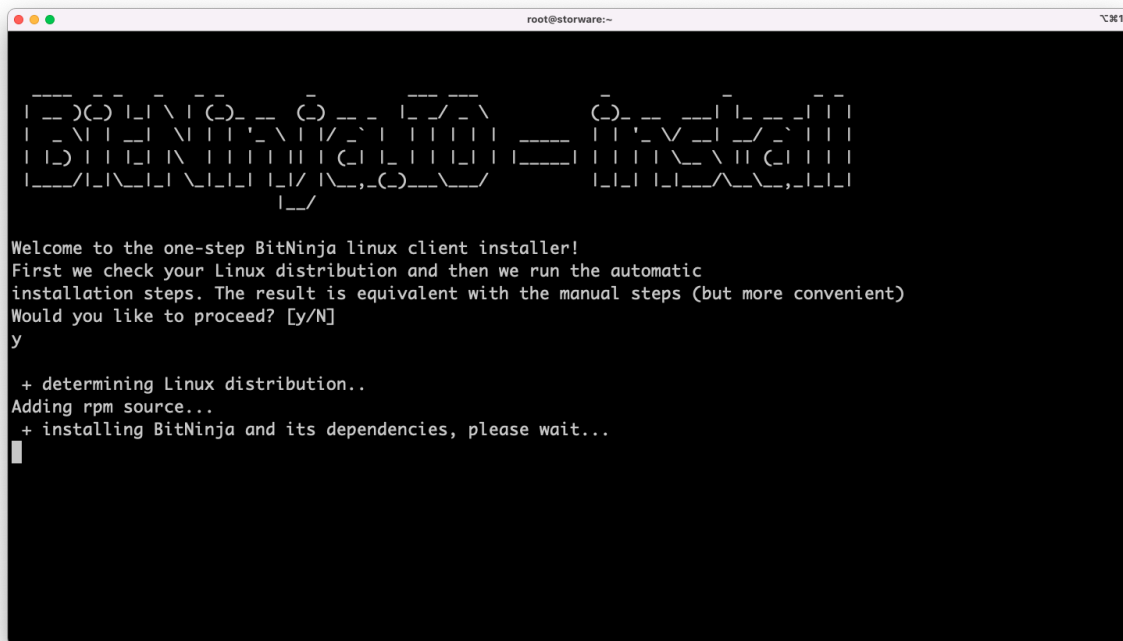
Waiting for agent heartbeat...

2 That's it!

In a few minutes your servers will start the defense against botnets and many other online threats. Your server will be listed on the page you are currently viewing. If you do not see any servers in a few minutes, or you are having any other issues, we can help:

 [CONTACT SUPPORT](#)

Fig. 6.2: BitNinja Agent installation wizard from the BitNinja Portal.



Once the installation process has finished, the agent will communicate with the BitNinja portal by sending a heartbeat.

```

root@storware:~
+ configuring BitNinja provision key
+ starting BitNinja service

Congratulation! BitNinja protection is enabled on your server.

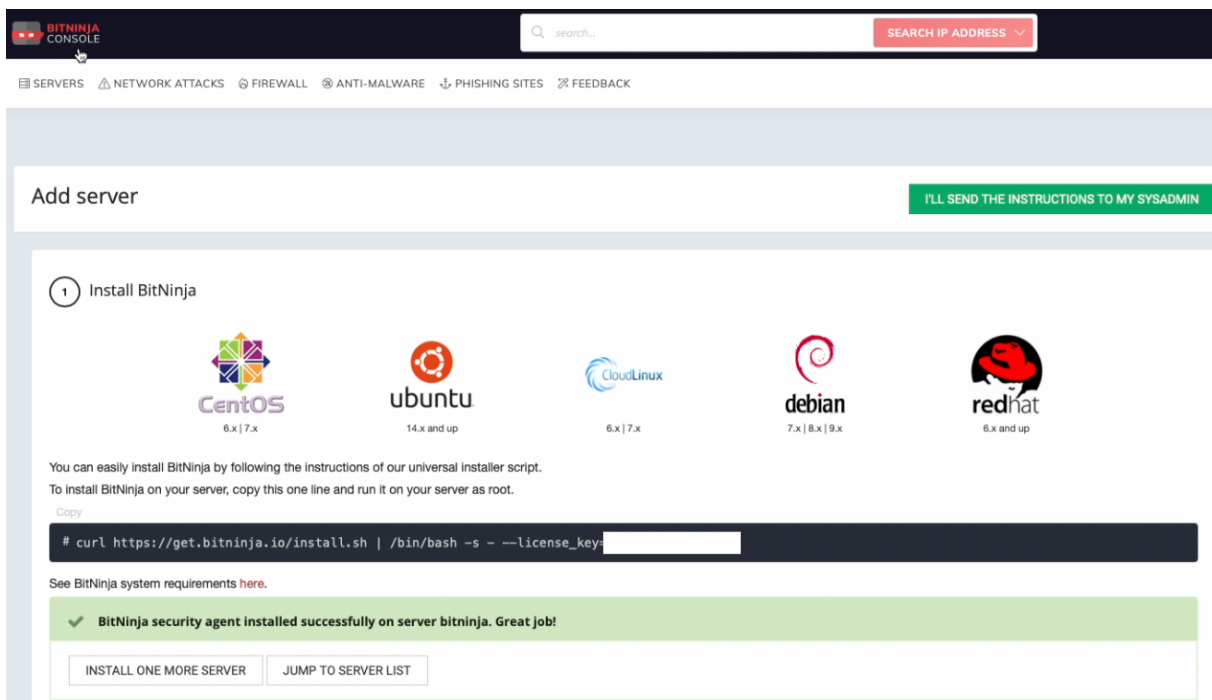
Important! We advise you to run an initial malware scan, this is important for your security.
At this step we will clear backdoors and already installed malwares to reduce the attack vectors.
Would you like to execute this scan after the installation? [y/N]
y

Malware scan scheduled, the process will start automatically.

*****
* Now please switch back to your browser and navigate to/reload the site
* https://admin.bitninja.io
* and this server will appear in your server list.
*
* BitNinja comes with a safe minimum set of protection modules enabled but
* there's a lot more you can enable on the Dashboard to maximize the level
* of the protection.
*
* Have a great hacker hunting!
*****
[root@storware ~]#

```

Now, the workload admin can log in to <https://admin.bitninja.io/site/login> and manage all the available security modules, review logs, perform or schedule malware scans and more. For more info, go to <https://docs.bitninja.io/docs/Modules/SQLCleaning>.



CHAPTER 7

Support and Documentation

- BitNinja CloudFlare integration - <https://doc.bitninja.io/docs/cdnintegration>
- BitNinja CLI - https://doc.bitninja.io/docs/command_line_interface
- Incident Reports explained - <https://doc.bitninja.io/docs/investigations>
- BitNinja Slack integration - https://doc.bitninja.io/docs/slack_integration
- BitNinja Rest API - <https://doc.bitninja.io/docs/REST%20Api/apiv2>
- BitNinja Roadmap - <https://doc.bitninja.io/docs/Roadmap>