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

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

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.
Chapter 3. SECaaS Service Offering with WHMCS BitNinja Module

• **Add Pricing**

<table>
<thead>
<tr>
<th>Currency</th>
<th>One Time/Recurring</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR</td>
<td></td>
</tr>
<tr>
<td>USD</td>
<td></td>
</tr>
</tbody>
</table>

- **Pricing Options**
  - **Price**
  - **Setup Fee**: 0.00
  - **Price**: 15.00

- **Additional Notes**
  - **Multiple Quantities**
  - **Site Limit**

- **Renewal Options**
  - **Renewal**

- **Charge Next Month**

- **Auto Termination**
  - **Check to Enable**

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

4. Now your new service will be available on the service portal for the end-users.
## BitNinja Full-Stack Server Protection

<table>
<thead>
<tr>
<th>Plan Description</th>
<th>Price per Month</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>BitNinja for VHI (from 0 to 1 users)</td>
<td>$15.00</td>
<td>Now</td>
</tr>
<tr>
<td>BitNinja for VHI (from 2 to 40 users)</td>
<td>$30.00</td>
<td>Now</td>
</tr>
<tr>
<td>BitNinja for VHI (from 41 to 250 users)</td>
<td>$45.00</td>
<td>Now</td>
</tr>
<tr>
<td>BitNinja for VHI (250+ Users)</td>
<td>$60.00</td>
<td>Now</td>
</tr>
</tbody>
</table>

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.
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.
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.

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Port</th>
<th>BitNinja module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP</td>
<td>60412</td>
<td>CaptchaHttp, CaptchaSmtp</td>
</tr>
<tr>
<td>TCP</td>
<td>60413, 60418*</td>
<td>CaptchaHttps</td>
</tr>
<tr>
<td>TCP</td>
<td>25</td>
<td>CaptchaSmtp</td>
</tr>
<tr>
<td>TCP</td>
<td>60201</td>
<td>CaptchaSmtp</td>
</tr>
<tr>
<td>TCP</td>
<td>60210</td>
<td>CaptchaFtp (active)</td>
</tr>
<tr>
<td>TCP</td>
<td>60211-60250</td>
<td>CaptchaFtp (passive)</td>
</tr>
<tr>
<td>TCP</td>
<td>60300</td>
<td>WAF HTTP</td>
</tr>
<tr>
<td>TCP</td>
<td>60301</td>
<td>WAF HTTPS</td>
</tr>
<tr>
<td>TCP</td>
<td>60414, 60415</td>
<td>SslTerminating</td>
</tr>
<tr>
<td>TCP</td>
<td>60416</td>
<td>TrustedProxy HTTP</td>
</tr>
<tr>
<td>TCP</td>
<td>60417</td>
<td>TrustedProxy HTTPS</td>
</tr>
</tbody>
</table>

**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

CHAPTER 6

Installing BitNinja Agent

Once the end user has purchased the BitNinja License, all he needs to do is to run a one-line command which will 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

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Date</td>
<td>Tuesday, June 21st, 2022</td>
</tr>
<tr>
<td>Product/Service</td>
<td>VHI - BitNinja for VHI</td>
</tr>
<tr>
<td>IP Address</td>
<td>185.209.82.166</td>
</tr>
<tr>
<td>Payment Method</td>
<td>Bank Transfer</td>
</tr>
<tr>
<td>First Payment Amount</td>
<td>$10.00 USD</td>
</tr>
<tr>
<td>Recurring Amount</td>
<td>$10.00 USD</td>
</tr>
<tr>
<td>Next Due Date</td>
<td>Tuesday, June 21st, 2022</td>
</tr>
<tr>
<td>Billing Cycle</td>
<td>Monthly</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

Fig. 6.1: Example WHMCS BitNinja service view.

Installation starts, it takes approximately 1 minute to finish.
Chapter 6. Installing BitNinja Agent

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.

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

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.
Now the workload admin can login to https://admin.bitininja.io 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