Barracuda

Solution Brief

Deploying the Barracuda Web Application Firewall with the New Vulnerability Remediation Service

Web Application vulnerabilities have become the proverbial punching bag of the internet. A Verizon report found that 35% of security incidents they researched involved web applications—more than any other vector. Unfortunately, web application vulnerabilities have traditionally been difficult to fix and many organizations leave themselves exposed by not correctly securing themselves.

Barracuda's Web Application Firewall is the ideal solution for organizations looking to protect web applications from data breaches and defacement. And now, with the Vulnerability Remediation Service (VRS), it's easier than ever to deploy. This solution brief provides a step-by-step overview of how to use the Vulnerability Remediation Service (VRS) to easily deploy the Web Application Firewall.

There are three steps to deploy the Barracuda Web Application Firewall (WAF) and secure your web applications:

Step 1: Connect WAF to the network

In this step, we assign the WAF an IP address for management and make sure it has access to the Internet as well as to the backend servers it protects. We may also ensure it's running the latest firmware and has the latest security definition updates.

For detailed instructions on how to connect your WAF to the network, please consult the following Campus articles:

- For hardware appliances, see https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/GetStarted1/
- For virtual appliances, see https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/QuickStartGuideVx/
- For AWS instances, see https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/AWSDeployQSG/
- For Azure instances, see https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/DeployInOldAzurePortal/

Once the WAF is connected to the network, connect it to Barracuda Cloud Control as well. This allows you to control your WAF from the cloud, and also allows the Vulnerability Remediation Service to apply policy changes to secure your applications. For detailed instructions, consult the following Campus article: https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/SetUpBCC/

Step 2: Associate backend servers

The Web Application Firewall acts as a reverse proxy for your backend servers—that is, it listens for traffic on the (typically public) IPs that your users access, and forwards traffic to the application servers actually serving the requests. In this step, we tell the WAF which IPs to listen for traffic on and which servers to forward legitimate traffic to.

For detailed instructions on how to create services on your Web Application Firewall, please consult the following Campus article: https://campus.barracuda.com/product/webapplicationfirewall/article/WAF/GetStarted2/

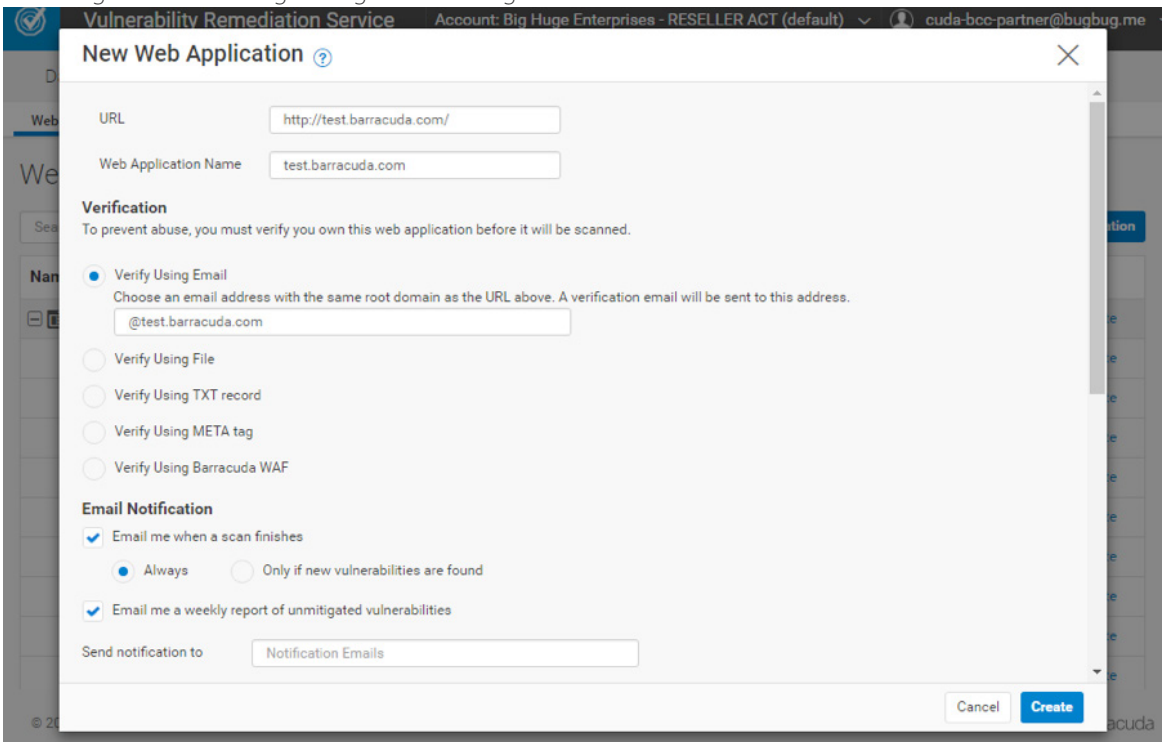
You may initially configure the service you created in Passive Mode, but you must switch it to Active Mode after verifying that the application runs properly. Passive Mode is intended for testing only; in this mode, the Web Application Firewall does not secure your application.

Step 3: Use VRS to scan and remediate vulnerabilities

In this step, we configure the Vulnerability Remediation Service to scan the application and use the scan results to apply security policy changes on the WAF to secure your applications.

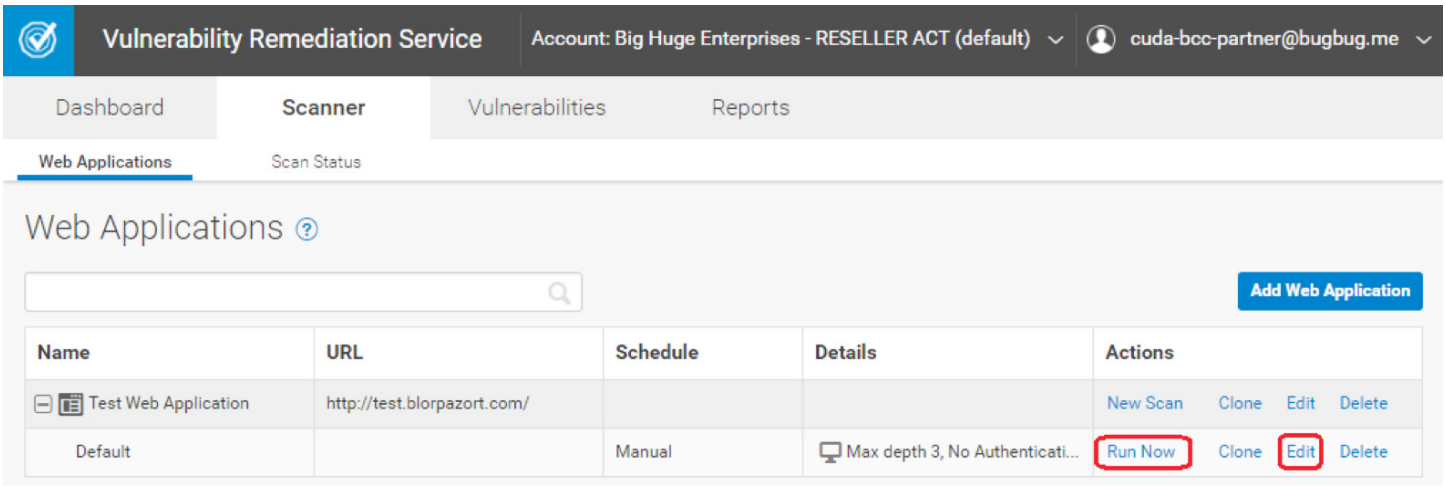
Run a scan of the application

- Log in to the Vulnerability Remediation Service at https://vrs.barracuda.com/. Use the same email and password you used to connect your WAF to Barracuda Cloud Control in step 1.
- Click the blue **"New Web Application"** button to create a new web application.
- Configure the following settings in the dialog:



- Enter the publicly-accessible URL of your web application.
- Enter a name for the application.
- Under **Verification**, select a method to verify that you are authorized to scan the application. If you already have your Web Application Firewall set up correctly, select "Verify using Barracuda WAF." Otherwise, the easiest method is to specify an email address at the same domain; you will receive a verification email to this address with a link you must click to start the scan. If you do not have email set up, you can use a different verification method.
- Under **Email Notification**, select your email notification preferences.
- Under **Mitigation**, select the Web Application Firewall and Virtual Service that you created in step 2.
- Click **"Create"** to create the web application.

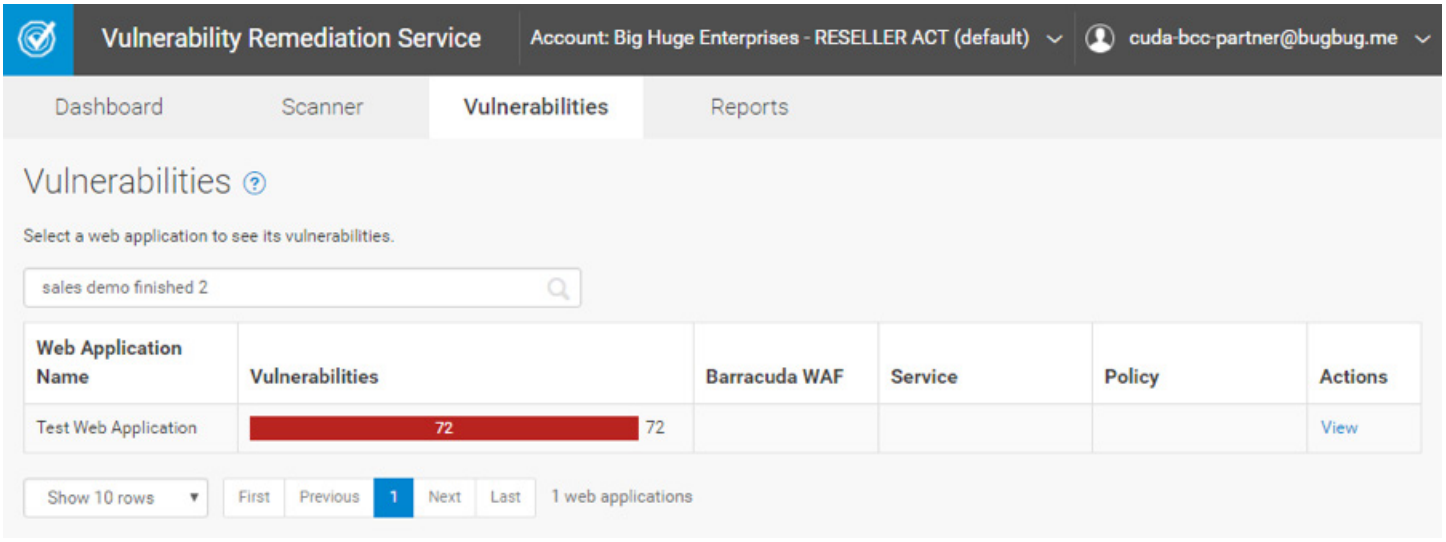
- The Web Applications screen refreshes to show the newly created application, as well as a Default scan. If you would like to edit scan settings, or schedule the scan for a particular time, click Edit on the scan. If you would like to run the scan immediately, click **Run Now**.



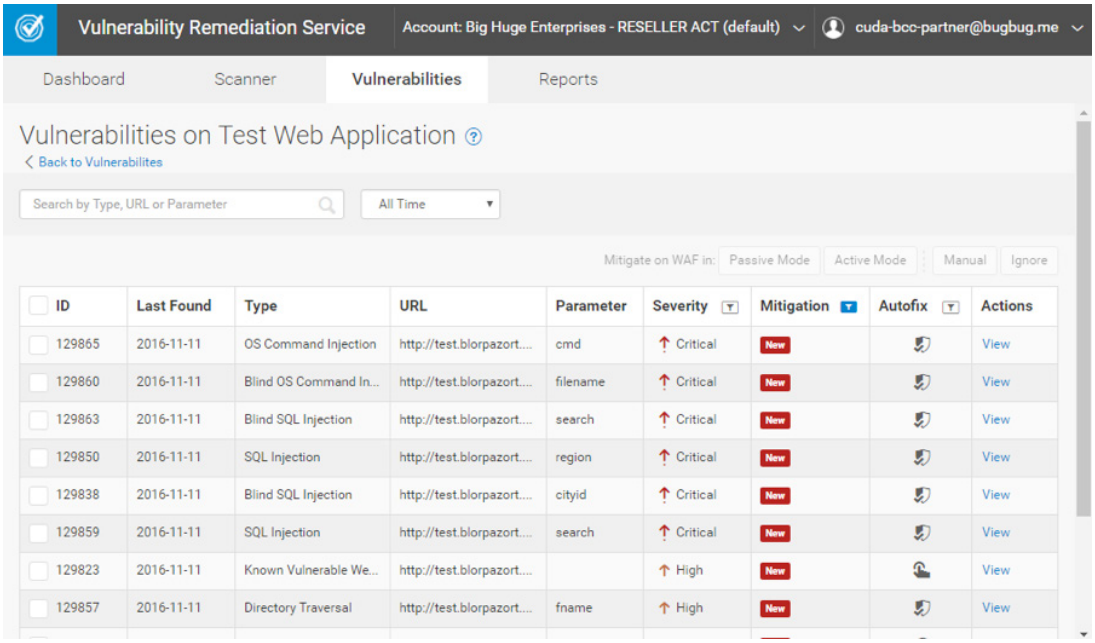
- You can navigate to the Scanner->Scan Status page to track the progress of the scan. If you enabled email notifications when creating the application, you will receive an email when the scan is complete.

Review vulnerabilities on the application

When the scan has completed, log in to VRS and navigate to the Vulnerabilities tab.



Click the name of the web application you created to view vulnerabilities.



Click on a vulnerability to view detailed information, including technical information on how the vulnerability was detected.

Fix vulnerabilities

Once you have reviewed the vulnerabilities, select the checkbox to the left of the ones you wish to fix and click "Mitigate on WAF in/Active Mode" above. Security policy changes will be applied to your Web Application Firewall to mitigate these vulnerabilities.