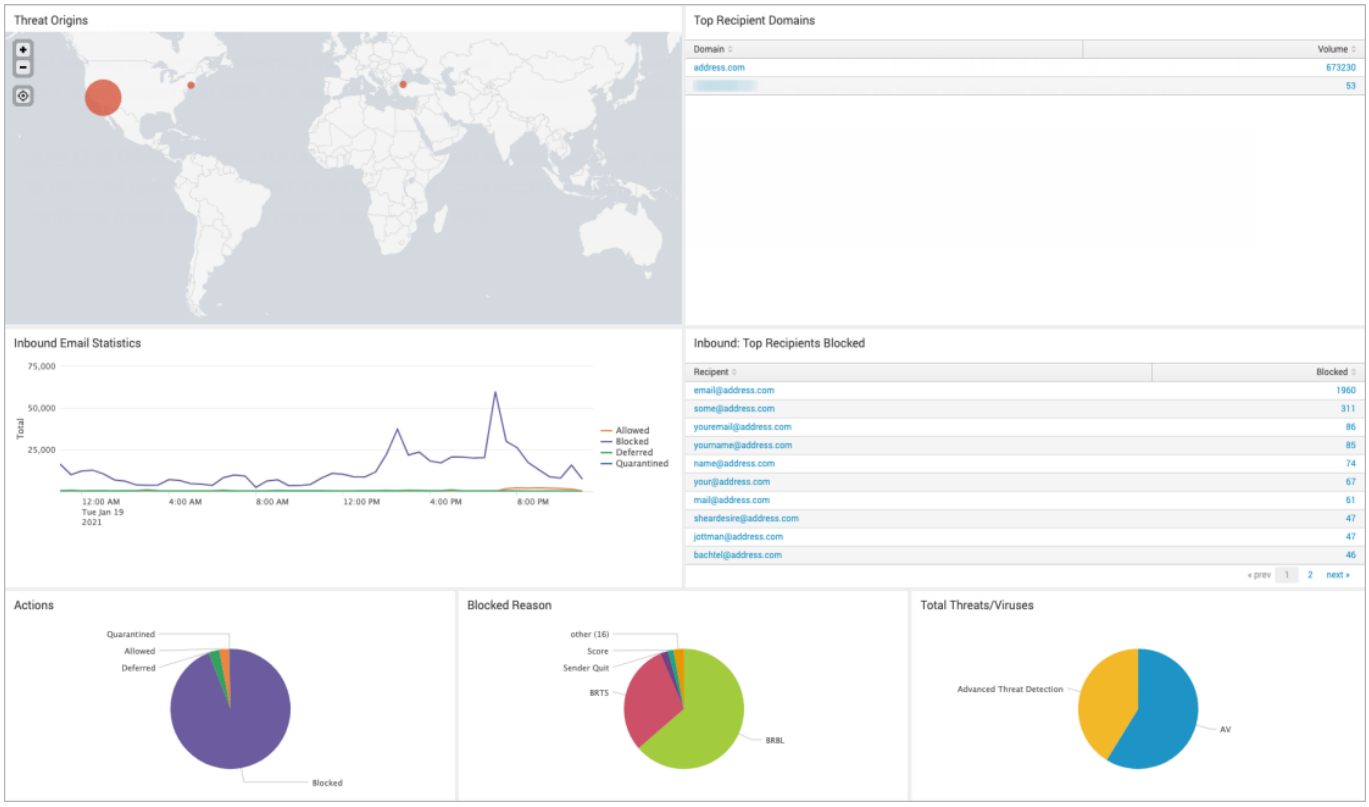
Splunk Integration

https://campus.barracuda.com/doc/96023035/

Note that *Barracuda Email Security Service* and *Email Gateway Defense* are interchangeable in the Campus documentation and Splunk Marketplace user interface for the Barracuda Splunk app.

The Barracuda Splunk app collects data from Email Gateway Defense and utilizes Splunk to provide aggregated and individual visualizations. Administrators can view a number of different metrics, including but not limited to inbound and outbound mail, top sender/recipients, actions taken, and detected threats. Data is imported into Splunk via syslog streaming of the Message log. The Splunk dashboard can be exported to PDF format for easy distribution.



Install the Email Gateway Defense Splunk App

1. Log into your Splunk interface.
2. In the left-hand navigation, click **Find more apps**.
3. Search for *Barracuda*. Once you find *Barracuda Email Gateway Defense*, click **Install**.
4. Log in with your Splunk.com credentials to download the app. If you do not have one, create

one for free here: https://login.splunk.com/.

> Note that you sign into Splunk with your username, not your email address. Your username is configured when you created your Splunk account.

5. Click **Open app**.
   Alternatively, go to `https://<your-splunk-instance>/en-US/app/BarracudaESS/ess`.

Enable the Data Listener

1. Go to **Settings > Data Inputs**.
2. Select **TCP**.
3. Click **Enable**.

Configure Certificates for Syslog and TLS

The Barracuda Splunk app requires you to configure SSL encryption for communication between Barracuda Networks and Splunk.

1. Log into the Splunk server via SSH.
2. Generate the certificate using the following command:
   `sudo /opt/splunk/bin/splunk createssl server-cert -d /opt/splunk/etc/auth -n splunk -c splunk -p`
   - For the PEM passphrase, enter `password`.
   - Hit **Enter** for all the other inputs.
3. Open the following file and add a section for SSL:
   `sudo vim /opt/splunk/etc/apps/BarracudaESS/default/inputs.conf`

   ```
   [SSL]
   serverCert=/opt/splunk/etc/auth/splunk.pem
   password=password
   requireClientCert=false
   rootCA=/opt/splunk/etc/auth/cacert.pem
   ```
4. Restart Splunk using the following command:
   `sudo /opt/splunk/bin/splunk restart`.

Verify Splunk is Listening on the Proper Ports

Verify that the service is listening on the appropriate port using `netstat` or a similar utility.

```
[splunk-user@ip-172-30-22-95 default]$ netstat -tln
```

Active Internet connections (only servers)

Proto	Recv-Q	Send-Q	Local Address	Foreign Address	State
tcp	0	0	0.0.0.0:8088	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:8089	0.0.0.0:*	LISTEN
tcp	0	0	127.0.0.1:25	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:8191	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:8000	0.0.0.0:*	LISTEN
tcp	0	0	127.0.0.1:8065	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:9997	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:111	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:6515	0.0.0.0:*	LISTEN
tcp	0	0	0.0.0.0:22	0.0.0.0:*	LISTEN

Certificate Troubleshooting

Most syslog servers can be configured to check client certificates. Barracuda syslog clients currently use a self-signed client certificate. Thus, if the syslog server validates client certificates, syslog messages can be rejected. To avoid this error, turn off syslog client certificate validation for Email Gateway Defense or add the certificate to a trusted certificate configuration.

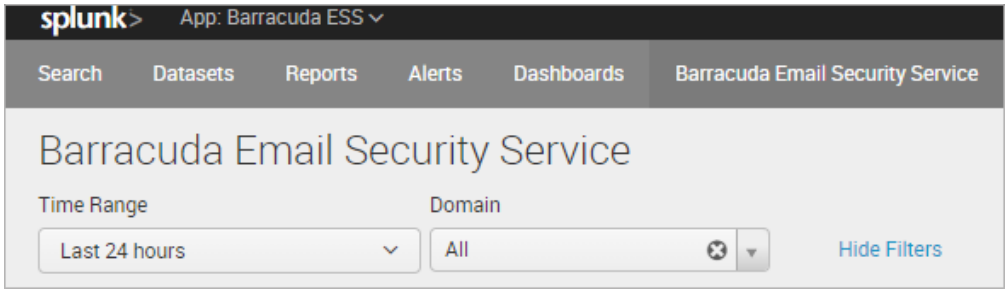
Configure Email Gateway Defense to Send Syslog to Splunk

1. Log into Email Gateway Defense and navigate to the **Account Management** tab.
2. Enter the public IP address of your Splunk instance and port 6515.

For more information, see the Email Gateway Defense Syslog Integration.

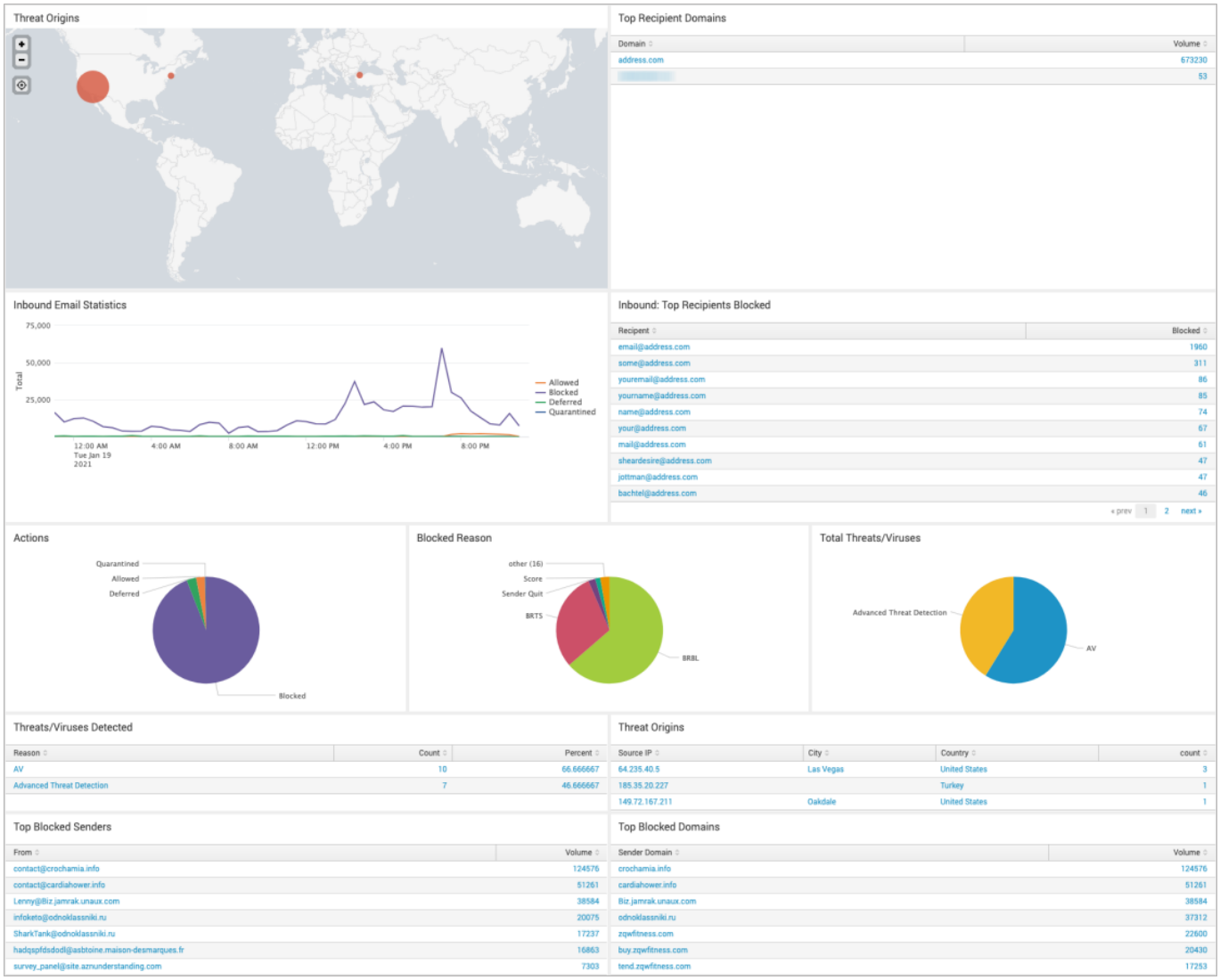
Barracuda Splunk App

Log into Splunk, and click on the Barracuda app on the Splunk dashboard. Select the **Time Range** and **Domain** for the query.



Barracuda Splunk Dashboard

The app allows you to display domain statistics information based on a relative period (i.e. last 30 days) or real-time window (i.e. 1 minute).



Examples of Additional Splunk Queries

Top PTR Records

```
sourcetype=BarracudaESSJSON dst_domain=$destDomain$ ptr_record
| where isnotnull(account_id) and len(account_id) > 0
| foreach ptr_record [ eval ptr_record = if(isnull(ptr_record) OR
len(ptr_record)==0, "No PTR Record", ptr_record) ]
| top showperc=false limit=20 ptr_record
| rename "ptr_record" as "PTR Record", "count" as "Volume"
```

Popular Subjects

```
sourcetype=BarracudaESSJSON dst_domain=$destDomain$
| where isnotnull(account_id) and len(account_id) > 0
| top showperc=false limit=20 "subject"
| rename "subject" as "Subject", "count" as "Count"
```

Figures