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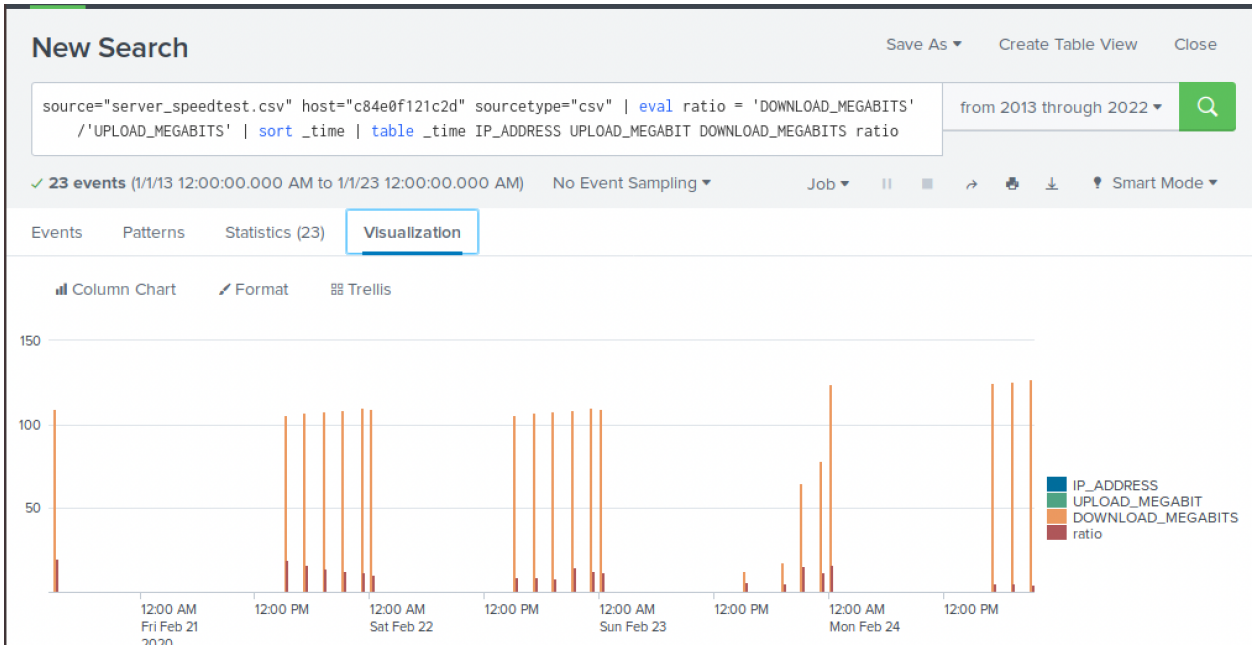
## Step 1: Need for Speed

Using the eval command, create a field called ratio that shows the ratio between the upload and download speeds.
**source =''statsreport.csv'' | eval ratio = 'DOWLOAD_MEGABITS'/'UPLOAD_MEGABITS'**
Create a report using the Splunk's table command to display the following fields in a statistics report:
_time
IP_ADDRESS
DOWNLOAD_MEGABITS
UPLOAD_MEGABITS




**source =''statsreport.csv'' | eval ratio = 'DOWLOAD_MEGABITS'/'UPLOAD_MEGABITS' | sort_time | table _time IP_ADDRESS UPLOAD_MEGABITS DOWNLOAD_MEGABITS ratio**

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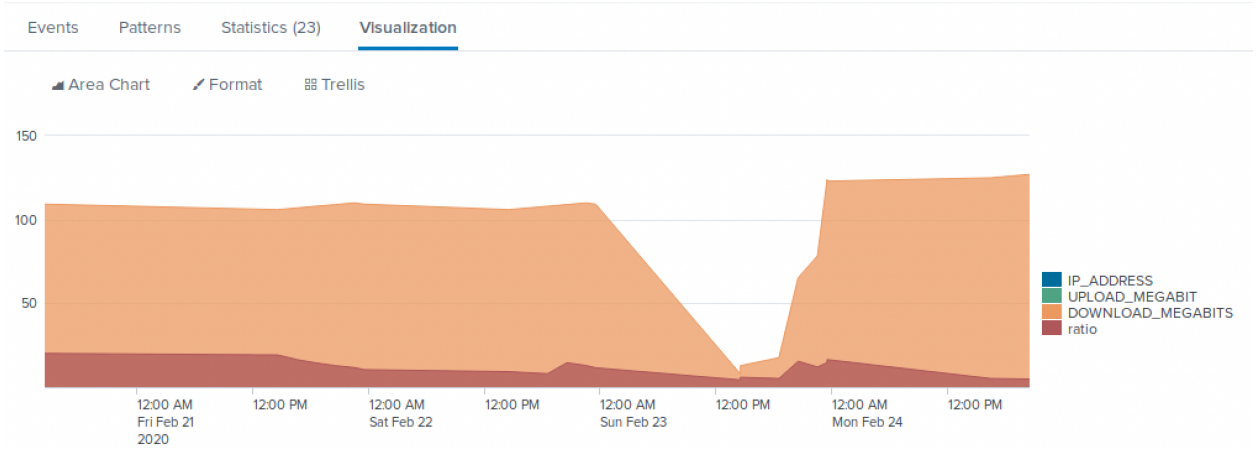
| | | | |
|---|---|---|---|
| 2020-02-23 20:30:00 | 198.153.194.2 | 65.34 | 15.4 |
| 2020-02-23 23:30:00 | 198.153.194.2 | 123.91 | 14.6 |
| 2020-02-22 20:30:00 | 198.153.194.2 | 108.91 | 14.5 |
| 2020-02-21 18:30:00 | 198.153.194.2 | 107.91 | 14.4 |
| 2020-02-22 22:30:00 | 198.153.194.2 | 109.91 | 12.9 |
| 2020-02-21 20:30:00 | 198.153.194.1 | 108.91 | 12.8 |
| 2020-02-23 22:30:00 | 198.153.194.1 | 78.34 | 12.0 |
| 2020-02-21 22:30:00 | 198.153.194.1 | 109.91 | 11.6 |
| 2020-02-22 23:30:00 | 198.153.194.2 | 109.16 | 11.5 |
| 2020-02-21 23:30:00 | 198.153.194.1 | 109.16 | 10.39 |
| 2020-02-22 14:30:00 | 198.153.194.1 | 105.91 | 9.202 |
| 2020-02-22 16:30:00 | 198.153.194.2 | 106.91 | 8.546 |
| 2020-02-22 18:30:00 | 198.153.194.2 | 107.91 | 7.987 |
| 2020-02-23 14:30:00 | 198.153.194.2 | 12.76 | 5.83 |
| 2020-02-23 18:30:00 | 198.153.194.2 | 17.56 | 5.12 |
| 2020-02-24 16:30:00 | 198.153.194.1 | 124.91 | 5.096 |

| _time | IP_ADDRESS | UPLOAD_MEGABIT | DOWNLOAD_MEGABITS | ratio |
|---|---|---|---|---|
| 2020-02-24 18:30:00 | 198.153.194.2 | | 125.91 | 4.936 |
| 2020-02-24 20:30:00 | 198.153.194.2 | | 126.91 | 4.787 |
| 2020-02-23 14:30:00 | 198.153.194.1 | | 7.87 | 4.30 |

Answer the following questions:

Based on the report created, what is the approximate date and time of the attack?
14:30 on 2/23/2020.
**Visual shows download speeds drop drastically to 7.87 mbps.**




How long did it take your systems to recover?
**It did not recover until 23:30, making it 9 hours until full recovery.**

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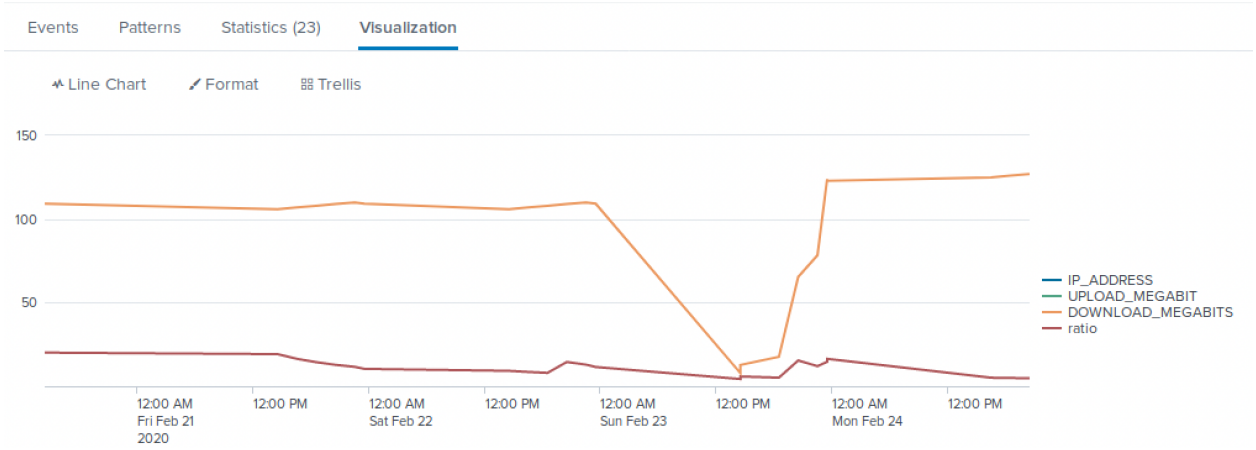
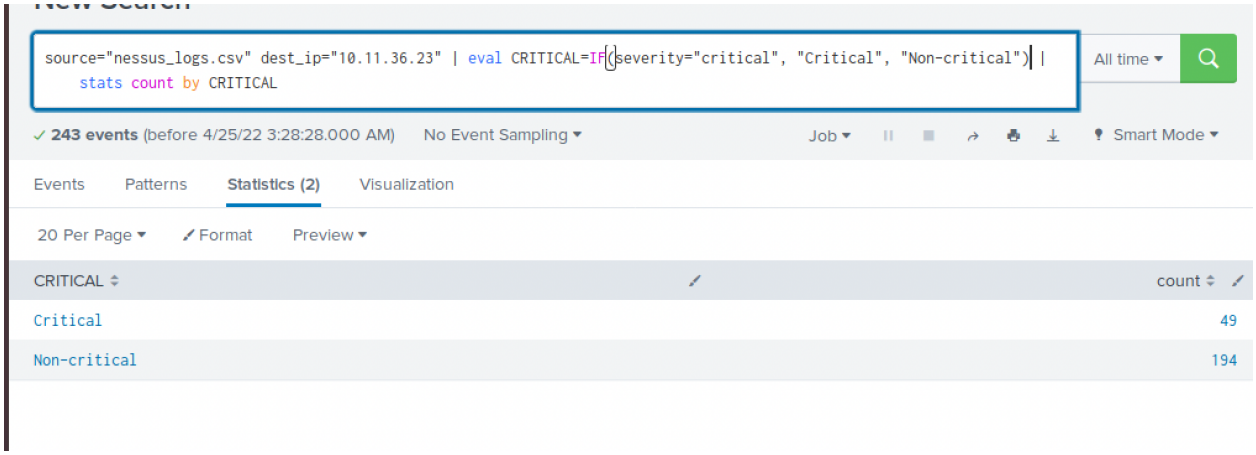



**Step 2: Are We Vulnerable?**

Create a report that shows the count of critical vulnerabilities from the customer database server.

The database server IP is 10.11.36.23.
The field that identifies the level of vulnerabilities is severity.




**Source="nessus_logs.csv" dest_ip="10.11.36.23" | eval CRITICAL=IF(severity="critical", "CRITICAL", "Non-critical") | stats count by CRITICAL**

Build an alert that monitors every day to see if this server has any critical vulnerabilities. If a vulnerability exists, have an alert emailed to soc@vandalay.com.

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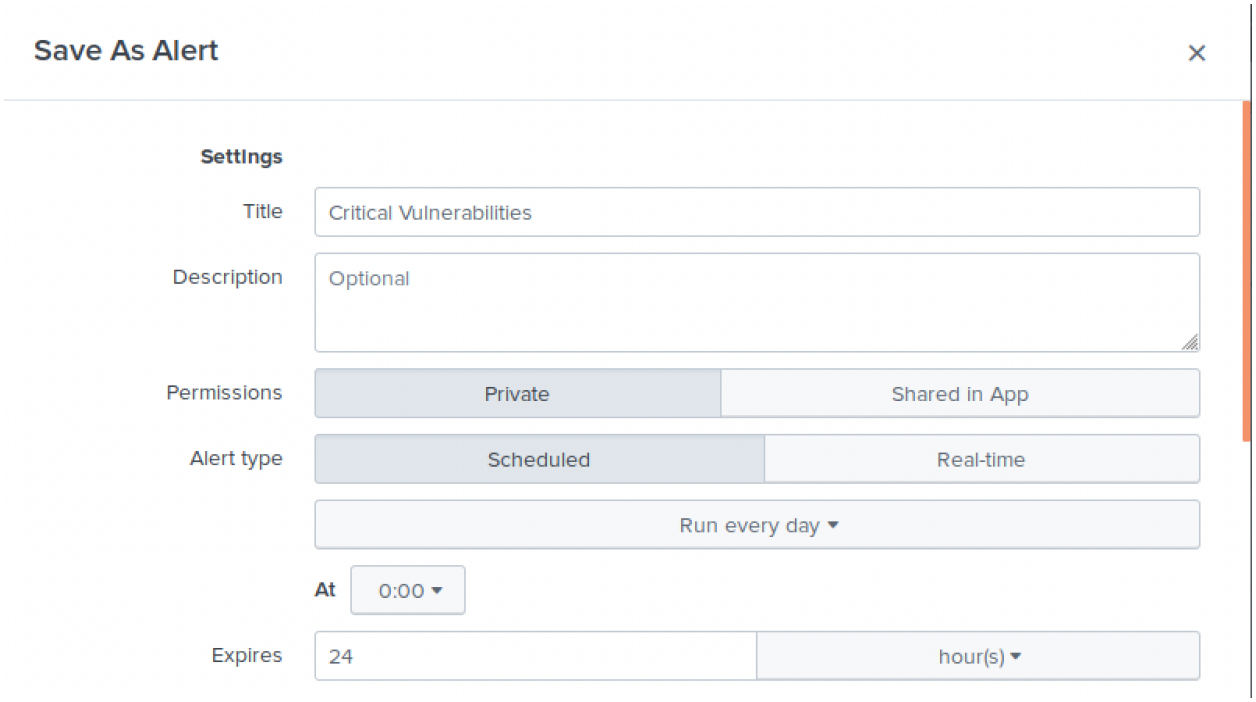


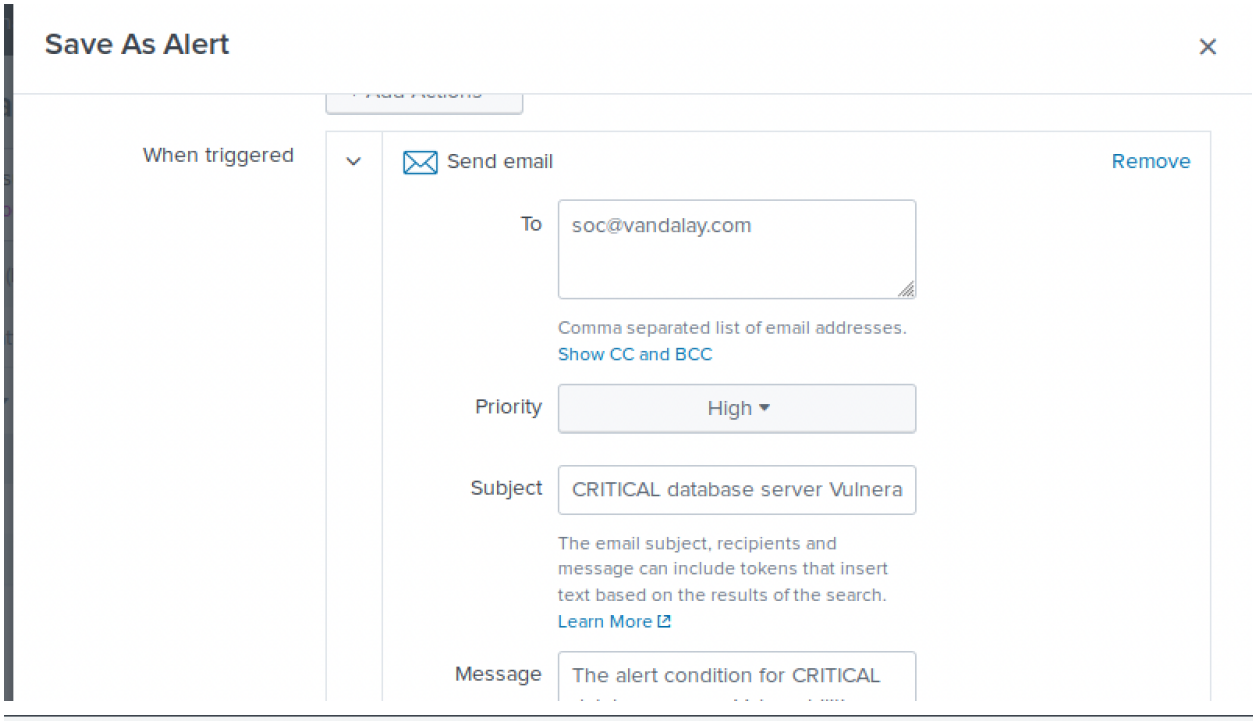


## Critical Vulnerabilities

Enabled: ..... Yes. Disable
App: ..... search
Permissions: ..... Private. Owned by admin. Edit
Modified: ..... Apr 25, 2022 3:34:42 AM
Alert Type: ..... Scheduled. Daily, at 0:00. Edit

Trigger Condition: .. Number of Results is > 0. Edit
Actions: ..... 1 Action Edit
Send email

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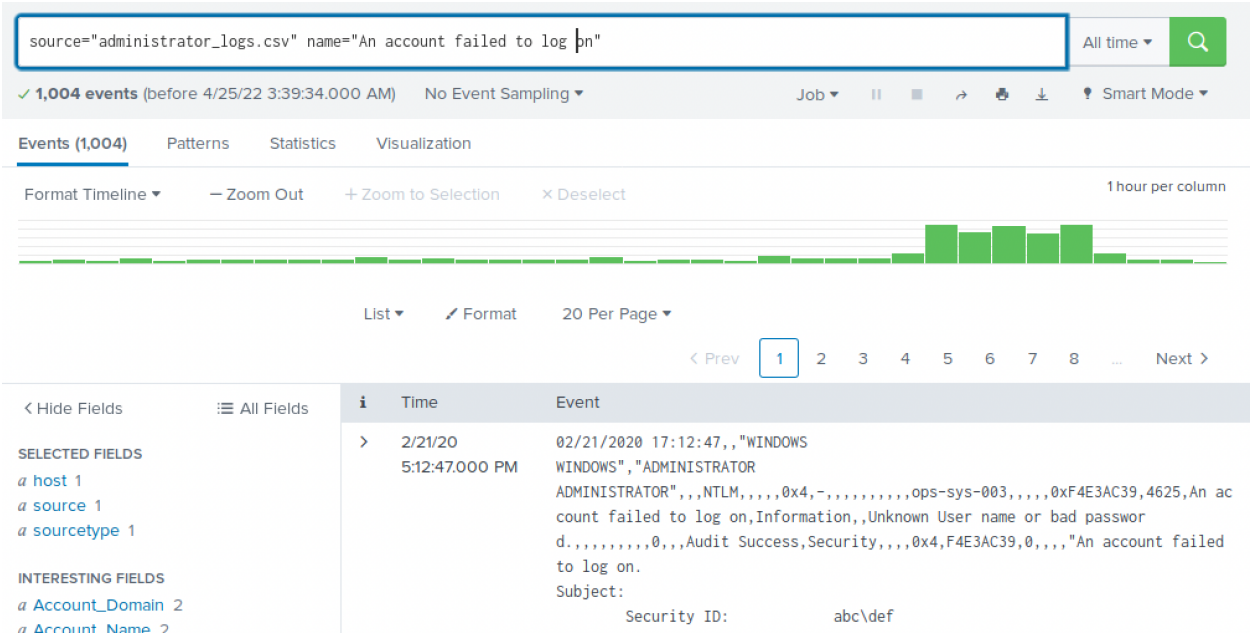
## Step 3: Drawing the (base)line

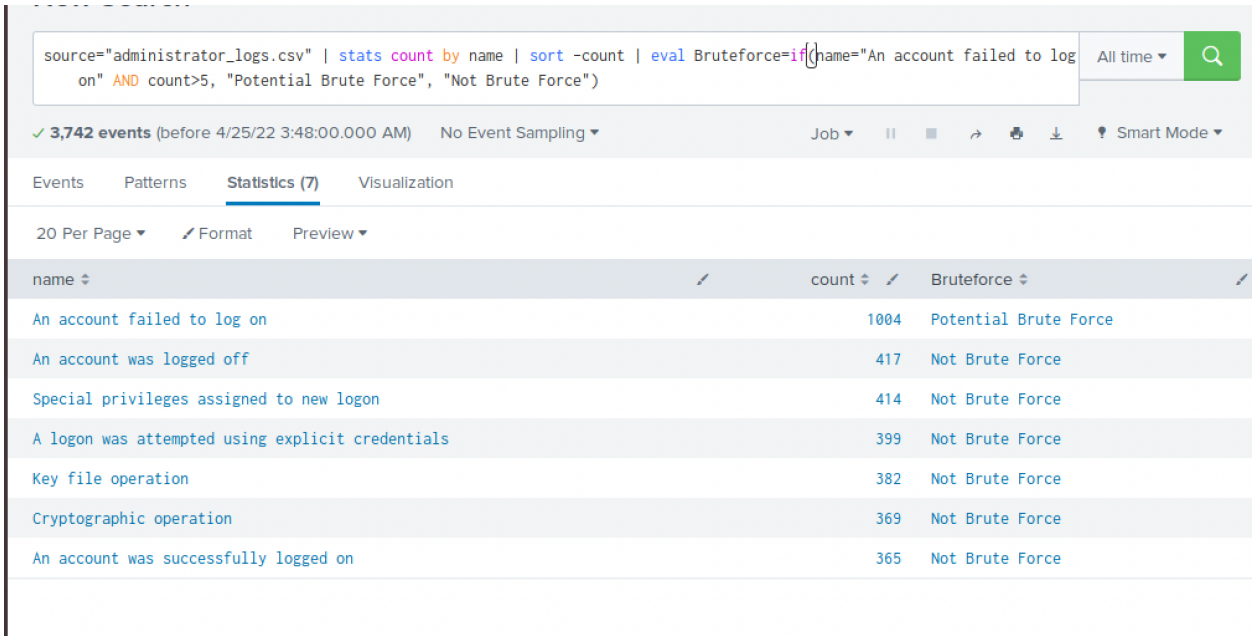
When did the brute force attack occur?

**source="administrator_logs.csv" name="An account failed to log on"**




Determine a baseline of normal activity and a threshold that would alert if a brute force attack is occurring.

**The attack occurred from 9AM - 2 PM on 2/21/2020. The normal baseline ranges from 6 - 34. We can set a safe baseline above 40 failed login attempts as "Brute Force" attempt/attack.**



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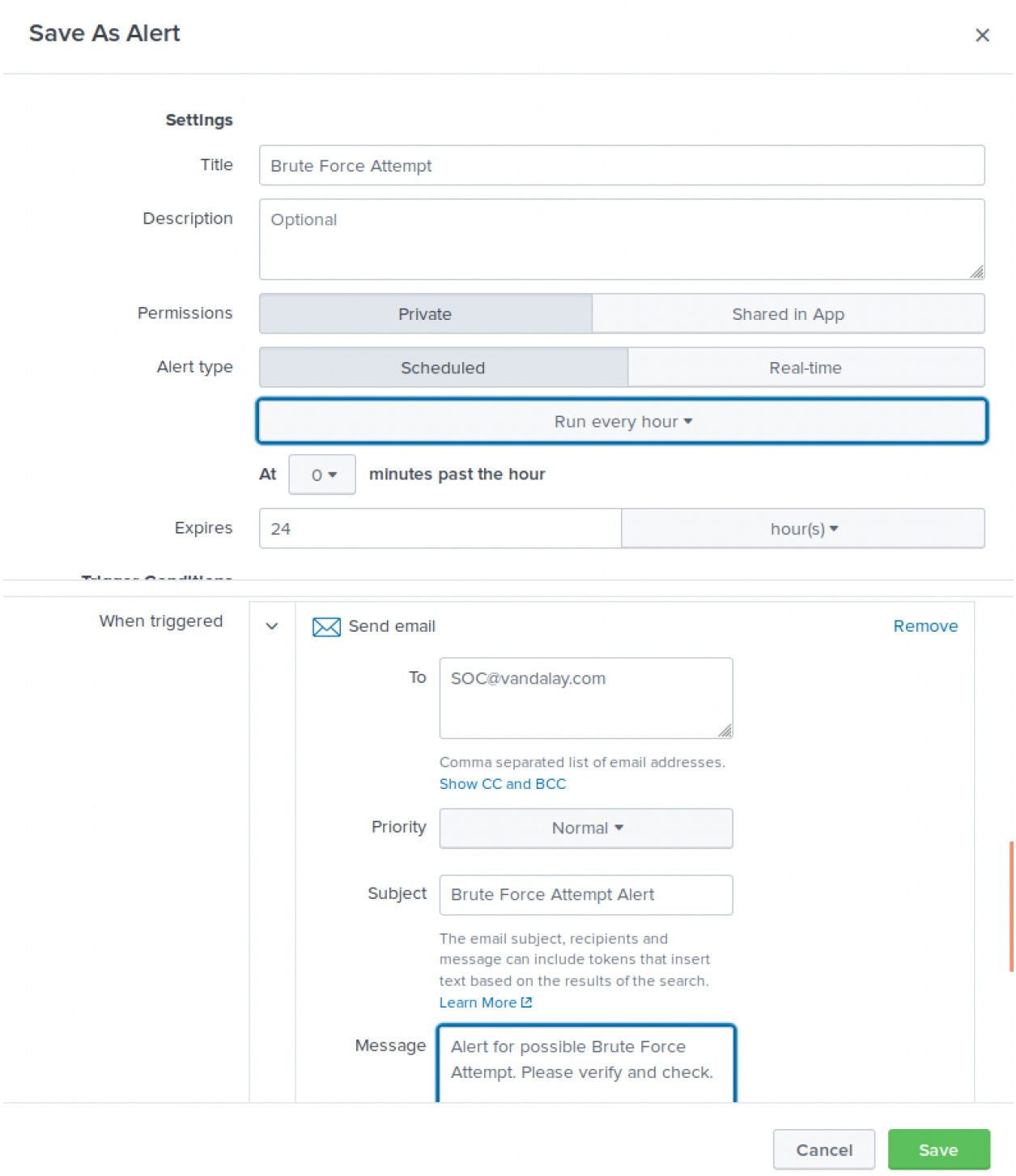
Design an alert to check the threshold every hour and email the SOC team at SOC@vandalay.com if triggered.



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