CloudSiksha

Incident Response

Incident & Incident Response

- Any event which poses a threat to security is an incident
- Incident response is our response to such events
- Sample incidents could be: failed attempt to break into the system, loss of a hard drive with sensitive data and so on
- Incident response could be different for cloud than for our own data center, because we do not have control over hardware in the cloud

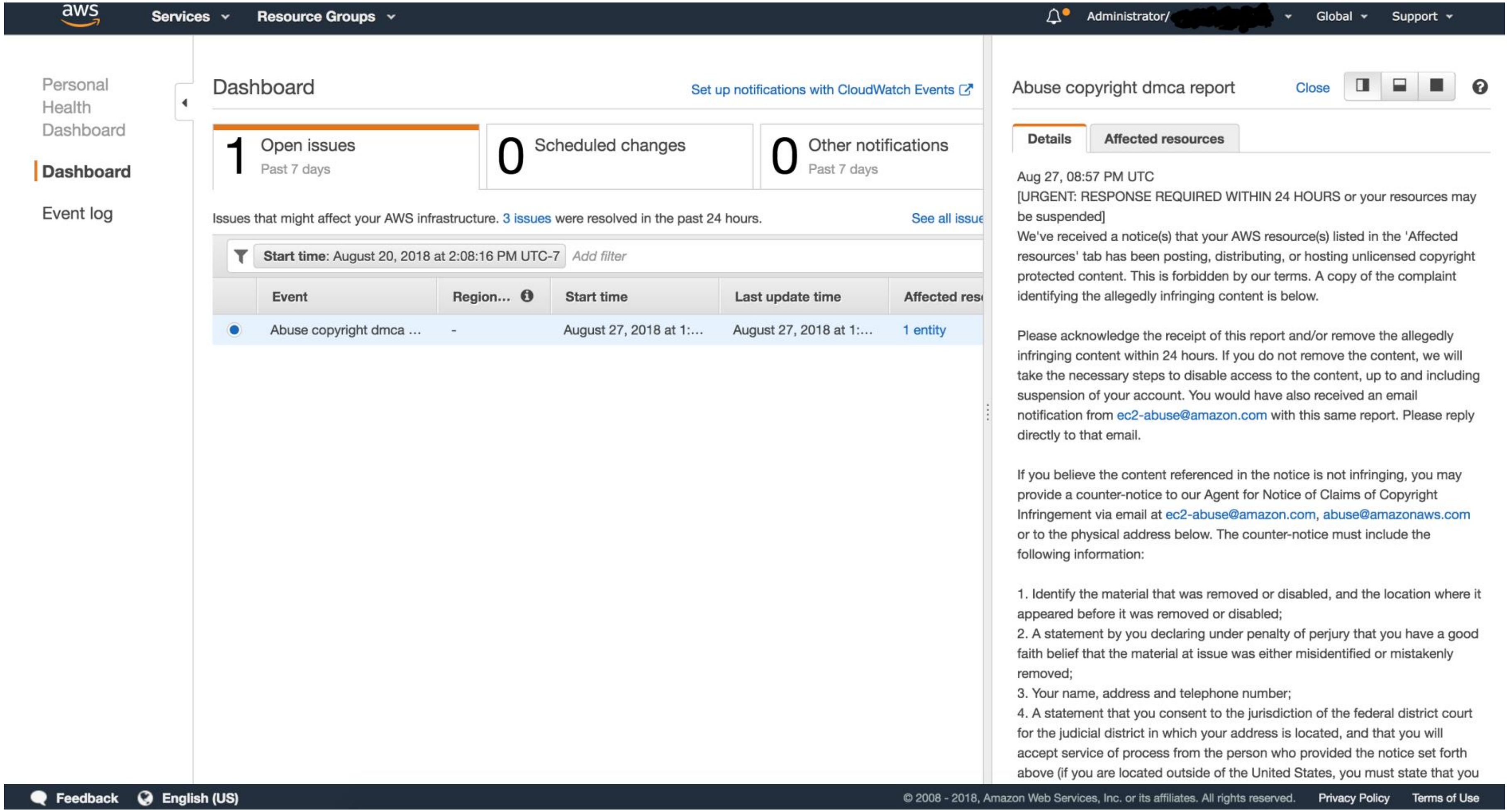
Evidence Collection & RCA

- You can collect AWS Logs which can help in RCA
  - **VPC Flow Logs**
  - **Cloud Trail Logs**
  - **Guard Duty Logs**

AWS Abuse Notice

- AWS does not allow customers to perform certain activities
  - **Port Scanning**
  - **Denial of Service Attack**
  - **Hosting of Copyrighted content**
  - **Distributing Malware**
  - **Intrusion Attempts**
- An abuse notice will send if the user is engaged in any of these activities
- If your systems are subjected to malicious attacks from AWS IPs you can submit an abuse notice

Sample Abuse Notice Image



Dashboard

Set up notifications with CloudWatch Events

1 Open issues Past 7 days

0 Scheduled changes

0 Other notifications Past 7 days

Issues that might affect your AWS infrastructure. 3 issues were resolved in the past 24 hours.

See all issue

Start time: August 20, 2018 at 2:08:16 PM UTC-7 Add filter

	Event	Region...	Start time	Last update time	Affected res
●	Abuse copyright dmca ...	-	August 27, 2018 at 1:...	August 27, 2018 at 1:...	1 entity

Abuse copyright dmca report

Aug 27, 08:57 PM UTC
[URGENT: RESPONSE REQUIRED WITHIN 24 HOURS or your resources may be suspended]
We've received a notice(s) that your AWS resource(s) listed in the 'Affected resources' tab has been posting, distributing, or hosting unlicensed copyright protected content. This is forbidden by our terms. A copy of the complaint identifying the allegedly infringing content is below.

Please acknowledge the receipt of this report and/or remove the allegedly infringing content within 24 hours. If you do not remove the content, we will take the necessary steps to disable access to the content, up to and including suspension of your account. You would have also received an email notification from ec2-abuse@amazon.com with this same report. Please reply directly to that email.

If you believe the content referenced in the notice is not infringing, you may provide a counter-notice to our Agent for Notice of Claims of Copyright Infringement via email at ec2-abuse@amazon.com, abuse@amazonaws.com or to the physical address below. The counter-notice must include the following information:

1. Identify the material that was removed or disabled, and the location where it appeared before it was removed or disabled;
2. A statement by you declaring under penalty of perjury that you have a good faith belief that the material at issue was either misidentified or mistakenly removed;
3. Your name, address and telephone number;
4. A statement that you consent to the jurisdiction of the federal district court for the judicial district in which your address is located, and that you will accept service of process from the person who provided the notice set forth above (if you are located outside of the United States, you must state that you

Dealing with Exposed Keys

- Keys can be exposed
  - **When developers share keys**
  - **When keys are hardcoded in application**
  - **When keys are committed to Git Repository**
- When you get to know a key is exposed
  - **Find out the access levels associated with the key**
  - **Invalidate the credentials**
  - **Invalidate Temporary credentials if they were issued**

Compromised EC2 Instances

- Lock down the instance
- Take EBS Snapshot
- Memory Dump
- Perform Forensic Analysis to determine Root Cause

Others

- Penetration Testing
- Pre-authorized scanning tools

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Thanks