

#### **Grid-SIEM SD Group 29**

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# **Security Onion**

- Finished up the writing for the paper for review
- Found the traffic coming in from the RTU1 and it is zeek.conn logs

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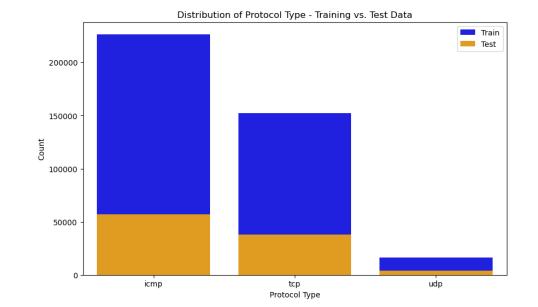
"hi

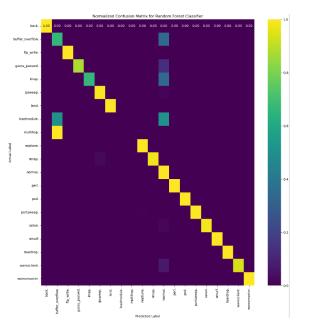
- It is coming from an Elastic Search Data Stream
- Can run commands to see a JSON object

	📚 metadata.pipeline	zeek.conn
	📚 metadata.raw_index	logs-zeek-so
	📚 metadata.stream_id	logfile-log.logs-0a0bd420-7f2c-11ee-8195-23(
	📚 metadata.type	_doc
	📚 metadata.version	8.8.2
	📚 network.community_id	1:+DVINCj3DBfhLF7HtJKfZBcSoXg=
	📚 network.transport	udp
	📚 observer.name	ubuntu-vm-sensor-111
	📚 pipeline	conn
	📚 server.ip	192.168.1.255
V	📚 server.ip_bytes	
•	📚 server.packets	0
	📚 server.port	138
d it is zeek.conn logs	📚 source.ip	192.168.1.211
	📚 source.port	138
m soc_id	mWYKfo4BWIhO-AkMtlfC	
soc_score	3	
soc_type		
soc_timestamp	2024-03-27T03:48:51.498Z	
soc_source		gs-zeek-so-2024.03.15-000005
) ubuntu@ubuntu-vm-master-120:~/Desktop\$ sudo so		ek-so-2024.03.15-000005/_search?pretty
bok" : 4, imed_out" : false, shards" : { 'total" : 2, 'successful" : 2, 'skipped" : 0, 'failed" : 0		
.ts" : { 'total" : { "value" : 10000, "relation" : "gte" 		
, max_score" : 1.0, 'hits" : [ {		
<pre>"_index" : ".ds-logs-zeek-so-2024.03.15-00000 "_id" : "JhxPf44BLzb5M6_YhySe",</pre>	5",	
"_score" : 1.0, "_source" : { "container" : { "id" : "ssl.log"		

### **Machine Learning**

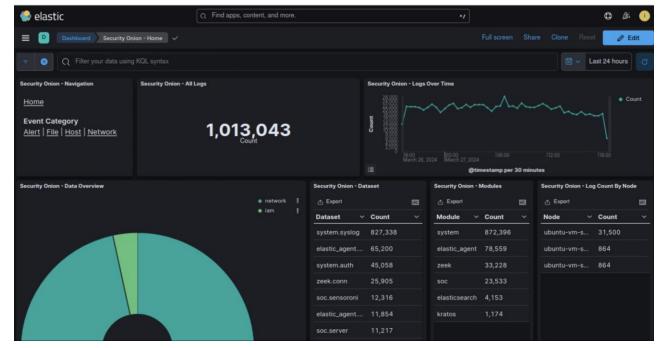
- Updated paper for further review
- New confusion matrix for Random forest classifier with labels
  - New dataset used: KDD Cyberattack dataset from kaggle
- Also included graphs comparing training vs test data for each feature in the dataset





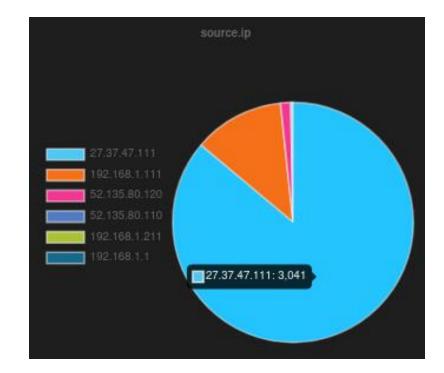
# **Red Team Testing**

- RDP/SSH attacks (Resource Development > Acquire Access)
- Firewall adjustments a possible fix for being able to ssh/rdp machines past the router.
- Remmina remote desktop client, can access Substation 1 IDS. Attack signatures might be detectable with Hunt or Kibana.
- Further attacks pending.
- Trent successful scan/ping attacks.



### **Attacking Progress**

- Updated and reorganized paper
- Finished attack documentation
- Lauched nmap, ping, curl bash scripts
  - Had to target sensor, RTU stations have trouble getting logs to master node



### **Future Work**

- Revise the paper section if needed
- Finish the final document and slides
- Complete bi-weekly report with peer review feedback.