Visual Threat Hunting

By Ryan Nolette

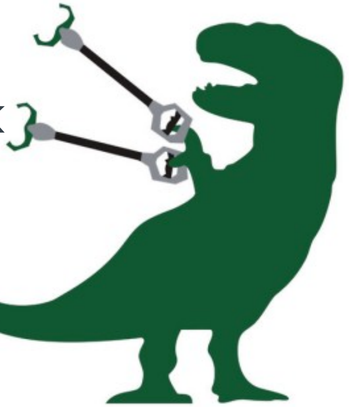
Security Technologist

What am I trying to accomplish?

- Perform a Threat Hunt
  - Find internal hosts beaconing out
- Explain what I found to my management
- Justify my time to Hunt

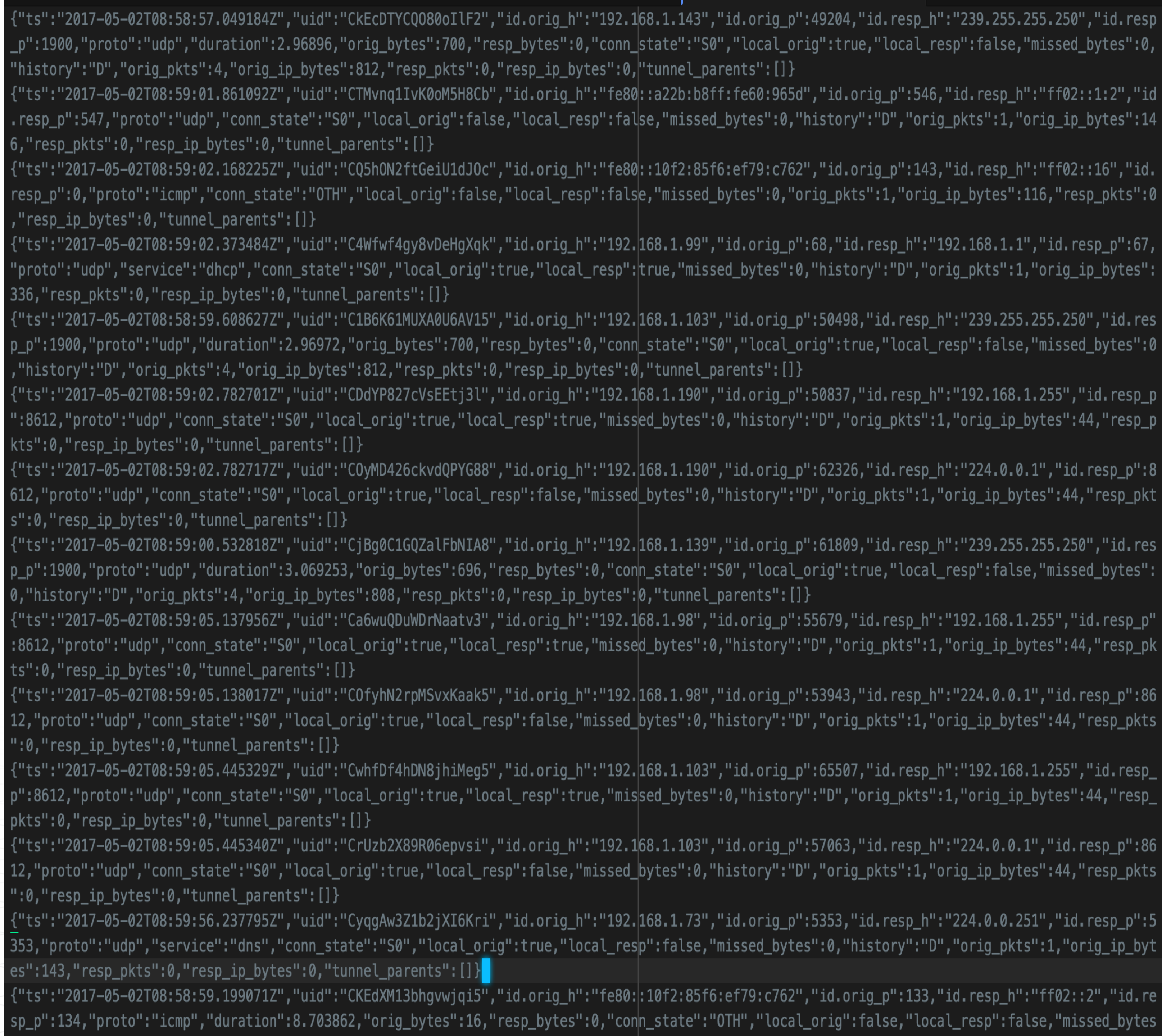
Tools used in this talk

- Bro sensor - https://www.bro.org/
  - Configured to output logs to json
- Graphviz - http://www.graphviz.org/
  - To create visuals of the data bro is producing
- Python - https://www.python.org/
  - To convert bro data to graphviz formatting
  - https://github.com/sonofagl1tch/visualization/tree/master/VisualThreatHunting
- Centos 7 minimal server to run bro
  - Because the GUI makes you weak



Log Crawling

- What systems if any are beaconing out?
- Where did it beacon out?
- How do I know it was beaconing and not legitimate traffic?



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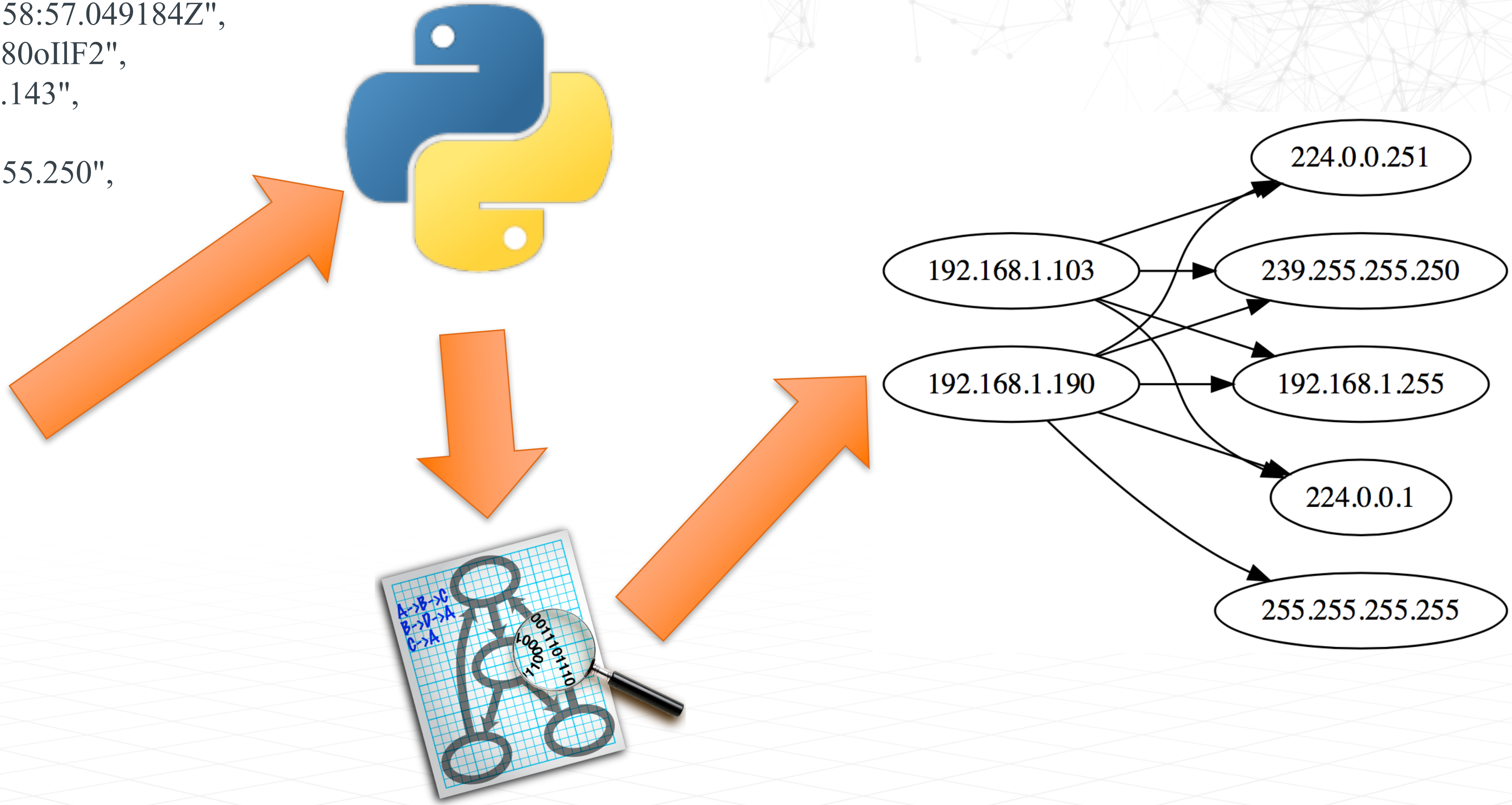

relationships

- What systems if any are beaconing out?
- Where did it beacon out?
- How do I know it was beaconing and not legitimate traffic?

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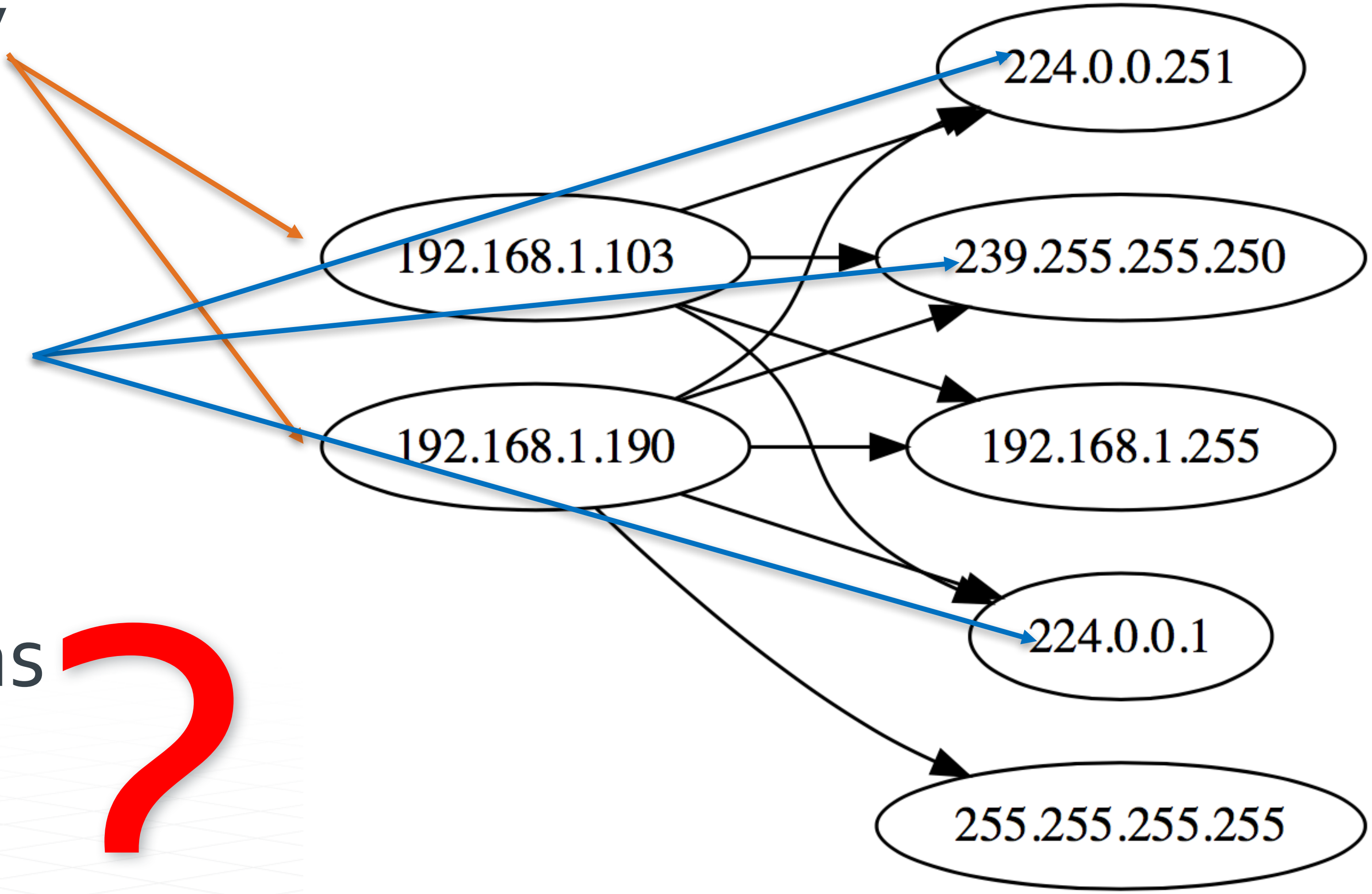


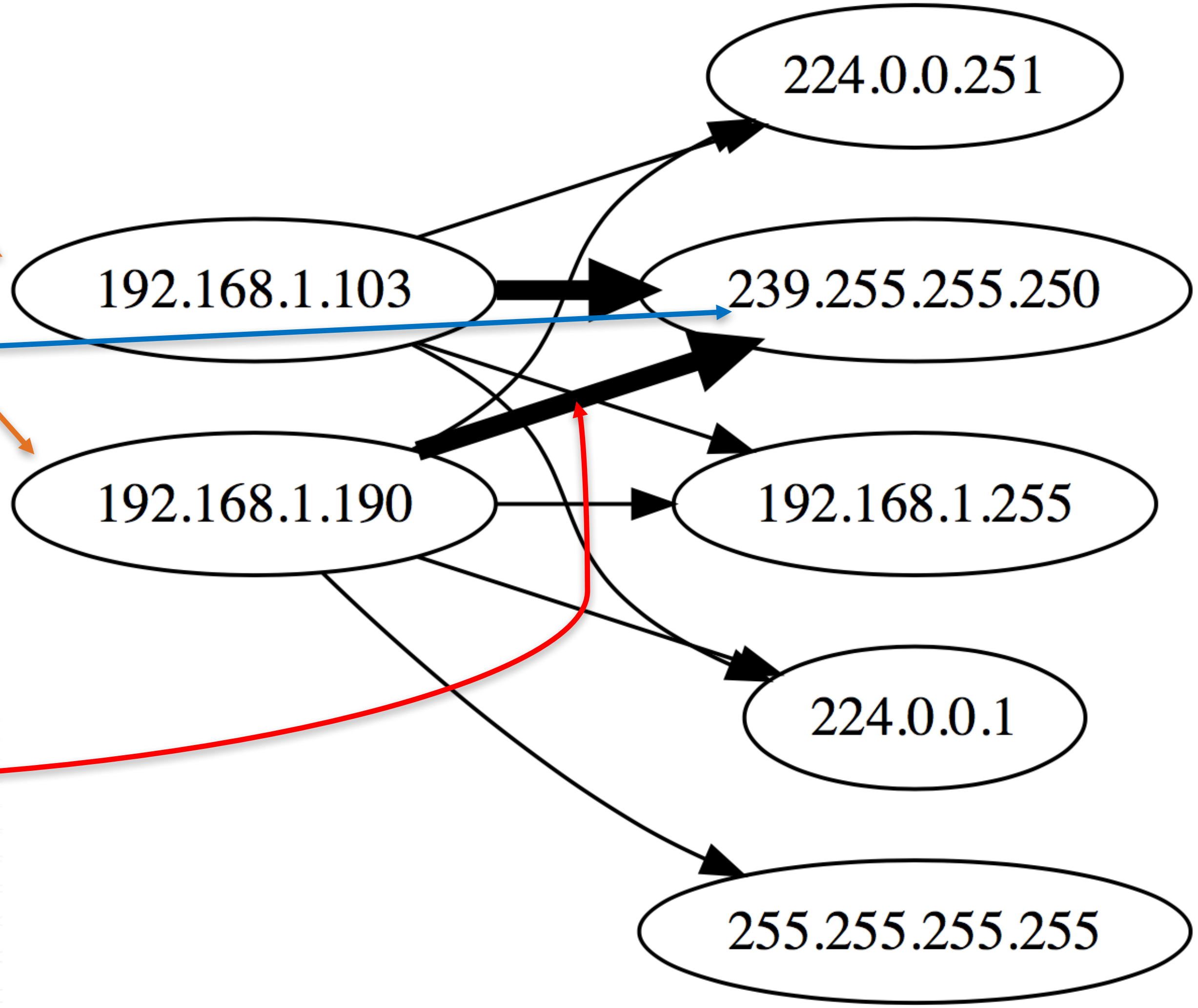
Explain what I found to my management

sqrrl

- What systems if any are beaconing out?

- Where did it beacon out?

- How do I know it was beaconing and not legitimate traffic?



Justify my time to Hunt

Log Crawling

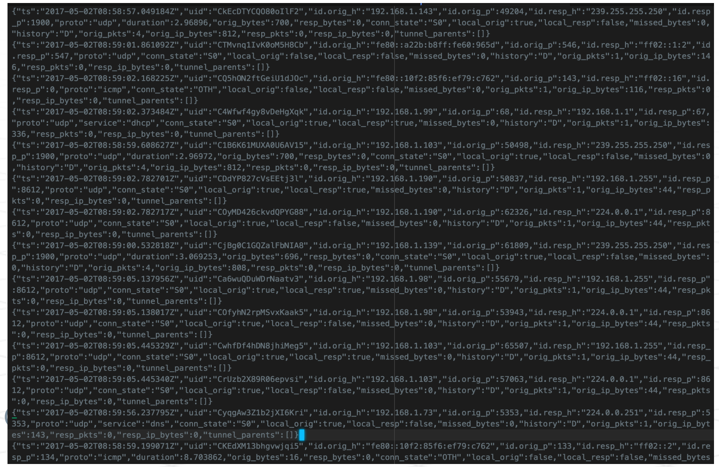
- Cost of hunt
- 8 hours
- $50/hr
- $400/day

Explain what I found to my management

- Cost of hunt
- 4 hours
- $50/hr
- $200/day

Actionable Hunting

- Cost of hunt
- 2 hours
- $50/hr
- $100/day



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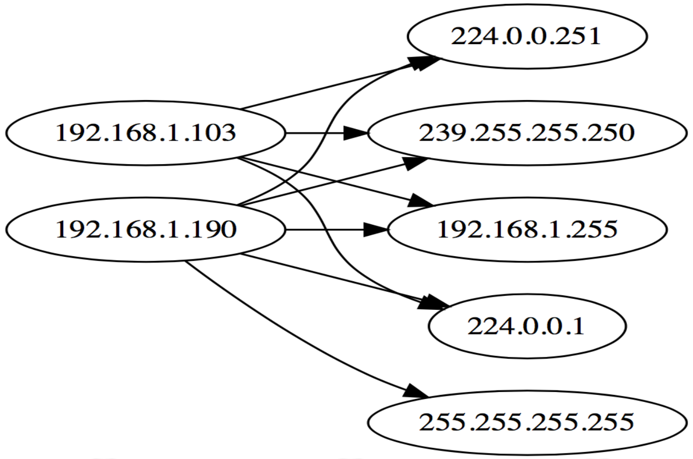

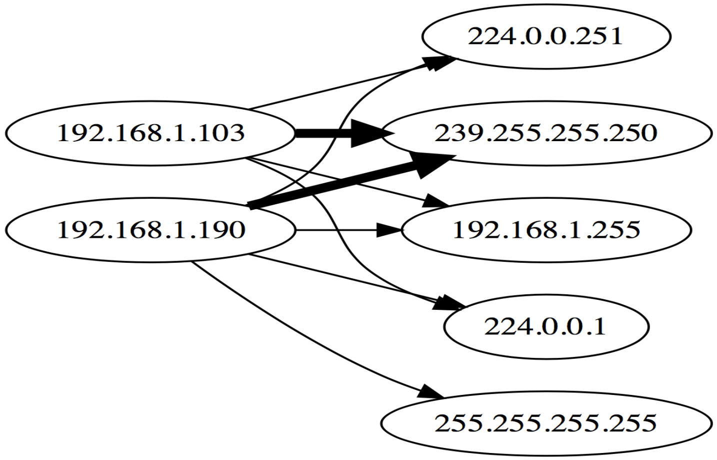

Questions?

"I use Sqrrl to find those dark places in my environment, poke it with a stick, and see what crawls out."
-Ryan Nolette