



## Metrics

(MTTD, MTTR, Dwell Time)

### Why metrics matter

Metrics translate security operations into measurable performance:

- How quickly we noticed the incident
- How quickly we acted
- How long the attacker had opportunity before containment

### Incident used for metrics

Metrics were calculated on the Feb 27 SSH detection + containment workflow, because it has clear timestamps from SIEM and CrowdSec.

### Timeline

T0 (first detection event in SIEM): 11:45:45

T1 (analyst confirmation in SIEM): 11:46:00

T2 (containment executed): 11:51:15 (CrowdSec ban)

### Dwell Time

$Dwell = T2 - T0$

$11:51:15 - 11:45:45 = 5 \text{ minutes } 30 \text{ seconds}$

### MTTD

$MTTD = T1 - T0$

Because ingestion and visibility were near real-time, MTTD is conservatively estimated as 1 minute.

### MTTR

$MTTR = T2 - T1$

$11:51:15 - 11:46:00 \approx 5 \text{ minutes}$

### Evidence

Detection screenshot: *screenshots/07\_Elastic\_Lens\_SSH\_Virtualisation.png*

Containment screenshot: *screenshots/06\_Crowdsec\_Decision\_List\_Ban.png*