

# Infected System (Bot) Metrics (Problems, Needs & Standards)

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# Everybody: 'We need bot metrics'!

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- Bad metrics are as bad as no metrics
  - There is vast over counting
    - One needs to understand ISP IP policy for real measurements
    - Same computer seen at multiple detectors
      - There's political capital in making big numbers
  - Everyone uses different definitions
- But what's in a metric?
  - what are the metrics used for?
  - Capturing the right data via reporting makes metrics are real
    - [use IODEF – we can force certain data in a submission 😊]

# What we need in metrics

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- They need to be transparent & recalculatable
- Not ‘shaming numbers’, deltas, or top 10 lists
- And they will evolve... ☹️
- The APWG uses metrics for education & action
  - Crime Fighters never get enough resources
  - How do we show governments/ISPs/ICANN where the problems are?
  - How do we show when the problems get ‘better’

# A good use of metrics

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- True metrics can be used to enlighten the bosses to direct resources to a problem
  - ex: the APWG phishing report
    - We compile per capita stats on phishing URLs & collectors
    - You could redo our calculations for accuracy
    - People ‘shame’ themselves into corrections
- They also show trends – both upward and downward – and improvements

# The needs

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- Solid definitions
  - Everyone has to use the same language
- Integrated into or a part of the ISP/end-user reporting and notification systems
  - There needs to more international versions of these
- Ability for independent calculation
  - Not everyone is going to submit raw data.

# Thank You

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[Send us data in IODEF.]

[Wait. Send us BOT data in IODEF.]

