Equipment Authorization System (EAS) Update

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Since early August the FCC EAS Webservers have been having intermittent performance issues
- FCC has been closely monitoring sites to identify cause(s)

**Issue 1: Servers reaching maximum connection capacity and requiring restart**
- Different error messages returned based on user location on system
- Causes:
  - Higher than normal volume of 731 submissions
  - Increase in traffic from WebCrawler's and automated (Bot) requests
    - One Bot hit server 400 times in 6 seconds
    - Second Bot hit server 1000 times in 5 minutes
– Observations:
  • Traffic appears to be legitimate data request and not denial of service attacks.
    – Primary sites FCCID and Grantee Searches
  • Traffic is at random times and from numerous sources
    – Domestic and international
  • If FCC blocks automated request, it may quickly appear from a different source address
  • FCC/EAS has finite number of allowed connections and when that number is reached, EAS server needs to be restarted
EAS Webserver Performance III

– FCC Actions
  • Implemented software to monitor traffic to EAS sites
    – Gathering data for about month
  • Block all known malicious sites automatically
  • Implement cached results if automated request has been recently made
    – This keeps traffic from hitting server multiple times for same request.
      » New request will continue to reach the server directly
  • Implemented procedures to quickly identify and block high volume traffic sources that repeated impact performance
    – Blocked sources may appeal to FCC for reconsideration
EAS Webserver Performance IV

Issue 2: Servers returning “Reference 97…” errors
- Errors are typically short in duration and occur at random times—typically last about 10 minutes and then resolve self.
- Issues started to appear in mid August.
- Cause of issues appears to be due to reconfiguration of FCC EAS server firewall as a result of issue 1.
- Short term resolution implemented on about 9/30 and is currently being monitored.
EAS Modernization Update

- No significant changes since last TCBC Workshop
- FCC is continuing to work through system development lifecycle processes to ensure that effective support systems are in place when the process moves to production