

RESTENA Foundation
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Report on F-Ticks (Federated Ticker System for eduroam)

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Why F-Ticks?



- Ever since we talked about RadSec, the problem of “vanishing statistics” kept coming up
 - Dynamic discovery gets the “central dispatcher” out of the loop
- My answer “it's nobody else's business anyway” didn't really take off
- Our #1 approach to this (XML reporting) sadly didn't take off either

Requirements



- Decentralised
- Can separate monitoring from production traffic (uses special MAC prefix)
- Easy to deploy for federations
- Duplicate detection
- Works for RADIUS over “everything”
 - Can capture same stats as “grand central dispatch” does now (“roaming days”)
 - RADIUS/TLS with dynamic discovery should not be a “special case”; we used to think this was difficult, but it actually isn't :-)

F-Ticks



- Uses syslog (comes “for free” with most RADIUS servers)
- Standardised syslog string (facility and level don't matter)
- Contains only minimal information needed to generate statistics
- Sent with syslog/UDP to a central processing facility
- Gets processed (Python), stored (MySQL), data-mined and displayed (Apache/PHP)

Syntax



- Basic info:

```
F-TICKS/eduroam/1.0#REALM=%R#VISCOUNTRY=LU#CSI=%  
{Calling-Station-Id}#RESULT=OK#
```

- Extended Info:

```
F-TICKS/eduroam/1.0#REALM=%R#VISCOUNTRY=LU#CSI=%  
{Calling-Station-Id}#RESULT=OK#VISINST=FOO#
```

- And you can even talk us out of the Calling-Station-Id if you want to...

Demo



- Prototype deployment on

<http://ticker.eduroam.lu>

- Hardware distribution statistics based on observed MAC addresses

not on the web; but only my secret MySQL interface...