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## **Vlad Paiu**

OpenSIPS Developer

**OpenSIPS** Solutions



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#### **Background**

- account hijacking: classic issue with any VoIP platform
- no attempts have been made to standardize detection procedures



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- Actual stolen accounts
  - Weak passwords
- Badly configured phones
  - Unchanged default passwords
- Exploits in the phone software
- Traffic is valid, does not look like an attack until the user starts complaining about the bill



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#### Approaches to the problem of "detecting fraudulent calls"

- complex model (30+ day span) which detects changes in user dialing pattern
  o difficult to validate (false positives)
- event-based threshold alerting system which monitors a set of call-related parameters



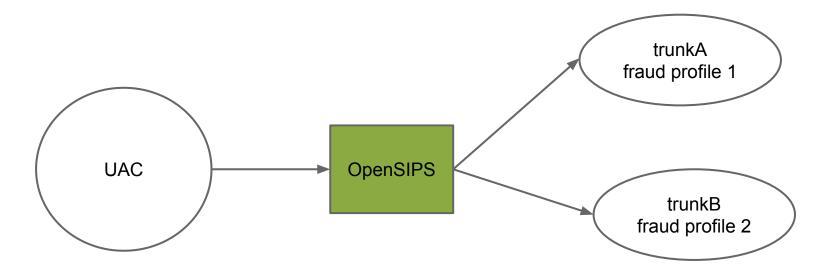
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#### <u>New OpenSIPS module: fraud\_detection</u>

- closely monitors a set of five call-related parameters
  - CPM
  - call duration
  - sequential calls (to same destination)
  - concurrent calls
  - total calls
- above parameters are saved per each [Subscriber, Destination] pair



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## <u>Resources</u>

- fraud detection tutorial for OpenSIPS 2.1+
  - http://www.opensips.org/Documentation/Tutorials-FraudDetection-2-1
- fraud\_detection module documentation
  - http://www.opensips.org/html/docs/modules/2.1.x/fraud\_detection
- IRC / mailing list



Amsterdam OpenSIPS Summit

#### Fraud detection with OpenSIPS 2.1

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# ?