



# hawkeye

**HIGH-PERF  
LAWFUL  
MOBILE  
SUBSCRIBER  
SESSION  
TRACKING**

THE NEEDLE FROM THE  
HAYSTACK IN MATTER OF  
SECONDS

- Carrier-grade processing performance
- Multiple vendor support and platform integration
- Big data approach



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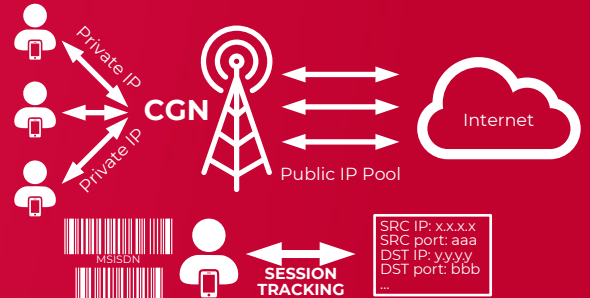
<https://unicom.company>  
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# hawkEYE

## CONCEPT

Mobile subscribers are accessing the internet peaking hundreds of thousands sessions in a second. The subscribers are using private IP addresses and Carrier-grade NAT (CGN) solutions which allow access to the internet translating those addresses to public ones.



To track subscribers for lawful purposes it is needed to correlate their MSISDN or IMEI with their IP traffic which is a challenging task.

```
May 23 16:47:40 10.111.222.333 1 2019-05-23T14:47:40.705Z
fw0124 RT_FLOW - RT_FLOW_SESSION_CREATE
junos@2636.1.1.1.2.36
source-address="10.218.122.71"
source-port="1092"
destination-address=112.89.135.92"
destination-port="80"
connection-tag="0"
service-name="junos-http"
nat-source-address="217.20.111.34"
nat-source-port="19796"
nat-destination-address="112.89.135.92"
nat-destination-port="80"
```



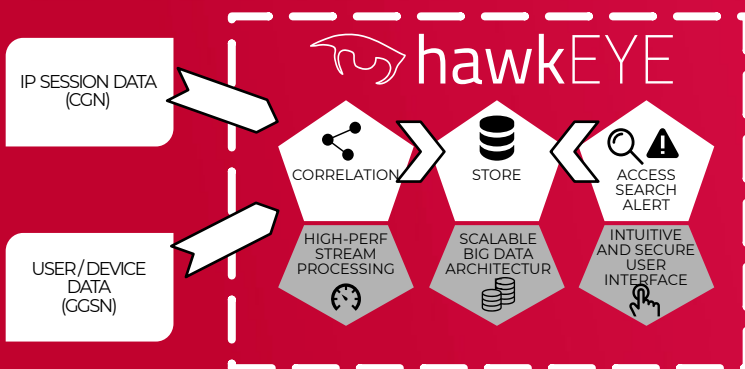
```
AVP: t=NAS-Identifer(32) l=7 val=g1234
AVP: t=Called-Station-Id(30) l=14 val=gprs
AVP: t=Framed-Protocol(7) l=6 val=GPRS-PDP-Context(7)
AVP: t=Calling-Station-Id(31) l=14 val=381641234567
AVP: t=Acct-Status-Type(40) l=6 val=Start(1)
AVP: t=Framed-IP-Address(8) l=6 val=10.218.122.71
AVP: t=Acct-Session-Id(44) l=18 val=D4C8B693A18637E6
AVP: t=Acct-Session-Time(46) l=6 val=18895
AVP: t=Acct-Terminate-Cause(49) l=6 val=User-Request(1)
AVP: t=Event-Timestamp(55) l=6 val=May 23, 2019 16:43:21.000000000 CEST

AVP: t=Vendor-Specific(26) l=23 vnd=3GPP(10415)
Type: 26
Length: 23
Vendor ID: 3GPP (10415)
VSA: t=3GPP-IMSI(1) l=17 val=220093300098765
AVP: t=Vendor-Specific(26) l=24 vnd=3GPP(10415)
Type: 26
Length: 24
Vendor ID: 3GPP (10415)
VSA: t=3GPP-IMEISV(20) l=18 val=1234567890123456
AVP: t=Vendor-Specific(26) l=16 vnd=3GPP(10415)
Type: 26
Length: 16
Vendor ID: 3GPP (10415)
VSA: t=3GPP-User-Location-Info(22) l=10 val=0122f030526f6233
Type: 22
Length: 10
Geographic Location Type: Service Area Identity (SAI) (1)
Mobile Country Code (MCC): Serbia (220)
Mobile Network Code (MNC): Unicom-Telecom (09)
Location Area Code (LAC): 12345
Service Area Code (SAC): 56789
```

Time	2019-05-23 16:47:40.705
Internal Address	10.218.122.71
Source IP	217.20.111.34
Source Port	19796
Destination IP	112.89.135.92
Destination Port	80
Subscriber Number	381641234567
IMSI	220093300098765
IMEISV	1234567890123456
Local Area Code	12345
Service Area code	56789

- SEARCHABLE** by any parameter, in a seconds
- Instant ALERTS** by any defined criteria
- AUDIT LOG** for every access to the system
- Fine grained ACCESS CONTROL**

## FEATURES



- ▷ Carrier-grade performance
- ▷ Immediate session queries
- ▷ Immediate action alerting
- ▷ Multiple vendor support
- ▷ Big data approach
- ▷ Horizontal and vertical scalability
- ▷ Intuitive User Interface
- ▷ Fine-grain access control
- ▷ Detailed audit logs
- ▷ Customizable

## About Unicom

Unicom is a group of companies, focused on system integration, software development, cloud cybersecurity services and IT distribution, nurturing a culture of innovation and people development. The main customer segments of the company are telco, government, finance and corporate sectors. The strongest expertise is on cybersecurity, network and IT infrastructure, analytics solutions and product development. The IP portfolio includes: UniTIF Cybersecurity Management Platform (SIEM & UEBA), Mobile device and parental control solution, Carrier-grade lawful session tracking, Consent and privacy management. Unicom operates a CERT and Security Operation Center and provides cloud based and operational security services.



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