

Separating Signal from Noise: Massive Data Analysis Tools



btt bilgi teknoloji tasarım ltd şti

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Prague, 2008

- As a large country fighting against terrorism for many years, rules such as recording CDRs for long periods is already in place for many years.
- This gives us a unique experience in dealing with very large databases and **extracting the intelligence.**



Fighting Against Terrorism



btt bilgi teknoloji tasarım

Fighting Against Terrorism



Sample Installation:

- 60 Million GSM subscribers;
- 20 Million PSTN subscribers;
- 5 Million ADSL Internet subscribers;
- 1 Million VoIP customers.

Terrorism drives the need for interception and analysis of huge amounts of data.

(Over 500 million CDR, 6 Billion IP data records per day.)



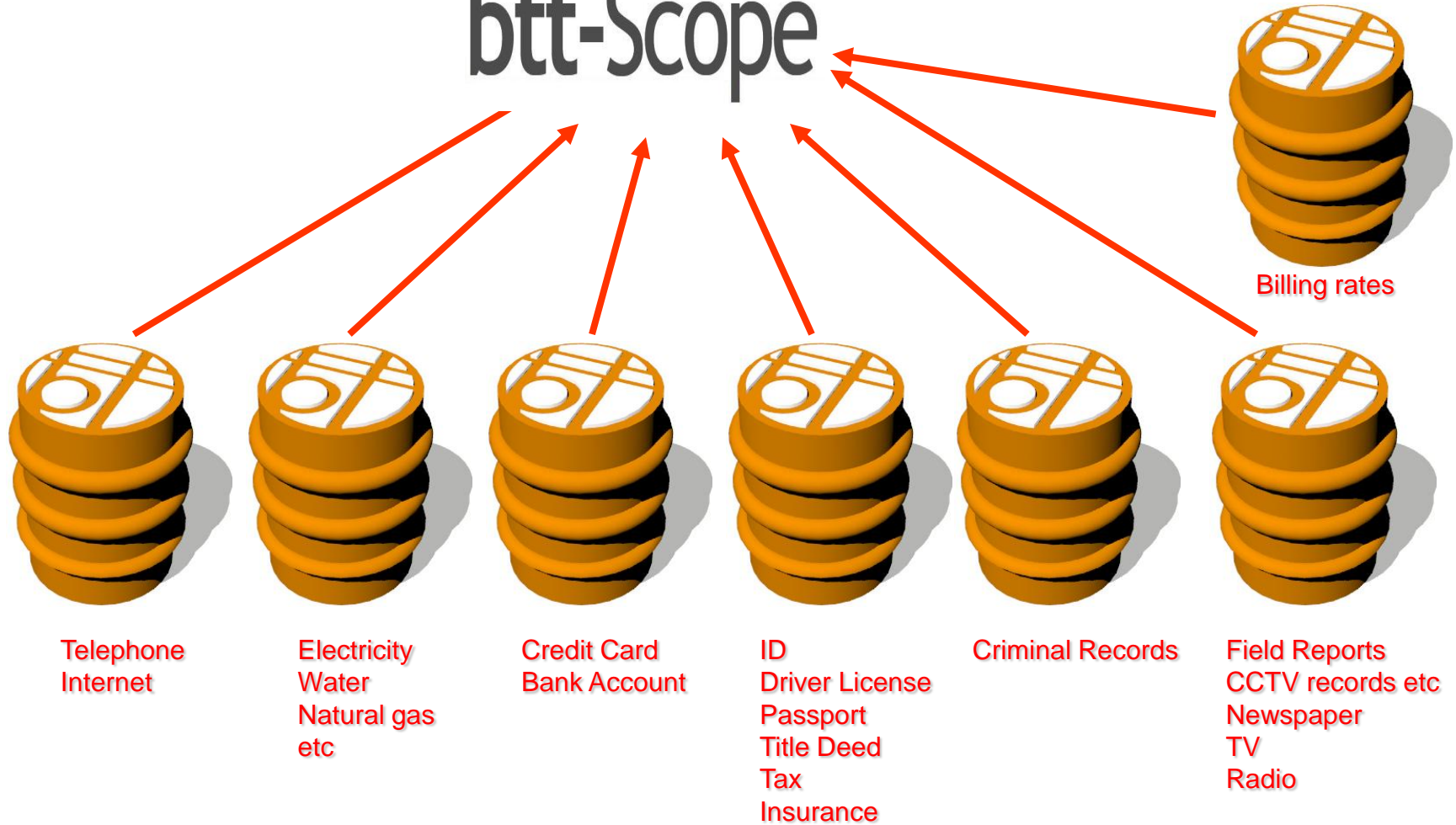
Turkey:

- Storing GSM CDR data for 3 years.
- Storing PSTN CDR data for 2 years.
- Storing Internet traffic data for 1 year.

- All data is available online.

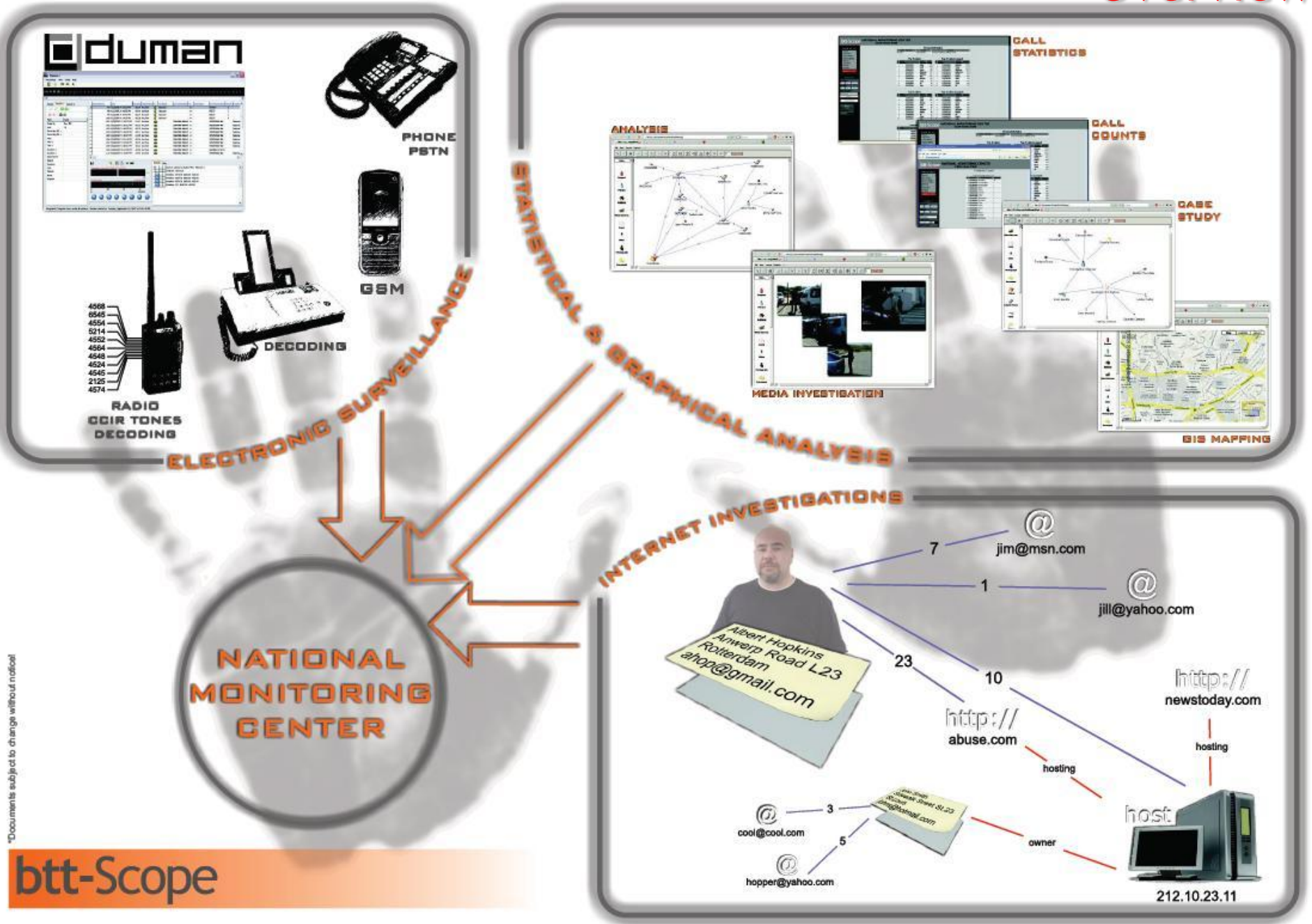



btt-Scope



btt-Scope

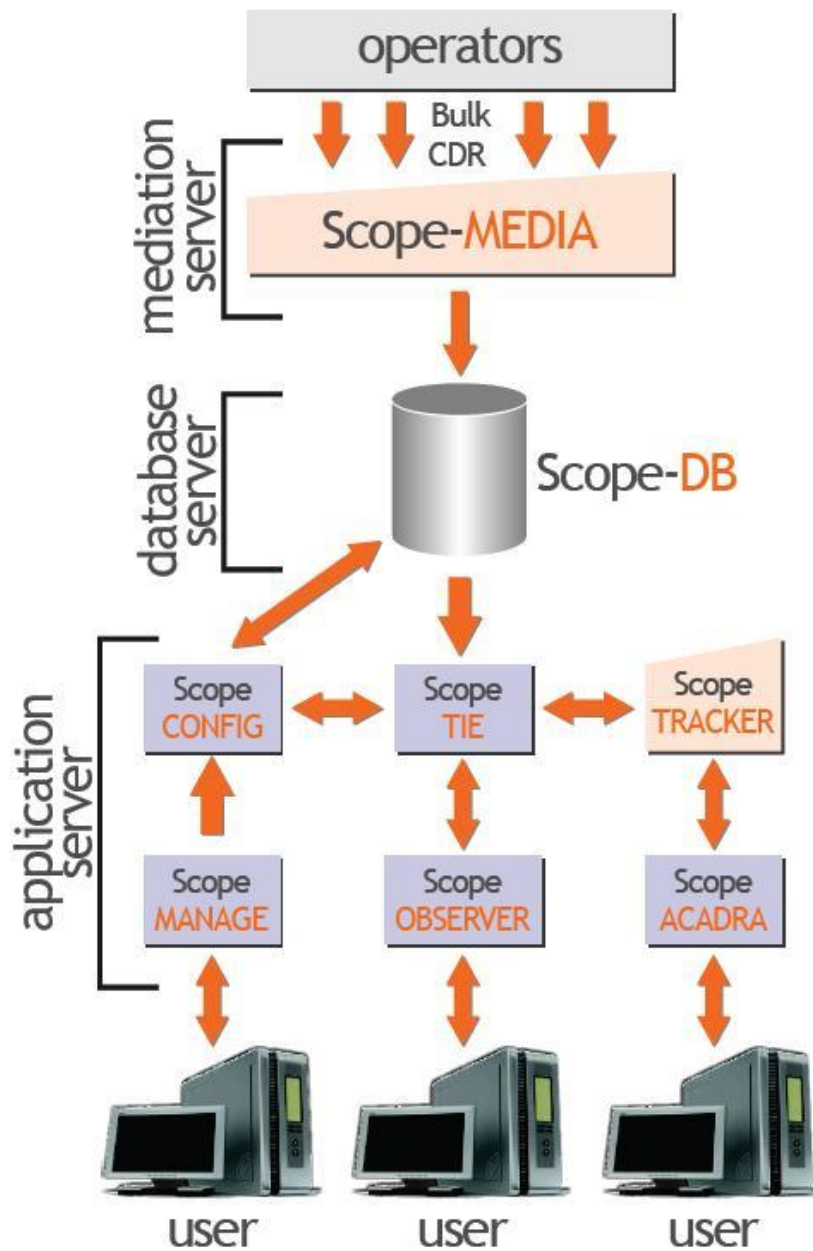
COMPLETE INVESTIGATION, SURVEILLANCE AND ANALYSIS SYSTEM



Documents subject to change without notice

- Specially designed for:
 - Multi Vendor,
 - Multi Operator,
 - Multi LEA environment.
- Developed in large LEA environment and expanded with telecom regulator body.
- Mixed environment design(GSM, PSTN, Internet, VOIP)

Architecture



ISTANBUL

Kurdish militant owns up to bomb blasts

Istanbul (AFP) An alleged Kurdish militant charged with two deadly blasts in Istanbul has confessed to detonating the bombs and watching the ensuing carnage, the *Hürriyet* daily reported yesterday.

Police have concluded that the July 27 attacks, which claimed 17 lives, were staged by the separatist Kurdistan Workers' Party (PKK), Interior Minister Besir Atalay said Saturday, as he announced the arrest of several suspects.

Newspapers identified the bomber as Hüseyin Tureli, a 26-year-old militant trained in PKK camps in neighbouring northern Iraq, who was among eight suspects whom an Istanbul court Saturday remanded to custody pending trial.

Mobile detonation

Tureli confessed to planting the bombs in a crowded pedestrian street in the residential neighbourhood of Gungören and detonating them by mobile telephone, *Hürriyet* reported, without revealing its sources.

Tureli, who was accompanied by five accomplices at the scene, told the police they watched for 20 minutes after the second explosion and then walked away, the daily said.

As the first bomb drew a

Russia close to

TENSIONS RISE

Moscow (AFP) Georgia's Moscow-backed breakaway region of South Ossetia is close to a "large-scale" military conflict, Russia said yesterday, adding that Georgian manoeuvres were undermining peace prospects.

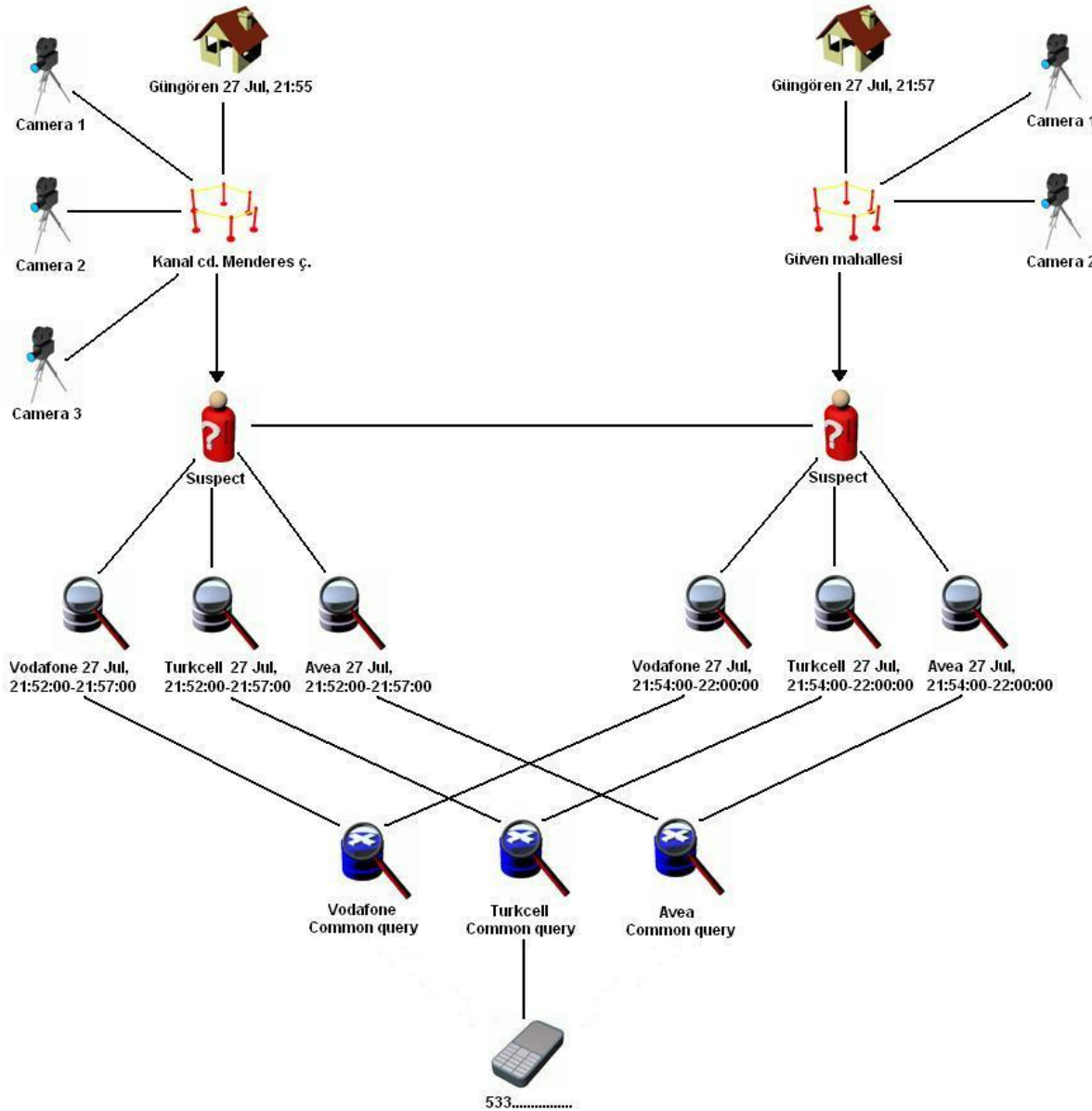
"The threat of large-scale military action between Georgia and South Ossetia is becoming ever more real," Russia's foreign ministry said.

"Despite various declarations by the Georgian lead-

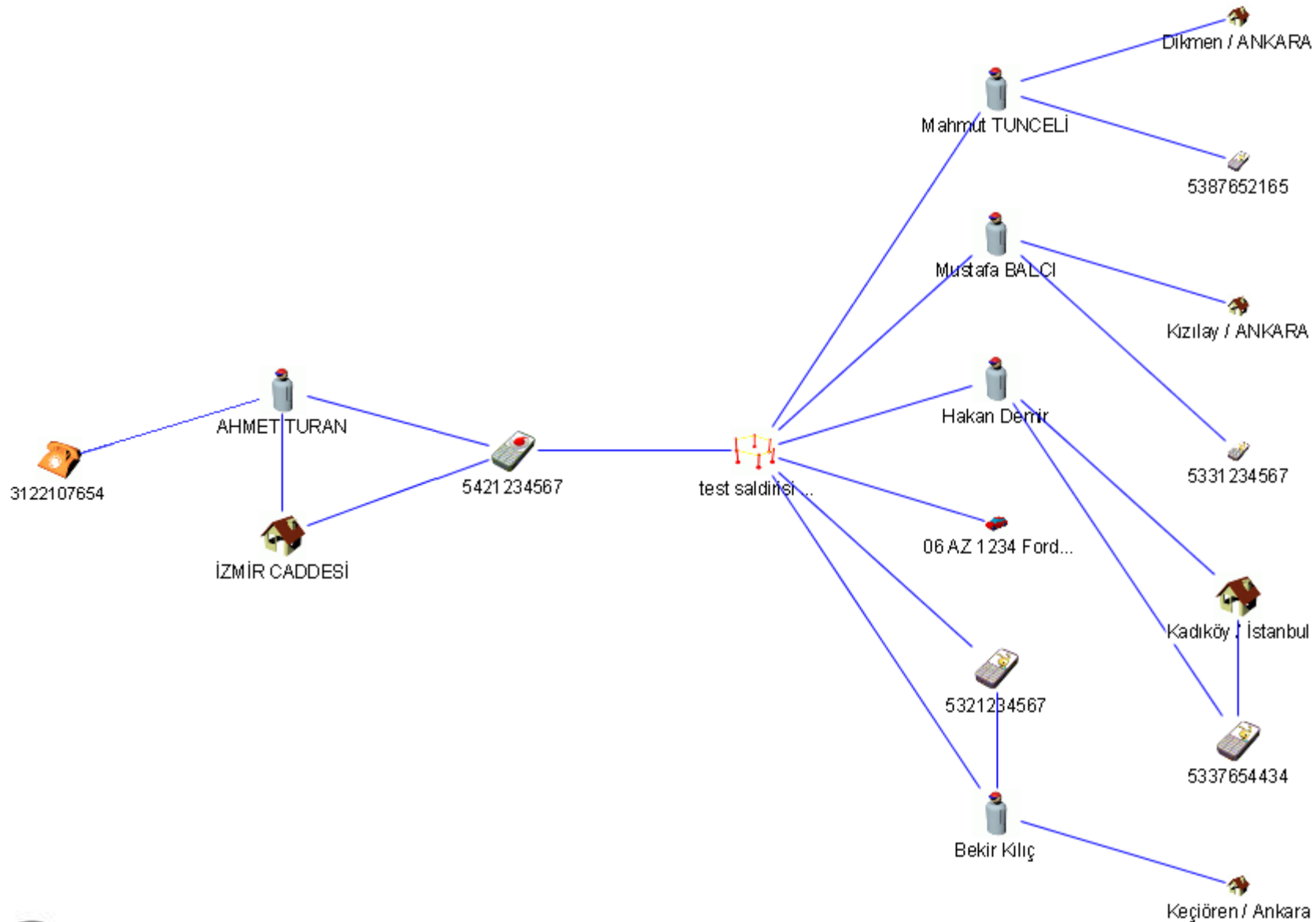
July 27 Istanbul



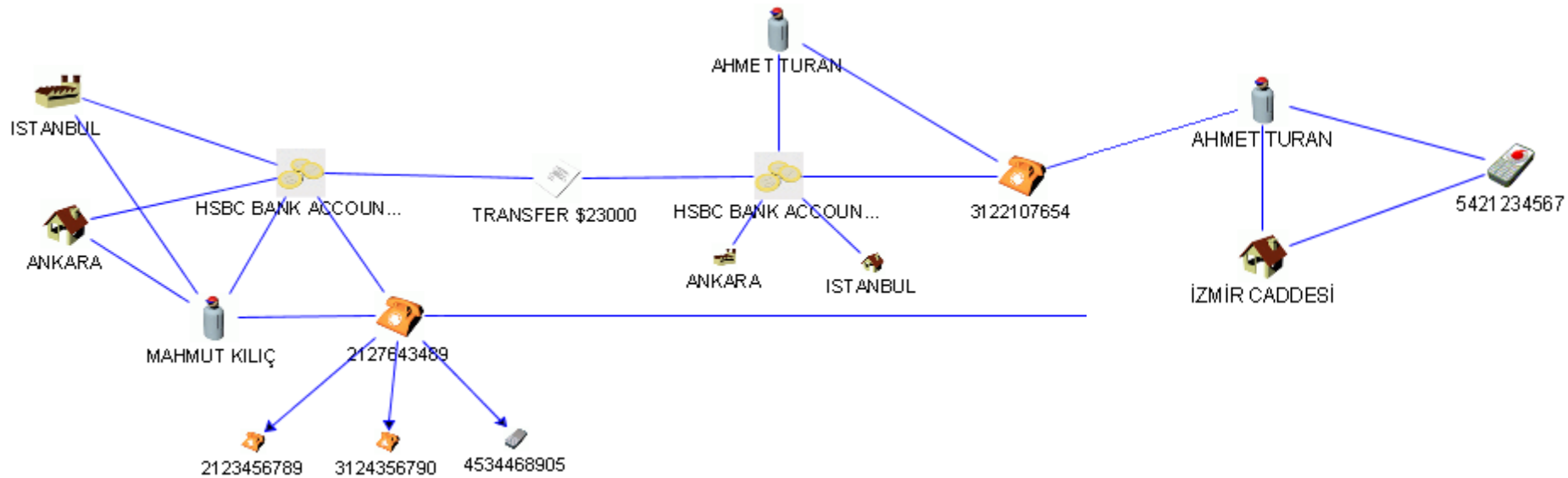
Sample Case



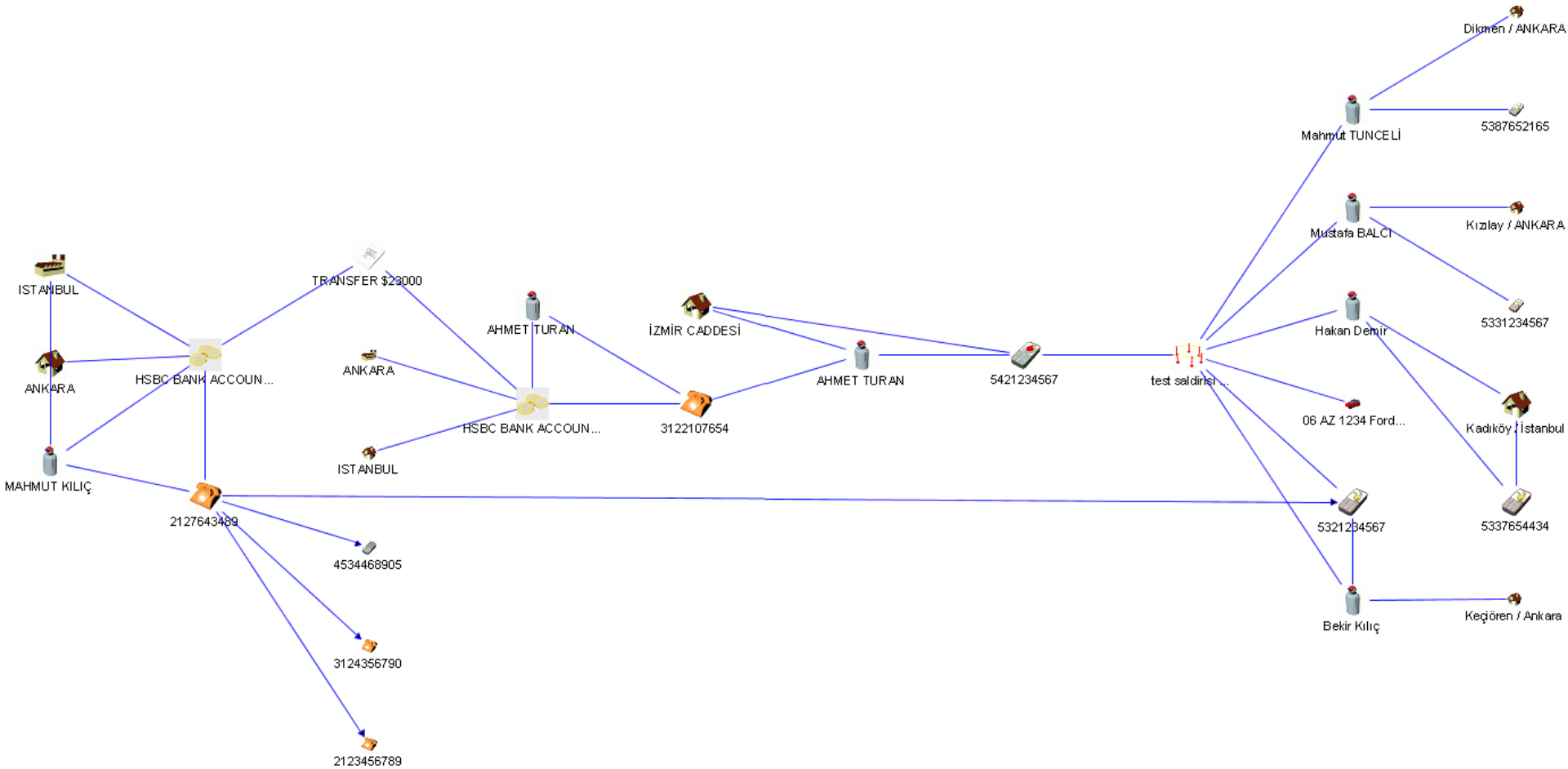
Example operation: CDR vs. Police records



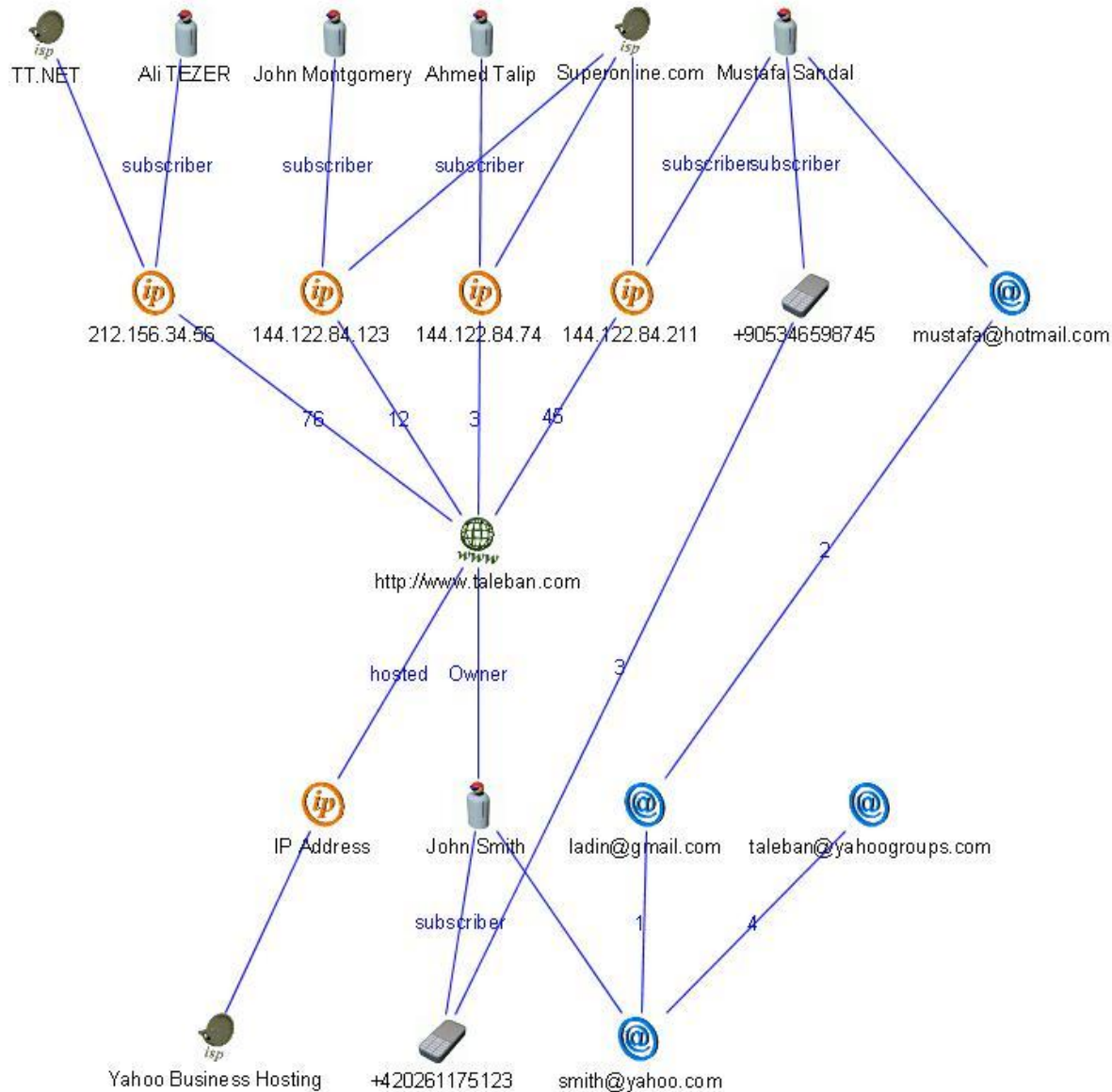
Example operation: CDR vs. Bank records



Example operation: Police records vs. Bank



Example operation: Internet Investigation



THANK YOU

Question & Answer