

- b.2) collecting event data messages related to mobile subscribers of the mobile network and being transferred between the mobiles' user equipment and radio access network elements;
- b.3) comparing mobile subscriber's event data with the network configuration topology data; and
- c. a virtual base-station identification detector, for:
 - c.1) receiving from the processing unit the comparison results being indicative of virtual base-station activity; and
 - c.2) generating an identification and profile data file of the virtual base-station, based on the comparison results.

The virtual base-station that communicates with the mobile (subscriber) User Equipment (UE) via Air Interface may not be a part of mobile operator's wireless radio access telecommunication transmitting sources.

The processing unit may be adapted to essentially on-line process and analyze virtual base-station measurements reported by mobile subscriber user equipment to build the identification profile of the virtual base-station.

The data files may be data files which comprise real-time event messages transferred between the mobiles' user equipment and different radio access network elements.

The processing unit may comprise:

- a. a profile decoder for building the virtual base-station profile from the measurements reported by mobile subscriber user equipment; and
- b. a decompounder for comparing the virtual base-station data profile with the active base-station in the mobile network as measured in the event measurement file and reported in the configuration topology file.

4. A system according to claim 1, wherein the processing unit processes and analyzes the mobile and network measurement data essentially on-line.
5. A system according to claim 1, wherein the data files are data files which comprise real-time event messages transferred between the mobiles' user equipment and different radio access network elements.
6. A system according to claim 1, wherein the processing unit comprises:
 - a. a profile decoder for building said virtual base-station profile from the measurements reported by mobile subscriber user equipment; and
 - b. a decompounder for comparing said virtual base-station data profile with the active base-station in the mobile network as measured in the event measurement file and reported in the configuration topology file.
7. A system according to claim 6, wherein the decompounder extracts the virtual base-station data from the mobile user equipment's measurements at any given report record.
8. A system according to claim 6, wherein the decompounder includes one or more decoders, adapted to analyze the data files received from each mobile network, in parallel.
9. A system according to claim 6, wherein the decompounder further compares the event measurements data from the User Equipment units (UEs) with the network topology data for detecting virtual base-station measurement data.

10. A system according to claim 1, further comprising a history database containing history data record definitions of any track record of virtual base-station identification event including event handling definitions and track recording.
11. A method for online identification and profiling of an active virtual base-station, comprising:
 - a. receiving data files from said mobile access networks;
 - b. indexing data file immediately after its creation;
 - c. extracting the base-station related data measurement from said files by decompounding relevant measurements from the communication protocol layers;
 - d. comparing said base-station related data measurement with the network's topology configuration from the different network topologies data, stored in a database; and
 - e. generating one or more profiles of the virtual base-stations identification.
12. The method of claim 11, further comprising utilizing the data in the history database for identifying virtual base-station activation patterns and behaviors for further use by law enforcement agencies.
13. A system according to claim 1, wherein the virtual base-station identification detector is adapted to generate an alert upon detecting a mismatch between the data corresponding to the radio access network configuration topology and the mobile subscriber's event.