Overview

The P-Tracer application assists in contact tracing efforts. It uses WiFi association data to re-create the ‘Association Journey’ of a user (Person of Interest or PoI) over a given period of time. PoI is the user of a WiFi-enabled device identified by one of the following:

- MAC address of the device,
- the machine name, or
- the user name used for 802.1x authentication with the WiFi infrastructure.

P-Tracer captures the following information:

- The sequence of APs that the user device(s) connected with.
- The Time of Stay (ToS) at each AP.
- Details of the location/floor where the AP is deployed.
- Information about other Proximal devices or users, which were associated with the same AP at the same time. We refer to such a user as a Proximal Person of Interest (PPoI). A PPoI is the user of a WiFi-enabled device detected in the proximity of a PoI, identified by the same three characteristics as a PoI.

P-Tracer also identifies APs and locations where the density of clients is higher than a predefined threshold. These are referred to as High Occupancy Zones.
Features

P-Tracer uses the association records to generate a set of reports for each client device which successfully connected to the WiFi network. The association data is fetched from CV-CUE using APIs. The client device is mapped to a person on the basis of username or machine name provided during the authentication process. These reports are available in CSV and HTML formats. The period of interest for these reports ranges from 1 to 30 days.

P-Tracer Analytics

PoI Report
The PoI Report provides information about all the APs with which a PoI was connected, in chronological order, during the period of interest. It also includes details about the AP locations and the time of stay per AP. Each record in the report pertains to a 15-minute interval.

PPoI Report
The PPoI report contains a list of proximal users which were simultaneously associated with the same AP as PoI during the period of interest.
**Hotzones Report**
This report lists all the APs and the corresponding location with which a PoI was associated with, in chronological order.

**High Occupancy Zones**
This report contains details of APs whose association count exceeded a predefined threshold and hence, were deemed as High Occupancy Zones. The report lists all the time intervals during which an AP was classified as High Occupancy Zone with the actual association count as well as the AP location.

**Report Generation**
The reports described above can be generated on-demand for a specific user, identified by its username or device name or device MAC, for a period of interest ranging from 1 to 30 days. P-Tracer also provides an automated daily set of reports containing information about all the clients/users which associated with the WiFi network during that day.

<table>
<thead>
<tr>
<th>Feature/Platform</th>
<th>Report</th>
<th>Format</th>
<th>Report Duration (days)</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Requirements</strong></td>
<td>Association Journey</td>
<td>CSV, HTML</td>
<td>1 to 30</td>
<td>CSV or HTML</td>
</tr>
<tr>
<td></td>
<td>Proximal Contacts List</td>
<td>CSV, HTML</td>
<td>1 to 30</td>
<td>CSV or HTML</td>
</tr>
<tr>
<td></td>
<td>Hotzones List</td>
<td>CSV, HTML</td>
<td>1 to 30</td>
<td>CSV or HTML</td>
</tr>
<tr>
<td><strong>Multiple Persons of Interest</strong></td>
<td>Association Journey</td>
<td>CSV, HTML</td>
<td>1</td>
<td>CSV Only</td>
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<tr>
<td></td>
<td>Proximal Contacts List</td>
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</tbody>
</table>
P-Tracer Installation
P-Tracer is a standalone application, for deployment in the customer’s network. The application can be deployed by the customer on a local server or a cloud-based server owned by the customer. The reports are stored on the customer’s server where the application is deployed. Following are the prerequisites for P-Tracer installation:
• Linux server (Ubuntu > 16.04; 8GB RAM; 200GB HD).
• Chrome browser

Data Privacy
The Arista cloud, running CV-CUE, is SSAE 18 SOC2 Type 1 and Type 2 certified to ensure data protection. Proximity Tracer makes use of the association history of devices, which is already available in CV-CUE. It allows auto-deletion of all data (raw as well processed) after a configurable duration. Note that Proximity Tracer is intended to be deployed on a server within the customer’s network. Therefore, the data drawn by P-Tracer from CV-CUE and the reports generated by the application are available only to the customer.