Esri Location Analytics
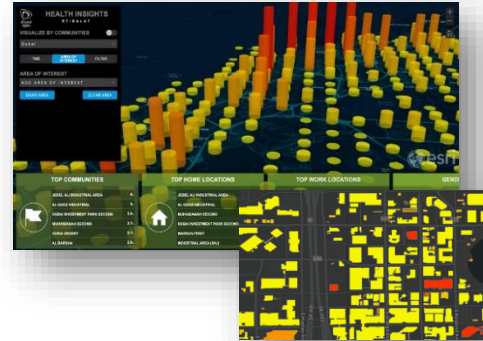
Turn your data into deeper understanding by mapping and analyzing it. Esri uses **location analytics** to help you know what to do, when, and where.

Spatial Analysis

Geospatially enable your existing big data cluster with spatial analytics tools, machine learning algorithms, and artificial intelligence techniques that allow you to expose patterns, relationships, and incidents in massive amounts of telecom data, regardless of format and source. With spatial analysis your organization can realize:

- Subscriber Behavior Analysis & Mapping
- Capacity & Utilization Forecasting
- Marketing & Retail Analysis
- New Digital Services & Data Monetization

Advanced Analytics/Developer Tools

Esri helps data scientists and analysts enhance their big data analytics with spatial tools that take advantage of the massive computing capacity they already have. Leveraging **Apache Spark** and your big data cluster**,** means spatial vector and raster analytics comes to your data. Esri's open location analytics platform offers an easy to use **developer framework** that includes APIs and SDKs, and a flexible way to deploy in your environment.

Spatial Tools & Processers to:

- Summarize Data – *Aggregation, Join, Summarize Attributes*
- Analyze Patterns – *Density, Hot Spots, Clusters*
- Find Locations – *Detect Incidents, Find Similar, Image Detection*
- Manage Data – *Append, Calculate Field, Overlay, Dissolve*
- Use Proximity – *Create Buffers, Distance, Geoenrich, Smart Road Snapping*

"We're crunching more than a billion records on a daily basis"
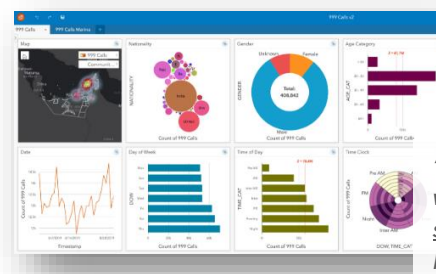
Sample Benchmark Results:

Use Case	Data Volume	Environment Details	Results
Self-join, for each geographic point, find other points within xxx distance and calculate spatial statistics	• 30 million points x 30 million points • 60 numeric columns	• executor-cores: 4 • executor-memory: 13G • num-executors: 56	Run Time: • 23 min for 50 m distance • 45 min for 5000 m distance
Calculate spatial statistics for all geographic points that fall within xxx distance of a line	• 200 million points • 20k line segments	• executor-cores: 4 • executor-memory: 20G • num-executors: 60	Run Time: • 5 min for 100 ft distance

Visualization & Apps

Esri's maps and apps get the job done through their sheer focus, geographic awareness, and readiness to work. Easily visualize the analytic results your team generates in **ArcGIS Enterprise** and collaborate around fast performing web maps and dashboards.

With **ArcGIS Insights**, explore data and perform advanced analytics such as spatial, statistical, predictive, and link analysis within an intuitive app experience that works the way you do.

"Esri's big data tools will allow us to deliver significantly better business results"

For more information visit Esri.com/telecom
Or contact Esri at telecominfo@esri.com