

2013 Esri Europe, Middle East and Africa User Conference

October 23-25, 2013 | Munich, Germany

Cloud based GIS for SMEs

Mohammed Abdelaziz



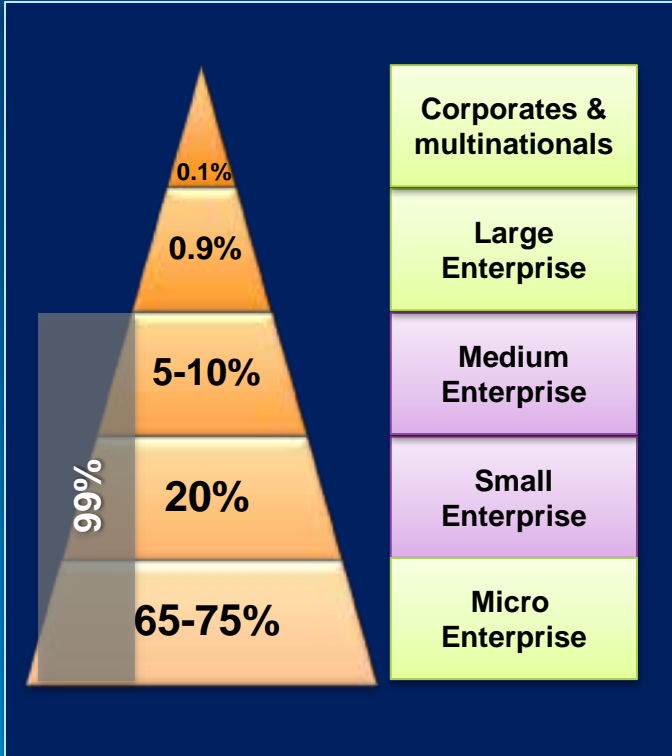
SME Definition

Small and Medium Enterprises

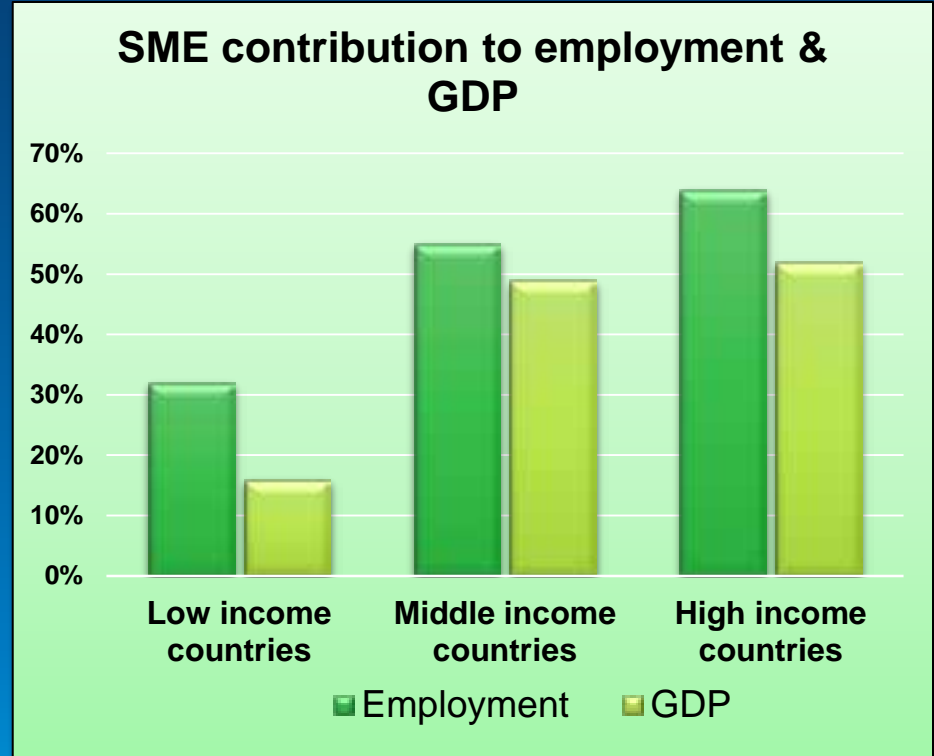
VARIOUS COUNTRIES					
	EU	USA	Asia (Malaysia)	Egypt	Ghana
Name					
	Small and Medium Enterprise	Small and Medium Business	Small and Medium Enterprise	Micro, Small and Medium Enterprise	Micro, Small and Medium Enterprise
Number of employees					
Micro	<10	–	<5	1–4	1–5
Small	<50	<100	5–50	5–14	6–29
Medium	<250	<500	51–150	15–49	30–39

Source: South African Institute of Public Accountants

SMEs Worldwide

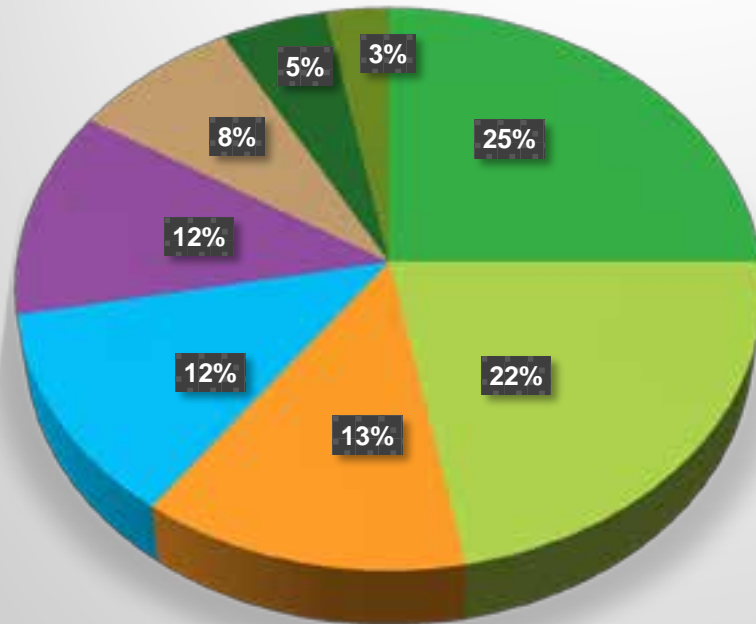


Source: SME Banking Knowledge Guide



Source: World Bank

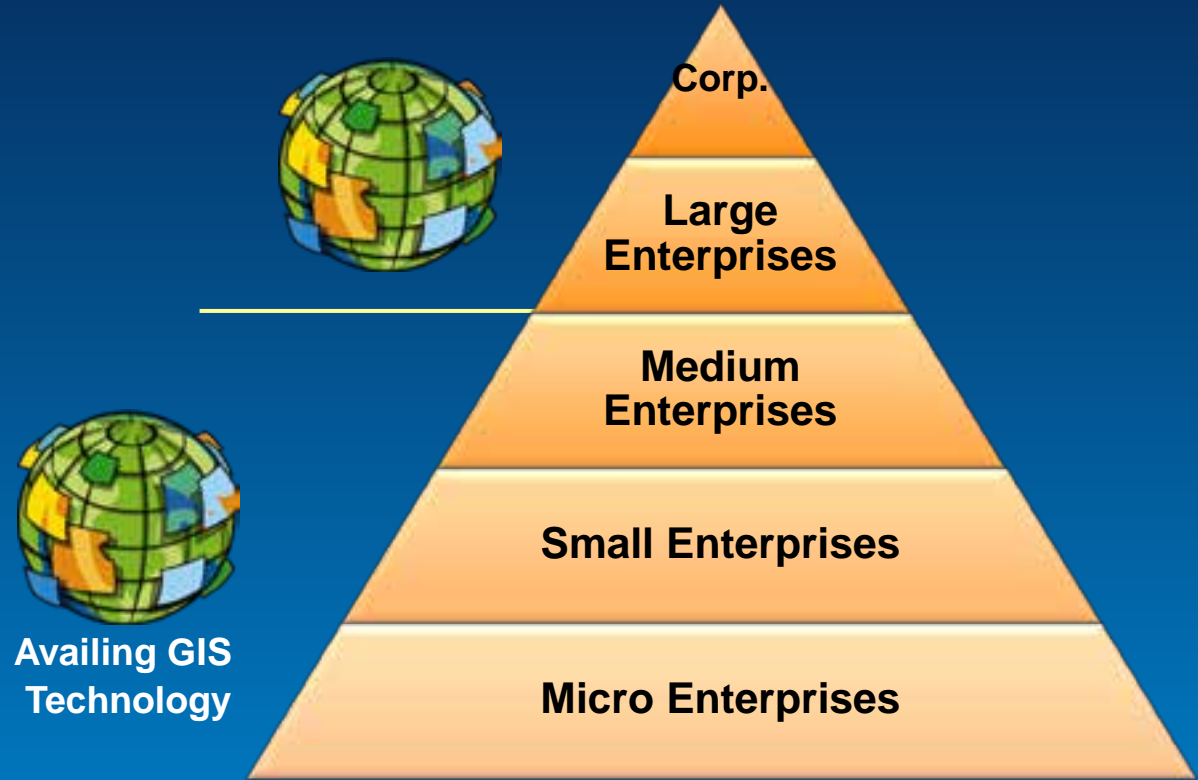
Challenges



■ Burden of regulations	25%
■ Economic uncertainty	22%
■ Rising costs	13%
■ Accessing finance	12%
■ Pressure to lower prices	12%
■ Lack of demand	8%
■ Competition	5%
■ Attracting & retaining staff	3%

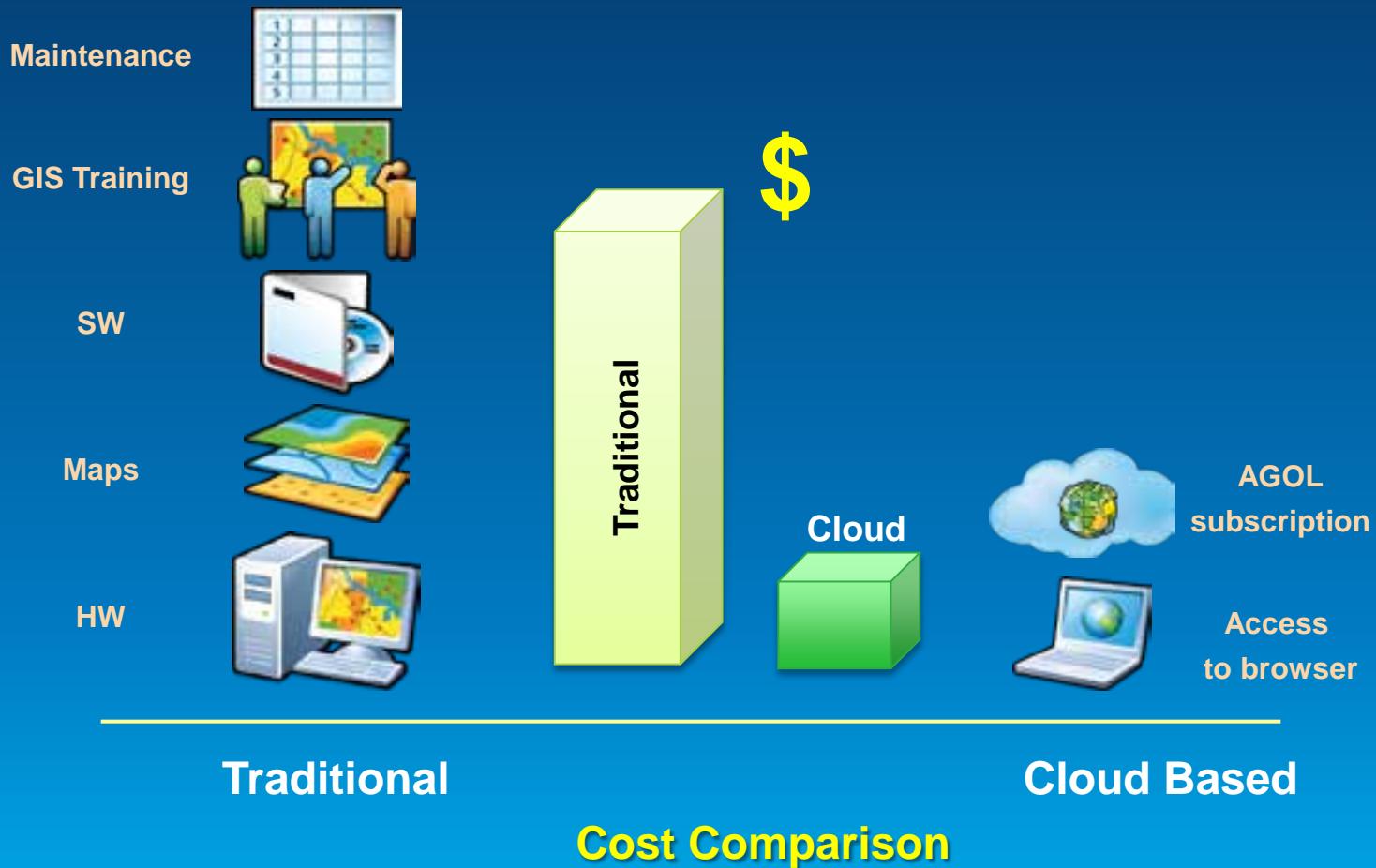
Source: International Federation of Accountants

Our Goal



**GIS is helpful for all sectors
(industry, commerce, telecom, tourism,...)**

How...?



Scenario

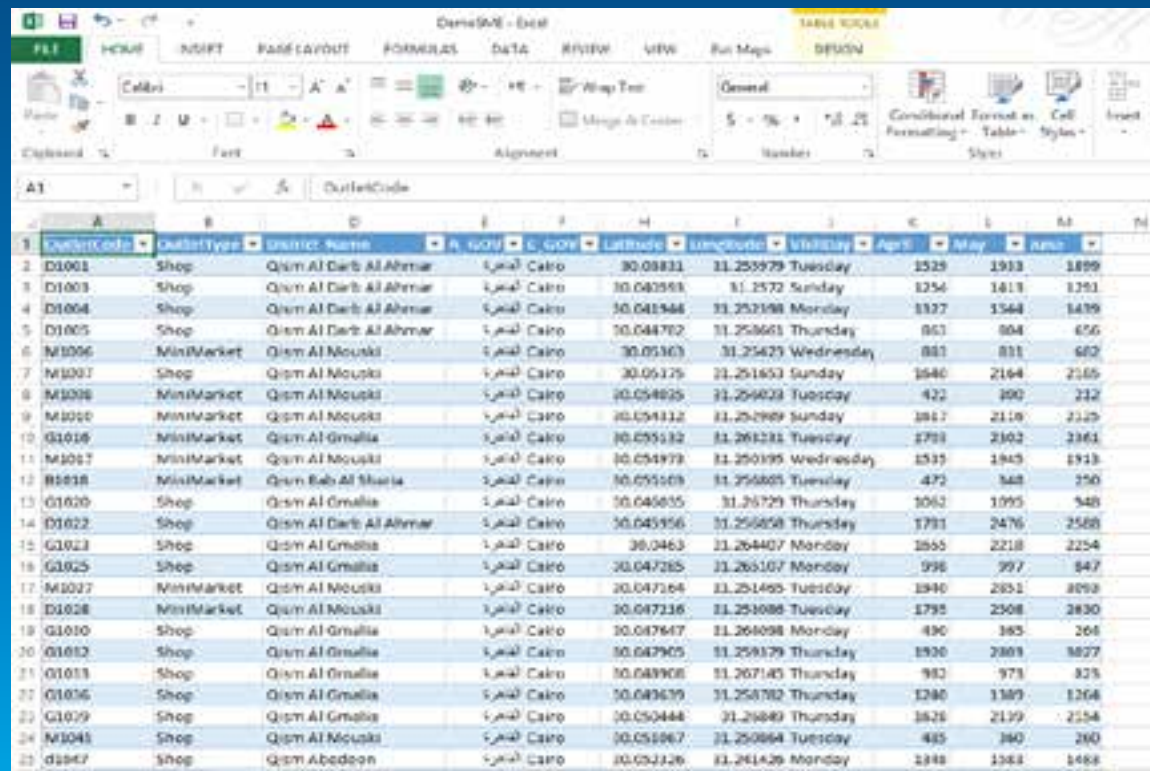
- Small company
- Working in the food industry
- Pack & deliver fresh fruits & vegetables to outlets & end users.
- Target market is Cairo, Egypt



Cloud Approach

1. Business Data

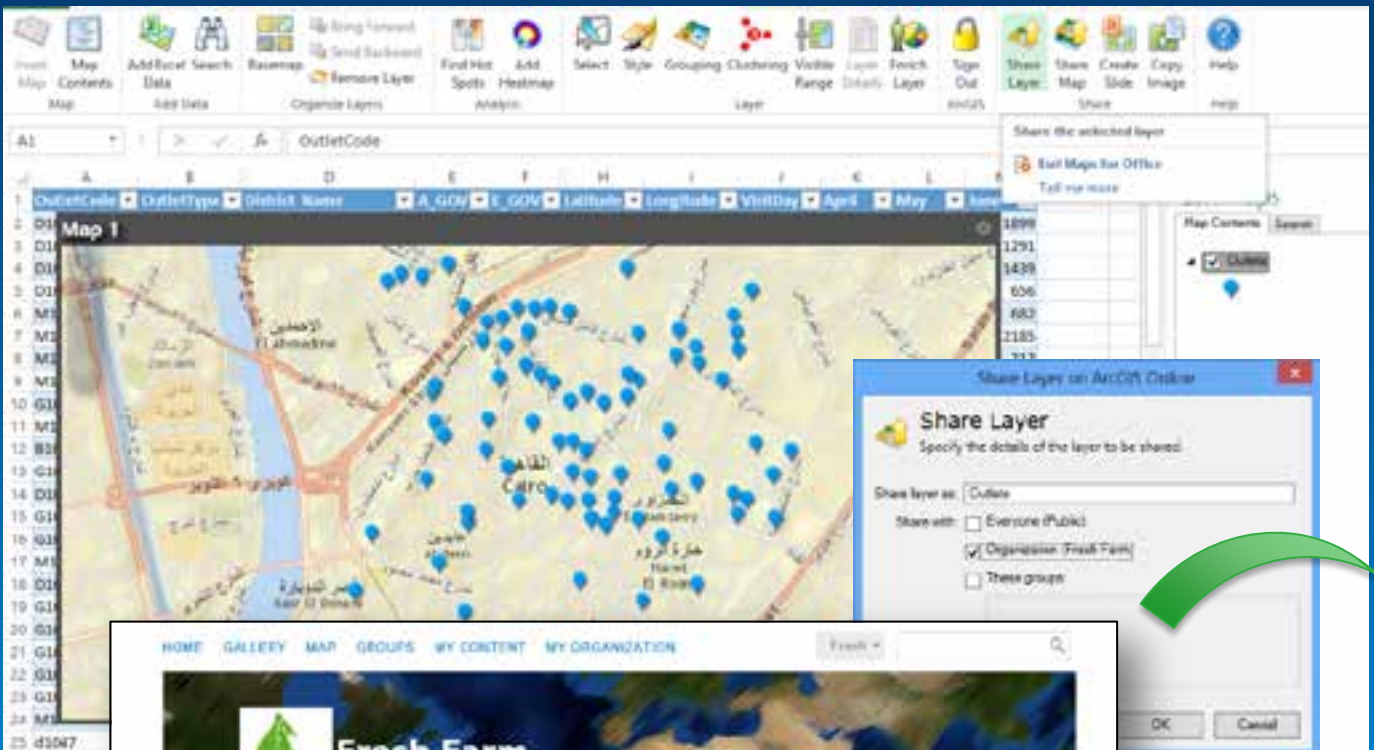
Sheets with info related to outlets or customer



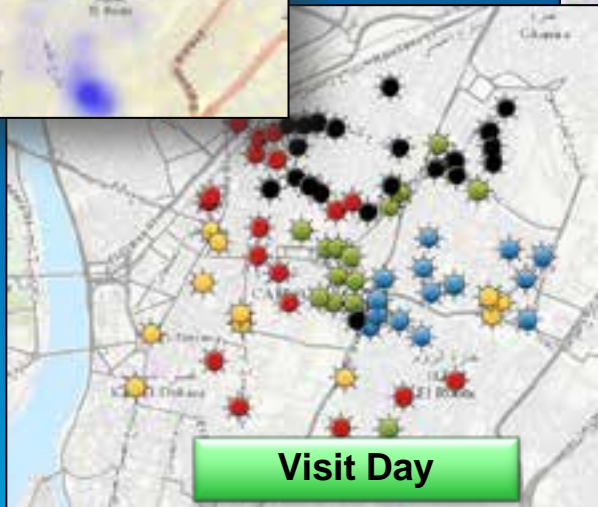
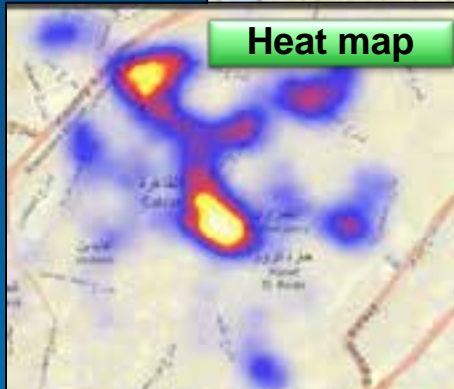
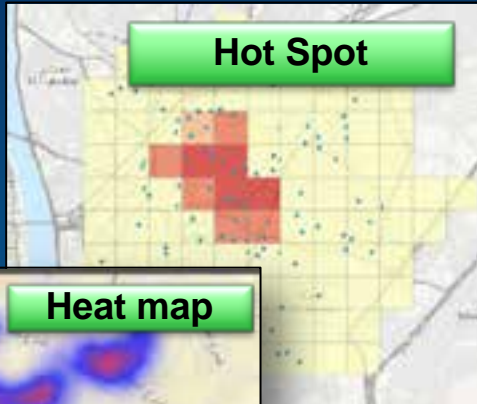
OutletCode	OutletType	District Name	R. NO	C. GOV	Latitude	Longitude	VisitDay	April	May	name
D1001	Shop	Qism Al Darb Al Ahmar	القاهرة	Cairo	30.08831	31.255979	Tuesday	1529	1933	1899
D1003	Shop	Qism Al Darb Al Ahmar	القاهرة	Cairo	30.042581	31.2572	Sunday	1254	1413	1291
D1004	Shop	Qism Al Darb Al Ahmar	القاهرة	Cairo	30.041544	31.252198	Monday	1127	1344	1439
D1005	Shop	Qism Al Darb Al Ahmar	القاهرة	Cairo	30.044702	31.258661	Thursday	863	804	656
M1006	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.05363	31.25425	Wednesday	881	811	602
M1007	Shop	Qism Al Mouski	القاهرة	Cairo	30.05125	31.251653	Sunday	1640	2144	2165
M1008	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.054825	31.256828	Tuesday	422	390	212
M1009	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.054312	31.250989	Sunday	1847	2118	2125
G1016	MiniMarket	Qism Al Gmalla	القاهرة	Cairo	30.055132	31.261231	Tuesday	1791	2102	2161
M1017	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.054979	31.250195	Wednesday	1519	1845	1913
B1018	MiniMarket	Qism Bab Al Marra	القاهرة	Cairo	30.05109	31.256805	Tuesday	472	348	290
G1020	Shop	Qism Al Gmalla	القاهرة	Cairo	30.046055	31.26729	Thursday	1062	1095	548
D1022	Shop	Qism Al Darb Al Ahmar	القاهرة	Cairo	30.045156	31.258858	Thursday	1791	2476	2588
G1023	Shop	Qism Al Gmalla	القاهرة	Cairo	30.0463	31.264407	Monday	1855	2218	2254
G1025	Shop	Qism Al Gmalla	القاهرة	Cairo	30.047285	31.265107	Monday	996	997	847
M1027	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.047164	31.251495	Tuesday	1940	2651	3092
D1028	MiniMarket	Qism Al Mouski	القاهرة	Cairo	30.047216	31.251088	Tuesday	1795	2308	2830
G1030	Shop	Qism Al Gmalla	القاهرة	Cairo	30.047647	31.264098	Monday	490	385	264
G1032	Shop	Qism Al Gmalla	القاهرة	Cairo	30.047905	31.259129	Thursday	1920	2809	3827
G1033	Shop	Qism Al Gmalla	القاهرة	Cairo	30.049068	31.267145	Thursday	982	973	825
G1036	Shop	Qism Al Gmalla	القاهرة	Cairo	30.049639	31.258782	Thursday	1240	1389	1264
G1039	Shop	Qism Al Gmalla	القاهرة	Cairo	30.050444	31.26849	Thursday	1828	2159	2554
M1041	Shop	Qism Al Mouski	القاهرة	Cairo	30.051067	31.250864	Tuesday	485	340	260
d1047	Shop	Qism Abdeon	القاهرة	Cairo	30.052126	31.241426	Monday	1948	1343	1488

2. Building Layers

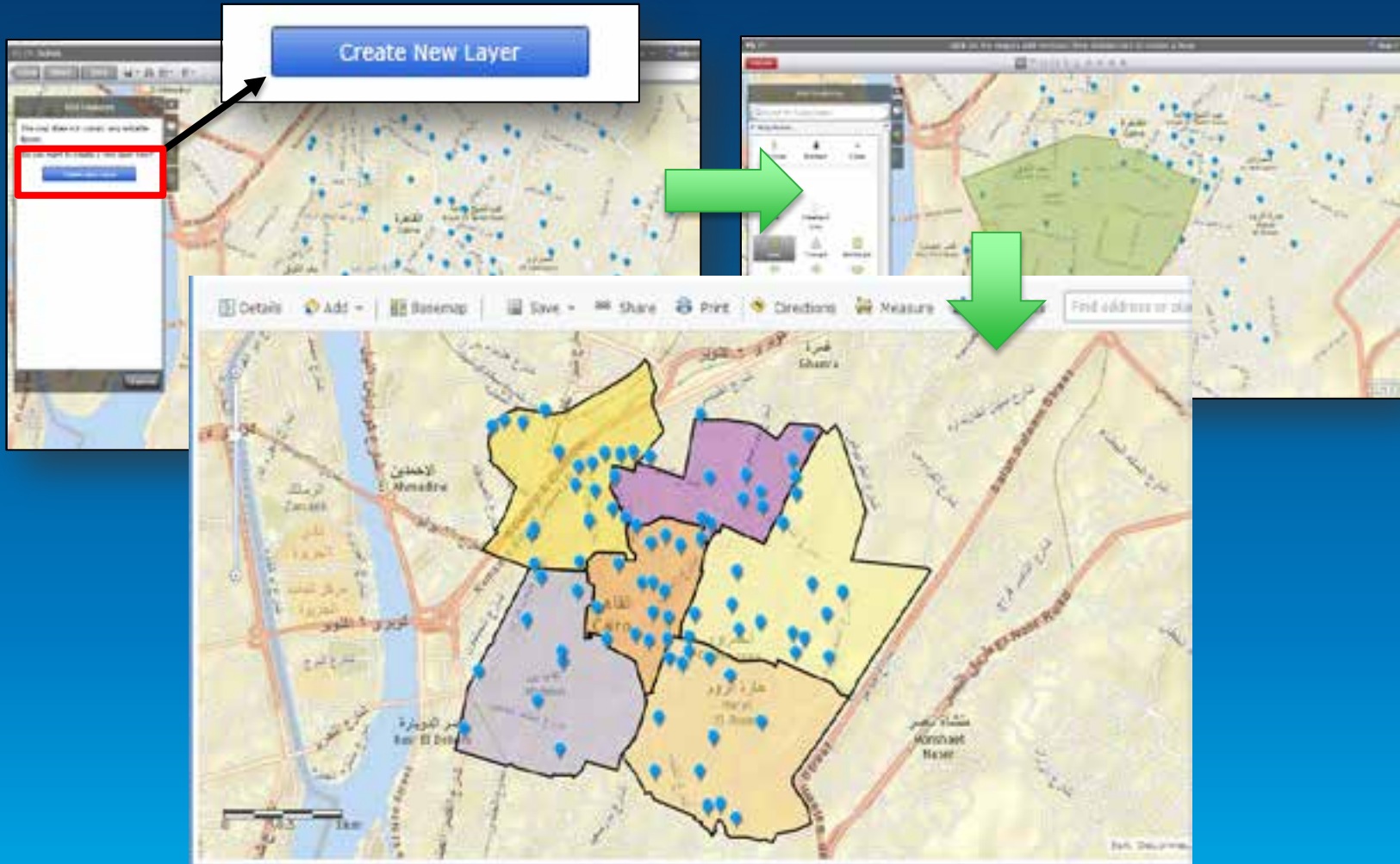
Tabular to Spatial



Geo-analyzing outlet locations



3. Building Territories



4. Analyzing Sales Territories

The screenshot displays the ArcGIS Online interface. On the left, the 'Aggregate Points' tool is open, showing the following settings:

- Count Outlets within**
- 1. Choose area:** Territories_Areas
- Keep areas with no points
- 2. Add statistic (optional):**
 - April: Sum
 - May: Sum
 - June: Sum
 - Field: Statistic
- 3. Choose field to group by (optional):** Field
- 4. Result layer name:** Territories_Revenues

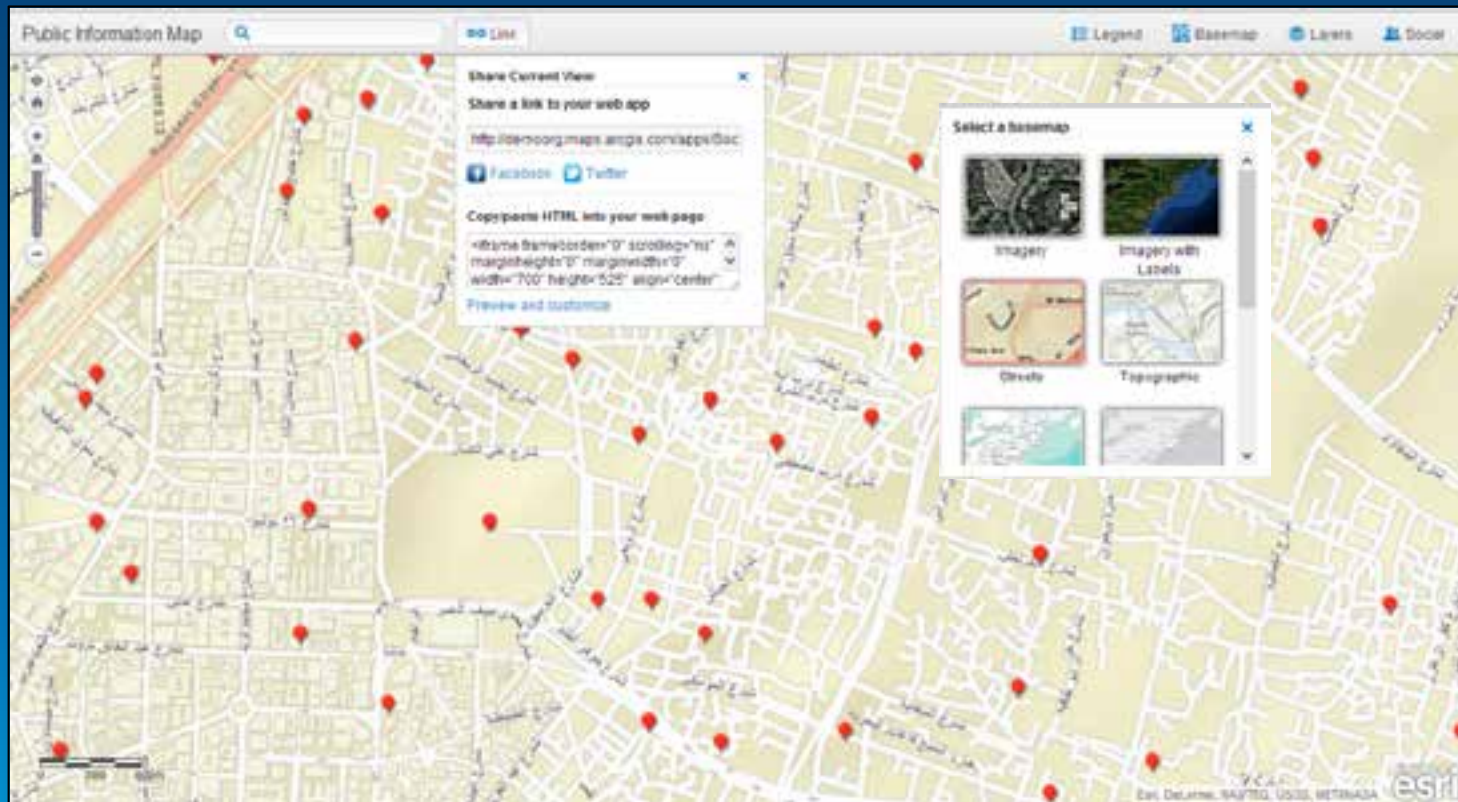
The main map shows a geographical area with several territories highlighted in shades of brown and orange. A pop-up window for 'Qism Al Gammaliya' is open, displaying the following data:

Territory	Qism Al Gammaliya
No. Outlets	15
April	19915
May	24581
June	24176

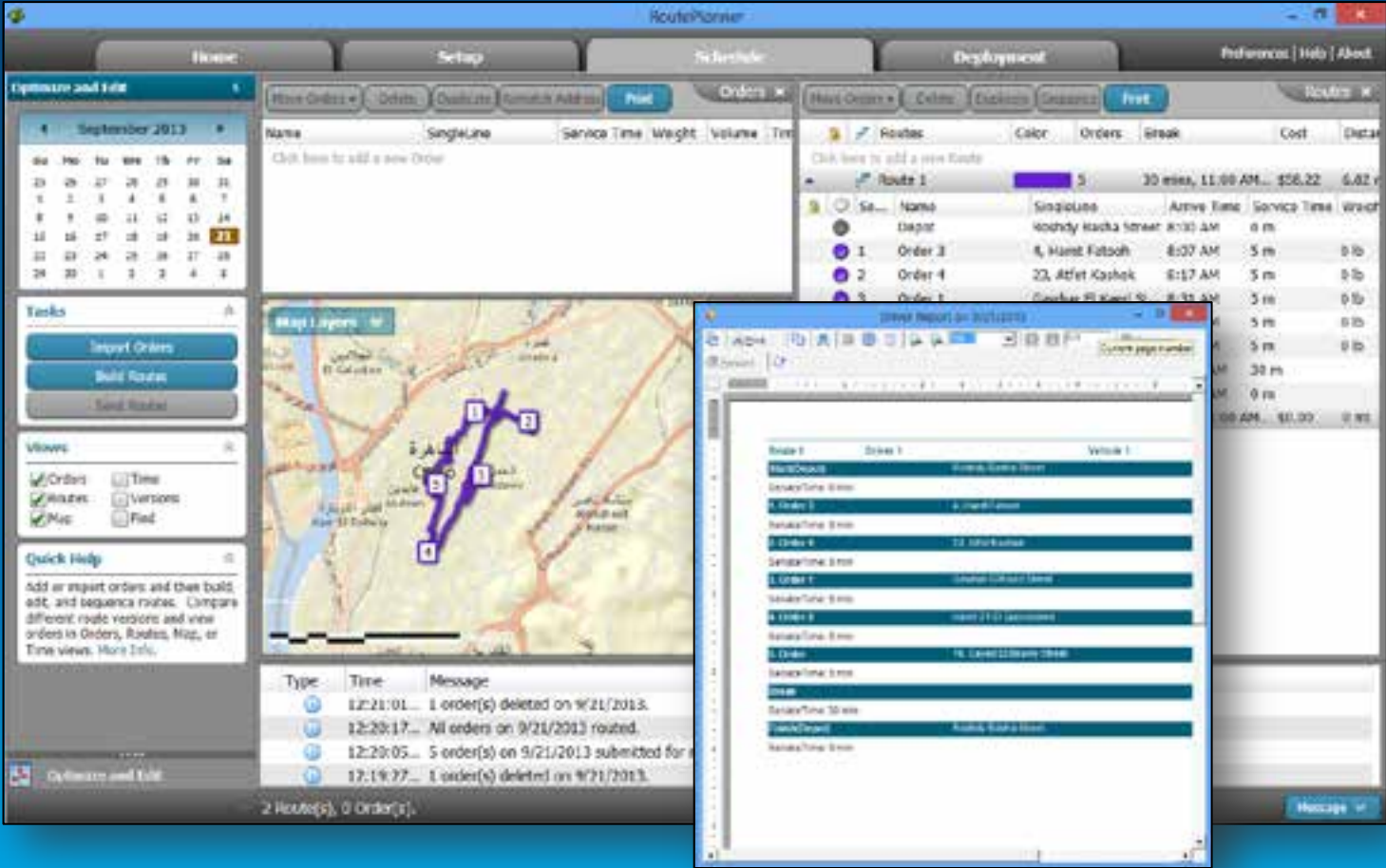
Below the table is a 'Sales Trend' bar chart with three bars representing the months of April, May, and June. The y-axis ranges from 0 to 25,000. The bars show sales values of approximately 19,915 for April, 24,581 for May, and 24,176 for June. At the bottom of the pop-up, there are buttons for 'Zoom to' and 'Get Directions'.

5. Public website

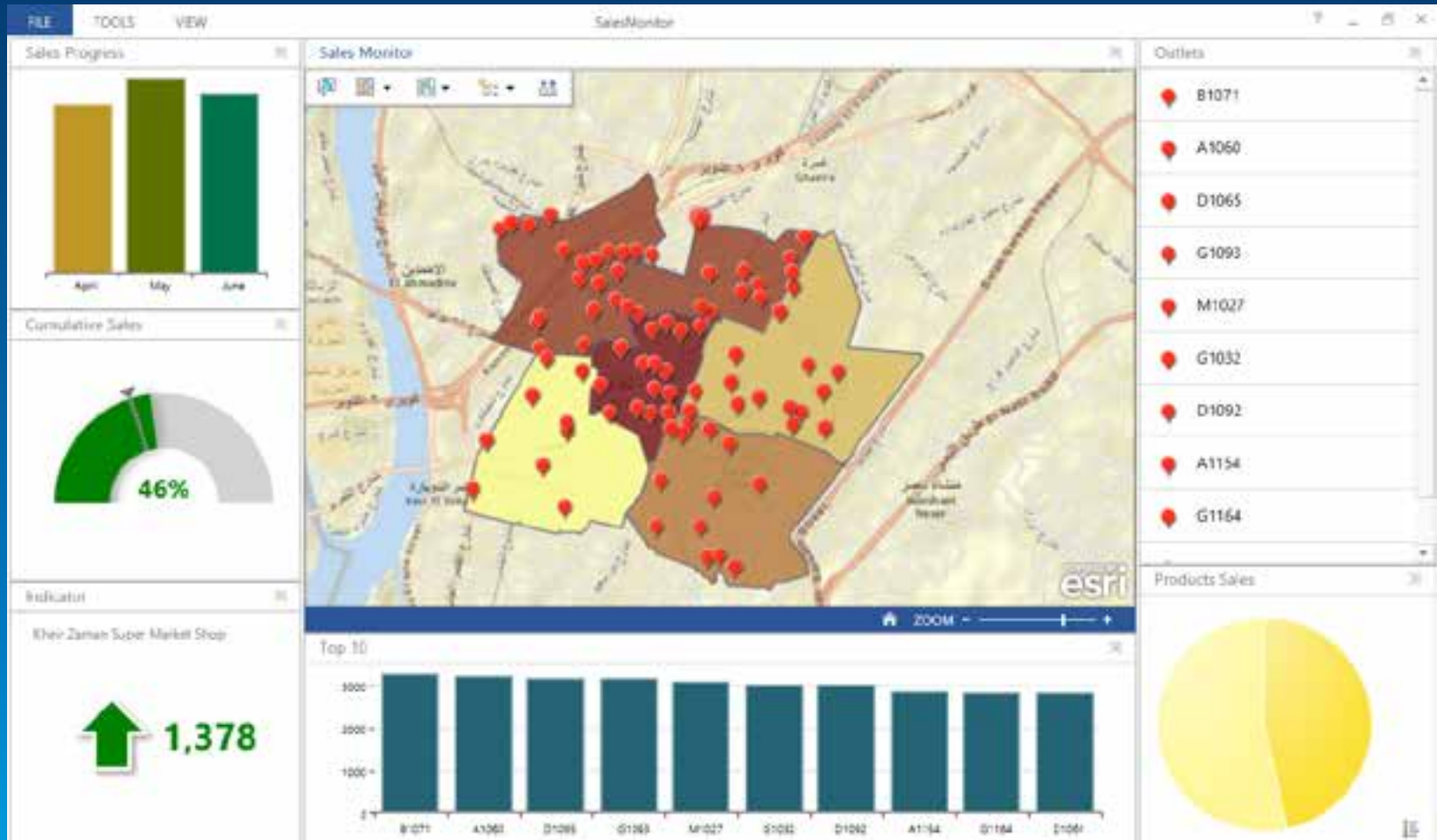
Tell people where they can find our products



6. Optimizing Routes

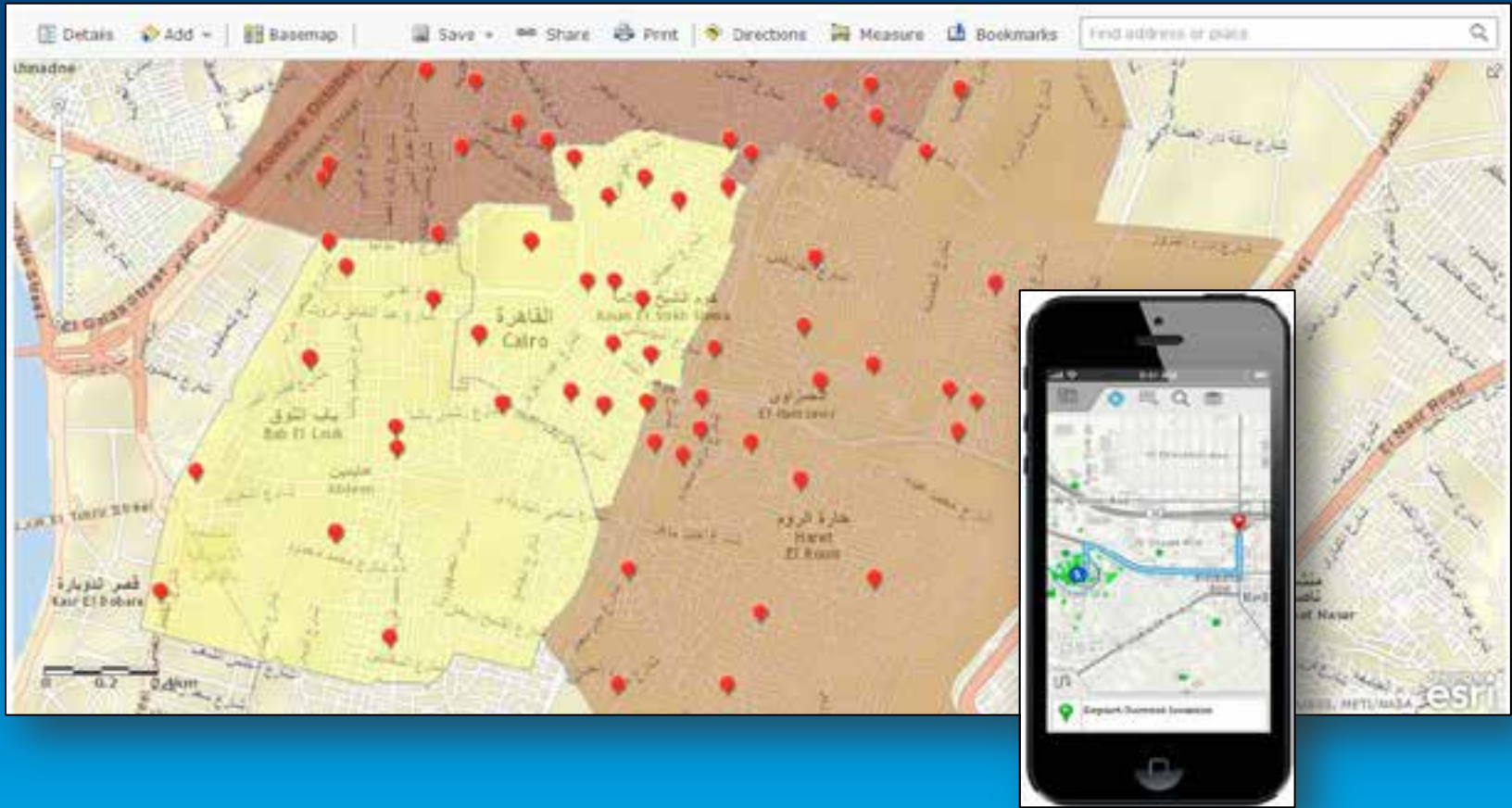


7. Monitoring KPIs



8. For future, adding new locations

Collect info about future outlets using Collector for ArcGIS



Whole image



Conclusion

An SME is able to:

- Monitoring Performance on Map
- Perform Geo-marketing Analysis
- Forget about managing GIS infrastructure
- Publish locations to public & potential customers
- Easy exit if needed

at affordable cost \$\$

Items needed



“Cloud is **Democratizing** Technology”

Thanks