

SPESIFIKASI TEKNIKAL

SEBUTHARGA BIL. 21/2017:

PERKHIDMATAN PEMBANGUNAN SISTEM BIG DATA SME DASHBOARD

Supply, Delivery, Installation, Customization, Testing, Integration, Implementation, Commissioning and Post Acceptance maintenance and support services of Location Intelligence for SME Corp. Malaysia

1. Introduction

1.1 Objective

- i. To develop a Location intelligence system to meet SME Corp's analytical and reporting requirements and to enable SMECorp management to have a location based visual analytics on 20,000 SMEs who participated in SCORE programme
- ii. To provide a solution with dashboarding capabilities, for the management of SME Corp management to:
 - Identify targeted segments of SME companies and execute targeted marketing more effectively
 - Increase effectiveness and reduce cost of intervention programmes
 - Improve response, turnaround and availability of SME information to decision makers

1.2 Scope of the project

The scope of work proposed for the SME Corp Location intelligence initiative is to include the supply, delivery, installation, customization, testing, implementation, and commissioning of the location intelligence initiative.

Detailed scope includes the following :

- Extract SME profile data provided by SMECorp into staging database and transform data into SME profile data mart.
- Geocoding 20,000 SME profile addresses to derive their longitude and latitude location points and populate into various GIS boundary polygons.
- Incorporate GIS boundary polygons for:
 - State, Daerah and Mukim
 - Parliamentary boundary area
 - DUN boundary area
- Deliver up to 10 dashboards with analysis on SME locations by State, Daerah, Mukim, parliamentary and DUN along with various categories as captured in data mart.
- Provide required training for technical team and end users/Analysers on the usage of the proposed system.
- Successful Bidder is expected to deliver and complete this project within six months.
- Provide support services for application within the warranty period of at least one (1) year from the issuance of the Final Acceptance Certificate.

- Provide complete set of documentation covering hard copy and soft copy, at a minimum, the User Manual, Training Manual, System Administration Manual, Technical Configuration, Business & Functional Specification, data dictionary, database design and source code.

2. Location Intelligence Initiative Requirements

2.1 Location Intelligence requirement study process

The Bidder must complete the requirement analysis process which focuses on the scope of these two main areas:

- Business Requirement Study (BRS) and
- Present System Analysis (PSA)

The Business requirement study must cover areas such as

- Defining of the Objective
- Defining of the Environment
- Defining current process of information disbursement

The present system analysis must cover areas such as

- Analysis of present data
- Analysis of present applications and
- Analysis of present infrastructure

Bidders must provide a detailed “Business Requirement Analysis” document along with sign-off from various divisions involved in this initiative.

2.2 Location Intelligence software requirements

This section will highlight the high level functional requirements for the proposed implementation of the Location Intelligence Solution for SME Corp. Bidders will be required to propose a comprehensive and productive solution that meets all requirements and details as specified in the scope of work.

The Bidder shall indicate and support compliance or otherwise with all sections of the specifications. Additional supporting, technical and descriptive information shall be submitted to SME Corp and referred to in the compliance statement where applicable

3. Solution Requirements

NO	SCOPE OF WORK	COMPLIANCE (√/x)
General Capability		
1.	The proposed solution should be able to extract SME profile data provided by SME Corp into a staging database	
2.	The proposed solution must enable the extracted data to be transformed and loaded into the SME profile data mart (A relational Database).	

3.	The extracted data must then be enriched (Geocoded) for 20,000 SME profile addresses to derive their longitude and latitude location points and populate into various GIS boundary polygons.	
4.	The proposed solution should include boundaries (Polygons) for State, Daerah and Mukim	
5.	The proposed solution should include boundaries (Polygons) for Parliamentary boundary area	
6.	The proposed solution should include boundaries (Polygons) for Dewan Undangan Negeri (DUN) boundary area	
7.	The proposed solution should be able to blend both business data (SME Profiles) and Geospatial data (Such as shape files) on a single platform.	
8.	<p>The proposed solution must be based on hybrid in-memory technology which will provide the following:</p> <ul style="list-style-type: none"> • Faster and consistent response time. RAM access speeds can be million times faster than that of a hard-disk. Unlike a hard-disk where the access is done through memory blocks, in RAM the access can be done to a specific point. • Reduced development and performance tuning effort: For hard-disk based analytics, Location Intelligence designs spend huge time in terms of deciding the balance between the data size v/s the response time improvements. 	
9.	The bidder is to deliver up to 10 dashboards with analysis on SME locations by state, daerah, mukim, parliamentary and DUN along with various categories as captured in data mart.	
10.	The proposed solution must allow the SME Corp to rapidly develop ad hoc dashboard through desktop application provide drill options on graphs, tables and maps. Drilling shall follow a predefined drilling path to help the user in his data discovery or analysis. Users should also be able to define the hierarchy dynamically without IT intervention.	
11.	The solution should allow the user to export to the reports and charts to PDF, Excel, CSV and picture formats. This option should be a standard option for every graph, map, table or report.	
12.	Successful Bidder is expected to deliver and complete this project within six months.	

13.	Provide support services for application within the warranty period of at least one (1) year from the issuance of the Final Acceptance Certificate.	
14.	Provide complete set of documentation covering hard copy and soft copy, at a minimum, the User Manual, Training Manual, System Administration Manual, Technical Configuration, Business & Functional Specification, data dictionary, database design and source code.	

NO	SCOPE OF WORK	COMPLIANCE (√/x)
Analytical Capability		
1.	The users should be able to sort the report or table results by selecting one or several elements (and their sorting order) and create subtotalling. They should be able to save reports and retrieve it at a later date. The users should have the ability to set KPI's, create standard calculations and create custom calculations.	
2.	The following basic graph types should be available to the business users: <ul style="list-style-type: none"> • Bar Charts • Pie Charts • Linear Charts • Scattered Plots • Bullet Charts • Crosstab • Heat Map • Bubble Chart • Area Chart • Stacked Area Chart 	
3.	The proposed dashboarding solution should be able to provide users with the ability to create various calculations such as arithmetic operations, logical operations and string operations.	
4.	The proposed solution should allow the users to drill-down or drill-through an automatic occurrence requiring no special scripting or advance set-up.	

NO	SCOPE OF WORK	COMPLIANCE (√/x)
Location Intelligence Capability		
1.	The proposed solution should be able to cater for filled maps (polygon) which is a familiar tool for many audiences; using them lets you communicate more easily with data.	
2.	The proposed solution must be able to provide users with combination mark types on maps that can help users to relate to data and find patterns that would otherwise be much harder to see i.e having a pie chart on a point in the map.	
3.	The proposed solution must provide Locational intelligence solution wherein the user can use inbuilt maps as well as customised maps. The solution must be able to use maps from map services such as OpenStreet Maps, MapBox and WMS Servers.	
4.	The proposed solution should be able to recognize various layers of data on a map such as country, state, city directly from the profiled data.	
5.	The proposed solution should allow the user to search for specific locations (such as country, state, city) or even search for a specific parliamentary or DUN area.	
6.	The proposed solution must provide for a relational hierarchies - Drill Down on Maps from a higher level to a lower level. (Country - > State - > Daerah -> Mukim) etc.	
7.	The proposed solution must support linking to Google Maps through Google's URL mapping and ability to interact with Google map.	

Saya / Kami memperakui maklumat yang diberikan adalah benar.

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 Nama :

Jawatan :

Tarikh :

Cop Syarikat :