The Second UN-GGIM-AP Plenary Meeting

JUPEM GEOPORTAL (v2.0)
Malaysia

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BACKGROUND

- Begin cadastral surveying activity through the establishment of the State Survey Department of Johor. Also geodetic surveying (trigonometrical surveying) for the provision of survey controls
- Performs topographic mapping, apart from cadastral and geodetic surveying for whole country
- Use of internet technology - accessing information and e-mailing
- Introduction of e-commerce in transaction (limited applications)
- Development of JUPEM GeoPortal & E-biz
- Upgrading of JUPEM GeoPortal (v2.0) & commissioning by the end of year 2013
KEY FEATURES

- A centralized geospatial data warehouse (GDW)
- Provide on-line dissemination of JUPEM geospatial data, etc.
- Provides metadata
- Quick locate and preview of dataset/product in GDW
  - Data catalogue
  - Map viewer
- Data clipping
- E-Commerce
- Download datasets
- Wep Mapping Services
WEB MAPPING SERVICES

- **Webmap services**
  - Developed on Geomedia Webmap professional platform
  - Would be available once whole data is consolidated seamlessly
  - Available functionalities:
    - network routing
    - multiple layers display
    - searching
    - pan, zoom in and zoom out
    - measure distance and area
    - display coordinate
    - virtual reality: photo, video, audio
    - user added point and line features
    - print

SERVICED DATA VIA JUPEM GEOPORTAL

- **Mapping Data**
  - Source of data
    - National Topographic Database
    - National Cartographic Database
  - Data provided are at scales 1:5,000; 1:10,000; 1:25,000 & 1:50,000
  - Area covered: whole of Malaysia
  - Layers provided:
    - i. Aeronautical
    - ii. Built Environment
    - iii. Demarcation
    - iv. General
    - v. Geology
    - vi. Hydrography
    - vii. Hypsography
    - viii. Transportation
    - ix. Utility
    - x. Vegetation
SERVICED DATA VIA JUPEM GEOPORTAL

- Other products available include:
  - Digital Terrain Model
  - Aerial Photograph
  - Orthophoto
  - Thematic Maps
    - District map
    - Road map
    - Drainage map
    - Physical map
    - State map
    - E-map

Cadastral Data

- Land parcel information layers:
  - Lot polygon
  - Boundary lines
  - Boundary marks / points

- Following related attributes of land parcel are also provided and can be obtained in shapefile (.shp) format:
  - Parcel number
  - Parcel area
  - Bearings of boundary lines
  - Boundary distances
SERVICED DATA VIA JUPEM GEOPORTAL

Geodetic Data & Services

- The following are provided:
  - GPS Station
  - Benchmark
  - Gravity Data
  - Geoidal Map
  - Tidal Data
  - Coordinate Transformation Parameters

- Geodetic Services
  - Orthometric Height Computations
  - Real Time Kinematic (RTK) Services
  - Coordinate Transformation

USE CASES OF JUPEM GEOPORTAL

Online Transaction Archives

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USE POLICY OF JUPEM GEOPORTAL

- User registration to handle authentication and security process
- Data license needed to purchase digital geospatial data
- Data reproduction activity requires permit
- Downloading of Real Time Kinematic GNSS Data requires Annual Fee Payment
- Purchaser of restricted geospatial data needs to pass security vetting
- Restricted geospatial data are not allowed to be disseminated outside of Malaysia

CHALLENGES

- System development – successful vendor lacking expertise
- Financial constraint (allocation)
- Complying to governmental financial procedures in regards to accounting the sales and collection of revenue
- Inherent data-related problems in some locations
  - GIS ready
  - Seamless
FUTURE WORKS

• Providing aerial photo and orthophoto streaming/browsing
• Underground utility data to be included
• Undertaking market research
• Enhancing web mapping services to cover new applications

CONTACT INFORMATION

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