

# The Apartment and Condominium Management Platform for achieving Smart Governance in Thailand

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**Research and Development Unit for Smart City Solution (RDSC) Mahasarakham University, Thailand.** 







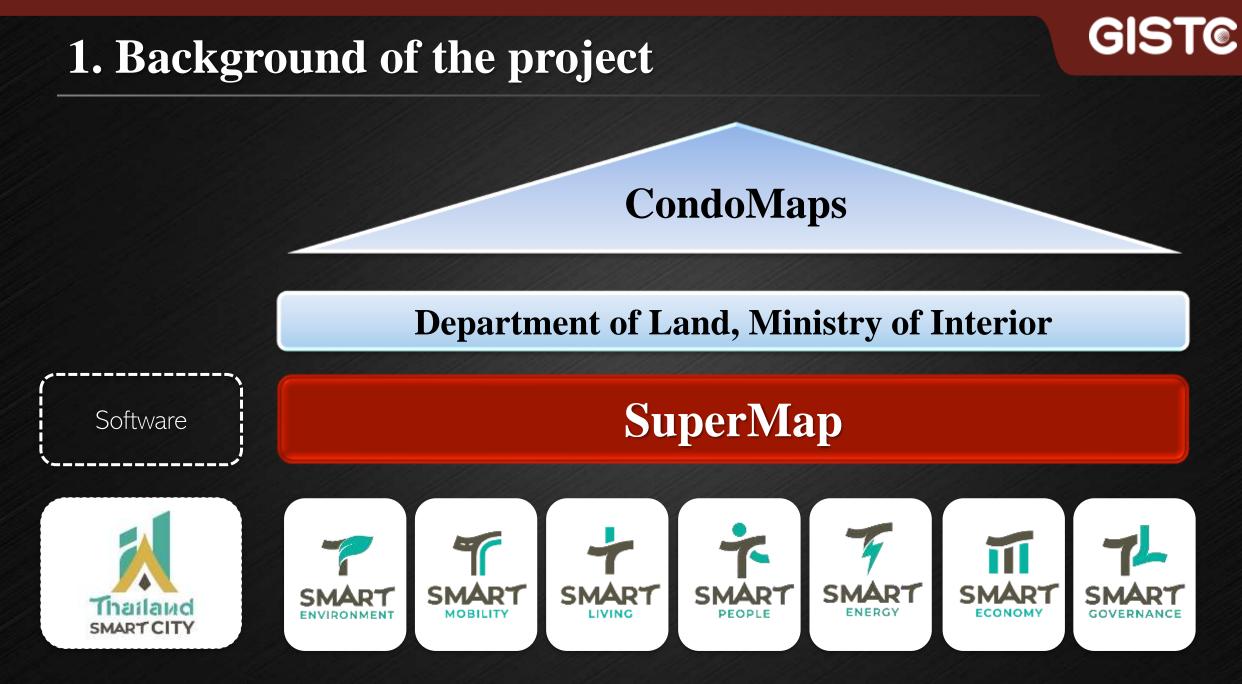
1. Background of the project

2. Overall Methodology

3. The process of development

4. Data architecture platform

5. Example of Web Application and Mobile Application



# 2. Overall Methodology

# GIST©

Scan Condominium and Apartment Preparation of 3D geospatial and attributes database for condominium and apartment

3

Development of condominium and apartment service system

5

Generation of 3D geospatial for Condominium and Apartment

The data architecture system of the platform on CondoMap Platform

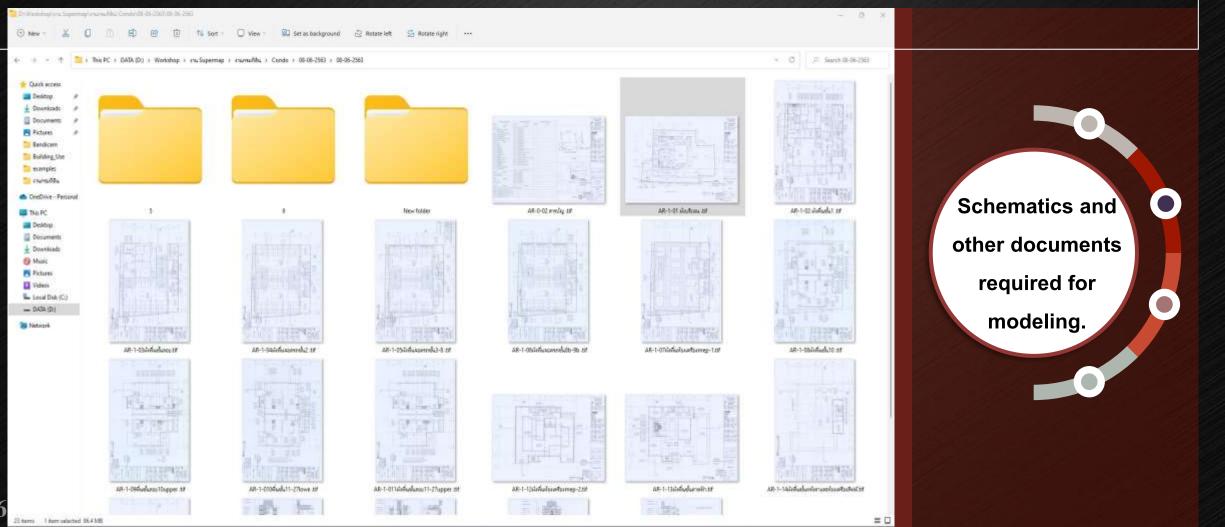




# Scan the plan of the condominium building

### Scan the plan of the condominium building

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### Scan the condominium and apartment plan

Scanned as a color image with a resolution of not less than 450 dots per inch (dpi) and a color resolution of not less than 24 bits in PDF and JPG image formats.

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#### Schematics and other documents required for modeling.



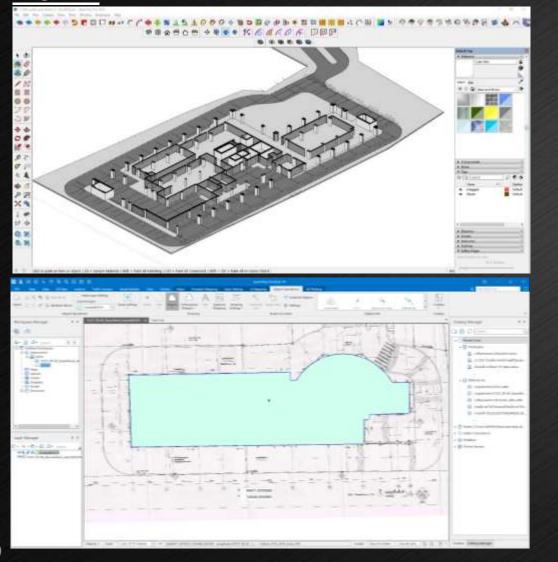


# **Generation of 3D geospatial data**

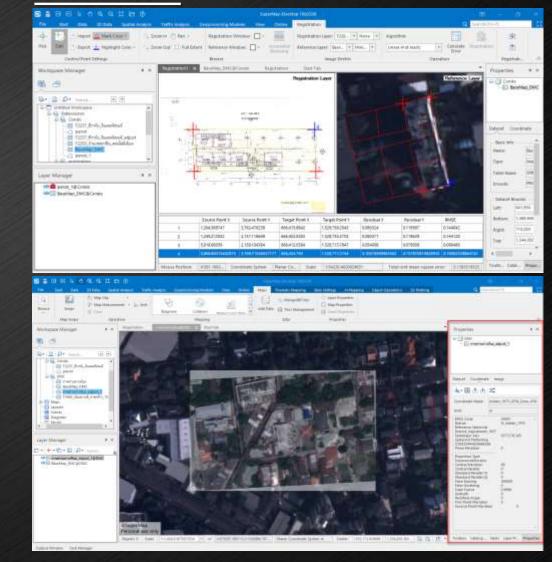
### **3D** geospatial data generation



#### Digitize



#### Rectification

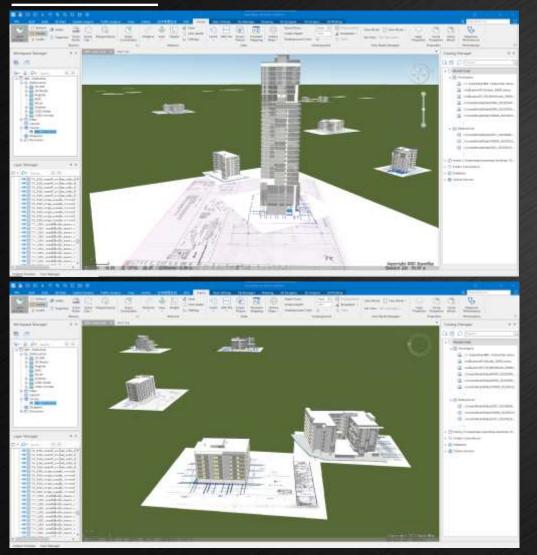


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## **3D** geospatial data generation



#### Rectification



#### Creating a Attribute

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### **3D** geospatial data generation



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#### Syncing data from an Excel database





# Preparation of a 3D geospatial database and a condominium & apartment database

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# Preparation of 3D geospatial database and

#### condominium database generation

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### **Preparation of 3D geospatial database**

- Linking databases to 3D models Import and manage data between condominium detail databases
- and condominium data and 3D building models.
- Executed by Database VIEW to extract data in the desired format.
- Stores the Query or SQL Select statement format set in SQL View.
- Includes SQL Join, SQL Union, SQL Intersect and SQL Except, where the result is tabled.

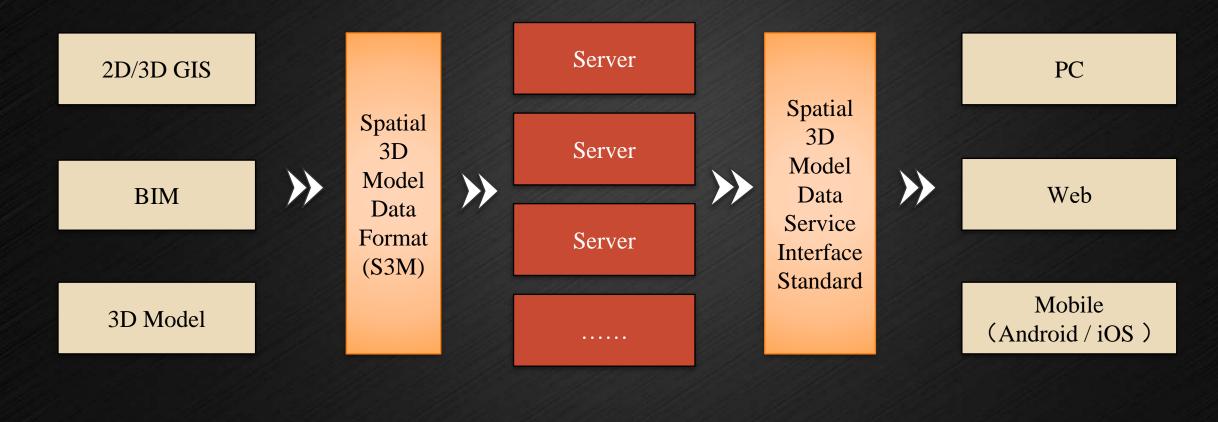
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#### **Cleansing Data**



## **S3M Data, Service Standard in 3D GIS**



Multi-source Data

Server Application

User Application

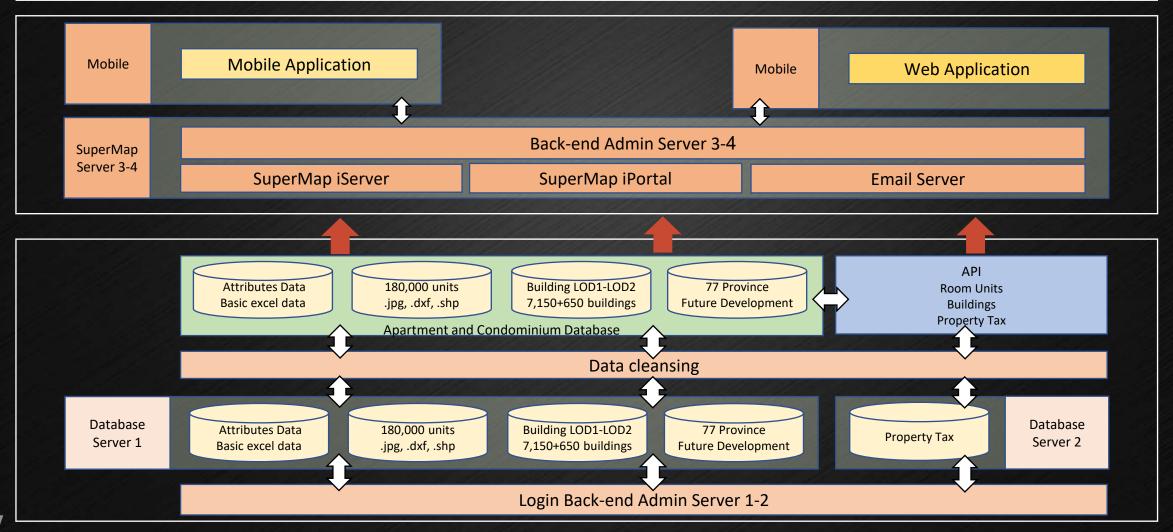




# Data architecture platform

### Data architecture platform

System Architecture The data is stored in the SuperMap SDX+ file database. The system database is divided into 3 subsystems: GIS database, land and building use service database, and related database.





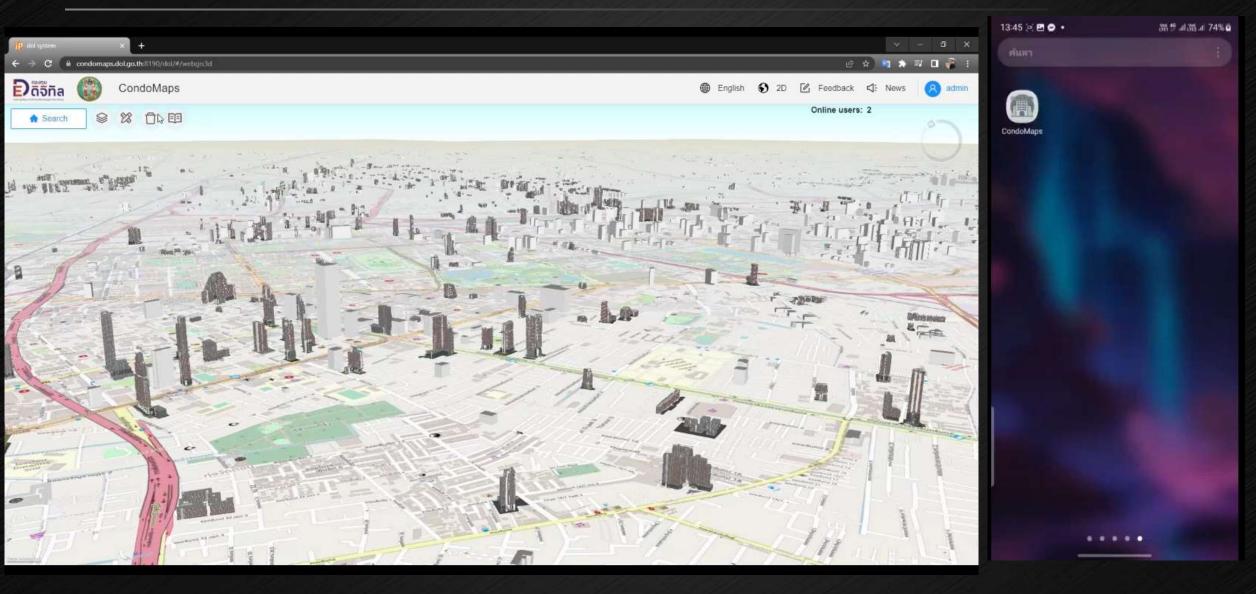


Developing a platform for condominiums and Apartment via the Internet with Web Browser and Mobile Application

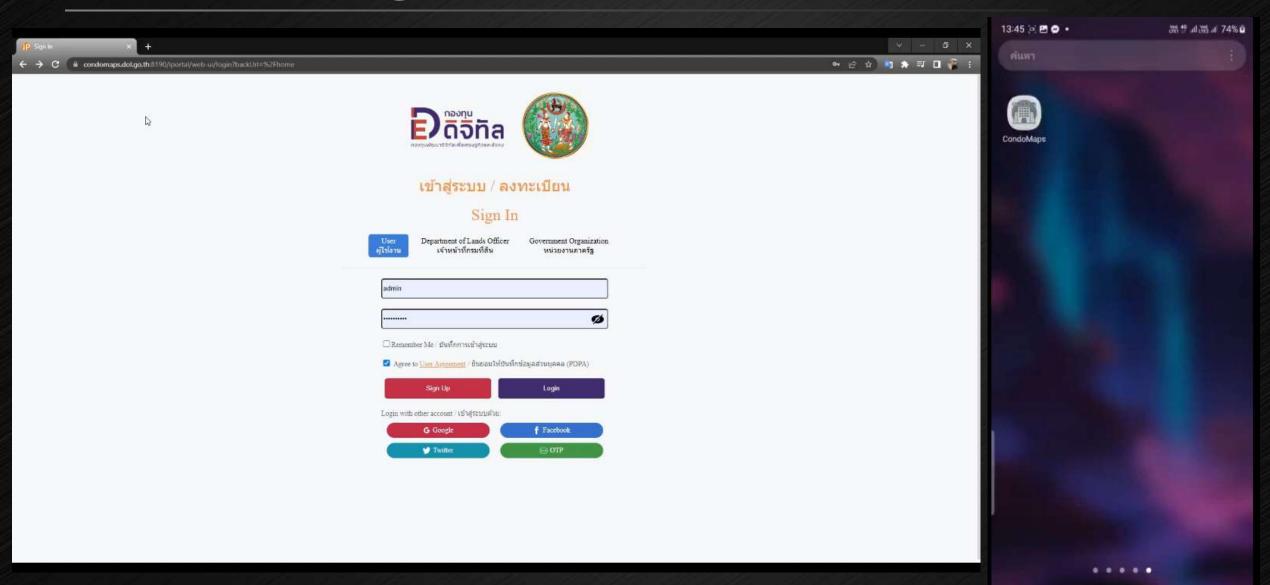
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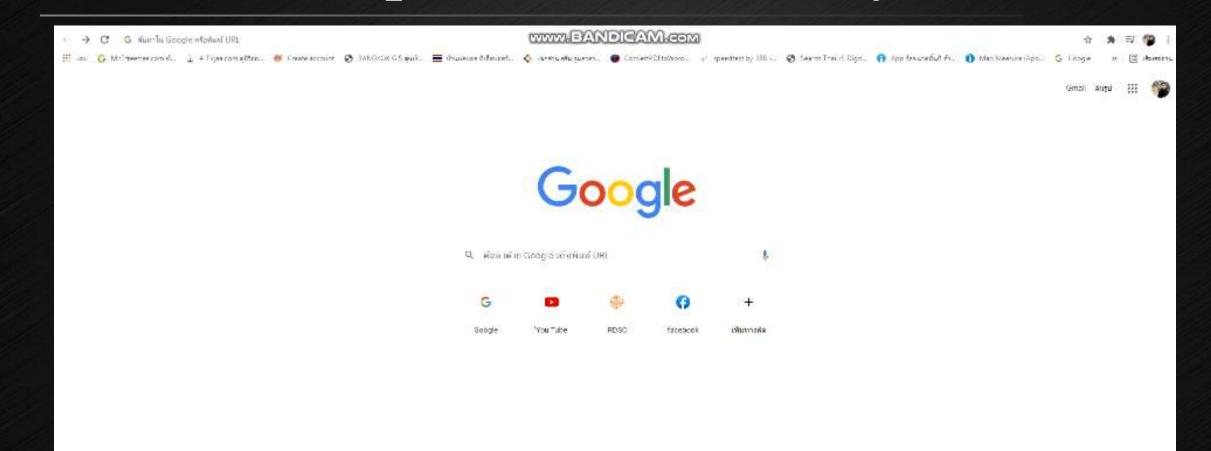
# Layer manager on the platform



# **Searching Condominium**



# **Further Development: API to tax system GIST**©





CondoMaps กรมที่ดิน กระทรวงมหาดไทย

เปิด



### Thank You All GISTE 2023地理信息软件技术大会 2023 Geospatial Information Software Technology Conference

https://condomaps.dol.go.th:8190/dol www.rdsc.in.th or tarawut.b@msu.ac.th