Cloud comes to GIS…

- Google
- Amazon
- Microsoft
- Salesforce.com
- IBM
- Red Hat
Cloud Computing: From “Isolate-Mode” to “Share-Mode”

Access it whenever/wherever you need

Different Clouds

Infrastructure as a service (IaaS)  Platform as a service (PaaS)  Data as a service (DaaS)  Software as a service (SaaS)

VM
App
App
App

Dev Platform
Data Provider

Browser/Software
Browser/Software
Browser/Software
Browser/Software
Public vs Private Cloud

Public Cloud: Public Access

Private Cloud: Accessible for internal use

SuperMap’s Plan for GIS Cloud

Tools for building private clouds

Build public clouds and provide services
Requirements on GIS Software

- Cross-Platform GIS
- Virtual Service GIS Platform
- 2D&3D Integrated GIS
- GIS Cloud

Requirements on GIS Software (1)

- Cross-Platform GIS
- Virtual Service GIS Platform
- 2D&3D Integrated GIS
- GIS Cloud
Service GIS: Leading to Cloud GIS

Component GIS

Service GIS

Service Oriented

Component Oriented

Object Oriented

Procedure Oriented

Component GIS

Service GIS in the Cloud: Not Only Maps

Service GIS

WebGIS

Map Servers

Powerful GIS Capabilities

Inadequate GIS Capabilities

No GIS Capabilities
SuperMap Service GIS Platform—SuperMap iServer

Aggregation: Build Your Application Instantly
Requirements on GIS Software (2)

Cross-Platform GIS

Virtual Service GIS Platform

2D&3D Integrated GIS

GIS Cloud

Cross platform is a Must

C/S  B/S

Client Side  Server Side

GIS Capabilities

OS

Windows  Windows
Linux  Unix
Cross-Platform: More Choices

Windows
- Microsoft
- Amazon

Linux, Unix
- IBM
- Redhat
- Amazon
- Google
- ...

SuperMap Approach to Cross Platform

Conventionally
- COM VM on Unix, Linux, Run COM Components
- Low cost, fast development
- Low performance on Non-Windows platforms

SuperMap
- Rewrite GIS core in C++, develop new software
- We develop cross platform software with great efforts
- High performance on all platforms
SuperMap GIS Universal

SuperMap IS .NET  SuperMap iServer .NET  SuperMap iServer Java  SuperMap IS Java

SuperMap Objects .NET (基于.NET的组件式GIS)  SuperMap Objects Java

SuperMap UGC

The Characteristics of Universal GIS Core

- Consistent functions among all products: All the product will update together
- Support various of computer systems: Unix, Windows, Linux...
- Support lots of computer languages: .NET, Java
- High efficiency: (C++, different from other cores like java)
- Flexible to adapt the ever changing technology: Easily to adjust to new technologies
Support for Different Clouds

SuperMap iServer

IBM

Microsoft

redHat

Requirements on GIS Software(3)

Cross-Platform GIS

Virtual Service GIS Platform

GIS Cloud

2D&3D Integrated GIS
Realspace GIS: Integration of 2D&3D --- Intuitive GIS Cloud

Hybrid Solution:

2D GIS Platform + 3D Visualization Software = Hybrid

- Weak in integration of data
  - Data redundancy

- Weak in integration of 2D&3D
  - Difficult to integrate 2D with 3D

- Low Advanced Spatial Analysis
  - Difficult to implement advanced spatial analysis
2D&3D Integration in Data Model and Organization

2D&3D Integration in Data Storage and Management
2D&3D Integration in Spatial Analysis

Enhanced View (Particle System)