PostgreSQL for maps in Armenia

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Welcome to Armenia

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Briefly what I’m gonna talk about:

- **Armenia, a short presentation**
- **The Development of Cadastre system in Armenia**

  ”the overall objective is to establish a well-funcioning property market, to improve the market economy in Armenia”
- -

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- **Armenia, a young old country**

- **The Development of Cadastre system in Armenia**

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Geodetic Network with GPS technology

Arial photography

Cadastral index maps

Valuation and taxation

Training

Study visit to Sweden

Map data, client and database production environment

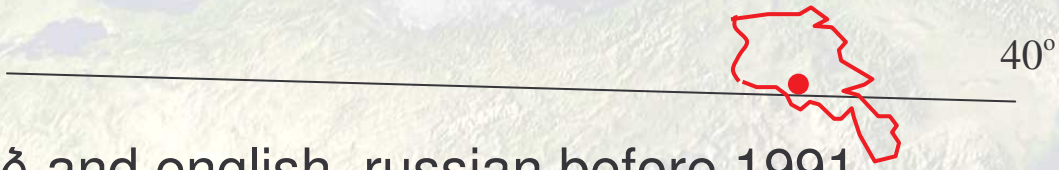
- **The Map data production system**

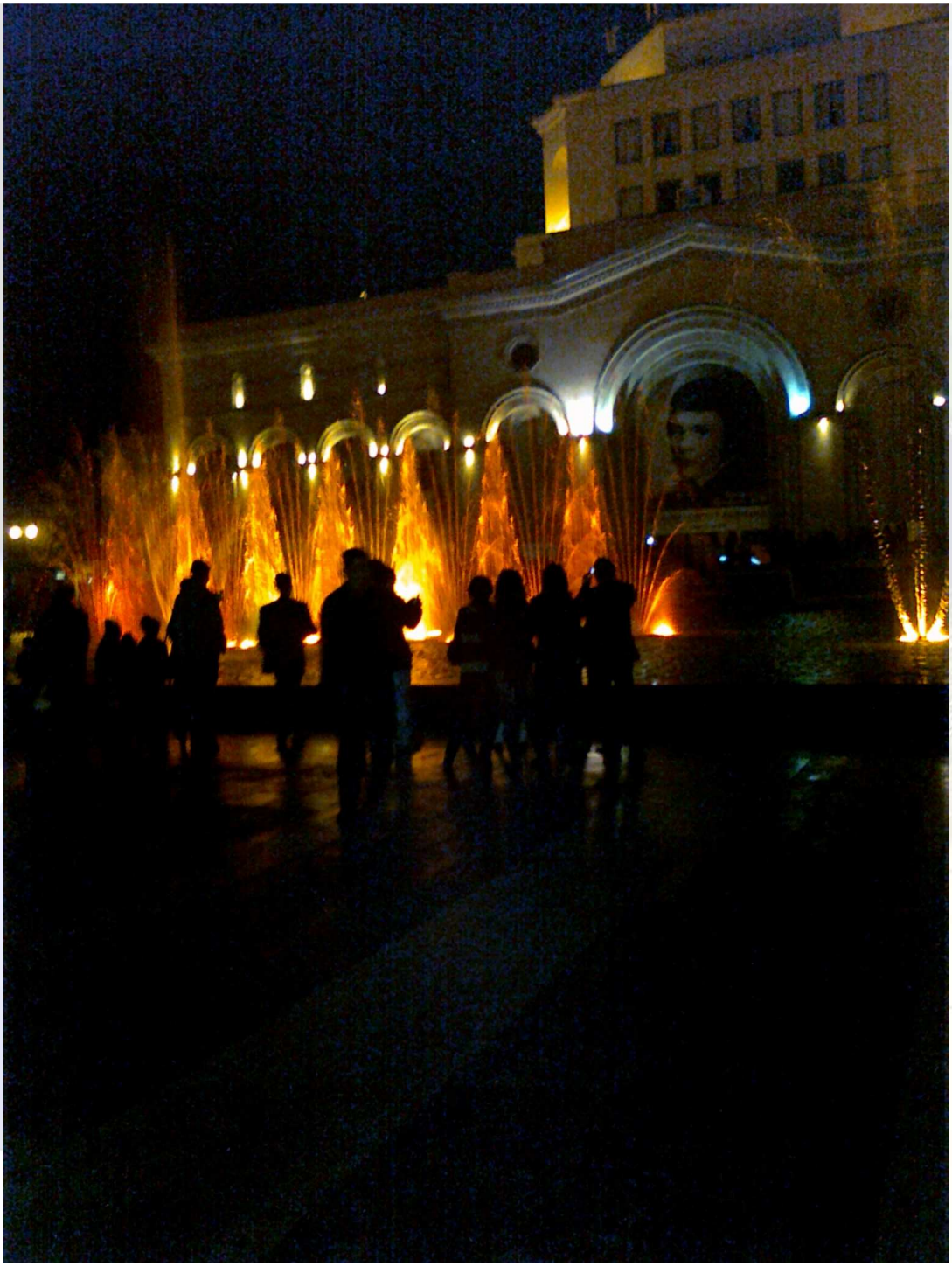
Armenia, acknowledged as a republic in 1991

Odesa
Kherson
Astrakhan
Krasnodar
Stavropol
RUSSIA
Groznyy
Vladikavkaz
RUSSIA
Machackala
GEORGIA
T'Bilisi
Samsun
ARMENIA
Yerevan
AZERBAIJAN
Baku
Ankara
NAGORNO-K
TURKEY
Kayseri
Malatya
Konya
Diyarbakir
Tabriz
Orumiyeh
Rasht
Antalya
Mersin
Seyhan
Aintab
Aleppo
Al Mawsil
Arbil
As-
Sulaymaniyah
Tehran
SYRIA
Homs
Hamadan
Kermanshah
Beirut
Damascus
IRAQ
Baghdad
Haifa
Tel Aviv-
IRAN

Armenia, acknowledged republic since 1991

- Area, about as Belgium: 29 800 km²
- Altitude, 400 – 4000 meters
- Continental climate
- Population, 3.3 milj
- Capital, Yerevan, 1.3 milj
- >97% can read and write
- Language, Armenian Արդեղթժծ and english, russian before 1991
- Natural resources: Gold, copper, zinc
- 47% of land area is
  - Milk-meat cattle- and sheep -breeding
  - Grapes-Vegetables- fruit –growing
  - Vineyards
- Exports Mineral Water, Cognac Ararat, Wine and Fruit jam.





Singing fountines in the dark evening of Yerevan

The project

”Development of the Cadastral System in Armenia”

- Started 1999, financed by SIDA, Swedish International Development cooperation Agency
- *The State Commitee for Real Estate Cadastre*
- Derive a new geodetic reference system and create a new geodetic network
- Connected to global/European EUREF 89 (GRS80)
- Surveying with GPS equipment
- Horizontal accuracy 1-2 cm, Vertical accuracy 2-4 (3-5) cm between zero and 1st order networks
- ARMREF02.

The project

”Development of the Cadastral System in Armenia”

- Legislation

  Real estate property registration -USAID

  Land information system -SIDA

  Fundamental for property evaluation and market apprising.

  Must be known as Official and National Information System

  Uniform usage

- Successful implementation of Land Reform Privatization finished in april 1993. The new Cadastre system 1997
- 10 years anniversary 2007 ”…could serve as a good example to other countries…” (European comittee).

- Mapping clients and data storage
  - Surveying instruments, total stations
  - CAD
  - ArcGIS

- X;Y;Z files, or geodatabase objects

- dgn files and geodatabases on disk migrating to
  PostgreSQL geodatabases

- PostgreSQL GeoSpatial Database for parcels and topographic maps on community- and national levels.

User Interface
Application Server
Database
Web-based
GeoExt
Google Maps
OpenLayers
Microsoft Virtual Earth
Desktop
uDig
Google Earth
QGIS
ArcGIS Desktop
Tiling
GWC
TileCache
Web Services
GeoServer
Mapnik
MapServer
ArcGIS Server / ArcIMS
PostGIS/PostgreSQL
Oracle Spatial
MySQL with Spatial
Microsoft SQL Server
IBM DB2
ArcGIS Server / ArcSDE
ArcSDE / PostgreSQL

PG in Sweden J

Pehr G Gyllenhammar, managing director of Volvo 1971 - 1990

Fat map clients,

Edit,

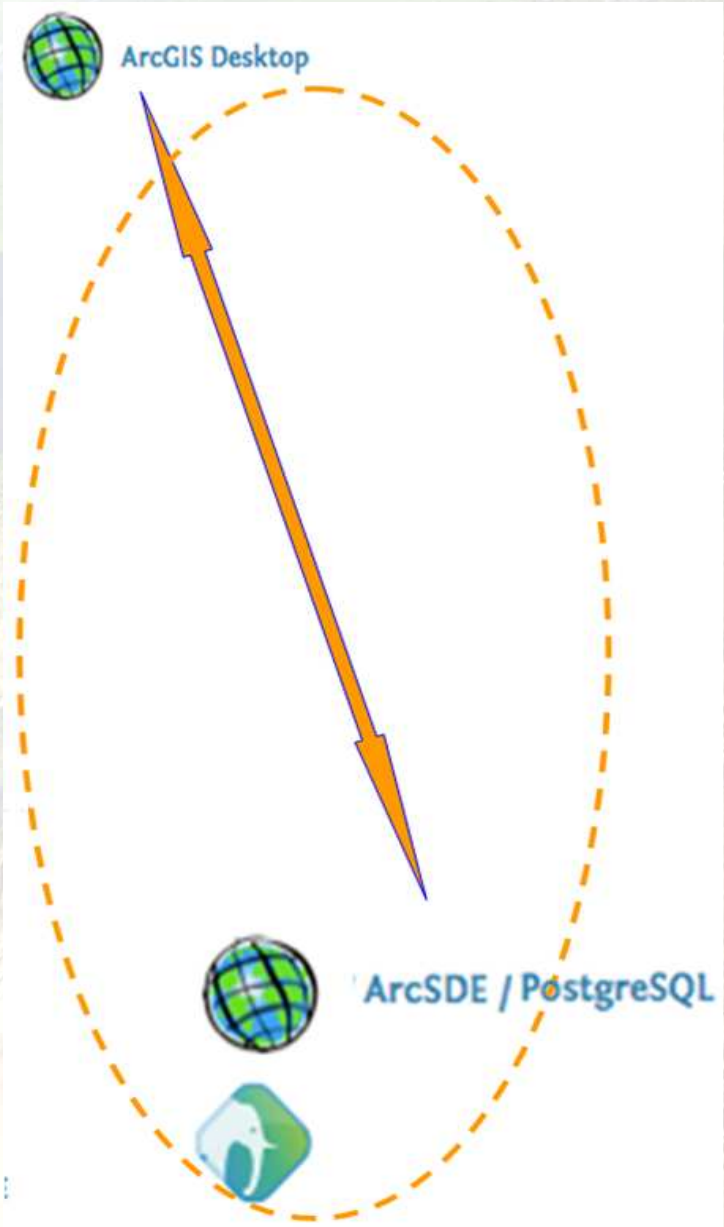
Analysis,

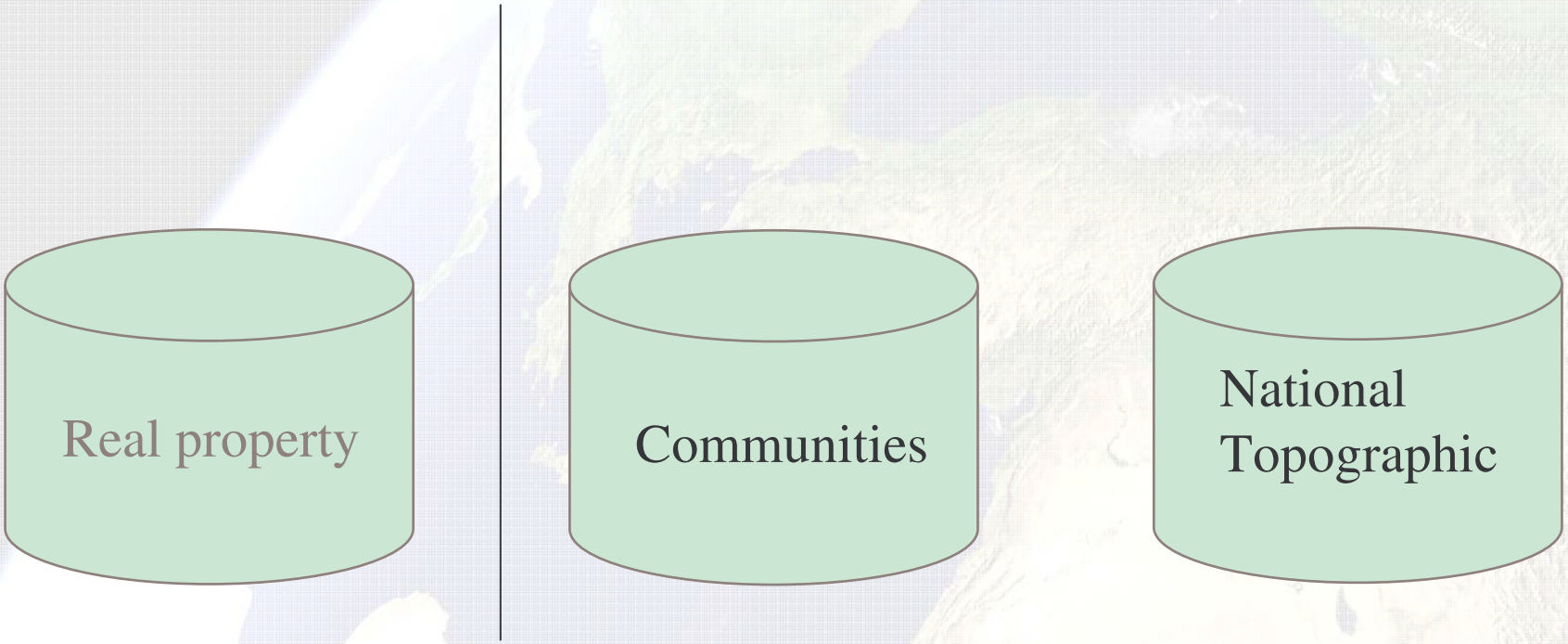
Design and

Print papermaps or prepare for web publishing disconnected from datasource

ArcSDE middleware, service on database server or another machine

PostgreSQL instance. One SDEservice for each database





PostgreSQL databases at SCC

Armenian characters

UPPER / lower case characters

Windows ANSI codepage with the 75 Armenian characters:

… ԱաԲբԳգՂդԷէՖֆՔքՀh ……. from 178 to 253

Unicode: ԱԲԳԴԷՖՔՀ…….. Աբգդէֆքh hex 0531 to 0587

ArcSDE

Table names	ASCII
Feature class	ASCII
Column names	ASCII
Alias:	ANSI, Unicode
Data:	ANSI, Unicode

Let us take a look!

Thank you for listening!

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