Agenda

Introduction

Cyprus DLS Portal

Cyprus INSPIRE Geoportal

Questions & Answers
The Cyprus DLS Portal and INSPIRE Geoportal

Introduction
NetU at a Glance

- Leading IT solutions & services organization in the Eastern Mediterranean
- Presence in Cyprus, Greece and Serbia
- Strong local and international activity
- Serving mid-market to large organizations
- Full spectrum of IT solutions & services
- Specialization in Public Sector. Main IT provider for the Government of Cyprus
- Strong presence in Private Sector
Technology Solutions

Integration
- Service Oriented Architecture
- Business Process Management
- Mobility

Data
- Business Intelligence
- Data Warehousing
- Big Data
- Data Migration

Software
- Custom Applications
- Application Migration
- Portals & Collaboration
- Enterprise Content Management
- Geographical Information Systems

Infrastructure
- Hardware & Networking
- Security
- O/S & Virtualization
- Cloud Computing
- Systems Management
The Cyprus DLS Portal and INSPIRE Geoportal

Cyprus DLS Portal
The Cyprus DLS Portal and INSPIRE Geoportal

Cyprus DLS Portal Introduction
Cyprus DLS Portal Introduction

Technical Implementation of GIS Solution

Purpose of GIS in DLS Portal: integration within eApplications and National Maps

GIS Architecture – Integration
The Cyprus DLS Portal and INSPIRE Geoportal

Cyprus DLS Portal Architecture
Environment Architecture

- System Design
- Development
- Customization
- Configuration
- Parameterisation
- Testing
- Quality Assurance
GIS Software

- ArcGIS for Server
- ArcGIS for Desktop
- ArcGIS Data Interoperability
- ArcGIS Model Builder
- ArcGIS for INSPIRE
- JavaScript
- Python Script
GIS Architecture

**ArcGIS Server**
- Map Services
- Feature Services
- Geoprocessing Services
- OGC Services (WMS, WFS, etc.)

**ESRI Geoportal Server**
- Catalog Services

**ArcGIS for INSPIRE**
- Geodatabase Templates
- View & Download Services
The Cyprus DLS Portal and INSPIRE Geoportal

Cyprus DLS Portal Map Viewers
National Maps

Thematic Maps
- Cadastral Map
- Topographic Map
- Hydrographic Data
- Administrative Boundary Map
Maps Within eApplications
Map Viewer Functionality

Table of Content
Select Area Of Interest
Export Data

Selected Area:
0.02 Sqr Kilometers

Buffer Selection (meters):
Buffer

Return to initial selection

Output Format:
Geo Database

Output Projection:
UTM (WGS84, zone 36N)

Download Price:
1.11
Map Viewer Functionality

Attribute Table

Parcel information

Export Data
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Cyprus DLS Portal Infrastructure
GIS Infrastructure

Map Documents
National REST Services
INSPIRE Rest Services
Geoprocess Services
ETL (Extract, Transform & Load)

Model Builder

Python Scripts

```python
import arceditor

# Import arcpy module
import arcpy

# Import Sql connect
import pyodbc

# Local variables:
SQL_GIS_DB = "C:\PyScripts\gis_SQL.sde"
SQL_DLS_Parcels_SPINDEX = "SQL_GIS_DB_calc_DLS_Parcels_SPINDEX"
ORACLE_sub_parcel = "C:\PyScripts\gisporal_DEV_DLSDB01.sde\GIS.sdb\GIS.sdb_parcel_test"
ORACLE_dodb_parcel = "C:\PyScripts\gisporal_DEV_DLSDB01.sde\GIS.dodb\GIS.dodb_parcel_test"
DCDB_Feature_Layer = "DCDB_Feature_Layer"
DLS_Parcels_DCDB_APPENDED = DCDB_Feature_Layer
DLS_PARCELS = "C:\\G\Connections|\ETL\GIS.sde.gis.GIS.DLS_PARCELS_11042015"

# Set Geoprocessing environments
arcpy.env.parallelProcessingFactor = "4"

print "Merging Parcel Script Started at: " + time.strftime("%a, %d %b %Y %I:%M:%S %p %Z", time.localtime())
fw = open(C:\\PyScripts\\MergeParcels\\MergeParcels_log.txt', 'a')
fw.write("\n")
fw.write("Merging Parcel Script Started at: " + time.strftime("%a, %d %b %Y %I:%M:%S %p %Z", time.localtime()))
fw.write("\n")
fw.write("\n")
```
# ETL (Extract, Transform & Load)

<table>
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<th>Configuration</th>
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<td>• Feature classes database lock cleaning</td>
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<td>• Spatial indexes rebuilding</td>
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<td>• Environment variables configuration</td>
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<th>Checks - Notifications</th>
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<td>• Before start – check status of internal DLS ETL</td>
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<td>• ETL Logs</td>
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<td>• Database – audit fields and status</td>
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<td>• Log txt files for checking python script details</td>
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<td>• CMD files – Windows scheduling</td>
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<td>• Email notification</td>
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</tbody>
</table>
ETL (Extract, Transform & Load)

Categories

- Truncate append database
- Parcel layer duplication (Parcel_Load) – preparation of duplicate layer – minimum downtime
- Export labels into CAD format
- Truncate/Append Layers via batches
- Create fields / joins/ selections / Calculate field values
## Integration With Other Systems

- Active directory
- Government Gateway
- MFT server - data exported are being called by MFT – kept into user profile
- Job Scheduler

## Data Related

- Exported data kept into user profile as zip file
- User notification via email and sms
- Application history and status of exported data
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Cyprus INSPIRE Geoportal
The Cyprus DLS Portal and INSPIRE Geoportal

INSPIRE Directive
INSPIRE Mandates

- Metadata
- Data Specifications
- Network Services
- Data & Service Sharing
- Monitoring & Reporting

Source: http://inspire.ec.europa.eu
INSPIRE IRs vs TG

“What Member States must implement” (abstract specification)

Legally binding

“How Member States might implement it” (implementation specification)

Source: http://inspire.ec.europa.eu
## INSPIRE Data Themes

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<td>• Natural Risk Zones</td>
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<td>• Geographical Names</td>
<td>• Orthoimagery</td>
<td>• Meteorological Geographical Features</td>
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<td>• Administrative Units</td>
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<td>• Oceanographic Geographical Features</td>
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<td>• Cadastral Parcels</td>
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<td>• Bio-geographical Regions</td>
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<td>• Transport Networks</td>
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<td>• Habitats and Biotopes</td>
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<td>• Hydrography</td>
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<td>• Protected Sites</td>
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<td>• Energy Resources</td>
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<td>• Land Use</td>
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<td>• Human Health and Safety</td>
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<td>• Utility and Governmental Services</td>
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<td>• Environmental Monitoring Facilities</td>
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<td>• Production and Industrial Facilities</td>
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<td>• Agricultural and Aquacultural Facilities</td>
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<td>• Population Distribution - Demography</td>
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<td>• Area Managements, Restriction/Regulation Zones and Reporting Units</td>
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The Cyprus DLS Portal and INSPIRE Geoportal

Cyprus INSPIRE Geoportal Architecture
Cyprus INSPIRE Geoportal Architecture

- Map Services
- Feature Services
- Geoprocessing Services
- OGC Services (WMS, WFS)

ArcGIS Server

- Geoportal Server Frontend
- Geoportal Server Backend
- Catalog Services

ESRI Geoportal Server

- Geodatabase Templates
- INSPIRE View Services
- INSPIRE Download Services

ArcGIS for INSPIRE

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Cyprus INSPIRE Geoportal Infrastructure
Cyprus INSPIRE ESRI Geoportal Server

**Frontend**
- Public
- View/Browse/Validate Metadata Records
- Users from Government Gateway (Ariadni)

**Backend**
- Not Public
- View/Browse/Validate Metadata Records
- Administering Metadata Records
- Users from Active Directory
Welcome to the INSPIRE GeoPortal of Cyprus

The INSPIRE GeoPortal of Cyprus provides an easy and friendly way to discover and share geospatial data. All it takes is just 3 simple steps.

Discover (Data / Services / Metadata)

Online Map Viewer

The INSPIRE GeoPortal of Cyprus

The European INSPIRE Directive (2007/2/EC) aims to create a European Union (EU) spatial data infrastructure. This will enable the sharing of spatial information among public sector organisations and better facilitate public access to spatial information across Europe. INSPIRE is based on the infrastructures for spatial information that are created by the Member States and that are made compatible with common implementing rules and are supplemented with measures at Community level. These measures should ensure that the infrastructures for spatial information created by the Member States are compatible and usable in a Community and cross-borders context. Network services are necessary for sharing spatial data between the various levels of public authority in the Community. These network services, such as the INSPIRE GeoPortal of Cyprus make it possible to discover, transform, view and download spatial data and to invoke spatial data and e-commerce services according to the INSPIRE Directive.

read more...
Cyprus INSPIRE Geoportal Frontend
## Manage Resources

### Results: 1-25 of 25 record(s)

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<tr>
<th>Action</th>
<th>Title</th>
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ETL Methodology

ETL Annex I & Annex II – Model Builder

ETL Annex III – Data Interoperability
Cyprus INSPIRE Geoportal Quality

WMS Service Connection

WFS Service Connection
Cyprus INSPIRE Geoportal Quality