TÜRKİYE E-DÖNÜŞÜM SÜRECİ, BU SÜREÇTE NETCAD'İN ROLÜ & NETGIS| SERVER

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ÖZET

Türkiye olarak, içinde bulunduğumuz Avrupa Birliği'ne uyum sürecinde ülke ölçeğinde oluşturulan eylem planları ile, kamu hizmetlerinin işleyişi, yerel yönetim birimlerinin çalışmaları, özel sektörün yapılanması, üniversite çalışmaları, yani tüm sektörlerde kabuk değiştirme, radikal bir devinim, ülke ölçeğinde e-dönüşüm'ün realize olma süreci içerisindeyiz.

Eylem-75 ile e-dönüşüm startını veren ülkemizde, önümüzdeki 15-20 yıl büyük önem arz etmektedir.

Çünkü bu süreç Türkiye ölçeğinde mekansal ve mekansal olmayan verilerin GIS standartlarında üretileceği, depolanacağı ve yönetileceği en yoğun dönem olacaktır.

Ülke ölçeğinde kurulacak, tamamen bütünleşik yapıda konumsal ve sözel veritabanı desteği, harita sunumu, vektör, raster veri sunumu, konumsal analiz, eş zamanlı veri düzenleme ve coğrafi uygulama geliştirmek üzere tasarlanmış olan kurumsal GIS çözümü NETGIS|Server'lar ile merkezi kontrol sağlanacak, mükerrer veri üretiminin önüne geçilecek, üretilen projeler web üzerinden yayımlanabilecek, edit edilebilecek ve paylaşılabilecektir.

Bu sayede tüm Türkiye ortak veri havuzunda çalışabilecek, yapılan en ufak güncelleme save edildiği andan itibaren Türkiye'nn her noktasından güncel veriye ulaşılabilinecektir.

Ülkemizin uluslararası standartlardaki ulusal teknolojisi Netcad 5.0 GIS, Türkiye'nin e-dönüşümü için gerekli bireysel ve kurumsal çözümleri üretmiş, ve sürekli olarak geliştirerek de uluslararası GIS standartlarında belirleyici rol alır çözüm gücüne ve kaliteye ulaşmıştır.

Anahtar Sözcükler: Netcad, NETGIS, e-dönüşüm, CBS, GIS Server

ABSTRACT

TURKISH e-TRANSFORMATION PROGRESS, ROLE OF NETCAD IN THIS PROGRESS & NETGIS|Server

By the countrywide action plans developed in the progress of European Union conformity process, we, as of Turkey, are in the realization period of the countrywide progress of e-transformation, radical movement and re-shaping in all-sectors, such as; public services, local government and municipal unit works, private sector organizations and academic studies.

Giving a start to e-transformation with Action-75 (Eylem-75) next 15-20 years has great importance in our country.

Because this will be the massive period ever, in which countrywide generation, archiving and management of spatial and non-spatial data will be handled complying GIS standards.

NETGIS|Server is an institutional GIS solution designed with fully integrated structure for spatial and non-spatial database support, map presentation, vector and raster data presentation, spatial analysis, synchronuos data editing and geographical application development.

With countrywide establishment of NETGIS|Server's central data control will be enabled, repetitive data production will be prevented; produced projects will be published, edited and shared on the web.

By means of this establishment, whole Turkey will be able to work in common data pool, and after saving any little update, the actual data will be reached from any location.

Netcad 5.0 GIS, our national technology with international standards, has developed individual and institutional solutions needed for Turkey's e-transformation, and with its continuous development, reach to the power and quality to stand as the significant role player for international GIS standards developments.

Keywords: Netcad, NETGIS, e-transformation,, GIS, GIS Server

1. TÜRKİYE e-DÖNÜŞÜM SÜRECİ, BU SÜREÇTE NETCAD'İN ROLÜ & NETGIS|Server

NETGIS|Server is the Busıness GIS Solutıon; Fully integrated comprehensive business GIS solution designed for spatial and non-spatial database support, map presentations, vector & raster data presentation, spatial analysis, synchronized data modification and geographical application development.

Based on;
- ➔ DMS Independancy,
- ➔ Data Type Independancy,
- ➔ Scalability,
- ➔ Flexibility,
- ➔ Security,

Within the electronic infrastructural evolution; netcad will establish the data portal of Turkey, countrywide data sharing and management will be handled securely and reliably with the network of NETGIS|Servers.

NETGIS|Server has got Scalable & Flexible Architecture. NETGIS|Server is cost efficient and can operate with many applications with the scalable, flexible and improvable architecture.

- Vehicle Tracking Systems, CRM, Call Center Management Systems, Portals, Web sites, Document Management Systems, Municipality Automation Software any many other similar applications are supported with comprehensive GIS environment.

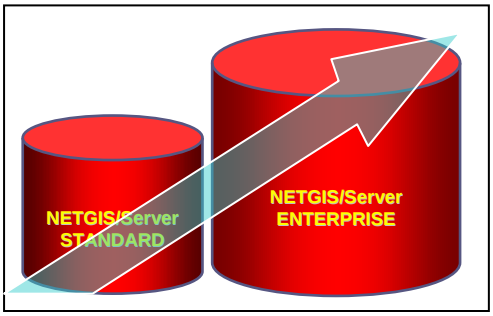

Figure 1: Scalability Architecture

2.3 NETGIS|Server, Conformity With Other GIS and CAD Software

NETGIS|Server is designed to work with desktop CAD and GIS software. Solid conformity and integration is required with the desktop CAD and GIS software in order to keep updates of central spatial and non-spatial data.

NETGIS|Server conforms with AutoCAD, Netcad 5.0 GIS, Microstation, ArcGIS, MapInfo etc.

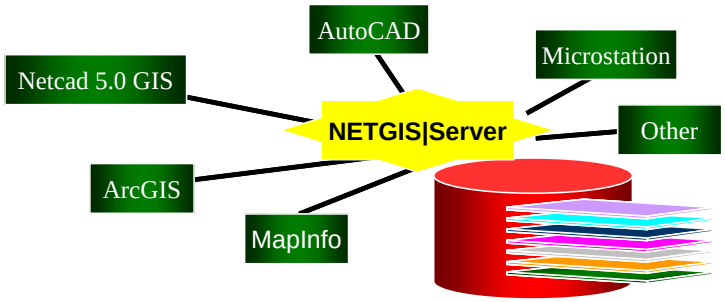

Figure 2: Flexible Architecture

2.4 NETGIS|Server Complies With the International Standards and Supports All OGC Compliant Clients

Being an associate member of Open Geospatial Consortium (OGC), NETGIS|Server complies with;

- WMS (Web Map Services),
- WFS (Web Feature Services),
- SF-SQL (NG/BG) (Simple Features for SQL/Normalized Geometry/Binary Geometry) certificates.

2.5 NETGIS|Server Works Database Independent

The schema and data created within any DMS (Database Management System) can easily be transferred to any other DMS without any data loss. Developed applications are also DMS independent. NETGIS|Server uses the spatial data support of the DMS if this support exists, otherwise uses NETGIS Geometry structure.

Supports Oracle, Oracle Spatial, MS SQL Server, SQL Server 2008, SQL Server Express, Postgres, PostGIS, MS Access, ESRI Personal GeoDatabase and ArcSDE

Offers unlimited scalability and flexibility independently from DMS. Protects your investment. Increases your solution options with respect to your data volume and data traffic.

2.6 NETGIS|Server Offers 'Versioning' Support

NETGIS|Server offers 'versioning' support;

- Geographical region based Data Locking possibility
- Data modification history log (Add/Remove/Modify). Restoring to any time is available
- Differentiation reports during check-in (during updating modified data)

Programming language independent and easy development platform. NETGIS|Server holds many subordinate systems and hundreds of objects:

- Authorization Manager,
- Log Manager,
- Parameter Server,
- State Server,
- Scheduler,
- GUI Builder, are the most important subordinate systems. These systems enables many application with very less or even no code writing. Accessible with SOAP, COM, COM+, .NET Assembly and Visual Studio NET, Java, C#, Delphi, VB, JavaScript languages

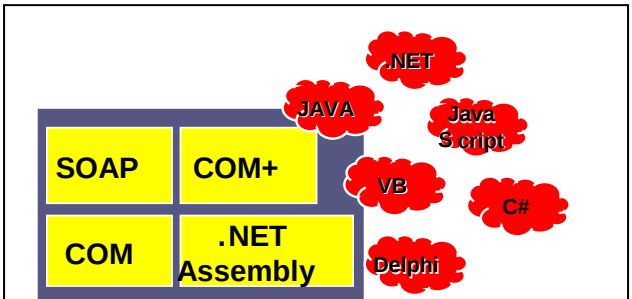

Figure 3: Easy Development Platform

Built-in components for GIS based web application;

- NETGIS|Server consists built-in components for GIS Based Web Applications. Some components are template pages. Just "Project Name" is introduced to startup a project in minutes.
- Components are accessible via .NET and HTML applications.

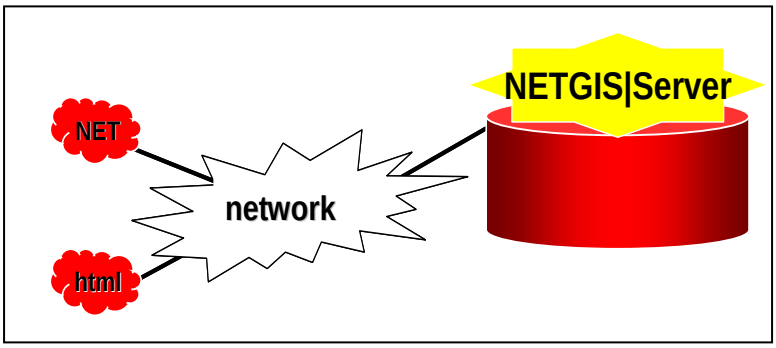

Figure 3: GIS based web applications

2.7 NETGIS|Server Spports File Based Data and Supports Instant Projection Conversions

NETGIS|Server supports file based data. More than 100 Vector and Raster data formats supported directly or using conversions

- DWG, DXF, NCZ, DGN, SHAPE, Personal Geodatabase, MIF/MID…etc.
- DTED, CADRG, TIFF, MrSID, ECW etc.

NETGIS|Server, supports instant projection conversions (On The Fly Projection System)
Raster and vector data in different projection systems could easily be worked together with 'on the fly'

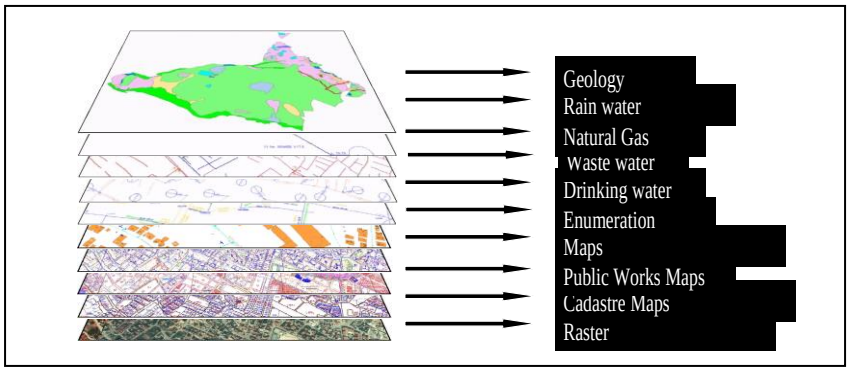

Figure 4: 'On The Fly Projection System' capabilities

NETGIS|Server has LRS (Linear Referencing System or Dynamic Segmentation) capability.
Dynamic and permanent conversions from Point/Line geometry to LRS geometry, or vice versa. These conversions are DMS independent.

2.8 NETGIS|Server has LRS (Linear Referencing System or Dynamic Segmentation) & Comprehensive Network Analysis Capabilities.

NETGIS|Server has LRS (Linear Referencing System or Dynamic Segmentation) capability.

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NETGIS|Server has comprehensive Network Analysis capabilities.

- Defining all types networks,
- Networks as; Electricity, Natural Gas, Road, Drinking Water, Sewerage, Rain Water Drainage etc. are easily analyzed.
- Analysis as; Shortest route, available route, affected route (subscribers affected from a malfunction), accessibility analysis, equal distance nodes etc. are easily could be generated.

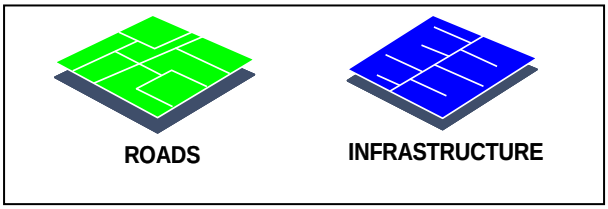

Figure 5: 'Network Analysis' capabilities

2.9 NETGIS|Server has a Powerful Render Engine

NETGIS|Server has a powerful render engine;

- Presents Dynamic Render options,
- Thematic maps are generated and presented without creation of separate work bases or data,
- Render Engine gives optionally pre-rendered tile support. By means of this function thousands of users could work simultaneously,
- Google Maps™ could easily be used as reference.(* Google Earth™ and Google Maps™ are trademarks of Google Inc.

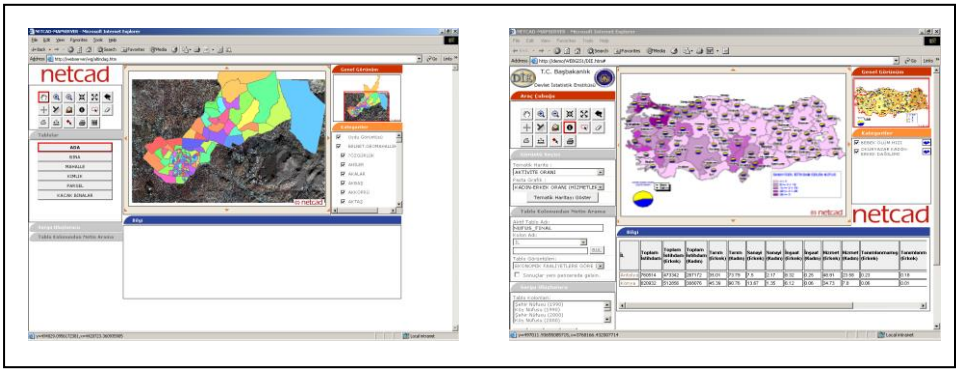

Figure 6: Google Maps™ could easily be used as reference

NETGIS|Server full conformity with Google Earth™. NETGIS|Server provides Google Earth™ dynamic connection support for raster and vector data. Existing spatial and non-spatial data can be visualized and queried on Google Earth™.

Figure 7: Google Maps™ visuliation

2.10 NETGIS|Server Embedded 3D Client

NETGIS|Server has 3D modeling and query client. With this client any 2D operation can easily be done in 3D. Vector and raster data can be visualized on terrain models

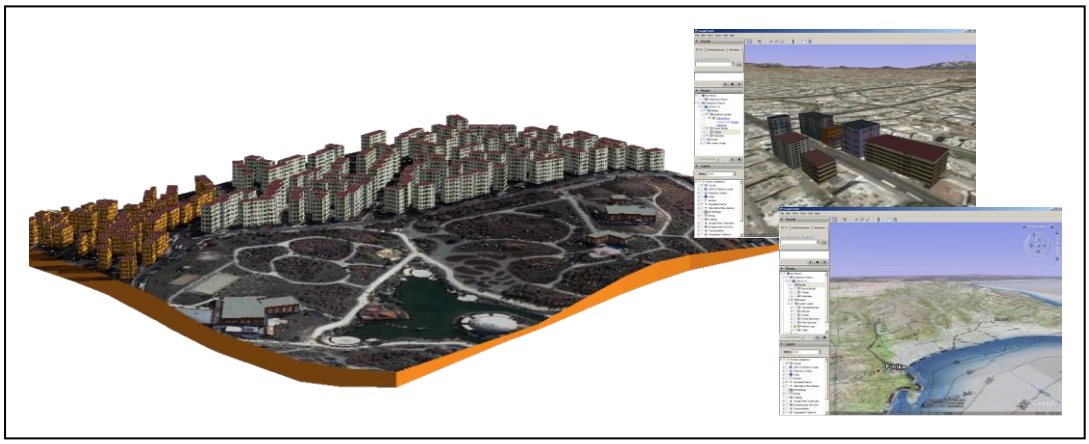

Figure 8: Embedded 3D Client

2. RESULTS

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