Cadcorp® and Oracle

ORACLE®

Removing the barriers to enterprise GIS deployment

Digital mapping and geographical information systems (GIS) are widely recognised as key enablers in e-Government service delivery worldwide. Modern government, both in policy making and in service delivery, relies on accurate and timely information about the location of citizens, assets, incidents and policy. It has been widely reported that over 80 per cent of corporate data has a geographic or spatial component.

The management, distribution and sharing of spatial data is therefore crucial to effective and efficient service delivery and policy formulation. Increasingly, government is being measured, targeted and funded for 'e-Enabling' its services, ensuring that information and, more recently, online services are shared across departments, agencies and citizens. Examples include: Implementing Electronic Government (IEG), the Department for Communities and Local Government's Priority Outcomes, and the Cabinet Office's Transformational Government initiatives in the UK.

Cadcorp and Oracle work in partnership via the Oracle PartnerNetwork (OPN) to facilitate the deployment of GIS applications that store business and spatial data in the same underlying Oracle database, and without the need for additional proprietary middleware. This reduces both the cost and complexity of developing, deploying and managing GIS applications.

Industry-leading Spatial technology

Conventional systems for integrating spatial information with database applications have been complex and unwieldy. Spatial data would normally be held in a separate proprietary data format and linked to the relational database using middleware. This resulted in complex data management and higher software licence costs.

Oracle Database 10*g* is the only commercially available database to provide native support for spatial data as a standard feature. This greatly reduces complexity by allowing both application and spatial data to be stored in the same central data repository, simplifying management and lowering costs. Because spatial information is treated as just another data-type within Oracle Database 10g, it can be queried and manipulated just as easily as all other data-types. This reduces the complexity of developing GIS applications that are tightly integrated within Oracle-based applications.

Oracle Locator is the unique spatial data management feature set of Oracle Database 10*g*, built into the database system and provided as a standard, out of the box capability.

Oracle Spatial is an option for Oracle Database 10*g* which extends Oracle Locator to provide advanced location information management features that can support a wide range of applications from automated mapping/facilities management and geographic information systems, to wireless location services and location-enabled e-business.

Oracle Spatial runs natively inside the Oracle Database 10*g* kernel, managing geographical information as a spatial data type within the database. This allows geospatial data to be tightly integrated in the same data source as all other application data, removing the need for a separate, proprietary spatial database. This reduces the cost of building GIS applications, because both spatial and application data can use the same database.

Cadcorp SIS® - removing the barriers to GIS applications deployment

The Cadcorp SIS® - Spatial Information System® GIS product family provides a range of products to access and manage spatial data stored in Oracle Locator or Oracle Spatial without middleware. The company also provides software developer kits (SDK) for developing Oracle-based GIS applications on the desktop, over the Web and on wireless mobile devices.

Cadcorp SIS reduces the cost of deploying Oracle-based GIS applications by eliminating the per-seat/per-server middleware licence costs required by some other GIS products. These savings also extend to ongoing training, support and maintenance costs.

The integration of GIS applications into back-office business systems is also helped by the lack of a middleware layer. Also, Cadcorp SIS includes Open Geospatial Consortium, Inc.™ (OGC™) certified compliant interfaces at no additional cost. As a result, organisations benefit from interoperability and improved information exchange across the enterprise and between partnership agencies.

The Cadcorp SIS product family encompasses desktop GIS, ActiveX-based Software Developer Kits, web-based GIS software (GeognoSIS.NET™) and a mobile data capture application (mSIS). The Cadcorp SIS desktop product family ranges from an easy-to-use, free, data viewing tool (Map Reader) through to an advanced GIS (Map Modeller)

Cadcorp GeognoSIS.NET makes the wide-ranging functionality of Cadcorp SIS available over the Web for interactive mapping services, or over a corporate intranet for enterprise-wide deployment of GIS applications and data. GeognoSIS.NET applications may be developed using Oracle Application Server (OAS) or Fusion Middleware, helping customers to maximize their investment in Oracle technology.

Fig. 1: Cadcorp SIS® – Spatial Information System® product family

Cadcorp SIS Oracle-related key features and benefits:

- Support for Oracle9*i* Database or Oracle Database 10*g* (Locator or Spatial) via native Oracle Call Interface (OCI)
- Support for Oracle Fusion Middleware and Oracle Application Server (OAS)
- No middleware required to access Oracle
- No additional metadata tables required by Cadcorp SIS
- Support for Oracle 10*g* GeoRaster (including 10*g* R2 compressed raster storage) and Oracle 10*g* Network Model extensions via Oracle 10*g* client
- Add Oracle data to Map Window via easy-to-use Overlay/Spatial database wizard
- Full transaction support when editing Oracle data, to maintain database integrity
- Easy-to-use Database Query Wizard, allowing server side spatial or attribute Oracle queries
- Support for field-based Tablet PCs with integrated/add-on GPS – mobilise your Oracle data for field-based asset and facilities management
- Export more than 60 GIS, CAD and database formats to Oracle9*i* Database and Oracle Database 10*g* via an easy-to-use wizard
- Cadcorp SIS embedded mapping option, enabling applications development and back office integration
- Load OS MasterMap® directly into Oracle9*i* Database or Oracle Database 10*g* using the Cadcorp SIS OS MasterMap Manager (delivered with Cadcorp SIS Map Modeller at no additional cost - GB only)

Why Cadcorp and Oracle?

Cadcorp is a leading developer of GIS software, supplying private and public sector clients around the world. The company's Cadcorp SIS product family enables organisations to use geographic information to support their business objectives in a wide variety of ways - improving service delivery and realising cost and efficiency savings.

Oracle Database 10*g* is the only commercially available database to offer built-in, standards-based geospatial capabilities to store, index, and manage location content (assets, buildings, roads, land parcels, sales regions, customer locations, etc.) and to query location relationships using the power of the database. Oracle Spatial 10*g* adds advanced spatial information management features such as a network data model, topology, GeoRaster support, and built-in geocoding.

The Cadcorp SIS product family has been developed to take full advantage of the advanced spatial capabilities offered by Oracle Database 10*g*. Cadcorp is a member of the Oracle PartnerNetwork, giving customers the assurance that the two companies have worked closely to ensure the solution meets the highest possible standards in terms of quality, functionality and value.

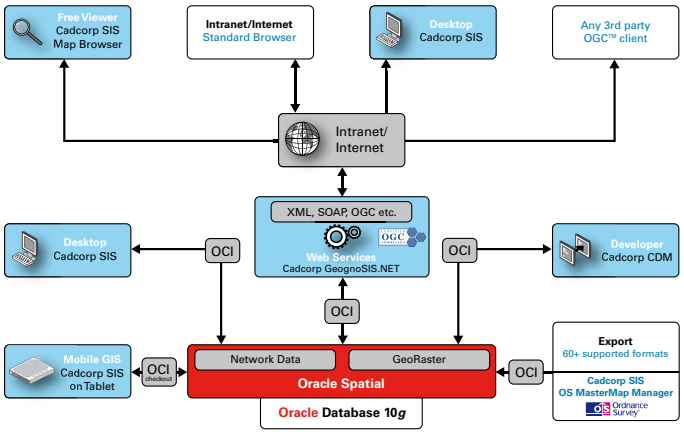

Fig. 2: Cadcorp's SIS product family has been developed specifically to work with the powerful spatial capabilities of Oracle Database 10g without the need for an expensive and complex middleware layer. This cost-effective solution enables you to store all of your spatial and application data in the same central repository.

Case Study: New Forest District Council

The New Forest District Council is responsible for managing an area of 290 square miles in southern England, approximately half of which is made up by the New Forest national park. The district has a population of 173,000.

In 1998 the council's GIS department placed an initial order for a number of Cadcorp SIS Map Modeller licences. These were used for applications to handle planning, land charges and coastal management. Since then the council has extended the use of Cadcorp SIS to the leisure, community safety, engineering, highways, street naming, legal, grounds maintenance and estates management departments. Cadcorp SIS is now used by around 80 workers at the council, and it also enables the interactive mapping functionality on the council's public access website.

"We purchased a planning system that was underpinned by Cadcorp SIS," said Sharon Elson, GIS manager, New Forest District Council. *"We liked the product and realised that its strengths would provide the basis of our corporate GIS. We also wanted one software supplier that could fulfill our corporate GIS needs."*

More recently the department decided to migrate to OS MasterMap® from OS LandLine® and chose Oracle Database 10*g* as the underlying database. At the same time, the authority also chose to migrate its spatial business data to the same database. Moving to Oracle Database 10*g* delivered a range of benefits such as greater security, data archiving and the ability to manage one central spatial data repository. As Elson explains; *"We have offices at different locations and, until now, the same data has been stored on several servers. Moving to a single Oracle database enabled us to handle our data more efficiently, by allowing us to maintain all the data on one centrally based server and to use it for both our internal GIS applications, and those on our web site."*

The council now plans to extend the use of Cadcorp SIS into other areas such as housing and to extend the intranet based GIS to every desktop in the council, including providing access for councillors.

Further Information

For further information or to request a demonstration of the joint Oracle and Cadcorp SIS offering, please contact:

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About Cadcorp

Established in 1991, Cadcorp is a leading UK developer of digital mapping and geographic information systems (GIS) software. With offices in the UK, USA and Australia, Cadcorp's distribution and VAR network stretches worldwide. The company also plays a pivotal technical role in the Open Geospatial Consortium, Inc.™ (OGC™).

The Cadcorp SIS - Spatial Information System product range is fully integrated digital mapping and GIS software that uses OGC certified compliant interfaces. Cadcorp is an ISO9001:2000 certified company, an Ordnance Survey Developer Partner and holds a UK government Catalist S-CAT agreement for category 15, GIS Software.

For more information please visit: www.cadcorp.com.

About Oracle

Oracle (NASDAQ: ORCL) is the world's largest enterprise software company. Oracle's business is information – how to manage it, use it, share it, protect it. For nearly three decades, Oracle has provided the software and services that let organisations get the most up to date and accurate information from their business systems.

Today, Oracle is helping more businesses and governments around the world become more information driven than any other company.

For more information about Oracle, please visit www.oracle.com.