Integrated Municipal Information System IMIS now on ESRI

IMIS, the leading integrated spatially enabled information system for municipalities is now also available on the ESRI platform. This integrated system is modular and caters for all the departments in a municipality. It is currently in use in over 40 municipalities. IMIS which ran exclusively from the Planet GIS platform is now available to all the municipalities currently using ESRI products.

IMIS was developed to address the need for information systems in municipalities. Since its creation, IMIS has been the leading integrated solution for Municipalities. It is founded upon five technologies, namely a Geographic Information System (GIS), Document Management, Process Automation, Communication Hub and Web technologies.

IMIS was until recently only available on the PlanetGIS platform which enabled smaller municipalities the luxury to obtain a full spatially enabled management information system for a fairly low cost. It integrates amongst others the land management (GIS based) with the financial system, infrastructure management, IDP and project management, document management and human resources. All processes such as town planning and building plan applications, complaints management, project management and infrastructure applications are built on a workflow basis to ensure that all the day to day processes are done as part of the overall information system making the data and information available for reporting and planning purposes from one single point in the municipality. This process approach also ensures data integrity as data is updated via a process and not merely on an ad hoc basis, there is also a fully auditable trail on all actions.

A strategic decision was taken by the management team of TGIS to make this system available to more municipalities by porting it to the full ESRI product suite. To assist with this Martiens Pelser and Percy Jackson joined TGIS on the 1st of May 2011. The initial step was to design an architecture (Please see figure 4) that will make all the current functionality and data as captured in IMIS available in the ESRI desktop environment (ArcView and ArcEditor) and on the Intra/internet in the ArcGIS Server environment. The data should reside in an OpenGIS conformant data repository to ensure that the current PlanetGIS solutions as well as the ESRI solution will be fully functional in the one integrated system. Having the data in a relational database system also allows for easy integration to other existing systems in the municipality.

Integration of IMIS with the ESRI product range included the design and implementation of the current IMIS data structure with ArcGIS Server (ArcSDE for Oracle and MS SQL Server). Small adaptations were done to cater for the Geometry and Object-ID fields needed in the ArcSDE Geodatabase. The custom applications within IMIS were modified to access the new ArcSDE data structures to enable capture and editing of data through the IMIS workflow processes directly into the ArcSDE Geodatabase. It also allows the ESRI desktop products such as ArcEditor and ArcView to access and manipulate the IMIS data and the Web mapping component to publish the IMIS data to the Inter/Intranet.

Since the addition of the ESRI suites as a base from which to run IMIS, many previously excluded ESRI bound clients now have the opportunity to run IMIS. Many municipalities have realised the value of GIS but have bought into specific platforms which have limited functionality. With IMIS now able to run of the ESRI platform there is a significant additional range of functionality now available to all.
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municipalities. Municipalities can contact TGIS directly or contact their current service providers, who can join the IMIS distribution and support channel.

Figure 1: Data in ArcGIS Server - Web Map

Figure 2: IMIS on ESRI Architecture

Figure 3: Data in IMIS

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