



## Technical Services

Swova is an information technology firm specializing in the design and development of Geographic Information Systems (GIS) and web portals for real time delivery, querying, and reporting of your current data. Bringing over 33 aggregate years of experience, our team of experts can build a system to meet your specific needs utilizing ESRI's Suite of ArcGIS® products.

	ArcGIS	ArcIMS	ArcSDE	ArcObjects
Implementation	✓	✓	✓	✓
Customization	✓	✓		✓
Administration	✓	✓	✓	
Knowledge Transfer	✓	✓	✓	✓
On-Call Support	✓	✓	✓	
Staff Augmentation	✓	✓	✓	

## Expertise

<b>ArcGIS Desktop</b>	Comprehensive <b>ArcGIS</b> implementation experience incorporating client specific data maintenance procedure development, <b>ArcObjects</b> customization, end user training, and on-going support
<b>ArcIMS</b>	Web-enabled GIS access using <b>ArcIMS</b> server deployments including setup, design, administration, knowledge transfer, and application development; Enterprise <b>ArcIMS</b> deployment expertise in utility, local government, and federal government markets with an understanding for access and security requirements
<b>ArcSDE</b>	Enterprise <b>ArcSDE</b> implementations with <b>Oracle</b> and <b>SQL Server</b> , encompassing all aspects from installation and configuration to tuning and administration; Assistance providing support, knowledge transfer, configuration and tuning, review and recommendations
<b>Geodatabase</b>	
<i>Data Migration</i>	Expertise in data migration and integration into GIS including: CAD to GIS and Coverage/Librarian to <b>Geodatabase</b> ; Proven success maintaining the integrity of the data, text and attributes when migrating into the <b>Geodatabase</b>
<i>Linear Modeling Utility Networks</i>	Expertise and services for the development of utility networks including: geometric network design and development with relationship classes and connectivity rules
<i>Linear Modeling Transportation Networks</i>	Linear network modeling using <b>ESRI's</b> linear referencing capabilities; Expertise includes: route creation, route calibration, route data migration to geodatabase, event data incorporation, analysis of event and route data
<i>Template Incorporation and Customization</i>	Utilization and customization of industry-specific data models to promote and support user-community/industry standards while simplifying the process of implementing the project
<i>Data Modeling</i>	<b>Geodatabase</b> design using <b>Unified Modeling Language (UML)</b> to generate feature datasets, feature classes, objects classes, rules, etc. for the enterprise database; Extensive complex data modeling experience incorporating custom features, custom database rules, subtypes, domains, relationships classes, connectivity rules, and feature and object inheritance
<b>Application Development</b>	Design, specification, development, and training of custom <b>ArcGIS</b> desktop applications with programming expertise in <b>ArcObjects</b> in the <b>Visual Basic</b> and <b>VB .NET</b> environments; Swova has developed custom applications specifically for the utility market: custom geodatabase maintenance application, circuit map and tree trimming application with custom plot generation, street light maintenance and analysis application
<b>Enterprise GIS Implementation</b>	Enterprise GIS implementations that include all elements of a GIS project: needs assessment and implementation planning, system and database design, desktop ( <b>ArcGIS</b> ), <b>Geodatabase (ArcSDE)</b> , custom applications ( <b>ArcObjects</b> ), web-enabled access ( <b>ArcIMS</b> ), end-user training, and on-going support; In-depth experience working with utilities, military, and local governments in deploying enterprise solutions using <b>ESRI's</b> Suite of products
<b>Systems Integration</b>	Complete systems integration successes capitalizing on relational database systems ( <b>Oracle</b> and <b>SQL Server</b> ) and application development ( <b>ArcObjects</b> , <b>VB 6</b> , and <b>VB .NET</b> ) expertise to integrate GIS data maintenance, analysis, and processes with the Client's existing systems; Successes include GIS integration with an electric utility outage management system, local government tax assessment systems, and transportation network condition inventories