



**Using Superior Data,  
Survey Research & Technology  
To Make Better Decisions  
In the Political Arena**

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**Proposal of Redistricting Data Services**

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*Submitted by:*

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## OVERVIEW

This document is a proposal of redistricting data services for the 2011 redistricting cycle. The Magellan Data and Mapping Strategies team has extensive experience in compiling, converting, and constructing databases for the purpose of redistricting. The focus of this proposal is to put forth a plan and process that will allow interested parties to meet their data preparation needs for the upcoming 2011 redistricting cycle.

## ABOUT MAGELLAN

Magellan principals David Flaherty, John Diez, and Jennifer Anderson have vast experience working with redistricting data, census data, and redistricting software. David was the Manager of Redistricting Technology at the Republican National Committee in 2001, and John served as David's deputy. Jennifer Anderson was also an employee of the RNC Redistricting Department, working with David and John. Magellan's business line of products and services include a national voter file, political data analysis, data modeling, survey research, political data management and mapping. Simply put, Magellan Strategies is the most qualified and experienced firm in the country to manage and deliver the complex data work that must be in place before the 2011 redistricting cycle.

## OVERVIEW OF REDISTRICTING DATA PREPARATION

To be frank, the Republican Party is alarmingly behind in redistricting data preparation for the 2011 redistricting cycle. On April 1, 2001, only seven months from now, the Census Bureau will release the population data. The amount of redistricting database work that needs to be done is more than significant. Magellan is confident that with enough resources, a significant portion of the redistricting database work can be completed.

## MAGELLAN'S REDISTRICTING WORK TO DATE

Currently, Magellan is working on an hourly basis converting and verifying single year precinct election return databases and consolidating 2002 and 2004 voter file precinct geography for the Republican National Committee. This work is essentially the initial data preparation phase in the process of constructing a redistricting political database for each state in the country. It is very important to understand that the complex process of matching individual precinct election return data from election year to election year has not yet started.

Preparing, formatting, and converting precinct level election return data from 2001 to 2010 for each state is a time consuming and complicated undertaking. The individual election return databases must be matched together correctly. Otherwise the measurement of Republican strength of districts to be drawn in 2011 will be inaccurate. The nation's 225,000 precinct boundaries change constantly from election cycle to election cycle, both physically and by name. Accounting for the precinct changes so that election returns are allocated properly to current precincts



is a science that only experienced and properly trained individuals should undertake.

## **SCOPE OF WORK**

Constructing a redistricting database that is “plan drawing ready” can contain many phases. Below is a brief explanation of the logical steps so that it is clear to all reading this proposal what is being referenced. Some states need additional steps, but for the purpose of this proposal, this is a generalization of the process.

### Collect and Format Precinct Election Return Data

The initial phase is simply collecting a state’s election returns at the precinct level. The Republican National Committee has collected the vast majority of the precinct data from 2001 to 2009. After the November 2010 election all returns must be collected as well. The election returns can come in electronic format, on paper, or in a database format that must be converted. Magellan is currently working with the RNC converting election return data in several states and different election cycles into a common format.

### Merge Precinct Election Return Data into a Master File

Once the precinct election return data for each year for an individual state is converted into an electronic, common format it must be merged together. All prior election returns must be matched up to the most recent precinct geography. The end result is a single “master” return database that includes historical election returns from all elections going back to 2002 or in some instances 2001. This phase is extremely time consuming due to physical and name changes to precincts over time.

### Precinct Digitization

Once the election return database is constructed for each year, from 2001 to 2009, the data will need to be linked to precinct level geography. This step is necessary in order to link precinct level election returns to census geography. Precinct geography changes from year to year to variant degrees. As a result, it is necessary to digitize precinct level geography for each election year, going back to 2001.

### Deallocate Master Precinct Election Return Database to 2010 Census Blocks

After the master election return database is completed, the data in each precinct must be deallocated into 2010 Census blocks. Once this is complete the database is imported into the redistricting software system and the drawing of plans can begin.

Considering this generalized redistricting data workflow, it is assumed that Magellan Data and Mapping Strategies will be responsible for one or all phases of a particular state’s redistricting database development. Magellan understands that the work in certain individual states may be completed by qualified and experienced individuals in each state. At this time there is not an exact count of which states will



fall into which category, but based on the information available, Magellan expects to be responsible for the complete database construction in as many states as possible.

Collection of the 2010 Precinct Election Results

The collection of the 2010 precinct election results is a hectic, expensive and labor intensive process. Most county election results are not certified until December and results by precinct traditionally are not available until the following year. Certain states do provide the data in a statewide file, while other states require request letters to hundreds of county or town clerks. The 2010 precinct results will be vital in the evaluation of newly drawn districts because Republican candidates performed poorly in the 2008 and 2006 election cycles.

The RNC traditionally collects the precinct election return data the following year of the election. We do not know if the RNC will have the resources to manage the 2010 data collection process. If interested parties feel that assistance from Magellan is needed we will submit a separate proposal for that scope of work. Again, it is important to understand that the collection process requires resources for labor, data acquisition and keypunching costs.

**INITIAL, ONE TIME PROJECT SET UP COSTS**

Magellan Strategies has offices in Louisville, Colorado and Baton Rouge, Louisiana with a total of nine full time employees. If interested parties choose to contract with Magellan, additional employees will be needed to complete the redistricting database work by the time the Census Data is released on April 1, 2011. Both the Louisville and Baton Rouge offices have the office space to expand and add these new employees. It is our intent to eventually hire and train 12 employees that have education and work experience in database construction, compilation and GIS technology. Additional training and management will be handled by Magellan principals David Flaherty, John Diez and Jennifer Anderson. The following is a proposed budget for a nine month contract from September 1, 2010 until May 31, 2011. The first portion of the budget details one time set up costs, the second covers ongoing costs to complete the project.

Computer and Network Hardware

12 work stations with Microsoft XP OS/Office 2010 (\$1,900 each).....	\$22,800
12 monitors (\$240 each).....	\$2,880
2 Servers, MS Server 2008 OS (\$10,000 each).....	\$20,000
2 12TB NAS backup servers (\$4,500 each).....	\$9,000
IT consultant labor to configure work stations, server.....	\$5,000
2 HP DesignJet T1200 large format printers (\$7,798.81 each).....	\$15,597.62
12 copies of NOD32 anti-virus software (\$40 per pc).....	\$480
Extension cords, energy power strips.....	\$150
Sales tax on all hardware/software (4.1% of \$70,277).....	\$2,881.35
<b>Total.....</b>	<b>\$78,788.97</b>



Software Costs

12 licenses of Maptitude for Redistricting (\$5,000 license).....	\$60,000
12 licenses of Microsoft FoxPro 9 Professional (\$690 license).....	\$8,280
12 licenses of SPSS Statistics Base 18/19 (\$1,800 license).....	\$21,600
12 licenses of Arcview GIS 10 (\$900 license).....	\$10,800
4 licenses of Autobound Redistricting Software (\$5,100 license).....	\$20,400
<b>Total.....</b>	<b>\$121,080</b>

Office Furniture and Phone System

12 desks and office chairs, floor mats (\$750 each).....	\$9,000
4 filing cabinets (\$150 each).....	\$600
6 phones added to existing phone system (\$300 each).....	\$1,800
Phones system installation, programming and labor.....	\$3,800
<b>Total.....</b>	<b>\$15,200</b>

Large Format Printer Paper and Ink

50 rolls of 36 inch, 300ft (\$43 each).....	\$2,150
50 130 ml Magenta Ink cartridges (\$69 each).....	\$3,450
50 130 ml Cyan Ink cartridges (\$69 each).....	\$3,450
50 130 ml Yellow Ink cartridges (\$69 each).....	\$3,450
50 130 ml Black Ink cartridges (\$69 each).....	\$3,450
<b>Total.....</b>	<b>\$15,950</b>

Office Supplies for 9 months

Pads, pens, calculators (\$75 per employee).....	\$675
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**Total set up costs..... \$231,693.97**

During the process of constructing the redistricting databases there will be instances where resources we will be needed to purchase a precinct shapefile or other political data from a county or state. The cost of these files can vary from \$10 to \$1,000. We are requesting resources for those acquisition costs. Below is a general estimate of those costs for budget purposes, and it should be noted that we are more than happy to be reimbursed for those costs as they are incurred.

**REDISTRICTING DATA ACQUISITION COSTS**

County/town/precinct GIS shapefile costs.....	\$50,000
Precinct election return database costs.....	\$30,000
Paper precinct election return keypunching costs.....	\$20,000
<b>Total.....</b>	<b>\$100,000</b>



**PRICING PROPOSAL BASED UPON HOURS**

We propose a pricing agreement that is based upon labor hours rather than the total number of precincts or Congressional districts per state. Pricing based upon labor hours will protect interested parties from over payment and Magellan from under charging. It is also important to note that the size of the state is not an accurate reflection of the amount of work to be done in a state. Time spent on completing a state is determined by the status of the raw data, the number of changes to the precincts over the past decade, and other state specific characteristics.

In addition to the hourly labor rate, Magellan will charge a monthly fee for compensation of our time, expertise and management of the project. The proposed hourly rates, Magellan management fees and overhead costs (for 9 months) are as follows:

Hourly redistricting database labor (per hour).....	\$115
Hourly redistricting database and GIS labor (per hour).....	\$130
Monthly rent (\$2,000, Louisville and Baton Rouge locations).....	\$18,000
Magellan project management fee (\$40,000 per month).....	\$360,000
Monthly phone charge, 6 phones (\$25 per phone).....	\$150

**CONCLUSION**

It is our intent to eventually hire 12 employees for this project, with 6 employees in our Louisville and Baton Rouge offices. Even with those additional human resources, we need to be clear that our efforts will not be able to complete a final redistricting database for every state in the country. The amount of database work to be done is enormous before April 1, 2011. We intend to begin the project and complete as many states as possible with financial resources that are made available by interested parties. We look forward to discussing the details of this proposal with interested parties in the near future.

