

NASCIO FY 2004 RECOGNITION AWARDS ENTRY

Innovative Use of Technology *The District of Columbia Website: DC Guide* Executive Summary

PROJECT DESCRIPTION

The DC Guide was launched on the Government of the District of Columbia website at <http://about.dc.gov/index.asp> in November 2003. The Guide offers the most comprehensive set of geographic information available about the nation's capital. It is the only municipal website that leverages both Geographic Information System (GIS) and search engine technologies to draw from more than 200 layers of useful data. This sophisticated application quickly and seamlessly delivers the data whether users search according to address, type of business, government service or location in the city.

The DC Guide is easily accessible from the home page of the DC government website at <http://dc.gov>. The site includes municipal data collected by the DC government and business information provided by Dun and Bradstreet presented through several gateways:

- **Find It** – locate over 40,000 businesses and 200 District government service locations.
- **Get There** – use a trip planner to help find directions from point to point in DC.
- **Where You Live** – type in an address, or select an area from a list, to find the locations of schools, libraries, recreation facilities and commercial establishments in any neighborhood, ward, or zip code.
- **Make a Map** – create a customized map that includes multiple DC destinations.
- **Real Property** – find information about more than 170,000 properties in DC by typing in a person's name or property address.
- **Map Gallery** – explore a gallery of the most popular maps of DC.
- **Taxicab Fare Calculator** - compute how much a taxi ride will cost from point to point in the city.
- **Birds' Eye Tour of DC** – learn about the city's most popular locations with this interactive map of the National Mall and downtown DC.

SIGNIFICANCE TO THE IMPROVEMENT OF GOVERNMENT

By improving the DC government website's service efficiency and effectiveness the DC Guide is sharply increasing the numbers of businesses, residents, and visitors who substitute online information searches for visits or phone calls to District government centers. Since the DC Guide's launch in November 2003, average daily visits to the About DC section of the website (where the DC Guide is categorized) have doubled. In addition, the DC Guide serves as an online resource and reference manual for the District's customer service employees. The Guide's at-your-fingertips information improves the speed and accuracy of employee customer service to residents, businesses and visitors, and allows District agencies to reduce customer service-related costs.

BENEFITS FOR SERVICE RECIPIENTS AND TAXPAYERS

Before the DC Guide was launched in November of 2003, residents, businesses and visitors had to use several sources—and even visit government buildings—to find specific District information, such as real property data. Other tools, such as the trip planner, custom neighborhood maps and business locators were not available to the public at all. Now, Internet users have a website that is a single source for finding the locations of all government services, businesses and attractions in DC, as well as maps and turn-by-turn directions. And the information is free.

The DC Guide uses current GIS technology to present user searches and map displays that are optimized for speed. This allows the application to seamlessly deliver a vast amount of information at a much faster rate than similar municipal websites. All information the user selects is shown on one map as opposed to other websites that require the use of separate GIS applications to access different types of data.

RETURN ON INVESTMENT SHORT TERM/LONG TERM PAYBACK

To date, benefits of using DC Guide to the city include:

- Common user interface eliminates need for training government and citizen users
- Standards-based design lowers cycle time for programming enhancements by over 50 percent
- 200 hours of development time saved by not having to revalidate 80,000 addresses using outdated data and manual entries for the online Service Request Center (approximate savings: \$160,000)
- \$40,000 worth of savings in programming expenditures during development of the online Service Request Center
- No lost time or resources spent on false service requests
- Improved and standardized business processes gained from agencies sharing updated address data
- Streamlined, citywide, process for capturing and correcting invalid addresses

NASCIO FY 2004 RECOGNITION AWARDS ENTRY
Innovative Use of Technology
The District of Columbia Portal's DC Guide

PROJECT DESCRIPTION

The DC Guide was launched on the Government of the District of Columbia website at <http://about.dc.gov/index.asp> in November 2003. The Guide offers the most comprehensive set of geographic information available about the nation's capital. It leverages Geographic Information System (GIS) technologies and web services to deliver an enormous amount of useful information about DC to residents, businesses and visitors. The DC Guide is easily accessible from the home page of the DC government website at <http://dc.gov>. The site includes municipal data collected by the DC government and business information provided by Dun and Bradstreet. This vast store of information is presented through several gateways:

- **Find It** – locate over 40,000 businesses and 200 District government service locations.
- **Get There** – use a trip planner to help find directions from point to point in DC.
- **Where You Live** – type in an address, or select an area from a list, to find the locations of schools, libraries, recreation facilities, police and fire stations, post offices, and commercial establishments in any neighborhood, ward, or zip code.
- **Make a Map** – create a customized map that includes multiple DC destinations.
- **Real Property** – find information about more than 170,000 properties in DC by typing in a person's name or property address. Users can also conduct research in targeted areas of the city, searching for properties by neighborhood cluster, ward, sale prices, sale dates, assessment values and building or land use. Users then can create maps highlighting the selected properties. Similar property websites do not offer all of these property-mapping tools.
- **Map Gallery** – explore a gallery of the most popular maps of DC.
- **Taxicab Fare Calculator** - compute how much a taxi ride will cost from point to point in the city.
- **Birds' Eye Tour of DC** – learn about the city's most popular locations with this interactive map of the National Mall and downtown DC.

DC Guide Hardware and Software Specifications

Web Servers

<u>1. WebCitizen1.dcatlas.dc.gov</u>	<u>2. WebCitizen2.dcatlas.dc.gov</u>
(1) Compaq DL 760- Maximum 8CPU x 16GB RAM	(1) Compaq DL 760- Maximum 8CPU x 16GB RAM
(4) 900MHz/2MB Pentium III/Xeon	(4) 900MHz/2MB Pentium III/Xeon
(5) 1GB SDRAM Module	(5) 1GB SDRAM Module
(1) Smart Array 5302/64 RAID Controller	(1) Smart Array 5302/64 RAID Controller
(4) 36GB UltraSCSI 10,000rpm Hard Drive	(4) 36GB UltraSCSI 10,000rpm Hard Drive
(1) Internal SCSI Adapter Card	(1) Windows 2000 Advance Server
(1) Windows 2000 Advance Server	(1) ArcIMS 4.0
(1) ArcIMS 4.0	(1) RouteMap IMS Server 1.0
(1) RouteMap IMS Server 1.0	(1) Jrun 3.02
(1) Jrun 3.02	(1) ArcServer 2000 Client
(1) ArcServer 2000 Workgroup	(1) McAfee Virus Shield 4.51
(1) McAfee Virus Shield 4.51	

GeoDatabase Servers

<u>1. Atlasdb1.dcatlas.dc.gov</u>	<u>2. Atlasdb2.dcatlas.dc.gov</u>
(1) Compaq DL 580 G2 Maximum 4CPU x 32GB RAM	(1) Compaq DL 580 G2 Maximum 4CPU x 32GB RAM
(2) 1600 MHz/1MB Pentium III/Xeon	(2) 1600 MHz/1MB Pentium III/Xeon
(2) 2048 PC1600 ECC SDRAM Modules (4x512MB)	(2) 2048 PC1600 ECC SDRAM Modules (4x512MB)
(1) Smart Array 5304/128 RAID Controller	(1) Smart Array 5304/128 RAID Controller
(11) 36GB UltraSCSI 10,000rpm Hard Drive	(11) 36GB UltraSCSI 10,000rpm Hard Drive
(1) Model 4354R Smart Disk array	(1) Model 4354R Smart Disk array
(1) Windows 2000 Advance Server	(1) Windows 2000 Advance Server
(1) Oracle 9i Standard Edition	(1) Oracle 9i Standard Edition
(1) ArcSDE 8.2	(1) ArcSDE 8.2
(1) ArcServer 2000 Client	(1) ArcServer 2000 Client
(1) ArcServer 2000 Oracle Client	(1) ArcServer 2000 Oracle Client
(1) McAfee Virus Shield 4.51	(1) McAfee Virus Shield 4.51

SIGNIFICANCE TO THE IMPROVEMENT OF THE OPERATION OF GOVERNMENT

DC Guide serves as an online resource and reference manual for the District’s customer service employees. The DC Department of Energy and the DC Board of Elections and Ethics now access information in a far faster, more accessible form than a hardcopy manual or brochure. The Guide’s at-your-fingertips information improves the speed and accuracy of employee customer service to residents, businesses and visitors, and allows District agencies to reduce customer service-related costs.

The DC Energy Office (DCEO) has incorporated DC Guide into their program operations. DCEO is primarily using DC Guide’s address locator to validate and locate addresses for new clients. The two agencies worked together to modify DCEO’s central client database to ensure that every new client is validated and located by the DC Guide’s web service. DC Guide compiles logistical data from DCEO clients when they apply for resident programs. The website uses mapping features to add addresses that are not in the DCEO database.

DC Guide allows DCEO to

- Categorize all addresses, which provides important reporting statistics;
- Analyze and better plan for program impact including who is using the agency’s services, the frequency of use and what part of the District the programs service most;
- Operate with more reliable data;
- Use verified data when presenting information to the City Council, the Mayor’s Office, other city agencies and the public
- Not require residents to provide detail or support to verify the physical location of their residential address.

One DCEO program that utilizes DC Guide is the Low Income Household Energy Assistance Program (LIHEAP). DCEO uses DC Guide to simplify reporting and analyze geographic usage for 18,044 households that receive energy bill subsidies.

BENEFITS REALIZED BY SERVICE RECIPIENTS, TAXPAYERS, AGENCY OR STATE

By improving the DC government website's service efficiency and effectiveness the DC Guide is sharply increasing the numbers of businesses, residents, and visitors who substitute online information searches for visits or phone calls to District government centers. Since the DC Guide's launch in November 2003, average daily visits to the About DC section of the website (where the DC Guide is categorized) have doubled.

Before the DC Guide launch, residents, businesses and visitors had to use several sources—and even visit government buildings—to find specific District information. DC government websites provided information and addresses, but no maps and directions. Commercial websites with DC content just highlighted selected businesses and attractions. Now, Internet users have a website that is a single source for finding the locations of all government services, businesses and attractions in DC, as well as maps and turn-by-turn directions.

The DC Guide uses current GIS technology to present user searches and map displays that are optimized for speed. This allows the application to seamlessly deliver a vast amount of information at a much faster rate than similar municipal websites. All information the user selects is shown on one map as opposed to other websites that require the use of separate GIS applications to access different types of data.

Online access to geographical government and business data allows the customer – a resident, business, or visitor – to obtain the information at the time and place of his/her choosing, and without traveling, calling or waiting in line. In addition, the DC Guide is aimed at ensuring the accuracy and completeness of all content. Therefore the online information it provides is more consistently reliable than information obtained in-person.

The DC Guide's other significant benefits are as follows:

- 1. Benefits to Residents:** Residents can now obtain municipal information previously scattered among several websites or inaccessible online. They can also save time and improve their quality of life by viewing neighborhood maps to pinpoint hardware stores, supermarkets, employment offices or health clinics closest to their homes, to name just a few possibilities.

As opposed to other “scientific” GIS websites that provide raw data, the DC Guide is intended primarily for the average website user, not geography professionals. It has a user-friendly design with a look and feel similar to the rest of the DC.Gov website. The District's Office of the Chief Technology Officer built a virtual category system that allows DC Guide users to find thousands of categories of information without GIS knowledge or training.

In the short time it has been available use of the DC Guide has steadily increased. During the Washington, DC presidential primary elections, thousands of residents conducted searches to locate polling places in wards across the city.

Other resident needs addressed by the DC Guide include:

- The ability to view a government or business facility on a map, see its address and phone number, get directions and visit its website
- Access to more than 200 data layers that include wards, census tracts, zoning data, hospitals, police districts, social services, libraries, post offices and more

- A uniquely powerful and easy to use search engine that can start with general text searches (e.g. find a Chinese restaurant) and end with map searches. This search engine is capable of finding any business, government service or geographic entity in DC.

2. **Benefits to Visitors:** The DC Guide contributes to the District's tourism dependent economy by making it much easier for potential tourists to choose from a variety of attractions, plan itineraries and navigate the city *before* coming to DC. The Guide's Bird's Eye Tour of DC (www.birdseye.dc.gov) allows visitors to navigate a virtual map of the area surrounding the National Mall and downtown DC from an aerial perspective. Users can then click on hotels, restaurants, museums and monuments to get more information about these destinations such as hours, phone numbers, addresses and public transportation accessibility.

The city's 19 million annual domestic and international tourists can obtain a route, with maps for each segment, from anywhere in the contiguous United States to a location in DC. For locations within the District, the visitor does not have to know the exact address (although an address is acceptable). The visitor just needs to identify the type of business, service or point of interest. In addition, visitors can determine travel routes on Metrorail and Metrobus, or calculate the taxi fare to and from any DC destination.

3. **Benefits to Businesses:** The DC Guide's Map Gallery provides access to more than 125 citywide and individual maps of police districts, wards and other political/administrative boundaries as well as maps that show main streets, wooded areas and real properties. Businesses conducting research can find the location of their competitors and of various business services. All DC Guide maps contain accurate, detailed data compiled from hundreds of aerial photographs. The data is presented completely to scale, and can be used for land development research or to settle property disputes. These maps can be printed as large as 11" x 17."

RETURN ON INVESTMENT, SHORT-TERM/LONG-TERM PAYBACK

During the development phase of a state of the art Service Request Center, one project requirement identified was the need to verify 80,000 residential addresses. This verification would ensure that each time an online or telephone service request was submitted, a correct address could be verified before any work was done. These addresses were used by the Department of Public Works, the District's customer service operations and the Office of the Chief Technology Officer to produce a new online Service Request Center. As a result of using DC Guide's address locator, each time a customer care representative, or any other agency employee, receives a service request, they can automatically validate the address. Additionally, this data can be shared with other agencies for multiple purposes. For example, the DC Department of Energy (DCEO) uses DC Guide to simplify reporting and analyze geographic usage for 18,044 households that receive energy bill subsidies.

To date, benefits of using DC Guide to the city include:

- Common user interface eliminates need for training government and citizen users
- Standards-based design lowers cycle time for programming enhancements by over 50 percent
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