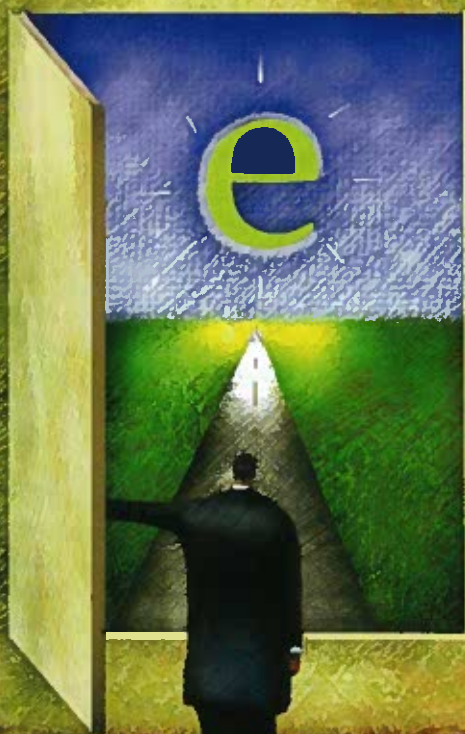


The Continuing Evolution of E-Government:

A Look Toward the Future of Municipal Online Services



By BILL LETSKY

Recent market research indicates that seven in ten Americans now expect to get information or services from a government agency Web site when they need it. In fact, according to the Pew Internet & American Life Project, more people would now prefer to get a government document or publication from the Internet (40 percent) than via the mail (31 percent). >>

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The online presence of local municipalities has certainly come a long way. At the beginning of this decade, only about one-third of Massachusetts cities and towns had an official Web site, according to records kept by the Massachusetts Municipal Association, and even then it was often not much more than a picture of city or town hall with some basic contact information. As recently as six years ago, the portion of Commonwealth municipalities having an official Web site was still less than half. Typically, these sites featured a city or town department directory, meeting schedules, emergency information, property tax data, and information about the building permit process, but not much more.

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Today, ninety percent of Massachusetts communities have a Web site, and these sites have become a valuable resource for constituents to obtain information, download content, conduct online transactions, and interact with their local government via comments, service requests and surveys. The depth and breadth of municipal online services can be expected to continue growing well into the next decade, fueled by two main drivers: constituent expectations and municipal requirements.

Constituent Expectations

The Internet has become deeply woven into the fabric of life for most Americans, especially younger adults. Internet penetration is at an all-time high. Even two years ago, according to the Pew Internet & American Life Project, three-quarters of all U.S. adults had Internet access. The numbers were even higher for the 30-49 age group (84 percent), and the 18-29 age group (88 percent). More and more, Americans turn to the Internet for information relating to their jobs, interests, hobbies, purchases, vacation planning, health issues, and more. Two-thirds of Internet users have purchased one or more products online, according to a Pew report this spring, citing time-savings and convenience as the two major motivating factors.

Time-savings and convenience have substantially affected the retail, publishing, music and travel industries—and these factors are affecting other

sectors as well. The availability of a virtual town or city hall, open 24/7/365, to provide real-time access to information when constituents want it, and to save time by limiting the number of trips into a municipal building, will become a necessity in the years ahead.

Municipal Requirements

While constituent expectations will fuel the need for greater online services, e-government will become a requirement for local governments needing to operate more efficiently. Economic realities of the annual operating budget will necessitate the expansion of online services in order to increase productivity, reduce costs and facilitate fee-based programs.

- With lean staffs the norm, municipalities will be asked to do still more with less. The Internet provides real opportunities to minimize phone calls and foot traffic and to reduce responses to inquiries and transaction processing requirements, thereby significantly freeing up staff time across departments.
- Real savings can be realized by reducing paper and printing costs, as well as labor costs for handling requests and transactions, when these services are migrated to, and automated on, the Web.
- Municipalities will need to continue creating or expanding fee-based programs to help close budget gaps. Examples include recreation stickers, trash fees, bus fees, and fees for athletic programs. Automated online transaction processing will help offset any related labor and processing costs.

Growth Areas

Looking toward the future of municipal online services over the next three to five years, we see significant growth in four principle areas: Online Transactions, Online Interactions, Information Availability, and Constituent Accommodations.

Online Transactions

Although still in the early stages, many cities and towns now offer online transaction capabilities of some kind, including the payment of property and excise taxes, water/sewer bills, parking tickets, refuse fees, beach stickers, and recreation program fees. As constituents get more familiar with these options and get more comfortable conducting financial transactions online, these programs will continue to grow in both the number of offerings and percentage of revenue collected online.

Here are some noteworthy examples of current online transactions:

- **Building permits:** Most inspectional services departments have used in-office building permit applications to help manage their municipal building, plumbing, electrical and gas permits. The capacity to submit these permit requests online is beginning to emerge, however. The town of Wareham (www.wareham.ma.us) has deployed one such application, and MIS Director Matt Underhill says the permit processing time can be reduced to less than one week (compared to up to thirty days if applying in person). "Transaction volume for our online permits and licenses has been steadily increasing, and the feedback from businesses and contractors has been terrific," Underhill says. "We project that we will eventually do over eighty percent of applications online."
- **Beach stickers:** The town of Duxbury (www.town.duxbury.ma.us) allows the purchase of nonresident oversand beach stickers online; vehicle stickers are then mailed out by the town. "Allowing the online purchase of oversand beach stickers provides a great benefit for both Duxbury town staff and for our visitors," says Duxbury Town Manager Richard MacDonald. "The seasonal demand for these stickers is very high, and putting this service online is a major time saver for us." In the past three years, Duxbury has sold more than 3,000 beach stickers online. Last May, the town also introduced the ability to pay taxes online. In the year since, the town has received more than \$4.2 million in online payments for real estate taxes, motor vehicle excise taxes, and water/sewer bills.
- **Harbor moorings:** The town of Manchester-by-the-Sea (www.manchester.ma.us) recently started offering an online application that allows boaters to conveniently apply for a mooring and then immediately pay by credit card. "Every year we need to process more than 2,000 combined harbor mooring renewals and waiting list renewals," says Town Administrator Wayne Melville. "This is very time consuming and places additional burdens on our already limited staff resources. Providing an online registration and payment option helps reduce our office workload and actually makes it more convenient for our boaters."
- **Recreation registration:** Many towns throughout the Commonwealth have instituted online registrations for their parks and recreation programs. Residents

can look up programs on the community's Web site at any time, sign-up online, pay immediately via credit card or e-check, and receive instant confirmation of enrollment. Participants also receive email notifications of class changes, postponements and cancellations.

Online Interaction

The ability for municipalities to interact online with the public is also in its early stages, but will continue to evolve as both demand and new technical capabilities drive new solutions. Financial transactions aside, cities and towns want the capability to provide forms that allow constituents to submit data online and have this data automatically integrated into existing databases. These online interactions can take many forms, such as service requests, facilities reservations, emergency notifications, volunteer opportunities, and citizen surveys.

Here are some noteworthy examples:

- **Assessor appointments:** The town of Watertown will soon start to undertake a property re-inspection program. Over the course of an eighteen-month period, nearly 6,000 residential properties need to be inspected by the assessors office. Taxpayers are notified by mail and are offered the option of scheduling an appointment for their home inspection, but the assessors office staff simply cannot handle the phone call volume generated by 500 to 800 notices going out each month. Soon, the town will begin using a Web-based "appointment scheduler" program that allows taxpayers to schedule their own appointment via the town's Web site (www.watertown-ma.gov). "The taxpayer sees an ordinary calendar that shows available appointment dates and times," says Watertown Assessor Dan Loughlin. "They can select an appointment, fill out a short Web form, and receive an email reminder of the appointment they just made themselves, with the option of changing their appointment if they need to. All of this happens without ever calling the assessors office. This online technology takes the pressure off our limited staff and gives the taxpayer the convenience of scheduling their own appointment without ever being put on hold."



www.town.duxbury.ma.us/Public_Documents/DuxburyMA_BTPermits/resident/index



www.townofpalmer.com/Pages/PalmerMA_Fire/S00B0A546-01436B35

• **Citizen requests:** The city of Brockton (www.brockton.ma.us) offers an online Citizen Information Center that allows visitors to submit a question or service request to any of thirty different departments. Visitors can also go online to track the status of their request.

• **Burn permits:** The town of Palmer (www.townofpalmer.com) allows for the online submission of burning permits. Each request goes directly

to the Fire Department dispatcher, who processes the permit. There's no need to visit the fire station to apply.

• **Medical Reserve Corps:** The town of Duxbury's Web site (www.town.duxbury.ma.us) offers an information center for the regional Medical Reserve Corps. All corps information, including objectives, training, and job action sheets, is available online, including an interactive form to become a medical or non-medical volunteer.

• **Emergency notifications:** Many cities and towns use their Web site as a portal for collecting emergency contact information from residents, businesses, and seasonal residents. Visitors can register their home or business online, then edit or delete information as needed.

Information Availability

Municipal Web sites have long been a destination for basic public information such as frequently asked questions, meeting announcements, community news and events, and downloadable content. This will certainly continue in the future, but with an increasingly higher level of sophistication, especially in areas such as database access, online mapping, video streaming and the custom delivery of requested information via opt-in subscriber applications.

Here are some noteworthy examples:

• **Self-propagating knowledge bases:** The town of Arlington (www.town.arlington.ma.us) uses an answer center application that automatically builds an online knowledge base each time a specific question or request is answered. The application automatically displays a dynamic list of the fifty most frequently asked questions.

A Municipal Web Site Checklist

The following is a list of recommended information and services for today's municipal Web sites:

- Meeting information: date, time, location, agenda
- Meeting minutes: last meeting and archived minutes
- Current municipal budget
- Municipal bylaws or ordinances
- Town meeting warrants
- Town meeting results
- Bulletins and public notices
- E-mail notice subscriptions
- Downloadable forms
- Contact phone/fax numbers
- Comment solicitation
- Department information
- Physical address of town or city hall
- Search capability
- Site map
- Link to home page on every page
- Consistent design (headers, footers, navigation bar, etc.)
- Online services
 - Bill payment
 - Recreation registration
 - Property assessment lookup
 - Geographic Information System (GIS)
 - Permit processing
 - Service requests
 - Birth, death and marriage records

Source: Virtual Town Hall

• **Video streaming and indexing:** Applications for streaming live municipal meeting video have evolved to include on-demand video libraries that index each meeting topic for easy, immediate access. Today's applications also provide the ability to attach agendas and supporting documentation to the video.

• **GIS/online mapping:** All of the town of Weston's property assessment data is easily accessible online (weston.govoffice.com) via a mapping application that provides robust, parcel-level data. "Having Weston's GIS system available to users through our

interface on the Web has allowed us to expand our program to new levels," says GIS Coordinator Kevin Kirmelewicz. "We currently deploy eleven online GIS mapping sites for both staff and public use, which has allowed us to customize interfaces for different users. For instance, Weston's Council on Aging was able to create a customized online form that receives pertinent information about each senior citizen that they can now edit, maintain and map with little or no additional support. This has been invaluable for the Council on Aging as well as the police and fire departments."

- **Cemetery/genealogy access:** The town of Wareham provides a searchable public database for its cemetery archives, making all available personal data, family data and cemetery data easily accessible online (www.wareham.ma.us). Many resident and genealogy inquires can now be handled automatically, reducing the burden on municipal employees.
- **Requests for proposals:** The island town of Nantucket (www.nantucket-ma.gov) now provides full online access to requests for proposals, invitations for bids, and requests for qualifications. Through an interactive request form, the town captures relevant information about each person downloading the documents, creating the ability to provide amendments and revisions to each specific visitor, as appropriate. "Distributing RFPs and IFBs to potential vendors has always been a challenge for us," says Projects Administrator Diane O'Neil. "Before we put them online, interested bidders had to come to Town Hall to pick up these documents. Now, potential responders register for each RFP/IFB, so we maintain their contact information to forward any addenda. We expect more off-island vendors to bid as a result of this service."

Constituent Accommodations

Municipalities are increasingly expected to provide specific online accommodations to subsets of their population, much as they do for the handicapped and special needs visitors at municipal buildings. Government Web sites should already be compliant with the Americans with Disabilities Act, making minimal use of technologies that are not available to all users (such as Flash), and making efforts (such as using "alt tags") to assist those who use Web readers.

Here are some noteworthy additional considerations:

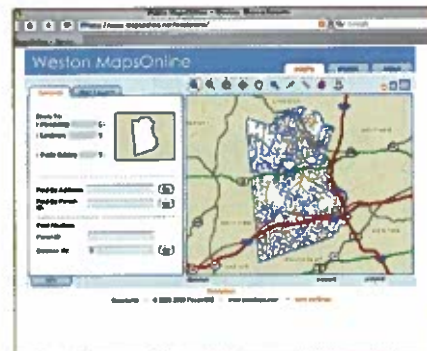
- **Visually impaired:** Applications are now available that allow people with visual and/or reading

disabilities to access Web information via a computer voice that reads all text aloud, line by line. Municipalities can install an application, then visitors simply download a free activation tool onto their computer.

- **Foreign languages:** Municipalities will be under pressure to provide translation tools or to make certain Web pages available in foreign languages.

Available translation services

are only about seventy to eighty percent accurate, but this should steadily improve in the coming years, driven by general population demands within the private sector. Some specific municipal Web pages are now being offered in multiple languages, and some vendors offer applications that allow the public to sign up for emergency notifications in English, Spanish and Chinese, for example.



www.mapsonline.net/westonma/

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- **Elder services:** As baby boomers grow older, most municipalities will be faced with a growing percentage of their constituents requiring elder services. Many of these constituents are computer proficient and will come to expect these services to be available online. Besides providing access to basic information and programs for seniors, other services will likely include online signups for local transportation needs and online registration for trips and classes.

Over the next five years generally, we can expect the growth of e-government services to continue at a steady pace, driven by both municipal realities and constituent expectations. The pace of this evolution will likely vary from town to town and city to city, as factors such as budgets, staffing resources, constituent profiles, broadband access, and technology alternatives affect specific adoption timetables. 🌟