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WHITE PAPER

Creating a Modern Web Presence: Challenges and Solutions for State and Local Governments

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Others Talk, We Listen.





CREATING A MODERN WEB PRESENCE: CHALLENGES AND SOLUTIONS FOR STATE AND LOCAL GOVERNMENTS

Executive Summary

Delivering a world-class web experience presents tremendous challenges to any organization. From platform selection to content management, and all the steps in between, web leaders must navigate imposing obstacles and make complex decisions as they seek to balance their aspirations with their organization's technical and financial limitations.

For state and local governments that seek to inform, enable, and delight constituents via the web, striking that balance can be especially difficult. Government agencies typically face more restrictive budgetary, cultural, and process constraints than their private-sector counterparts. Further, many state and local agencies operate on outdated and disjointed legacy technology platforms and have limited IT resources.

Yet, the adoption of modern web platforms, coupled with an effective approach to website design, execution, and operation, can help government entities affordably reach the same level of online excellence that many private-sector companies have reached.

Government websites can be:

- · Humanized through the design process, making the constituent experience more engaging and positive
- Personalized so that constituents can easily access relevant content and execute critical functions
- Implemented and operationalized to fit within a government body's budget and culture as well as its existing technologies and processes

This paper discusses challenges that state and local governments face as they seek to interact more effectively with constituents in an increasingly digital world. We also suggest pragmatic steps that governments can take in addressing these challenges cost-effectively. Observations draw on both primary research and CapTech's experience delivering a wide variety of website, web application, and other related initiatives for state and local government clients.

Common Government Problems

In evaluating the websites of dozens of state and local government agencies and helping many transform their web presence, we have identified three common issues that undermine the constituent experience and create unnecessary labor and costs for government.

- Content sprawl. Rather than streamlining content so that constituents can easily find what they need, some government bodies throw everything on the web, making it difficult for visitors to separate the relevant from the irrelevant.
- · Disjointed experience. Because government organizations tend to use a mix of platforms that are not seamlessly integrated,

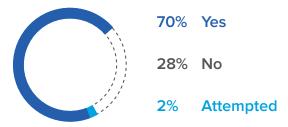
the online experience is often jarring. That increases the bounce rate and lowers the success rate for common transactions and inquiries.

 Inadequate design. Government websites often exhibit a multitude of design flaws: disorganized information, unwelcoming visual aesthetics, an absence of brand, and an inability to accommodate mobile users.

RESPONSIVE DESIGN

CapTech Assessment of the Websites of 50 State Governments:

Responsiveness



CapTech evaluated the websites of each of the 50 states and found that only 35 (70%) were implemented using responsive design techniques, enabling them to scale down for mobile devices. Separately, CapTech assessed the websites of 50 cities – focusing on the state capital or the largest city in each state – and found that only 30 (60%) of these websites were mobile-friendly.

The Business Case for Government Investment in the Web

Successfully resolving these three issues can increase citizen engagement and satisfaction while delivering return on investment (ROI).

- Costs decline when constituents can easily find critical information and conduct basic transactions online.
- Reductions in phone calls, letters, handoffs, and errors free employees to focus on other important tasks.
- Critical updates and communications can reach constituents via the web, which is faster and more cost-effective than mailing letters and sending emails.
- Millennials and younger generations essentially require digital services.
- Modern websites convey an image likely to resonate with businesses that are considering relocating to or expanding within a city, county, or state.
- Employee engagement, satisfaction, and retention are critical for state and local agencies. Modern websites can help keep employees engaged while enhancing their ability to serve constituents.

Costs decline when constituents can easily find critical information and conduct basic transactions online.

The Path Forward: Five Key Steps

To resolve the issues of content sprawl, ineffective design, and disjointed experiences, we recommend that governments take five key steps:

- Optimize content development
- Enhance customer self-service
- Orient the design process to citizen needs
- Humanize the Citizen Experience
- Promote brand awareness

Each of these steps will help improve the citizen experience and maximize ROI. In combination, they will fuel the creation of a high-end, commercial-grade web experience that furthers the mission of the government organization and empowers its stakeholders.

Optimizing Content Development. The assertion that "content is king" may be old news, but many government entities clearly have not taken the message to heart. Content sprawl is evident on countless government websites, and it deters citizens from using these sites. Many people opt instead to place phone calls, send emails, write letters, or personally visit government offices, driving up administrative costs and distracting staff from other tasks. As agencies consider modernizing their websites, they have an opportunity to ensure that content truly meets customer needs.

Optimizing content development requires the establishment of processes that will help ensure that future content is relevant and current. It also requires the designation and training of specific employees who will be responsible for managing content.

Many government entities today rely on a single person, usually a webmaster, to update and publish content for all employees and units across the organization. Although webmasters may have training in HTML and other technical matters, they do not necessarily have a background in communications or content.

Because webmasters are typically overworked, their priorities may not match those of any given department or group within the organization. It might take days or weeks for a department or group to get its content published.

We recommend that governments transition from the webmaster model to one in which designated and appropriately trained people own the content on their pages or their groups' pages. They can change or update copy, submit it for approval, and make it public within hours or days, not weeks.

Enhancing Self-Service

Government entities typically rely on an eclectic mix of backend systems, some of which were designed to interface with modern websites and some of which predate these. Self-service functionality — for example, online bill payment or interactive records retrieval — typically requires integration of these back-end systems with the website.

When integrations are seamless, bounce rates decline, more transactions are completed successfully, and both customer satisfaction and ROI increase. When integrations are not seamless, customers realize it quickly and website usage drops off.

The private sector has made tremendous strides in enabling and enhancing customer self-service. Citizens expect the public sector to keep pace. Given the budgetary limitations that state and local governments face, it is seldom possible to ensure that every transaction is entirely seamless. The good news is that it seldom is necessary. The key is to prioritize.

We recommend that before integration efforts get under way, government entities determine which online transactions are the highest priorities for their constituents and then invest in seamless integrations and processes for these. If only 20 citizens per year perform a given transaction, then seamlessness is not as critical for that as it is for a transaction performed by thousands of citizens each year.

For all citizen-facing systems, we undertake a range of enterprise architecture activities to facilitate seamless integration among systems. This includes selecting third-party products and defining architectures that streamline the data-sharing process as well as high-priority transactions that touch multiple systems.



Smartphone use on the rise

Growing numbers of people in the United States — primarily younger and the lower-income population — depend exclusively on smartphones for internet access.

- A 2015 study by the Pew Research Center found that 10% of U.S. adults who owned a smartphone did not have broadband at home.
- Roughly 13% of people whose annual household income was less than \$30,000 were smartphone-dependent.
- Only 1% of people with household incomes above \$75,000 relied on smartphones to a similar degree.

With two-thirds of U.S. adults now using smartphones, government websites are seeing heavy smartphone traffic. In 2015, 40% of smartphone owners used their phone to look up government services or information, and 56% used their phone occasionally to learn about community events or activities, with 18% doing so frequently, Pew researchers reported.

Orienting the Design Process to Customer Needs.

Five years ago, it was not unusual to find commercial as well as public websites that offered only limited mobile functionality. Many private-sector websites today offer a full range of functionality for both mobile devices and desktops. The public sector has not kept pace. As noted previously, CapTech's analysis found that more than a quarter of state government sites are not mobile-friendly.

The lower-income population may prefer to view websites via a smartphone than desktop. With that in mind, a state or county social services agency might find it more fruitful to design "mobile-first" experiences.

Agencies will need to explicitly consider such questions before designing and building websites and developing content.

Cont.

The growing demand for responsive websites does not mean that governments should race to adopt an exclusively mobile-first strategy. The key is to think about the audience that the organization is trying to reach and ensure that the design process is catered to them and to the way they consume content.

Humanizing the Citizen Experience

Citizens, businesses and other stakeholders expect state, county, and municipal governments to deliver digital experiences on par with those delivered by Fortune 500 companies, where the watchwords "customer first" are guiding the transformation of customer touchpoints, including websites.

"Organizations in every industry have discovered that the only sustainable competitive advantage is knowledge of and engagement with customers," notes a recent Forrester research report. "Governments are no exception. As companies become more responsive to their customers, citizens are becoming more dissatisfied with governments' inability to keep up."

One reason for the dissatisfaction is that many government agencies simply haven't come to view citizens as customers. Far from putting customers first, these organizations design, develop, build, and operate websites with an eye to the internal organizational chart, not the citizen.

Humanizing the citizen experience means assessing everything — from the landing page to the experience — from the viewpoint of the citizen.

A variety of tactics can be employed to humanize the experience of government websites. First, minimizing government jargon is extremely important. Based on knowledge of their audience and its contextual needs, content authors should choose words that are easily understood by readers. Second, the proper incorporation of imagery into a website can dramatically impact website visitors' experiences and information intake. Images should complement important written content and actionable functionality, and graphical representations of data or information should be leveraged when applicable. Lastly, a website's organization should be based on how citizens conceive of the tasks they most need to complete and the related services they require, not according to bureau-

cratic structures and priorities that have evolved over decades within the organization itself.



Case Study: Modernizing a Government Website, Enhancing Customer Experience

Challenge

The Virginia Department of Alcoholic Beverage Control (ABC) sought to modernize its outdated website and improve communications as well as customer experience. Virginia ABC also sought to boost revenue 25%.

Solution

CapTech designed and developed a new website with streamlined navigation, a modern look and feel, and custom-developed e-commerce capabilities. Modern content management capabilities were implemented as well.

Results:

- Improved user experience for mobile web visitors via a responsive design
- Increased user success rates on key tasks by 10%
- Decreased duration of key tasks by 33%
- Reduced production lead times and need for IT involvement in website management
- Increased revenue by \$46 million from 2014 to 2016.

The website was recognized by the Web Marketing Association, which presented Virginia ABC with the Government Standard of Excellence WebAward and the Shopping Standard of Excellence WebAward.

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Promoting Brand Awareness

Many government entities might be surprised to learn that they have a brand. Whether they are aware of it or not, their websites convey it.

Design, layout, fonts, logos, art, and other visual elements play important roles in conveying the brand and in shaping citizens' impressions. Poorly conceived design not only makes a site difficult to navigate and search, but also conveys an image of indifferent bureaucracy.

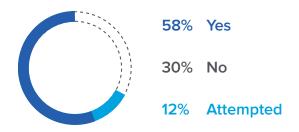
Brand is more than an aesthetic consideration. When constituents are put off by a website, they decide to engage with government employees in person or via phone calls and letters. Costs, errors, handoffs, and other inefficiencies all increase. In contrast, when constituents gravitate to the website and enjoy using it, these issues decline.

Nonetheless, relatively few government entities have made significant investments in infusing their sites with personality or brand sentiment. Instead, these websites tend to be dry in color treatment, visual design, and the way information is organized and populated on the page. Such sites do not convey the image of an organization whose employees are eager to help constituents accomplish their objectives.

CapTech's analysis of the 50 states' websites found that only 29 had a modern design. CapTech also assessed the websites of 50 U.S. cities — focusing on the state capital or the largest city in each state — and found that only 28 had a modern design.

MODERN DESIGN

CapTech Assessment of the Websites of 50 State Governments: Design



CapTech has found that 30% of the 50 states' websites lack a modern design and 12% attempted a modern design but fell short. CapTech also assessed the websites of 50 cities – focusing on the state capital or the largest city in each state – and found that 44% lack a modern design and 28% attempted a modern design but did not achieve it.



Case Study: Modernizing a Government Website, Enhancing Customer Experience

Challenge

Officials in Hillsborough County, FL, sought to transform the county's image and website, making it both more attractive to businesses and residents.

Solution

CapTech developed a new logo and brand. CapTech also overhauled the website's information architecture, developed a modern look and feel, performed usability testing, implemented a new site, and supported content migration. CapTech connected the new front end to the Sitecore WCM system and rolled out content management capabilities and processes that allow the county to manage the site efficiently.

Results:

- The brand is more modern and vibrant, and the new logo is being used on all digital channels as well as on buildings and other non-digital channels.
- For website users, success rates on key tasks have increased by 9%
- Duration of key tasks has decreased by 29%
- Users' subjective belief based on Bipolar Emotional Response Testing (BERT) – that the new website's design "High Quality" improved by 26% over the old website on the same measure
- County staff now requires less IT involvement in website management



We recommend that government entities follow the private sector's lead. Many firms have invested in processes that help these firms discover and define what they want to be. These determinations are applied to the design of websites. Visual layout, fonts, the organization of information, and other design elements bring the brand to life.

Web Platform Selection

Many state and local government entities built their websites 5 to 10 years ago. At that time, designing, building, and operating a personalized, responsive, and seamless website was an extremely costly undertaking, well out of the financial reach of many government agencies. It also required a depth of technological expertise that few state and local governments possess.

Older websites were created, managed, and operated in silos. To support transactions, independent applications were built and managed separately from one another. That left users bouncing among disparate applications on the site. Processes were poorly streamlined. Content sprawl was commonplace, with organizations dumping brochure-ware — i.e., printed pages translated directly to the web — onto their websites indiscriminately.

In the years since, web platforms have evolved dramatically, and it is now relatively inexpensive and technologically straightforward to design, build, and run websites that put the customer first.

Modern WCM technologies coupled with modern approaches to design are helping organizations eliminate content sprawl and provide content that resonates with users. It is also feasible for websites today to include, or more precisely appear to include, a wide range of technological capabilities readily accessible to end-users. We say appear because integrations today can be done so effectively that the interstices are truly hidden from users.

With newer technologies, organizations can dynamically update content in one place and reuse that content throughout

the website. They can establish systematic workflows that help ensure that content is reviewed and approved before publication. Modern analytics help government agencies better understand how their audience interacts with their websites, so they can continue to improve citizen experience.

It is even feasible, and affordable, to deliver personalized content and experiences to diverse audiences. This provides a valuable service to citizens and other stakeholders while helping the government reduce the volume and cost of telephone calls, office visits, and letters.

Personalization.

While the reasons that people visit the website of a manufacturer of a breakfast cereal may not vary greatly, the reasons that people visit a state, city, or county website will vary greatly. Personalization enables the entity to provide the easiest route to the content or function that designated customer types – grouped together via personas – are likely to be interested in.

Numerous technology solutions today support personalization. Many web content management platforms can combine information about a user's general web behavior with information about the first few items that the person clicked on while visiting the current site. The technology then personalizes the presentation of content or function based on business rules. A rule may specify, for example, that if the person came to the Department of Motor Vehicles website and looked at two pages dealing with registration and licensing, then the person probably wants to register a vehicle. The presentation of information is prioritized accordingly, making it easier for the person to gain information about registration and to complete related tasks.

A government entity probably will not know all the ways in which customers interact with the entity's website, but systematically and through analytics, the website can automatically surface content that is relevant to each customer.

Sitecore, Bloomreach, Drupal, and other technologies that support personalization can be implemented and operated at a cost that state and local governments can afford.

To provide the right content and functionality, we recommend that governments:

- Determine who the current customers are and why they are coming to the website.
- Establish goals by assessing the current state of the website and determining what the future state should look like.
- Make sure that progress toward goals can be measured.

Be willing to change. Track site performance to gauge whether it is meeting the goals and adapt as needed; for example, if you have four call-to-action buttons on the website and the fourth button is never used, change it or do a better job of promoting it.

Persona development and user-first design

One reason that government websites suffer from content sprawl is that they tend to offer all things to all people, providing exhaustive information for every possible inquiry. Through persona development, an organization determines who the key customers are, the behaviors they are most likely to engage in, the tasks they perform most often, and the types of devices they use. This process helps inform website design as well as personalization. For customers not deemed of first-tier importance, the government can make relevant functionality and information available without overwhelming other customers with these materials.

For a city or county in the Sunbelt, for example, personas might include:

- The snowbird who spends only three or four months each year in residence
- The real-estate developer who routinely interacts with local planning and zoning officials
- The pet owner with questions about licenses, vaccinations, local parks, animal shelters, and noise and leash ordinances

Once the organization has identified common personas and determined what they seek to do online, it can employ the principles of user-first design to develop an interface, or menu and navigation structure, that enables each persona to accomplish key tasks online with a minimal clicks. Analytics can help the organization better understand customer needs and further refine website capabilities.

Technology solutions.

Platform selection can be a cumbersome and frustrating exercise for state and local government entities, many of which are limited to making selections from a preferred-vendors list or using only the incumbent vendor.

Although it is not always possible to do so, evaluating and selecting from a broad range of WCM solutions can be immensely beneficial, as every organizations' needs are unique.

To find the right platform, organizations must be willing to take the time to research and understand what is available. They must also be thoroughly familiar with their own current technology environment as well as their current- and future-state technical, functional, and content requirements. Lastly, organizations must honestly assess their own technical capabilities for platform support so as to avoid implementing a technology that they will not be capable of managing in the future.

In conjunction with the search, we recommend that organizations:

- Prioritize selection criteria, because some WCM platforms are stronger in some areas than others.
- Solicit vendor demos for the solutions being considered.
- Consider seeking the input of a vendor-neutral third party that has experience with a variety of WCM platforms.
- Do not get a Lexus if a Hyundai will do the job.

Organizational Readiness



Case Study: Updating a WCM Platform

Challenge

The Virginia Department of Taxation wanted to refresh its brand and update its website. The brand needed to be enlivened and the website was operating on an outdated version of Drupal, an open-source content management framework. The website also was suffering from content sprawl.

Solution

The agency opted to refresh the brand and move to a newer and significantly revamped version of Drupal.

CapTech provided services to ensure an effective transition. These included user research; content analysis and functional analysis; information architecture; interaction design and visual design; logo design; usability validation; and implementation.

Results:

- Virginia Tax's selection of Drupal eliminated the costs of implementing and operating an entirely new platform; the need for staff retraining was mitigated.
- The new logo and website convey a modern image.
- Content sprawl has been eliminated through a refined information architecture, improved content strategy, and new workflows.
- Success rates on key online tasks have increased by 13%.
- Duration of key online tasks has decreased by 26%.
- Subjective usability of the website improved by 82%.

The adoption of newer technologies and processes carries important implications for many areas of the organization. Among those that will require immediate attention – even before projects get under way – are governance, technology solutions (including questions about whether to migrate to the cloud), and internal operations.

State and local governments tend to face greater challenges in all three of these areas than their private-sector counterparts, as public-sector regulatory, legal and cultural constraints are generally more explicit. They will affect the organization's ability to establish rules by which a new system will be operated, to select and work with vendors, and to revamp job descriptions so that they are in sync with new processes and technologies.

Governance.

Governance involves determinations regarding the people,

processes, policies, and procedures that dictate what the website will contain and, more broadly, how it will be organized and operated.

A major concern that governance can help government agencies address involves the transition from a traditional webmaster model of website management to a newer model. In the webmaster model, one or two trusted sources typically publish content. In newer models, that responsibility is delegated to multiple employees. That may raise concerns. What if a disgruntled employee or prankster publishes inappropriate content? How can the organization limit such possibilities while expanding the number of people authorized to publish content?

Governance helps organizations establish workflows that define clear and consistent processes for creating, editing, and approving content. To reduce the likelihood of unwanted career-related content being presented to the public, an agency might require that an HR Manager review all proposed content for that department. Content authors could submit draft content via the platform for approval, and then the HR Manager could review in a WYSIWYG (what you see is what you get) format, edit as desired, and publish for public consumption. In some cases, multi-step workflows could be set up.

Governance also helps defend against content sprawl. A carefully considered decision-making and approval process limits the potential for employees to add unnecessary pages, make the site difficult to navigate, or post content that would be better delivered via a different communication channel.

Governance resolves questions about prioritization, spelling out the processes by which an agency will determine what is currently on the website, what is expected to be added, who owns the content, and in what order it will be added to the site.

Although there is no one best model for governance, we recommend that organizations:

- Form a governance oversight body such as a content steering committee
- · Determine who the content owners are
- Develop a consistent process for reviewing existing and planned content

 Implement workflows to support the review and approval process

As the new WCM or website is rolled out, we recommend that organizations maintain centralized control over content approval. The approval process can be modified later, as needed, if a more de-centralized model would be preferred.

Going to the cloud.

Closely related to platform selection is the question of cloud migration. Growing numbers of federal agencies have adopted the cloud, with annual federal spending on cloud technology expected to exceed \$2 billion in 2017. Many state and local governments are following suit.

Growing numbers of federal agencies have adopted the cloud, with annual federal spending on cloud technology expected to exceed \$2 billion in 2017

Benefits of cloud migration include:

- Reduced up-front capital requirements
- Lower total cost of IT ownership
- Increased efficiencies through consolidation of data centers and sharing of services among agencies/departments
- · Ability to scale up or down as needs change

Despite these advantages, many organizations have overriding concerns about cloud security and the need to commit to a vendor long term. Although security concerns are valid, many cloud vendors offer better security than government agencies have provided on their own. The hack of the federal Office of Personnel Management, an agency that was operating on an outdated COBOL mainframe system, was facilitated by reliance on aging technology, according to U.S. Rep. Will Hurd, chairman of the House oversight committee's subcommittee on IT. That problem could have been alleviated by a move to the cloud and a more modern infrastructure.

Gartner has predicted that by 2018, "increased security will displace cost savings and agility as the primary driver for government agencies to move to public cloud within their jurisdictions."

"increased security will displace cost savings and agility as the primary driver for government agencies to move to public cloud within their jurisdictions."

Concerns about long-term commitments to cloud providers also are valid. If reliability issues arise, it can be costly to move a website or suite of applications from one cloud provider to another or from a cloud provider back to an agency's own data center.

Both concerns – security and vendor reliability – point to the value of engaging an experienced, vendor-neutral third party to assist with platform selection.

Over the long term, we believe the benefits of cloud computing are so compelling that cloud migration is inevitable for most government entities.

Our recommendation:

Do not select a WCM platform that is not cloud-capable – even if your organization has no plans to migrate to the cloud in the next two to three years.

Internal operations.

Organizations must be prepared for what may happen after the WCM system implementation vendor has completed its work and left. Carefully consider the operational model that the new system will require and how it will affect staffing, role definition, responsibilities, and training.

Some state and local governments struggle to maintain the staff and expertise necessary to ensure that, after the implementation, the system continues to operate smoothly and leverages all the capabilities that were purchased. Such concerns may lead some agencies to outsource maintenance and support while others opt for internal training. Others take a hybrid approach. Planning today will alleviate stress tomorrow.

Additional recommendations for success:

Ensure that a current staff member (for example, a web developer) actively participates in the implementation project and remains current on the technology after the project is completed.

Make knowledge transfer a key activity or deliverable in conjunction with the statement of work. Require implementation-specific meetings and documentation that provide details about the development, maintenance, and use of the new site.

Get involved in your product community. Many WCM technology vendors offer user groups. In addition, countless developer communities have sprouted online. Ensuring that employees are engaged and current on the technology will help reduce future problems.

Conclusion

State and local governments face difficult challenges as they seek to interact more effectively with constituents in a digital world. Many government websites were designed before the advent of modern content management systems and are characterized by content sprawl and disjointed user experiences. Financial limitations plus cultural and regulatory constraints have made it difficult to overcome such problems. Reliance on a patchwork of technologies that are not seamlessly integrated also introduces challenges.

Yet constituents expect state and local agencies to deliver online experiences similar with those offered by the private sector. Modern web content management (WCM) platforms and newer approaches to design provide an affordable way to meet this demand.

Getting the most out of a modern WCM platform requires four key steps: 1) optimizing content development; 2) enhancing customer self-service; 3) orienting the design process to constituent needs; and 4) promoting brand awareness.

The adoption of a modern WCM and its new processes carries important implications for government organizations. Among them are questions about governance, platform selection (including whether to migrate to the cloud), and the need to adjust internal operations.

As your organization considers adopting a modern WCM or building a new website:

- Do not undervalue the criticality of your web presence as a government entity.
- Recognize that although the web is an integral part of your brand and citizen engagement strategy, it must be designed and implemented in the context of all other touchpoints.
- Take the time to put forth the requisite effort to select the right platform for your needs and to design supporting processes for maximum success.

CapTech: Helping State and Local Governments Make the Most of the Web

CapTech has extensive experience helping state and local government agencies optimize their web presence. Our consultants can help you determine constituents' interests and needs as well as content that fits their profiles. We can help you develop a content strategy and select technologies that will enable you to execute the strategy cost-effectively. Our consultants have architected and built customized portal and content management solutions for diverse clients in both the public and private sectors, helping them personalize the customer experience, strengthen the brand, and achieve new efficiencies.

For more information, call 1.844.373.4025 or visit www.captechconsulting.com.

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Matt Elgin, based in CapTech's Richmond office, focuses on web content management. He enjoys seeing creativity, technology, and business understanding come together to drive great customer experience.

End Notes

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