



WHITE PAPER

# Going Mobile

*A Guide to Getting Started with Smartphones and  
Tablet Computers in the Federal Environment*

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Having embraced it in their personal lives, agency leaders are beginning to ask how they can leverage mobile technologies to improve the performance, agility and efficiency of their organization. This White Paper strives to begin answering these questions.

Historically, this technology has been out of reach except for the most mission-critical applications. Even then, it required many compromises. Fortunately, the emergence of a new generation of smartphones and tablets is changing this paradigm. By packing real computing power and a more flexible operating system into an extensible wireless platform, it is now possible to go mobile at a fraction of the cost and effort previously required.

To be successful, agencies will need to focus beyond the application itself. In reality, this is an opportunity to reengineer business processes and IT systems to shift decision-making to the point of interaction. As a result, many factors need to be considered to deliver the optimal solution.

And while the rewards are potentially very high, so are the risks for those that fail to embrace an enterprise approach. What we have learned is that despite each project's uniqueness, the criteria for success are often the same.

Since our inception, we have focused on these issues to help federal agencies capitalize on mobile computing. Leveraging this hands-on experience, we are excited to share our lessons learned in this White Paper and in working directly with you to execute your strategy.

Tim Hoechst

Chief Technology Officer

Agilex

[Tim.Hoechst@Agilex.com](mailto:Tim.Hoechst@Agilex.com)

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A Guide to Getting Started with Smartphones and Tablet Computers  
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## Introduction

### *A More Mobile Workforce Challenges Traditional Computing Models*

Fact: Today's adoption of the Mobile Internet is far outpacing the 1990's introduction of the web browser. Morgan Stanley predicts that within the next five years more users will access the Internet via mobile devices than traditional PCs. This would establish the Mobile Internet as the fifth major technology cycle of the computing era:



Is your agency ready to break the tether and go mobile?

While computing technologies have had a profound impact on how governments operate, these benefits have not been distributed equally. Those that work in a fixed location can take advantage of numerous productivity tools, instantaneous access to enterprise information and real-time communications capabilities.

Those on the move, including warfighters, law enforcement, field inspectors, case workers, clinicians and even agency leadership, haven't been so lucky. Even when they have access to mobile computing, these devices were often bulky and cumbersome, expensive and inflexible, slow and unreliable.

What's changing is the emergence of more open, standards-based and flexible portable computing devices, such as smartphones and tablets based on Apple's iOS, Google's Android, and Microsoft's Windows Phone 7 operating systems. If you view them simply as communications devices, you are missing the significant potential that they offer. In an increasingly dynamic work environment, they can provide always-on, always-there access to critical computing resources.

In terms of creating enterprise solutions, they also offer a number of significant advantages over single-purpose devices:

- **Rich User Interface** – A more intuitive and engaging user experience streamlines adoption, improves productivity and delivers greater insight.
- **Multi-purpose v. single application** – By supporting multiple mission requirements, a single smartphone or tablet can replace a number of proprietary point solutions. This offers a more productive work experience for users on the go.
- **High Performance Computing** – Dollar for dollar and pound for pound, these devices often beat legacy mobile systems handily in terms of processing power, battery life, screen resolution, transmission speeds and many other attributes.
- **Extensibility** – Both applications and devices can be more readily upgraded to take advantage of new advances in computing.
- **Sensor Aware** – The inclusion of sensors – GPS, cameras, altimeters, barcode readers and iris scanners to name just a few examples – makes them critical nodes within a computing network.

Ultimately, what these devices can offer right out of the box is 70, 80 or even 90% of a solution to a critical enterprise challenge.

With technology that is significantly less expensive and far less difficult to master, the threshold for improving the productivity and effectiveness of your mobile workforce is now dramatically lower. Furthermore, reliance on a well-known user interface can streamline adoption and pave the way for a more satisfying user experience as well.

And whether we like it or not, this simplicity and ease-of-use is already having a dramatic impact on the enterprise as users are relying increasingly on their personal devices to support ‘unauthorized’ applications. Getting the genie back in the bottle will be difficult as more and more senior leaders – not simply earlier adopters – have now embraced these devices. As a result, forward-looking agencies are developing their own infrastructure to meet their unique requirements for security, information handling and business continuity.

## Changing Technology Landscape

### *New Platforms Meet Diverse Enterprise Requirements*

Taken as a whole, what's clear is the undeniable emergence and significance of the Mobile Internet. However, important questions remain regarding how agencies can utilize this technology most effectively within their operations.

For example, CIOs and CTOs are asking how they can create a more cohesive and integrated mobile strategy. Program leaders want to know how this technology can specifically improve the performance, efficiency and effectiveness of their initiatives. Within IT, the question is how viable is this technology for the challenges that they need to address today and at what cost.

Answering these questions requires an understanding of the functionality and use cases supported by today's smartphones and tablets. Coupled with sector or function-specific context, this portfolio of capabilities is the basis for creating new applications. What makes this approach so powerful is the fact that this functionality isn't mutually exclusive. Rather, multiple features can be combined within a single application to best address a specific requirement.

The specific use cases supported most frequently by current applications include:

- **Emergency Response Management** – Providing first responders with situational awareness, geospatial information and other command & control tools.
- **Field Inspection** – Standardized, template-driven processes for capturing, evaluating and reporting information.
- **Performance Dashboards** – Configurable scorecards for assessing real-time operational metrics.
- **Biometric Identification** – Enabling assured recognition and classification of individuals in the field.
- **Asset Management** – Identification, authentication and tracking of physical assets across remote environments.
- **Case Management** – Giving case workers direct access to documents and processes on location.
- **Personal Productivity** – On-demand access to productivity tools and enterprise information for executing core business tasks.
- **Constituent Services** – Providing citizens with customized applications to streamline, automate and improve their interactions with government.
- **Transaction Processing** – Bringing secure e-commerce capabilities to remote locations.

By weaving this functionality together, a number of program-specific use cases can be readily addressed with highly-targeted applications. For example, the need to conduct field inspections is common to many federal agencies. Key capabilities, such as data entry, time stamping, asset tracking and location mapping, can be brought together in various ways to best address each agency's specific requirements.

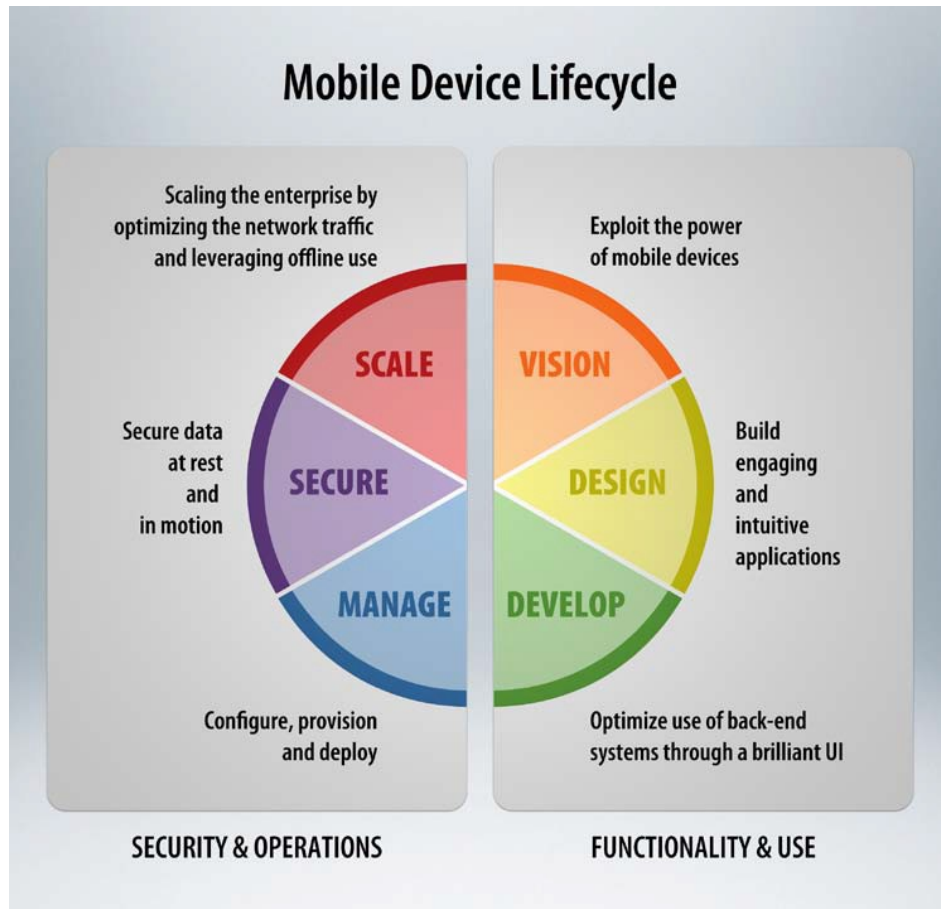
From an IT perspective, the use of a common and proven platform to meet these requirements can unify your mobile strategy. This produces faster time-to-value and less costly development. For example, workers throughout an agency can standardize on a single platform, configured with specific applications for their unique mission.

With a few key platforms, such as iOS and Android, dominating the market, these benefits can be easily extended to external users as well. For example, citizens can use their own devices to access important government services, reducing transaction costs and improving user satisfaction in the process. Likewise, existing partners can be more readily integrated into the computing environment, such as providing ad hoc first responder communities with incident management capabilities on-demand.

## Getting Started

### *A Holistic Approach Maximizes Success*

While it's tempting to focus solely on application development, a successful and sustainable mobile strategy encompasses much more. By taking a long-term, holistic look at their requirements, agencies have been able to maximize their success.



Key considerations in going mobile include:

- **Vision** – Establishing a big picture understanding of how mobile devices can advance your mission along with a detailed roadmap for getting there. In creating this business case, benefits should be analyzed and weighed against costs to create an incremental adoption path that minimizes risk and upfront investments.
- **Design** – As anyone that has attempted to create an engaging and intuitive mobile app can attest, Mark Twain's famous quote "I apologize for writing such a long letter. I didn't have time to write a short one" still has relevancy within the digital age. Behind the clever interface, considerable planning is needed to design applications that deliver significant mission value. With effective process modeling, joint application design (JAD) sessions and

requirement analysis, new applications can automate existing workflow and improve decision making seamlessly.

- **Develop** – Transforming a mobile device into an integrated wireless system encompasses a number of distinct steps:
  - **Mobile Application Development** – Software programming that brings together specific functionality, business logic and data with a compelling user interface in a device-compatible application.
  - **Platform Development** – Inclusion and customization of third-party hardware, such as biometric readers, to complete the solution.
  - **System Engineering** – Secure and robust integration with centralized information systems and wireless networks.
  - **Testing** – Assessing and certifying the solution in terms of application performance, user acceptance, information security, network vulnerability and other criteria.
  - **Configuration** – Packaging the solution for field deployment.
- **Manage** – Mobile device management (MDM) strategies are needed to facilitate centralized control and management of disparate mobile devices. Self-service provisioning via enterprise apps stores, remote device management, and asset and configuration management are just some of the techniques for lowering support costs.
- **Secure** – An end-to-end security architecture and strategy is needed to safeguard and protect disparate devices and mobile data operating within a heterogeneous environment. By undertaking a mobile vulnerability assessment, agencies can mitigate risks and maintaining compliance with current security requirements by identifying and remediating existing liabilities.
- **Scale** – Based on current projections for mobile adoption, the number of users, devices and applications being supported is likely to grow almost exponentially, as is the complexity of your infrastructure. By taking early advantage of system automation, a high availability architecture and extensible standards like service-oriented architecture (SOA), needed scalability can be embedded into your operations to deliver maximum cost-effectiveness.

This lifecycle model underscores the fact that addressing these requirements in a systematic and integrated fashion can dramatically reduce deployment and ongoing operational costs. Furthermore, the right planning and engineering can minimize the sustainment burden placed on existing personnel and systems. The use of a defined process is also fundamental for complying with the security and governance requirements for new enterprise systems.

## Why Agilex

### *A Pioneer in Enterprise Mobility for Government*

Agilex offers federal agencies cutting-edge insight in terms of both business strategy and application design. We also offer comprehensive support for the entire solution lifecycle. And we can share real-world best practices secured through our extensive field experience.

Our differentiators include:

- **Leadership in Application Design** – Our developers have created mobile solutions Apple uses within their own stores as well as applications that have been adopted by millions of users.
- **User Design** – We employ experts in data visualization with significant experience in cognitive design and human factors engineering to create very intuitive and compelling user experiences.
- **Enterprise Perspective** – We are an enterprise IT company – not a design shop – with expertise in every facet of the application lifecycle. For example, our team has developed and implemented some of the federal government’s most complex and critical IT systems.
- **Federal Focus** – We are 100% focused on the needs of the federal government with deep experience in the Intelligence Community, Homeland Security, Government Healthcare and with many Civilian Agencies.
- **Program Management** – Our executives have led some of the largest mobile deployments in the federal government. We are very familiar with the requirements of federal contracting, such as earned value management as well as innovative methodologies like agile development for accelerating project delivery.
- **Development Center** – Our in-house Technology Innovation Center supports both rapid prototyping of proposed solutions as well as a variety of testing scenarios.

We invite you to learn how Agilex can help take your agency mobile. Through a no-cost consultation, we can share with you ideas for how your agency can capitalize on the Mobile Internet.

## **About Agilex Technologies**

Agilex is an employee-owned provider of mission and technology solutions to the national security, healthcare and public sectors. Realize the Value of Information® is our corporate mantra as we help clients unlock the value of information while reducing the cost to manage it. Headquartered in Chantilly, Virginia, Agilex has delivered significant results for an impressive list of clients throughout the federal government.

Agilex was named the 2011 Greater Washington Government Contractor of the Year in the \$25-75M category. The company was also a recipient of a 2011 National Capital Business Ethics Award, which recognizes local companies for their sustained, executive-level commitment to promoting and maintaining an ethical business culture. Agilex was previously recognized as the Northern Virginia Technology Council's (NVTC) 2010 Hottest Emerging Government Contractor for the Washington, DC region. The Washington Business Journal has ranked Agilex among the area's fastest growing companies, twelfth in 2011 and number one overall in 2010.

For more information, go to [www.Agilex.com](http://www.Agilex.com) or call 1-888-3AGILEX



5155 Parkstone Drive, Chantilly, VA 20151  
[www.agilex.com](http://www.agilex.com) | 1.888.3AGILEX