

## **LIMITED SOURCES JUSTIFICATION FOR FEDERAL SUPPLY SCHEDULE AWARDS**

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This acquisition is conducted under the authority of the Multiple Award Schedule Program/Federal Supply Schedule pursuant to section 201 of the Federal Property and Services Act of 1949 (40 U.S.C. § 501). This document sets forth the justification for award on a limited source basis as required by Federal Acquisition Regulation (FAR) 8.405-6.

### **1. Identification of the agency and the contracting activity.**

The U.S. Department of Homeland Security (DHS), U.S. Immigration and Customs Enforcement (ICE), Office of Acquisition Management (OAQ), proposes to order services from the Federal Supply Schedule on a basis of other than full and open competition.

### **2. Nature and/or description of the action being approved.**

ICE has a sole source (brand name) requirement to obtain iOS (Apple Operating System iOS) services to support ICE personnel especially within ICE law enforcement program offices. The iOS services will be bundled with devices from various telecommunications vendors (e.g., Sprint). The Apple iOS is a secure, closed operating system that works on Apple mobile devices such as iPhones and iPads. The iOS - iPhone services are to be procured from multiple vendors through the issuance of orders against the General Services Administration (GSA) Federal Supply Schedule.

ICE has relied upon the company, Research In Motion (RIM), as its technology provider for smartphone technology for over eight years. Specifically, ICE has relied on RIM's technology as the standard for handheld devices that provide telephone, email/messaging, calendaring, and on a limited basis, mobile applications. This standardization has allowed ICE to efficiently maintain operational capabilities, train end users, and manage security. The RIM technology, however, can no longer meet the mobile technology needs of the agency. ICE also has evolving mobile law enforcement business requirements that require the use of more capable and dynamic mobile technology to support its mission and personnel. The agency needs to update its standard for mobile technology to ensure that it can leverage the advances in the marketplace in order to meet the agency's technical and business requirements.

Over the past several years, the mobile technology market has greatly expanded in terms of capabilities and end users' expectations. Two major competitors have emerged to displace RIM as the market leaders: Apple with its iOS-based devices and Google with its Android operating system. Analysis conducted by ICE has concluded that for the near term, Apple iPhone services offer the agency the best solution for mobile technology. Apple's strict control of the hardware platform and operating system, independent of telecommunication vendor, provides ICE with the greatest degree of control and management to ensure the most reliable delivery of services to ICE's mission users. Apple iOS services offer the salient characteristics and critical functions essential to meeting the agency's requirements and market research indicates that no other company's products can meet the agency's needs.

The value for all awards is \$2,110,665.33.

**3. A complete description of the supplies and/or services required to meet the agency's needs.**

ICE is procuring iOS services from various cellular carriers via Apple iPhone devices bundled into monthly plans for cellular phone service, Internet access for domestic and international coverage, and text messaging capabilities. The devices provide critical, mission support services for ICE personnel and provide modern communication and personal computing services. Examples are: call waiting, call forwarding, three way calling, caller ID, voice mail messaging, geospatial services, and picture/video capabilities. The iOS services will be used by a variety of agency personnel, including, but not limited to, Homeland Security Investigations, Enforcement and Removal Operations, and Office of the Principal Legal Advisor employees. The iPhone services will allow these individuals to leverage reliable, mobile technology on a secure and manageable platform in furtherance of the agency's mission.

ICE is intends on procuring the iOS-based devices/iPhone services for 17,676 users.

The salient characteristics and critical functions required by ICE for mobile technology services are as follows:

Attribute	Utility
Commercial Viability	Services must be derived from a commercial product that has significant market share to ensure product enhancement, support, and interest by third-party vendors to spur innovation and utility.
Operating System modification detection	Ensures uniform deployment and identifies security threats.
Product uniformity and predictability	Ensures supportability, training, and security management
Voice and data communication support	Basic need for a mobile communications device.
Digital certificate and Identities management	Ensure unique identity of device and end user for secure operations.
Email and Directory service support	Basic need for mobile computing.
Microsoft Exchange integration with ActiveSync	Ensures proper integration with ICE's enterprise messaging infrastructure.
Virtual Private Network support	Basic need for secure communications with mission applications.
Remote management capabilities	Supports field users and ensures consistent operational posture of the device.
Device use and operating characteristics managed using centralized policy management and manual configuration	Essential for secure and consistent operations. Enforces agency standards for service use.
Secure backup of device data and configuration support	Basic need to support reliability, repair, and end user support
Managed application distribution	Basic need for consistent delivery of services and security.

Attribute	Utility
Application development tools	Needed to develop custom mission support applications. Promotes commercial viability of services and devices.
Signed application enforcement	Ensures applications on device are from legitimate source and/or meet agency policy controls.

### Business Requirements

- Training and Standards of Conduct – In coordination with the ICE Office of Training and Development (OTD) and the ICE Office of Professional Responsibility (OPR), establish and provide training on the use of mobile computing devices that are enforced using the operating system policy that can be remotely managed and monitored.
- Promote the use and standardization of commercially established mobile and web-based applications for mobile computing.
- Identify scanning capabilities for the mobile computing environment needed to support the ICE missions (either built-in, or as an accessory add-on for ICE law enforcement (LE) and non-LE use). Examples include:
  - LE – biometrics fingerprint and retina scanning for immediate identification of an individual
  - LE – biometrics for facial recognition identification of an individual
  - LE – scanning of data card magnetic strips and embedded chips for LE purposes (e.g., state drivers licenses and ID cards; passports and other type of cards such as debit cards requiring magnetic strip scanning)
  - LE – other TBD
  - Non-LE – barcode scanning for property/inventory management
- Product consistency and uniformity simplify management and training. Products used by enterprises must balance the pace of innovation with the ability of the organization to adapt to those changes. ICE’s paramount need for security and maintainability presents unique challenges that many consumer-oriented products ignore due to the complexity of implementation and low returns on investment.

**4. An identification of the LSJ rationale, and if applicable, a demonstration of the contractor’s unique qualifications to provide the required supply or service.**

This acquisition is conducted under the authority of the Multiple Award Schedule Program and FAR 8.405-6(b)(1). FAR 8.405-6(b)(1) allows for the restriction of competition when an item is peculiar to one manufacturer. In this case, a brand name item.

Apple’s iOS service is the only commercially-maintained product available that comprehensively meets ICE’s mobile technology requirements. No other product has been identified that has the salient characteristics needed to satisfy those requirements. The use of iOS services is critical to ICE’s needs to fulfill its mission. Other vendors meet many of the basic technical requirements, but key elements of enterprise supportability are missing.

Apple's iOS was selected by evaluating the services (operating systems) identified in the market research on a Likert scale basis from zero (failure to meet basic merits for evaluation) to five (fully capable with minimal issues).

The evaluation process used was a combination of using public source information, other Federal law enforcement agencies and professional judgment was exercised by ICE's technical and operational staff. Hands-on experience and historical infrastructure cost data was a factor assessing the viability of the various options.

### *Commercial Viability*

To ensure that ICE has a steady supply of services and supplemental capabilities, the products used by ICE must be readily available. Firms with poor performing products or unsustainable business models will be removed from the marketplace. Without a predictable supply chain, ICE's mission support capabilities are threatened. Commercially viable products (and firms) significantly reduce that risk. As outlined in the Market Research, two firms represent over 70 percent of the smartphone operating system market: Google and Apple. RIM, a distant fourth, is under significant pressure to maintain its dwindling position. This directly translates into third-party product vendors and software developers to invest in products that support the market leaders. ICE's evaluation of this factor results in a tie for Google and Apple with a score of five. RIM, as ICE's current standard receives partial score of two. All other products – including Microsoft's – were evaluated with a score of zero due to the risks associated with limited use within the marketplace. These products are either too new and are unproven by consumers or the products have established track records and have been the rejected by consumers. In the first case, ICE's needs are ill served because the products may fail commercially and ICE's investment in training will be lost, there will be a very limited third-party product source which inhibits ICE's ability to meet operational needs (e.g., fingerprint scanning), and ICE will have provided its employees with equipment that has limited lifecycle resulting in additional expense. Microsoft's Phone 7 is prime example of a new product that has failed to capture significant market share after being introduced in 2010. As for long-time products – RIM and Nokia's Symbian – these products help to define the smartphone market. However, both companies failed to innovate and consumers have rejected them. The net effect is that both firms have been relegated to laggards in the consumer market which has made them too risky for adoption as a "go-to" choice for enterprise use. These operating systems – Linux, Symbian, Palm, Windows, Bada – were eliminated from any further evaluation; only RIM's status as a legacy product in ICE kept it in consideration for further evaluation

### *Operating System modification detection*

The most insidious risk posed by mobile devices is the compromise of the device and ability of a third party to subvert its use. The primary defense to this is the ability of the operating system to detect and react to this threat. Apple and RIM both receive full scores for this attribute. This is a direct result of the vendors' strategy for product development and implementation by device manufacturers. Apple and RIM assert direct control over the devices that implement their operating systems and implement measures to detect and disable attempts to modify the operating system.

Google, in stark contrast, provides their operating system as open source to support a wide variety of implementations across many hardware manufacturers. Google's score is a direct reflection of ICE's needs in sharp contrast to Google's strategy. What is a strength for Google, is a risk for ICE. ICE's operational experience with Java, the variations in implementation have proven to be very problematic. Google's open source strategy allows hardware vendors to modify elements of the operating system to accommodate feature sets as the device manufacturers choose. Compounding this effect is nature of the consumer marketplace: hardware devices have a limited production run and each new run will have subtle variations. As ICE executes its strategy to implement mobile solutions for ICE mission users, ICE's agility will be required to test and assess that new capabilities are compatible with both new and existing devices. There are third party products to assist in the validation of the Android, but they are problematic and would require ICE to commit manpower to ensure the same level of security available from Apple or RIM. Apple and RIM receive full scores (five); Google was scored as a one.

#### *Product uniformity and consistency*

The open source approach used by Google-Android introduces an increased level of vulnerability due to the lack of oversight in the area of application development and operating system implementation. Any hardware manufacturer that can support Java – Android's source code – can host the Android operating system. This strategy has provided Google a huge competitive advantage in terms of market share. Because hardware manufactures pay no licensing fees to Google – due to its open source distribution – they are free to implement the operating system to meet their own needs and requirements. As such, this introduces significant variation across implementations of Android devices – even within the same manufacturer. For consumer devices, this has limited impact. Consumers are free make choices based upon individual preference and price. Corporate users need a predicable the reliable implementation to simplify training and management. Compounding this is the variability of implementation across cellular providers. Each provider has the option to customize the operating system to meet their own competitive strategy that is focused on consumers, not corporate or Government users. Apple's strict implementation guidelines for iOS receives a five. RIM's implementations vary across cellular providers, but their operating system is less complex, receives a four. Google was scored with a two due to the wide array of devices and features offered by the various manufacturers' implementations.

For the remaining evaluation attributes, all three vendors' received the same scores (five) and had no influence in the conclusion:

*Voice and data communication support*

*Digital certificate and Identities management*

*Email and Directory service support*

*Microsoft Exchange integration with ActiveSync*

*Virtual Private Network support*

*Remote management capabilities*

*Device use and operating characteristics managed using centralized policy management and manual configuration*

*Secure backup of device data and configuration support*

*Managed application distribution*

Attribute	Google Android	Apple iOS	RIM Blackberry	Winner
Commercial Viability	5	5	2	Google, Apple
Operating System modification detection	1	5	5	Apple, RIM
Product uniformity and predictability	2	5	4	Apple
Voice and data communication support	5	5	5	None
Digital certificate and Identities management	5	5	5	None
Email and Directory service support	5	5	5	None
Microsoft Exchange integration with ActiveSync	5	5	5	None
Virtual Private Network support	5	5	5	None
Remote management capabilities	5	5	5	None
Device use and operating characteristics managed using centralized policy management and manual configuration	5	5	5	None
Secure backup of device data and configuration support	5	5	5	None
Managed application distribution	5	5	5	None
Application development tools	5	5	5	None
Signed application enforcement	5	5	5	None

Apple received the highest score (5) for all required attributes. Google and RIM did not. Accordingly, Apple provides ICE with best selection to meet its operational needs for a mobile operating system.

Removed from evaluation due to limited market share:

- Linux
- Palm
- Symbian
- Bada
- Microsoft

Apple iOS also meets ICE’s business requirements. A hallmark of Apple’s technology and business strategy is the strict adherence to product uniformity. While this limits adjacent product development – software and hardware add-ons – it greatly simplifies administration and training. A critical factor for ICE’s business requirements. With a high degree of uniformity, ICE’s planning and execution for deployment, training, and support of the devices – especially when

mobile technology is integrated into mission operations – is greatly simplified and thereby reducing expense and risk. Due to Apple’s success in the marketplace, there is an expanding and active market for third-party products to meet law enforcement mission needs (e.g., fingerprint technology).

**5. A determination by the ordering activity Contracting Officer that the order represents the best value consistent with FAR 8.404(d).**

As set forth in FAR 8.404 (d), services offered on the GSA schedule are priced either at hourly rates, or at a fixed price for performance of a specific task (e.g., installation, maintenance, and repair). GSA has already determined the prices of supplies and fixed-price services, and rates for maintenance and support services, under schedule contracts to be fair and reasonable. Therefore, OAQ is not required to make a separate determination of fair and reasonable pricing. OAQ has concluded that the orders represent the best value and result in the lowest overall cost alternative to meet the Government's needs. Although GSA has already negotiated fair and reasonable pricing, OAQ will seek additional discounts before placing any orders.

**6. A description of the market research conducted among schedule holders, and the results of the research, or a statement why market research was not conducted. A statement must be made that the supplies and services are available from the FSS.**

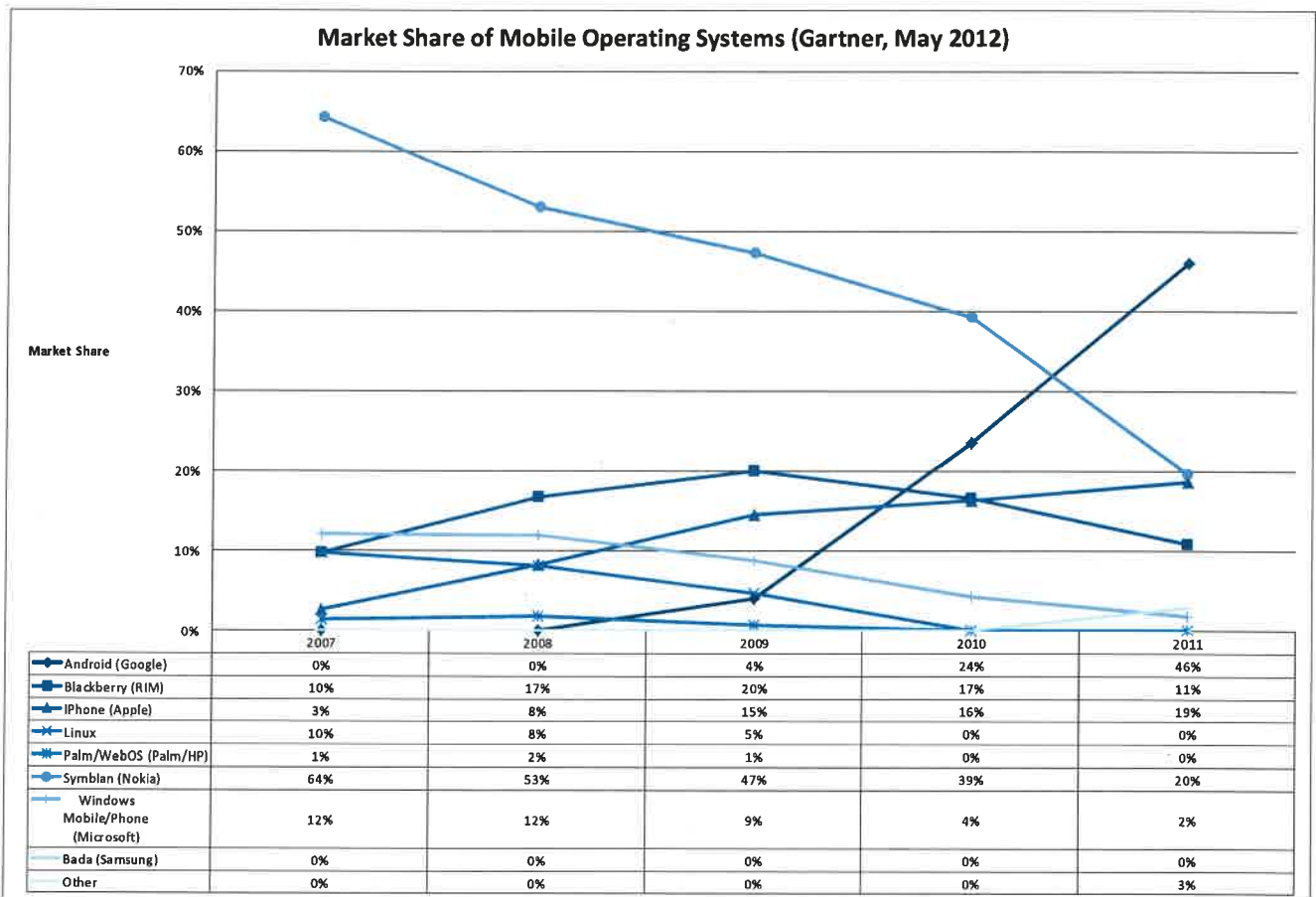
The Government conducted extensive market research prior to proceeding with a limited source requirement. Market research included Google and Wikipedia document reviews, a review of GSA schedules, telephone inquiries and meetings with smart phone providers (Sprint, Verizon, and AT&T) and ICE user surveys. Market research was also conducted by meeting or talking with other Federal Agencies who deployed smart phones, to include ATF, TSA-Federal Air Marshal Service (FAMS), and the US Coast Guard. ICE personnel met in person with ATF and TSA-FAMS to understand why they went with iOS over Android and the common theme from both agencies was better operating system security even though they were using “GOOD” technologies as their secure business container. They also spoke about the ease of training and the ability to share a common operating system between the phones and tablets. The IT managers spoke about the better security of the iOS vs Android and how one operating system reduces manpower and time spent managing the mobile platform. They all advised us that the iOS at this time was the preferred operating system and that the users preferred the iOS platform over Android.

Market Research, for the first quarter of 2012, has identified three smartphone operating systems that provide the range of services needed by ICE- Google *Android*, Apple *iOS* and Research in Motion *Blackberry*. These service offerings account for approximately 86 percent of the global marketplace.

Worldwide Smartphone Sales to End Users by Operating System in 1Q12 (Thousands of Units)

Operating System	1Q12 Units	1Q12 Market Share (%)	1Q11 Units	1Q11 Market Share (%)
Android	81,067.4	56.1	36,350.1	36.4
iOS	33,120.5	22.9	16,883.2	16.9
Symbian	12,466.9	8.6	27,598.5	27.7
Research In Motion	9,939.3	6.9	13,004.0	13.0
Bada	3,842.2	2.7	1,862.2	1.9
Microsoft	2,712.5	1.9	2,582.1	2.6
Others	1,242.9	0.9	1,495.0	1.5
<b>Total</b>	<b>144,391.7</b>	<b>100.0</b>	<b>99,775.0</b>	<b>100.0</b>

Source: Gartner (May 2012)



Historically, RIM dominated the smartphone category by providing corporations and government agencies with a secure and convenient service that enabled access to network email servers. RIM provided enhanced security by developing and controlling the device operating system and a set of enterprise services. As a result, the original BlackBerry smartphones could be used on as part of the enterprise network. However, in recent years, advances in



technical/functional capabilities have resulted significant shifts in the marketplace with newcomers displacing RIM and other providers. Specifically, two firms have redefined the expectations of end users and established new de facto standards for capabilities: Apple and Google. These firms have created a set of services that have leapfrogged all other competitors. All current indications are that Google and Apple will continue to dominate the marketplace in the near future.

ICE currently uses Blackberry as its platform, but due to the lack of flexibility as a smart phone this device does not meet that law enforcement officers' requirements. Shipping more than 100 million iOS devices, Apple based products are currently used more than any other single manufacturer. Blackberry, with a similar business model is second while non-hardware vendors Microsoft and Google through their respective use of windows mobile and Android OS on many different manufacturers hardware have a much larger base of devices in use. Android devices have several different device manufacturers, from Motorola, LG, Samsung, Nokia, HTC, Sony, and others all make a phone for the Android operating system to include different versions of the operating system depending on the hardware of the phone, and none who make a phone for iOS. Apple tightly controls access to its iOS to ensure better security of the device. These statistics are provided by the cellular carriers. Most major companies and many government organizations have changed from a single support model, e.g., Blackberry, to a much more diverse support model some even going as far as to allow employees to choose the best device and applications to their specific mission. ICE due to the increased cost of multiple platforms has decided to move towards a one operating system platform for mobile devices. iOS provided the one operating system that can support the phone, with ease of use, ease of platform management over the current infrastructure and comes with a high user satisfaction.

**7. Any other facts supporting the limited source justification.**

Non applicable.

**8. A statement of the actions, if any, the agency will take to remove or overcome any barriers that led to restricted consideration before any subsequent acquisition for supplies and services is made.**

In the future, when and if similar ICE requirements need to be fulfilled, ICE intends to conduct additional market research to determine whether market conditions have changed and additional vendors are available to allow for full and open competition.

**9. Certifications**

**Requirements/Technical Personnel:**

I hereby certify that the supporting data, which forms the basis for this justification, are accurate and complete to the best of my knowledge and belief.

\_\_\_\_\_

Deputy Chief Information Officer

10-17-12  
Date

**Contracting Officer:**

This justification is accurate and complete to the best of my knowledge and belief.

\_\_\_\_\_

Contracting Officer

10-17-12  
Date

**APPROVAL**

This justification is hereby approved.

\_\_\_\_\_

Competition Advocate

Oct 17, 2012  
Date