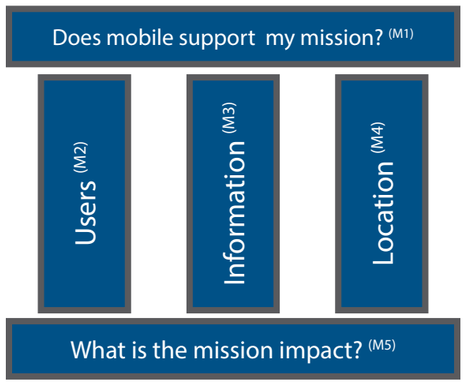
Mobile Computing Decision Framework

Should we use mobile computing? To what extent?

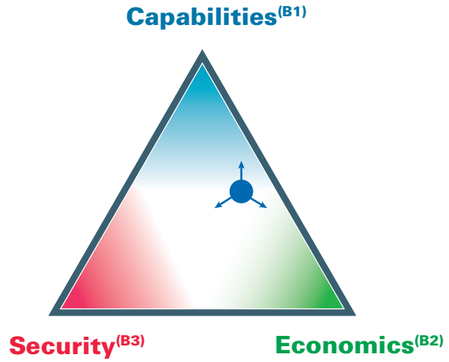
Mission Requirements

How would mobile support the mission?



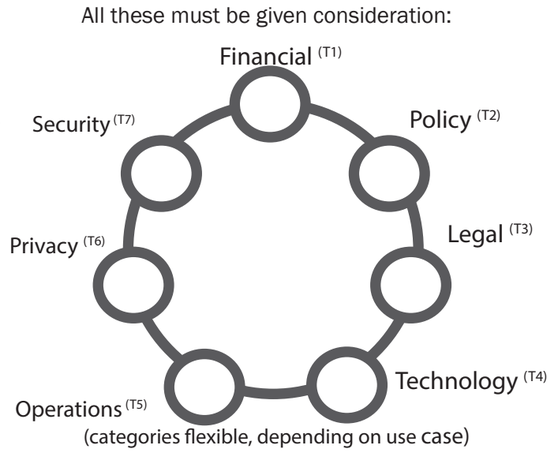
Decision Balancing

How shall I weight the dimensions?



Risk-Based Tailoring

How will I cover the various risks?



Results

Selecting the right solution

- Application (R1)
- Device (R2)
- Infrastructure (R3)

Description	Mobile use is justified when it has an efficient, positive impact on mission accomplishment. In applying mobile technology, users, information, and location must be considered. Users: How do users accomplish the task now? How would use of mobile technology affect them? Information: What is the source of the information? Is it government, public, or private data? What is its sensitivity? Location: Where do the users need access to the information? How would mobile help?	Three dimensions influence selection of a mobility program. The constraints of this model include determining what capabilities are to be supported, how much the program can cost, and what degree of security is required. As weight is increased in one dimension, each of the others is affected.	NIST SP 800-37 and 800-39 describe information security risk management as one aspect of a holistic organizational risk management program. The mission benefits of implementing mobile computing must be weighed against risk to the organization, mission, information system, and to the Nation. The Risk Management Framework should be applied to the multiple facets of risk, which span legal, regulatory, policy, privacy, and technical domains.	Decision outcomes include the following: which applications, mobile devices, and types of infrastructure pieces are to be supported. Each decision outcome should be based off mission requirement, balance and trade-offs, and tailoring of risk.
References	OMB: Digital Government Strategy; NIST: SP 800-124 Rev.1 Draft	OMB: Digital Government Strategy; NIST: SP 800-124 Rev.1 Draft	NIST: SP 800-37, SP 800-39	NSA: Enduring Security Framework

Mobile Computing Decision

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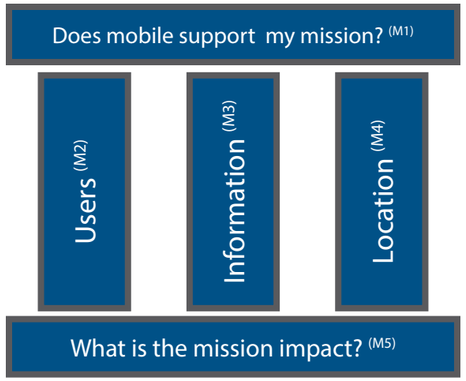
Worksheet

Mission Requirements

How would mobile support the mission?



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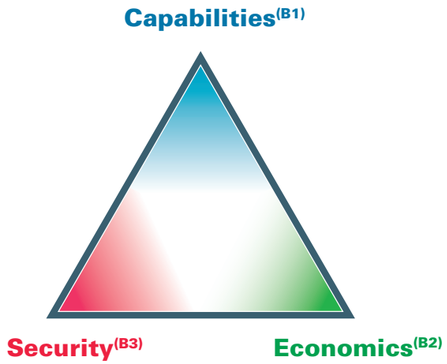

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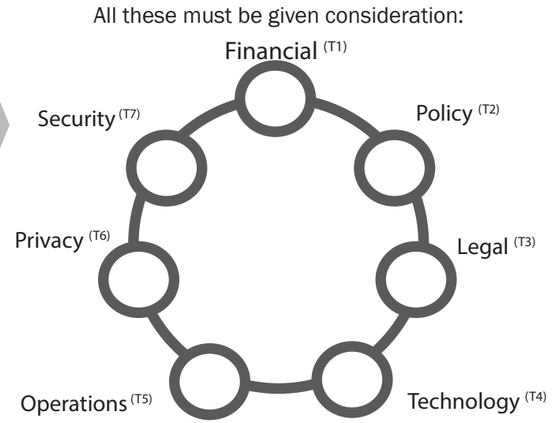


(categories flexible, depending on use case)

Results

Selecting the right solution

- Application (R1)
- Device (R2)
- Infrastructure (R3)

Evaluations and Assumptions

Briefly describe your mission and the use-case you are evaluating for mobile technology.

Use the diagram above to place a dot where you believe your balance is. Take note a shift toward one dimension may result in a loss in others.

Assign a confidence rating in each of the circles above where you feel you have tailored your mobile solution to those risks. Circle that number in the chart below for each risk consideration.

The evaluations, assumptions, and decisions from the worksheet should lead you to a general idea of the mobile solution appropriate for your mission, priorities, and risk tolerance.

Decisions

What are the elements of your mission requirement from above?

M1. Does mobile support my mission?

M2. Who are the users involved?

M3. What is the source and sensitivity of your information?

M4. Where will the information be needed by the users?

M5. What is the mission impact?

What are the factors influencing your balance above?

B1. Capabilities

B2. Economics

B3. Security

How confident are you that risk has been adequately addressed?

	Low --- Level of confidence --- High				
T1. Financial	(1)	(2)	(3)	(4)	(5)
T2.. Policy	(1)	(2)	(3)	(4)	(5)
T3. Legal	(1)	(2)	(3)	(4)	(5)
T4. Technology	(1)	(2)	(3)	(4)	(5)
T5. Operations	(1)	(2)	(3)	(4)	(5)
T6. Privacy	(1)	(2)	(3)	(4)	(5)
T7. Security	(1)	(2)	(3)	(4)	(5)

What solution aspects make sense?

R1. Application

R2. Device

R3. Infrastructure

To Dos or "What don't I know?"

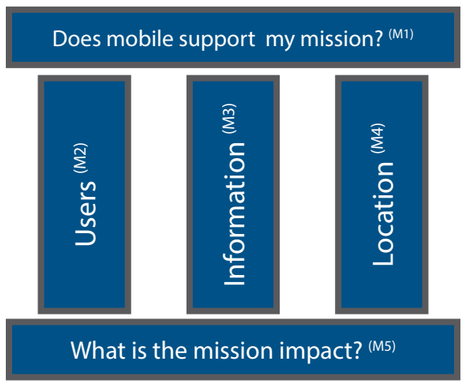
Mobile Computing Decision

From: A Toolkit to Support Federal Agencies Implementing Bring Your Own Device (BYOD) Programs

Example Case Study

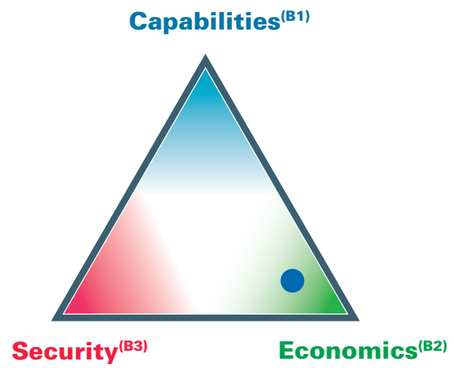
Mission Requirements

How would mobile support the mission?



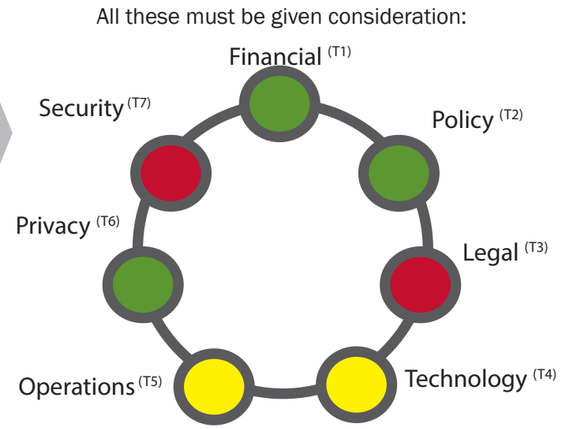
Decision Balancing

How shall I weight the dimensions?



Risk-Based Tailoring

How will I cover the various risks?



Results

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- Infrastructure (R3)

Evaluations and Assumptions

Due to budget cuts, evaluating to reduce overall mobile device costs through two-pronged approach:

1. Optimize rate plans for agency provided mobile devices, and
2. Implement a BYOD pilot program.

Non sensitive data. No PII.

Everywhere the employee is, including on site. Currently looking to provide wifi hotspots at work locations.

Efforts will create efficiency for agency and save money

Economic driving factor is cost reduction due to budget cuts.

Overall IT budget cuts of 15% - $17.6M to $15M

FY 2011 mobile support cost $800K. Result of budget cuts left $400k to support mobile devices in FY2012.

Optimize mobile data/voice rate plan (bundling) and implement BYOD pilot to shift cost to users (no plan reimbursement)

Overall mobile users don't use voice. Plan to provide minimum capabilities to include email and voice. No office apps in BYOD.

Financial: Top priority - Cost reduction is the driving factor to meet budget constraints and enable mission

Policy: Require users to sign acceptable behavior policy, update security policies pertaining to mobile device

Legal: Minimally addressed. Reimbursement unclear

Technology: Addressed

Operations: Addressed

Privacy: Addressed. No PII

Security: Minimally addressed. Password lock required on device; password complexity and aging enforced for email

Applications: Provide support for GWMail and GWCalendar

Device: Initiate BYOD alpha pilot and maintain Blackberry support as needed

Back end Infrastructure: Provide current options and cloud MDM (specifically for BYOD).

Infrastructure Transport: Do not support or limit any transport for BYOD. Business as usual for Blackberry use

Decisions

M1. Does mobile support my mission? Yes, it enables work communication via email and phone to 550 employees

M2. Who are the users involved? Employees and Executives

M3. What is the source and sensitivity of your information? Government email, no sensitive/PII: government on-premise, cloud, with the employee

M4. Where will the information be needed by the users? On-premise, alternative work locations, with employees

M5. What is the mission impact? Positive: Reevaluating mobile needs to enable work communication will reduce cost, thereby meeting budget goals

B1. Capabilities (Low)
Email and Voice - Notifylink MDM (cloud product)

B2. Economics (High)
Bundle mobile data/voice packages and offer BYOD ($120 per year per user plus $5 per year for applications)

B3. Security (Low)
Minimum security. Limited security functionality. Note: No PII, no real data senstivity

Low --- **Level of confidence** --- High

	(1)	(2)	(3)	(4)	(5)
T1. Financial				(4)	
T2.. Policy				(4)	
T3. Legal		(2)			
T4. Technology			(3)		
T5. Operations			(3)		
T6. Privacy				(4)	
T7. Security		(2)			

R1. Device - Support multiple platforms:
Present GFE RIM Blackberry
BYOD on Apple iOS and Google Android

R2. Transport- Cellular, Wifi, Bluetooth, near field communications, etc.; No control over monitoring users location, behavior, and applications. Current MDM detects jailbroken and rooted devices. It does not limit or restrict specific transmission options.

R3. Infrastructure - Cloud based MDM. Still support Blackberry RIM/BES infrastructure. Support email and voice.