



## Information Technology Department

600 E Boulevard Ave., Dept 112 • Bismarck, ND 58505-0100 • (701) 328-3190

January 25, 2008

Jim Smith, Director  
Legislative Council  
600 East Boulevard Avenue  
Bismarck, ND 58505

Dear Jim:

People are constantly looking for better ways to stay connected with one another; both personally and professionally. In the business world, smartphones and PDAs have become mainstream tools for mobile workers that want "anytime, anywhere" connectivity back to the office. Eventually, these devices will run a variety of business applications. But today, most mobile workers are simply looking for one gadget that combines cell-phone service with instant access to their corporate email, calendar and contacts.

The mobile computing market is quickly-evolving and highly-competitive; and personalization drives competitive advantage. Device vendors are constantly coming out with new models, and a long-term operating system leader has not emerged among Blackberry, Palm, and PocketPC. As a result, consumers are faced with a multitude of choices, and corporate IT resources are presented with the challenge of supporting them.

Traditional wisdom may suggest that strict IT standards be set, but the volatility of the market calls for flexibility. As a result, the Information Technology Department (ITD) is focusing on two objectives in its effort to manage this service:

- 1) Provide people with a device that meets their business needs and expectations
- 2) Protect government assets from unauthorized disclosure

As the market matures, its successes and failures will be used to develop stronger guidelines and standards through ND's Enterprise Architecture framework.

### Gartner

*This excerpt  
from a Gartner  
white-paper  
accurately  
reflects the  
topic at hand:*

An increasing number of affordable PDA and smartphone models are in the market. Choices are highly dependent on personal preferences, and it is an arduous task for organizations to select a standard device that favors the majority of users. End users regularly disregard IT organization standards, adopting whichever device they believe can deliver competitive advantages. As a result, more consumer-grade devices are entering the business domain. This creates havoc for IT organizations, whose operations are based on standards and stable platforms.

Attempts by businesses to ban or discourage the use of these devices have been unenforceable. The first offenders are often the executives to whom the IT organization reports. They purchase "the device of the month" and then put pressure on the IT organization to support the new product. (Gartner, 2006).

## The Device

The decisions regarding devices can be made by each agency. An ITD Business Consultant is available at no charge to offer suggestions and to assist with procurement. ITD also can provide a list of devices that have not worked well in our environment, such as the Motorola Q and the Verizon Voyager. (Note that the iPhone is not currently available in North Dakota because of its exclusive contract with AT&T.)




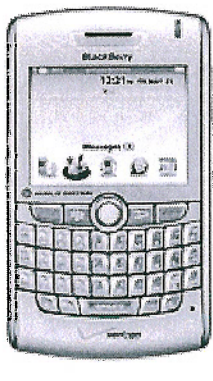
The primary concerns regarding devices are:

1) Which device (and operating system) will be chosen?

Mobile devices are “personal”, and minor nuances can cause major frustration for users. Some common considerations include:

- Form-factor – Are people willing to carry a larger device in order to improve readability and keyboarding?
- Keys – Are people willing to trust “True-type” functionality that assigns two-letters to each key and then intuitively determines the correct word? This results in fewer keys and a smaller form-factor, but there is a learning curve.
- Travel – Are people expecting to travel overseas with their device?
- Speaker phone?
- Removable memory?
- Camera?
- Music?

Currently within ND State Government, devices with Blackberry, PocketPC (Windows), and Palm operating systems are being used. ITD has seen the greatest reliability and user-satisfaction with Blackberry devices. In most cases, ITD would recommend one of the following devices:

			
Blackberry 7130e	Blackberry Pearl 8130	Blackberry 8703e	Blackberry 8830 World Edition
\$29.99	\$99.99	\$99.99	\$149.99
<i>Prices shown only apply when bundled with a voice/data plan and purchased through the state's contract by a state agency. Prices are subject to change.</i>			

2) Who will pay for the device?

Agencies decide whether to pay for the devices or whether to have employees provide their own. ITD can assist agencies with their procurement process, but a device is not provided as part of the service.

3) When will the device be purchased?

New devices are constantly coming out on the market. Make the final decision on which device to purchase within one month of its procurement.

## **The Voice and Data Plans**

The decision regarding voice and data plans is made by each agency. Wireless providers, such as Verizon and Alltel, offer a variety of options that include voice and data services. Voice service is used for phone-calls and text-messaging, and data service is used for internet connectivity (web-browsing, email, etc.).

1) Who will pay for the plan?

Agencies decide whether to pay for the voice and/or data plan or whether to have employees provide their own.

Typically, "personal use" factors in. Most people do not want to carry two mobile devices; one for work and another for personal use. To accommodate this, some agencies allow for nominal personal use as defined under the ND Enterprise Architecture standard for Acceptable Use of Electronic Communication Devices. Other agencies only pay for the data service and have employees provide their own voice plan. Today, wireless providers cannot automatically split billing, so agencies may need to develop their own reimbursement process.

2) Which plan will be chosen?

ITD coordinates the procurement of voice and data service for agencies within North Dakota State Government. Plans include:

- 450 voice minutes and unlimited data service for approximately \$75/month
- 1350 voice minutes and unlimited data service for approximately \$95/month
- Unlimited data service only for approximately \$45/month

## **Email & Calendaring**

ITD maintains a Blackberry Enterprise Server and a Mobile Suite Server so that state government employees can synchronize email, calendar, and contact information with mobile devices. These servers also play a critical role in protecting state assets from unauthorized disclosure. Charges for this service include:

Service	Current Rate (25-users)	Projected Rate (100-users)
Blackberry Enterprise Server	\$150 setup plus \$17/month	\$80 setup plus \$6/month
Mobile Suite Server for Palm and PocketPC	\$250 setup plus \$32/month	\$250 setup plus \$7/month

Features include:

- **Wireless “Push” Email** keeps inboxes up-to-date
- **Wireless PIM Synchronization** keeps calendar, contacts, tasks, and notes current
- **Server Enforced Security Policies** ensure that devices are properly secured
- **Meeting Invitations** can be created, received, accepted, declined, and updated
- **Attachments** can be received, read, and on some devices created and saved
- **Application Distribution** can be done automatically from the server
- **Message Encryption** ensures the security of messages during transmission to mobile devices

Other vendor solutions exist, such as the Blackberry Desktop Redirector or the Blackberry Internet Service, but these are not “enterprise” solutions. ITD has chosen not to implement them for its own staff, and our recommendation would be for agencies to avoid them as well.

## Standards

Through ND’s Enterprise Architecture framework, a Mobile Device Access Control standard has been adopted that states:

- 1) A power-on password shall be used and shall be at least a 4-digit number.
- 2) Automatic device locking shall occur after five minutes of inactivity. (Incoming and outgoing calls are allowed when the device is locked.)
- 3) When configurable, devices shall be disabled after ten successive invalid sign-on attempts. All of the information on the device will be erased, and it must be reconfigured to connect to the State’s servers.

## Support

As with any technology, support is a major concern. ITD provides assistance for selecting and procuring mobile devices and for synchronizing them with the state email system. Support beyond that is the responsibility of each agency.

The introduction of mobile devices can quickly overwhelm existing desktop support structures. Everything is new to users, and initially, agencies should expect a significant increase in support inquiries. Agencies should dedicate staff to the ongoing support of mobile devices.

## **Recommendations**

- 1) Decide if legislators will be provided with a mobile device.
- 2) If so, either pick one Blackberry device for everyone or allow legislators to select the Blackberry device of their choice. (\$29.99 - \$149.99 upfront)
- 3) Consider allowing legislators to use their own device if they wish.
- 4) Expect that some people will become frustrated with their initial device and will want to try an alternative.
- 5) Decide if legislators will be provided with a voice and/or data plan. (\$75/month)
- 6) Clarify "personal use" policies for mobile devices.
- 7) Subscribe to ITD's Blackberry Enterprise Service. (*\$80 upfront, \$6/month*)
- 8) Expect to be prompted for a 4-digit password each time the device is used, with the exception of incoming/outgoing calls.
- 9) Be aware that devices are completely wiped of all data during their initial configuration.  
Legislators may not be able to use their own device if they already connect to another employer.
- 10) Be aware that once a device is integrated into the state's system, it needs to be completely wiped of all data before it can be re-issued to another person.
- 11) Consider issuing an RFP for devices and voice/data service if a large number will be deployed at once.
- 12) Anticipate a significant increase in desktop support inquiries and staff accordingly.
- 13) Expect devices to last no longer than 18-to-24 months. Replacements may be purchased every 10 months without contractual penalties.

Feel free to contact me with any questions or concerns you may have. ITD is here to help with your deployment of wireless mobile devices.

Sincerely,



**Lisa Feldner**, ND State Government CIO