• Initially no regular **SDK**
• Safari browser based **Web 2.0 applications** – **Ajax**

• Instabilities in the mobile browser implementations, content attack exploits might be seen

• Less chance for malware
• Harder to patch
• No low level kernel hooking for AV/Firewall
ZiPhone

App based on ZiPhone by Zibri - GUI by Max Uggeri (iRev)
Checking disks...
Mounting disks...
Copying webclip...
Starting jailbreak...
Unmounting filesystems...
Now rebooting...
Jul 28 09:17:38 reboot: rebooted by root
Jul 28 09:17:38 reboot: SHUTDOWN_TIME: 1
Singleuser boot -- fsck not done
Root device is mounted read-only
If you want to make modifications to files:
   /sbin/fscck -fy
   /sbin/mount -uw /
If you wish to boot the system:
   exit
Using “Jailbreak” like tools

• Possible to make a “disk” connection to the iPhone and see what files are onto the system.

• Change some background image or ringtone sounds but it was also possible to see and modify software on the iPhone.

• Security risk: trusting the crack program!
Installing third party native applications
Third party native applications
iPhone SDK

• Early in 2008 beta versions of the SDK

• Native applications for the iPhone can now be built using the latest Xcode development environment.
Xcode

Welcome to Xcode

iPhone Resources
- Download the Free iPhone SDK
- Apply to the iPhone Developer Program

iPhone Tech Talk Videos
- Introduction to the iPhone SDK
- iPhone Application Development – Getting Started
- iPhone Development Tools Overview
- Using iPhone Features in Your Application

iPhone Reference Library
- iPhone OS Programming Guide
- iPhone Human Interface Guidelines
- Getting Started with Graphics & Animation
- Getting Started with User Experience
- Getting Started with Performance
- Audio & Video Coding How-To's
- Networking & Internet Coding How-To's
- iPhone Reference Library Topics
- iPhone Frameworks
- iPhone Development Tools
- iPhone SDK Release Notes

Show at launch

McAfee

10/9/2008
iPhone OS – New Xcode Project

Choose a template for your new project:

- iPhone OS
- Mac OS X
- Application
- Audio Units
- Automator Action
- Bundle
- Command Line Utility
- Dynamic Library
- Framework
- Java
- Kernel Extension
- Standard Apple Plug-ins
- Static Library
- Other

Description: This template provides a starting point for an application that uses a navigation controller. It provides a user interface configured with a navigation controller and a table view controller to display a list of items.
Hello World
Device or Simulator
iPhone Simulator

Hello, World!

Hello, World!
Output Binary

C:\\vb\conference\\vb2008_ottawa\\demo code\\001\\hello world\\build\\Debug-iphonesimulator\\HelloWorld.app\\HelloWorld (24.208 bytes)
AddressBook

• The Addressbook not only keeps records of a contact’s name and address information, its framework can be called by SMS and E-Mail and also by custom third party applications.

AddressBook access

• Possible to have direct access to the addressbook, so without having a need to build a gui to interact with the user.

• It is possible to read but also write directly to addressbook records: Add/Replace/Remove

• Very powerful functionality and could – in theory – open the door for direct actions performed by adware/malware
AddressBook - Personal Information Properties

• const ABPropertyID kABPersonFirstNameProperty;
• const ABPropertyID kABPersonLastNameProperty;
• const ABPropertyID kABPersonMiddleNameProperty;
• const ABPropertyID kABPersonPrefixProperty;
• const ABPropertyID kABPersonSuffixProperty;
• const ABPropertyID kABPersonNicknameProperty;
• const ABPropertyID kABPersonFirstNamePhoneticProperty;
• const ABPropertyID kABPersonLastNamePhoneticProperty;
• const ABPropertyID kABPersonMiddleNamePhoneticProperty;
• const ABPropertyID kABPersonOrganizationProperty;
• const ABPropertyID kABPersonJobTitleProperty;
• const ABPropertyID kABPersonDepartmentProperty;
• const ABPropertyID kABPersonEmailProperty;
• const ABPropertyID kABPersonBirthdayProperty;
• const ABPropertyID kABPersonNoteProperty;
• const ABPropertyID kABPersonCreationDateProperty;
• const ABPropertyID kABPersonModificationDateProperty;
AddressBook - Getting Personal Information

//

NSString* name = (NSString *)ABRecordCopyValue(person, kABPersonFirstNameProperty);
self.firstName.text = name;
[name release];

//

name = (NSString *)ABRecordCopyValue(person, kABPersonLastNameProperty);
self.lastName.text = name;
[name release];

//

NSString* comp = (NSString *)ABRecordCopyValue(person, kABPersonOrganizationProperty);
self.comapnyname.text = comp;
[comp release];

//

NSString* job = (NSString *)ABRecordCopyValue(person, kABPersonJobTitleProperty);
self.jobTitle.text = job;
[job release];

//

NSString* dep = (NSString *)ABRecordCopyValue(person, kABPersonDepartmentProperty);
self.department.text = dep;
[dep release];
• const ABPropertyID kABPersonPhoneProperty;
• const CFStringRef kABPersonPhoneMobileLabel;
• const CFStringRef kABPersonPhoneMainLabel;
• const CFStringRef kABPersonPhoneHomeFAXLabel;
• const CFStringRef kABPersonPhoneWorkFAXLabel;
• const CFStringRef kABPersonPhonePagerLabel;

• ABMultiValueAddValueAndLabel(multi, @"123-456-1000", kABPersonPhoneMobileLabel)
• ABMultiValueAddValueAndLabel(multi, @"123-456-1001", kABPersonPhoneMainLabel)
AddressBook - Instant Message Property

- const ABPropertyID kABPersonInstantMessageProperty;
- const CFStringRef kABPersonInstantMessageServiceKey;
- const CFStringRef kABPersonInstantMessageServiceYahoo;
- const CFStringRef kABPersonInstantMessageServiceJabber;
- const CFStringRef kABPersonInstantMessageServiceMSN;
- const CFStringRef kABPersonInstantMessageServiceICQ;
- const CFStringRef kABPersonInstantMessageServiceAIM;
- const CFStringRef kABPersonInstantMessageUsernameKey;
AddressBook - URL Property

- `const ABPropertyID kABPersonURLProperty;`
- `const CFStringRef kABPersonHomePageLabel;`
Problems

• Build\Debug-iphoneos\ .app, didn’t execute on “computer”, not supported on this architecture

• API’s might not be equal OSX “computers” vs iPhone devices
iTunes App Store
Conclusion

• Third party applications can directly access the Addressbook

• Create or Change the contact information

• Retrieving E-mail addresses & Telephone numbers might be abused
Thanks for attention!

Questions?

E-mail: marius_van_oers@avertlabs.com