

# Security

# Introduction

- ❖ The Windows Phone 7 platform aims at achieving a compelling user experience that users can enjoy when buying applications for their handsets.

# User Experience

- ❖ The Windows Phone 7 platform was designed in order to ensure the user will be notified for billable events, have the control of who can access his private information and be able to completely uninstall applications he chooses from his device.

# Digital Signing

- ❖ All applications that are approved for sale in the Windows Phone Marketplace are going through a mandatory and an automated digital signing.

# Copyrights Protection

- ❖ The windows phone marketplace platform requires the developer to include within the application itself a valid license issued by the windows phone marketplace.
- ❖ This license protects the developer's intellectual property.
- ❖ Applications without a valid license cannot be installed on a windows phone handset.

# Certification Tests

- ❖ The windows phone marketplace provisioning process includes a suite of certification tests that identify specific behaviors that can be associated with problems.
- ❖ Suspected applications that were identified as problems associated are prevented from been placed for sale.

# One Shop Only

- ❖ The windows phone marketplace is the one and only legitimate source for buying applications for WP7 mobile telephones.
- ❖ Using this centralized approach it is possible to maintain a consistent set of standards for windows phone 7 applications.

# Development using .NET Only

- ❖ The requirement to have all apps developed in .NET improves the robustness of the applications.



# The Sandbox

- ❖ The windows phone 7 applications run within a sandboxed process.
- ❖ This isolation ensures that any interaction with the other parts of the handset is carried through a strictly structured way only.
- ❖ Applications that interact with each other can do it through a controlled mechanism only.

# The Sandbox

- ❖ Each running application gets a set of security privileges from the sandbox within which it is running.
- ❖ This set of privileges minimizes the risk in each and every application running on our windows phone handset.

# The Execution Manager

- ❖ The execution manager monitors the usage of the various resources the application uses and terminates applications in the background when there is a lack of resources.

# Special Privileges

- ❖ When the application presented for sale in the windows marketplace needs access to features that might have a direct impact on the information access or cost, the windows phone marketplace will provide this information to the potential buyer.
- ❖ When that application is installed, upon the first time the user runs it, that information will be displayed again.

# The Security Development Lifecycle

- ❖ Throughout the development life cycle there are various tools we can use in order to improve the security of our code.

Microsoft SDL Threat Modeling Tool

FxCop

BinScope

MiniFuzz

Banned.h

# Capabilities List

- ❖ For using specific capabilities of the mobile telephone the application will be granted with the required capability.
- ❖ These specific capabilities include (among others) placing phone calls, location services, media library, sensors, networking and the web browser.

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