

INTEROPSM

master series

Master the fundamentals of wireless technology, applications and industry trends.

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Gain a firm understanding of the fundamental technologies which underlie wireless products and services.

Explore the technology and components of wireless computing systems including software, smart phones, hand-held and palm PCs, and wireless LANs, PANs, and WANs.

Evaluate and compare products and services.

Define requirements and review major issues in choosing products and services.

Learn how to avoid major pitfalls and obstacles in planning and implementing end-to-end services.

Review the capabilities and characteristics of applications software, wireless middleware, and systems software.

Develop real solutions for current needs while planning for revolutionary wireless applications that promise to change the way we work and live.

[SYDNEY]
September 24 & 25 2001

[MELBOURNE]
September 27 & 28 2001

VERONICA A. WILLIAMS

Managing Director, ACT Inc., USA

(Respected author of the Wireless Computing Primer: A Comprehensive Guide to Wireless and Mobile Computing, MIS Press)

Wireless Communications & Mobile Computing

[Technologies, Products and Solutions]

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Overview

Who should attend?

This tutorial will cover how to evaluate, design, develop and implement wireless and mobile computing systems. We will cover system components, including portable computing devices, applications and communications software, wireless networks, and host access. Since many managers often experience difficulty completing the pilot, this tutorial will also review issues that should be considered before that phase, including defining requirements, cost-justification, implementation and rollout. Learn the basics of the technologies that enable wireless and mobile computing, and how to evaluate products and services. Understand the major issues and how to avoid the pitfalls that managers face in designing, developing and implementing wireless computing systems. You will see wireless computing in action!

- IT managers, telecom managers, project managers, developers, technicians and others who need a working understanding and detailed overview of wireless communications and mobile computing.
- IT and Network professionals who already have experience in wireless deployment projects but who would benefit from a formal coverage of all the key issues and areas
- Computer and communications personnel who have had little formal exposure to wireless and mobile computing and who wish to be brought quickly up-to-speed
- Managers responsible for creating a wireless strategy for their organisation
- Systems administrators and technical professionals who must evaluate, select, and implement products
- Those who are new to wireless communications and who need a thorough and systematic introduction to this key, emerging area of IT



Biography

Veronica A. Williams is a Managing Director of ACT Inc., a strategic business consulting firm with a focus on emerging technologies. She uses business methodologies, analytical tools and experience to help companies to derive value from technology. Ms. Williams has worked with major clients such as American Express, IBM, Motorola, BellSouth, the Electric Power Research Institute and the New York Board of Trade. With over 20 years in the IT industry, Ms. Williams is recognized as an international authority on business and technology. Ms. Williams is featured in the book entitled *Women Who Mean Business*, published by William Morrow & Company in July 1999.

Ms. Williams is the author of numerous articles and of the internationally acclaimed book entitled *Wireless Computing Primer: A Comprehensive Guide to Wireless and Mobile Computing* (MIS Press 1996). Her articles have appeared in several publications including *Information Technologies for Utilities*, *OAG Frequent Flyer*, *Wireless Business and Technology* and *NEWAVES* magazines. Ms. Williams has served as an advisor, judge, instructor and speaker at industry events including COMDEX, the Consumer Electronics Show and *Windows World*. Ms. Williams holds a B.A. in Economics from Brandeis University and an M.B.A. from the J.L. Kellogg Graduate School of Management at Northwestern University.

Syllabus

I. The Fundamentals:

A. Introduction

1. Agenda
2. Objective

B. Perspective

1. What is Datacom
2. History of Datacom
 - a) Carrier Transition
3. Market Participants
4. Challenges

C. Benefits

1. Why?
2. Productivity and Time Value of Information

D. What is Mobile Data?

1. Data is the Essence
2. How to Deliver Mobile Data
3. The Electromagnetic Spectrum

E. Radio Waves: The Physics

1. A Radio Wave
2. Analog & Digital Signal Explanation
3. Modulation, Multiple Access Methods

F. Sending Data Wirelessly

1. Packetization
2. Packet Switching
3. The OSI Model
4. Transmission
 - a) Speed, Bandwidth, Distance & Power
5. Protocols & Gateways
 - a) Popular Protocols – An Overview
 - b) IP
 - c) Wireless Protocols – An Overview
 - pACT
 - WAP
 - Other
 - vs. OSI Model
 - GSM
 - i-Mode
 - UTMS
 - d) Interoperability
 - e) Gateways
 - f) Agents
6. Flow of Information

G. Understanding System Components

H. Applications Software

1. Features
2. Functions: What it does
3. Portability Issues

I. Middleware

1. Features
2. Major Functions
 - a) Architectures-The OSI Model
 - b) Comparison Chart
3. Portability Issues

J. Operating System

1. Features-Portable OS/ Mini Browsers
2. Functions
3. Portability Issues

K. Wireless Networks: WAN (mobile)

1. Features
2. Functions
3. Portability Issues
4. Directing Radio Waves: "Direct vs. Diffused"
5. How Cells Work
6. Network Architectures
 - a) Two-Way Wireless Networks
 - b) One-Way Wireless Networks
 - c) Satellite Networks

L. Wireless Networks: Fixed

- a) Wireless Ethernet
- b) Other

M. Wireless Networks: LAN

1. Features
2. Functions
3. Portability Issues
4. How: Configuration
5. Components
6. 802.11
7. Coverage

N. Other Short Range Wireless or PAN

1. IrDA
2. Bluetooth
3. Home RF

O. Broadband

1. 3G
 - a) 2.5G
 - b) GPRS
 - c) EDGE
 - d) 1XRTT
 - e) 3G
 - f) 4G
 - g) FCC's reallocation of frequencies
 - h) Migration Strategies
2. Ultra Wideband (UWB)
3. Antennae Design

P. Portable Devices

1. Features
2. Functions
3. Portability Issues
4. Intel Architecture
5. Microsoft Architecture
6. HP Architecture
7. Categories
 - a) Organizers
 - b) SmartPhones
 - c) PC Phones
 - d) Two-Way Pagers
 - e) Palm & Handheld PCs
 - f) Specialty Devices: Rugged
 - g) Notebooks

Q. Service & Support

1. Features-Maintenance and Support
2. Functions
3. Portability Issues

R. Summary

1. The Fundamentals-Summary

2. Applications

A. Systems Applications

1. Web Enabling-Application Development
2. Messaging
3. M-Commerce
 - a) What is the M-Commerce?
 - b) How is it done?
 - c) What M-Commerce exists now?
 - d) What's coming?

B. Business

1. Inventory Management
2. Claims Management
3. Other

C. Consumer

1. News
2. Weather
3. Reservations

3. Case Study:

A. Project Management for Wireless Computing

1. Benefits
2. Case Study Examples
3. Audience Case Study
4. Project Preparation

B. How to Choose Products & Services

1. Major Components
2. How to Choose
3. Solution Options

C. Applications & Communications Software

1. Selection Criteria
2. Existing Products

D. Communications Software

1. Selection Criteria
2. Existing Products

E. Host System

1. Selecting Host System
2. Host Integration

F. Portable Devices

1. Selecting Your Portable Device
2. Technical Overview
3. Battery Life
4. Maintenance and Support Considerations

G. Wireless Networks

1. Selecting Wireless Networks
2. Public vs. Private
 - a) Pricing Structures
3. Value Added Network Services
4. Existing Networks-Mobile WAN
5. Existing Networks-Infrastructure OEM
6. Existing Networks-Fixed WAN
7. Emerging Networks

H. Wireless Local Area Networks

1. Selecting Wireless Local Area Networks
2. Wireless LANs OEMs

I. Solution Providers

1. Wireless ASPs
2. Wireless ASPs – The Players

J. Maintenance and Support

K. Summary

4. DEMO: Realworld System at Work

5. Making Your System Work

A. A System Solution Is....

B. Quantifying Benefits

C. Design & Purchasing

D. Development

E. Testing / Piloting

F. Implementation & Rollout

G. Support

H. Migration

6. International Perspective

A. Europe

B. PAC RIM

C. Africa

D. South America

7. What's In Store for the Future

A. Company Watch

B. Predictions

1. Wireless Internet Users
2. Emerging Requirements
2. Delivering Tomorrow

8. Points to Remember