



## Apple Education Tech Kitchens

# Integrating Mobility into a Small Business

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# iOS Integration on a Mac and/or Windows System

# Main Players

All solutions integrate with mobile platforms

- Kerio Mailserver
  - Mid-level solution, Good price points
- CommuniGate Pro
  - Direct Exchange Replacement
- Zimbra
  - Direct Exchange Replacement
- Microsoft Exchange
  - Expensive, Many security holes
- Apple
  - Easy setup and support, powerful

# Kerio MailServer



Get the benefits of Exchange without the cost and complications of Exchange

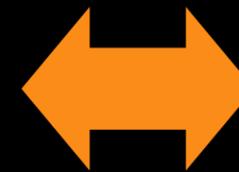
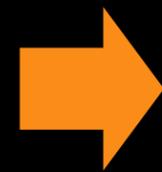
Email

Calendar

Contacts

Notes

Tasks





# Mail Server 2

# Mail Server 2

- New mail engine
- Push email
- Server-side mail rules
- Vacation messages
- Password change





# iCal Server 2

# iCal Server 2

- Email invites
- Push notifications
- Web-based client
- iOS 4 support





Event		Invitees	
✓	Carol Bucher		>
✓	Sony VPL HD Projector		>
✓	Summit Conference Room		>
✓	Eric Zelenka		>
?	Aric Marshall		>
✗	Tricia Smith		>
?	Doug Brooks		>
?	Nader Nafissi		>
?	Dimitri Proano		>

# CalDAV Protocol Updates

- Implicit scheduling
- Push notifications
- Attendee lookups
- Comment to organizer

The logo for CalDAV, featuring the text "CalDAV" in a bold, white, sans-serif font centered within a blue rounded rectangle with a vertical gradient from light blue at the top to dark blue at the bottom.



# Address Book Server

# Address Book Server

- Personal contacts
- Global address books
- Works with existing apps



# CardDAV Protocol

- Based on WebDAV and vCard
- Collections of vCards
- Data model and reports
- IETF Draft

The logo for CardDAV, featuring the text "CardDAV" in a bold, white, sans-serif font. The text is centered within a blue rounded rectangular button that has a vertical gradient from light blue at the top to a darker blue at the bottom.



# Mobile Access Server

# Mobile Access Server

- Secure access to your Intranet
- Encryption and authentication
- No client software required

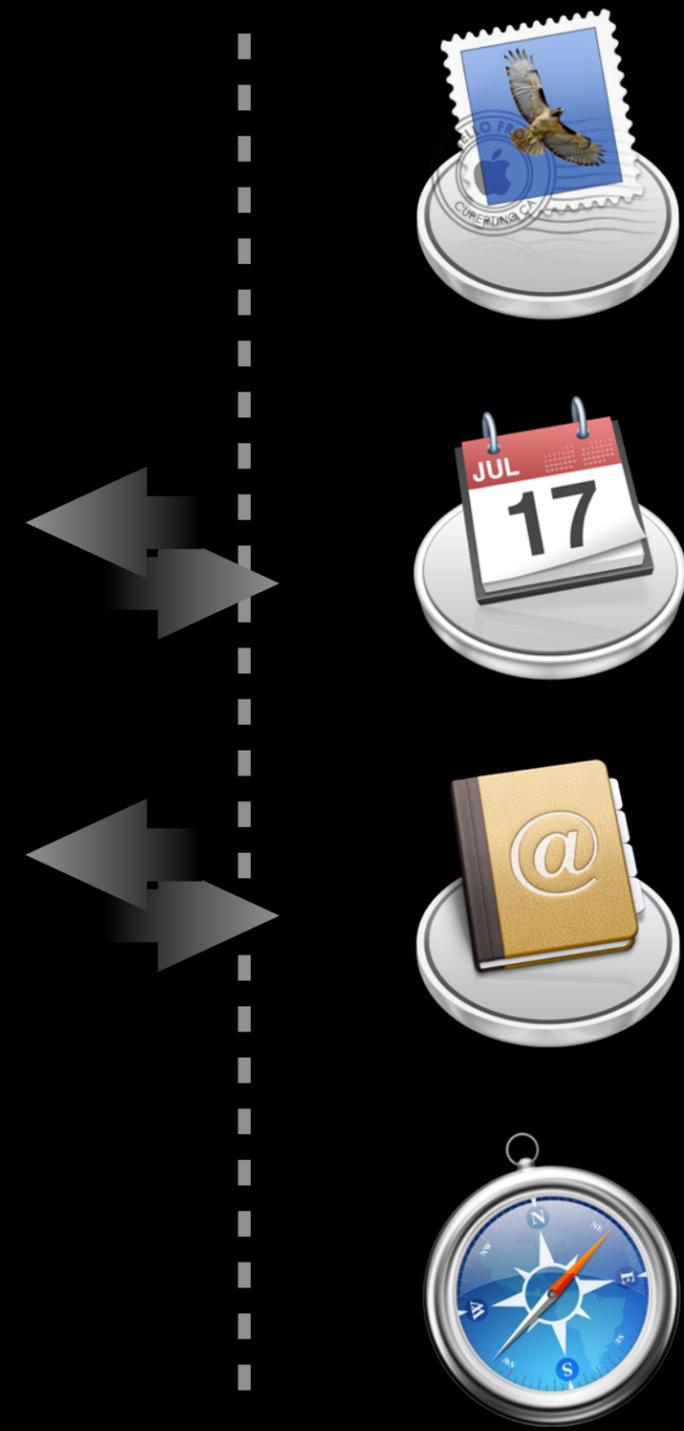




Encrypted connection



Mobile Access Server





Mac OS X Server: Mobile Access

https://mobile.example.com Google



# Mobile Access

## Network

eric

•••••

keep me logged in

Log in

Connected to Mac OS X Server  
Copyright © 2009 Apple Inc. All Rights Reserved.  
Unauthorized use is prohibited.

# MDM Options

- AirWatch
- Tarmac (Equinix)
- MobileIron
- BoxTone
- ZenPrise
- Afaria (SyBase)

# Common Apps your Customers Want

# Provisioning

Telecom term referring to configuration of services

## Provisioning for the iPhone OS

- Applications
- Configuration

# Provisioning Terms

## Provisioning Profile

- Allows an ad hoc distributed application to run on a device

## Configuration Profile

- Configures various features of the iPhone OS through Payloads

## Payload

- Settings for a particular feature
- Passcode requirements, feature restrictions, Wi-Fi, VPN, email, Exchange, etc.

# iPhone Configuration Utility

Manage profiles and devices

Place profiles on devices

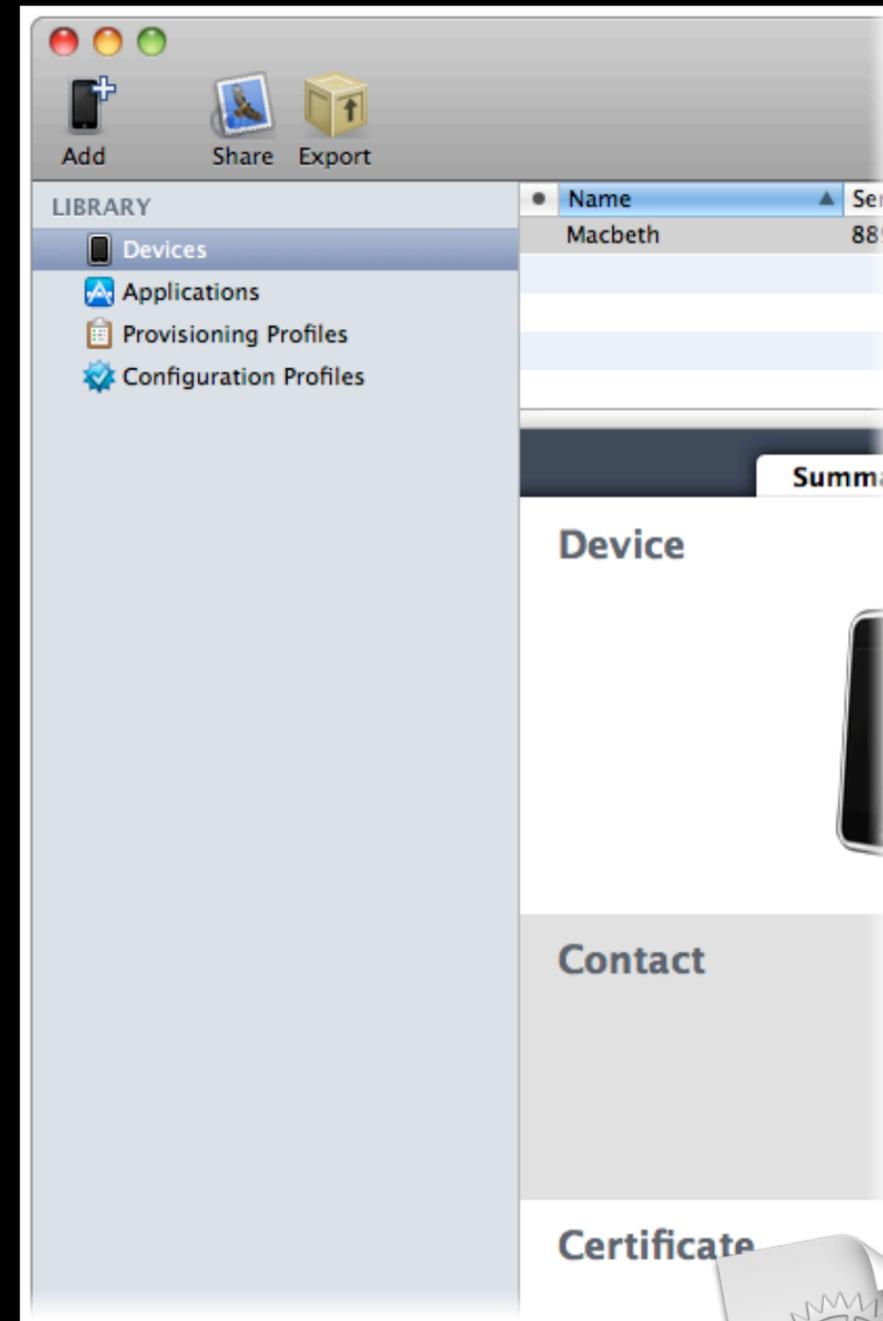
Export profiles for other methods of distribution



# iPCU: Devices

Gathers information from any iPhone OS device connected while it is running

- Overview & details
- Installed configuration profiles (including wireless carrier)
- Installed provisioning profiles
- Installed applications



# iPCU: Configuration Profiles

The screenshot displays the iPhone Configuration Utility (iPCU) window. The title bar reads "iPhone Configuration Utility". In the top-left corner, there are buttons for "New", "Share", and "Export". In the top-right corner, there is an information icon, a search field containing "All", and a "Search" button. Below the title bar, a "LIBRARY" sidebar on the left contains icons for "Devices", "Applications", "Provisioning Profiles", and "Configuration Profiles". The main area shows a table with the following data:

Name	Identifier	Created
Pretendco Base	com.pretendco.profile	11/4/09 1:21 PM

Below the table, the "Identity" section is expanded, showing various configuration options:

- General** (Mandatory)
- Passcode**: Not Configured
- Restrictions**: Not Configured
- Wi-Fi**: 1 Payload Configured
- VPN**: Not Configured
- Email**: Not Configured
- Exchange ActiveSync**: Not Configured
- LDAP**: 1 Payload Configured
- CalDAV**: Not Configured
- Subscribed Calendars**: Not Configured
- Web Clips**: Not Configured
- Credentials**: Not Configured
- SCEP**: 1 Payload Configured
- Advanced**: 1 Payload Configured

The "Identity" details on the right include:

- Name**: Display name of the profile (shown on the device). Value: Pretendco Base
- Identifier**: Unique identifier for the profile (e.g. com.company.profile). Value: com.pretendco.profile
- Organization**: Name of the organization for the profile. Value: Pretendco
- Description**: Brief explanation of the contents or purpose of the profile. Value: This is the base configuration for normal employees
- Security**: Controls when the profile can be removed. Value: Always



# Best Practices

Non-user-specific profile

User-specific profiles

Backup keychain(s)

Backup ~/Library/MobileDevice

EAS and crypto requirement

# Distribute Profiles

Direct USB

Email

Web

Over the Air



# Profile Formats: Unsigned

No cryptography

Plain XML

Passwords in clear

# Profile Formats: Signed

Cryptographically signed by  
iPCU

Allows detection of changes

Passwords still in the clear

Each iPCU has a unique  
certificate

Only updatable by the same  
iPCU



# Profile Formats: Encrypted

Signed like a signed profile

Encrypted using a particular device's unique key

Usable only on that device

Benefits of signed

No clear passwords



# Policy Considerations

Promiscuous use of wireless networks

Network policy enforcement over 3G

Loss/theft/termination actions

Passcode policy

iTunes sync

# iPhone Application Types

## Native Apps

- iPhone SDK development
- Hardware features
- Full native UI experience



## Web Apps

- Cross-platform development
- No app to install
- Existing skill set



**iTunes DJ - a Gateway to  
get your Customers into iOS**

# iOS as a Remote Control for Various Devices

# iOS Remote



# Other Remote Apps

- BlueSLR - SLR Camera Remote
- Mobile Mouse - Remote control of your Mac or PC
- VNC Viewer - Another remote control app
- L5 Remote - Universal TV Remote
- Savant Commercial and Home Automation Systems
- iDriver - Remote Control Your Car
- X Commander - X-10 Home Automation
- Luminair - DMX Stage Lighting Control

# VPN Connections and SSL to Secure your Communications

# Specifications

iOS 4 devices work with VPN servers that support the following protocols and authentication methods:

- L2TP/IPSec with user authentication by MS-CHAPV2 Password, RSA SecurID or CryptoCard, and machine authentication by shared secret.
- PPTP with user authentication by MS-CHAPV2 Password, RSA SecurID, or CryptoCard.
- Cisco IPSec with user authentication by Password, RSA SecurID, or CryptoCard, and machine authentication by shared secret and certificates. Cisco IPSec supports VPN On Demand for domains you specify during device configuration.

# Specifications

iOS 4 devices work with VPN servers that support the following protocols and authentication methods:

- Juniper Networks Junos Pulse, Cisco AnyConnect, and F5 Networks FirePass using the appropriate VPN app from the App Store. These apps provide the user authentication for the built-in iOS SSL VPN support.
  - Juniper Networks Junos Pulse in the App Store
  - Cisco AnyConnect in the App Store
  - F5 BIG-IP Edge Client in the App Store
- Cisco IPsec, Cisco AnyConnect, F5 BIG-IP Edge Client, and Juniper Networks Junos Pulse, support VPN On Demand for domains you specify using a configuration profile. See the article "iPhone Configuration Utility" for details.

# VPN Solutions

- Shimo
- VPN Tracker
- IP Securitas

# Remote Solutions

- Gotomypc
- Gotoassist
- Logmein
- Teamviewer

Everything Your Business Needs



Questions



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