

# NOTIFYLINK ENTERPRISE SERVER

Wireless Mobility Support for GroupWise

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Notify Technology Corporation

10/17/09

# Notify Technology Background

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- Founded in 1994
- Headquartered in San Jose, CA
- Focus on mobility starting in 2001
- First mobility solution started with support for GroupWise 5.5
- Development & Technical Support Center in Canfield, OH
- Main Products: NotifyLink Enterprise Edition – “On Premise” and “On Demand”
- Product Focus: Secure, Synchronized, Notification, Access, & Management of Email & PIM Using Any iPhone\*, Blackberry, Palm and Windows Mobile Wireless Device & Network

\*We will refer to “iPhone” only. “iPhone” consists of the iPhone or the iPod touch unless specified.

# Notify Relationships

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- Recognized by Gartner Group Magic Quadrant for Wireless Email for the past 5 years.
- Over 1500 companies/organizations using NotifyLink “On Premise” or “On Demand”.
- Apple iPhone Development Partner
- RIM BlackBerry ISV Alliance Partner.
- Member of Symbian Signed Partner Program.
- Member of Palm Select Program.
- National Joint Marketing Alliance Member for Verizon.

# What is NotifyLink?

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- An enterprise middleware solution that provides companies and organizations with secure, wireless, synchronized, email, calendar, contacts, and task information. (Comparable functionality to a BlackBerry Enterprise Server and GroupWise Mobile Server in “ONE” single solution)
- Offered as an “On-Premise” product or an “On-Demand” service.
- Supports any iPhone, BlackBerry, Palm, Windows Mobile, and select Symbian wireless devices.
- Supports all GSM/GPRS/EDGE/3G-HSDPA, CDMA/1XRTT/EVDO, and 802.11x wireless networks
- Interfaces with 12 different email collaboration suites and allows mix and match of those suites.
- NotifyLink is a good replacement strategy for your GroupWise Mobile Server!

# Supported Wireless Device Platforms

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- Apple iPhone or iPod touch using iPhone 2.2.1 or 3.0 or 3.1.XOS



- Device Operating System 4.2 or Higher



- Device Operating System 5.0 or Higher (pending end-of-life). We now support the Palm Pre 1.2



- Device Operating System WM 6.0/6.1 & 6.5 (Nov'09)



- Support for specific Nokia Series 60, 3<sup>rd</sup> Edition, Symbian 9.x series

## Email Collaboration Suites We Now Support

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- ❑ Novell GroupWise 6.5.6, 7.X and 8.0 and 8.1
- ❑ Microsoft Exchange 2003, 2007
- ❑ Sun Java Enterprise Suite
- ❑ Oracle Collaboration Suite/Beehive
- ❑ Mirapoint Messaging Server
- ❑ CommuniGate Pro
- ❑ Scalix Enterprise Server
- ❑ Zimbra Messaging Suite
- ❑ Meeting Maker
- ❑ MDaemon
- ❑ Kerio Messaging Suite
- ❑ FirstClass
- ❑ Google

# NotifyLink History

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- ❑ NL 2.0 - Fall 2002 launched initial GroupWise 5.5 support on email only with BlackBerry and Palm OS wireless PDAs
- ❑ NL 2.5 - Winter 2003 added support for calendar, contacts, and tasks
- ❑ NL 2.6 - Summer 2003
- ❑ NL 3.0 - Winter 2004
- ❑ NL 3.1 - Summer 2004
- ❑ NL 3.2 - Winter 2005 - launched NotifyLink On-Demand
- ❑ NL 4.0 - Fall 2005
- ❑ NL 4.3 - Spring 2006
- ❑ NL 4.5 - Winter 2007
- ❑ NL 4.5.2 - Fall 2008 – iPhone 2.0 support
- ❑ NL 4.6 - March 2009
- ❑ NL 4.6.1 - July 2009 – iPhone 3.0 and 3.1 support and GW 8 SP1
- ❑ NL 4.6.2 – October 2009 – native BB PDF reader support & Palm Pre iPhone 3.1.2
- ❑ NL 4.7 – Winter 2010 (Mar/Apr)

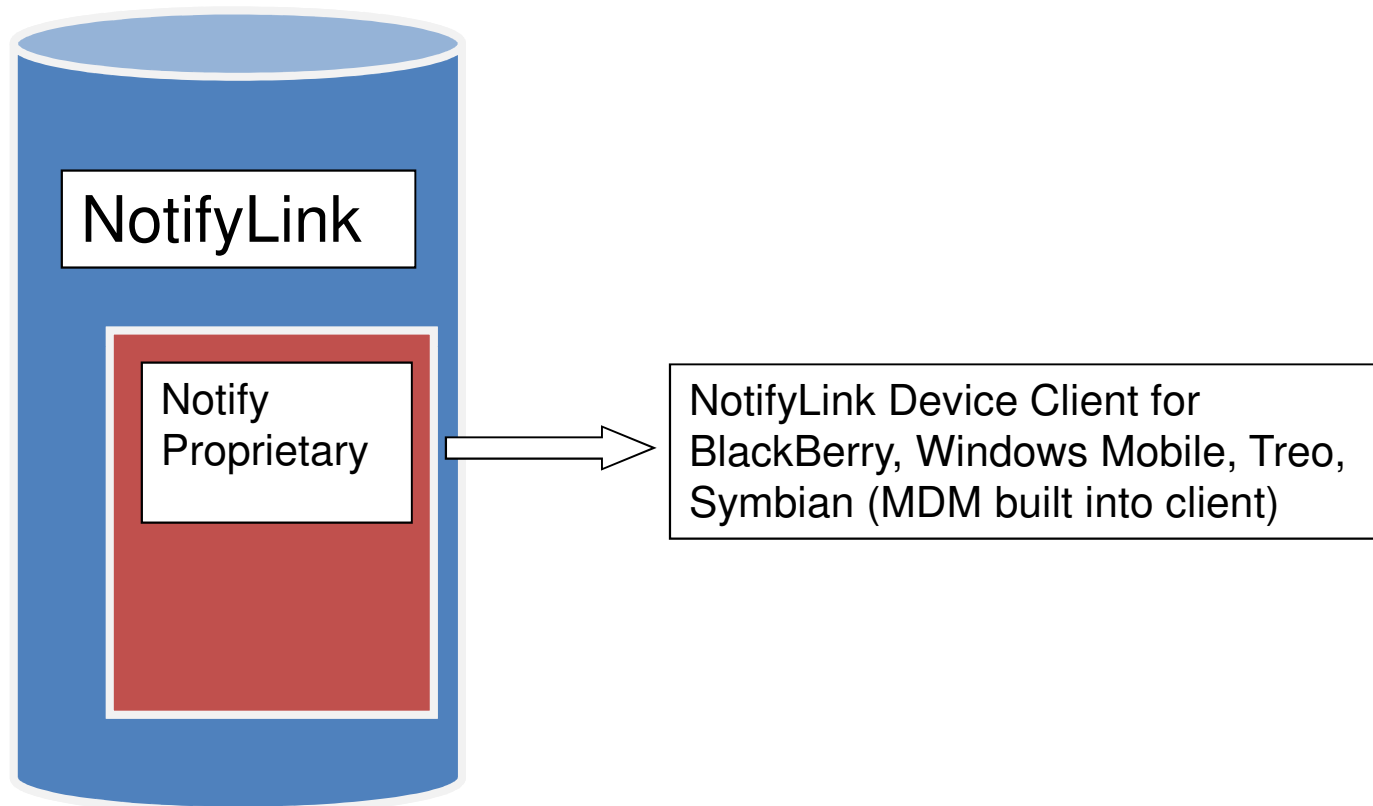
# NotifyLink Evolution

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- Initially email and PIM synchronization was the predominant functionality
- Additional email platform support
- More security
- More device management
- Enhanced supportability
- Additional monitoring services
- Additional wireless device support
- ActiveSync support

# NotifyLink Device Connectivity 4.5 and earlier

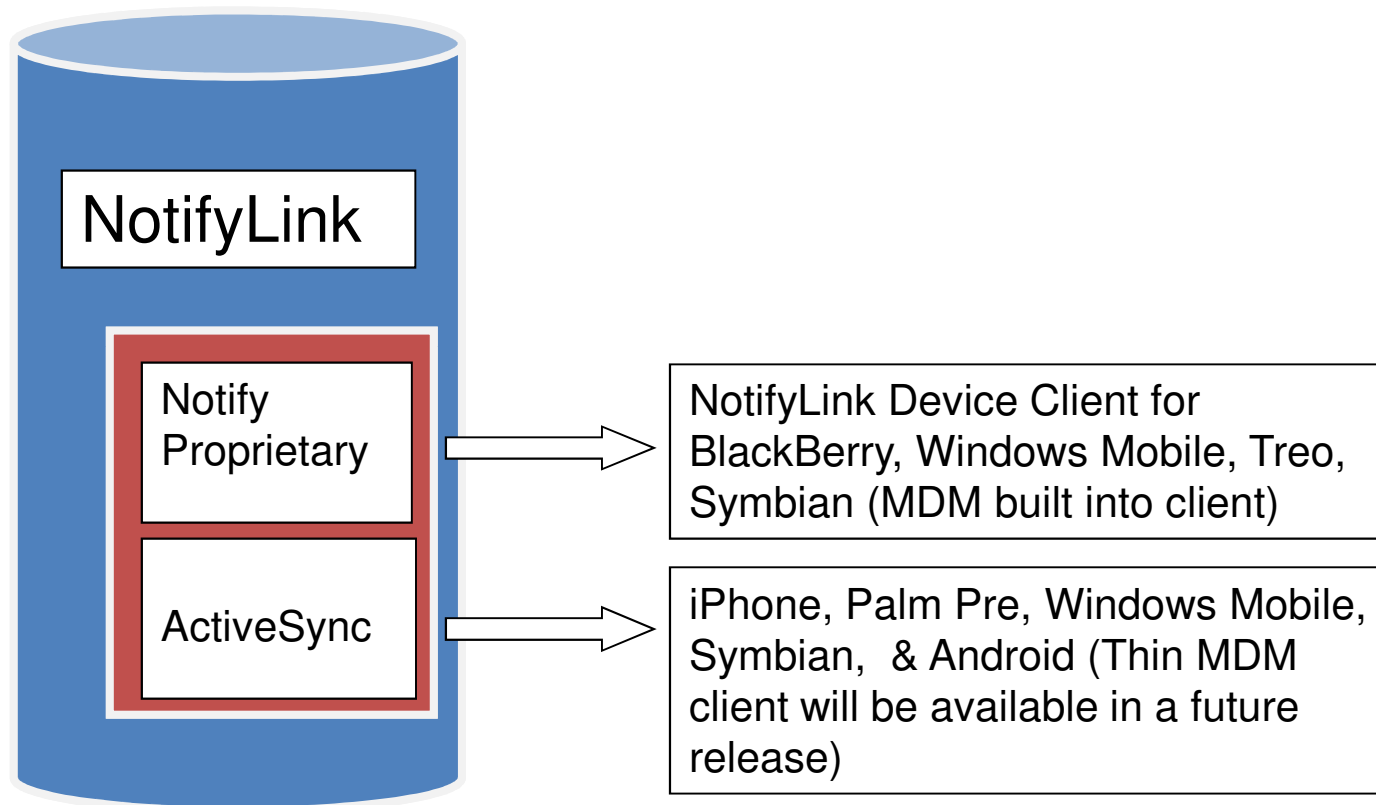
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# NotifyLink Device Connectivity

## 4.5.1 and onward

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# Wireless Email Functionality

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- ❑ Requires installing a NotifyLink device client on all devcies except for an iPhone
- ❑ Over-the-Air Email Synchronization
- ❑ Folder Mirroring
- ❑ Email Synchronization of Deletes and Messages Marked as Read
- ❑ Full Support for Attachments (supported file types vary by device)
- ❑ Multi-level Email Filters
- ❑ End User Web UI for configuration changes



# Wireless PIM Functionality

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- Leverage Native PIM Applications on Device – Calendar, Contacts, and Tasks
- “Over The Air” Synchronization of
  - ▣ Calendar
  - ▣ Contacts
  - ▣ Tasks
- Create/Accept Meeting Invitations
- Global Contacts Remote Lookup
- Contacts Category Support  
(BlackBerry, Palm OS and Windows Mobile Devices)



# NotifyLink Versions

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# Why NotifyLink On Demand

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- No On Premise Hardware Or Software Needed
- No Minimum License Required (Start With One)
- Leverage Notify Technical Support Expertise
  - All end user support handled by Notify
- Mix & Match iPhone, Blackberry, Palm, Windows Mobile, and Symbian Wireless Devices and Carriers
- Organizations can upgrade to Premier On Demand and have their own dedicated server.

# Why NotifyLink On Premise

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- Installed Behind the customer's firewall
- Customer responsible for all NotifyLink system requirements and Tier 1 end user support.
- Notify provides customer with Tier 2 support
- Maybe more cost effective for larger mobility deployments.
- Mix & Match iPhone, Blackberry, Palm, Windows Mobile, and Symbian Wireless Devices and Carriers

# Buying NotifyLink

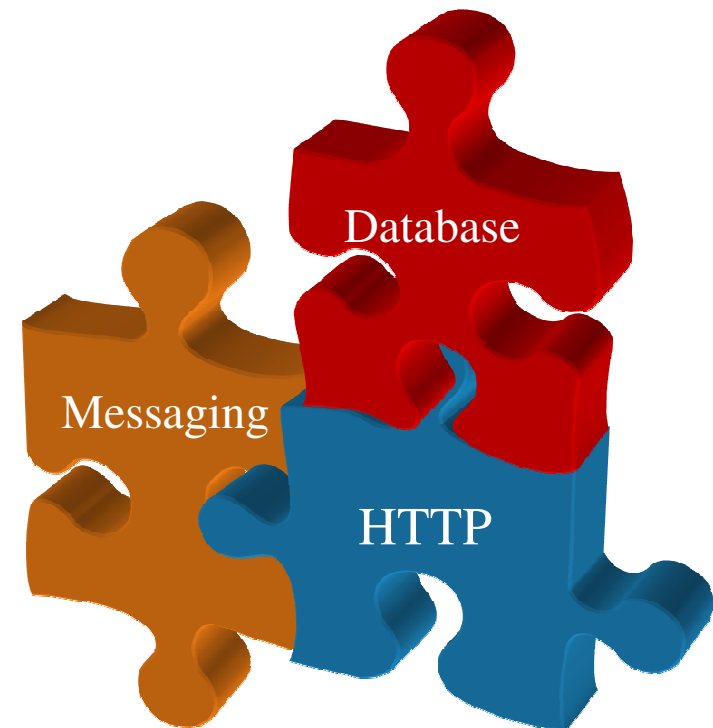
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- Currently traditional B 2 B buying model.
  - ▣ Corporate liable – means organization purchases NotifyLink licenses for employees and handles bill back if necessary.
- Adding a new way to buy NotifyLink due to escalating requests from a variety of organizations
  - ▣ Individual liable – means individual is responsible for purchasing and renewing NotifyLink license.
  - ▣ Individual is responsible for getting their reimbursement if authorized or buys license without consideration for reimbursement.
- Target date for Individual liability support is January 2010

# Architecture at a Glance

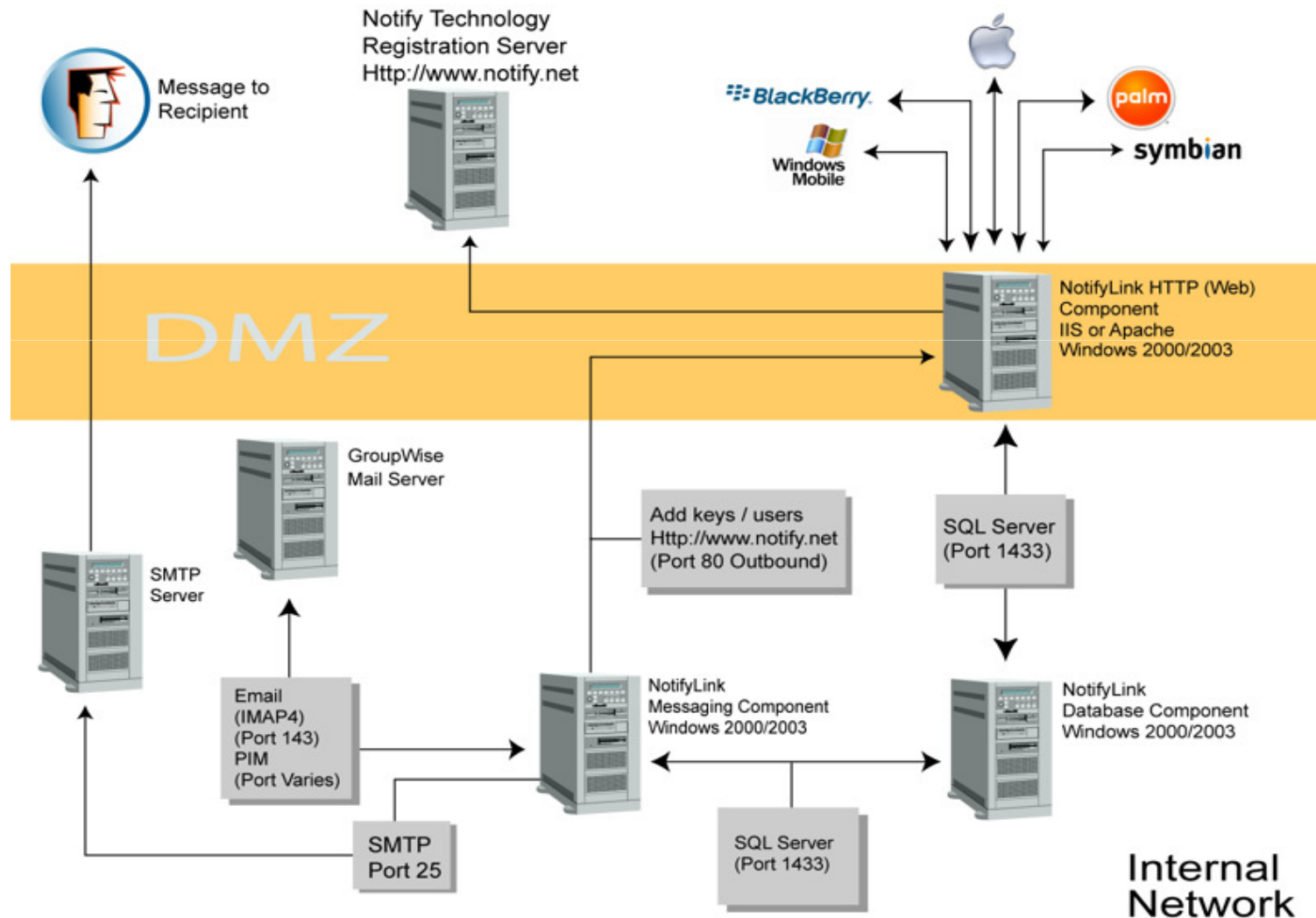
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- ▣ Database Component
  - Administration Information
  - User Information
  - NotifyLink Operational Information
  - Sensitive Information Encrypted with AES (data-at-rest encryption)
- ▣ Messaging Component
  - Interface to Oracle email and PIM
  - Licensing
  - SMTP Interface
- ▣ HTTP/S Component
  - Device Gateway
  - Web-based User Interface
  - Registration Server



# Architecture Diagram

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# NotifyLink – Device Security

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- A NotifyLink *policy* is a *group of rules*.
- Rules are *settings*.
- NotifyLink has approximately 105 rules.
- There are approximately 30 *mobile device security rules*.
- <http://help.notify.net/TechDocs/device/DeviceComparison/NetHelp/>

# NotifyLink – Device Security Rules

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- Allows only secure provisionable devices
- Password Locked
- Password Strength
- Password Strength Locked
- Minimum Password Length
- Minimum Password Length Locked
- Device Password Expiration
- Device Password Expiration Locked
- Device Password History
- Device Password History Locked
- Inactivity Timeout
- Inactivity Timeout Locked
- Challenge Timeout
- Challenge Timeout Locked
- Password Echo
- Password Echo Locked
- Wipe on Failed Unlock Attempts
- Wipe on Failed Unlock Attempts Locked
- Duress Notification
- Duress Notification Locked
- Lock Message
- Lock Message Locked
- Remote Lock
- Remote Wipe
- Device Password Enabled
- Device Encryption
- AES All Message Content
- TDES All Message Content
- SSL All Message Content
- Compress Transmitted Message

# NotifyLink – Device Management

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- NotifyLink can record several device characteristics for management, monitoring and reporting purposes.
- These characteristics are located within the *Device Management* section of the NotifyLink Administration Console.
- A list of files can be retrieved from some devices.
- Files can be pushed out to some devices via email.

# NotifyLink – Device Management

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- ❑ Device Model
- ❑ Device Type
- ❑ Network Type
- ❑ Device Pin
- ❑ Signal Level
- ❑ SD Card Status
- ❑ Roaming
- ❑ Phone Number
- ❑ Battery Status
- ❑ Free Memory
- ❑ O/S version
- ❑ NotifyLink Version

# iPhone Support Overview

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- **NotifyLink Enterprise Server** allows iPhone and iPod touch devices to synchronize email, calendar and contacts using the native software contained on the device. There is no application software to install.
  - Requirements
  - Functionality Overview
  - Setup Instructions
  - Push Settings
  - Security Settings



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# Requirements

# Requirements

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- You must first be set up with an account on an On Demand or On Premise version of the **NotifyLink Enterprise Server** (upgraded to our latest version 4.6.2 for the latest iPhone OS 3.1.2 support). Verify with your IT Administrator, that you have been added with an iPhone license key.
- An iPhone or iPod touch operating on software version 2.2.1 or 3.0 or 3.1.x Use iTunes on your Mac or PC to update iPhone or iPod touch software.



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# Functionality Overview

# Functionality Overview

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- **Email**
  - Uses the iPhone native email client to send, receive, reply to and forward emails
  - Folder Mirroring allows email folders from your mail account to be synchronized to the device.
  - Automatic Folder Synchronization. *Inbox* is the only folder that synchronizes automatically. Other folders must be opened to initiate synchronization. On devices running OS 3.0, however, you may select other folders (excluding *Trash*) to synchronize automatically, using the device's *Mail Folders to Push* option. **NEW**
  - Email Filters, set on the *NotifyLink* server via the Client Web, filter mail sent to the device.

# Functionality Overview



## □ Attachments

- Attachment viewing is supported using the iPhone native viewers.
- Emails with attachments can be forwarded
- With the exception of picture files in the device's *Camera Roll album* or contact (.vcf) files **(NEW)**, attaching a file residing on the device to an email is not currently supported
- You cannot save a document file on the iPhone

# Functionality Overview

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- PIM (Calendar and Contacts)
  - Interfaces to the iPhone native *Calendar* and *Contacts*
  - Synchronize calendar events in a configurable Look-Back/Look-Ahead range
  - Multiple Address books supported
  - Remote Lookup (Global Address List) retrieves contact information from the GroupWise **LDAP** directory using the iPhone *Contacts* application
  - Receive and respond to meeting invitations
  - Create and send meeting invitations **NEW**
  - iPhone device limitations:
    - Task synchronization is not supported

# Functionality Overview

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- Security
    - SSL encryption protocol for data-in-motion between the iPhone and *NotifyLink* server
    - Remote Wipe can be initiated by NotifyLink Admin Web for a lost or stolen iPhone
    - Require password on iPhone (Enabled via the *NotifyLink* Admin Web)
    - Inactivity Timeout (Set via the *NotifyLink* Admin Web)
    - ActiveSync Rule on server allows administrator to enforce *NotifyLink* security policies on iPhone devices. Policies include: password strength, password length, inactivity timeout, remote wipe, and wipe on failed unlock attempts.
- NEW**

# Functionality Overview

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- Security (*continued*)

**NEW** with release of NotifyLink Enterprise Server 4.6

- Minimum password length requires passwords to be at least 8 characters.
- Maximum number of failed password unlock attempts resets device settings to their defaults and removes all information and media stored on iPhone. (*Requires iPhone OS 3.0; Older OS versions do not wipe, but lock the device and require reauthorization through iTunes.*)
- Require alphanumeric value for password. Character pattern must include one letter, one number and one special character when Password Strength is set to “Strong.”

# Functionality Overview

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- Push Types
  - Direct Push (Push) and Scheduled Push (Fetch) options
- Device IT Policy Comparison Chart
  - Link to this [chart](#) to learn which *NotifyLink* IT policies are supported and which are not supported when using the *NotifyLink's* iPhone solution.

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# Device Setup Instructions

# Device Setup Instructions

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- *NotifyLink* iPhone support allows users with an iPhone or iPod touch to access their Email via *NotifyLink*. Setup for this solution involves creating a Microsoft Exchange® mail account on the device. There is no *NotifyLink* client to install.
  1. Select the **Settings** icon from the device's Home Screen.
  2. Select **Mail, Contacts, Calendar** > **Add Account...** > **Microsoft Exchange**.



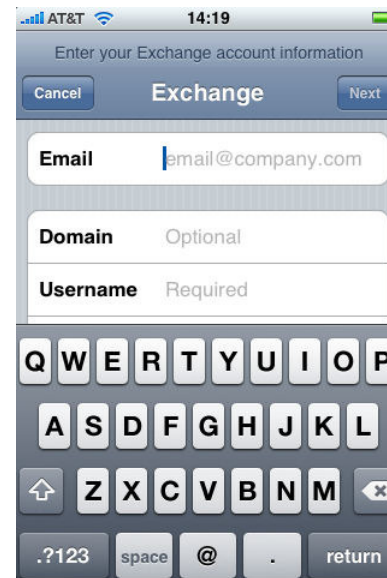
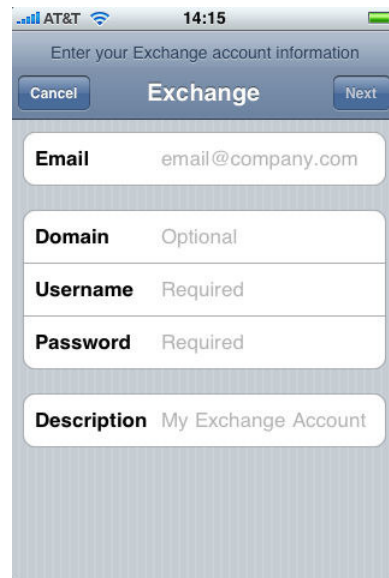
# Device Setup Instructions

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## 3. Enter the registration credentials

- **Email** – Email address of your mail account on the GroupWise server
- **Domain** – Leave blank
- **Username** – Username as it appears on the *NotifyLink* server
- **Password** – Authentication Password as it appears on the *NotifyLink* server.

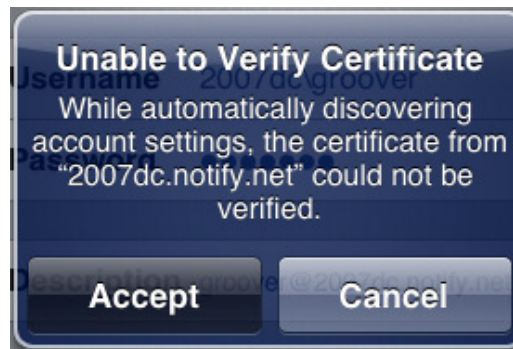
**Note: For security purposes, this value is NOT your email password!**



# Device Setup Instructions

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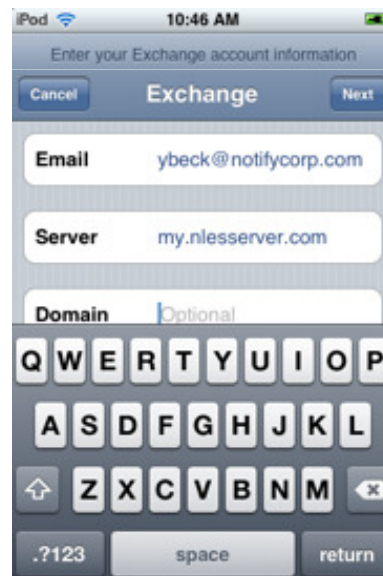
4. The registration process will display an error message because the device will not find the *NotifyLink* server using its *AutoDiscovery* process.
5. Tap Accept to bypass the error and proceed.



# Device Setup Instructions

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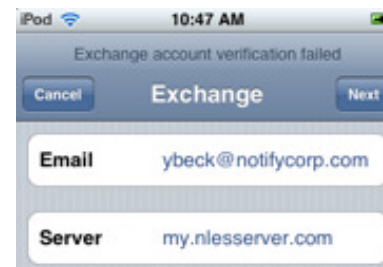
6. In the **Server** field, enter the external address (IP or domain name) of the *NotifyLink* server and select **Next**.



# Device Setup Instructions

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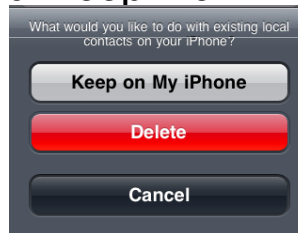
7. The iPhone tries to connect to the *NotifyLink* server over SSL (registration uses SSL by default).
  - **“Unable to Verify Certificate”** displays when the server could not verify the SSL certificate on the *NotifyLink* server. Tap **Accept** to bypass the error.
  - **“Exchange account verification failed”** at the top of the screen. This error message displays when an SSL certificate is not being used on the *NotifyLink* server. Tap **Next**, then **Save**. Then go to the device **Settings** and turn off SSL.
- The registration process will complete, a connection is automatically established, and the *NotifyLink* server is checked for available email, contacts and calendar events.



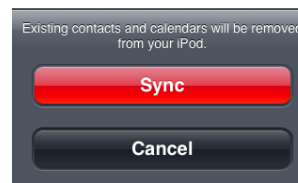
# Device Setup Instructions

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8. If contact and calendar data exist in iPhone's local files when you register, you have the option to **keep** or **delete** the existing items. *Contact* and *Calendar* synchronizations default to **OFF** until you choose an option.
  - ▣ On OS 3.0, turn Contact and/or Calendar synchronization ON and choose to delete existing items or keep them in a separate, *On My iPhone*, file. **NEW**



- ▣ On OS 2.x, turning Contact and Calendar synchronization ON deletes existing items. You must leave synchronization OFF to keep existing data on the device.



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# Email and PIM Settings

# Email and PIM Settings

- Several of the native iPhone email and PIM (calendar and contact) configuration settings are supported and can be modified via the device or the NotifyLink Client Web. Following is a list of the configuration settings and where they can be modified.

# Email and PIM Settings

Configuration Settings	Description	Configurable via:
<b>Set Default Account: For Mail, Calendar, and Contact Group</b>  <b>NEW</b>	Make your Exchange account the default for the Mail account, the Calendar, and the Contact Group. Mail and calendar/contact items that originate from alternate applications on the device will then synchronize to the server. (Example: Attaching a contact to an email from the <i>Contacts</i> application.) If defaults are set to other accounts, such data will not synchronize to the server associated with your Exchange account.	Device <i>Settings &gt; Mail, Contacts, Calendars &gt; (Mail) &gt; Default Account</i> <i>(Contacts) &gt; Default Account</i> <i>(Calendars) &gt; Default Calendar</i>
<b>Filters</b>	Filters messages sent from the server	NotifyLink Client Web: <i>Mailbox &gt; Filters</i>
<b>Folder Mirroring</b>	Mark email folder on the server to be mirrored on the device.	NotifyLink Client Web: To select folders: <i>Mailbox &gt; Folders</i>
<b>Mail Folders to Push</b>  <b>NEW</b>	On devices running OS 3.0, other folders (excluding <i>Trash</i> ) can be selected to automatically synchronize like the <i>Inbox</i> . Older operating systems do not have this option and require that you open any folder other than <i>Inbox</i> in order to initiate synchronization.	Device <i>Settings &gt; Mail, Contacts, Calendars &gt; (account) &gt; Mail Folders to Push</i>
<b>Notification ON/OFF</b>	Enables/Disables <i>NotifyLink</i> message notification. Restarts/Suspends retrieval of Email from the server.	NotifyLink Client Web: <i>General &gt; Control Options</i>
<b>Mail Days to Sync</b>	Number of days a message is available on the device. Use as a cleanup setting to manage message quantity. Cleanup will take effect within 24 hours of the scheduled delete. Choose 1 or 3 days, 1 or 2 weeks, or 1 month. "No limit" is not supported, but if chosen, will default to 180 days.	Device <i>Settings &gt; Mail, Contacts, Calendars &gt; (account) &gt; Mail Days to Sync</i>

# Email and PIM Settings (continued)

Configuration Settings	Description	Configurable via:
<b>Show number of messages</b>	The number of items sent to the device in each Sync request. If more than the selected number of items exist, multiple Sync requests are used until all items are retrieved. Choose from 25, 50, 75, 100, 200 recent messages.	Device <i>Settings &gt; Mail, Contacts, Calendars &gt; Show</i>
<b>Calendar Sync</b>	Set the calendar synchronization range - how far back and ahead to sync your calendar events on the device. <b>Look-back</b> is set from the device. Default is 1 month. Choose from 2 weeks, 1, 3, 6 months or <i>All Events</i> . (If <i>All Events</i> is chosen, <i>Look-back</i> is set to 104 weeks.) <b>Look-ahead</b> is set from the client web. Default is 26 weeks. Choose from 1 to 104 weeks.	Device <i>Settings &gt; Mail, Contacts, Calendars &gt; Sync</i> NotifyLink Client Web: <i>PIM &gt; Calendar &gt; Synchronization Range</i>
<b>Filter Meeting Response Emails</b>  <b>NEW</b>	If enabled, this option filters out meeting response emails sent directly from the iPhone to the meeting organizer. The organizer may still receive an email from the attendee's PIM server, however, in addition to the calendar update they receive.	NotifyLink Client Web: <i>PIM &gt; Calendar</i>
<b>Choose Address Books</b>	If the groupware server supports multiple address books, choose which will synchronize to the device. Contacts from the chosen address books will synchronize to the device's " <i>All Contacts</i> ."	NotifyLink Client Web: <i>PIM &gt; Contacts &gt; Choose Address Books</i>

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# Push Settings

# Push Settings

## □ **Push**

- Your mail account, synchronizing via *NotifyLink*, is a “push” account. When new messages, contacts or calendar events are available, they are automatically delivered (pushed) to your iPhone or iPod touch. This is the equivalent of the *NotifyLink* “Direct Push” mode.

## □ **Fetch**

- In contrast, iPhone’s “fetch” service periodically checks the server to see if new messages have arrived and then requests a delivery. *Fetch* is used if *Push* is turned off and the user may define the interval of the fetch sessions. “Fetch” is the equivalent of the *NotifyLink* “Scheduled Push” mode.

## □ **Wi-Fi Connections**

- If you do not have a cellular connection, iPhone and iPod touch can receive pushed data over a Wi-Fi connection when the device is awake (screen is on or device is connected to your computer or a power adapter).


# Push Settings

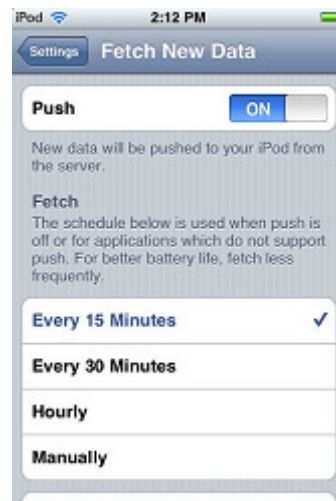
## □ **Change Your Push Setting**

- You may wish to temporarily suspend Push service if you are outside a service area or wish to conserve battery life. When *Push* is turned OFF, data can still be fetched at periodic intervals or manually.
    - **Battery Life.** Though Push mode offers more up-to-the-minute message delivery, for some users, increased battery consumption may be the tradeoff. If your battery is not lasting as long as you would like, try using the *Fetch* mode.
1. From the Home screen, tap **Settings** > **Mail, Contacts, Calendars**.
  2. Tap **Fetch New Data**
  3. Turn Push **OFF**

# Push Settings

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4. Choose the interval at which the device should “fetch” data or tap *Manually*.
  - Every 15 Minutes
  - Every 30 Minutes
  - Hourly
  - Manually (use the “reload” icon  the Mailbox or Inbox screen to fetch)



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# Security Settings

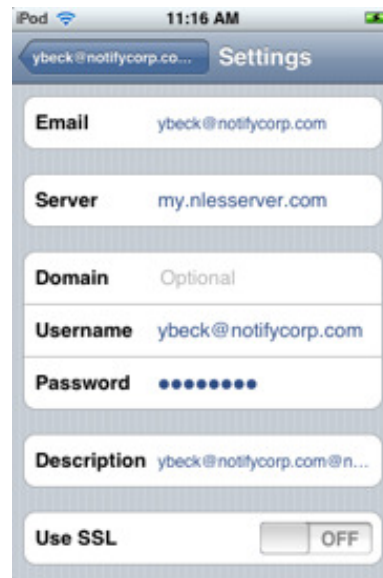
# SSL Encryption

- SSL is an encryption protocol for data-in-motion between the device and *NotifyLink* server. An SSL certificate must be installed on your *NotifyLink* server in order to use SSL. Check with your IT administrator to determine if this feature is available to you. (SSL *is* available to *NotifyLink* On Demand users, as all On Demand servers are equipped with SSL certificates.)
- If the *NotifyLink* server is NOT using SSL (check with your IT administrator to verify), turn the **Use SSL** setting off. This will allow the device to make connections to the *NotifyLink* server over http (non SSL) instead of https (SSL).

# SSL Encryption

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- ❑ Tap **Settings** from the device's Home screen.
- ❑ Tap **Mail, Contacts, Calendars**
- ❑ Tap your account and then tap **Account Info**
- ❑ Tap the **Use SSL** ON/OFF box to display **OFF**



# Required Password & Inactivity Timeout

- If your organization's mobile security policy requires that your iPhone be password protected, you will be prompted to define your lock password on the device.
  - **Note:** If your organization does not enforce the password policy, but you wish to password protect your device, you can:
    - Request that your IT Administrator turn on the enforcement for your account through the NotifyLink Administrative Web. Then follow the instructions below.
    - Use the iPhone's native *Passcode Lock* option (*Settings > General > Passcode Lock*) to set a 4 digit numeric passcode.

# Required Password & Inactivity Timeout

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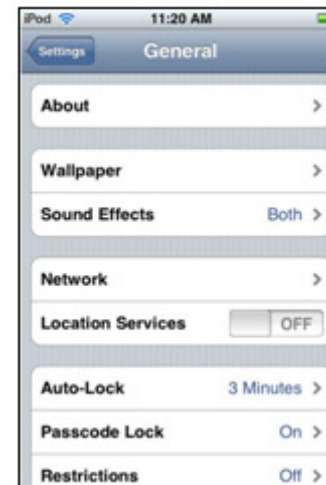
1. The “**New Passcode Required**” message will appear. Tap **Continue**.
2. Enter a passcode, then re-enter it to confirm.
  - **Note:** Though the entry instructions read, “Enter 1 or more numbers,” the keypad displays allowing you to enter letters, numbers or special characters. It is recommended that you use a minimum of 8 characters and a mix of character types.



# Required Password & Inactivity Timeout

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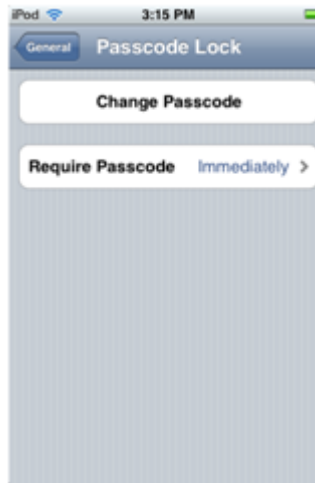
- ❑ You will also want to set the **Auto-Lock** which determines the inactivity timeout interval on the device. This will turn off the device's display and prevent unintended operation of your iPhone or iPod touch.
  - **Note:** iPhone users can still receive calls and text messages and can adjust volume for the headpiece while the device is locked. iPod touch users can also adjust the volume while the device is in a locked state.
- ❑ 3. Tap **Settings > General > Auto-Lock**.
- ❑ 4. Select a 1, 2, 3, 4, or 5 minute interval.



# Changing Your Passcode

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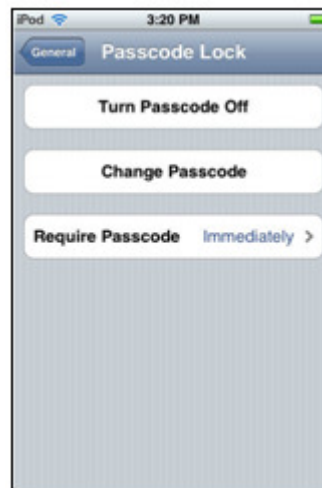
- ▣ If you want to change your passcode:
  1. Tap **Settings > General > Passcode Lock**
  2. Tap **Change Passcode**.
  3. Enter your current passcode.
  4. Enter your new passcode, then re-enter it to confirm.



# Turning the Passcode Off

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- If the passcode requirement is lifted and you wish to operate without a passcode, you will have to disable the passcode on your device after the requirement is lifted.
  - Tap **Settings** > **General** > **Passcode Lock**
  - Tap **Turn Passcode Off**.
  - Enter your current passcode.



# Remote Wipe

- In the event that your iPhone is lost or stolen, contact your IT Administrator as soon as possible. The administrator has the ability to enforce a *Remote Wipe* security function on the device from the *NotifyLink* Administration Web.
- A *Remote Wipe* will remove all data and configuration information (messages, contacts, calendar events, the mailbox account, etc.) from the device. Then the iPhone is erased and returned to its original, factory settings.
- If retrieved, the iPhone must be restored through iTunes and re-registered against your *NotifyLink* account.

# Wipe on Failed Unlock Attempts

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- This security feature can be enforced from the *NotifyLink* Administrative Web. The purpose of *Wipe on Failed Unlock Attempts* is to limit the chances an unauthorized user has to guess a password. Functionality is based on the operating system the device is running.
  - **iPhone OS version 3.0:** Device settings are reset to their defaults and all information and media is removed by overwriting the data stored in iPhone. (*iPhone 3GS will complete the wipe rapidly, however, this can take up to 2 hours or more on older models. You will be unable to use the device while data is being overwritten.*) **NEW**
  - **iPhone OS version 2.0-2.2.1:** Device does not actually wipe, but locks down and requires reauthorization through iTunes.

# FAQs and Using Your Device

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- FAQs
  - [Click here](#) to review a list of our Frequently Asked Questions.
- Using Your Device
  - [Click here](#) for the iPhone User Guide
  - [Click here](#) to review Battery Saving Tips

# Who to Contact

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- To request a free NotifyLink On-Premise or On-Demand evaluation, or more information about “NotifyLink For GroupWise”, please contact Donna Hutchison at 408-777-7930 or [dannah@notifycorp.com](mailto:dannah@notifycorp.com).