

# Bluetooth One: One-Click Access to Bluetooth

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# The Bluetooth User Experience

At a time when Bluetooth is becoming extremely prevalent, in headsets, speakers, in-car systems, printers and other consumer electronics....

the Bluetooth user experience continues to be extremely difficult, tedious & frustrating.

# The Problem

Simply finding Bluetooth is difficult. It is often buried several levels deep in Settings, Tools, Applications or Connectivity menus requiring the user navigate excessive levels of UI menus on a repeated basis.

Turning Bluetooth off is just as difficult, resulting in it often needlessly running in the background and affecting handset battery life.

Sharing photos and music, or exchanging contacts can only be done via nested sub-menus from within Options menu.



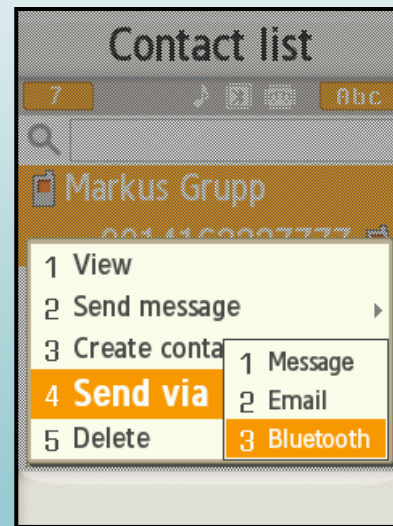
Nokia N95 (Orange)

9-15 key presses across to turn Bluetooth on are simply too many.



Sony Ericsson K800 (Vodafone)

Is this really the best way  
to share photos, videos and music or  
to exchange contact details  
via Bluetooth?



Samsung SGH-U600 (Orange)

# What do users really want to do with Bluetooth?

These users are looking to connect to their stereo Bluetooth headset as quickly as they launched the music player.

They are looking for a quick, free way to share a photo or song with a friend, without appearing incompetent or embarrassment in front of their waiting friends.

They want to exchange a contact details quickly, without keeping their business associate waiting.

They want to connect to their in-car system quickly after a long day of work without yet another frustration before they begin the commute home.

**Using Bluetooth to connect, share or transfer is time-sensitive. Bluetooth needs to be instantly available and seamless for the user.**

The Answer:  
**Bluetooth One**

# Bluetooth One

Bluetooth One is a design concept that combines a dedicated Bluetooth hardware key with a contextual, intuitive task-based user interface that can be integrated easily by a handset manufacturer.

It is not an third-party or standalone application. It is a design concept that a handset manufacturer will integrate directly into its handset software and hardware.

Sounds ambitious? It needs to be in order to deliver this superior user experience.

(In case you haven't already guessed, "Bluetooth One" is a working title and is not endorsed or approved by the Bluetooth SIG.)



# The Bluetooth One Key

The Bluetooth One key allows the user to instantly turn Bluetooth on with a simple press, from anywhere in the user interface, with no need to return to the main menu and search through several levels of menus.

The task-based user interface quickly walks the user through clear steps, rather than prompting them countless times to enable Bluetooth, add devices and search for devices.

Bluetooth One and the Bluetooth One key can be adapted to any handset, form factor or mobile platform.

The design of the Bluetooth One key can easily be adapted to the industrial design of the handset and keypad.

# Bluetooth One

The details...

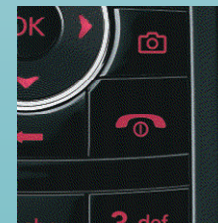
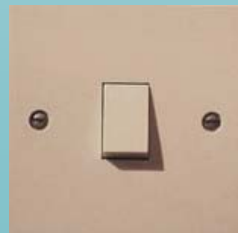
# One key press to turn Bluetooth on

## Instant access

Once the Bluetooth One key is pressed, Bluetooth is immediately turned on. The device visibility defaults to the previous visibility setting.

While Bluetooth shortcut soft keys and dedicated Bluetooth hard keys already exist on some commercial handsets, these are simply shortcuts to open the Bluetooth settings menu.

Pressing the Bluetooth One key to actually turn Bluetooth on is as intuitive and immediately understood as....



# Access Bluetooth from anywhere...

## **Universal access to Bluetooth:**

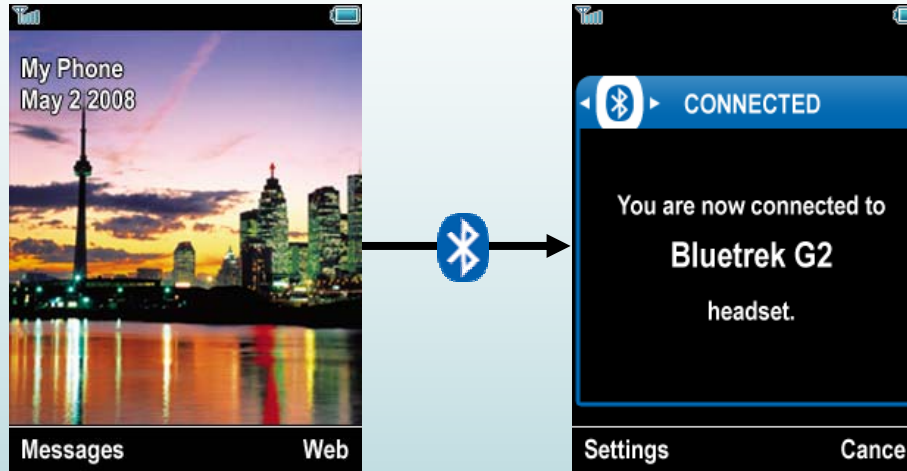
The user presses the Bluetooth One key turn Bluetooth on from anywhere in the user interface.

A user can simply connect to stereo Bluetooth headset directly from the music player or while playing a game.

A user can instantly go hands-free during a call.

A user can connect to an in-car entertainment and communications system after starting the automobile.

# If a previously paired device is visible and within range...



Pressing the Bluetooth One key will instantly connect the handset to the previously paired headset or any previously paired device that was paired with the “Always Allow” Bluetooth security setting. This will cover most use cases, where the user has deliberately turned on a previously paired headset, in-car system, computer or other device.

Should the user instead want to connect to a new device altogether, he can simply cancel the connection and will have using the Bluetooth One Panel (see next slide for more details)

If there are multiple previously paired devices in range, the user simply selects which device she would like to connect to and the handset will be connected. (Most current handsets support connection to only one device at a time. Bluetooth One can, however, scale in the future to support connection to multiple devices simultaneously.)

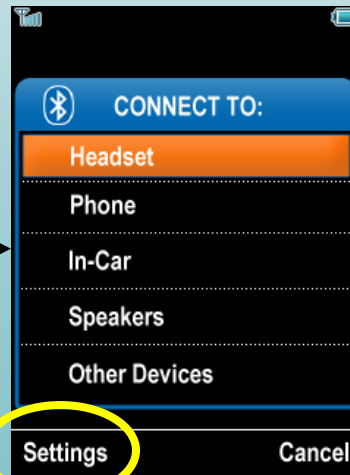
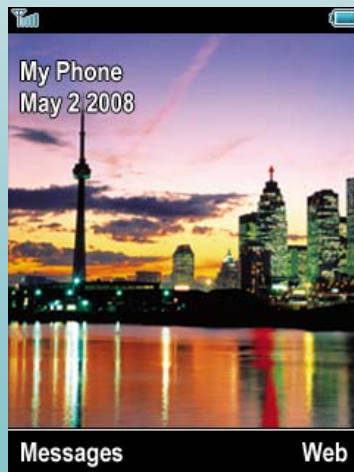
# If a previously paired device not within range...

If a previously paired device is not in range or not visible...

Pressing the Bluetooth One key instantly turns on Bluetooth and displays the Bluetooth One panel.

## Bluetooth One Panel

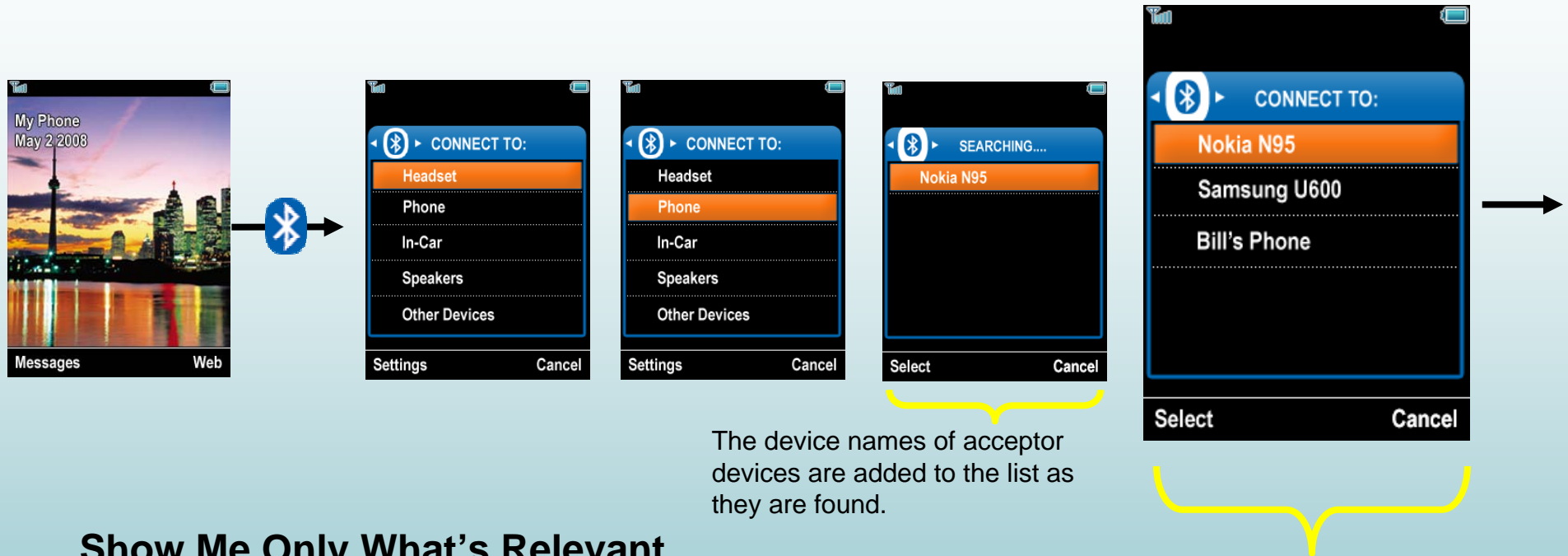
The Bluetooth One panel clearly guides the user to select the type of device that she is looking to connect to. Since Bluetooth is turned on as soon as the Bluetooth One key is pressed, the user is not prompted with a series of “Add a device?”, “Enable Bluetooth?” and “Search for devices?” confirmation messages that exist on current devices.



The user is easily able to choose the type of device that he is attempting to connect to. Device search results will be filtered accordingly

The user is easily able to change his default settings directly from the Bluetooth One Panel. (see slide 23)

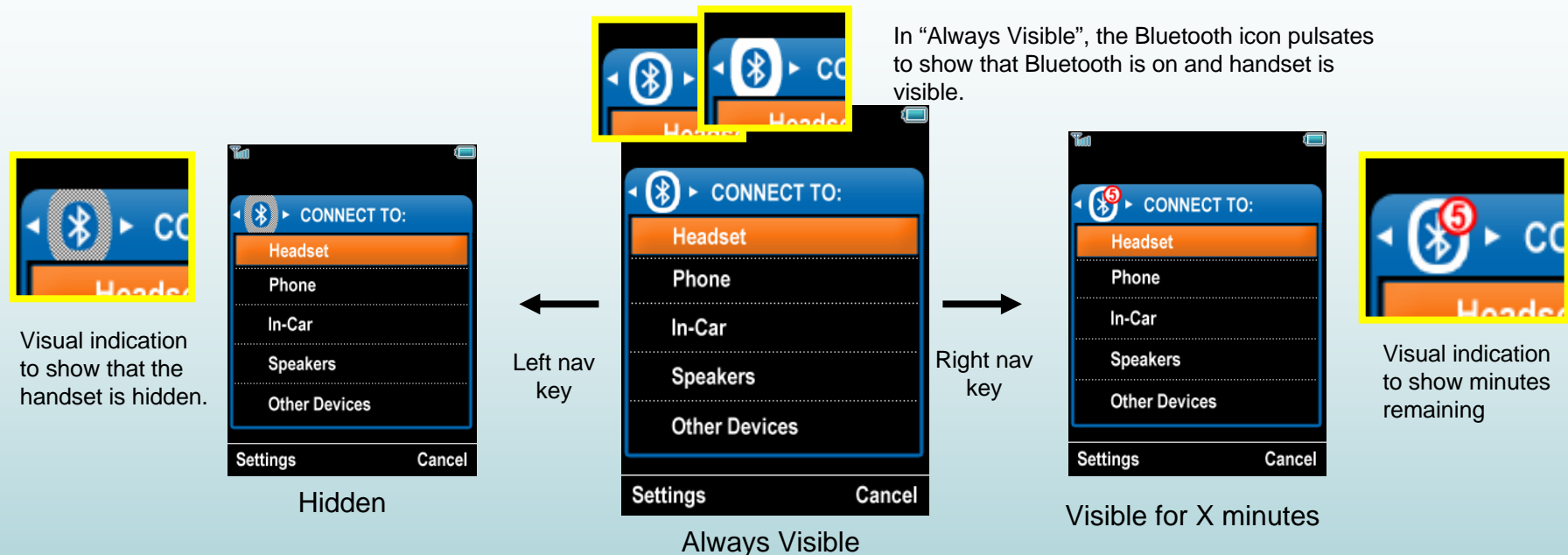
# Only relevant search results...



## Show Me Only What's Relevant

The Bluetooth One search results are strictly filtered by the type of Bluetooth device that the user is attempting to connect to. She is not displayed results for all Bluetooth devices in proximity nor does she need to scan the often obscure device names and device type icons for countless of handsets, computers, printers and other devices to find the one she is after. Only Bluetooth devices that match the selected Bluetooth device type are displayed, making finding the target device much quicker and straight-forward.

# Visibility Settings: Quickly toggle as needed...



Bluetooth One not only immediately turns on Bluetooth, it also allows the user to change the Bluetooth visibility by the left and right navigation keys: "Hidden", "Always Visible", "Visible for X minutes." The last active visibility setting will be remembered when she turns Bluetooth on again.

The user is clearly shown the active handset visibility by the large Bluetooth visibility icon in the Bluetooth One panel, which is updated accordingly when the user change handset visibility.

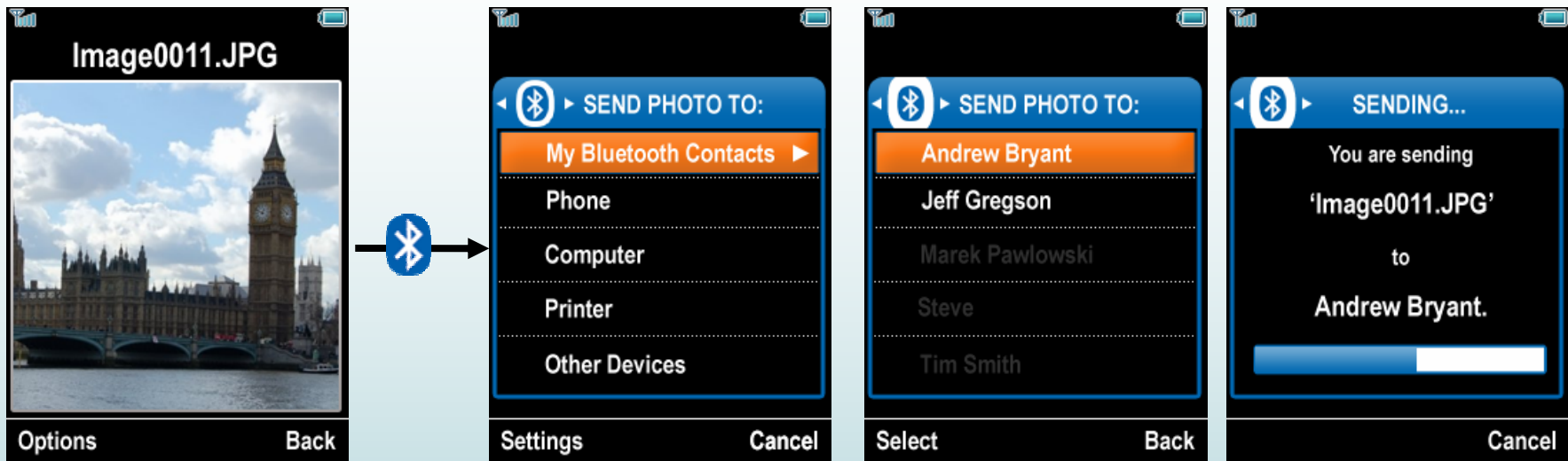
Bluetooth One also allows the advanced user to set the temporary discoverability setting to a preferred number of minutes using the Bluetooth One Settings soft key, eliminating the frustration of not having being able to configure the temporary discoverability duration.



# Contextual User Interface

- Just as important, Bluetooth One is contextual user interface.
- The Bluetooth One key allows the user to immediately take action in specific contexts: acting upon a contact, photo, video, music or audio file.
- Pressing the Bluetooth One key while viewing a photo in the photo gallery automatically turns Bluetooth on and asks the user where she wants to transfer the photo: an existing contact, a new phone, computer, printer or other device.
- No longer will be user need to use nested sub-menus followed by a series of prompts and reminders to turn Bluetooth on. The Bluetooth One key allows the user to share non-DRM protected music and videos just as easily.

## Send music, photos & videos at the press of a button...

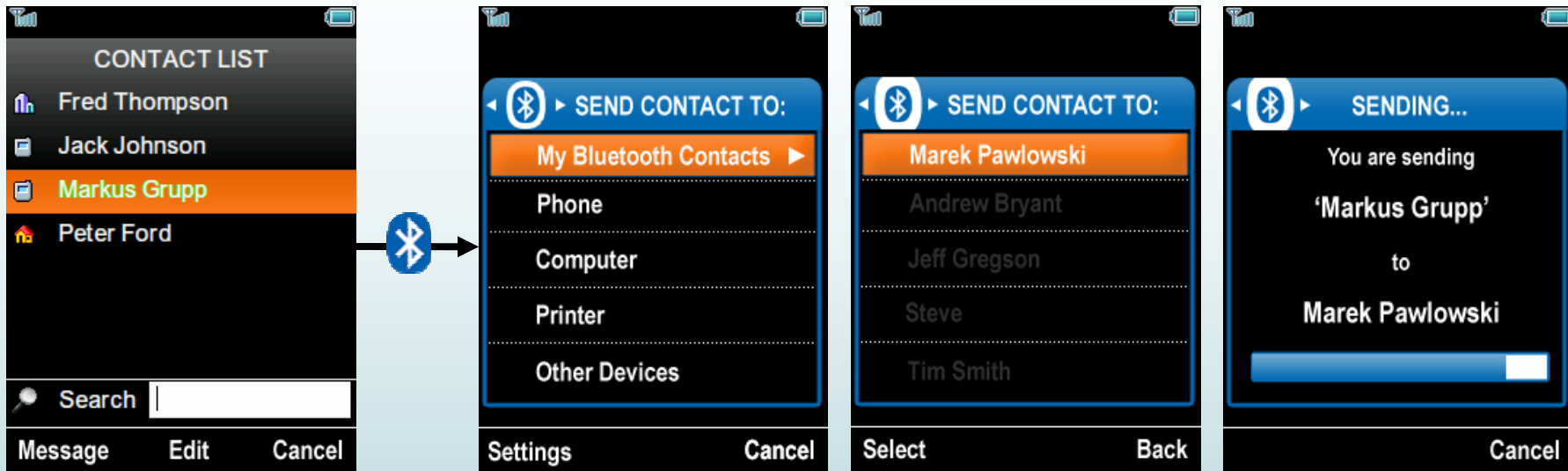


Pressing the Bluetooth One key while viewing a photo in the photo gallery automatically turns Bluetooth on and asks the user where she wants to transfer the photo: an existing contact, a new phone, computer, printer or other device. The Bluetooth One key allows the user to share non-DRM protected music and videos just as easily.

No more need for nested “Send via Bluetooth” sub-menus and the subsequent series of prompts to “Enable Bluetooth?”, “Search for devices?”

After the photo is sent, Bluetooth is turned off and the user is returned back to where she was in the photo gallery.

# Exchanging contact details at the press of a button...



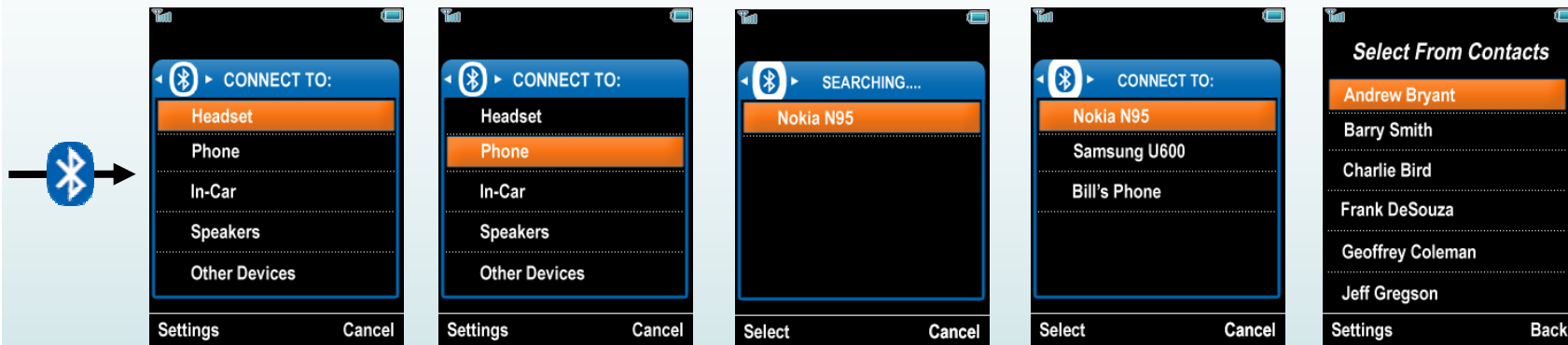
Bluetooth One finally makes exchanging contact details as easy as it was promised by the industry years ago.

Pressing the Bluetooth One key automatically turns on Bluetooth and asks the user to whom he wants to transfer the contact details.

The user can simply exchange contact details quickly, without keeping his business associate waiting.

After the contact is transferred, Bluetooth is turned off and the user is returned back to where he was in the contacts list.

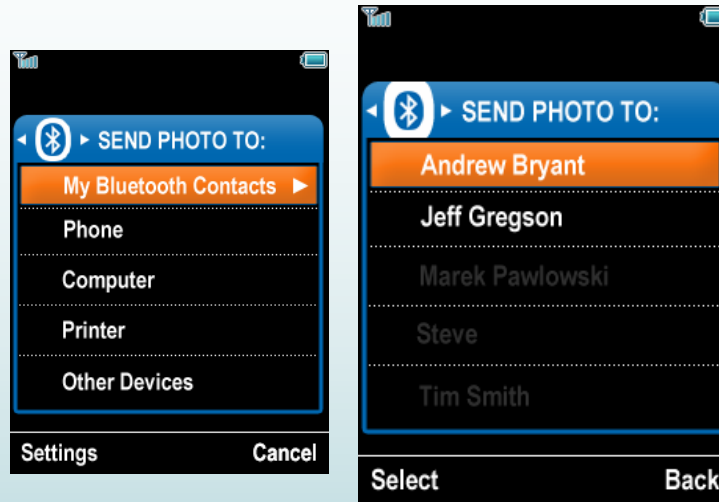
# Connect to a friend, not a model number



Bluetooth One also allows the user to associate a paired handset directly to a contact in the phone's address book, providing the user with a highly relevant label. Bluetooth One simply associates the paired device's underlying Bluetooth device address with a contact in the phone book.

Connecting to "Andrew Bryant" in the future is a much more meaningful to the user than trying to remember the obscure model number of a friend's phone, such as "Samsung SGH-U600" or "Nokia N95".

# Connect to a friend, not a model number

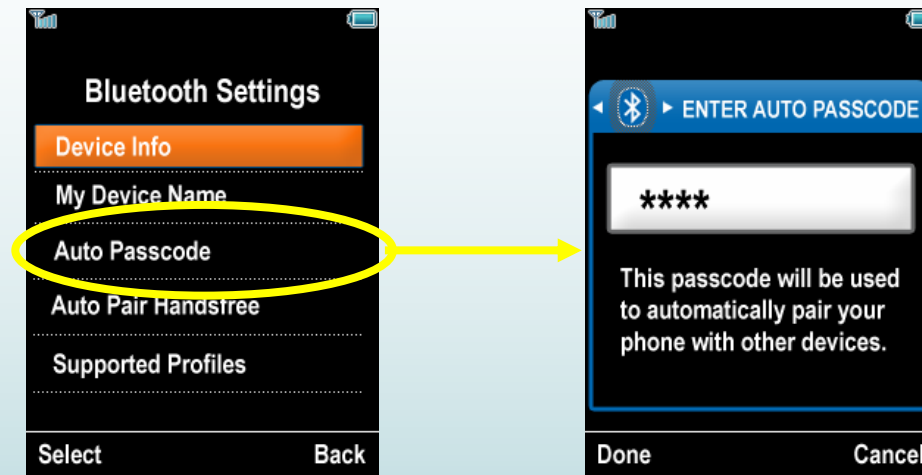


Once a paired handset has been directly associated with the select contact, the handset appears under the “My Bluetooth Contacts” in the Bluetooth One panel. The user is

The names of contacts whose devices have Bluetooth on and visible are displayed at the top of the list.

The names of contacts whose devices do not have Bluetooth on or not visible are presented in greyed out text, providing the user with indication to ask his friend to turn on Bluetooth.

# Auto Passcode Setting

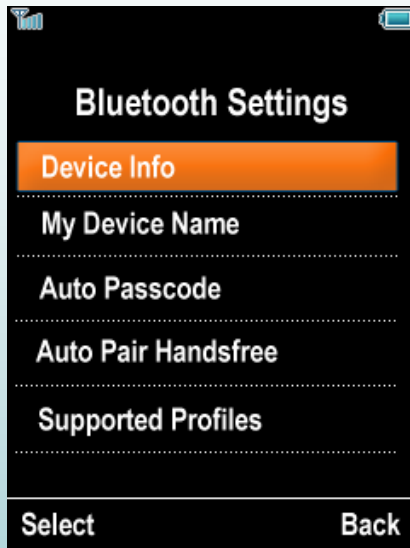


From Bluetooth One's settings menu, the user is able to enable the auto passcode feature.

Bluetooth One's auto passcode setting immediately eliminates this confusing and tedious step, while providing the user full control about their default passcode.

This user-defined passcode will be automatically used in the future, eliminating the need for the user to enter the passcode.

# Bluetooth One Settings

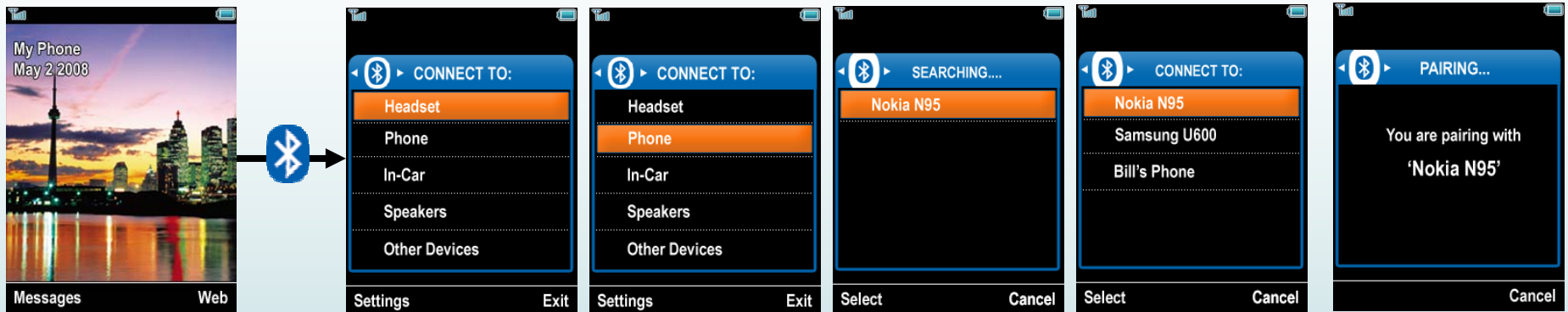


**Device Info** displays the standard Bluetooth details that an initiator device can pick up from a visible acceptor device:

- DeviceName;
- Device Type/ Class;
- Status (Paired / Not Paired);
- Security (Always Ask / Always Allow);
- Device Address;
- Paired Date; and
- Last Connection.

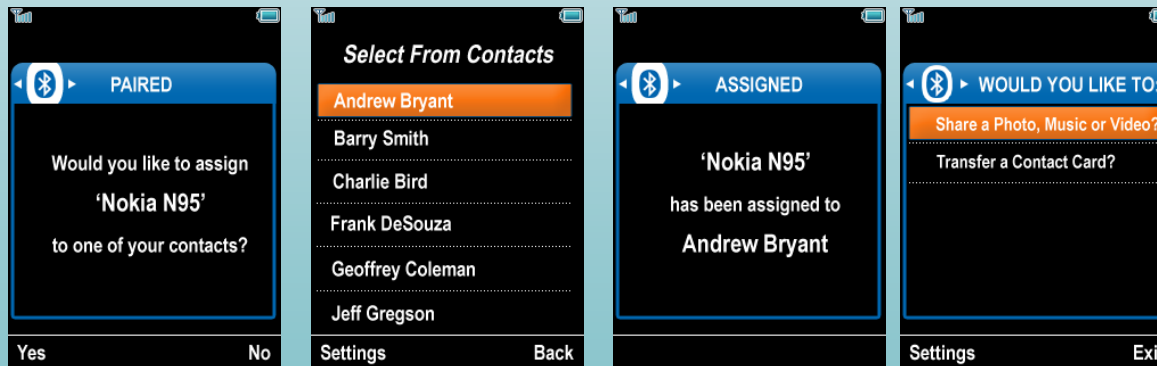
- **My Device Name** allows the user to change the device name attribute of his device
- **Auto Pair Handsfree (On/ Off)**: If this setting is turned off, all headsets are automatically paired
- **Supported Profiles** lists of all the Bluetooth profiles that the handset supports, along with the brief description in layman's terms.

# The complete flow...



Handsets that are associated with contacts will have the contact name appear in the results list, not the acceptor device name.

With the Auto Passcode setting on, the initiator handset transmits the user-defined code to the acceptor device. The user lets the recipient now the passcode.



After the initiator and acceptor devices have been paired, Bluetooth One provides a contextually relevant next step.

If a headset is connected, the user is prompted with "Make a Call" (opens the dialer), "Listen to Music" (launches the music player), "Play a Game" (open games folder, etc).

If a printer is attached, the user would be asked "Print a Photo?"

Likewise, the user can exit the Bluetooth One panel using the softkey and access what he wants.

The user can only assign 'phone' device to a contact, as identified by device class.

After being paired, the user can exit at any time.



# Why is Bluetooth One such a great experience?

**No user connects via Bluetooth to another device for the sake of connecting.**

Bluetooth One provides a great Bluetooth experience because of one simple reason:

With the Bluetooth One key and its contextual user interface, Bluetooth One easily allows the user to connect, share and transfer and then get on with what they really want to do:

- Make a call hands-free, on the move or on the drive home,
- Enter a dial-up networking data session,
- Print a photo,
- Laugh with friends about a shared photo,
- Continue discussing business with a new acquaintance.

# The proposition for a handset manufacturer

The obstacle to getting Bluetooth One implemented will not be technical or design-based, but political.

Bluetooth One clearly needs to be integrated by a handset manufacturer to be effective.

Bluetooth One provide them the opportunity to deliver a great user experience in an area that has long be a cause for frustration in many users.

Bluetooth One is a significant differentiator, especially for a handset manufacturer with a large Bluetooth accessories business.

# Thank you.

(for questions, please e-mail Markus at  
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