eCal™

Wireless Access Client 1.3 – Product Overview

CONTENTS

1 - Overview

eCal has recently developed and deployed applications to provide convenient and intuitive access to calendar, task, and contact information via the latest and ever-growing list of wireless devices. These new applications are based on open wireless Internet standards, such as the Wireless Application Protocol (WAP), and were built with eCAPI (eCal's XML-based Application Programming Interface).

Since the arrival of Wireless Access Protocol (WAP) technology, increasingly more advanced applications have been made available to the mobile Internet in an effort to provide value-added services for mobile phone operators, mobile portals, and Internet service providers (ISPs).

In consideration of this growing requirement for advanced applications, eCal introduces the Wireless Access Client version 1.3, which provides improved access to its Internet Calendar platform.

This document offers an overview of features and functions available within the latest release of eCal Wireless Access Client. Additionally, the Wireless Access Client Features Comparison matrix located near the end of this document can be used to quickly identify the differences between Wireless Access Client versions 1.2 and 1.3.

Architecture

eCal licenses a software platform from ThinAirApps that provides support for multiple devices and different markup languages. The platform's extensible architecture provides eCal with the ability to support emerging wireless devices and protocols.

eCal developed a custom application "eCal Provider" which sits atop the ThinAir Server providing distributed, load-balanced access to the eCal API.

The PQA and WAP Connectors were jointly developed by eCal and ThinAir, and they serve the appropriate markup language to Internet-enabled devices.

For more information, please request from your eCal Sales Executive the white paper *eCal Service Data Center Architecture*.
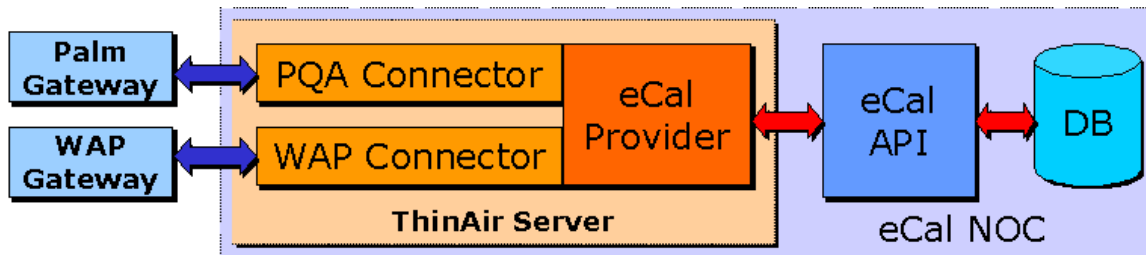
2 - Product Features

Core features

eCal's Wireless Access Client version 1.3 features the following application functionality:

- Calendar
    - Add, modify and delete events
    - Display Day, Week, and List views
    - Search Calendar
    - Move entries between calendars
    - Calendar Manager
- To Do List
    - Add, modify and delete tasks
    - Search tasks
- Contact List
    - Add, modify and delete contacts
    - Search contacts
- Message Center Support
    - View unread meetings and entries.
    - Accept/Decline Meetings

Login

Login requires the user to provide a user ID and a password to access the client application. This information is the same as the user ID and password used on the Web Calendar.

Where possible, integration with the customer WAP portal can be achieved during the implementation process.

Client Branding

Custom brand names can be specified for page and menu titles throughout the application.

Additional branding of the main menu screen is available through the use of optional custom links for:

- **Exit URL** - Customer-defined link that enables the main page to be customized with a link back to the customer site

- **Help** - Customer-defined link that enables the customer to access a custom WML page to act as help for the service

Wireless Application Protocol (WAP) Support

In the development of the Wireless application, special consideration has been made for the target devices. The application supports Internet-enabled phones with WML 1.1-compliant WAP browsers, and was designed to handle caching of information in order to minimize WAP browser overloading. Additionally, special consideration in the WML application has been taken for the following devices:

- Nokia

- Phone.com

- Ericsson

- Generic WML

3 - WML Calendar Screenshots

The following screen shots, captured from the Nokia version 2.0 simulator, depict the current Wireless Access Client 1.3. These screenshots are subject to change, but reflect the current functionality of the eCal Wireless client.

Note: The fictitious company name "beCom" is used in the screenshots to illustrate how branding may appear on various pages within the application.

1 - Main Menu

Fig. 1.0.1
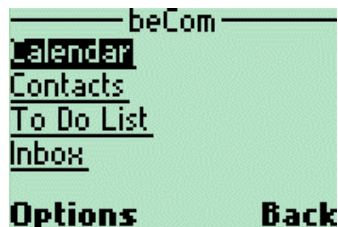
Fig. 1.0.1 shows the top-level menu. This menu provides access to the user's personal calendar, contact list, and task list.

Link	Description
Calendar	Selecting this link accesses the Calendar screens (described in more detail in Section 2).
Contacts	Selecting this link accesses the Contacts screens (described in more detail in Section 3).
To Do List	Selecting this link accesses the Task List screens (described in more detail in Section 4).
Inbox	Selecting this link accesses the Inbox screens

(described in more detail in Section 5).

1.1   - Branded Links

Fig. 1.1.1

```
————beCom————
To Do List
Inbox
beCom Home
Help

Options        Back
```
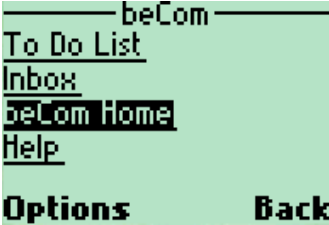
On this screen, **beCom Home** is an example of an Exit URL, one of the optional branded links. This menu item can be configured to link to a customer-defined URL referencing a customer-controlled WML page.

This menu item is typically used to return to the home page of a mobile device portal.

Fig. 1.1.2

```
————beCom————
To Do List
Inbox
beCom Home
Help

Options        Back
```
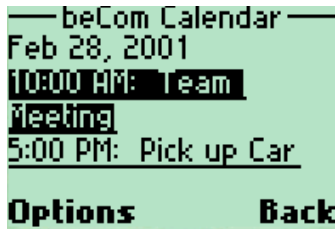
The Help link can be configured to display specific contact details for the customer site. The name and destination of the link is controlled by the customer.

2 - Calendar Option

When the Calendar link is selected, the user is taken to the current day's Day View, shown in Fig. 2.0.1.
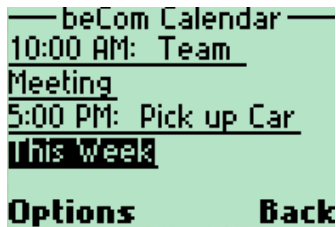
Fig. 2.0.1

```
──beCom Calendar──
Feb 28, 2001
10:00 AM: Team
Meeting
5:00 PM: Pick up Car

Options      Back
```

This screen displays the day's events and provides links to access the View/Search options for the Calendar and the ability to add a new entry for the current day.

- The Day View displays the user's events for the specified day in chronological order.

- The number of events displayed per page is limited to avoid overloading the browser's cache.

- A "More" option will display the next set of the day's events, if available.

- Each event is a link. The details of individual events can be displayed by selecting the associated event link. An example of the event details is shown in Fig. 2.1.1 in section 2.1 below.

Fig. 2.0.2

```
──beCom Calendar──
10:00 AM: Team
Meeting
5:00 PM: Pick up Car
This Week

Options      Back
```
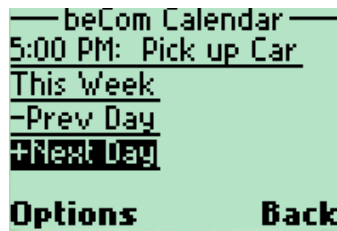
Link	Description
This Week	Enables the end user to display a summary of the week's entries in the context of current day view. An example of the displayed data is shown in Fig. 2.3.1.

Fig. 2.0.3   *Fig. 2.0.4*

```
——beCom Calendar——
5:00 PM:  Pick up Car
This Week
-Prev Day
+Next Day

Options          Back
```
```
——beCom Calendar——
5:00 PM:  Pick up Car
This Week
-Prev Day
+Next Day

Options          Back
```

Link	Description
Prev Day	Navigates to the day preceding current date
Next Day	Navigates to the day following current date

Fig. 2.0.5

```
——beCom Calendar——
This Week
-Prev Day
+Next Day
Go To..

Options          Back
```

Link	Description
Go To	Enables a user to navigate to a defined date and to display the day view for that date.

Fig. 2.0.6

```
——beCom Calendar——
-Prev Day
+Next Day
Go To..
Search..

Options          Back
```
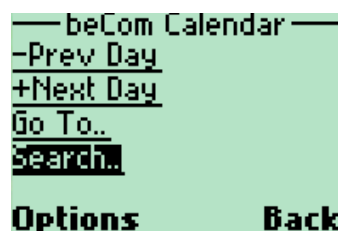
Link	Description
Search	Enables a user to search the calendar based on the entry's subject.

Fig. 2.0.7   *Fig. 2.0.8*

```
——beCom Calendar——
+Next Day
Go To..
Search..
Add Entry

Options          Back
```

```
——beCom Calendar——
Go To..
Search..
Add Entry
Other Calendars..

Options          Back
```
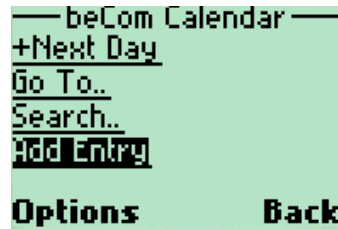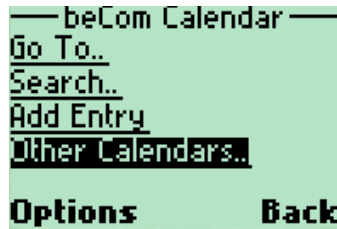
Link	Description
Add Entry	Enables a user to add an entry to the current day.
Other Calendars	Displays the Other Calendars Screen to manage Main Calendar View (section 2.10)

2.1 - Event Details View

The details for the event can be viewed from the Event Details screen. As shown in Figures 2.1.1, 2.1.2, and 2.1.3, the page can be scrolled down to display the remaining details and navigation links.

Fig. 2.1.1   *Fig. 2.1.2*

```
——beCom Calendar——
Team Meeting
Folder: PUBLIC
Date: Feb 28, 2001
Time: 10:00 AM

Options          Back
```

```
——beCom Calendar——
Time: 10:00 AM
Duration:1 Hours
Notes: Discuss
Objectives

Options          Back
```

Fig. 2.1.3

```
——beCom Calendar——
Update..
Delete
Reminders..
Move..

Options          Back
```
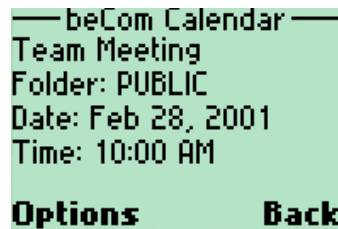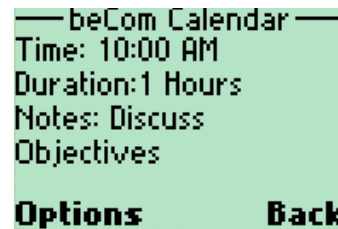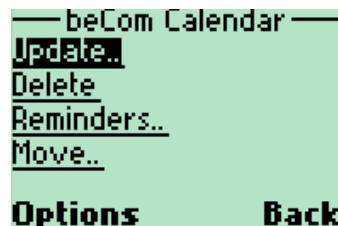
Link	Description
Update	Enables a user to update calendar entry details

Delete	Deletes this entry from calendar
Reminders	Sets reminders for this entry (see 2.2)
Move	Moves this calendar entry to another calendar owned by the user. (see 2.3)

2.2 – Reminders

The Reminders option allows calendar owners to schedule reminders for entries from the Calendar entry details screen.

For convenience, default notification settings are used for each reminder type, implying that the Calendar owner presets these, either at registration time or at some other point.

- The calendar implementation must be branded to use SMS

- The user's SMS number must be valid

Fig. 2.2.1

```
── beCom Calendar ──
Update..
Delete
Reminders..
Move..

Options        Back
```

Fig. 2.2.2

```
────── Reminders──────
Notification type:
[Default SMS]

Lead time units:

Options        Back
```

Fig. 2.2.3

```
Default SMS
Default Email



Select        Back
```

Fig. 2.2.4

```
────── Reminders──────
Lead time units:
[Mins]

Lead time:

Options        Back
```

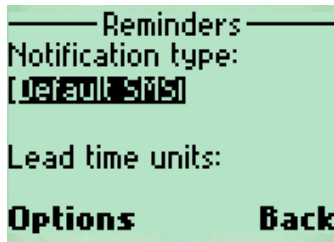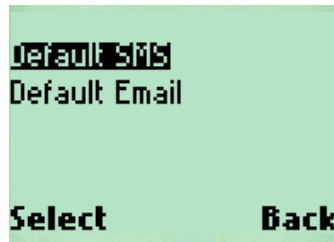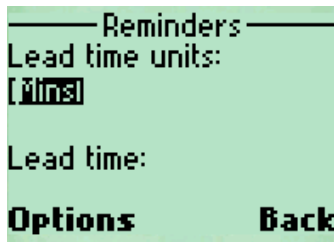## 2.3 - Move Calendar Entries Feature

The Move Calendar Entries feature enables Calendar owners to use the Calendar entry detail screen to move entries from one calendar to another. The Calendar could then be shared with other users, or made accessible only to the Calendar owner.

Fig. 2.3.1

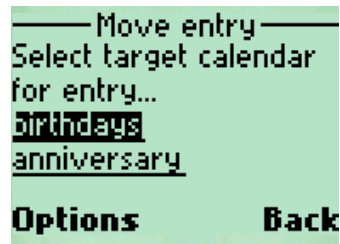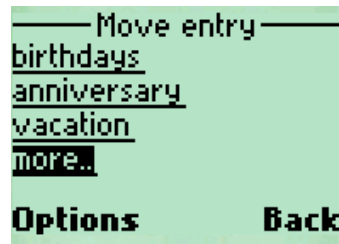*Fig 2.3.2*

Fig. 2.3.3

Fig 2.3.4

2.4 - Week View

The Week view displays the starting date of the week at the top of the page, and a list of seven links—one for each day of the week. The number of entries (or events scheduled) is displayed for each day.

Selecting an individual day link will display the Day view for that day. As shown in Figures 2.4.1, 2.4.2, and 2.4.3, the page can be scrolled down to display the rest of the Week view and the navigation links.

Fig. 2.4.1   *Fig 2.4.2*

```
——beCom Calendar——        ——beCom Calendar——
Week of Feb 25, 2001      Wed 28: 2 Entries
Sun 25: No Entries        Thu  1: 1 Entry
Mon 26: 1 Entry           Fri  2: No Entries
Tue 27: 1 Entry           Sat  3: No Entries

Options        Back       Options        Back
```

Fig 2.4.3   *Fig 2.4.4*

```
——beCom Calendar——        ——beCom Calendar——
-Prev Week                +Next Week
+Next Week                Go To..
Go To..                   Search..
Search..                  Other Calendars..

Options        Back       Options        Back
```
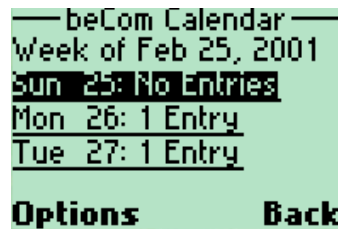
Link	Description
Prev Week	Navigates to week preceding current week
Next Week	Navigates to week following current week
Go To	Navigates to a defined date, and display the day view for that date (section 2.6)
Search	Searches the calendar based on the entry's subject (section 2.5)
Other Calendars	Displays the Other Calendars Screen to manage Main Calendar View (section 2.10)

Details of a day's events are displayed as a summary of the number of entries for the day. This enables a user to get a quick view of what is happening on any given day and to navigate to that day by selecting the link.

On selecting the link for the day, the Day view for the date is presented to the user.

2.5 - Search

From the Day view (Fig. 2.0.6), an end user can search a calendar for occurrences of a string in the subject field of the entry.

The **Search Type** determines whether the search is done for the Week, Month, Year or Whole Calendar.
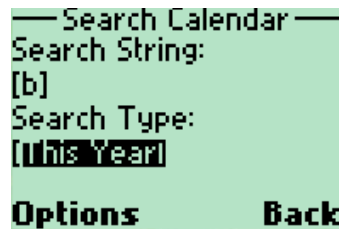
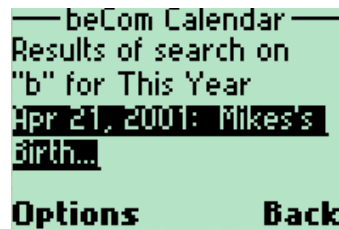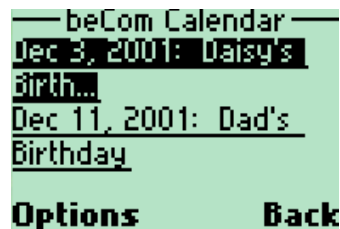*Fig. 2.5.1*   *Fig. 2.5.2*

Fig. 2.5.3

From the links displayed in the result, the end user is able to go to the Details view for the entry, as per Fig. 2.1.1.

2.6 - Go To

From the Day View (Fig 2.0.3) screen, an end user can navigate ("go to") a specified date in the Calendar. The desired target date is entered on a sequence of data entry pages. If a valid date is entered, the result is a Day view of the requested date.

Fig. 2.6.1

```
——beCom Calendar——
Go To date:
Day (1-31):
[24]
Month (1-12):

Options        Back
```

Fig. 2.6.2

```
——beCom Calendar——
Month (1-12):
[12]
Year :
[2001]

Options        Back
```

Fig. 2.6.3

```
——beCom Calendar——
Dec 24, 2001
There are no Events
for this day.
This Week

Options        Back
```

Fig. 2.6.4
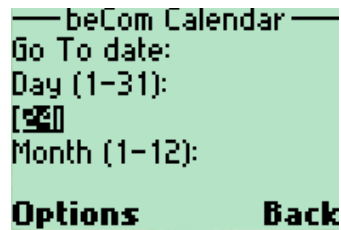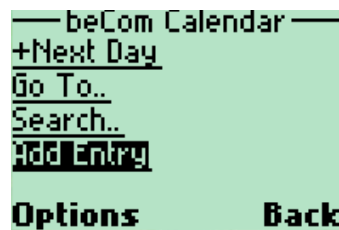
```
——beCom Calendar——
+Next Day
Go To..
Search..
Add Entry

Options        Back
```

This will display the Day view of the date specified with links as detailed in Figures 2.0.1 to 2.0.7. From the Day View screen (Fig. 2.0.7), a new entry can be added for that day as described in the next section.

2.7 - Add Entry

On selecting the Add Entry link from a Day view, the user is presented with a sequence of screens requesting data about the entry to be added for that day.

The required Title will be the first field requested. All other fields are optional.

Fig. 2.7.1   *Fig. 2.7.2*

```
————— Add Entry —————        ——————— Details ———————
Title:                       Start (HHMM):
[buy gift]                   [0900]
                             Select AM/PM:
                             [AM]

Options          Back        Options          Back
```

Fig. 2.7.3

```
————————— Details —————————
Duration Units:
[Hours]
Duration (ho):
[8]

Options          Back
```

When the user has completed entering the data for the entry and submits the request, a confirmation screen displays confirming the user details.

Fig. 2.7.4   *Fig. 2.7.5*

```
——— beCom Calendar ———        ——— beCom Calendar ———
Confirm Entry                Duration: 8 Hours
Date:  Dec 24, 2001
Title: buy gift              Back
Time:  9:00 AM               Cancel

Options          Back        Options          Back
```

If the request is submitted, the data will be entered into the user's calendar

Link	Description
Back	Navigates back to the beginning of this form
Cancel	Cancels the adding of the entry

After the entry is added, the Day view for the date of the new entry is displayed.
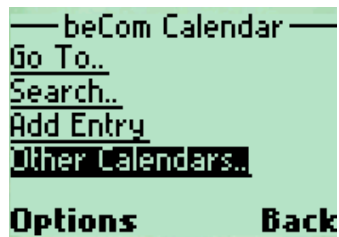
Fig 2.7.6

2.8 - Overlay Calendar Support Feature

The **Other Calendars** link is present on all Day and Week view screens. This link gives the user access to screens that enable Calendars to be:

- added or removed from the main Calendar view.

- administered.

These Calendars are called "Overlay Calendars".

Fig 2.8.1

2.9 – Add/Remove Calendar

The Add/Remove Calendar screens give the user access to links that enable Calendars to be added or removed from the main Calendar view. The links enable the user to display additional calendars on the Main Calendar view. Users can add or remove Calendars they own or Calendars shared with them by other users, from the main view.

Fig 2.9.1   *Fig 2.9.2*

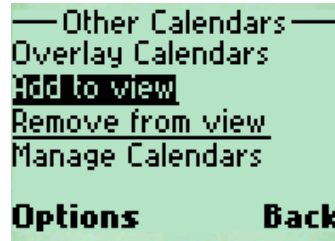| Link	Description
Add to View	Adds a Calendar to the Main Calendar view.

With both options, the application requires the user to select the Calendar to Add or Remove from a list of Calendars accessible by the Calendar owner.
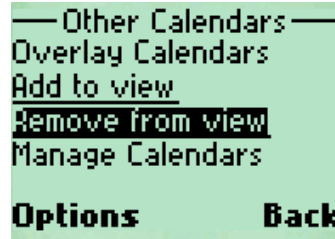
Fig 2.9.3   *Fig 2.9.4*

Link	Description
Remove from View	Remove a Calendar from the Main Calendar view.

2.10 - Manage Calendar Access Feature

The Manage Calendar Access feature allows Calendar owners to manage access rights to Calendars via the Other Calendars screen.

Calendar owners have the ability to grant Calendar access, or deny Calendar access to other users.

The **Remove access** Option displays the calendars owned by the end user. On selecting the Calendar to administer, a list of users with access to that calendar is displayed, which can then be used to remove user access from the selected Calendar.

Fig 2.10.1
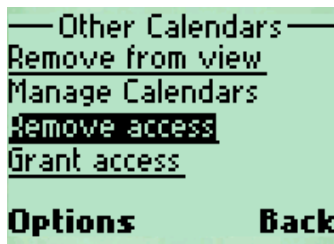
Link	Description
Remove access	Display the screens to Deny user access to Calendars
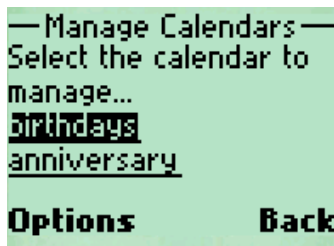
Fig 2.10.2   *Fig 2.10.3*

When accessing the **Grant access** option, the user is prompted to enter the user's email address to whom access to the calendar should be granted.

Fig 2.10.4

```
——Other Calendars——
Remove from view
Manage Calendars
Remove access
Grant access

Options        Back
```
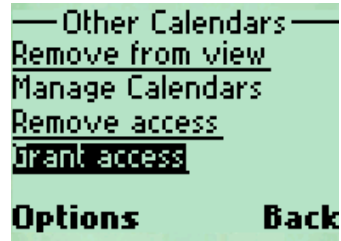
Link	Description
Grant access	Display the screens to Grant user access to Calendars

Fig 2.10.5   *Fig 2.10.6*

```
—Manage Calendars—        —Manage Calendars—
Select the calendar to    Enter the emailid of the
manage...                  user you wish to grant
birthdays                  access to birthdays:
anniversary                Email:

Options        Back        Options        Back
```
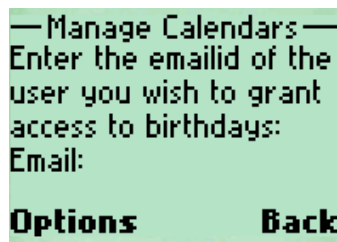
3 - Contacts

From the Main Menu (Fig 1.1) screen, a   user can access Contact information stored in the eCal address book.

Fig 3.0.1

```
──beCom Contacts──
Find Contact
Add Contact



Options        Back
```

Link	Description
Find Contact	Finds a contact in the address book. Selecting this link accesses the screens described in 3.1.
Add Contact	Create a new contact. Selecting this link accesses the screens described in 3.2.

3.1 - Find Contact

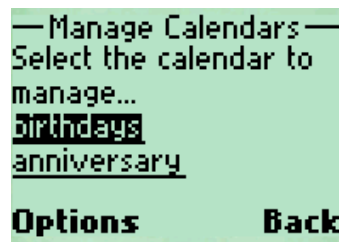The Find Contact option enables the end user to perform a search using one or more characters of a name. The results of the query are displayed as a list of links to additional contact information.

A telephone call, using Wireless Telephony API, can be made from devices that support this feature, by selecting the telephone number.

Fig 3.1.1   *Fig 3.1.2*

```
──beCom Contacts──        ──beCom Contacts──
Find Contact              Daisy Steiner
Last Name:               Company: Spaced
[S]                       Publications
                          Work Phone :

Options        Back      Options        Back
```

Fig 3.1.3   _Fig 3.1.4_

```
——beCom Contacts——
Work Phone :
020888100022
Email :
dsteiner@mail.com

Options          Back
```

```
——beCom Contacts——
N1
GB
Update..
Delete

Options          Back
```

Link	Description
Update	Updates calendar entry details, enables update of time, date and event title.
Delete	Deletes the current contact

3.2 - Add Contact

On selecting the Add Contact link, the end user is presented with a sequence of screens requesting data about the contact to add.

The required Name is requested first. All other fields are optional.

Fig 3.2.1   _Fig 3.2.2_

```
——Add Contact——
Name:
[john doe]

Options          Back
```

```
——Details——
john doe
Work Phone:
[12155744988]
Home Phone:

Options          Back
```

Fig 3.2.3

```
——Details——
Mobile Phone:
[...]
Email:
[d@xyz.com]

Options          Back
```

When the user has completed entering the data for the contact and submits the request, a confirmation screen will be displayed to confirm the user details.

Fig 3.2.4　　　　　　　　　　　　*Fig 3.2.5*

```
———Confirm Entry———
Name: john doe
Work Number:
12155744988
Email: jd@xyz.com


Options        Back
```

```
———Confirm Entry———
Email: jd@xyz.com


Back
Cancel


Options        Back
```

If the request is submitted, the data will be entered into the user's calendar.

Link	Description
Cancel	Cancels the adding of the entry
Back	Navigates back to the beginning of this form

3.3 - Compose and Send Email Feature

Calendar owners can use the Contact Details screen to compose and send email messages to the contacts being viewed.

Contacts with valid email addresses will display the email addresses as links. Calendar users can then select the email address links in order to display the Compose Message screen and send email messages. (See the screenshots below for an illustration).

Fig 3.3.1　　　　　　　　　　　　*Fig 3.3.1*

```
———beCom Contacts———
Work Phone :
02088810022
Email :
dsteiner@mail.com


Options        Back
```

```
———Send message———
Enter message:
[■]



Options        Back
```

4 - To Do List

From the list of tasks in the To Do List, the end user can drill down into the Task Details to view more info and the tasks' s current status.
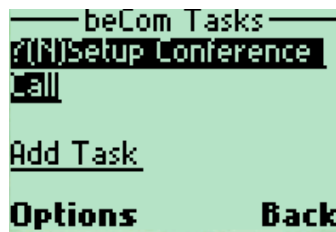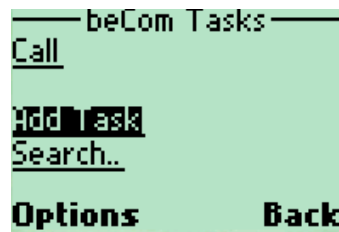
Fig 4.0.1   *Fig 4.0.2*

Link	Description
Add Task	Creates a new task. Selecting this link accesses the screens described in section 4.2.
Search	Searches for a task based on the task title. Selecting this link accesses the screens described in section 4.3.

4.1 - Task Details

From the list of Tasks, the user may select a task in order to view the details screen. This screen allows the end user to view a summary of the selected task.

Fig 4.1.1   *Fig 4.1.2*

Link	Description
Update	Updates current task. Allows for the update of Title, date or Priority of task
Delete	Deletes the current task
Mark Complete	Updates the current task, to denote that it is complete

4.2 - Add Task

On selecting the Add Task link, the end user is presented with a sequence of screens requesting data about the task to add.

The required Title will be requested first. All other fields—except the priority, which will default to medium—will be optional.

Fig 4.2.1   *Fig 4.2.2*

```
————— Add Task —————        ————— Details —————
Title:                       Priority:
[cancel sub]                 [high]
                             Due Date:
                             [Sep]

Options          Back        Options          Back
```

Fig 4.2.3

```
————— Details —————
Day (DD):
[13]
Year (YYYY):
[2000]

Options          Back
```

When the user has completed entering the data for the task and submits the request, a confirmation screen displays confirming the user details.

Fig 4.2.4   *Fig 4.2.5*

```
———— To Do List ————        ———— To Do List ————
Confirm Entry                Priority: HIGH
Title: cancel sub            Due Date: 13 Sep 2000
Priority: HIGH               Back
Due Date: 13 Sep 2000        Cancel

Options          Back        Options          Back
```

If the request is submitted the data will be entered into the end user's calendar.

Link	Description
Cancel	Cancels the adding of the entry
Back	Navigates back to the beginning of this form

4.3 - Search Tasks

The Search option detailed in Fig. 4.3 enables the end user to search for a task based on the task title.

Fig 4.3.1   *Fig 4.3.2*

```
——Search Tasks——        —Task Search result—
Search String:            ø(N)cancel subs
[sub]
                          Add Task
                          Search..

Options          Back     Options          Back
```
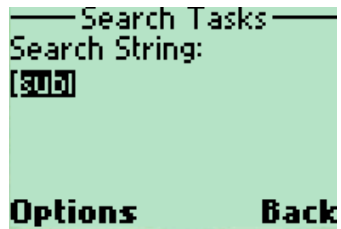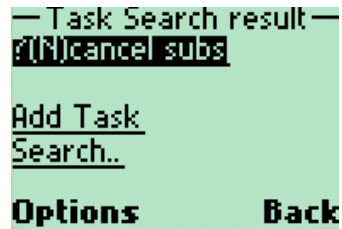
5 - Inbox

An Inbox option is available on the Main Menu screen.

The Inbox displays all Calendar entries (typically meetings and shared tasks) not yet viewed by the Calendar user.
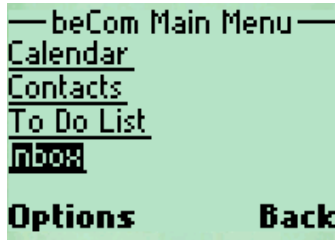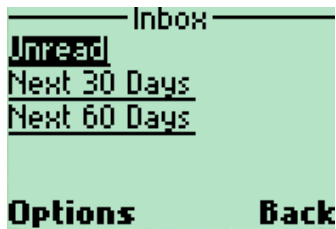
Fig 5.0.1

Fig 5.0.2

Link	Description
Unread	Displays all unread entries in the calendar
Next 30 days	Displays all unread entries in the calendar for 30 days from current date
Next 30 days	Displays all unread entries in the calendar for 60 days from current date

Fig 5.0.3

The unread entries are displayed as a list of links.

Users can view the details of the calendar entries, accept or decline meetings, and review new tasks from these screens.

5.1 - Accept / Decline Meetings Feature

When viewing the Calendar Details screen, accept/decline links will display if the Calendar entry is a meeting invitation that requires a response (RSVP).

Calendar users can also view a list of meeting invitees from the Calendar Details screen, using the **Invitees** link.
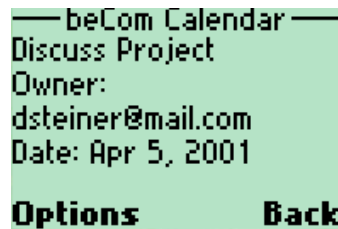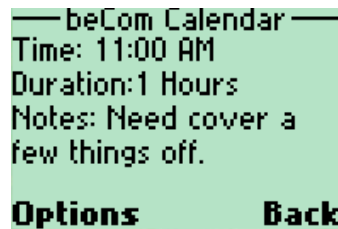
Fig 5.1.1

```
——beCom Calendar——
Discuss Project
Owner:
dsteiner@mail.com
Date: Apr 5, 2001

Options        Back
```
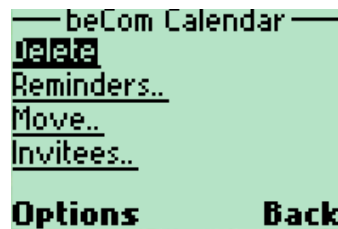
Fig 5.1.2

```
——beCom Calendar——
Time: 11:00 AM
Duration:1 Hours
Notes: Need cover a
few things off.

Options        Back
```

Fig 5.1.3

```
——beCom Calendar——
Delete
Reminders..
Move..
Invitees..

Options        Back
```

Fig 5.1.4

```
——beCom Calendar——
Move..
Invitees..
Accept..
Decline..

Options        Back
```
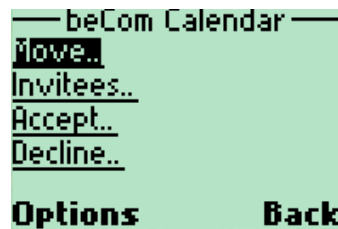
Link	Description
Delete	Deletes this entry from calendar
Reminders	Sets reminders for this entry (see 2.2)
Move	Moves this calendar entry to another calendar owned by the user. (see 2.3)
Invitees	Displays people invited to the meeting
Accept	Displayed only for Meetings with RSVP set. Allows end user to accept the meeting.
Decline	Displayed only for Meetings with RSVP set. Allows end user to decline the meeting.

Wireless Access Client Version 1.3 Language Support

Like eCal Service, the WAC is fully internationalized so that it can be efficiently localized for both European and Asian languages. Localized interfaces can then be branded for individual customers.

In addition to localization of text strings, dates and times in the calendar are formatted in a locale-sensitive manner, while the starting day of the week and the display of week numbers can be configured through a user preference.

As of March 1, 2001, the WAC is localized in seven languages:

- English (UK)
- English (US)
- Finnish
- French
- Italian
- German
- Spanish

Summary

Through wireless access to the eCal calendar platform, eCal provides wireless access through a full-featured WAP client to enable scheduling and collaboration on the move.

Moving forward, eCal has adopted an architecture that can easily evolve to handle new devices and technologies, as and when they become available.

For our customer, the solutions provider, there is clear value in providing applications for wireless network-connected devices of all kinds. Since our systems are designed for a scale of millions of users, we operate at a significantly lower cost of ownership than traditional departmental and enterprise solutions

For the end-users served by our customers, there are simple benefits in that eCal finally delivers the promised benefits of the mobile Internet—address book, calendar, task management—*Virtually Everywhere*.

Wireless Access Client Features Comparison Matrix

The matrix below represents a feature and functionality comparison between the 1.2 and 1.3 versions of the Wireless Access Client. (☒ **- Not included in this version;** ☑ **- Included in this version**)

Table 1

Feature	1.2	1.3
Calendar Features		
1. Add entry	☑	☑
2. Delete entry	☑	☑
3. Modify entry	☒	☑
4. Set email notification	☒	☑
5. Set text messaging notification	☒	☑
6. Move entry to another calendar	☒	☑
7. Search Calendar	☑	☑
Task Features		
8. Add task	☑	☑
9. Delete task	☑	☑
10. Modify task	☒	☑
11. Set Task Complete	☑	☑
12. Search Tasks	☑	☑
Contact Features		
13. Add contact	☑	☑
14. Delete contact	☑	☑
15. Modify contact	☒	☑
16. Dial contact phone number from Contact details screen using Wireless Telephony API	☑	☑
17. Compose and send email messages to a Contact's email address from Contact details	☒	☑
18. Search Contacts	☑	☑
Calendar Overlay Support		
19. Add Calendar to view	☒	☑
20. Remove Calendar from view	☒	☑
21. Grant access to a user for a Calendar	☒	☑
22. Deny access to a user for a Calendar	☒	☑
Message Center Support		
23. Display all entries not yet viewed	☒	☑
24. Accept invitation	☒	☑
25. Decline invitation	☒	☑
Language Support		
26. Support for multiple languages	☒	☑
Branding		
27. Branded hosted calendar client	☑	☑