

MoBitE Technologies Pvt. Ltd.

Pune

website: <http://www.mobite.co.in>

MUCC In Action

**MoBitE Unified
Communication
Central**

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MUCC

MoBitE Unified Communication Central

1. Introduction

MUCC is a converged platform, providing value added services over your regular telecom services. It provides you with a varied set of functionalities to improvise your telecom experience. It would give you a set of features to further specialize your way of operating your 3G enabled hand-helds.

1.1 The services

MUCC will provide you with a bunch of services like, Call Blocking, Call Forwarding, Voice mail, Ring Back Tone, Instant Messaging, Conference and Address Book.

1.1.1. Call Blocking

This service provides you with a capability to block any number or user from calling you. Calls from banks, loan factories, personal loan departments, credit card sections, and several such institutions keep bothering you to purchase their products and avail their services. You many a times know who would be calling you and for what, all you can do is let your phone simply ring or disconnect the call. A simpler and more convenient solution would be to just add these numbers or contacts to your blocking list and you will never receive a call from them.

1.1.2. Call Forwarding

Out of service, Unreachable, No network coverage, Battery discharged, and many more to go. There are endless reasons for you to get out of reach and utmost at the times when it is really crucial for you to be contacted. For any reason if you happen to get disconnected with the telephone service but not afford to miss any calls, you can have them forwarded to an alternate number. Call forwarding provides you the capability to be reachable in any a foreseen circumstances.

1.1.3. Voice mail

Its a facility most commonly adapted by all of us. We can have our callers leave a voice message if their call are unattended. Read voice messages, store them or have them deleted.

1.1.4. Ring Back Tone

Customize your caller tunes. Make different callers listen to different tones. One for office, one for home, another for friends and yet another for some one special. Record your own customized Ring Back Tone and use it.

1.1.5. Instant Messaging

You can use your SIP enabled hand held or a soft phone to chat with your friends, colleagues, family. Your chats get archived and you can search the same when needed.

1.1.6. Conference

You get an option to create **Dial-In** or **Dial-Out** conferences. **Dial- In** conference would be a standard conference where in users will dial in to the *conference-id* passed to them and would have to enter a *pass-code* to be authorized to join the conference. **Dial-out** would be a *predefined* and *pre-configured* conference. You will have to set all your rules, as in the time of conference, the number of participants, their contact addresses to place the call. Once you have furnished above mentioned details, when the system time meets the time specified, all the callers will get a call to join the conference. That is it would be an auto generated conference based on the rules you have defined.

1.1.7. Address Book

Customize your address book. Organize your groups and contacts. Assign the ring tones for them. Manage their contact details, add them to groups.

2. Pre-requisites

2.1 Registration

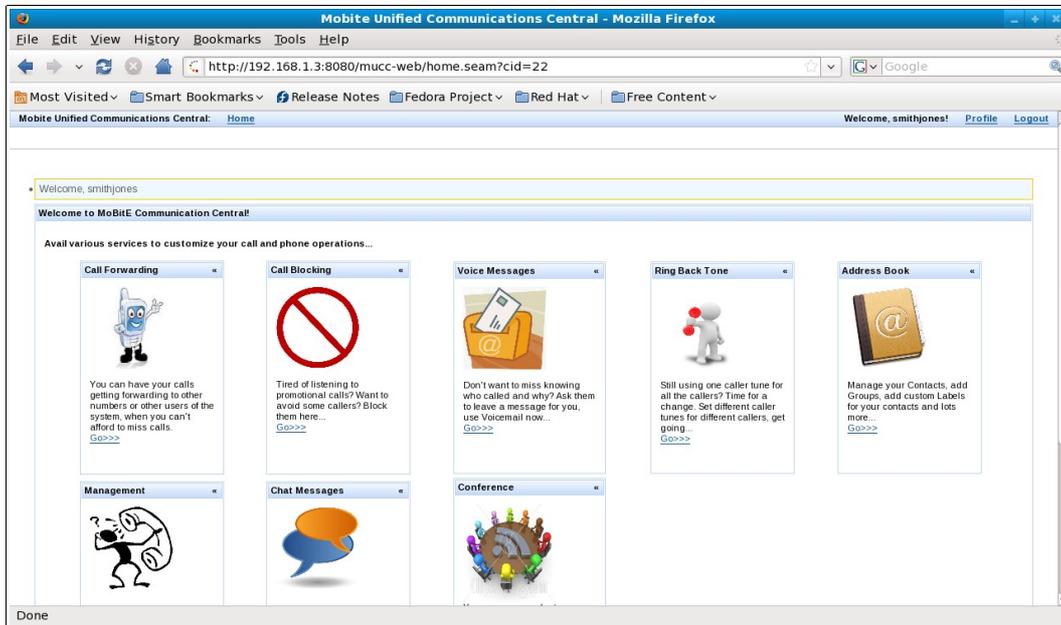
To get any service and to use MUCC you need to have a valid MUCC sip-id through the MUCC application. You will have to register yourself and get a userid and your Address of Record (AOR) generated.

The screenshot shows a web browser window titled "Mobite Unified Communications Central - Mozilla Firefox". The address bar shows the URL "http://192.168.1.3:8080/mucc-web/register.seam?cid=23". The browser's bookmark bar includes "Most Visited", "Smart Bookmarks", "Release Notes", "Fedora Project", "Red Hat", and "Free Content". The page content is a registration form with the following fields:

- Username: smithjones
- Password: [masked]
- Confirm Password: [masked]
- First Name: Smith
- Last Name: Jones
- Phone Address: sip.smithjones@mobite.co.ir
- Email Address: jonesmith
- Secret Question: [dropdown menu]
- Secret Answer: [text input]
- Voice Mail:
- Ring Back Tone:

At the bottom of the form is a "Register" button. A note at the bottom left of the form states "Fields marked * are mandatory". The footer of the page reads "MOBIE Technologies Pvt. Ltd." and the browser status bar shows "Done".

The userid will be your username by which you will get access to the system. The AOR generated would look like sip:username@mobite.co.in this will be your phone address to access all the services of MUCC. Once your username and AOR has been generated you can avail the services offered by the application.



On registration you would get following services by default:

- ✓ Call forwarding
- ✓ Call blocking
- ✓ Instant messaging
- ✓ Conference
- ✓ Address book

However to avail Voice mail and Ring Back Tone, you would be given an option during registration. If you miss it then, you can edit your profile to undo the same.

2.2 Sip enabled hand-helds / Soft phone

There are various sip-enabled soft phones which are available as free downloads. Some most commonly used are twinkle and x-lite there are a few paid sip-enabled phones like zoipper and xyz

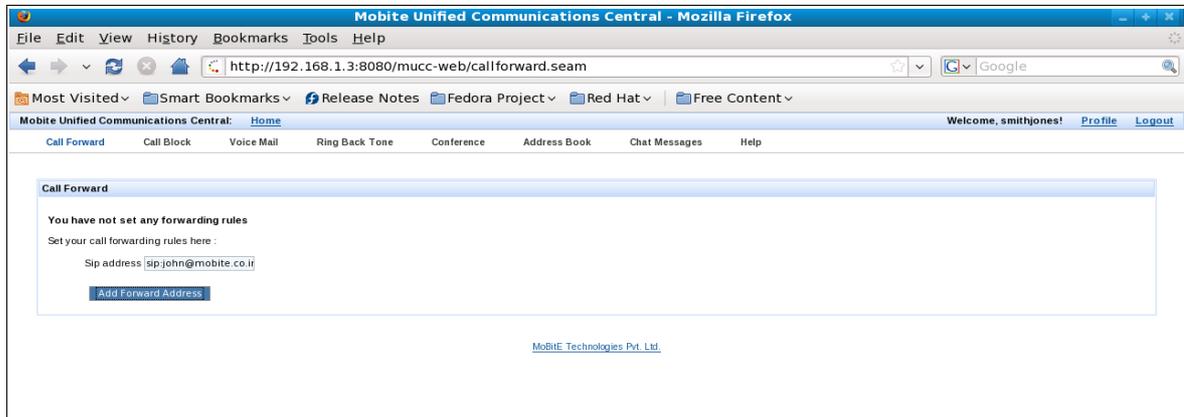
There are a few 3G phones in markets which are sip-enabled like Nokia has its n-series which is sip-enabled. There are others like Apple, HTC, etc who provide 3G hand helds that are sip-enabled devices. If you have one of these, you might as well use MUCC on your phone. It could have not been simpler than this.

3. Usage

3.1 Web Console

You can access MUCC online. Once you log with a valid user-name and password, you will be authenticated and authorized to use all of the above services.

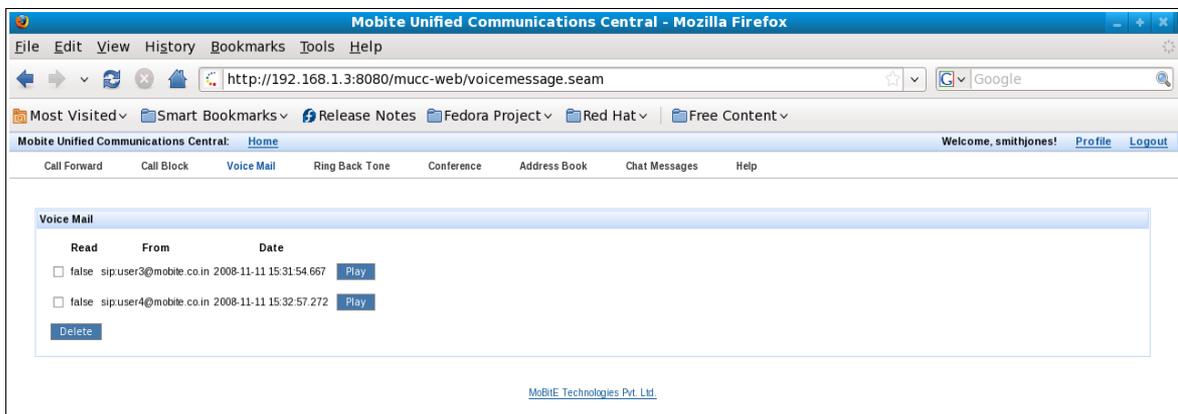
Call forwarding:



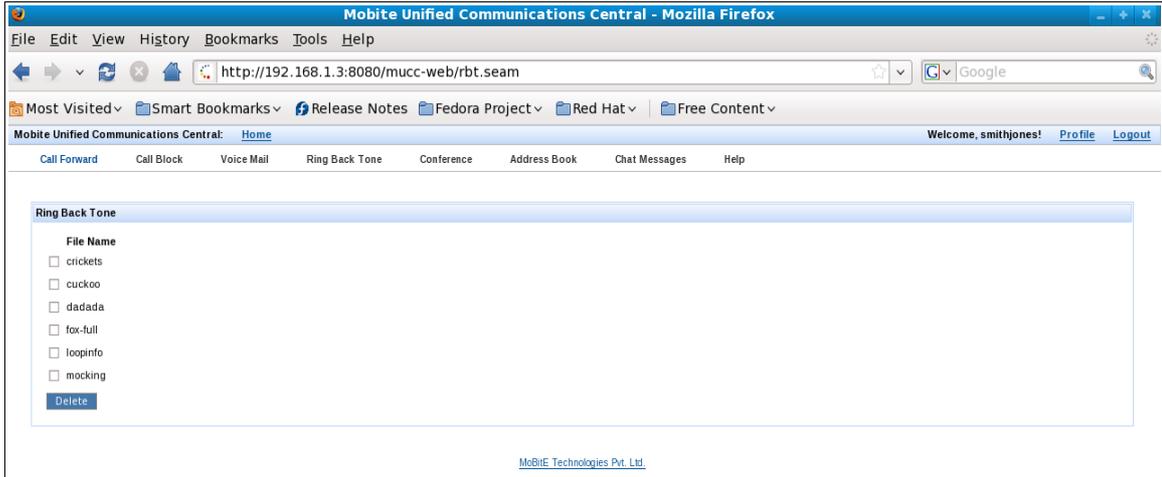
Call Blocking:



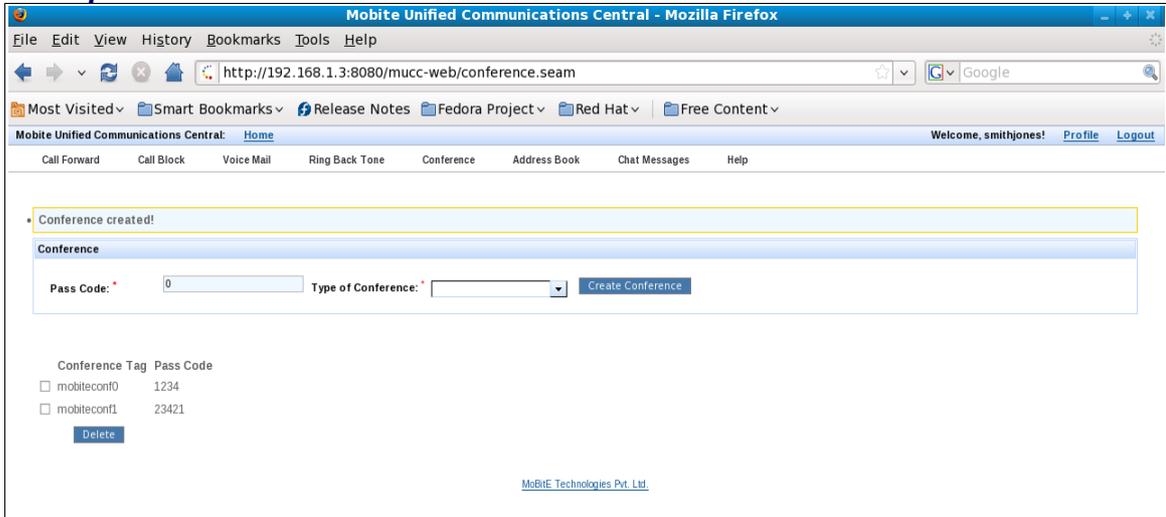
Voice mail:



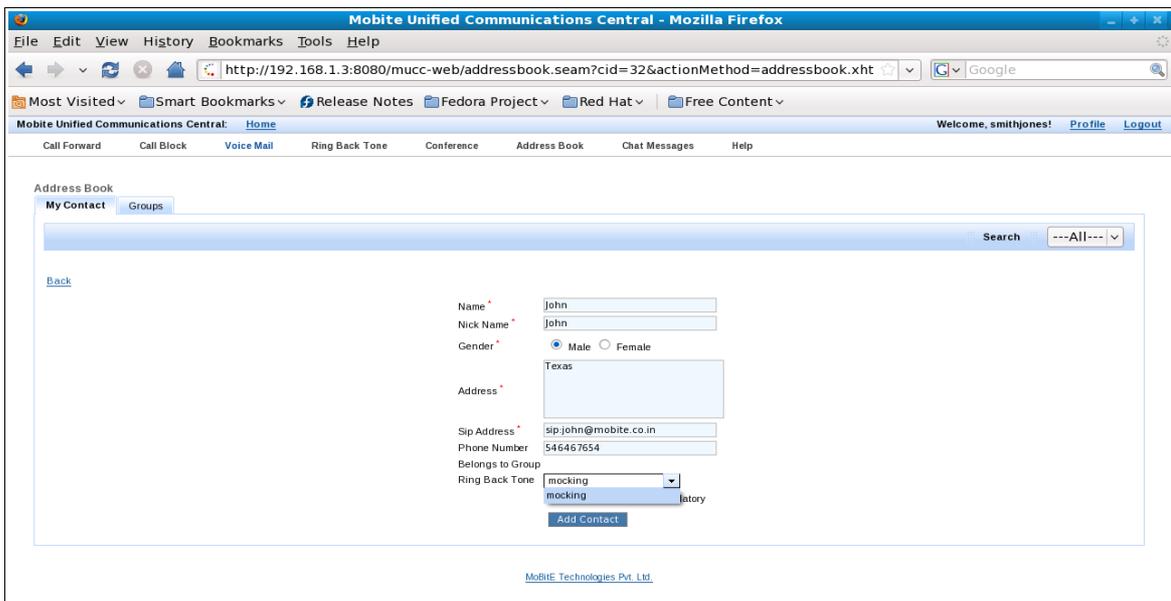
Ring Back Tone:



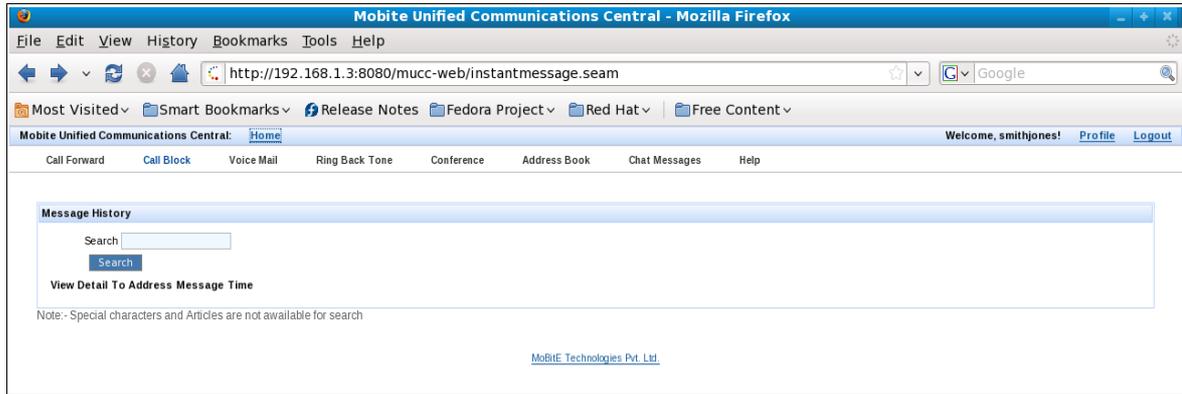
Conference:



Address Book:



Instant Messaging:



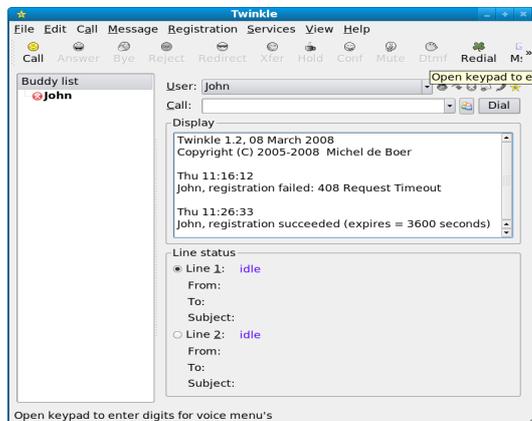
3.2 Using soft phones / Hand helds

If you have sip-enabled hand set then you can manage your account through it.

To set or delete your Call Blocking / Call Forwarding rules you can make a call to sip:management@mobite.co.in. You can even enable your voice mail and rbt service at the same address, and you can disable them if they are already set.

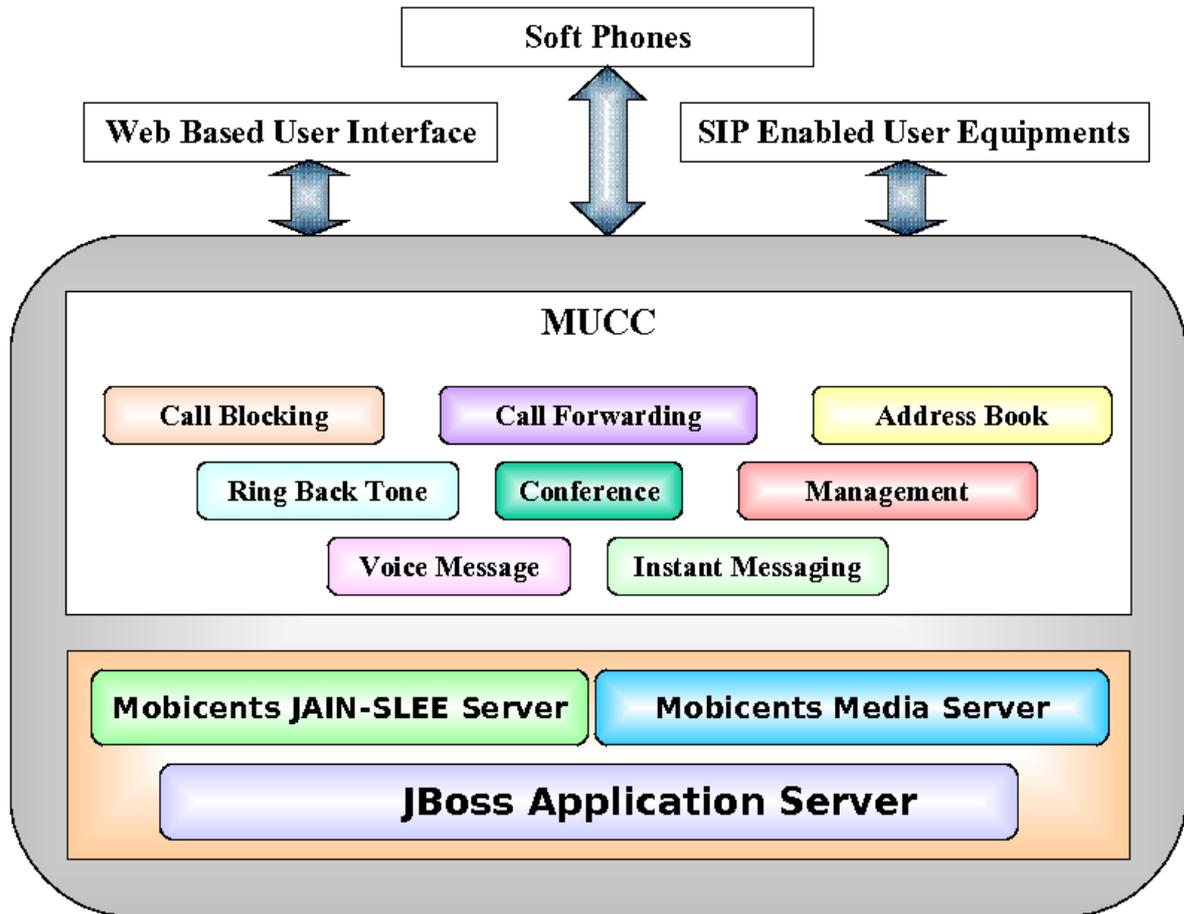
To listen to your voice messages and manage them, call on sip:vmail@mobite.co.in

To record your customized ring back tone dial sip:rbt@mobite.co.in



4. Architecture

4.1 Architecture



5. Technical Highlights

5.1 Technologies used

5.1.1. Jboss Seam :

It is a framework to develop next generation web applications. It integrates technologies like AJAX, EJB, JSF and BPM. It simplifies the development process, yet elegantly assembles complex web applications with the use of POJO in annotated format.

MUCC has been developed using Seam for the user interface and the session management of the application, it has been used to model, implement and optimize collaborations and user interactions.

5.1.2. Jboss Hibernate

It is a powerful, high performance object/relational persistence and query service. Hibernate lets you develop persistent classes following object-oriented idiom - including association, inheritance, polymorphism, composition, and collections. It further allows you to express queries in its own portable SQL extension (HQL – HyperSonic Query Language).

MUCC uses Hibernate as the interface to the database. It populates and maintains the data for MUCC.

5.1.3. Mobicents JAIN SLEE Server

Mobicents JAIN SLEE provides a highly-scalable event-driven application server with a robust component model and a fault-tolerant execution environment. It is the only open source platform which is JSLEE 1.1 compliant.

We have used the same, to abide to the JAIN-SLEE specifications for the execution environment. It enable the convergence of voice, video and data which is the most fundamental feature of MUCC.

5.1.4. Mobicents Media Server

It provides a complete set of media gateway functionality, to the best of quality. It meets the demand of all and any type of VoIP networks from a single media gateway platform.

It has been used to provide the needed convergence for the application to be a robust and achieve more sophisticated and natural user experience.

6. Future Enhancements

6.1 Adding other improved set of services

- ◆ **Click to call API:** Where user can, with a simple click of a link place a call to any number any where.
- ◆ **Implementing Java Mail API:** The user will get mails for various notifications for the services that he has availed. For eg: Mail to intimate receipt of a voice mail.
- ◆ **Conference recording:** The users will get option to specify if they want their conference to be recorded. If yes then they will have their conference getting recorded and archived.
- ◆ **Call recording:** Similarly c allers can record their calls too.

6.2 Implementing IMS specifications

Looking at the current market scenario, we at MoBitE find it extremely crucial to get adapted to the technology that will create a buzz in the years to come. It will be most fundamental and widely adapted base. We are looking forward to get MUCC under the belt of IMS.