



**GREY MATTER INDIA TECHNOLOGIES
PRIVATE LIMITED**

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CASE STUDY

**MOBILEPORTAL ENABLER WITH CONTENT
CREATION & DISTRIBUTION CAPABILITIES**

CLIENT REQUIREMENT

The client wanted a system that would act as a mobile content generation application as well as a mobile community portal enabler through its various modules. The system modules are designed with the aim of providing centralized wireless content generation through the desktop and enabling desktops to host mobile content by acting as a server. Individual modules would be devoted to the management of aspects of enabling a mobile portal such as monitoring the system and functioning as an umbrella for exclusive services like client services, wireless security and messaging services. All the above mentioned modules would be combined together to form major modules such as the Client Module, Mobile Security Server, Mobile Messaging Server, Command Center and the Mobile Portal. The system would be equipped with features to manage user information, plugins and content efficiently as the focus would be to provide an extensive mobile networking experience. Display of dynamic content through the inclusion of RSS and ATOM feeds would also be done to maximize user experience.

CHALLENGES

- Development of a wireless community network enabler that generates and hosts content through the desktop by incorporation of complex modules.
- Implementation of the framework of an application that includes content generation as well as hosting facilities with modules coordinating with each other to exchange information.
- Incorporation of enhanced client services, messaging services and content related functionalities.
- Incorporation of RSS feeds into handheld devices through the development of support.
- Implementation of stringent security measures that safely handle the vast transfer of data.

TECHNOLOGIES USED

Communication Center Environment

Development Tools	Visual Studio (.NET)
Editors	Visual Studio IDE, Edit Plus
Testing Tools	Rational Rose Enterprise Edition
Servers	Microsoft VSS.NET 2005
Database	MS-SQL

Security Server Environment

Development Tools	Visual Studio (.NET)
Editors	Visual Studio IDE, Edit Plus
Testing Tools	Rational Rose Enterprise Edition
Servers	Microsoft VSS.NET 2005
Database	MS-SQL

Server Development Environment

Development Tools	Visual Studio 2005, VC++ (MFC/COM/ATL)
Editors	Visual Studio IDE, Edit Plus
Testing Tools	Rational Rose Enterprise Edition
Servers	Microsoft VSS.NET 2005

Client Development Environment

Development Tools	Visual Studio 2005, VC++ (MFC/COM/ATL)
Editors	Visual Studio IDE, Edit Plus
Testing Tools	Rational Rose Enterprise Edition
Servers	Microsoft VSS.NET 2005

MANPOWER

Project Leader	1
Developers	6
Designers	2
Quality Assurance Testers	3

PLANNING

The mobile community portal architecture can be dissected into five major modules classified as:

- Functionalities such as communication with client services, provision of HTTP responses to mobile users and user validations provided by the mobile security server.
- The handing of administrator responsibilities by the mobile command center.
- The capability to generate and host the content provided by the client services.
- The messaging services module for managing SMS activities.
- The mobile portal comprising of all the previously mentioned modules.

ARCHITECTURE

The system's Security Server communicates with the client through a secure channel, validating and storing user registration information which actually leads to the design of a powerful tool for generation and hosting of mobile content through the web or PC. Updating the WAN IPs, displaying the login screen to mobile browsers and providing HTTP responses to mobile users were the responsibilities assigned to the security server. The client efficiently handles services like creation and editing of content, content related categories and user profiles on installation. The command center manages the administrator tasks for the network such as management of partner details, templates, plug-in libraries and most importantly, key generation and maintenance for partner users. In the event of client unavailability, the command center also maintains the database. A robust database for storing addresses, phone & geographical information along with registration details was provided as client information for the system. Client services provide maximum freedom in creation and editing of content-related categories and user profiles. Implementation of live RSS feeds, ATOM feeds and different content from web as well as the PC.

DEVELOPMENT HIGHLIGHTS

A dual pronged approach was designed for the system which included generation of mobile content as well as hosting it as server, performing these crucial functions through the desktop itself which eliminated the hassles involved with the separate execution of these functions. The design of the framework was such that each desktop could act as a mobile content generator as well as a mobile server, capable of hosting dynamic mobile content. The ability to create and spontaneously host intelligent contextual ads based upon user preferences was provided to the users. A number of services like mail, Yahoo messenger, Google Calendar; iTunes etc... could be accessed from the system with its messaging module synergized with the client services for greater performance. High data availability is maintained as the security server acts a fallback arrangement for data availability in the event of the client being unavailable and unable to provide content or information. The user experience was raised a notch through the implementation of live RSS feeds, ATOM feeds and different content from web as well as the PC, such as files or folders. The combination and coalescence of these services formed the mobile portal which provided a full-fledged community networking experience on handheld devices. The system was developed and fully functional within a span of 8 months.

CLIENT FEEDBACK

"GMI is an excellent off-shore service provider. They have a great stable of programmers possessing a wide range of knowledge. They tackled my project with gusto and delivered several releases to make sure that customer satisfaction was 100%. We had continual input into the process (both at the design stage and the functionality stage) and GMI was quick to incorporate our inputs. We have already contracted them for other applications and will continue to use them in the future."