

IMS for Infrastructure

January 2009

If you run your business in a dense environment such as a construction site, harbour or airport, you know that any inefficiency has a major impact on profitability. Rapid, 'always-on' group communication with positioning information is essential for coordinating site activity - and to help you keep track of where your workforce are and when tasks are being executed.

Now you can modernise the way your workforce communicates whilst having a centralised real-time view of the location of all your Trades, workers and deliveries using SinTech's innovative Internet Protocol Multimedia Subsystem, IMS for Infrastructure.

Using standard GPS-enabled mobile phones, SinTech's unique and extremely cost-effective solution replaces the traditional mix of on-site walkie-talkies and mobile phones in one unit. A foreman or supervisor can coordinate the entire workforce from a mobile phone or PC using flexible voice and text communication to groups or individual workers. IMS for Infrastructure lets your foreman keep track of every worker; enabling complete coordination that boosts efficiency and makes your project more profitable.

TOTAL SITE MANAGEMENT THE EASY WAY

SinTech's unique and extremely cost-effective solution replaces the traditional mix of on-site walkie-talkies and mobile phones with standard GPS-enabled mobile phones. A foreman or supervisor can coordinate the entire workforce from a mobile phone or office PC using flexible voice (and text!) communication to groups (e.g. site Trades) or individual workers. IMS for Infrastructure allows your foreman to keep track of every worker; enabling complete coordination that will boost efficiency and make your building project more profitable

CONNECT YOUR SITE WORKERS...

Simply equip each site worker with a mobile phone containing the SinTech IMS Client application and you transform the phone into a phone plus 'walkie-talkie'.

The worker's position is read from the phone's GPS device and transmitted to the foreman's phone and/or office PC and/or other colleagues who want the information.

The application will also join a special push-to-talk-over-cellular (PoC) Group, called the Dispatch PoC Group - used as the communications channel for all your workers.

Workers often have questions about tasks and can easily talk to the foreman by pressing a single 'push-to-talk' button, just like using a walkie-talkie. Select one or more colleague from the contact list in the application, see if they are available and start a walkie-talkie style conversation - all using simple key presses.

The contact list is like any normal mobile phonebook but also shows presence information for each contact you can instantly see whether a colleague is available, off-site or away for lunch. It also shows the distance (in meters or yards) between you and your colleagues - useful if you want to find out who is close to you and able to give you a helping hand.

The SinTech IMS Client is the natural starting point for any type of mobile communication. Choose from push-to-talk (like a walkie-talkie), Voice over IP (VoIP) or Instant Messaging (IMS). It is still possible to start traditional phone calls and text messages (SMS), all without leaving the SinTech IMS Client.

SUPERVISE WHILE MOVING AROUND THE SITE...

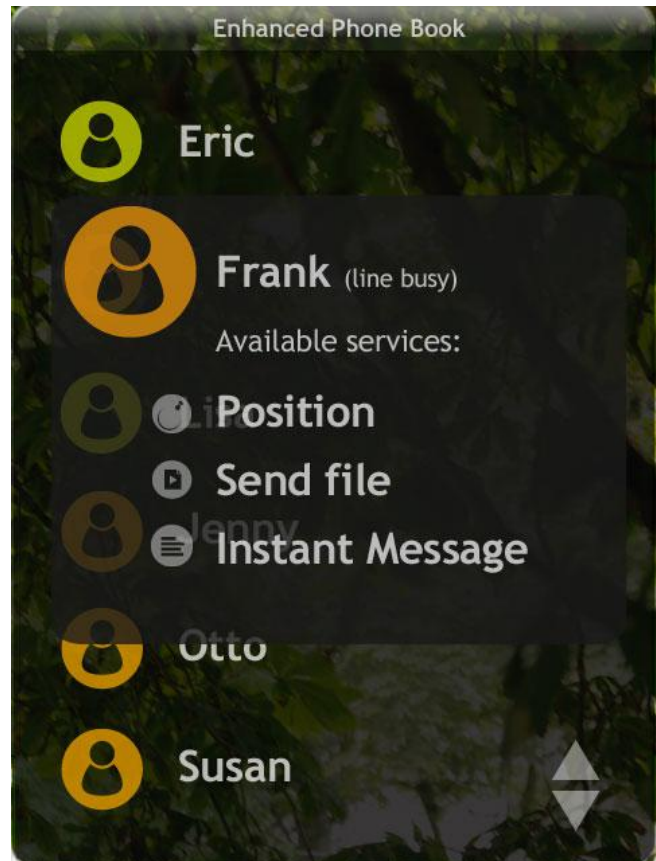
The on-site foreman or supervisor runs an enhanced version of the SinTech IMS Client application that provides powerful, yet easy-to-use communications.

The Dispatch PoC Group channel is permanently set up, which allows the foreman to talk to all workers, any subset of them, or individuals, by a simple button press.

For large or complex construction sites, separate PoC channels can be assigned to Trades (carpenters, electricians) or workers operating in different areas.

If an individual worker answers - which only the foreman can hear - the foreman can simply set up a one-to-one conversation with that worker. It is also possible to choose another way of communicating, such as Voice over IP (VoIP) or ChatTalk, where users can enter or leave the PoC group at will.

If workers are busy and do not reply, the foreman can send text messages instead.



SinTech Client on Mobile Device

COORDINATED SITE DELIVERIES

Save time by setting up "GeoFences" that define alarm or alert rules based on positioning information. This can be used to notify the foreman when workers return from an assignment at a different location or for monitoring the imminent arrival of a goods



delivery - then simply contact the group of workers responsible for taking delivery of the goods.

FULL CONTROL - EVEN FROM THE OFFICE

Now your supervisory staff can multi-task by performing office work while keeping the same control as if they were touring the site.

Simply load an ordinary office PC with the SinTech Dispatch application to provide all the features of the supervisor's SinTech IMS Client application but with a convenient and intuitive full-screen user interface, allowing you to easily add a large amount of workers and drag-and-drop them to different groups.

Technical Description

SinTech IMS for Infrastructure is based on an application for mobile phones and an application for desktop computers.

Based on modular architecture, the solution is perfectly tailored to meet the supervisory and communication needs of large or small construction sites.

Since IP Multimedia Subsystem (IMS) is used as the underlying bearer, it merely requires access to an operator with IMS infrastructure (including Push to talk over Cellular (PoC), XML Document Management (XDM) and presence services).

There are two main components to the IMS for Infrastructure solution: the SinTech IMS Client and the SinTech Dispatch application:

SINTECH IMS CLIENT

The SinTech IMS Client is an efficient application for inexperienced mobile phone users that gives simple access to the most vital features needed for your site

workers' and supervisors' work.

FEATURES

Presence Enhanced Phonebook:

- The main screen shows a contacts list.
- Manage the contacts list: add, delete or modify contacts and create groups to organize a large set of contacts.
- Presence information is displayed for each contact - showing availability status and distance from your phone in metres or yards.
- Launch the communication services to any person(s) on the contact list.

Push To Talk:

- Auto-joins the Dispatch PoC Group when the application is started.
- Press a button to talk to the supervisor - or vice versa.
- Start walkie-talkie style conversations with one or more persons from the contacts list.
- Create PoC Groups with persons from the contacts list to make GroupTalk (pre-defined group) sessions and ChatTalk (where users can enter and leave at will) sessions.

IMS Messaging:

- Send text messages to contacts.
- Setup IM sessions to chat with one or more contacts.
- Send and receive objects (such as images and audio/video clips) in the IM session.

Voice over IP (VoIP):

- Start IP-based phone calls with other persons carrying the SinTech IMS Client or supervisors running the SinTech Dispatch application

Inbox:

- Storage of incoming text messages and PoC Group advertisements.

- Allows adding received PoC Groups to the Group List.
- Launch communication services directly from the Inbox.

Call Log:

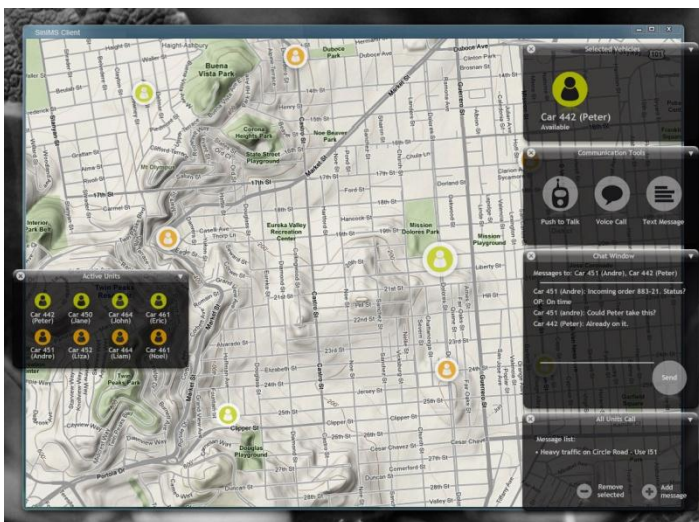
- Keep track of missed, received and established IMS sessions.
- Launch communication services directly from the Call Log

Common:

- Use the speakerphone in the handset.
- Use a dedicated talk button.
- Visual and tone indication of the status in walkie-talkie style conversations - tones that indicate permission (or not) to speak and visual indication of the current speaker in an ongoing conversation.

SINTECH DISPATCH APPLICATION

The Dispatch Application is an excellent PC-based tool for a centralized foreman or supervisor to coordinate site operations. Other office-based staff could also use it, if they need regular communication with your workers on site.



SinTech Client on PC

FEATURES

Dispatcher:

- Creates the dispatch group; adds workers to a PoC Group and distributes this group information to all its members.
- Easy to setup a one-to-one call to a member of a group - the worker that answered the dispatch call.
- Dynamically populate the dispatch group based on certain criteria, e.g. within 100 metres from a specific location.

Desktop IMS Client:

- Easy management of contact lists and groups.
- Call Log: called/received/missed, timestamp, duration. Easy to setup sessions or send text messages to persons in the Call Log.
- ChatWindow: possible to open a dedicated window for text conversations with a contact.
- Multiple IMS Sessions: Can have several ongoing sessions with different contacts.

Desktop Application:

- Delivered with InstallShield, enabling fast and easy installation.
- Drag and drop contacts for creation of groups and movement of contacts between groups.

Common:

- Tone indications (as the Mobile IMS Client)
- Both visual and audio indications for floor control.
- History logs.
- Possibility to save audio data (i.e. talk sessions).



Key benefits of IMS for Infrastructure

Spend less time getting in touch: allow workers to focus more on the task in hand.

Keep track of your workforce: SinTech IMS Client, distributed to every worker and supervisor, sends each phone's position, together with availability information to everyone in a pre-defined group. Supervisors can know where workers are in real time. Phone or PC-initiated text messages can be sent and walkie-talkie conversations started with one or multiple workers - all using simple button presses or mouse clicks.

Monitor in which areas the workers are operating: Setup 'GeoFences' and be alerted when workers (including those handling deliveries) enter or leave a certain area.

Increase efficiency by an integrated means of communication: Workers see each other's position and availability in real-time and are able to determine who is the closest. From a contacts list, they can easily set up walkie-talkie style calls, Voice over IP (VoIP) or Instant Messaging (IMS), as well as traditional phone calls and text messages (SMS).

Reduce your communication costs: SinTech IMS for Infrastructure works with standard mobile phones with GPS support - no expensive hardware is needed. The mobile network (for example, 3G, GPRS or WCDMA) is used as communication bearer.

A complete digital solution: IMS is available where there is mobile phone coverage. So there are no more limitations with analogue radio systems and walkie-talkie. The digital audio gives clear and secure conversations.

Finally, the best news of all... in addition to the

efficiency boost that SinTech's IMS for Infrastructure will give to your site operations, it does not require a huge and expensive investment.

ALL YOU NEED IS:

Access to a mobile phone operator that has an IMS-enabled infrastructure,

Standard mobile phones based on Symbian or Windows Mobile with GPS support,

Any ordinary desktop PC to run the Dispatch application.



Customized to your requirements

Because SinTech's IMS solutions are based on a modular building block architecture, we are able to easily customize features to exactly match your operational requirements - providing you with the solution you would have designed!

Want to know more?

If you want to know more about how SinTech's IMS for Infrastructure solution can be rapidly and cost-effectively applied to your transportation fleet, including any further technical information, contact us on:

Tel: <+46705115474>

Web: <www.sintech.se>

Email: <sales@sintech.se>

SinTech - Sindarin Technologies AB is supporting governments and corporations by creating a more efficient, safer and more cost efficient communication solution by utilizing the latest communication technology standard: IMS, IP Multimedia Subsystem. SinTech's communication suite is based on open standards and includes means of communication such as Voice over IP (VoIP), Walkie Talkie, Messaging/Chat, Video Communication and File Sharing. The communication suite can be further enhanced with support for encryption as well as positioning.

SinTech's communication suite is available and downloadable for a large number of mobile devices as well as desktop computers.

Copyright ©

SinTech - Sindarin Technologies AB 2009