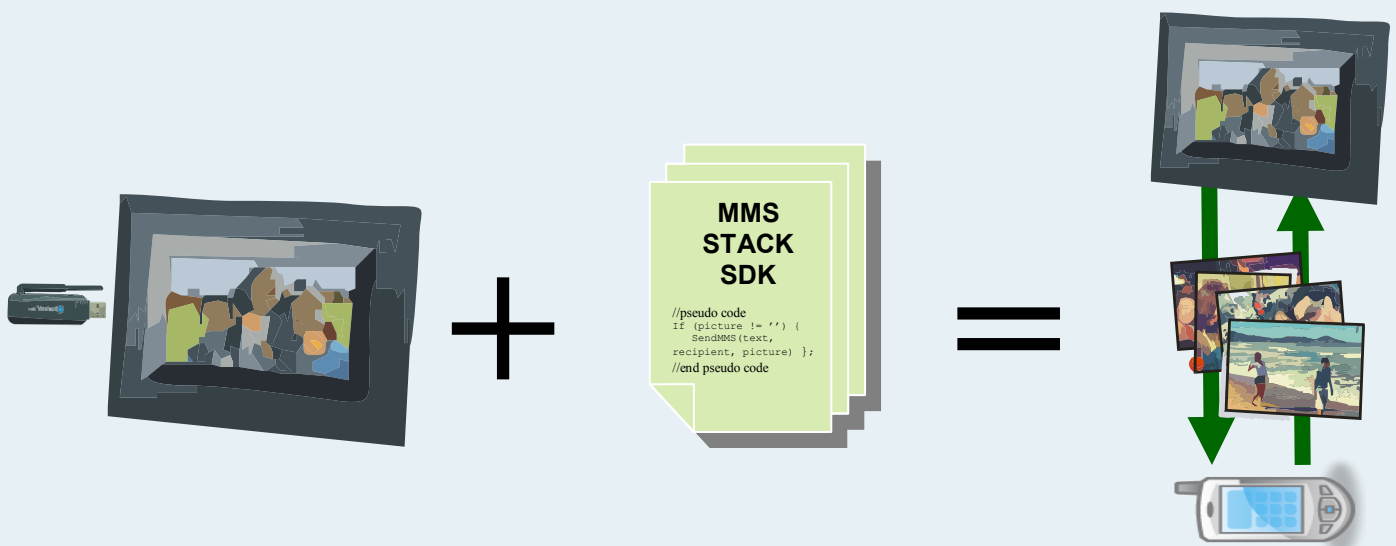


# MMS FOR DIGITAL PHOTO FRAMES

## MMS STACK SDK, A MULTIMEDIA MESSAGING TOOLKIT

- Add MMS Messaging to your DPF product
- Available for WinCE, Linux (Arc, MeeGo etc.), and more
- DPF users can "Push" Pictures over MMS to Cellphones
- DPF users can receive Pictures over MMS from Cellphones
- For DPF devices with wireless network connection (GPRS, 3g, 4g, CDMA, TD-SCDMA etc.). The modem can be internal or external (built-in, USB, Serial etc).



*Explanation:* DPF plus MMS Stack SDK equals capability to send pictures directly to cellphones from the DPF and vice versa

**Winwap**  
Technologies

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## MULTIMEDIA MESSAGING

MMS Messages are primarily used for sending pictures between wireless devices. The perhaps most significant difference from Email is that MMS messages are pushed to the recipient like SMS (text) messages opposed to Email which the user must separately download.

When a DPF is connected to the carrier wireless network using some modem it can also send and receive MMS messages.

The MMS Stack SDK for DPF includes a, for MMS purposes optimized, Wireless Application Protocol stack (WAP Stack) for MMS message transport. The Application Programming Interface (API) of the toolkit provides easy methods for encoding, sending, retrieving the MMS Messages and decoding/extracting the content of the MMS message.

The MMS Stack SDK for DPF includes demonstration source code that will make these tasks easy:

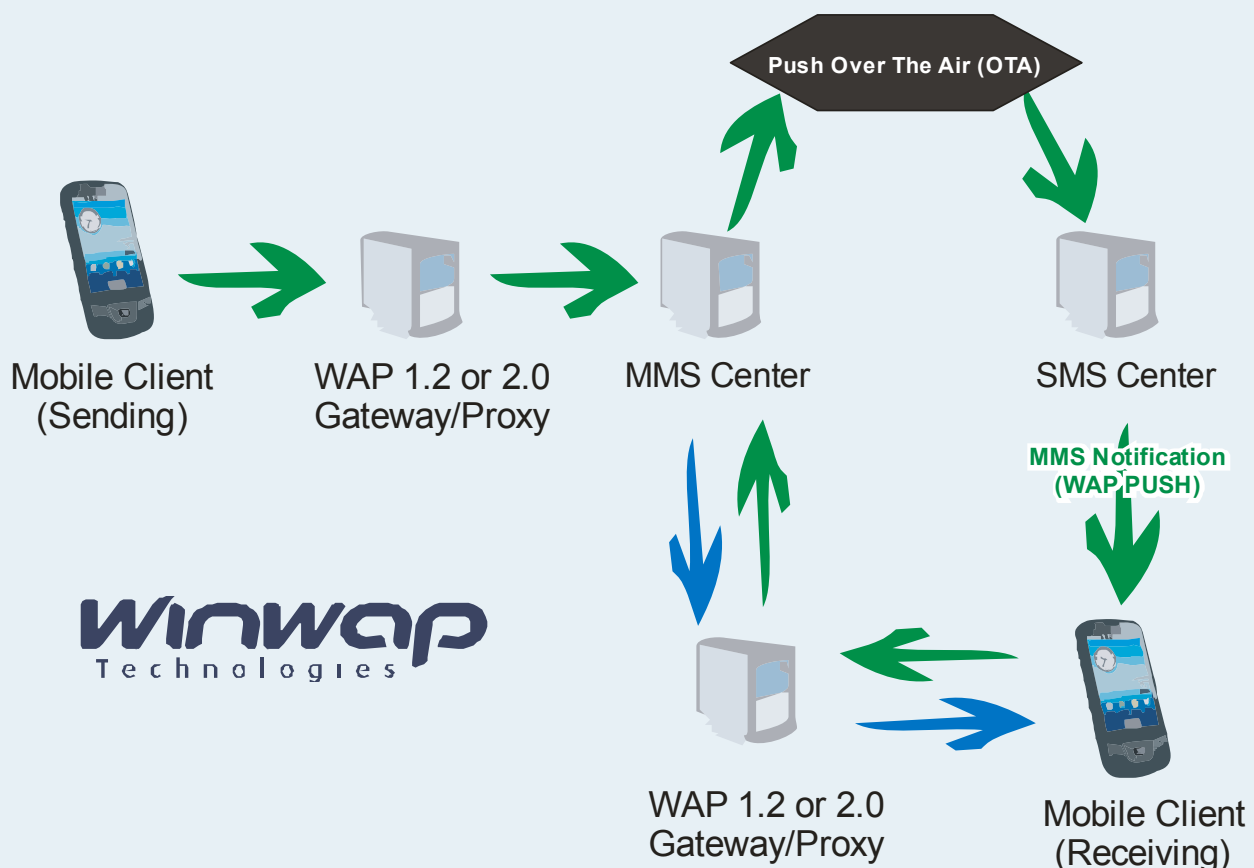
- Filter out the MMS Notification (WAP Push) SMS Messages
- Retrieving of MMS Message from MMS Center (carrier)
- Sending of the MMS Message to MMS Center (carrier)
- Encoding outgoing messages with attached pictures
- Decoding incoming messages and extracting pictures and other content from the MMS message
- Integrate with GUI layers

# MMS FOR DIGITAL PHOTO FRAMES

MMS Messages are more complex than SMS (text only) messages. The actual message is encoded in a predefined binary format, and the message must be delivered by the device to the MMS Center of the carrier over a WAP Connection. Then the carrier will in turn send a WAP Push message that contains the MMS Notification to the receiving device. This WAP Push message is a binary formatted SMS message that the receiving device should decode for details required to download the actual MMS Message from the carrier's MMS Center.

Winwap's MMS Stack SDK includes the WAP 1.2 and WAP 2.0 Gateway/Proxy protocols required to send and retrieve the MMS Messages to/from the MMS Center. With the product Winwap also provides samples for how to filter out, and decode the MMS Notification WAP Push message (received over SMS).

To make the package complete, the MMS Stack SDK also includes methods for encoding MMS Messages (adding pictures or other content to the actual message) and decoding MMS Messages (extracting the pictures, text or other content from the MMS Message).





Mobile Internet Browsing and  
Multimedia Messaging

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business partner



Winwap Technologies provides software technologies and applications for networked mobile devices. The product portfolio includes a powerful Internet Browser, Multimedia Messaging (MMS, SMS) and Email client-side software, and toolkits based on these technologies that allow others to integrate the functionality into their own products.

Winwap is a privately owned company that was founded by the current CEO, Mikael Krogius, in 1995. Winwap has always worked with telecommunications software, and entered the mobile Internet market in 1999 with the WinWAP browser. Today the core business is to provide customized software with integration support and maintenance services for companies involved in the different manufacturing steps of networked mobile devices.

At Winwap Technologies we constantly strive to make our software better and to keep our customers satisfied with our products and support while remaining innovative when creating new technologies for mobile devices.



All products are available for hardware or software manufacturers that want to include the products as part of their own solutions and products.

The products can be tailored and built for specific platforms, including desktop computers, notebooks, kiosks, handheld devices and smartphones.