

**Subject : How to design download services for One Touch™
310/311, One Touch 331, One Touch™511/512, One
Touch™ 525/526 & One Touch™ 715
Version 8.0**

There are several options and levels of download services that can be implemented thanks to the large Alcatel mobile phone range : One Touch™ 310/311, One Touch 331, One Touch™ 511/512, One Touch™ 525/526, One Touch™ 715 and the conversion tool : Multimedia Conversion Studio version 2.0 updated for the One Touch™ 331/525/526.

All kinds of personalisation and messaging services can be offered :

- **Melodies/Ringtones**
 - Polyphonic melodies (8 simultaneous sounds within a range of 12 instruments)
 - Monophonic melodies
 - Jingles (EMS)
 - Longer buzzer melodies
- **Sounds** : sampled sounds
- **Icons**
 - Small forwardable icons (EMS)
 - Small idle screen icons
 - Small idle screen icons (Greyscales) on One Touch™ 715
 - Full screen icons
 - Full screen icons (Greyscales) on One Touch™ 715
- **Animations**
 - Small forwardable animations (EMS)
 - Big animations
 - Big animations (Greyscales) on One Touch™ 715
 - Full screen animations
 - Full screen animations (Greyscales) on One Touch™ 715

These services are powered by different transport technologies. There are two main transport technologies : download over SMS or over WAP. Depending on your technical choice, it is possible to offer different levels of service :

	Download over SMS		Download over WAP	
	EMS	TDD	WSP	DF
Melodies				
Polyphonic melodies		X	X	X
Monophonic melodies	X	X	X	X
Sampled sounds			X	X
Icons				
Small forwardable icons	X	X	X	X
Small idle screen icons		X	X	X
Small idle screen icons (Greyscales)		X	X	X
Full screen icons		X	X	X
Full screen icons (Greyscales)		X	X	X



Animations				
Small animations	X	X	X	X
Big animations		X	X	X
Big animations (Greyscales)			X	X
Full screen animations			X	X
Full screen animations (Greyscales)			X	X
Copyright management		X	X	X

The One Touch™310/311 range supports EMS.

The One Touch™511* supports Download over SMS : EMS and TDD. * : some of the One Touch™511 integrates the download over WAP feature, please check your version by entering *#06#, if "Version Mobile Service" appears, you can also download over WAP.

The One Touch™512 supports Download over SMS and Download over WAP.

The One Touch™331/525/526 supports Download over SMS and Download over WAP.

The One Touch™715 supports Download over SMS and Download over WAP.

I DOWNLOAD OVER SMS

1.1. Implementing EMS (Enhanced Messaging services)

The main benefits of EMS services are :

- download EMS content
- creation EMS message by adding the downloaded or embedded icons, sounds or animations
- sending/forwarding a created or received EMS messages to other EMS compliant handsets

The EMS content can be :

- **Monophonic melodies**
 - Predefined melodies = melody/jingle embedded in all EMS mobile phones
 - User-defined melodies = iMelody
- **Icons**
 - 16x16, 32x32, 72x14
- **Animations**
 - Predefined animations = smileys embedded in products
 - User-defined animations = 4x(16x16) icons

Find all the technical information in the "EMS guideline" on how to create EMS services, document released by the four EMS manufacturers : Alcatel, Motorola, Siemens and Sony Ericsson and also all the Alcatel specificities on the "Alcatel EMS guideline".

1.2 Implementing TDD (Terminal Data Download)

Why should TDD be implemented?

TDD possesses different features that makes it unique :

- **download of polyphonic melodies**
- **copyright protection**
- **data compression** (approximately 100% compression on monophonic melody)

1.2.1 Copyright protection

The One Touch™ 511/512, One Touch™ 331, One Touch™ 525/526 & One Touch™ 715 products are able to convert monophonic melodies downloaded via TDD into EMS melodies (if the melody is



EMS compliant) in order the end-user to send it via SMS to someone else. This function checks a flag, set by the service provider within the TDD protocol. If the flag is set on, the i-Alcatel melody can be, when received on the handset, converted into i-melody. To be able to do so, the data has to be compatible with EMS (refer to the "How to create EMS services?" document). This feature can be used to protect the copyright of a monophonic melody.

1.2.2 Larger content

Therefore the main advantage of implementing TDD is to enhance your service offer with larger pictures, that can be in fact personal pictures set as wall paper : for example user uploads a picture on the Internet, with a picture editor modifying it to be suitable for an handset screen and then downloads it on his phone as a wall paper (screen- saver).

1.2.3 Download of polyphonic melodies

The polyphonic melody format is named MSEQ. It is an Alcatel proprietary technology and it is transported over TDD.

An MSEQ melody downloaded on a One Touch™ 511/512, One Touch™ 331, One Touch™ 525/526 & One Touch™ 715 can be saved on the mobile, but cannot be transmitted to another handset, which protects the melody copyrights.

Find more on TDD on looking at the technical specifications : FRD_Download over SMS.

II DOWNLOAD OVER WAP

2.1 New services

Download over WAP is a new way to download bigger, richer and new content.

Download bigger content

Download over SMS is limited to maximum of five SMS (about 600 bytes of payload) by economical constraints (business model). With download over WAP feature, you will be able to download 7000 or 13 000 bytes according to the solution chosen (refer 2.2), which is **10 to 20 times** bigger than the downloaded content over SMS.

Download richer content

The polyphonic melodies can be longer and richer : it can accept more polyphonic sounds (sounds played simultaneously) and more instruments.

For the animations, we were limited with the previous technology to small animations. Now, a collection of full screen pictures (96x65) can be downloaded !

Download new content

Thanks to this larger bandwidth, you can offer new services :

- Download of **sampled sounds** (VOX format), for example sounds like a baby crying or a police alert.
- Download of **wbmp files**, standardized format

Download without changing your habits

All this new content and services can be offered in different ways:

- The end-user can directly go on the WAP site, preview the picture and animation, prelisten the melody and download it
- The end-user selects the content on IVR or website, send it to the end-user through WAP Push (please refer to "FRD Download over WAP" specifications to know more about this feature).

2.2 Two transport protocols

The Download over WAP can be based on different transport technologies :

- Download Fun
- SAR WSP/HTTP Get

specified by the M-Services guidelines. M-Services is a Mobile Services initiative created by the GSM Association (made of key group operators) specifying the mandatory and optional features on mobile phones to ensure the best mobile Internet services. The One Touch™ 511/512, One Touch™ 331, One Touch™ 525/526 & One Touch™ 715 support both technologies except SAR (Segmentation And Reassembly).

Download Fun is an Openwave solution that requires a specific server whereas WSP/HTTP Get solution is a standard one. The content size of what you can download is up to 13000 bytes with Download Fun solution and 7000 bytes with WSP/HTTP Get protocol.

Find all the information related to this topic in the “FRD download over WAP” specifications.

III A FREE CONVERSION TOOL



3.1 Optimize your content library

To help you to create content, we provide now for free to operators, service and content providers a conversion tool that converts the main standardized formats (midi, wav, bmp, png) into formats supported by Alcatel mobile phones (EMS, Alcatel formats).

This tool is compatible with the whole range of Alcatel mobile phones and will be updated for every new compliant phone.

3.2 Generate SMS easily

The tool can also generate the whole SMS with the right header, you only have to interconnect it to the SMS-C that will send it directly to the end-user.

3.3 Save development time

You can also benefit from a batch facility : convert several and different input files at a time.



3.4 Industrialise the process : convert on the fly !

To offer a service directly to your end-user (picture service for example), you can install the conversion tool directly on your website, refer to the Help Menu of the Multimedia Conversion Studio.

Technical restriction : this tool can be installed on Windows NT 4.0, 98, 2000, ME and Linux (X86 platform)