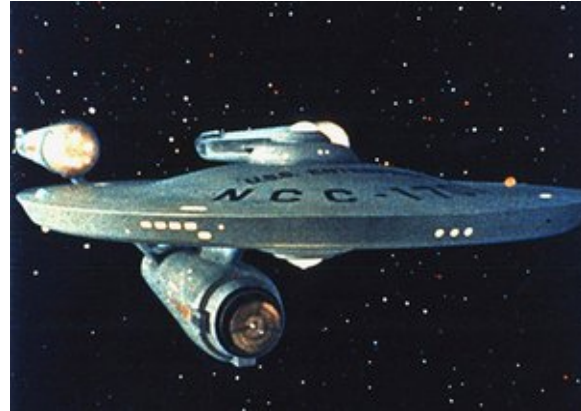


Star Trek technology to drive Android video services

By Peter White (Wednesday, 19th November 2008)

Have you ever thought about just what goes on in the cellular network when one handset which supports one set of techniques to compress music and videos (codecs) and stores its files in a particular format (MPEG) and it wants to send that video or music to another handset which doesn't even speak those languages? It can get quite complex and it goes worse as you try to do things like send a video ringtone or hold a video call.



The science is so complex that one company that works in the field decided to call itself Dilithium Networks after the mythical Dilithium Crystals which supposedly powered ships from the Star Trek series, including the Enterprise (pictured). This week Dilithium has embraced Android handsets with the technology having just completed a port for the iPhone.

Dilithium initially made video transcoders for cellular networks. These are appliances which sit in the network and allow the transformation of one type of video which suits one handset, able to travel to another device which uses different formats on a different network. To do that it has to be able to translate from all formats and all compression schemes and keep a database of what each handset can do, and be network aware so it knows what bit rates are feasible in the network at this particular moment.

Dilithium co-invented and campaigned for a set of techniques for rapid video enablement on phones called Media Oriented Negotiation Acceleration (MONA) and this allows video to zip across a cellular network in under 1 second, hoping that it will facilitate video conferencing and video ring tones on handsets. Most video conferencing was killed off because it previously took over 10 seconds to set this up and people got bored waiting. For video ring tones, using MONA there are two handsets and an IP attached server which talks through a cellular operator's mobile gateway. In under 1 second the right video has to be selected on the server, the handset being called needs a MONA interrogation to identify the right codec, and then the video has to be transcoded to that codec in real time and streamed across the network. The server then has to drop out of the conversation and leave the two handsets still in touch with one another. This is working at one major operator in Indonesia where everyone has a video ringtone which appears on the phone you are ringing to identify you and the service costs a few pounds a month.

Dilithium and Packet Video, another US handset video specialist put their ideas together and co-invented the standard, and now have products for cellular networks which enable it, with the Dilithium product line called the Dilithium Content Adaptor. It needs no software stack on the handset but servers in the network need to be aware of how new handsets support video and this has now been made Android aware and can work with the new G1. The company has already done the same for the [Apple iPhone](#). Dilithium products are found in cellular operators that reach 1 billion customers across 60 countries.

The upshot of all that is that over the next few months [T-Mobile](#) and any other operators planning to use Android can start driving G1 sales through neat little video services which won't leave the customer bored out of his skull waiting for the service to set up.