What is Calypso?

Aside from a Greek mythology character, Calypso is the nickname of TI's GSM baseband processor chip formally known as HERCROM400G2. (Texas Instruments once made cellular baseband chipsets, but they no longer do — they fully exited this business in 2009, and have since destroyed every trace of ever having been in it.) This baseband chip was put in the spotlight — placed on the world map, so to speak — by its use in the legendary Neo Freerunner smartphone by Openmoko.

The use of this particular baseband chip (which started out as closed and proprietary as all others) in a supposedly-free smartphone that was very pompously marketed as “Open! Mobile! Free!” created enormous pressure from the community for all surviving bits and pieces of documentation and firmware source code for this baseband chipset to be liberated, and a significant amount of material has been recovered as a result. Additionally, the very extensive high and low search of the Internet by the FreeCalypso project founder has yielded several additional pieces of documentation and firmware source code for other GSM chips from TI that came before and after the Calypso, and now we have amassed a vast collection of documentation and source code that allows us to turn the Calypso into a **free baseband**.

What we do in FreeCalypso

FreeCalypso is not a single project with a single fixed goal, but rather a somewhat loose family of projects with a fairly fluid set of goals. The two strands that tie all FreeCalypso subprojects together are the use of hardware based on the TI Calypso chipset and the use of liberated original firmware for this chipset, as opposed to independent from-scratch reimplementations; anything that is based on these two elements is a potentially interesting subproject for the FreeCalypso family.

That said, our primary focus is on building our own hardware with the Calypso chipset. None of the pre-existing Calypso phones makes a truly viable target in our opinion, as all of them are either too scarce (unobtainium), too feeble to be interesting, too full of undocumented components (we have the full documentation for the Calypso core chipset, but many of the pre-existing phones use a bunch of extra peripheral chips for which no docs could be found), or some combination of the above. Instead we see building our own hardware starting from just chips as the only viable path, and we are able to procure the necessary Calypso and RF chips from the Chinese surplus market in practically unlimited quantity: at least tens of thousands of pieces, maybe more.

We invite you to check out our current hardware product, our future hardware product plans and our software/firmware offerings.

Our eventual “dream” goal is to produce fully commercial, end-user-usable libre phones and modems based on our chosen chipset and our liberated firmware, phones and modems whose key differentiating feature will be full 100% user empowerment: you the user fully own and control your phone or modem down to the radio, rather than some carrier, chip manufacturer, device manufacturer or spy agency. But the road to get there is very, very long...