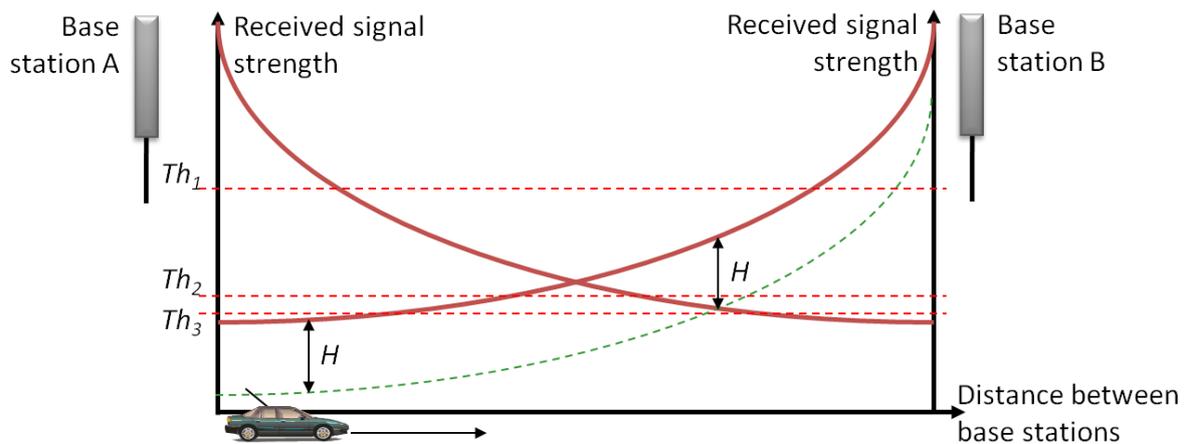# Mobile Services

Problem #8: Handover

Indicate in the following figure the position on the x-axes at which a handover occurs under consideration oft the following strategies:

i.   Relative Signal Strength

ii.   Relative Signal Strength under consideration of thresholds Th_1, Th_2, and Th_3

iii.   Relative Signal Strength and hysteresis H

iv.   Relative Signal Strength and hysteresis H under consideration of thresholds Th_1, Th_2, and Th_3

Problem #9: Web Content Adaptation

The White Paper "Web Content Adaptation" (available at http://www.medialab.sonera.fi /workspace/WebContentAdaptationWP.pdf for download) is a good summary of content adaptation, its need, and different methodologies for conducting it. Read it and answer the following questions:

a)   What is client-based, server-based, and proxy-based adaptation?
b)   Explain Content Negotiation and Device Identification in brief!
c)   Give an overview of the techniques used to ease adaptation (Chapter 5)!

Problem #10: Native Application versus Mobile Web Applications

Native applications are written in a programming language supported by the respective device and by using special libraries for getting access to operating system functions as well as to special features like sensors or the device's camera. The most prominent examples for mobile native applications today are certainly Apps for the iPhone or Android handsets. The popularity of such Apps, which are usually made accessible via so-called Marketplaces, has partly displaced the Mobile Web.

However, is it really necessary to provide certain functions for the mobile user by means of native applications? Or, on the other hand, isn't it possible to provide the same functions by the means of typical and powerful web techniques, which meanwhile are also available for the aforementioned devices? In the Internet, there is an ongoing discussion about these issues, check, for example, the following sources:

- http://www.mobiletech.mobi/blog/mobile-web-vs-native-apps-revisited/11672/
- http://www.globalintelligence.com/insights-analysis/white-papers/native-or-web-application-how-best-to-deliver-cont/GIA%20Industry%20White%20Paper%202_2010_Native%20or%20Web%20App_How%20Best%20to%20Deliver%20Content%20and%20Services%20to%20Your%20Audiences%20over%20the%20Mobile%20Phone_Apr-10.pdf
- http://people.w3.org/~dom/archives/2010/03/native-apps-vs-mobile-web/
- http://www.slideshare.net/billfrench/mobile-apps-native-or-web

After reading these sources, discuss the pros and cons of native and mobile web applications under consideration of the criteria listed there! Do you have other criteria or do you disagree in one or several points? At the end, make your own decision and give reasons for it!

Problem #10: Wholesale Application Community

Check the Web site of the Wholesale Application Community (http://www.wholesaleappcommunity.com/) ! Check the goals this community is following and provide a summary of its basic ideas!