

# WirelessU Work Samples

Troubleshooting Deskercise

The Deskercise was a neat and interesting project that didn't get completed before the budget expired. It was designed to include 13 exercises that engineers could complete from their desktops to train them in 3G-1X HSPD network troubleshooting issues. The online design consisted of a master WBT shell that called in other shells containing the individual modules. This gave the design team more latitude in creating the exercises while keeping the whole course seamless to the user.

Each exercise began with a scenario. Note the icon in the upper right. For this course, The icon linked to a popup window containing reference resources engineers might need to complete the exercise.

41-3g1xhspd-troubleshoot2SIPDir-ex1 Preview (created 5/9/2004 11:17:59 PM) - Microsoft Internet Explorer

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## 3G-1X HSPD Network Troubleshooting Deskercise - Exercise 1

[Introduction to 3G-1X HSPD Troubleshooting](#)

[Begin Exercise #1 \(LTW613Wex01\)](#)

[Exercise #2 \(LTW613Wex02\)](#)

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### Exercise 1

## Exercise 1: Call Setup Milestone 1 - Mobile Originates Call

**Scenario:**

A user is trying to make a 3G1X HSPD call using a laptop and a Qualcomm 1x Test phone in a 3G1X Network (IS2000/CDMA2000). The user has a laptop running Windows 2000 and is using a Sealevel card to connect the phone to the laptop.

The network is an Autoplex Lucent Technologies Network with Series II cell sites on release APHX18.02 and ECP APX 18.0, 5ESS running 5E16 2.0 and uses a PCF/PDSN configuration; however, the mobile is having problems originating the call.

The diagram below illustrates where exactly in the packet data call components the problem is occurring. Slide your mouse over the shaded area to identify the possible problem areas of this Call Setup Milestone.

**Area of concern**

Base Station ECP-BS control link ECP 5ESS DCS Router Intranet

Mobile data Path

Primary AAA

My Computer

Error on page.

start Yahoo! Messenger (...) Microsoft PowerPoin... Docent Outliner - 41... Docent Preview 41-3g1xhspd-troubl... 11:26 PM

Forms like this one were used to allow engineers to make multiple choices, submit them, and get feedback. Javascript popups provided feedback. After 3 attempts the form returned a page of resource links to help the engineer brush up on the skills in this exercise. (See following page for feedback.)

**Exercise 1 - Step 1: What can we use?**


The first thing you need to determine is what tools will help you in isolating the problem. Of the tools listed below, which tool(s) would you use to begin your quest?









**Hint: There are 2 tools that can help!**




By the way, this is your first of 3 tries.

Tools	Useful
a. AAA Logs	<input type="checkbox"/>
b. Uxcptrace	<input type="checkbox"/>
c. cp.story	<input type="checkbox"/>
d. CAIT	<input type="checkbox"/>
e. coftrace	<input type="checkbox"/>
f. ROP data	<input type="checkbox"/>
g. Uxiwfttrace	<input type="checkbox"/>
h. PDSN PPP tracing	<input type="checkbox"/>
i. Observation and Manipulation	<input type="checkbox"/>

Form - Microsoft Internet Explorer

File Edit View Favorites Tools Help 

Back Forward Stop Refresh Home Search Favorites Media        

Address  C:\Docent\41-3g1xhspd-deskercise\IBTRoot\IBTPouch\ex1step1hint.htm  Go Links 

**Sorry, you were not able to select the correct set of tools.**

You may want to review the tools document provided in the Resources Module. The tools that would help you at this time are **CAIT**, and **Observation**.

CAIT is a Qualcomm tool running on an external laptop that T's into the dataport of the mobile for the purpose of monitoring near real-time mobile operation. CAIT is not likely to be available at all field sites, but if it is available, you definitely want to use it. Additional information on CAIT can be found in the user guide that comes with the CAIT installation file and in the Methods and Procedures web page in a document about the use of CAIT in the field.

[http://globalrfmandp.wh.lucent.com/documents/E\\_Layer/](http://globalrfmandp.wh.lucent.com/documents/E_Layer/)

Basically, observation is the main step to follow in this section and, in general, it helps throughout the troubleshooting exercise. You must look at mobile setup, laptop setup, and the application, as well as physical connections from the mobile to the laptop.


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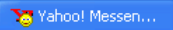

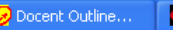





**Note:** If you are having trouble understanding the basic functions of each tool, you may refer to the Appendix Sections in the 3G-1X HSPD Network Troubleshooting Guide.

Now that you know what tool(s) to use, there are specific things you need to look at and specific questions you must ask yourself. Click on the forward arrow to continue to Step 2.

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*Lucent Technologies - Proprietary  
Wireless University, 2003*

Done  My Computer

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