Personal Communication Service

Mobile Device Investigations Program

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Senior Instructor

Technical Operations Division

DHS - FLETC

Personal Communication Service

Personal Communication Service or PCS is referred to as 2G wireless service.

The FCC has defined PCS as radio communication that encompasses mobile and fixed communication to individuals and businesses that can be integrated with a variety of competing networks.

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PCS refers to integrated networks as the ability to connect to PSTN, WiFi and Worldwide Interoperability for Microwave Acess (WiMax) systems.

This can be anything from point to point to full cellular access.

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Some other ways to define the mobility of PCS networks;

- Personal Mobility - the ability of users to access any telecom service at any terminal based on personal identifiers, the networks ability and users profile

- Terminal Mobility – the wireless subscriber units ability to access services from different locations while in motions

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- Service Mobility – the use of vertical features provided by landlines, users at remote locations or while in motion.

PCS refers to services that are user specific as opposed to location specific.

PCS is referred to as follow me services.

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PCS was the first wireless network from its inception. Upon obtaining licenses PCS carriers were allowed to choose their air interface, thus we have TDMA, CDMA and GSM carriers.

PCS uses the same type of equipment that cellular services use with the difference being that more PCS base stations are need to cover the same geographic area.

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There are two types of PCS services; Narrowband and Broadband PCS.

Narrowband, using the 3MHz radio spectrum was used primarily for data transmissions.

These services were paging an short message systems.

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Broadband PCS is used for multimedia transmissions such as voice, data. Internet, SMS, image and in the future full motion video.

This obviously requires more channel capacity and is set aside on the 140 MHz radio spectrum.

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The major carriers include AT & T/Cingular, Verizon Wireless, T-Mobile, Sprint PCS (Nextel), Alltel Mobile and U.S. Cellular.

There are hundreds of regional PCS Carriers that can be found at http://www.wirelessadvisor.com/resources/wireless-carriers-a-b