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Intellectual Property Analysis of Durham Logistics, LLC “Airplane Mode” Phone Portfolio

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## A Brief Background of the Patent System

When most people consider the patent system, they often think of a structure in which large corporations make money selling products based on proprietary knowledge, licensing the technology to others, or suing others who infringe on the patent rights behind their most cutting-edge products. In recent years, the importance of patents and intellectual property rights as an important variable in the marketplace has come to the forefront of the public consciousness as world leaders declare their country’s lead in the innovation race. The temporary nature of patents is a reflection of the implicit social contract that dictates that these innovations be used for the public good once their time-limited monopoly has expired.

Key elements of the patent system hinge on the rights bestowed upon the general public. In the United States, patent terms are limited to 20 years from the date of application. By statutory intention, once a patent has expired, the patent holder loses the right to exclude others from utilizing the invention described within the patent. Likewise, a large number of patents are “abandoned” when owners discontinue paying patent maintenance fees. Even when maintained and within their statutory term, patents only provide protection in the country for which the patent is filed. Accordingly, an innovation disclosed in a European patent, for example, can be utilized anywhere in the world other than the European market. Whether through expiration, abandonment or non-filing, once these innovations enter the public domain, they are fair game, requiring no license or sale to implement. As demonstrated by the Global Innovation Commons (G.I.C.), using intellectual property legally available in the public domain reduces, if not eliminates, the need to pay licensing fees – particularly to those entities whose sole business interest is to intimidate (through threat of litigation or International Trade Commission action) other businesses into licensing or purchasing IP that is invalid or has lost its value to a public domain option.

Until the recent emergence of the G.I.C., many companies failed to leverage the numerous public domain options that may provide alternatives to the purchase or license of costly cutting-edge technologies. By overlooking these options, companies all too often incur costs and burden which impugn their business at best or, at its worst, keep globe altering solutions out of the world’s hands. This scenario, which has defined the landscape for solution abundance against a backdrop of inaction, could be potentially avoided entirely thanks to the vast trove of viable technologies available for the taking, free of cost, in the public domain.

## Technology Area: Smart Phones

As touched on in last week's report, the release of the IBM Simon Personal Communicator in 1992 signaled the emergence of a new class of mobile device, the "smart phone." Smart phones demonstrated capabilities that went above and beyond simply making phone calls, capabilities that blurred the line between the telephone and the personal computer. Since those first early iterations, multi-functional devices have become increasingly commonplace in the consumer market. Some of the most recognizable devices in this space include the Palm Pre, the RIM Blackberry, various Google Android devices, and the Apple iPhone. The iPhone, in particular, set the standard by which future smart phones would be judged, fueling innovation across the entire market. From web browsers and cameras to downloadable applications, many features are now deemed to be standard on smart phones that have come to market. As the uses and capabilities of smart phones extend beyond those of normal communication tools, the need for a system or means to retain local functionality in situations and environments where RF reception or transmission is prohibited such as within an aircraft becomes readily apparent. These sorts of systems provide a significant value-add to smart phones in the consumer market, and as such, are of understandably high value.

## Intellectual Property Analysis

Durham Logistics, LLC currently possesses intellectual property concerning "airplane mode" functions in smart phones with priorities dating back to 2000. This intellectual property describes a method and apparatus for disabling the communication functionality of a device while maintaining access to the device's local functionality. While it is not transparent to the market what commercial intent Durham Logistics, LLC has for these patents, it is reasonable to assume that they will pursue sales or licensing models. Entities interested in Durham Logistics, LLC's holding would likely also be interested in similar innovations that lie in the public domain, some of which are listed in the following section.

## Patent Information

As of April 2010, according to the electronic output of the United States Patent and Trademark Office's Public PAIR system reports on patent assignment, Durham Logistics, LLC holds 20 granted U.S. patents and 9 pending U.S. patent applications. Of these properties, 2 U.S. patents and one pending U.S. patent application concern aspects and components of "airplane mode" functionality in smart phones.

### ***Durham Logistics, LLC U.S. Patent Holdings related to "Airplane Mode" Functionality:***

<b><u>Document #</u></b>	<b><u>Title</u></b>	<b><u>Assignee Name</u></b>	<b><u>Priority</u></b>	<b><u>File</u></b>	<b><u>Issue</u></b>
US 7,647,070	Method and apparatus for disabling the RF functionality of a multi-function wireless communication device while maintaining access to local functionality	SHAH NITIN J	22-Dec-00	28-Jul-06	12-Jan-10
US 7,356,351	Method and apparatus for disabling the RF functionality of a multi-function wireless communication device while maintaining local functionality	Durham Logistics, LLC	22-Dec-00	22-Dec-00	8-Apr-08
US20100022272	METHOD AND APPARATUS FOR DISABLING THE RF FUNCTIONALITY OF A MULTI-FUNCTION WIRELESS COMMUNICATION DEVICE WHILE MAINTAINING ACCESS TO LOCAL FUNCTIONALITY	Not Available	22-Dec-00	30-Sep-09	28-Jan-10

Analysis of the Durham Logistics, LLC patents have led to the identification of a number of innovations from multiple assignees residing in the public domain due to abandonment or expiration that also concern aspects of "airplane mode" functionality similar to the one described. A sampling of these patent holdings is included in the table below. Any process or technology specifically designated in these patents is available for public domain use and is not subject to any restrictions from Durham Logistics, LLC. Please note that the assignee shown is the assignee to which the patent was originally granted.

**Sample of Patent Holdings in the Public Domain related to "Airplane Mode" Functionality:**

<u>Document #</u>	<u>Title</u>	<u>Assignee Name</u>	<u>Priority</u>	<u>File</u>	<u>Issue</u>
US 5,095,308	Transceiver with battery saver and method of using same	Southern Marine Research, Inc.	9-Jan-90	9-Jan-90	10-Mar-92
US 5,203,020	Method and apparatus for reducing power consumption in a radio telecommunication apparatus	Kabushiki Kaisha Toshiba	14-Jun-88	2-Oct-91	13-Apr-93
US 5,381,460	Monitor mode in a portable telephone	Uniden America Corp.,	30-Dec-93	30-Dec-93	10-Jan-95
US 5,623,533	Mobile communication end device with low power operation mode	Hitachi, Ltd.	18-Aug-92	26-Mar-96	22-Apr-97
US 5,806,006	Method of controlling power output by a primary power source so as to conserve power in an electronic communication device	Eon Corporation	2-Dec-94	2-Dec-94	8-Sep-98
US 5,878,336	Apparatus and method for discontinuously operating a receiver	Motorola, Inc.	22-Mar-96	22-Mar-96	2-Mar-99
US 6,061,564	Mobile communication device	NEC Corporation	30-Sep-96	30-Sep-97	9-May-00
US 6,122,486	Transmission restricting device radio communication terminal equipment and transmission restricting system using these	NEC Corporation	21-May-97	21-May-98	19-Sep-00
US 6,188,883	Cellular type mobile communication system that provides communication restriction command codes along with base station ID codes for base stations where mobile communications is restricted	NEC Corporation	13-Sep-96	12-Sep-97	13-Feb-01
US 6,226,537	Portable radio device	Matsushita Electric Industrial Co., Ltd.	23-May-97	17-Nov-98	1-May-01
US 6,625,475	Portable electronic device	Kabushiki Kaisha Toshiba	9-Jul-99	7-Jul-00	23-Sep-03
EP1804387A1	Apparatus and method for discontinuous reception on a wireless network	MOTOROLA, INC.	29-Dec-05	29-Dec-05	4-Jul-07
EP1832131B1	METHOD AND DEVICE FOR WRITING DATA IN A WIRELESS HANDHELD COMMUNICATIONS DEVICE BETWEEN VOLATILE AND NON-VOLATILE MEMORIES	Research In Motion Limited	27-Dec-04	21-Dec-05	29-Apr-09
GB2136616	Automatic control of energisation of battery powered receiving apparatus	Philips Electronic and Associated Industries	7-Mar-83	25-Feb-83	19-Sep-84
GB2344981	Apparatus for enabling and disabling a wireless communication device incorporated within a mobile computer	Ericsson	21-Aug-97	19-Aug-98	21-Jun-00
GB2421108	Controlling access in response to a function of a mobile device being disabled	Matsushita Electric Industrial Co., Ltd	8-Dec-04	8-Dec-04	14-Jun-06
GB2426148A	Hand held portable device having a plurality of modes of operation	Nokia Corporation	20-Apr-05	20-Apr-05	15-Nov-06
WO200131960A1	METHOD AND APPARATUS FOR TRANSMISSION RESTRICTION OF PORTABLE RADIO DEVICES	ENDEAVOUR CONSULTING LTD.	26-Oct-99	25-Oct-00	3-May-01

## Conclusion

Some technologies readily integrate into consumer products because they facilitate intuitive uses of the devices they empower. Others, however, readily integrate into consumer devices because they solve a real-world problem. As users become increasingly dependent on the functionality accorded to them by smart phones, technologies that enable them to use their phone's functionality in environments where phones generally must be shut off become highly important. Incorporating similar public domain technologies into efforts to enhance the devices we use day to day can give existing research and development initiatives a head-start with no additional investment, provide cost savings over proprietary alternatives, minimize licensing costs, and stimulate overall innovation in this technology area.

Without an informed knowledge of the surrounding landscape, efforts to move forward in any discipline are prone to go off-course. By cultivating awareness of the full spectrum of options available from the public domain as they advance their research, technology innovators are empowered to create truly novel solutions to the world's problems. To that end, M•CAM's analysis has shown that the Durham Logistics, LLC patents contain innovations that may be approximated in part by innovations that currently lie in the public domain. Accordingly, we believe that it is in the public's best interest to see these innovations integrated into today's solutions to improve the accessibility and effectiveness of technology not only in the United States but across the globe.

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