

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FOURSQUARE LABS, INC.,

Petitioner,

v.

BOARDACTIVE CORPORATION,

Patent Owner.

U.S. PATENT NO. 10,692,108 B1

**Title: PLATFORM FOR LOCATION AND
TIME BASED ADVERTISING**

IPR2023-00919

**PATENT OWNER'S OPPOSITION TO
PETITIONER'S MOTION TO EXCLUDE**

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I. INTRODUCTION

The Board should deny Petitioner's Motion to Exclude Evidence in its entirety. Patent Owner's (PO's) Exhibits 2002, 2003, and 2004 are admissible and material to this proceeding. They do relate to a GSM system, as does Petitioner's Exhibit 1008, and despite Petitioner's unsupported assertion, Patent Owner has made no attempt to constrain this proceeding to GSM systems.

Rather, the GSM system is used as an exemplary system by the PO as the GSM system is one of the most documented systems and is representative of cellular systems a person of skill in the art would know and follow. "Although it took 12 years for GSM to achieve 1 billion customers (February 2004), it was only another 2.5 years before GSM subscribers passed the 2 billion mark (June 2006), less than two years to exceed 3 billion customers (April 2008) and reached more than 6 billion in 2012.... GSM is the legacy network of the evolution to the third generation (3G) technologies Universal Mobile Telecommunication System (UMTS), also known as WCDMA, and High Speed Packet Access (HSPA). Commonly referred to as the GSM family of technologies, ...[with] the evolution from second generation (2G) GSM and General Packet Radio System (GPRS) to 3G Enhanced Data for GSM Evolution (EDGE), UMTS and HSPA." Attachment A (Printout from February 8, 2014 version of <http://www.4gamericas.org/index.cfm?fuseaction=page§ionid=242> (last visited

August 15, 2024, using Wayback Machine) (note that the Wayback Machine was used because the 4gamericas.org's webpage was subsequently replaced by 5gamericas.org).

A. Exhibit 2002 is Relevant Because it Establishes Why Adharapurapu Fails to Work as Petitioner Proposes and Why a POSITA Would Not Consider Adharapurapu

Adharapurapu is a cell-centric approach where the cells are accessed by a tracked mobile device. *See* POR, p.55. Exhibit 2002 demonstrates the problem with such an approach rather than a GPS approach. Petitioner raises no objection to Exhibit 2002's status as a publicly available printed publication. Unlike a GPS tracking approach covered by PO, Adharapurapu depends on provider base stations and repeatability of cell usage by a mobile device. The real-world issues of cells using radio waves create real-world problems with cell handoffs and the tracking approach of Adharapurapu. *See id.*, p.56. These radio wave issues are as old as cellular systems – much older than the 25-year-old book (Exhibit 2002) chosen to provide evidence of such issues. *See* Figure 9.8, Exh. 2002, p.579.

Petitioner's argument that the reference is not Relevant is misplaced, as age of a reference is not a factor in determining its Relevance. Indeed, the Federal Rules of Evidence provide an express "threshold standard" for Relevance, and age of the evidence is not a factor. *Freshub, Inc. v. Amazon.com*, 93 F.4th 1244 (Fed. Cir. 2024); *See also* FRE 401 Test for Relevant Evidence (Evidence is relevant if: (a) it

has *any tendency* to make a fact more or less probably than it would be without the evidence; and (b) the fact is of consequence in determining the action) (emphasis added). Rather, as in this case, it makes it more relevant as each iteration of GSM builds on the previous, and the fact that a book (Exhibit 2002) was published about GSM more than 25 years ago is a testament to the prominence of the GSM system. Further, no attempt to limit this proceeding to GSM systems is cited by Petitioner; rather, Petitioner manufactures the issue in their objection. *See* Paper 19, p.2. The Adharapurapu reference even cites to GSM as one of the types of networks that the service provider can be. *See* Exhibit 1008, ¶15.

Similarly, the danger of unfair prejudice, confusing the issues, misleading the fact finder, undue delay, and/or wasting time under Fed. R. Evid. 403 is manufactured. Petitioner asserts PO “[w]ithout any basis ... constrain[s] Adharapurapu to one single, hypothetical GSM construct from many years prior.” Paper 19, p.3. PO has not constrained Adharapurapu to a single hypothetical GSM construct. Rather, PO highlights the basic cellular issues from which Adharapurapu suffers by using Adharapurapu’s own example of a GSM system, Exhibit 1008, ¶15. Other cellular constructs from Adharapurapu would have the same draw backs. Furthermore, Petitioner has already had its expert discuss Exhibit 2002 in a

supplemental declaration, Exhibit 1009, and any alleged confusion or prejudice that could have occurred would have been addressed.

B. Exhibit 2003 is a 3GPP Relevant Publicly Available Printed Publication.

Petitioner is fixated on the document being a draft version of a standard and not implemented. Implementation is not a requirement for a prior art reference to teach a concept. If that was the case, most of Petitioner's own references would be thrown out.

PO is using the teachings of Section 6.6 of TS 45.008, titled "Measurements for Cell Reselection," *see* Paper 11, p.56, to demonstrate one way cells are selected. This approach reselects cells based on the requested type of data. As the cells are being used to track the mobile device in Adharapurapu's cell-centrix teaching, reselecting a cell would disrupt that tracking and be relevant to whether a POSITA would consider such a GSM approach when dealing with a GPS tracking approach. Contrary to Petitioner's argument, TS 45.008 was implemented. *See* Paper 15, pp.11-12. However, implementation is irrelevant here. What matters is that TS 45.008 highlights another type of cell change that would negatively affect the tracking of Adhaapurapu. These teachings of the printed and publicly available document are what is relevant.

In addition, Exhibit 2003 provides a change log that indicates section 6.6 was not modified. *See* Paper 15, pp.11-12. Exhibit 2004 discusses the numbering of

documents that show implementation. These facts, taken together, establish the section being relied on by PO is in the previously released standard. Further, the Board understands proper application of the evidence.

C. Exhibit 2004 is a Sworn Declaration Attesting to the Public Availability of Exhibit 2003

Exhibit 2004 is a sworn declaration signed by its author, Craig Bishop. The statement is:

Pursuant to Section 1746 of Title 28 of United States Code, I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct and that the foregoing is based upon personal knowledge and information and is believed to be true.

Nowhere does the statement limit sworn declaration to a single proceeding. Further, the statement says his declaration is “based upon personal knowledge.” Exhibit 2004 provides the foundation that Exhibit 2003 was a printed publication and publicly available and is, therefore, relevant. The Declaration is not used to discuss the ’108 patent. It is submitted in support of the very same TS 45.008 document for which it was previously submitted. Nothing has changed factually.

Petitioner seems to be attempting to assert Craig Bishop makes no statement about the ’108 patent, and therefore his declaration is not relevant. Craig Bishop is a librarian, and his declaration is in relation to Exhibit 2003, setting the foundation for it being a printed publication and publicly available.

II. CONCLUSION

For the above reasons, Exhibits 2002, 2003, and 2004 must not be excluded, and Petitioner's Motion to Exclude denied.

August 15, 2024

Respectfully submitted,

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APPENDIX



6,360,243,124

Data Supplied by Informa Telecoms and Media*

6.4 billion GSM, HSPA and LTE subscriptions and still growing!

Search



» Glossary of Wireless Acronyms
» Presentations
» Publications
» 3G: Third Generation Mobile Systems
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» FEMTOCELLS
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» MIMO
» MOBILE WiMAX
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» SIP and SIP-I
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GSM: Global System for Mobile Communications

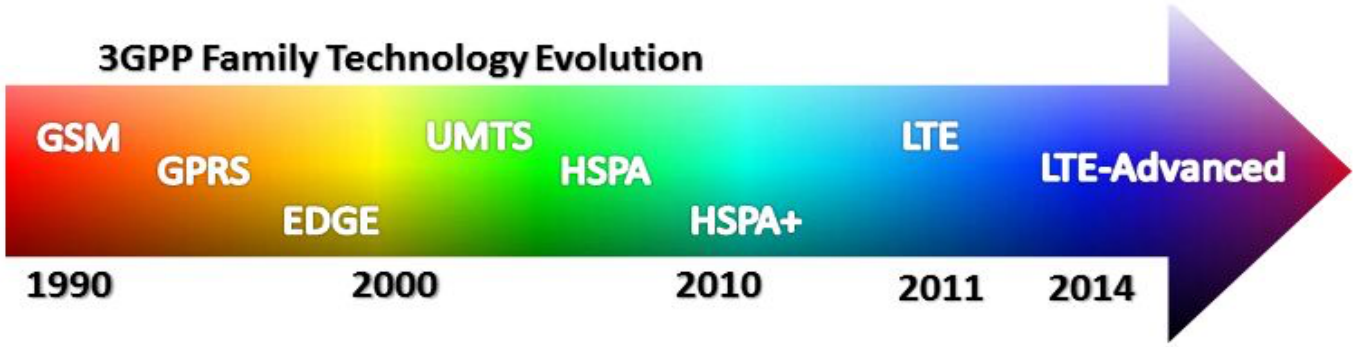
More than 6 billion people worldwide use the Global System for Mobile Communications (GSM) family of technologies. GSM is the most widely used wireless technology in the world, available in more than 219 countries and territories worldwide, with a market share of more than 90 percent.

GSM market share has grown exponentially over recent years. Although it took 12 years for GSM to achieve 1 billion customers (February 2004), it was only another 2.5 years before GSM subscribers passed the 2 billion mark (June 2006), less than two years to exceed 3 billion customers (April 2008) and reached more than 6 billion in 2012.

- GSM Information
- [Q&A: GSM](#)
- [White Papers](#)
- [World Wireless Market](#)
- [Global Wireless Technology Forecast](#)
- [Personal Communications Technology](#)
- [Market Size Comparison](#)
- [GSM Milestones Worldwide](#)
- [GSM Coverage in the Americas](#)

GSM has quickly become the fastest-growing wireless technology in [North America](#) and [Latin America and the Caribbean](#). GSM's share of market in the [Western Hemisphere](#) is 79 percent with more than 830 million customer connections.

GSM is the legacy network of the evolution to the third generation (3G) technologies Universal Mobile Telecommunication System ([UMTS](#)), also known as WCDMA, and High Speed Packet Access ([HSPA](#)). Commonly referred to as the GSM family of technologies, the following diagram represents the evolution from second generation (2G) GSM and General Packet Radio System ([GPRS](#)) to 3G Enhanced Data for GSM Evolution ([EDGE](#)), UMTS and HSPA.



The oldest member of the GSM family of technologies is GSM itself; a digital or Personal Communications System (PCS), 2G technology that provides voice and circuit-switched data services.

There are several reasons why GSM is so popular among operators and their customers:

- **Clear voice quality**, which helps make GSM a viable alternative to wireline telephony for consumers and businesses.
- **International roaming** with service available in more than 219 countries, the most of any wireless technology by a wide margin. As a result, users enjoy the convenience of being reachable with their GSM devices and phone numbers when traveling abroad, as well as the ability to access messaging and other advanced services that they use in their home markets. Partnerships within the GSM community help to keep users' roaming charges affordable and allow for any roaming charges to be automatically billed to their accounts back in their home markets. Roaming is particularly important for operators for two reasons: first, it drives a significant amount of revenue; and second, roaming support helps operators attract enterprise customers.
- **Spectral flexibility**, with network infrastructure and user devices available for numerous spectrum bands. Tri- and quad-band GSM phones are common, reducing the chances that users will ever travel to an area without at least one GSM network to which they can connect.
- **Tight security**, including inherent protection from eavesdropping and hacking. This helps make GSM voice and data an attractive alternative to analog cellular and Wi-Fi in the eyes of users, particularly enterprises.
- **Data support**, including SMS and web browsing.
- **Subscriber Identity Module (SIM) cards**, which allow customers to buy a new or additional phone, or a GSM PC Card modem, and instantly transfer their settings, preferences and contacts to the other device.
- **Product selection**. The GSM family's 90 percent worldwide market share makes it a popular choice for handset manufacturers and application developers. As a result, GSM customers enjoy the largest selection of handsets, PC card modems and other devices, as well as innovative [voice and data services](#). The GSM family's market share also translates into large volumes of network infrastructure and user devices, which drive down costs. For operators, those savings mean that with GSM, they can price their devices and services more competitively than with any other wireless technology. GSM's market share also attracts vendors and application developers, whose innovative content, services and devices help operators attract and retain customers.
- **Research and development** is heavily supported for the entire GSM family of technologies due to the scope and scale of 6 billion customers worldwide.

GSM has a straightforward, cost-effective migration path to 3G through GPRS, EDGE and UMTS-HSPA, as well as beyond 3G via the HSPA Evolution (HSPA+), LTE and System Architecture Evolution (SAE) initiatives. Each step in the GSM-based migration path leverages the network infrastructure deployed for the previous steps and is backwards compatible. For example, a UMTS phone can provide voice and data service when connected to a GSM network. This family of technologies also provides a viable, flexible 3G migration path for Code Division Multiple Access (CDMA) and Time Division Multiple Access (TDMA) operators. In fact, the majority of TDMA operators have already migrated to GSM and many CDMA operators have likewise migrated.



CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies the service of Patent Owner BoardActive Corporation served Patent Owner's Opposition to Petitioner's Motion to Exclude on the counsel of record for Petitioner Foursquare Labs, Inc. by filing this document through the P-TACTS, as well as delivering a copy via electronic mail to the following:

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Date: August 15, 2024

By: *Meredith Martin Addy*
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