Opinion by Zervas, Administrative Trademark Judge:

Fuhu Holdings, Inc. has appealed from the final refusal of the examining attorney to register on the Principal Register OPEN SOURCE HARDWARE (in standard character form) as a mark for the following International Class 42 services:¹

Computer services, namely, providing an interactive web site featuring technology that allows users to consolidate and manage social

¹ Application Serial No. 85326591, asserting an intent to use the asserted mark in commerce under Trademark Act Section 1(b), 15 U.S.C. § 1051(b).
networks, accounts, and connections to existing and emerging application programming interfaces (APIs).

The examining attorney has issued a final refusal to register under Section 2(e)(1) of the Trademark Act, 15 U.S.C. § 1052(e)(1), on the ground that, when used in connection with applicant’s services, OPEN SOURCE HARDWARE would be merely descriptive of such services.

After the examining attorney issued a final action, applicant filed an appeal and a request for reconsideration. The examining attorney denied the request for reconsideration, and subsequently both applicant and the examining attorney filed briefs. We affirm the refusal to register.

A term is deemed to be merely descriptive of goods or services, within the meaning of Section 2(e)(1), if it forthwith conveys an immediate idea of an ingredient, quality, characteristic, feature, function, purpose or use of the goods or services. In re Gyulay, 820 F.2d 1216, 3 USPQ2d 1009 (Fed. Cir. 1987); and In re Abcor Development Corp., 588 F.2d 811, 200 USPQ 215 (CCPA 1978). A term need not immediately convey an idea of each and every specific feature of the applicant’s goods or services in order to be considered merely descriptive; it is enough that the term describes one significant attribute, function or property of the goods or services. In re H.U.D.D.L.E., 216 USPQ 358 (TTAB 1982); and In re MBAssociates, 180 USPQ 338 (TTAB 1973).

The examining attorney contends as follows at unnumbered p. 3 of her brief:

“OPEN SOURCE HARDWARE” is a commonly used term in the IT industry that is widely understood to name or describe hardware-related information, such as hardware design, that is made publicly available. See definition from Wikipedia attached to denial of request
for reconsideration of 07/01/2012. Applicant’s services involve the sharing or use of hardware-related information because the provision of an interactive web site featuring technology that allows users to consolidate and manage application programming interfaces is essentially an open source hardware platform that involves open source hardware interfaces.

The examining attorney essentially argues that the designation is merely descriptive because it identifies the computer hardware that applicant uses in rendering its computer services.

The record contains the following definitions of “open source hardware”:

(From wikipedia.org – first Office action at 21):

Open source hardware ... consists of physical artifacts of technology designed and offered in the same manner as free and open source software (FOSS). Open source hardware is part of the open source culture movement and applies a like concept to a variety of components. The term usually means that information about the hardware is easily discerned. Hardware design (i.e., mechanical drawings, schematics, bill of materials, PCB layout data, HDL source code and integrated circuit layout data) in addition to the software that drives the hardware are all released with the FOSS approach.

Since the rise of reconfigurable programmable logic devices, sharing of logic designs has been a form of open source hardware. Instead of the schematics, hardware description language (HDL) code is shared. HDL descriptions are commonly used to set system-on-a-chip systems either in field-programmable gate arrays or directly in application-specific integrated circuit designs.

(From harkopen.com – first Office action at 43):

Open Source Hardware ... is a term for tangible artifacts – machines, devices, or other physical things – whose design has been released to the public in such a way that anyone can make, modify, distribute, and use those things.

(From p2pfoundation.net – denial of req. for recon. at 29):

Open source hardware is a growing movement in the personal fabrication community. If an inventor chooses to open source her hardware design, she makes publicly available all the schematics, detailed description of needed parts and software, drawings and
“Board” files – basically all the information anybody would need to identically re-create the product or object.

In addition to the definitions of “open source hardware” set forth above, the record includes, (i) webpages wherein “open source hardware” is used in the context of computer hardware that is available to the general public,² (ii) articles taken from the Nexis database using OPEN SOURCE HARDWARE, and (iii) the following definitions:

1. “Application programming interface (API)” - a “source code interface that a computer system or program library provides in order to support requests for services to be made of it by a computer program” (from www.freebase.com); and

2. “Interface” - “a tool and concept that refers to a point of interaction between components, and is applicable at the level of both hardware and software. This allows a component, whether a piece of hardware such as a graphics card or a piece of software such as an Internet browser, to function independently while using interfaces to communicate with the other components via an input/output system and an associate protocol” (from wikipedia.org).

Applicant has chosen in its recitation of services to characterize its website as “featuring technology.” The term “technology” is defined as:

1a : the practical application of knowledge especially in a particular area : engineering 2 <medical technology>

b : a capability given by the practical application of knowledge <a car's fuel-saving technology>

² See, e.g., www.blog.databazaar.com article entitled “Will the Open-Source Hardware Movement Bring you a Free Printer?” stating, “Open source hardware movement aims to bring commodity electrical and other components to free and open designs of hardware devices”; and NY Daily News article entitled “Take a Ride on the Tech Train,” discussing the “growing open source hardware movement, in which the blueprints of a device are made publicly available so anyone can build it or make their own modifications.”
2: a manner of accomplishing a task especially using technical processes, methods, or knowledge <new technologies for information storage>

3: the specialized aspects of a particular field of endeavor <educational technology>³

There is no doubt that “technology” includes “open source hardware,” and that “open source hardware” consists of “technology.” See, e.g., webpages from dangerousprototypes.com, submitted with first Office action. The record reflects that “open source hardware” has a variety of uses, and includes software. It follows, then, that applicant’s website “featuring technology” may feature open source hardware that allows users to consolidate and manage social networks, accounts, and connections to existing and emerging APIs.

In support of registration, applicant maintains in Section 1 of its brief that the mark is not merely descriptive because OPEN SOURCE was used initially with the Open Source Software Movement; that applicant’s use of “open source” would associate that term with the provision of software and that “this causes a jarring effect that is overcome by the user’s imagination to the play on words.” Brief at 9. Additionally, applicant argues that joining HARDWARE next to OPEN SOURCE causes consumers to think of “physical artifacts of technology designed and offered in the same manner as free and open source software,” citing to the wikipedia.com

³ At http://www.merriam-webster.com/dictionary/technology. The Board may take judicial notice of dictionary definitions, including the electronic equivalent of a print reference work. See University of Notre Dame du Lac v. J. C. Gourmet Food Imports Co., Inc., 213 USPQ 594 (TTAB 1982), aff'd, 703 F.2d 1372, 217 USPQ 505 (Fed. Cir. 1983); and TBMP § 1208.04.
definition of “open source hardware.”⁴ Further, applicant contends that applicant’s mark is not associated with goods at all, but with services; and that “an ordinary consumer, after already using her imagination to piece the play on words together, would not find that OPEN SOURCE HARDWARE is descriptive at all of Applicant’s cited services.” Brief at 10. These arguments are not well taken because the examining attorney has established that “open source hardware” is a single term of art having its own defined and established meaning.

In Section 2 of its brief, applicant maintains that “although the terms OPEN SOURCE … and HARDWARE are arguably descriptive terms, the combination of these two terms clearly evokes a new and unique combination that is not descriptive” because “their descriptions clash in a way that requires an ordinary consumer to use her imagination to reconcile the meaning of the new and unique combined term.” Brief at 10–11. This argument also misses the mark, because, as noted, “open source hardware” has a defined meaning. The issue, then, is whether “open source hardware” as a whole is merely descriptive of applicant’s services.

In Section 3 of its brief, applicant maintains that applicant’s services “do not feature any … sharing of hardware-related information. Applicant’s services only feature a technology that allows users to consolidate and manage social networks and accounts (which are virtual and software based), and connections to APIs (which are either virtual or software based). Applicant’s services are not related to

⁴ According to the wikipedia.org entry for “open-source software,” this is computer software that is available in source code form and “the source code and certain other rights normally reserved for copyright holders are provided under an open-source license that permits users to study, change, improve and at times also to distribute the software.”
hardware or physical artifacts at all.” Brief at 12.\textsuperscript{5} Applicant’s argument is not persuasive because we are constrained to consider the issue of mere descriptiveness based on the services as described in the application. It is well-established that the determination of mere descriptiveness must be made not in the abstract, but in relation to the goods or services for which registration is sought. \textit{In re Abcor Development Corp.}, 588 F.2d 811, 200 USPQ 215 (CCPA 1978); \textit{In re Vehicle Identification Network, Inc.}, 32 USPQ2d 1542 (TTAB 1994) (descriptiveness of mark in an intent-to-use application determined by services identified in application).

Upon considering the evidence in the record and applicant’s and the examining attorney’s arguments, we find that OPEN SOURCE HARDWARE is merely descriptive of a feature of applicant’s services.

In reaching our conclusion, we have given limited consideration to the registrations introduced into the record by the examining attorney and applicant in which OPEN SOURCE has been, or has not been (as the case may be), disclaimed. The term “open source hardware” has been shown to have a defined and established meaning that does not depend upon any separate meaning of the words “open source” alone. Moreover, as is often stated, each case must stand on its own record and, in any event, the Board is not bound by the actions of prior examining attorneys. See \textit{In re Nett Designs}, 236 F.3d 1339, 57 USPQ2d 1564, 1566 (Fed. Cir. 2001) (“Even if some prior registrations had some characteristics similar to [applicant’s] application, the PTO’s allowance of such prior registrations does not

\textsuperscript{5} Applicant has also argued that its mark is not generic. The examining attorney does not contend that the designation is generic; mere descriptiveness is the only issue that has been raised in the final Office action.
bind the board or this court.”). See also In re International Taste Inc., 53 USPQ2d 1604, 1606 (TTAB 2000) (“With respect to third-party registrations which include disclaimers ... we do not have before us any information from the registration files as to why an Examining Attorney required and/or why the applicant/registrant offered such disclaimers.”).

**Decision:** The refusal to register is affirmed.

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Opinion by Bucher, Administrative Trademark Judge, concurring in part and dissenting in part:

Although I applaud my colleagues for denying applicant the near-term possibility of getting a notice of publication for an alleged mark to which it is not entitled, I do not believe the examining attorney has made out a *prima facie* case that this term, or “signifier,” immediately conveys information about the recited services, or “referent.”

Beginning with an examination of the referent, we discover from the record that applicant is a designer, seller and innovator of products and services for ordinary consumer, and especially for children, e.g., its 7” Android tablet sold under the *nabi* mark. Applicant’s business model includes the provision for its users of an ever-increasing variety and volume of content, new ways of creating thoughtful user

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6 With a whole range of conceptually challenging cases that do not fit easily into current precedent, it is tempting to try viewing them through the lens of semiotics. See Barton Beebe, *The Semiotic Analysis of Trademark Law*, 51 UCLA L. REV. 621 (2004); and Barton Beebe, *The semiotic account of trademark doctrine and trademark culture*, Ch. 2, *Trademark Law and Theory: A Handbook of Contemporary Research*, Edited by Graeme B. Dinwoodie & Mark D. Janis (2008).
experiences on a range of consumer devices, and permitting users to access and share their digital life anywhere. In order to optimize the attractiveness of its tablet to potential users, Fuhu provides Web 2.0 cloud-served software, applications (“apps”) or widgets (called “Spinlets” by applicant), and other services. For example, the record shows that applicant’s Fooz Kids application “kiddifies” one’s computer (providing control of the device by web-savvy parents!). In this era of cloud computing, if applicant launches an open web API, presumably independent software vendors and third-party developers will create an incredible array of apps connecting tablet users to new social media tools, applicant’s business partners, and other vendors having their own existing platforms, like Amazon.com. The customers for these services would be users of nabi tablets and other computerized devices (e.g., children and their parents who are targets of applicant’s goods and services).

By contrast, applicant has adopted as its “signifier” an established term of art. With the explosion on the scene of the Internet, the “open source movement” initiated non-proprietary software, dubbed “open source software” (viz. Linux, Mozilla, Android, etc.). In recent years this free and open ethos has moved into hardware design information (viz., BeagleBone, BeagleBoard, Arduino, Bug Labs, etc.). While this niche market is fairly small and still in its infancy, the laser-like focus of this community of Do-It-Yourself (DIY) electronic geeks, hobbyists, hardware and software developers, and several hardware manufacturers (all firmly immersed in the free and open nature of computerized hardware) is the general non-proprietary nature of things. Those in the market for open source hardware products are hobbyists and DIY geeks – not children having tablets, or their parents.
In reading the majority opinion to tease out the nexus between “Open Source Hardware” (an established term of art) and applicant’s recitation of services, one will find only three statements that even attempt to explain this connection:

- Examining attorney (at unnumbered p. 3 of her brief): “Applicant’s services involve the sharing or use of hardware-related information because the provision of an interactive website featuring technology that allows users to consolidate and manage application programming interfaces is essentially an open source hardware platform that involves open source hardware interfaces.”

- Majority (at 3, supra): “The examining attorney essentially argues that the designation is merely descriptive because it identifies the computer hardware that applicant uses in rendering its computer services.”

- Majority (at 5, supra): “The record reflects that “open source hardware” has a variety of uses, and includes software. It follows, then, that applicant’s website “featuring technology” may feature open source hardware that allows users to consolidate and manage social networks, accounts, and connections to existing and emerging APIs.”

I trust that those with more technical knowledge than I possess will understand these explanations, and find them persuasive.

Although giving lip service to the fact that “Open Source Hardware” is a term of art, these attempts at creating a logical nexus (between the signifier and the referent) force the examining attorney and the majority herein to treat this three-word term as a polysemous grouping of words (i.e., without any understood meaning by the relevant purchasers), breaking it down into component parts, and then cutting quickly to a mashup conclusion that the applied-for term conveys information about the recited services.
However, “Open Source Hardware” as represented throughout this record (e.g., Arduino, BeagleBone or BeagleBoard) currently involves circuit boards that sell for around $100. Given applicant’s world of Web 2.0 technologies, open cloud web APIs, software development kits, and a platform having access to over 70 million devices (PCs, TVs and mobile devices), I am quite sure that inexpensive circuit boards designed for hobbyists are not the type of hardware applicant relies upon in rendering its services.

Perhaps the examining attorney is taking a much longer view. With the passage of years and the eventual realization of the Semantic Web (Web 3.0), future generations of ontological engineering, etc., it may be possible to conceive of a time when the term “Open Source Hardware” could take on a much broader meaning. Future enabling technologies will likely further blur the line between hardware and software, and may well create a convergence of the virtual and physical worlds. With distant generations of technologies, experience with applicant’s recited services on the part of ordinary consumers could prove to be a rough approximation of what electronic geeks would achieve today with combinations of widgets / networks / Internet appliances / OSH boards / APIs, etc. Similarly, while my colleagues might fear that this application represents a stalking horse for a breakthrough or killer app that is still a decade or more down the road, I see no evidence in this record of any current overlap between the signifier and the referent as of 2012-13.

In support of its argument of incongruity, applicant argues that this term will be seen as “jarring” by the target audience. I agree it is jarring, but in a manner
completely different from that which applicant contemplated. Were this mark to appear for publication, I anticipate that those who worship at the altar of “open source” software and hardware would howl at the impudence, bordering on an act of sacrilege, involved in a hardware manufacturer, software purveyor, and owner of a cloud-based platform claiming proprietary rights in the very term that eschews the concept. Jarring indeed!

In the face of this very real challenge, it seems to me that the examining attorney did not use the tools available to her under Rule 2.61(b), 37 C.F.R. § 2.61(b), to demand additional, detailed information from applicant about its proposed services in order to make a proper assessment of how best to prosecute this application. Having a better understanding of exactly what applicant was proposing with this intent-to-use application, the examining attorney might well have concluded that the applied-for term is not merely descriptive, but may be deceptive (viz. applications for SILK-formatives terms in connection with cheap polyester fabrics), or deceptively misdescriptive (or even to those in the open source movement, “scandalous”!). Or perhaps someone on the cutting edge of these technologies and services could conceive of another statutory bar, one grounded in unassailable reasons why this is not the harmless adoption of an arbitrary term as a source indicator.

This Board has been reluctant historically to remand such a case for further prosecution. Without agreement among the panel members for pursuing a remand, I find in this case, in the absence of the Office having made a *prima facie* case of mere descriptiveness on the existing record, that I would hold my nose, vote to
reverse the merely descriptive refusal under Section 2(e)(1) of the Lanham Act, and send this application to publication. If the system works as it should, a competitor, trade association, industry group or someone else in the open source community would then oppose this application – making the appropriate statutory refusal(s) having a sound basis in trademark law – with the result that applicant would not succeed in having this mark registered, avoiding all the potential confusion and mischief that could ensue therefrom.