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In the Matter of	)	
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Request for Submission of Topics for	)	Docket No. PT0–P–2015-0074
USPTO Quality Case Studies	)	
	)	

SUBMISSION OF CISCO SYSTEMS, INC. AND GOOGLE INC. ON THE APPLICATION OF THE USPTO'S EXAMINATION GUIDANCE AND TRAINING MATERIALS ON 35 USC 112(F)

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Proposal for Study

How have the Office's examination guidance and training materials on functional claiming and the application of 35 USC 112(f) impacted the examination of software-related claim limitations?

Why This Study Is Needed

Although software is inherently functional and many claims to computer-implemented inventions primarily recite the functions performed, software patents have often escaped analysis under section 112(f) during examination. That section of the Patent Act allows applicants to use functional terms in claims, but limits their breadth to the corresponding structure and its equivalents for performing the function as disclosed in the specification.[1] This requirement gives definition to functional patent claims, provides clear notice of claim boundaries to the public, and can prevent overbroad claims.[2] Ignoring section 112(f) during examination creates an unclear record containing claims of indiscernible scope, many of which will exceed what the applicant actually invented.[3] The White House Task Force on High-Tech Patent Issues, with the Patent and Trademark Office, acknowledged this problem and the negative impact such patents have on innovation, particularly in the context of software inventions, and committed to address it by developing examiner training on functional claiming.[4]

We applaud the Office for gathering stakeholder feedback and completing examiner guidance and training materials on section 112(f).[5] Now that the guidance has been available to examiners for more than a year, it is important that the Office provide a transparent assessment

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[1] *See* 35 USC 112(f).

[2] *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1315 (Fed. Cir. 2011) (discussing "public notice function").

[3] *See* Patent Assertion and U.S. Innovation, Report of the Executive Office of the President, 7-9 (June 2013) (discussing lack of claim clarity and overbreadth resulting from functional claims and the negative impact on software innovation), available at https://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf.

[4] White House Task Force on High-Tech Patent Issues, (June 4, 2013), https://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues; Executive Actions: Answering the President's Call to Strenghen Our Patent System and Foster Innovation, (Feb. 20, 2014), https://www.whitehouse.gov/the-press-office/2014/02/20/fact-sheet-executive-actions-answering-president-s-call-strengthen-our-p.

[5] The training materials provide examiners with guidance on how to identify limitations that invoke section 112(f), make the record clear with respect to these limitations, and evaluate whether the claims are definite, including software-related claims. *See* presentations found at http://www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidance-and-training-materials.

of its application and determine whether it has, in fact, resulted in the needed improvement. With this assessment, the Office can evaluate whether changes to the training or factors influencing its adoption by examiners are needed. Failure to conduct such an assessment and make any necessary adjustments leaves incomplete a significant plank of the 2013 White House/PTO executive actions designed to improve the ability of the patent system to promote innovation in the high-tech sector.

Overview of Methodology

Our suggested methodology for evaluating the impact of the functional claiming training involves reviewing two groups of examiner actions that are limited to technology centers likely to examine software-related inventions, in particular Technology Centers 2100 (Computer Architecture and Software) and 2600 (Communications), and the business method art units of Technology Center 3600 (3620, 3680, and 3690):

- examiner actions taken August 1, 2012 - July 31, 2013 (the year prior to release of the first functional training module) ("pre-training group"); and
- those taken January 1, 2015 - December 31, 2015 (a period beginning approximately six months after release of the final training module) ("post-training group").[6]

The review of both groups should:

- identify all examiner actions containing form paragraphs 7.30.04, 7.34.18, or 7.34.19 to track the number of times section 112(f) was invoked and resulted in an indefiniteness rejection;
- evaluate the outcome of examiner actions invoking section 112(f) for clarity and correctness; and
- analyze a sample of applications in which an examiner did *not* invoke section 112(f) to consider whether the claims were properly analyzed under that statute.

[6] Four training modules were released between August 2, 2013 and June 5, 2014. *See* http://www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidance-and-training-materials for the timing of release for each module.

The review of the pre-training group can then be compared to the review of post-training group in order to illuminate the impact of the training on functional claim examination.

Additional Explanation of Review and Analysis

Identifying Actions Containing Specified Form Paragraphs: The Office's section 112(f) guidance sets out the appropriate form paragraphs to be included in examiner actions when evaluating claim limitations under 112(f).[7] Examiners use FP 7.30.04 when identifying claims to be analyzed under section 112(f). Therefore tracking its inclusion in the groups of actions should provide a convenient mechanism for counting the number of times 112(f) was applied. Examiners use FP 7.34.18 or FP 7.34.19 when rejecting claims as indefinite following application of section 112(f), so tracking their inclusion in the groups of actions should reveal the number of rejections resulting from application of section 112(f).

Evaluating and Tracking Outcomes: The Office's section 112(f) guidance emphasizes the importance of developing a clear record, requiring both the identification of claim limitations falling under section 112(f) and their proper interpretation. Therefore, an evaluation of the impact of this guidance should assess whether the examiner action made these identifications. For computer-implemented limitations, a clear record must include an explanation of whether the function was found to be a specialized or non-specialized computer function, and an identification of the structure, material, or acts in the disclosure that the examiner used in interpreting the claim and evaluating the prior art.

If the examiner rejected the claims under section 112(b) as indefinite for lack of sufficient disclosure or a failure to link the disclosure to the claimed function, the Office should evaluate the outcomes of such rejections by tracking answers to questions, including:

- Did the applicant amend the claim so that it no longer invoked section 112(f)?
- Did the applicant refer the examiner to the supporting disclosure or to the link between the disclosure and the function?
- Did the action taken by the applicant overcome the examiner's rejection?

[7] *See* http://www.uspto.gov/web/offices/pac/mpep/FPs html for a listing of all form paragraphs.

- Was that outcome appropriate?

Analysis of Claims not Invoking Section 112(f): Using the largest sample size feasible from each group of actions, the Office should analyze applications for which an examiner did *not* invoke section 112(f) and evaluate whether the examiner should have, and whether invoking section 112(f) would have rendered the relevant claims indefinite. This analysis is critical for understanding whether the guidance is being consistently and correctly applied across software-related art units and provides an important indicator of whether the guidance has accomplished its goal of improving the quality of software-related patents.

Additional Considerations

This proposal, and the fact that an analysis of the rate of application of section 112(f) and resulting rejections cannot currently easily be discerned by the public, highlights the need for additional data collection and transparency in the examination process. For instance, coding the statutory basis for every rejection and the application of provisions like section 112(f) to claims going forward could be easily done. And by making that data publicly available, the Office would promote stakeholder understanding of how the Office applies different patentability standards. The Office could use the data to improve patent quality by identifying issues or potential problems and rectifying them quickly through increased examiner training or other strategies. We encourage the Office to provide increased transparency into the examination process.

We also note that, since the final training module was launched in June of 2014, the Federal Circuit has decided two cases applying section 112(f) to software-related patents: *Williamson v. Citrix Online, LLC*[8] and *Media Rights Technologies v. Capital One Financial Corp.*[9] The Office's guidance should be updated to account for these cases. In *Williamson*, the court found that "a heightened burden is unjustified and that we should abandon characterizing as 'strong' the presumption that a limitation lacking the word 'means' is not subject to § 112, para. 6."[10] This lesser presumption should be made clear in the Office's training materials, and

[8] 792 F.3d 1339 (Fed. Cir. 2015).
[9] 800 F.3d 1366 (Fed. Cir. 2015).
[10] 792 F.3d at 1349.

the claim limitation analysis performed in *Williamson* should be included as an example in the software-specific guidance. In *Media Rights*, the computer-implemented limitation "compliance mechanism" was evaluated using the guidance from *Williamson*, and was found to be indefinite under section 112(b).[11] This example should also be incorporated into the training module on the evaluation of software-related claims for definiteness.

[11] 800 F.3d at 1371-75.