Before the
United States Patent and Trademark Office
Alexandria, VA

In re	
Initiatives to Ensure the Robustness and Reliability of Patent Rights	Docket No. PTO-P-2022-0025

COMMENTS OF
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

The Computer & Communications Industry (CCIA)[1] submits the following comments in response to the U.S. Patent and Trademark Office's October 4, 2022, Request for Comments.[2]

CCIA is an international, not-for-profit trade association representing a broad cross section of communications and technology firms. For more than fifty years, CCIA has promoted open markets, open systems, and open networks. CCIA members employ more than 1.6 million workers, invest more than $100 billion in research and development, and contribute trillions of dollars in productivity to the global economy.

CCIA members are at the forefront of research and development in technological fields such as artificial intelligence and machine learning[3], quantum computing[4], and other computer-related inventions. CCIA members are also active participants in the patent system, holding approximately 5% of all active U.S. patents and significant patent holdings in other jurisdictions such as the EU and China.

I. Summary

CCIA members rely on the Office to issue valid patents that protect novel and nonobvious technology while not issuing patents that cover old technology that belongs to the public—or trivial improvements on that technology. Further, they rely on the Office to issue patents that are clear in scope with detailed prosecution records, minimizing the potential for manipulation or abuse after issuance. While the Office and the examiner corps do excellent work, the possibility of improvement remains. CCIA supports many of the proposed changes to USPTO examination practice, particularly with regards to § 112, RCEs, and continuations, as we believe they would result in more effective and more efficient examination, furthering the cause of reliable, robust, and clear issued patents. Our detailed response with respect to the questions put forth by the USPTO are as follows.

[1] A list of CCIA members is available online at https://www.ccianet.org/about/members.
[2] Request for Comments on Initiatives to Ensure the Robustness and Reliability of Patent Rights, 87 F.R. 60130 (Oct. 4, 2022) (hereinafter "Request").
[3] USPTO, *Inventing AI*, Fig. 6 (Oct. 2020), https://www.uspto.gov/sites/default/files/documents/OCE-DH-AI.pdf.
[4] *See* Elliott Mason, *Trends in quantum computing patents* (May 24, 2021), https://quantumconsortium.org/blog/trends-in-quantum-computing-patents/.

II. Question 2: Changes To USPTO Claim Support and Continuation Practice

CCIA supports significant changes to USPTO practices with regards to claim support and continuations.

A. Question 2A/B/C: Requiring applicants to explain or identify written description support during original prosecution or upon continuation filing

CCIA suggests that the USPTO amend its rules and guidance to require applicants to specifically identify the written description support for each element of each limitation of every claim. This requirement should be imposed at the time a limitation is first added to the claims, whether on initial filing or via amendment. It should also apply upon filing of an application relying on an earlier filing's priority date, including if they rely on a provisional application. Negative limitations should also be supported by the written description in the specification.

First, this rule would promote examiner efficiency. The applicant knows what they intend a claim limitation to mean and where in the specification support is located. Having the applicant point to this support, rather than requiring the examiner to locate it on their own, will place the burden on the party best suited to shoulder it, resulting in lowered patent pendency and an improved prosecution record. This would also enhance public understanding of what claim limitations actually mean.

Second, such a rule would reduce the number of § 112 rejections, both by eliminating examiner rejections where support is present but unclear or difficult to locate and by eliminating circumstances in which applicants inadvertently (or intentionally) present claim limitations that lack any support.

Third, with respect to applications that rely on priority dates, a well-recognized concern is the practice of keeping a live continuation chain open so that claims that read directly on competitor products can eventually be written. While this is currently permissible, it should only occur if the additional limitations can be supported by the original written description. Requiring applicants to identify the specification support for all claims, including those presented in a continuation application, would help ensure that applicants are not inappropriately expanding their claim scope beyond the original application's contents.

Fourth, with respect to reliance on provisional applications, while a provisional application does not require the filing of an oath or claims, is not examined, and cannot trigger a derivation proceeding, it is still required to comply with all other requirements of Title 35. *See* 35 U.S.C. § 111(b)(8). But the right to rely on the priority date of a provisional application only applies if the application is for "an invention disclosed in the manner provided by section 112(a) [] in a provisional application" and shall only have effect "as to such invention." 35 U.S.C. § 119(e)(1). Because the provisional and non-provisional must be directed to the same invention for the priority claim to be valid, and because the provisional must disclose it in the manner provided by section 112(a), it is appropriate to require applicants to identify written description support back to the provisional application if they intend to rely on that application's filing date.

B. Question 2D: clarifying that claims must find clear support and antecedent basis in the written description

CCIA supports such a change. The specification is intended to guide the public in understanding the meaning of a term in a patent.[5] But claim construction is an indeterminate process and it can be difficult to balance the 'specification is the best guide' and 'limitations shall not be imported from the specification' approaches to claim construction. By requiring applicants to clearly link language in the specification and claims, these approaches are reconciled, with the specification's guidance clearly linked to the relevant claim limitations, avoiding any need to import limitations from the specification and better informing the public as to the meaning of the claim limitations.

This will also limit litigation abuses by placing a patent owner on record as to what they think a claim term means. A claim term is not a "nose of wax," amenable to be "turned and twisted in any direction [] so as to make it include something more than, or something different from, what its words express." [6] A requirement that applicants provide clear antecedent basis and clear support in the specification would limit this sort of abuse by ensuring that applicants clarify the meaning of their claim terms during prosecution and binding them to it so they cannot later claim different support in the specification in an attempt to mold their waxen nose into a diamond.

By creating a better-defined claim, such a rule change would ensure that the public and future litigants can more easily understand the meaning of claim terms. This, in turn, would allow them to better understand whether they infringe and reduce the amount and cost of patent litigation, while also expanding the areas in which people can innovate by better defining those areas which are encumbered by patent rights without requiring expensive litigation to establish what those areas are. The reduction in uncertainty would thus benefit the entire patent system, as well as the United States public.

C. Question 2E/F: requiring applicants to provide analysis showing support for genus claims, or for what is new in continuing applications

For the reasons set forth above with respect to Question 2A-2D, CCIA supports such a requirement.

III. Question 3: Changes to RCE Practice

CCIA strongly supports changes to RCE practice. In particular, CCIA suggests the following changes be considered:

1. Moving an application to team examination after a certain number of RCEs, where two or more new examiners would take on examination.
2. Moving an application to an equivalent of the Central Reexamination Unit where a higher intensity examination would occur with special dispatch.

[5] *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc).
[6] *White v. Dunbar*, 119 U.S. 47, 51 (1886).

3. Requiring that RCEs filed after a certain amount of time only contain narrowing amendments.
4. Considering setting a time limit on RCE filing entirely.

CCIA also suggests that the Office consider these proposals with respect to continuing applications filed after a certain period of time, which present many of the same concerns as RCEs.

These proposals, each of which could be considered independently or in conjunction with one another, would help to mitigate the problems created for the Office by current unrestricted RCE practice. While RCEs are useful tools in prosecution, they can also be abused. As the USPTO noted in 2007, "unrestricted continued examination practice and the filing of multiple applications are impairing the Office's ability to examine new applications without real certainty that these practices effectively advance prosecution, improve patent quality, or serve the typical applicant or the public."[7] This longstanding problem has only worsened in the intervening years.

A. Team examination

CCIA believes that team examination is worth consideration, particularly by employing a controlled randomized trial to compare patent quality between team and non-team examination.

Team patent examination is a potentially successful model, as shown by the EPO's use of three person "examination divisions". Additional eyes on a patent application would likely identify more problems and provide additional understanding of the application. And while employing multiple examiners on a single file may seem like it would increase the burden on the USPTO, it is likely that the team approach would actually reduce overall examination burden. Multiple examiners collaborating would be more likely to identify the best prior art early, reducing unproductive rounds of RCEs, and less likely to issue unproductive office actions based on misunderstandings.

While CCIA believes that team examination would be a worthwhile thing to consider for all applications, using it on RCEs that have been pending for a certain period of time would limit the potential for a requirement of an increased number of examiners. In most applications, there is no RCE filed. Of those where an RCE is filed, few have more than one or two RCE filed. The period of time could be periodically set, as the USPTO periodically sets fees, based on pendency data in order to capture only those patent applications that would clearly benefit from a prioritized and higher scrutiny examination track.

Finally, while CCIA believes that team examination is a promising possibility, a randomized pilot program using team examination for long-pending RCEs could be conducted to provide evidence for the value of such an approach. CCIA would strongly support such a randomized controlled trial.

B. CRU equivalent

An equivalent to the CRU, for use in long-pending applications where an RCE was filed, would benefit by reducing pendency in those cases and increasing quality as well. The CRU operates under "special dispatch" and regularly concludes complex reexamination cases in a

[7] Changes to Practice for Continued Examination Filings, Patent Applications Containing Patentably Indistinct Claims, and Examination of Claims in Patent Applications, 72 F.R. 46715 (Aug. 21, 2007).

shortened period of time. Adopting this model for long-pending RCEs, potentially in conjunction with the team examination approach described above, would likely reduce continuing application pendency while also increasing quality in these applications.

C. Limiting RCEs filed after a certain period to narrowing amendments

Reissue applications filed more than two years after grant may only amend claims to narrow them. CCIA suggests considering whether such a requirement would benefit prosecution in the case of long-pending RCEs and continuation applications filed after a certain period of time from the original priority date. By limiting these applications to narrowing amendments, public certainty is preserved—a patent owner would not be able to capture claim scope not already claimed even if the application is open or a continuation chain is pending. This would in turn limit litigation abuses, particularly the practice of using an open continuation to rewrite claims so they cover a target's products. Innovative companies with products on or entering the market would greatly benefit from having certainty as to the potential for broadened claims in a patent family.

D. Cutting off RCE filings after a certain time

Finally, CCIA suggests considering whether unlimited RCEs are beneficial, and whether a strict time limit might be useful. Beyond that point an applicant could still appeal any pending rejections, engage in after-final amendment practice, or in any other way attempt to conclude prosecution. But without the option of unlimited RCEs, prosecutors would likely be more inclined to make amendments towards patentability in a timely fashion, rather than fighting every added limitation tooth and nail.

To the extent appeals take too long to complete, the correct solution is providing additional PTAB resources to expedite appeals, not to provide an avenue to avoid appeals indefinitely by continually returning to the examiner. Additionally, RCEs for limited purposes such as consideration of an IDS could be excluded from this cutoff (or an alternate procedure could be provided for IDS consideration where an RCE is currently required.)

This option would be analogous to the proposed 2007 rules, though it would be time-based rather than based on a specific number of RCEs.

E. Authority of the USPTO to make such changes

Some commentators have suggested the USPTO lacks authority to make rules that would limit continuations and RCEs, relying on the *Tafas v. Doll* litigation. *See Tafas v. Doll*, 559 F.3d 1345 (Fed. Cir. 2009). However, the *Tafas* case is limited to the particular circumstances of that litigation, and the USPTO should not shy away from considering other rules on continuations and RCEs.

Further, the USPTO has clear statutory authority under 35 U.S.C. § 2(b)(2) to create regulations that "govern the conduct of proceedings in the Office." Such authority certainly extends to regulating how such applications are examined, including requiring applicants to pursue an appeal instead of an RCE after a certain period of time or to present only narrowing amendments.

Finally, even if such authority does not exist under the present statute, the USPTO is best placed to go to Congress and request any needed statutory changes. If the Office concludes it

cannot pursue such changes due to statutory limits, CCIA would strongly support efforts by the Office to work with Congress to revise the statute and permit such changes.

IV. Questions 4H, 6, and 7: Changes to Non-Statutory Double Patenting/Terminal Disclaimers

CCIA supports the Office's proposal in question 4H that applicants who seek to obtain a terminal disclaimer for an additional patent on an obvious variation of a prior claim should be required to stipulate that the claims are not patentably distinct from one another, and that the claims should rise or fall together in all future proceedings in district court, the ITC, the PTAB, or any other relevant venue. If claims are obvious with respect to one another, they are both either obvious or non-obvious with respect to a third set of art as well; one cannot be obvious while the other is not. Given this common-sense limitation, a requirement that applicants agree to this treatment is an appropriate way to ensure that the goals of non-statutory double patenting are maintained.

V. Question 5: Other Proposals

CCIA suggests consideration of the following proposals:

A. Recording examiner interviews

Examiner interviews are often a crucial part of prosecution, leading to allowance as the examiner and applicant have a candid conversation about what the claim terms are supposed to mean and how the prior art relates. At the same time, the summary of examiner interviews is almost never meaningful to those reviewing them later, as it captures little to nothing of the substance of the discussion. Recording interviews and providing a machine transcription, with an option to request the original audio, would allow the public to better understand the meaning of a patent provision and why the patent was allowed. It would also further limit the "nose of wax" problem in which one meaning is argued during prosecution and another during litigation; recordings can create the kind of clear disavowal that the Federal Circuit requires to find prosecution history estoppel, while examiner and applicant summaries effectively never do. While recording examiner interviews might make applicants less interested in conducting those interviews or more cautious during those interviews, the benefits to the record and the public outweigh the potential reduction in number of examiner interviews.

In addition to recording and making available examiner interviews, any exhibits presented during an examiner interview should also be made a part of the record.

B. Recording explicit examiner findings with respect to 112(f)

At present, it is difficult to determine if a given claim was analyzed for whether it should be interpreted under 112(f) at the time of examination. Examiners should be required to explicitly state, for any functional element in a claim, what they interpret to be the corresponding structure, material, or act in the specification. If an applicant disagrees that the term is functional, or if they disagree regarding the correct supporting structure, material, or act, they would then be required to provide a recorded response explaining why.

By explicitly finding functionality and supporting structure during prosecution, patents would better serve their public notice function, providing a clearer record of what exactly the

patent covers. Doing so would also allow examiners to conduct an improved prior art search by focusing on the structures, acts, and materials actually covered.

VI. Question 8: Second looks before issuing patents on first office actions.

CCIA strongly supports the proposal to require a second look by a team of patent quality specialists before a first action allowance of a continuation. First action allowances present almost no record for how a claim was interpreted. Lacking that record, it is appropriate that the Office ensure that the claim truly is clear, enabled, and definite such that the public can truly understand what is and is not within its scope.

Utilizing a team examination approach, conducted by patent quality specialists, would satisfy this need, particularly if they ensure that they issue robust reasons for allowance in the event that the claim is allowable.

VII. Question 9: Heightened examination requirements for continuations

CCIA would strongly support a proposal that, for example, required all continuation applications to undergo team examination. Continuations are the type of patent application most susceptible to abuse. As a result, they should receive heightened scrutiny.

VIII. Question 10: Continuation in a finite timeframe

As noted in response to Question 3 above, CCIA believes that the *Tafas* case does not necessarily limit the Office's ability to regulate continuation and RCE practice. Existing statutes are unclear in this regard, leaving ambiguity best filled by agency regulation. For example, 35 U.S.C. §§ 119 and 120 provide the Director with regulatory ability, as they state that "[n]o application shall be entitled to the benefit of an earlier filed application under this section unless an amendment containing the specific reference to the earlier filed application is submitted at such time during the pendency of the application as required by the Director" or other similar language. While the Director may set a time during the pendency of "the application," the clause is indefinite with respect to whether that relates to the original application or the application claiming benefit of priority.

Setting aside the unclear impact of the *Tafas* case, such a rule would be beneficial. CCIA suggests that, analogous to the reissue rule, a continuation should only be able to be filed with broadening claims if it is filed within the first two years after a claim is first allowed. Later continuations would need to be filed with strictly narrowing claims, so that the public can rely on what is and is not within the scope of the originally allowed claims as they develop their own products.

CCIA would also support efforts by the Office to clarify the statutory text in this regard, and particularly efforts that would clearly state that the Director has the power to set such a limit.

IX. Question 11: Fee Setting Authority

The Office currently prices its fees so that approximately 24% of fees collected come from filing, search, and examination processes. *See* USPTO FY2022 Agency Financial Report at 45. However, the vast majority of costs are incurred during this phase of the patent lifecycle.

See, e.g., USPTO, Table of Unit Costs, Column U (2020), https://www.uspto.gov/sites/default/files/documents/Patent-Fees-Current-Final-Patent-Fee-Schedule-and-Unit-Cost-PT-FR2020.xlsx. Inversely, the Office receives approximately two-thirds of patent revenues from issue and maintenance fees, even though those represent relatively little cost to the Office. This imbalance between when a cost is incurred and when it is recovered lead to a number of direct and indirect impacts on the examination system.[8] As noted in the Office's 2022 Agency Financial Report, "maintenance fees play a large part in whether a total net income or net cost is recognized." *Id.* at 43. Because the Office only fully recovers its costs with the payment of maintenance fees, patent owner decisions on whether to maintain their patents can have a significant impact on PTO budgets, one that is outside of the Office's control.

The Office's current fee structure creates a structural issue, as the Office can only fund its operations if an adequate number of patents are issued and maintained. This structural issue creates serious challenges for the Office with respect to managing its own budget on a year-to-year basis, as a drop in maintenance fee payments triggered by, for example, a global pandemic can impact Office budgets.

In order to avoid these negative impacts, CCIA suggests that the Office change its fee structure to recover costs at the time they are incurred. While this will impose a larger cost on applicants, the vast majority of application cost comes from attorney's fees, not from USPTO fees. For example, the AIPLA Economic Report estimates the median cost of preparing a patent application at from $7,500-$10,250, with each round of rejection and response adding an additional $2,000-$3,500 for the response. Under the current fee structure, this places the cost to the applicant of filing at approximately $9,220-$11,970. The USPTO fees are only $1,720 of that total.

As a result, even were the USPTO to set its fees at the full unit cost recovery level, $5,231 in FY2019, the applicant would typically see a maximum of an approximately 35-45% increase in upfront filing cost. That increase would be offset by significantly cheaper issue and maintenance fees. And even without a statutory change, the most price-sensitive applicants—small and micro entities—would see a correspondingly smaller increase of approximately 15-20% or 7-10%, as their attorney's fees are not discounted but their USPTO fees are. Issue and maintenance fees could be set somewhat above the cost recovery level in order to use large company maintenance fees to offset small and micro discounts on filing.

Further, by setting fees for applications at a cost-recovery level, marginal patent filings would be disincentivized, as would the strategy of filing numerous trivially different applications and only paying to maintain the commercially-significant subset of those applications at the Office's expense. If an applicant wishes to benefit from having a variety of different claim scopes available to it, it should not benefit at the Office's cost.

Given that the most price-sensitive applicants would experience the lowest increase in barrier to entry, and the overall benefit to the patent system of the USPTO receiving its fees when they are incurred, CCIA and its members would strongly support such a change.

While CCIA believes that small and micro entities should have no increase at all, with large filers like CCIA's members bearing the entirety of the cost burden, current statute does not

[8] *See, e.g.*, Michael Frakes and Melissa Wasserman, *Does Agency Funding Affect Decisionmaking? An Empirical Assessment of the PTO*, 66 Vanderbilt L. Rev. 65 (2013).

provide enough flexibility to do so directly. The Office could consider implementing a "large entity surcharge" fee that makes up the difference between the cost of examination and the examination fees, while advocating for statutory changes that would allow for more flexibility so as to do away with this indirect method. CCIA and its members would support efforts to increase fee-setting flexibility so that fees for large entities are decoupled from fees for small and micro entities, allowing for large entity fees to increase without a corresponding increase to fees for small and micro entities. Doing so would eliminate any effective increase and any barrier to entry for the most cost-sensitive stakeholders, while still providing the benefits of fee restructuring.

X. Conclusion

CCIA thanks the Office for the opportunity to respond to these questions. We would be happy to further discuss these issues and any others with the Office.

Respectfully submitted,

Joshua Landau
Reg. No. 71,491
Senior Counsel, Innovation Policy
Computer & Communications Industry Association
25 Massachusetts Ave NW
Suite 300C
Washington, DC 20001
jlandau@ccianet.org