

Meeting of International Authorities under the Patent Cooperation Treaty (PCT)

**Twenty-Seventh Session
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PCT ONLINE SERVICES

Document prepared by the International Bureau

SUMMARY

1. PCT online services are generally healthy and effective for existing procedures, but require direction and coordination between the International Bureau and national Offices in order to deliver significant further improvements to services.

STATUS OF MAIN ONLINE SERVICES

ePCT

2. Eighty-seven national or regional Offices now have access to ePCT services in their role as receiving Office, International Searching and Preliminary Examining Authority or designated or elected Office. ePCT-Filing is now available for 63 out of 118 receiving Offices (including three for which file downloads are provided, rather than being able to directly submit the application from ePCT).

3. The ePCT browser-based service is a highly stable production environment for applicants and Offices, offering a very wide range of validations based on the latest reference data available to the International Bureau. The service is monitored 24/7. For 2019, to the end of November, the service was available 99.91 per cent of the time, with the longest service outage being 48 minutes.

4. A variety of new and improved functions have been deployed for the benefit of applicants and Offices, but much of the work on ePCT since the previous session has been devoted to consolidation, improvements to reliability and ensuring that the underlying systems are ready for more significant changes in the future:

(a) Initial work on alignment and integration into the WIPO IP Platform has included a new-look navigation bar, aiming at providing better links and single sign-on to PATENTSCOPE, Madrid and Hague systems, as well as initial “widgets”, allowing users to monitor international applications from a dashboard bringing together information from PATENTSCOPE, Madrid, Hague, Finance and other areas. Ongoing work aims to align these systems better, offer further tools to manage a portfolio of applications and search interests in different areas, and to extend and streamline the options for electronic payment of fees.

(b) Preparation for the development and migration to a new Resilient and Secure Platform aims to offer an improved, more secure service to Offices and applicants as well as the International Bureau, with lower risk of disruption from cyber-attacks, natural disasters or technical failures.

5. The browser-based service is important for ensuring high service levels to all applicants and Offices, as well as providing an effective and consistent route for handling complex processes. However, major efficiency gains and reductions in transcription errors will rely on encouraging the use of efficient machine-to-machine transactions, passing usable data directly from its source. Web services for this purpose are currently in live tests with a small range of applicants and Offices.

PCT-SAFE

6. Eleven receiving Offices continue to accept filings from PCT-SAFE, down from a maximum of 27 in 2014. The tool is only updated every three months and then requires manual installation by the user, which can require the intervention of system administrators with the necessary rights to install software. Consequently, a significant number of applicants continue to use versions of the software over five years old. While noting the reasons that some users continue to need or prefer to use locally installed filing software, the International Bureau seeks to address the underlying issues, with a view to all receiving Offices moving to arrangements compatible with ePCT-Filing and ceasing to maintain dual support for legacy systems.

PCT-EDI

7. PCT-EDI continues to deliver a majority of documents exchanged between national Offices and the International Bureau (including providing the infrastructure for many of the transactions of eSearchCopy and DAS). Several Offices have increased the frequency of delivery and collection of documents. Some Offices have indicated a desire to move towards web services for future developments, which will allow a near real time consistency in views of documents and data and the creation of new services.

eSearchCopy

8. The eSearchCopy service is working effectively for 264 pairs of receiving Offices and International Searching Authorities. Search copies are now transmitted electronically through this service (in some cases still in parallel with an alternative direct transmission, pending evaluation of the service) for nearly 97 per cent of international applications where the two roles are not performed by the same Office.

9. A number of minor improvements are intended to reduce delays in forwarding of documents that can occur in certain circumstances. However, the main work in this area is to open the service for the remaining few Office pairs and to ensure that it works effectively together with the notifications from collecting Offices and to beneficiary Offices foreseen in the WIPO Fee Transfer Service, as well as the means for notification of receipt of search copies (Form PCT/ISA/202). This will ensure that accurate status information is available and that any problems can be identified and resolved quickly.

DAS

10. The WIPO Digital Access Service for Priority Documents (DAS) now has 24 participating Offices exchanging priority documents for patent applications.

PATENTSCOPE

11. In addition to many improvements relating to its overall purpose as a search engine, PATENTSCOPE has had two notable developments in relation to its role as the official online publication of PCT international applications and related information:

(a) A text-based view of international search reports and written opinions has been provided for international applications where these documents have been delivered in suitable XML format by the International Searching Authority. This view offers links to download patent documents and machine translation into any of the 10 languages of publication, with the “boiler-plate” text being delivered from the official stylesheet for the relevant language. Where an official translation into English has been established in XML format, this is shown instead of a machine translation. Similar and additional services will be built into ePCT in due course, allowing applicants access to these features prior to publication of the international application. The XML reports and translations are also made available to Offices and patent information providers as bulk downloads.

(b) Improved national phase information is available, following the entry into force of amendments to Rule 95.1 in July 2017. Work continues on improving the timeliness and completeness of this information, in collaboration with the relevant Offices.

12. In addition, two significant features will go into production in January:

(a) Cooperative Patent Classification (CPC) information will become both visible and searchable for PCT applications and national collections visible in PATENTSCOPE, based on import of information from the DOCDB database (separately, the International Bureau will shortly make proposals on the technical details for implementing the transmission of CPC data from International Searching Authorities at the time that the international search report is established); and

(b) It will be possible to group result lists by patent families. The initial implementation will be the grouping of a PCT application with its priority and national phase applications. A further phase will extend this to patent families not using the PCT route.

WIPO CASE

13. The WIPO CASE (Centralized Access to Search and Examination) system plays no direct role in international phase processing, but it is significant for the access that it offers to both international and national phase search and examination reports for designated Offices, as well as national reports for any direct filed family members. Its importance will further increase as more Offices join the system and national phase information improves. Thirty-three Offices now participate in the system, 15 of them as providing Offices, making documents available through the system.

CURRENT DEVELOPMENT WORK

14. The International Bureau has a number of internal priorities for development, notably related to the Resilient and Secure Platform and WIPO IP Portal projects, referred to in paragraph 4, above. Other priorities may depend on the degree of support in various forms from applicants and Offices.

15. Such support may involve willingness to modify local procedures or IT systems in order to improve electronic collaboration, or else providing expert contributions towards the development of new or improved standards underpinning the systems.

16. Some of the main issues are outlined below.

Fee-Related Issues

17. Amendments to the PCT Rules will come into force in July 2020, facilitating Administrative Instructions that will underpin and bring consistency to the WIPO Fee Transfer service. It is hoped that a majority of the remaining receiving Office-International Searching Authority pairs that do not face any particular administrative barriers will start to use the service in 2020, in parallel with the eSearchCopy system.

18. The initial version of the Administrative Instructions will be pragmatic, allowing most Offices to continue to send fee-related information in existing formats. However, this has required extra resources to be allocated by the International Bureau in terms of data entry and consistency checking. For this service to be viable in the long term, and to deliver benefits to receiving Offices and International Authorities by identifying potential errors before any fee transfer is made, it will be necessary to ensure that all relevant information relating to fee payments and transfer is provided in a consistent, machine-readable format, enabling automated validations.

19. ePCT will be developed to improve the provisions for recording and viewing fee payment information, and to integrate the current stand-alone service for generating XML data representing the fees to be included in a monthly fee transfer. Offices providing data generated directly by their own systems should ensure that it is made available in a machine-readable format, with any development work being used as an opportunity to implement a consistent XML standard that will allow immediate automated validation of the data.

20. It is hoped that successful automation of data checking will permit work to progress towards centralized payment of fees, whereby fees could be paid into a system at the International Bureau on behalf of another Office, allowing for ePCT to handle payment of fees payable to other Offices. In particular, fees payable for ePCT-Filings to receiving Offices other than the International Bureau and fees for demands for international preliminary examination that are made through ePCT could be centralized via payment to the International Bureau. In principle, a similar approach could allow either the International Bureau or national receiving Offices to accept payment of additional fees due to other Offices as International Searching Authority, in order to assist applicants to deal with unity of invention issues raised by International Searching Authorities in different countries.

Official Delivery of Documents and Data to Applicants

21. Through ePCT, PCT-EDI or various national systems, a large majority of documents and data from the applicant to Offices, or between Offices, are now transmitted online. However, most documents transmitted to applicants continue to be sent on paper. The International Bureau offers the option of email delivery to replace or supplement paper documents, but this is not ideal from the point of view of security or reliability and has significant limits on the size of documents that can be sent.

22. ePCT already offers the sending small notifications, not containing confidential information, by email or as a listing within the browser environment to applicants who have set up access rights to their international applications in ePCT. The applicants can then securely download a copy of the possibly confidential document or information through the supplied link. At present, this is an informal supplement to the paper or direct email service, but it is planned to offer this as an official delivery option in the course of 2020. Initially, the official arrangement would probably be limited to documents from the International Bureau, but the service could be

extended to deliver documents also on behalf of receiving Offices and International Authorities once it had been fully validated. The service already allows applicants to receive notification of the receipt by the International Bureau of documents from other Offices. The main extension that would be required for setting this up as an official means of delivery also on behalf of other Offices would be a means for the International Bureau to flag to a given Office whether the International Bureau was in a position to provide delivery through ePCT of a particular document for a particular international application, or whether that Office still needed to print and mail it, for example in the case where the applicant did not have any access rights set up in ePCT.

23. The uptake of this service as a replacement of (rather than supplement to) paper deliveries is expected initially to be limited, not least because it could be operated only for international applications for which access rights were set up in ePCT. It should increase over time as confidence increases, but the primary advantage is that this is seen as the necessary background work to encourage not only the setting up of access rights in ePCT, but also the uptake of machine-to-machine communication with applicants, whereby developers of patent management systems implement the necessary web services to handle communications automatically. Under the envisaged eventual arrangements, applicants with significant portfolios would not rely on notification emails being sent. Rather, a patent management system would periodically check for new documents and download them directly to the correct portfolio. Such a system should also pass key bibliographic data, such as dates for response, even if the corresponding document was not itself in an XML format that the patent management system understood.

Timely Processing

24. A system to push reports to receiving Offices and International Searching Authorities will be deployed in the next release of ePCT (expected in February 2020). This is an experimental service to verify the International Bureau's ability to produce reports covering the time limits on known outstanding work and showing performance against targets for work delivered, closely based on the existing tools available on demand in ePCT. It is hoped that delivering reports based on live data will result in feedback from Offices to help develop the system into a tool useful even for Offices with their own highly effective tracking systems. For example, this may cover cases where the Office is not currently aware of a problem, either because it did not successfully import documents causing a process to start, or else it did not successfully transmit a product otherwise finalized to the International Bureau.

XML for ISA/IPEA Reports

25. As noted in paragraph 11, above, PATENTSCOPE now offers machine translation and links to citations for reports delivered in suitable XML format, which now cover around 60 per cent of international applications, with other International Authorities expecting to begin delivery of XML reports in the near future.

26. Effective and consistent XML reports, particularly for the parts related to the citation of documents, are key to most of the desired future work relating to the substantive aspects of the patent system, including:

- (a) facilitating access to and analysis of cited documents for applicants, designated Offices and third parties;
- (b) making review of international phase reports for assisting substantive examination in the national phase more efficient; and

(c) reviewing the effectiveness of search sharing through more detailed analysis of the characteristics of individual reports and the extent to which documents cited in one phase of processing (or family members thereof) continue to be considered relevant in subsequent phases of processing.

27. However, even for those reports currently received in XML format, errors in data and differences in practical implementation of the standards concerned mean that it has taken significant effort over the course of several years to bring the product to the point where most of the data can be made available. Even now, a significant proportion of the reports cannot yet be used to feed the official translation process, meaning that the International Bureau faces greater costs than necessary and delivers a less useful final product to end users.

28. Moving towards XML reports should be a priority for International Authorities. A variety of improvements are being developed for this purpose in ePCT to assist Authorities that do not have in-house systems that could produce such output. However, particular attention should be given to ensuring that the XML delivered is valid, and to identifying consistent and useful implementations of the standards to ensure that data can be passed effectively through the process without regard to its source or destination, especially with regard to cited documents and their relevance. Ideally, it should be possible to move data consistently from national search reports on an earlier priority application, through international search reports and supplementary international search reports, to be used also in draft search reports being prepared by Offices in the national phase. If necessary, Member States should update WIPO Standards ST.36 and ST.96, as well as the relevant DTDs within Annex F, and provide high quality examples as reference implementations to encourage consistency.

XML for Application Bodies

29. Filings in XML have traditionally been dominated by applications to the receiving Offices of Japan, the Republic of Korea and China. XML filings elsewhere have been increasing slightly, based largely on the deployment of online tools for the submission of DOCX documents and conversion to the more basic ST.36 XML format. The quality of the International Bureau's converter tool has improved significantly, based on feedback following its deployment as a web service powering the normal route of national electronic filing to INPI France. However, a 100 Swiss franc difference in filing fee compared to PDF does not offset the concerns of applicants over the risks involved in processing a converted application where the choice of the more traditional route remains.

30. The International Bureau remains of the view that working effectively with DOCX documents is the best way to deliver high quality text-based application bodies and eliminating type-setting based on optical character recognition. However, further effort needs to be made to identify an approach that ensures that a DOCX filing can be treated efficiently and accurately throughout the lifetime of the application, irrespective of the combinations of receiving Office, International Searching and Preliminary Examining Authority and designated or elected Offices concerned. This requires agreement on the processes for submitting the DOCX application, the timing and use of any conversions made to ST.36 or ST.96 formats, and methods for submitting and processing corrections, rectifications and amendments. It is also likely that it requires the use of consistent DOCX converters, or at least a clear understanding of how different converters can be used by different Offices without detriment to the processing of the application.

XML Sequence Listings

31. The Committee on WIPO Standards (CWS) recommended that WIPO Standard ST.26 be applicable to any national or international application filed on or after January 1, 2022. The PCT Working Group will in May 2020 consider a package of changes to the PCT Regulations aimed at meeting this target. The version 1.0.0 *Beta* of WIPO Sequence was launched on November 29, 2019, offering a tool for the preparation of sequence listings compliant with the

Standard. An associated tool, WIPO Sequence Validator offers a component allowing Offices to verify the compliance of a filed sequence listing with the Standard. Further developments of both of these tools are expected over the course of the years 2020 and 2021. The International Bureau will work to ensure that ePCT-Filing properly validates sequence listings against the Standard and that listings according to the Standard can be passed effectively using all of the relevant IT tools. National Offices in all of their relevant roles will likewise need to be ready to receive and process the new sequence listing format.

Other XML Issues

32. In principle, the International Bureau would like to migrate all Office-to-Office communications (and more communications with applicants) to a useful machine-readable format, from which human-readable views would be generated as required for processing and record purposes. Almost all International Bureau communications are created as XML, from which a human-readable view is then generated. In addition, DTDs have been created for almost all of the receiving Office and International Authority forms, and XML is created by ePCT for Offices using that system, as well as by some other Offices using their own systems. However, relatively little of the XML data is shared or reused. Furthermore, the DTDs have mostly been created with the aim of replicating the appearance of traditional paper forms and do not necessarily use the most effective way of representing the business information in a way that allows the underlying process to be better automated or understood for later analysis.

33. The volume of forms and the number of Offices by which they are used makes it impractical to consider them all at once and work in this area currently has a low priority. However, the International Bureau would welcome proposals for areas of work where exchange of XML or other structured data in accordance with existing or improved standards could offer significant benefits. This could include either complete replacement of certain forms covering key functions, or else small changes covering many forms, such as ensuring that certain key features common to many forms, such as dates for response, are passed in a consistent machine-readable format.

Color Drawings

34. Recent work towards officially allowing for the filing of color drawings and permitting their processing through the whole of the international phase has been limited to planning towards a future publication process, based on XML application bodies with reference to a wider range of options for drawings (and potentially other referenced objects, such as videos and 3D models in the future). This work, in turn, depends on further progress on procedures for handling DOCX.

35. The interim solution continues to be available for tagging international applications as possibly containing color drawings, with a front page notice and the original document being made easily available through PATENTSCOPE. Since becoming available in December 2017, this tag has been applied to over 22,000 international applications from 50 receiving Offices.

National Phase Entry

36. As noted in paragraph 11, above, the quality and completeness of national phase information is improving, but work continues on seeking more complete and timely data. It is intended to use this information to offer more effective links to national phase information from ePCT for applicants and Offices.

37. In view of the limited enthusiasm for integration with designated Offices and the other priorities for work, development of systems for active collaboration within ePCT towards the submission of national phase entries has been put on hold. This could be resumed if there is sufficient support, but at present, related work is directed mainly at allowing ePCT to prepare packages of documents and data for one agent to send to another to assist in the preparation of translations and other documents in other systems.

Integration With National Office Systems

38. A variety of options have been developed and tested to allow integration of services with those of national Offices. Offices considering major upgrades to their Office functions, especially as receiving Office, may wish to consider discussing with the International Bureau the possibility of using ePCT to reduce the cost of work and to ease the efforts of complying with standards, either by using the browser-based interface or through use of web services to deliver back end functionality.

Release Schedule

39. A new version of ePCT will be released in February and a further release is expected in late June, including changes to handle the amendments to the PCT Regulations coming into force on July 1, 2020.

NEXT STEPS

40. The International Bureau invites comments on future work needed to improve PCT Online Services, including on roles and responsibilities for different areas of work. Some matters can be dealt with by the International Bureau alone. Others require collaborative work by the International Bureau and national Offices in their PCT roles, or mainly by those Offices alone.

41. In addition, there seem to be some areas where effective development of PCT services requires the development and implementation of improved standards including national systems. Of particular interest here may be:

- (a) XML search reports, as noted in paragraph 28, above;
- (b) signed electronic priority document packages, containing full text application bodies and sequence listings, where available, in addition to bibliographic data in a standard format, allowing a priority document to be imported into a draft subsequent national or PCT application, offering direct reuse of the bibliographic data and, if so desired, application body; and
- (c) protocols for key web services, making it more likely that patent management system providers will develop the necessary interfaces (see paragraph 23, above), knowing that the same protocol for services such as checking for new documents and downloading documents and data from the file will work both for PCT and major national patent systems.

42. The Meeting is invited to comment on the priorities and directions for the development of PCT online services.

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