

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

Twenty-Second Session
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PCT ONLINE SERVICES

Document prepared by the International Bureau

SUMMARY

1. The effective and efficient operation of the International Authorities is supported by a variety of online services operated by the International Bureau for use by applicants, receiving Offices and third parties, as well as by the International Authorities themselves.
2. The areas where the International Bureau particularly wishes to make progress with the International Authorities during 2015 and 2016 are:
 - (a) use of eSearchCopy to receive electronic search copies from other Offices as receiving Office in a timely and consistent manner;
 - (b) accepting post-filing documents uploaded by the applicant to the International Authorities using ePCT;
 - (c) providing additional documents from the International Authorities to the International Bureau to make available to applicants through ePCT;
 - (d) moving towards exchange of directly usable data instead of image-based forms, particularly for international search reports and information concerning important status information, such as receipt of the search copy.

GENERAL

3. The International Bureau has for many years supported a variety of electronic services to assist its own tasks and those of receiving Offices, International Searching and Preliminary Examining Authorities and designated and elected Offices. These services have overall been extremely successful, with approximately 92 per cent of international applications filed in the last six months having been received in fully electronic format and a large majority of documents exchanged between the International Bureau and national Offices being transmitted in electronic format. This has permitted significant efficiencies in postal costs, postal delays and speedy and accurate assignment of work to the file of the correct international application and the correct staff to deal with the particular type of document.

4. However, the expectations of users, the challenges faced by Offices and the technical possibilities change with time. There is an ever-increasing desire for improved information relating to international applications, both by applicants wishing to process their applications effectively, and by third parties wishing to monitor the development of technology and to monitor their competitors. There is an ever-increasing diversity in international applications, both in geographical source and in the languages used for filing, search and publication. Several International Authorities receive a considerable proportion of their work from receiving Offices located in very different geographic regions of the world. Different Offices have implemented electronic services at different times, based on the technology which was available at the time – maintaining multiple systems in parallel is an increasingly complex burden, which detracts from the development of new services to meet expectations more effectively.

5. The International Bureau wishes to improve its online services, but also to consolidate them and to support the take-up of new technologies by national Offices which will allow Offices to work together more effectively to make the PCT system as a whole more useful to applicants, Offices and third parties alike. Some important steps have been taken, such as the decision to close down the PCT-EASY filing route from July 2015 and to concentrate on encouraging the availability and use of full electronic filing at all receiving Offices. ePCT also offers the possibility of extending electronic communication to subsequently-filed documents and making available any documents from receiving Offices and International Authorities, eliminating postal delays, which can be a particular problem for international applications where the applicant is geographically remote from the International Searching Authority.

6. The ePCT system now offers a wide range of services to applicants and Offices which offer possibilities which have not previously been practical. These services have, up to now been available only through an English language interface, but this will very soon be extended to cover most of the languages of publication. The possibilities for some of the most important improvements, however, depend on the cooperation of national Offices in their roles as receiving Office and International Searching and Preliminary Examining Authorities. The requirements should not be onerous, and do not require automated Offices to directly use the browser-based services themselves, but do require positive consideration of how minor developments or configuration changes could bring significant benefits to PCT customers, especially for those Offices with customers in States other than that where they are located.

eSEARCHCOPY

7. The eSearchCopy service is now in operation for a small number of pairs of receiving Offices and International Authorities, as follows:

RO/MY, RO/NZ, RO/SG	→	ISA/AU
RO/US	→	ISA/IL
RO/FI	→	ISA/SE

8. Furthermore, a number of additional pairs are in preparation, including notably a pilot with ISA/EP for a selection of receiving Offices of different sizes, procedures and geographical locations, aimed at establishing a plan for verifying the expected benefits of the service and for extending it in a manageable way to the very large number of receiving Offices for which that Authority acts.

9. The pairs currently in operation cover the main expected different uses of the service, with record copies being delivered both by PCT-EDI¹ batch and individually through ePCT uploads, and with confirmation of search fee payments made by delivery of lists covering multiple international applications, or else by selecting the relevant checkbox within ePCT, allowing most of the key functionality to be verified.

10. The service operates by the receiving Office sending the documents required for the search copy to the International Bureau (most of these are sent already) electronically (via either PCT-EDI or ePCT), together with an indication of when the search fee has been paid. Once the International Bureau has received the minimum required documents and the indication of payment of the search fee, the search copy is transmitted electronically to the International Searching Authority using batches over PCT-EDI. Subsequently filed documents may be transmitted in later batches if received after the original search copy has been transmitted.

11. Therefore, there is a requirement for International Search Authorities wishing to participate in the eSearchCopy project to exchange documents with the International Bureau electronically using PCT-EDI. An alternative could be for the International Bureau to deliver the search copies to International Searching Authorities using ePCT, although this is not currently planned for, since it is assumed that any Office appointed as International Searching Authority would need to import documents into a local system for examiners, which cannot be done efficiently and without risk of introducing errors through a browser interface.

12. The main aims of the service are:

- (a) to reduce delays in delivery of search copies and the risk of loss of paper copies in the post;
- (b) to reduce costs for receiving Offices by eliminating the need to transmit documents to the International Searching Authority (typically done by posting paper copies) as well as to the International Bureau (already mainly done electronically); and
- (c) to reduce administrative overheads for International Searching Authorities, by delivering search copies in a consistent electronic format, irrespective of which Office acted as receiving Office, noting that most Authorities are competent to act for applications filed at several other receiving Offices in addition to applications filed with those Authorities in their capacity as receiving Offices, as shown in the table below.

ISA	AT	AU	BR	CA	CL	CN	EG	EP	ES	FI	IL	IN	JP	KR	RU	SE	US	XN
Number of ROs	30	19	6	4	8	10	3	105	15	2	4	3	9	17	32	18	20	5

13. With regard to the first aim, for international applications filed in 2013 for which the International Bureau holds information on the date of receipt of the search copy and where the Office which acted as receiving Office is not the same as that which acted as International Searching Authority, on average the International Bureau received the record copy 7.6 days earlier than the International Searching Authority received the search copy. This is in part due

¹ PCT-EDI is a SFTP-based service used for most international phase electronic communications between the International Bureau and national Offices.

to the fact that search copies are more likely to be delayed as a result of fee payment and translation issues, but in addition, more Offices transmit record copies electronically to the International Bureau than search copies to the International Searching Authority. Furthermore, the International Bureau's ePCT system offers the opportunity for all remaining receiving Offices to begin electronic transmission of record copies without the need for any local IT system development. Once the service has been running for long enough to make a valid comparison, the International Bureau will make an analysis to see whether the potential time savings are in fact achieved compared to the previous average for the relevant receiving Office–International Searching Authority pair.

14. The International Bureau would welcome International Searching Authorities wishing to accept search copies by the eSearchCopy route to contact the International Bureau to discuss appropriate testing, the issues which would be involved for the relevant receiving Offices should they agree to use the service, and the appropriate transitional arrangements to ensure that the move from paper transmissions to eSearchCopy goes smoothly. It should be noted that the format for the eSearchCopy is not the same as that currently used for transmission of search copies from the receiving Office of the International Bureau, but it is intended to bring the two together in the future to deliver a fully consistent service.

15. A related pilot is under way between the United States Patent and Trademark Office, the European Patent Office and the International Bureau to determine whether it is possible to rationalize fee payment processes by having the International Bureau act as an intermediary for search fee payments. The process seeks to reduce the number and complexity of fee payments and receipts by Offices, improve the consistency of information concerning which fees are included in any particular payment, and allow the International Bureau the possibility of better managing the timing of exchange rates (noting that under Rule 16.1(e), the International Bureau is liable to make good any losses made by the International Searching Authority on exchange from an equivalent in a "prescribed" currency of the receiving Office to the "fixed" currency of the International Searching Authority).

ePCT-FILING

16. The e-filing component of ePCT provides online functionality for securely preparing an international application with a more thorough and up-to-date pre-filing validation than is possible through previous client software, such as PCT-SAFE. At the same time, it maintains compatibility with the existing Annex F-compliant online filing servers so that receiving Offices do not need to update their own systems to accept filings from this new source. The International Bureau also offers national Offices the possibility of having an online filing server hosted by the International Bureau, allowing receiving Offices the possibility of accepting electronic filings from their applicants with no need to maintain any software other than a standard web browser.

17. Some of the aims of the system include:

- (a) *extending the availability of electronic filing* to applicants from any PCT Contracting State, without necessarily having to use the International Bureau as receiving Office (except where the relevant national Office has specified the International Bureau as the only competent receiving Office for their nationals and residents) – at the time of writing, ePCT filing had been enabled for 13 receiving Offices, most of which had either not previously accepted fully electronic filing of international applications, or else had required applicants to save a package from the PCT SAFE software and separately upload it to a separate browser based system; work was under way with around 20 more Offices towards extending this total;

(b) *further extending the use of fully electronic filing* by making it the most desirable method of filing for all applicants, including those who have not previously been able or willing to install and use the PCT-SAFE client software – provisional 2014 estimates suggest approximately 91.7 per cent of international applications were filed electronically with 2.2 per cent as paper plus PCT-EASY diskette (the proportion of monthly totals significantly decreasing as the year progressed) and 6.1 per cent as paper only; ePCT-filing can be used by applicants without the need to install any special software and it is hoped in 2015 to offer an easier alternative to the current digital certificates to further reduce the barrier to use of the system while remaining highly secure;

(c) *increasing the use of full text data* – approximately 26.5 per cent of international applications in 2014 were filed in XML format, giving immediate access to the text of the application and a higher chance that the drawings are in a format which can be read effectively by the examiner at the International Searching Authority; among the 65.2 per cent of applications filed in PDF format, a significant proportion were prepared without the use of PCT-SAFE, ePCT or equivalent software and included scanned paper request forms which required manual transcription and/or application bodies scanned from paper prints; these scans were often of low quality, making it difficult to capture text using optical character recognition – ePCT-filing offers the possibility of uploading DOCX format files, which are automatically converted to Annex F XML format (with the original file being retained as a “pre-conversion format” file in accordance with Section 706 of the Administrative Instructions) to encourage the provision of usable text;

(d) *minimizing the number of defects in international applications* which need to be corrected before the receiving Office – the system offers a wider range of pre-filing checks of bibliographic data and uploaded documents than is possible using the PCT-SAFE client software, conducted using the same services and reference data used by the International Bureau (rather than needing to download updates, which were typically provided on a quarterly basis and frequently not routinely installed by users); consequently, more errors can be recognized and corrected before filing;

(e) *eventual phasing out of legacy services* – with ePCT maturing in terms of functionality and take-up, the International Bureau will, in consultation with all stakeholders, be seeking to establish a timetable for phasing out legacy systems and services, such as the PCT-SAFE client software.

18. Although e-filing is a matter primarily for the receiving Office, it should be noted that these aims all contribute to delivering earlier and higher quality search copies to International Searching Authorities to allow them to conduct their work more efficiently.

ePCT FOR OFFICES

19. While its main Office services are aimed at receiving Offices, ePCT now also offers services to Offices in any of their roles as International Searching and Preliminary Examining Authority and designated or elected Office. Services to International Searching and Preliminary Examining Authorities are essentially limited to status information and document exchange.

20. The International Bureau assumes that International Authorities require their report preparation tools to be well-integrated with local systems, including search tools. Consequently, there are no plans at present to extend browser-based services for International Searching and Preliminary Examining Authorities to cover substantive activities, such as preparation of international search reports and written opinions (though this could be considered if a tool became necessary to support collaborative search and examination, for example). However, tools to assist the preparation and conduct of more administrative forms and processes could be considered if there were demand from sufficient International Authorities.

21. Moreover, it may be useful to consider common services (such as centralized rendering systems for forms, using secure web services) to reduce maintenance costs for International Authorities associated with form changes.

22. International Authorities are invited to comment on services to support their activities which they would find it desirable to use if they were provided by the International Bureau.

ELECTRONIC EXCHANGE OF POST-FILING DOCUMENTS WITH APPLICANTS

23. Although almost all receiving Offices currently receiving large numbers of international applications have electronic filing systems, few receiving Offices or International Authorities have systems allowing submission of post-filing documents. Similarly, few Authorities offer systems allowing PCT applicants the ability to electronically view documents established by the Authority, even if they may offer such facilities for national applications. This is a particular problem for applicants in countries geographically remote from their chosen International Searching Authority since, even if the Authority does offer such electronic services, it will be through a different system from that which they use for interacting with the receiving Office and may involve a special registration process with the Office acting as International Searching Authority, which will be difficult or time-consuming at a long distance.

24. ePCT offers the possibility of providing a service where the applicant can view the entire international phase file through a single portal and also use that service to upload documents to the appropriate Office as receiving Office or International Authority, as well as to the International Bureau. This offers the possibility of significantly reducing delays in communication, particularly in relation to invitations to pay additional fees as a result of lack of unity of invention (though the system does not yet offer the option to pay fees to Offices other than the International Bureau).

Transmission of documents from the applicant to an International Authority

25. As a means of transmitting documents from the applicant to International Authorities, the service can be enabled with two options:

- (a) uploaded documents are notified to the International Authority as being available for download through the ePCT Office web browser portal; or
- (b) documents are automatically transmitted to the International Authority in a batch (usually daily) over PCT-EDI.

26. The advantages of this service include that it enables applicants to transmit documents to receiving Offices and International Authorities at a higher quality than is allowed by fax, and provides information concerning the international application number and type of document, allowing the document to be imported into local electronic systems and properly routed automatically.

27. It should be noted that in many cases, where delivery over PCT-EDI is used, the relevant Office will actually import the document the day after it was transmitted. However, the document should be treated as having been received at the time that it was transmitted – the ePCT system records the time and date according to the timezone of the Office to which the document is directed and it is in fact available immediately to that Office through the ePCT browser interface, even though it may only be imported into the Office's local IT systems later on.

Making available documents from International Authorities to applicants and other Offices

28. The International Bureau is also able to make documents immediately available to applicants through ePCT, including types which are not normally transmitted to the International Bureau. This can be done in either of two ways:

- (a) uploading documents individually through the ePCT browser interface, selecting the relevant document type; or
- (b) sending the documents as part of a batch over PCT-EDI, indicating the relevant international application number and document type using the “minspec” codes as for other documents transmitted that way.

29. Probably the most important documents for International Authorities to consider for this treatment are written opinions of the International Preliminary Examining Authority (PCT/IPEA/408), invitations to pay additional fees due to lack of unity of invention (PCT/ISA/206 or PCT/IPEA/405) and documents cited in the course of the international search or international preliminary examination. The first two would allow applicants to respond more quickly to common causes for delay in international search and preliminary examination. The last would provide a convenient resource, allowing a method of providing copies of documents not only to applicants, but also to designated Offices in accordance with PCT Articles 20(3) and 36(4) – such documents are available securely through ePCT, but not made available on Patentscope for copyright reasons.

30. Other potentially useful document types include:

- (a) invitations to pay the prescribed fees together with a late payment fee (PCT/IPEA/440);
- (b) invitations to request rectification (PCT/ISA/216 or PCT/IPEA/411) or submit amendments (PCT/IPEA/431);
- (c) invitations to furnish sequence listings (PCT/ISA/225 or PCT/IPEA/441), a translation of the international application (PCT/IPEA/443) or translations of priority documents (PCT/IPEA/414); and
- (d) invitations to specify a competent IPEA (PCT/ISA/235 or PCT/IPEA/442) or to correct defects in the demand (PCT/IPEA/404).

31. Some of these document types are not yet enabled in either ePCT or PCT-EDI, but are in the process of being added and can be prioritized if Authorities are able and willing to provide them in the near future.

MACHINE TO MACHINE TRANSMISSIONS

32. At present, the only option for full automation of processing between the International Bureau and receiving Offices, International Authorities and designated and elected Offices is to exchange documents and data using PCT-EDI. This has the advantage of being simple to implement and very robust, since a temporary system outage at either end will merely delay processing, rather than there being any risk of documents or data being lost. However, the batch processes are typically run only once per day and, in some cases, only once per week. Consequently, it is not possible to reliably implement real-time services.

33. Preliminary work has begun on secure ePCT web services, which could allow near-real-time automated services, including provision of common core services or on-demand retrieval of required documents where this is preferred to transmission of complete document sets. Deployment of such services is dependent on the implementation of a new identity management (IDM) system at the International Bureau, which is better adapted to authentication of automated systems. The International Bureau will consult on these matters once details of the new IDM are available, but in the meantime welcomes general comments on services which would be likely to be used.

PAYMENT OF FEES

34. It is recognized that online responses to some of the invitations noted in paragraphs 29 and 30, above, will only be useful if they can be matched reliably to associated payments. ePCT presently offers the possibility of online payment for fees to the International Bureau using either credit cards or a WIPO current account. It is possible that the same facilities might be extended to permit a centralized payment option at some stage in the future, but at present, it will remain necessary for International Authorities which act for applicants outside their own country to continue to ensure that effective payment systems are in place for the use of those applicants.

35. A detailed proposal in this area may be made following the outcome of the pilot on search fee transfers referred to in paragraph 15, above and other consultations which are beginning (see Circular C. PCT 1440) concerning potential improvements to the setting and payment of fees in currencies different from that used by the Office which is the beneficiary. However, the International Bureau would welcome indications from International Authorities whether such a facility would be considered useful if it is found to be practical, and to indicate any issues which ought to be taken into account in the evaluation.

EXCHANGE OF DATA IN PLACE OF FORMS

International Search Reports and Written Opinions

36. The International Bureau is in the advanced stages of testing XML-based international search reports being transmitted by three International Authorities and it is hoped that live use of these reports will begin in the near future. Once a sufficient volume of international search reports are delivered in XML format, the International Bureau hopes to introduce a number of significant improvements to its services, including:

- (a) improved information for applicants, third parties and designated Offices on citations, including links to cited patent documents and potentially to some non-patent literature and combining information from different sources (such as any third party observations);
- (b) reduced cost and improved quality of translations of reports into English;
- (c) on-the-fly machine translation of reports into other languages, with perfect “translation” of the basic form into any of the PCT languages of publication by placing the machine-translated text into the framework provided by the relevant official stylesheet.

37. The International Bureau believes that this work is key to many improvements which are desired by all users of the system and hopes that all International Authorities will consider updating their systems to permit the creation of XML format reports in the near future.

Administrative Communications

38. Various administrative communications could be significantly improved by exchanging data instead of (or together with) images of forms between the International Bureau and International Authorities. Two particular examples would include:

- (a) replacing transmission of Form PCT/ISA/202 (notification of receipt of search copy) to the International Bureau with a data feed – this has already been done by the European Patent Office and Japan Patent Office, eliminating the need for manual entry of the data and eliminating the possibility of transcription errors; and
- (b) replacing transmission of Form PCT/IB/306 (notification of the recording of a change) to International Authorities with the equivalent information in XML, allowing semi- or complete automation of changes of names and addresses in local systems – this

would significantly reduce the number of international search reports and written opinions which are sent to the wrong address because a change of address had been notified to the International Authority but the changes not yet processed.

DISCUSSING USE OF SERVICES BY INTERNATIONAL AUTHORITIES

39. In addition to any comments made during the Meeting, all International Authorities are invited to make comments at any time on the development of services to the PCT Business Development Division at pctbdd@wipo.int. Furthermore, bilateral discussions on technical requirements, timetables, development and testing requirements for beginning to use new services can be begun by contacting the PCT International Cooperation Division at pcticd@wipo.int.

40. The Meeting is invited to comment on the direction and priorities for electronic services which directly or indirectly support the operations of International Authorities.

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