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|  | WIPO-E | **E** |
| PCT/WG/12/23 |
| ORIGINAL: English  |
| DATE: May 28, 2019  |

**Patent Cooperation Treaty (PCT)**

**Working Group**

**Twelfth Session**

**Geneva, June 11 to 14, 2019**

Electronic Communication between Offices and Applicants in the PCT

*Document prepared by the International Bureau*

# Summary

1. The International Bureau will cease to accept or send facsimile transmissions as a means of communication for PCT purposes after December 31, 2019.
2. Receiving Offices and International Authorities should consider the future of fax and other communications to and from their Offices. This should take into account reliability and quality, as well as ensuring that applicants and other interested parties should have effective means available for communication at all times and appropriate safeguards in the event that failures nevertheless occur.

# Background

1. From January 1, 2018, the International Bureau’s service provider ceased to offer analog telephone lines. As a consequence, all faxes to and from the International Bureau from that date have used Fax over Internet Protocol (FoIP) technology. However, even before that date, many users were dependent on FoIP for fax transmissions as some national service providers, or the users themselves, had already moved away from analog lines.
2. Contrary to the original fax protocol over analog lines, with FoIP it is possible for a transmission to be reported as successful, but in fact not be received. It is believed that this has in fact happened on some occasions for transmissions to and possibly from the International Bureau. The chances of such a problem increase with the length of transmission, making it a particularly unreliable means of transmission for long documents, such as patent applications.
3. Consequently, in the December 2017 issue of the PCT Newsletter, the International Bureau strongly recommended that PCT applicants should cease to use fax as a means of communication with the International Bureau and indicated that the International Bureau was considering ceasing to support fax as a means of communication. From April 1, 2018, the International Bureau ceased to support fax in the Madrid and Hague systems.
4. In Circular C. PCT 1545, dated September 18, 2018, the International Bureau formally consulted with national Offices and certain non‑governmental organizations representing users of the PCT system on proposals to decommission the International Bureau’s fax servers used for PCT purposes with effect from January 1, 2019, noting the development of a new contingency online document upload service, which became available at the start of December 2018. Following concerns expressed by a number of users, the decommissioning was delayed to “at least the end of June 2019”.
5. The contingency upload service is a system designed to provide basic services in the event that the main ePCT services are not available. It has redundant hosting, based in two geographically separated locations, and does not depend on the background services required for ePCT to function. Most notably, it does not require login and, if the International Bureau’s main internal systems are not available, will store uploaded documents until it is possible to transfer them. However, this degree of isolation from other services means that it does not offer the benefits of the main systems, neither to the International Bureau (in terms of added data to facilitate processing) nor to applicants (in terms of contextual information and ability to see the document and its further processing immediately within the online file). Consequently, it is recommended that this service is only used in the event that the main ePCT services are actually unavailable.
6. Developments to the fax standards mean that it is possible to largely overcome the issue of failures without warning, provided that both sender and receiver use new equipment, compatible with the latest standards. However:
	1. few people now invest in new fax equipment;
	2. the quality of the content of the transmitted documents remains poor compared to the quality of documents transmitted by other forms of electronic transmission;
	3. the documents do not come with machine‑readable information to assist their processing; and
	4. the transmissions are generally dependent in some way on Internet services – some applicants may have fax and other Internet services sufficiently independent that a failure in one would not necessarily affect the other, but any failure sufficient to eliminate both ePCT and the contingency upload service would almost certainly also cut off the International Bureau’s fax servers.
7. Consequently, as announced in the May 2019 issue of the PCT Newsletter, the International Bureau has decided not to invest further in attempting to maintain the legacy fax service and will cease to accept or transmit documents by fax as part of the PCT procedure after December 31, 2019.
8. The national Offices of Australia, Ecuador, El Salvador, Kazakhstan, Nicaragua, Peru, Slovakia, South Africa and Uganda have also asked for fax numbers to be deleted from their entries in the PCT Applicant’s Guide over the last few years; Israel has done so with effect from June 1, 2019.

# Issues

1. The use of fax for communications to and from the International Bureau has dropped dramatically over recent years. This is due to a variety of factors, including:
	1. the decline of fax in general;
	2. the increasing availability, quality and ease of use of electronic services at national Offices; and
	3. efforts by the International Bureau to reach out to major users of fax to warn of the problems and promote the use of electronic communications systems such as ePCT.
2. Nevertheless, it is recognized that across the PCT system as a whole, fax continues to play a small but important role in allowing immediate communications between applicants and Offices, especially in two situations:
	1. in meeting urgent deadlines where the Office does not offer online services, or such services are not available to the particular applicant (for example, where the applicant or agent is based in a country or region different from that of the International Searching Authority and has difficulty creating a suitable account); and
	2. where the online services are not available to the applicant at a particular moment, whether due to a general outage or problems specific to the particular applicant or to groups of applicants.
3. Consequently, while the International Bureau strongly recommends avoiding the use of fax wherever possible, the decommissioning of fax services should be placed within a context that ensures all applicants can receive an effective service from the receiving Office, the International Bureau and the selected International Searching and Preliminary Examining Authorities.

## Use of Fax In the PCT in General

1. In the PCT Applicant’s Guide, 115 Offices with a role as receiving Office or International Authority currently list fax numbers. A few indicate that these are for limited purposes only, but most appear to be available generally for communication of any document. Many Offices and Authorities include a fax number on their forms to allow applicants to communicate with them. The request and demand forms include spaces for applicants to record fax numbers.
2. The option of an immediate means of communication between Offices and applicants is important, especially for International Searching Authorities acting for applicants in geographically remote countries, where surface mail may take several days or even weeks to be delivered. In these cases, national electronic services may not be effective because it can be difficult for agents in other countries to register for these services. Moreover, even if the agent has an account, the international application may not be visible from that account, particularly if it was filed at a different Office as receiving Office.
3. Many Offices (68 out of 119 receiving Offices and 16 out of 23 International Authorities) allow document upload by applicants through ePCT. However, this still leaves many Offices either without any electronic communication arrangements at all, or else with only national electronic services that may be unavailable to its customers in other countries. In particular, the International Authorities that do not accept documents from applicants through ePCT act for applications made through a total of 60 other national Offices as receiving Offices. Consequently, any move to drop the use of fax should also consider whether all applicants served by the Office have easy access to a practical alternative means of fast communication.

## Other Alternatives to Paper and Email

1. At present, the request form offers applicants the choice of (i) paper, (ii) both paper and email, and (iii) only email as options for the normal means of documents being transmitted by the International Bureau (and from other Offices to the extent that they support the relevant option). In addition, ePCT offers the possibility of email notifications being transmitted to users with secure access to the application through that service, containing links to documents. National Offices may also offer other forms of communication to the extent that the international application was filed or processed through their systems.
2. The International Bureau intends to launch a consultation shortly on the possibility of allowing applicants to choose ePCT notifications as the official and sole means of transmission of documents from the International Bureau for applications filed through that service (or for the option to be selected later on for applications accessible through that service). This aims to meet several goals:
	1. to increase the speed and reliability of delivery of documents to applicants;
	2. to reduce the printing and mailing of paper for the International Bureau and for receiving Offices and International Authorities processing applications through compatible services; and
	3. to reduce the transmission of documents by email, noting that this is also not a secure and reliable route of communication.
3. With regard to the final point, it is noted that the current normal method of delivery of ePCT notifications is also by email. However:
	1. the ePCT notification emails are more secure than the emails containing the documents themselves, because the notifications are digitally signed and do not contain the substantive content of the message;
	2. the ePCT emails are more reliable since they are smaller and less likely to fail in transit for technical reasons such as size limits on gateways, as well as less likely to be trapped by spam filters;
	3. the ePCT emails are not the sole means of delivery – the applicant is able to log into ePCT and check a list of notifications if there is any suspicion that messages may have gone missing; and
	4. ideally, working methods and IT systems should change to deliver documents and data directly to agents’ patent management systems without the need for emails or manual checks.
4. To support the potential new route referred to in paragraph 19(d), above, ePCT offers web services to allow users to securely check for new documents and download them automatically.  The International Bureau is interested in working with patent management system suppliers to ensure that the services fully meet user needs and are built into commonly used tools. Similar arrangements could be made, ideally to a common standard, by Offices offering PCT international phase communications through their own systems.
5. In principle, an arrangement to authorize electronic delivery of documents need not be limited to ePCT, but could refer to other services offered by national Offices. Offices are invited to contact the International Bureau if this option would be considered potentially relevant.

## Alternative Backup Means of Communication

1. Even if electronic filing systems are highly robust and reliable (ePCT was available 99.86 per cent of the time in 2018 and is being continually improved for further reliability), it is desirable to have an alternative means of communication available in case of failures. Ideally, this would be through a fundamentally different communication route, to allow for the case where the Office’s systems are functioning perfectly but applicants are nevertheless unable to use them because of a failure of the Internet connection at their end or at a key intermediary. It is also desirable that the alternative means of communication only be used when it is actually necessary to do so, unless it provides all the advantages of the normal electronic communications services, including routing documents automatically to the file of the correct international application, classifying the type of document in order to start the correct processing and collecting additional data to assist the required processing.
2. For the International Bureau, a further key requirement would be that any such alternative was in widespread use in a majority of countries of the world. However, given the increasing proportion of services that are underpinned by the Internet, the International Bureau has not yet identified a suitable alternative that is independent of the Internet.

## Legal Safeguards

1. As discussed in previous sessions of the Working Group, some safeguards already exist in the PCT Regulations to mitigate problems with the transmission of documents in various circumstances. The proposal of the European Patent Office in document PCT/WG/12/17 seeks to address some other issues. However, even if these proposals are approved, there will remain a variety of situations where applicants can be disadvantaged through failures that are no fault of their own and remedies are either ineffective or dependent on national laws and procedures of the receiving Office, rather than being consistently available to applicants from any Contracting State.

# Next Steps

1. Over the coming months, the International Bureau will remove its fax numbers from the forms it issues and from the PCT Applicant’s Guide and related pages of the WIPO website. The fax servers will be decommissioned after December 31, 2019. Consequently, applicants are strongly encouraged to make themselves familiar with the ePCT service and be aware of the contingency service for use in the rare case that the main ePCT services are not available.
2. National Offices are invited to examine their use of fax and to ensure that other effective alternatives are available to all their applicants, especially in the case of International Authorities acting for applicants in other countries or regions. The International Bureau will be pleased to discuss options for the extension of ePCT services to other Offices, or for more effective coordination between the International Bureau’s systems and those of national Offices, where practical and appropriate.
3. Offices, user groups and providers of IT support services to patent applicants are invited to consider the issues of effective communications between applicants and Offices (receiving Office, International Bureau and International Authorities alike) and to make comments to the International Bureau, including:
	1. connected issues that should be considered, beyond those outlined in this document and document PCT/WG/12/10;
	2. practical options for improvements to online services to increase the availability and reliability of communications with all PCT Offices;
	3. needs and options for legal safeguards that might be accepted within the framework of the PCT.
4. The International Bureau would seek to take such comments into account, improve its own services and prepare options for discussion with national Offices and Contracting States through PCT Circulars or at the next session of the PCT Working Group.
5. *The Working Group is invited to comment on the issues set out in this document.*

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