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Draft Security Rights Registry Guide

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Addendum

Contents

	<i>Paragraphs</i>	<i>Page</i>
IV. Rules applicable to the registration and search process (<i>continued</i>)	1-40	3
F. Effective time of registration	1-4	3
G. Amendment of registration.	5-16	4
1. Assignment of the secured obligation and transfer of the security right	5-6	4
2. Subordination of priority	7	4
3. Change in grantor identifier.	8-9	5
4. Transfer of an encumbered asset	10-11	5
5. Addition of new encumbered assets	12	6
6. Extension of the duration of a registration	13-14	6
7. Correction of erroneous lapse or cancellation	15-16	6
H. Mandatory cancellation and amendment of registration	17-21	7
I. Voluntary cancellation or amendment of registration	22	8
J. Entitlement to search and search results	23-26	8
K. Search criteria	27-31	9
L. Language of registration and searching	32-33	10



M.	Copy of registration, amendment or cancellation notice	34-36	10
N.	Grantor's entitlement to additional information	37-40	11
V.	Registry design, administration and operation	41-73	12
A.	Introduction	41	12
B.	Electronic versus paper registry record	42-44	12
C.	Centralized and consolidated registry record	45-46	12
D.	User access to the registry services	47-50	13
E.	Specific design and operational considerations	51-71	14
	1. Establishment of an implementation team	51	14
	2. Design and operational responsibility	52	14
	3. Storage capacity	53	14
	4. Programming	54-58	15
	5. Reducing the risk of inadvertent error	59	15
	6. Physical security of the registry record: secondary and back-up servers	60	16
	7. Role of registry staff and liability	61-63	16
	8. Liability for loss or damage suffered by secured creditors or third-party searchers	64-65	16
	9. Registration and search fees	66-68	17
	10. Financing initial development and operational costs	69-70	17
	11. Education and training	71	18
F.	Transition	72	18
G.	Dispute resolution	73	18

IV. Rules applicable to the registration and search process (continued)

F. Effective time of registration

1. Owing to the role that the time of registration plays in determining the comparative priority of a security right, it is essential that a date and time of registration be assigned to each notice of a security right. However, if the registry system permits the submission of notices in paper form, it will take time for the information set forth in the notice to be transposed by registry staff into the registry record. This raises the question of whether the effective date and time of registration should be assigned as soon as the paper notice is physically received by the registry or only after the information set forth in the notice is entered by registry staff into the registry record so as to be available to searchers of the registry record.

2. If the former approach is followed, there will be a time lag between the effective time of registration and the time when the information will become available to searchers of the registry record. This time lag would create a priority risk for searchers as their rights would be subordinate to rights notice of which was registered even though it was not available to searchers. To deal with this risk, search results could be assigned a “currency date” indicating that the search result is designed to disclose the state of registrations in the registry record only as of the currency date (for example, a day before the search) and not as of the real time of the search. Under this approach, a prospective secured creditor, after registering its security right, would then have to conduct a second search to make sure no intervening security rights have been registered before being confident in advancing funds. Prospective buyers and other third parties would similarly need to conduct a subsequent search before parting with value or otherwise acting in reliance on the registry record.

3. Accordingly, the better approach is for the registry system to assign the effective time of registration only after successful entry of the registration information into the registry record so as to be available to searchers. This is the approach recommended in the *Guide* (see recommendation 70). In States in which information in notices is entered into a computerized registry record (whether directly by the registrant or by the registry staff entering information submitted by the registrant in paper form), the registry software should be programmed to ensure this result (where paper registration forms are maintained in a paper record, the effective date and time manually assigned by the registry staff should similarly be concurrent with the time the information registered would be available to searchers; although increasingly all records should be electronic). It may be prudent to also assign sequential numbers to each notice to sort out priority ranking if the particular system presents any risk of registrations submitted by competing secured creditors against the same grantor being assigned the same date and time of registration. Such sequential numbers may be part of the registration number or be assigned in addition to the registration number.

4. This approach does not eliminate the time lag problem but simply shifts responsibility to the registrant that must verify that the information on the paper notice has been entered into the registry record and is searchable before it can be

confident that its security right is effective against third parties. Accordingly, the registry system should be designed to enable secured creditors to themselves enter the information into the publicly available registry record using any computer facilities, whether their own, those of a service provider or those located at a branch of the registry (see further the discussion on access to the registry record in chapter V below). This approach would give secured creditors some control over the timing and efficiency with which their registrations would become effective since technological advances should virtually eliminate any time lag between submission of a notice that provides the required data and the point time at which data entered become available to searchers.

G. Amendment of registration

1. Assignment of the secured obligation and transfer of the security right

5. A secured creditor that has registered notice of a security right may sometimes assign the secured obligation. As a general rule in most legal systems, as an accessory right, the security right follows the obligation with the result that the assignee of the obligation in effect will be the new secured creditor. In the event of an assignment, the original secured creditor will usually not wish to have to continue to deal with requests for information from searchers and the new secured creditor will wish to ensure that it receives any notices or other communications relating to its security right.

6. Consequently, it should be permitted to update the secured creditor information in the registry record to reflect the identifier and address of the new secured creditor. However, under the approach recommended in the *Guide*, an amendment should not be required in the sense of it being necessary to preserve the effectiveness of the registration. As the identifier of the secured creditor is not a search criterion, searchers will not be materially misled by the change in the identity of the secured creditor (see recommendation 75). In any case, the registry system may be designed so as a search result will show the information of both the original and the new secured creditor. In addition, the original secured creditor should be under an obligation to disclose the new secured creditor's identity to at least the grantor in order for the grantor to be able to obtain current information relating to the registered security right and the obligation to which it relates.

2. Subordination of priority

7. Under a modern secured transactions regime along the lines of that recommended in the *Guide*, a competing claimant with priority may at any time subordinate its priority unilaterally or by agreement in favour of any other existing or future competing claimant (see recommendation 94). There is no requirement that the subordinating creditor or the beneficiary of the subordination amend the registered notice with respect to the subordinating creditor's security right to reflect this subordination. However, in some cases, a subordinating secured creditor or the beneficiary of the subordination may wish to have the record reflect the order of priority between the subordinating secured creditor and the beneficiary of the subordination. Accordingly, a State may wish to consider whether the registry

should be designed so as to accommodate an amendment of the information provided in a registered notice to reflect such subordination.

3. Change in grantor identifier

8. A change in the identifier of the grantor indicated in the registered notice (for example, as a result of a subsequent name change) may undermine the publicity function of registration from the perspective of third parties that deal with the grantor after the identifier has changed. After all, the grantor's identifier is the principal search criterion and, at least in the case of a new registration after the name change, a search using the grantor's new identifier will not disclose a security right registered against the old identifier. When a registration is amended, a search result may turn up both the initial registration under the previous name of the grantor and the amendment that includes the new name.

9. Accordingly, the rules regulating the registration process should permit registration of an amendment to enable the secured creditor to enter the new grantor identifier. While failure to enter an amendment should not make the security right ineffective against third parties, parties that deal with the grantor after its identifier has changed and before the amendment is registered should be protected. Accordingly, the applicable rules should provide that, if the secured creditor does not register the amendment within a short "grace period" (for example, 15 days) after the identifier has changed, its security right would be ineffective against these classes of competing claimants. This is the approach recommended in the *Guide* (see recommendation 61). Guidance should also be provided on what constitutes a change of identifier in the context, in particular, of corporate amalgamations and the effect of not making an amendment in these circumstances.

4. Transfer of an encumbered asset

10. An unauthorized transfer by the grantor of an encumbered asset outside the ordinary course of business potentially gives rise to the A-B-C-D problem already discussed earlier in the text (see A/CN.9/WG.VI/WP.41/Add.1, para. 40). This is because a search of the registry according to the transferee's identifier will not disclose a security right registered against the identifier of the grantor. Accordingly, to protect third parties that deal with the encumbered asset in the hands of the transferee, the applicable rules should permit the secured creditor to amend its registration to record the identifier and address of the transferee in the space reserved for entering grantor information.

11. The rules should also address whether and to what extent such an amendment is required to preserve the effectiveness of the security right against intervening claimants (see recommendation 62 and chap. IV, paras. 78-80). Some States adopt a rule equivalent to that applicable to a change in the identifier of the grantor (see recommendation 61, and paras. 8 and 9 above). Under this approach, failure to amend the registration to disclose the identifier of the transferee does not make the security right ineffective against third parties generally. However, if the secured creditor does not register the amendment within a short "grace period" (for example, 15 days) after the transfer, its security right is ineffective against buyers, lessees, licensees and other secured creditors that deal with the encumbered asset after the transfer and before the amendment is registered. Other States adopt a similar approach subject to the important caveat that the grace period given to the secured

creditor to register the amendment begins to run only after the secured creditor acquires actual knowledge of the transfer. In still other States, such an amendment is purely optional and failure to amend does not affect the third-party effectiveness or priority of the security right (see the *Guide*, chap. IV, paras. 78-80).

5. Addition of new encumbered assets

12. After the conclusion of the original security agreement, the grantor may agree to grant a security right in additional assets not already described in the registered notice. The rules should address the question of whether a new registration would be required or whether the secured creditor would be permitted to simply amend the initial registration to add a description of the newly encumbered assets. If the latter option is chosen, the rules should make it clear that the security right in the newly encumbered assets takes effect against third parties and acquires priority status only from the time of registration of the amendment. This is a necessary qualification since a search of the registry by third persons prior to registration of the amended description would not disclose that a security right has been granted in the additional assets. This is the approach recommended in the *Guide* (see recommendation 70).

6. Extension of the duration of a registration

13. After a registration is made and before its duration expires, a registrant may need to extend it. The rules applicable to registration should confirm that the duration of an existing registration may be extended by way of amendment at any time before the expiry of the term of the initial registration. This is the approach recommended in the *Guide* (see recommendation 69). If a new registration were instead required, this requirement would undermine the secured creditor's original priority status and the continuity of the effectiveness of its security right against third parties.

14. As already discussed (see A/CN.9/WG.VI/WP.46/Add.1, paras. 53-55), in some States, the initial duration of the registration is established by law for a standard period of time; and other States permit the registrant to select the appropriate duration (sometimes up to a maximum number of years). If the duration is set in the law, the rules should provide for an equivalent extension. If the law permits the registrant to select the duration of the registration, the registrant should also be permitted to select the duration of the extension period subject to any applicable maximum limit. Under this approach, a registrant who, for example, selected a five year term for the initial registration should be allowed to select three years for the duration of the extension.

7. Correction of erroneous lapse or cancellation

15. In the event that a secured creditor fails to renew a registration in a timely fashion or inadvertently registers a cancellation, the secured creditor may register a new notice of its security right. However, under the approach recommended in the *Guide*, the third-party effectiveness and priority status of the security right dates only from the time of the new registration (see recommendation 47). Accordingly, the security right will be ineffective against third parties that acquired a right in the encumbered asset in the period between the lapse or cancellation of the security right and the new registration. The secured creditor will also suffer a loss of priority

as against competing secured creditors against whom it had priority, under the first-to-register rule, prior to the lapse or cancellation (see recommendation 96).

16. Some States adopt a more lenient approach. The secured creditor is given a short grace period after the lapse or cancellation to revive its registration so as to restore the third-party effectiveness and priority status of its security rights as of the date of the initial registration. However, even in States that adopt this approach, the security right is ineffective against or subordinate to competing claimants that acquired rights in the encumbered assets or advanced funds to the grantor after the lapse or cancellation and before the new registration.

H. Mandatory cancellation and amendment of registration

17. A registration may not reflect, or may no longer reflect, an existing or contemplated financing relationship between the secured creditor and the grantor identified in the registration. This may happen because, after the registration, the negotiations between the parties broke down or because the financing relationship represented by the registration came to an end. In such a case, the continued presence of the information on the records of the registry will limit the ability of the person identified as grantor to sell or create a new security right in the assets described in the registration. This result is due to the fact that a prospective buyer or secured creditor will be reluctant to enter into any dealings with the grantor unless and until the existing registration is cancelled.

18. Ordinarily, the person identified as the secured creditor in a registration will be willing to register a cancellation at the request of the person identified as the grantor if it does not have or does not reasonably expect to acquire a security right in the grantor's assets. However, in the rare event that cooperation is not forthcoming, a speedy and inexpensive judicial or administrative procedure should be established to enable the grantor to compel cancellation of the registration. This is the approach recommended in the *Guide* (see recommendation 72).

19. Similar issues arise when a registration contains inaccurate information that may be prejudicial to the ability of the person identified as the grantor to deal with its assets in favour of other secured creditors or buyers; for example, the description of the encumbered assets in the registration may include items that are not in fact covered by any existing or contemplated security agreement and the grantor has not otherwise authorized such broad description. To address this situation, the procedure should also entitle the identified grantor to compel an amendment of the registration information so as to accurately reflect the actual status of the relationship between the parties.

20. Accordingly, the rules applicable should entitle a person identified as the grantor in a registration (or indeed any person with a right in the assets described in a registration) to send a written notice to the person identified as the secured creditor to cancel or amend the registration, as appropriate, in any of the following circumstances: (a) a security agreement has not been concluded; (b) the security right has been extinguished by full payment or otherwise; or (c) the grantor did not authorize the registration.

21. The person identified as the secured creditor should be obligated to comply with the request within a specified number of days, failing which the person making the demand should be entitled to request a court or other appropriate authority to order the registry to register the cancellation or amendment unless it is found that the information in the registry record correctly reflects the existing financing relationship between the parties or was authorized by the person making the demand. Whether a court or an administrative authority should be charged with the task of hearing such applications depends on the particular institutional structure of each enacting State. However, in making this choice, the enacting State should ensure that the designated authority has the capacity and expertise to deal with the application in a speedy and inexpensive fashion and procedural rules should be established to ensure that this is the case (see recommendation 72).

I. Voluntary cancellation or amendment of registration

22. A secured creditor should always be in a position to amend or cancel a registration at any time, subject to appropriate authorization by the grantor. This is the approach recommended in the *Guide*, (see recommendations 71 and 73). Once a registration has been cancelled, it should no longer be available to searchers, since its continued presence on the registry record available to searchers may confuse searchers into thinking that the relevant assets are still potentially encumbered. However, the cancelled registration should be preserved by the registry archive record that is not open to the public but available for future reference, if necessary. This is the approach recommended in the *Guide* (see recommendation 74). Retrieval of the information in the archive record by the registry staff at the request of an interested party may be necessary, for example, to establish the priority of a security right at a particular point of time in the past.

J. Entitlement to search and search results

23. Under the approach recommended in the *Guide*, to achieve its publicity objectives, the general security rights registry must be publicly accessible and a searcher should not be required to give any of the reasons for the search (see recommendation 54, subparas. (f) and (g)).

24. A search result should either indicate that no registrations were retrieved against the specified search criterion or list all registrations that match the specified search criterion along with the full details of the information as it appears in the registry record (that is, the identifier and address of the grantor and the secured creditor or its representative, the description of the encumbered asset, and, if this information is required in the particular legal system, the maximum amount of the secured obligation and the duration of the registration). This is the approach recommended in the *Guide* (see recommendations 54, subpara. (a), and 57).

25. In the name of privacy, some States require searchers to demonstrate to the satisfaction of the registry staff that they have a justifiable reason for searching the registry record. The *Guide* does not recommend this approach because the purpose of the general security rights registry is to enable third parties that are contemplating the acquisition of a right in a particular asset (by way, for example,

of sale, security or judgment enforcement proceedings) or parties that otherwise require information about potential security rights in a person's assets (such as the grantor's insolvency representative) to expeditiously determine the extent to which a person's assets may already be encumbered. Requiring potential searchers to first demonstrate an interest in the grantor's assets or affairs and registry staff to make a decision thereon would gravely undermine the efficiency and functionality of the search process since it would interpose a complex and cumbersome adjudicative process into the search process. Transaction costs would also be increased to an unsustainable extent owing to the need to hire expert staff to administer and adjudicate search applications. Privacy concerns are more effectively dealt with by requiring, for example, grantor authorization of a registration and the establishment of a procedure to enable grantors to quickly and inexpensively cancel or amend unauthorized or erroneous registration information (see A/CN.9/WG.VI/WP.46/Add.1, paras. 2-8, and paras. 17-21 above).

26. However, whether the registry may request and maintain the identity of the searcher is a different matter. In some States, the registry may not disclose personal (private) information unless the registry knows the identity and nature of the searcher. The *Guide* makes such a recommendation with respect to the identity of the registrant (see recommendation 55, subpara. (b)), but does not include a similar recommendation with respect to the identity of the searcher.

K. Search criteria

27. Since information in the registry record is indexed by reference to the grantor's identifier, the grantor's identifier should be the principal criterion by which such information is retrieved by searchers. However, a searcher should be entitled to rely on the accuracy of a search result only if the searcher used the correct grantor identifier in searching. Accordingly, the rules applicable to what constitutes the correct grantor identifier for the purposes of registration should also apply to the search process.

28. In legal systems that provide for serial number indexing of specified types of asset, the relevant serial number constitutes an additional search criterion. However, as already discussed (see A/CN.9/WG.VI/WP.46/Add.1, para. 45), in some of these legal systems, serial number registration is mandatory for the purposes of third-party effectiveness and priority only as against certain classes of competing claimants. Consequently, the rules applicable to the search process should make it clear that a searcher is entitled to rely on a serial number search only to the extent that the particular searcher falls within the category of competing claimants for which entry of the specific serial number in the registration is required.

29. The registry system should also be designed to allow that registrations may be searched and retrieved by reference to a registration number assigned by the registry to each registration, initial, amendment, cancellation or other. While not generally useful to third parties as a search criterion, registration numbers would give secured creditors an alternative search criterion to quickly and efficiently retrieve a registration for the purposes of entering an amendment or cancellation.

30. The registry system should also be designed so as to ensure that information could be retrieved also according to the identifier of the secured creditor. This

would enable registry staff, at the request of the person identified in the registration as the secured creditor, to efficiently amend the identifier or address information in multiple registrations associated with that secured creditor through a single global amendment.

31. However, the identifier of the secured creditor should not be available as a search criterion for searching by the public generally. The identifier of the secured creditor has limited relevance to the legal objectives of the registry system (see recommendation 64). Moreover, to allow public searching may violate the reasonable privacy expectations of secured creditors; for example, because of the risk that a credit provider may undertake a search based on the secured creditor identifier to obtain the client lists of its competitors (see the *Guide*, chap. IV, para. 81).

L. Language of registration and searching

32. The rules applicable to registration should clarify that information must be entered in the official language or languages of the State under whose authority the registry is maintained. Searchers must enter and search results will display information in the language in which the information was entered in the registry record (see the *Guide*, chap. IV, paras. 44-46). Where the grantor's name is the relevant identifier and the correct name is in a language other than that used by the registry, the rules should clarify how the characters and any accents on characters that form the name are to be adjusted or translated to conform to the language of the registry.

33. The law under which a grantor that is a legal person is constituted may entitle the grantor to have and use alternative linguistic versions of its name. To accommodate that possibility, the rules applicable to registration should confirm that all linguistic versions of the name must be entered as separate grantor identifiers since third-party searchers may be dealing or have dealt with the grantor under any of the alternative versions of its name.

M. Copy of registration, amendment or cancellation notice

34. Verification that information in a notice that has been successfully entered into the registry record is essential to the third-party effectiveness of a security right. Consequently, the registry should be obligated to send a copy of the registered information to the secured creditor at the postal or electronic address that appears in the registration information. Where the registrant was not the secured creditor but a representative of the secured creditor, the copy should be sent to both the registrant and the secured creditor. This is the approach recommended in the *Guide* (see recommendation 55, subpara. (d)). In an electronic context, the registry should be designed so as to return an acknowledgement in real time without any additional notification except to the registrant.

35. The registry should also be obligated to forward a copy of any subsequent amendment to or cancellation of a registration to the registrant and secured creditor. This is important to enable the secured creditor to take prompt steps to protect its position in the event that the cancellation or amendment was erroneous. This is the

approach recommended in the *Guide* (see recommendation 55, subpara. (d)). Again, this may be relevant only in a paper context and not very practical if postal systems are not reliable. In an electronic registry, the secured creditor should be able to run a search to identify those registrations that have received an amendment or cancellation notice. The registry system may also be programmed to inform the registrant and secured creditor of such changes automatically. In States that have a good text messaging infrastructure, this notification could also be sent via Short Message Service (SMS) or other similar service.

36. In view of the potential impact of registration on the ability of the person identified as the grantor to deal with the encumbered assets described in a notice, the registrant should be obligated to send a copy of the initial registration notice, as well as of any cancellation or amendment notice to the person identified in the registration as the grantor. Failure of the secured creditor to meet this obligation may result only in nominal penalties and any proven damages resulting from the failure. This is the approach recommended in the *Guide* (see recommendation 55, subpara. (c)). The grantor may waive its right to receive copies of any notice registered (see recommendation 10). Again, an electronic registry should be designed to send a copy of any notice registered to the grantor automatically.

N. Grantor's entitlement to additional information

37. The rules applicable to registration should provide that the person identified in the notice as the grantor is entitled to obtain upon request from the person identified as the secured creditor up-to-date information about the current state of financing between the parties, including: (a) a list of the assets in which the person identified as the secured creditor is claiming a security right; and (b) the current amount of the obligation secured by the security right to which the registration relates, including the amount needed to pay off the secured obligation.

38. The secured creditor should be obligated to send the requested information either to the grantor or to any third party designated by the grantor. If the secured creditor no longer claims a security right in the particular type of encumbered asset it must provide identification information of any immediate assignee or successor to the grantor or to a third party designated by the grantor.

39. The possibility of that information being sent to a third party by the secured creditor takes account of the fact that registration does not create or evidence the creation of a security right but merely signals that a security right may exist in a particular asset. Whether the security right has been created, and the scope of the assets which it covers, depends on off-record evidence. Consequently, prospective buyers and secured creditors and other third parties with whom the grantor is dealing may wish to have independent verification directly from the person identified in the registration as the secured creditor as to whether it is in fact currently claiming a security right in an asset in which they are interested under an existing security agreement with the named grantor.

40. In some States, the grantor is entitled to one request free of charge every few months. For additional requests for information, the secured creditor may charge a fee. This protects the secured creditor from having to respond to frequent requests of the grantor that may not be justified or be intended to harass.

V. Registry design, administration and operation

A. Introduction

41. Technical design, administrative and operational issues are crucial components of an effective and efficient registry system. This chapter canvasses the principal issues that must be addressed at this level.

B. Electronic versus paper registry record

42. Registry records traditionally were maintained in paper form and this is still the case in some States. An electronic registry database offers enormous efficiency advantages over a traditional paper-based record (see the *Guide*, chap. IV, paras. 38-43). These advantages include:

- (a) A greatly reduced archival and administrative burden;
- (b) A reduced vulnerability to physical damage, theft and sabotage;
- (c) The ability to consolidate all registrations in a single database regardless of the geographical entry point of the information in notices; and
- (d) The facilitation of speedy low-cost registration and search processes (see the discussion on modes of access to the registry in paras. 47-50 below).

43. Accordingly, every effort should be made by enacting States to provide for the storage of information contained in a notice in an electronic as opposed to a paper record. This is the approach recommended in the *Guide* (see recommendation 54, subpara. (j)).

44. The *Guide* includes in recommendations 11 and 12 the basic rules to accommodate electronic communications taken from article 9, paragraphs 2 and 3, of the United Nations Convention on the Use of Electronic Communications in International Contracts on written form and signature requirements. The rules applicable to electronic registries should be consistent with these recommendations and the principles of non-discrimination, technological neutrality and functional equivalence on which recommendations 11 and 12 are based (see the *Guide*, chap. I, paras. 119-122, as well as Explanatory Note to the Convention, paras. 133-165).

C. Centralized and consolidated registry record

45. In modern secured transactions law along the lines of that recommended in the *Guide*, while registrants may choose among multiple modes and points of access to the registry, the registry record is centralized (see recommendation 54, subparas. (e) and (k)). This means that all information registered is stored in a single consolidated database. Otherwise, the transaction costs faced by searchers in having to conduct searches in multiple decentralized registry records may deter utilization of the registry system and undermine the success of the secured transactions law.

46. As noted above, centralization of the registry record can be achieved far more efficiently if information contained in notices is stored in electronic form in a

centralized computer database than if the registry record is maintained in paper form. An electronic record enables information submitted to branch offices of the registry to be entered at the branch office, transferred electronically to the central registry through remote applications and then added to the central registry database. In paper systems, the information flows in a similar way except that the physical document has to be first manually transferred from the branch to the central office where the centralized paper record is maintained (see the *Guide*, chap. IV, paras. 21-22).

D. User access to the registry services

47. An electronic registry record enables users to enter information and conduct searches directly without the need for the assistance or intervention of registry personnel. If possible, the system should be designed to support the electronic submission of information and search requests over the Internet or via direct networking systems as an alternative to the submission of paper registration notices and search requests (see the *Guide*, chap. IV, paras. 23-26 and 43).

48. As discussed in the preceding chapter (see paras. 1-4 above), when information is submitted to the registry in paper form, registrants must wait until the registry staff has entered the information into the registry record so as to be searchable by third parties before the registration becomes legally effective. Search requests transmitted by paper, fax or telephone also give rise to delays since the searcher must wait until the registry staff member carries out the search on their behalf and transmits the results. In addition to eliminating these delays, a system in which registrants have the option to electronically enter the information directly into the registry record offers the following other advantages:

- (a) A very significant reduction in the staffing and other day-to-day costs of operating the registry;
- (b) A reduction in the risk of error and reduced opportunity for fraudulent or corrupt conduct on the part of registry personnel;
- (c) A corresponding reduction in the potential liability of the registry to users who otherwise might suffer loss as a result of the failure of registry staff to enter registration information or search criteria at all, or to enter it accurately; and
- (d) User access to the registration and searching services outside of normal business hours.

49. If this approach is implemented, the registry should be designed to permit registry users to enter information and conduct searches from any computer facilities, whether private or public available at branch offices of the registry or other locations. In addition, owing to the reduced costs of direct electronic access, the registry should be designed to permit third-party private sector service providers to provide registry services to users.

50. To preserve the security and integrity of the registry record, users may be issued, for example, unique access codes and passwords (other methods of access and identification may also be used). As a measure of protection against the risk of unauthorized registrations, potential registrants may additionally be required to

supply some form of identification (for example, an identification card, driver's licence or passport) as a precondition to submitting a registration (see recommendation 55, subpara. (b)), while the registry is not required to verify the identity of the registrant (see recommendation 54, subpara. (d)). To facilitate access for frequent users (such as financial institutions, automobile dealers, lawyers and other intermediaries acting for registrants and searchers), all users should have the option of setting up a user account with the registry that permits automatic charging of fees to the users' credit account with the registry and institutional control of the user's access rights.

E. Specific design and operational considerations

1. Establishment of an implementation team

51. It is critical that the technical staff responsible for the design and implementation of the registry are fully apprised of the objectives that it is designed to fulfil, as well as of the practical needs of the registry personnel and of potential registry users. Consequently, it is necessary at the very outset of the design and implementation process to establish a team that reflects technological, legal and administrative expertise, as well as user perspectives.

2. Design and operational responsibility

52. It will be necessary at an early stage in the registry design and implementation process to determine whether the registry is to be operated in-house by a governmental agency or in partnership with a private sector firm with demonstrated technical experience and financial accountability. Under the *Guide*, while the day-to-day operation of the registry may be delegated to a private entity, the enacting State retains the responsibility to ensure that the registry is operated in accordance with the applicable legal framework (see chap. IV, para. 47, and recommendation 55, subpara. (a)). Accordingly, the enacting State may choose to retain ownership of the registry record and, when necessary, the registry infrastructure.

3. Storage capacity

53. The implementation team will need to plan the storage capacity of the registry record. This assessment will depend in part on whether the registry is intended to cover consumer as well as business secured financing transactions. In this case, a much greater volume of registrations can be anticipated. Capacity planning will need to take into account the potential for additional applications and features to be added to the system. For example, it will need to take into account the need to expand the registry database at a later point to accommodate the registration of judgments or non-consensual security rights or the addition of linkages to other governmental records such as the State's corporate registry or other movable or immovable registries. Capacity planning will depend as well on whether registered information is stored in a computer database or a paper record. Ensuring sufficient storage capacity is less of an issue if the record is in electronic form since recent technological developments have greatly decreased storage costs.

4. Programming

54. If the registry record is computerized, the programming specifications will depend on whether grantor-based registration, indexing and searching will be supplemented by serial number registration, indexing and searching. In any event, the hardware and software specifications should be robust and secure employing features that minimize the risk of data corruption, technical error and security breach. In addition to database control programmes, software will also need to be developed to manage user communications, user accounts, payment of fees and financial accounting, electronic links between registries, computer-to-computer communication and the gathering of statistical data.

55. The necessary hardware and software needs will need to be evaluated and a decision made as to whether it is appropriate to develop the software in-house by the registry implementation team or purchase it from private suppliers in which event the team will need to investigate whether an off-the-shelf product is available that can easily be adapted to the needs of the implementing State. It is important that the developer/provider of the software is aware of the specifications for the hardware to be supplied by a third-party vendor, and vice versa.

56. Consideration should also be given to whether the registry should be designed to function as an electronic interface to other governmental databases. For example, in some States, registrants can search the company or commercial registry in the course of effecting a registration to verify and automatically input grantor or secured creditor identifier information.

57. Another issue that should be considered is whether the registry system would allow one or more than one type of search. In some States, there is only one type of search that is based on the official search logic (the program applied by a registry system to the search criteria provided by the searcher to retrieve information from the registry record). In those States, all that the searcher has to do is enter the correct grantor identifier and the registry system will automatically apply the official search logic and produce an official search result.

58. In other States, there is also an unofficial search. This type of search allows users to expand their search and for this purpose uses non-standard characters. For example, if the official search logic is strict returning only exact matches and a registrant registered a notice against "John Macmillan" misspelling the name as "John Macmallan", an official search using the correct grantor identifier "Ed Smith" may not retrieve the notice and thus the registration may be ineffective. However, an unofficial search against the name "John Macm*" will most likely retrieve the notice with the misspelled name. However, this does not change the fact that the registration is ineffective because only an official search would allow a searcher to retrieve the relevant notice. A searcher cannot rely on the result retrieved using this type of search. In any case, a searcher must know which search logic is official, that is, in the case of an electronic registry, which button to select or in which field to enter the correct identifier and then the registry system will apply the search logic automatically.

5. Reducing the risk of inadvertent error

59. A notice-based secured transactions registry is not intended to guarantee or evidence the existence or effectiveness of the security rights to which registrations

relate. However, the registry can be designed to ensure a basic level of information quality, while also protecting registrants from their own inadvertent errors by, for example, incorporating mandatory fields, edit checks, drop-down menus and online help resources. The registry should also enable a registrant to conduct a review of the information it has entered as a final step in the registration process.

6. Physical security of the registry record: secondary and back-up servers

60. An electronic registry record may be inherently less vulnerable to physical damage than a paper record but more vulnerable in other respects such as unauthorized access and duplication. In any case, the registry should be designed to allow for automatic fail over and back up of applications and data. This is typically accomplished by providing a primary and secondary (fail over) server implementation. The secondary server ensures uninterrupted access and service in the event the primary server fails. In addition, a back-up server in a different geographical location should be established so as to ensure that registered information is not lost.

7. Role of registry staff and liability

61. The role of registry staff should essentially be limited to managing and facilitating access by users, processing fees and overseeing the operation and maintenance of the registry system. It should be made clear to staff and to registry users that registry staff are not allowed to give legal advice on the legal requirements for effective registration and searching or on the legal effects of registrations and searches.

62. Registry staff should also be responsible for ongoing monitoring of the way the registry is working (or not working) in practice, including gathering statistical data on the quantity and types of registrations and searches that are being made, in order to be in a position to quickly make any necessary adjustments to the registration and search processes and the relevant regulations.

63. The potential for registry staff corruption should be minimized by designing the registry system to: (a) make it impossible for registry staff to alter the time and date of registration or any other information entered by a registrant; (b) eliminate any discretion on the part of registry staff to reject access to the registry services; (c) institute financial controls that strictly limit staff access to cash payments of fees (for example, by making it possible for payments of fees to be made to and confirmed by a bank or other financial institution); and (d) maintaining the archived copy of the original data submitted as previously outlined.

8. Liability for loss or damage suffered by secured creditors or third-party searchers

64. As already noted (see paras. 47-50 above), the registry should be designed, if possible, to enable registrants and searchers to submit information for registration and conduct a search directly and electronically as an alternative to having registry staff do this on their behalf. If this approach is adopted, the rules should make it clear that users bear sole responsibility for any errors or omissions they make in the registration or search process and carry the burden of making the necessary corrections or amendments.

65. This point aside, the enacting State will need to assess how responsibility for loss or damage due to any of the following causes is to be allocated: (a) incorrect or misleading advice or information or unjustified denial of registry services by the registry staff; and (b) delay or erroneous or incomplete registrations or search results caused by a system malfunction or failure. While in cases where the registry permits direct registration and searching by registry users the law recommended in the *Guide* limits the responsibility of the registry to system malfunction, it generally leaves this matter to enacting States (see recommendation 56).

9. Registration and search fees

66. Registration and search fees, if any, should be set at a cost-recovery level as opposed to being used to extract tax revenue. This is the approach recommended in the *Guide* (see recommendation 54, subpara. (i)). Excessive fees and transaction taxes will significantly deter utilization of the registry, thereby undermining the overall success of the enacting State's secured transactions law. However, in assessing the level of revenue needed to achieve cost-recovery, account should be taken of the need to fund the operation of the registry, including: (a) salaries of registry staff; (b) replacement of hardware; (c) upgrading of software; and (d) ongoing staff training.

67. Consideration should be given to whether registration fees should be set on a per transaction basis or based on a sliding tariff related to the duration of the registration (in systems that permit registrants to self-select the registration term). The latter approach has the advantage of discouraging registrants from selecting an inflated term out of an excess of caution. Whatever approach is adopted, fees should not be related to the maximum amount specified for which the security right can be enforced (in systems that require this information to be included) since this would discriminate among users and discourage registrations.

68. Consideration should also be given to whether searches and cancellations should be free of charge (at least in the case of an electronic registry) so as to encourage searching by the public and the prompt registration of cancellations by secured creditors.

10. Financing initial development and operational costs

69. The implementation of a modern electronic registry requires an initial capital investment to cover the cost of implementation of the registry, including hardware and software development costs. However, the comparatively low cost of operation of an electronic security rights registry means that this investment should be recoverable out of service fees within a relatively short period after start-up through service fees. The cost can be kept low, especially if the registry record is computerized and direct electronic registrations and searches are permitted.

70. If a States decides to develop and operate the registry in partnership with a private entity, it may be possible for the private entity to make the initial capital investment in the registry infrastructure on the understanding that it will be entitled to recoup its investment by taking a percentage of the fees charged to registry users once the registry is up and running.

11. Education and training

71. To ensure a smooth implementation of the registry system and its active take up by potential users, the implementation team will need to develop education and awareness programmes, disseminate promotional and explanatory material, and conduct training sessions. The implementation team should also develop instructions on entering information into paper registration forms and electronic screens.

F. Transition

72. If the enacting State already has in place registries for security rights in movable assets, transitional considerations will need to be addressed. If the new registry is intended to cover security rights previously within the scope of an existing registry, the following approaches may be considered. First, the enacting State or the private entity responsible for implementing the registry may assume responsibility for migrating the information in the existing records into the new registry record. Alternatively, the burden of migration can be placed on secured creditors that would be given a transitional period (for example, one year) to themselves re-enter the information in the new registry record. This latter approach has been used with considerable success in a number of States. If this option is chosen, a space or field on the registration form should be provided for entering a note that the registration is a continuation of a registration made prior to the coming into operation of the new registry (for transition issues with respect to matters addressed in the secured transactions law, see chap. XI of the *Guide*).

G. Dispute resolution

73. A dispute resolution mechanism may be considered to settle controversies between the parties involved in registrations relating to security rights. The mechanism should include summary judicial or administrative procedures of the type discussed with regard to the cancellation or amendment of registration (see para. 21 above).
