M E M O R A N D U M

TO: Committee on the Uniform Commercial Code and Emerging Technologies

FROM: Steven Harris, Reporter

RE: Controllable Electronic Records

DATE: January 22, 2021

This Memorandum provides draft Uniform Commercial Code provisions governing certain digital assets, specifically those that fall within the definition of "controllable electronic records" in draft UCC § 12-102.[1] These provisions are based largely on discussions at the Committee's December meeting and discussions among the participants in the Digital Assets Working Group: Tom Buiteweg, Drew Hinkes, Rob Isham, Steve Keen, Chuck Mooney, Carla Reyes, Ed Smith, Andrea Tosato, Steve Weise, and me.

Part 1 of the Memorandum provides an overview of the issues concerning controllable electronic records that the UCC might be amended to address. Part 2 provides a general overview of the draft provisions. The draft itself appears in Part 3 and is accompanied by explanatory Reporter's Notes.

Part 1: Commercial-law issues concerning controllable electronic records

Draft Article 12 contains provisions that deal with transactions in a subset of digital assets. The digital assets to which Article 12 would apply are referred to as "controllable electronic records." Electronic records are information stored in a nontangible medium. "Controllable electronic records" are electronic records that can be subjected to control, as defined in draft § 12-105. This definition is meant to be flexible enough to cover controllable electronic records that may develop in the future. Law other than Article 12 would continue to apply to digital assets that are not controllable electronic records.

The draft provisions that follow address the following issues concerning controllable electronic records:

- Definition of "controllable electronic record" for purposes of the UCC (draft § 12-102)

[1] The provisions are indicative formulations meant to assist the Committee in understanding the more abstract discussion of the legal rules that might be made applicable to controllable electronic records. In accordance with the customary procedures of the sponsoring organizations, a drafting committee will consider the precise language to be used. For simplicity, the indicative formulations are referred to as a "draft."

- Rights acquired by a transferee of a controllable electronic record, including whether (and, if so, when) a transferee should take free of third-party claims (draft § 12-104)

- Control of a controllable electronic record (draft § 12-105)

- Treatment of interests in accounts and payment intangibles that are tethered to a controllable electronic record, including discharge of an obligation on such accounts and payment intangibles (draft §§ 12-104; 12-106)

- Application of UCC Article 9 to controllable electronic records, including attachment, perfection, priority, and enforcement

Among the issues that remain for the Committee's future consideration are:

- Treatment of interests in assets other than rights to payment that are tethered to a controllable electronic record

- Effect of conversion of a controllable electronic record to a tangible asset and vice versa

- Effect of migration of a controllable electronic record from one system to another

- Finality of transactions in controllable electronic records

- Whether the existing rules for electronic chattel paper and electronic documents should be retained, revised, or superseded

- Whether special rules are necessary to protect consumers

- Choice of law governing transactions in controllable electronic records

Part 2: Overview of the draft provisions

The general rules governing controllable electronic records are found below in draft Article 12. Amendments to UCC Article 9 would provide rules specific to security interests[2] in controllable electronic records.

What rights does a person acquire by obtaining control of a controllable electronic record? Before turning to the meaning of "control" of a controllable electronic record, it will be helpful to understand the rights that a person acquires by obtaining control. By definition, a controllable electronic record is a "record," *i.e.*, information. *See* draft § 12-102. A person that has control has the nonexclusive power to derive substantially all the benefit from the

[2] Unless otherwise indicated, references to a "security interest" are to a security interest that secures an obligation.

controllable electronic record, *i.e.*, the benefit from the information that constitutes the record. *See* draft § 12-102. The benefit that can be derived from any given controllable electronic record is defined by the attributes of the controllable electronic record. For example, the benefit of some controllable electronic records, such as Bitcoin, is limited to the ability to hold the record as an investment or exchange the record for other valuable assets.

A controllable electronic record may be evidence of the right to receive payment or otherwise performance from a third party. However, the benefit that can be derived *from the information* does not necessarily—and often will not—include the rights evidenced by the record. Consider, for example, a controllable electronic record that evidences the right to payment under a license agreement. Suppose that Smith is both the licensee under the agreement and the person that has control of the controllable electronic record. If Smith sells the controllable electronic record, the buyer of the record acquires only the right to derive the benefit of the information (*i.e.*, the controllable electronic record), and not the rights that the information evidences. This would be the case under the draft even if the buyer obtains control of the controllable electronic record.

Note that this result tracks the result that would obtain if the license agreement is evidenced by a tangible record, *e.g.*, a piece of paper, and Smith sold the paper to a buyer, who took possession of the paper. The buyer of the paper would not *ipso facto* acquire rights under the license agreement.

On the other hand, if Smith purports to assign the rights granted by the license agreement, whether the agreement is written or electronic, *other law—and not draft Article 12*—would determine whether, and if so the extent to which, the purported assignment is effective to convey rights to an assignee.

The same analysis would apply to the licensor's rights under a license agreement that is evidenced by a controllable electronic record. Ordinarily, a person acquires no interest in the licensor's right to payment of the royalties by acquiring ownership of the record evidencing that right. A person that acquires the writing that evidences a license agreement does not *ipso facto* acquire an interest in the licensor's right to payment. The same would be true if the license agreement is a controllable electronic record.

In some cases, however, an obligation may "run with" a controllable electronic record, in much the same way that a right to payment "runs with" a negotiable instrument.[3] This would be the case under the draft, for example, if, a license agreement that is a controllable electronic record provides that the licensor is to make payment to the person having control of the record at any given moment in time. In such a case, a transfer of control of the controllable electronic record would change the person entitled to the benefit of the license, which includes the right to payment of amounts owing under the license. As discussed more fully below, draft Article 12 address transactions in certain rights to payment that "run with" a controllable electronic record.

The relevance of control under draft Article 12. Whether a digital asset falls within the definition of control is relevant for only two other purposes:

[3] Generally speaking, when a negotiable note is taken for an obligation, the obligation is suspended until the note is paid (in which case the obligation is discharged) or dishonored (in which case the obligee may enforce either the instrument or the obligation). S*ee* UCC § 3-310(b).

- A controllable electronic record would be highly negotiable

- Perfection of a security interest in a controllable electronic record could be achieved by obtaining control, and perfection of a security interest in certain accounts and payment intangibles could be achieved by obtaining control of a related controllable electronic record

The lynchpin of the draft provisions is draft § 12-104(f) and (g). This section would enable certain persons that obtain control of a controllable electronic record to take their interest in the controllable electronic record free of property claims to the record, including security interests and claims of ownership.

The draft would provide that a security interest in an account or payment intangible that is included in the benefit that can be derived from the controllable electronic record may be perfected by obtaining control of the controllable electronic record, and that the take-free rules in draft § 12-104 would apply not only to the controllable electronic record but also to the account or payment intangible.

What constitutes control. The concept of *control* has multiple meanings in the UCC, depending on the type of property involved.[4] Under § 12-105, a person would have "control" if the controllable electronic record or the system in which it is recorded, if any, gives the purchaser three powers: (i) the power, whether or not exclusive, to derive substantially all the benefit from the controllable electronic record, (ii) the exclusive (as the term is qualified) power to prevent others from deriving substantially all the benefit from the controllable electronic record, and (iii) the exclusive power to transfer control of the controllable electronic record to another person or cause another person to obtain control of a controllable electronic record that derives from the controllable electronic record. A more detailed discussion of the concept of control appears below in the Reporter's Notes following Section 12-105.

Part 3: Statutory provisions addressing controllable electronic records

Section 1-201 and the draft amendments to Article 9 are marked to show changes from the Official Text of the UCC. The other provisions, which are formulated as a Controllable Electronic Records article (Article 12) of the UCC, are new.

ARTICLE 1

GENERAL PROVISIONS

SECTION 1-201. GENERAL DEFINITIONS.

* * *

[4] *See, e.g.*, UCC §§ 7-106 (electronic document of title); 8-106 (containing four definitions of "control," one for each of four different types of investment property); 9-104 (deposit accounts); 9-105 (electronic chattel paper).

(b) Subject to definitions contained in other articles of the Uniform Commercial Code that apply to particular articles or parts thereof:

* * *

(16A) "Electronic" means relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

* * *

(31) "Record" means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.

* * *

Reporter's Notes

1. *Source of new definitions*. Subparagraph (16A) derives from E-SIGN, 15 U.S.C. § 7006(2) and is the Uniform Law Commission's standard definition.

ARTICLE 12

CONTROLLABLE ELECTRONIC RECORDS

SECTION 12-101. SHORT TITLE. This article may be cited as Uniform Commercial Code—Controllable Electronic Records.

SECTION 12-102. DEFINITIONS.

(a) In this article:

(1) "Authenticate" means:

(A) to sign; or

(B) to execute or otherwise adopt a symbol, or encrypt or similarly process a record in whole or in part, with the present intent of the authenticating person to identify the person and adopt or accept a record with present intent to adopt or accept a record, to attach to or logically associate with the record an electronic sound, symbol, or process.

(2) "Controllable electronic record" means an electronic record that can be subjected to control (Section 12-105). The term does not include [electronic chattel paper, electronic documents, electronic money,[5] investment property, transferable records under UETA and E-SIGN, etc.].

(b) The definitions of "account," "account debtor," and "payment intangible" in Article 9 apply to this article.

[5] "Electronic money" is a concept that the Committee will explore in the future.

Reporter's Notes

1. *"Authenticate."* This definition is copied from UCC § 9-102.

2. *"Controllable electronic record."* Under the definition, a "controllable electronic record" would be an "electronic record," *i.e.,* information that is stored in an electronic or other medium and is retrievable in perceivable form. To be within the scope of the Controllable Electronic Records article, the record must be susceptible of control under Section 12-105.

The provisions of Article 12 are likely to be unsuitable for certain types of electronic records, and the definition will need to be limited accordingly. Further consideration by the Committee will be necessary to identify them. The bracketed language suggests some types of electronic records that might ultimately be excluded.

SECTION 12-103. SCOPE. This article applies to controllable electronic records.

SECTION 12-104. RIGHTS IN CONTROLLABLE ELECTRONIC RECORDS AND CERTAIN ACCOUNTS AND PAYMENT INTANGIBLES.

(a) In this section:

(1) "Adverse claim" means a claim that a claimant has a property interest in a controllable electronic record and that it is a violation of the rights of the claimant for another person to hold, transfer, or deal with the controllable electronic record.

(2) "Qualified purchaser" means a purchaser of a controllable electronic record or an interest therein that obtains control of a controllable electronic record for value and without notice of any adverse claim. The term includes a person that acquires rights in a controllable electronic record by a transfer of control under subsection (d).

(b) Subject to subsections (c) through (i), law other than this [article] determines whether a person acquires rights in a controllable electronic record and the rights that the person acquires.

(c) A purchaser of a controllable electronic record acquires all rights in the controllable electronic record that the transferor had or had power to transfer.

(d) A person having control of, but no rights in, a controllable electronic record has power to transfer rights in the controllable electronic record by voluntarily transferring control to a person that obtains control for value and without notice of any adverse claim.

(e) A purchaser of a limited interest acquires rights only to the extent of the interest purchased.

(f) In addition to acquiring the rights of a purchaser, a qualified purchaser acquires its rights in the controllable electronic record and any account or payment intangible that is included in the benefit of the controllable electronic record free of any adverse claim.

(g) An action based on an adverse claim to a controllable electronic record or an account or payment intangible that is included in the benefit of a controllable electronic record, whether framed in conversion, replevin, constructive trust, equitable lien, or other theory, may not be asserted against a qualified purchaser that acquires its interest in, and obtains control of, a controllable electronic record for value and without notice of [the] [any] adverse claim.

(h) A person has notice of an adverse claim if:

(1) the person knows of the adverse claim; or

(2) the person is aware of facts sufficient to indicate that there is a significant probability that the adverse claim exists and deliberately avoids information that would establish the existence of the adverse claim.

(i) Filing of a financing statement under Article 9 is not notice of an adverse claim to a controllable electronic record.

Reporter's Notes

1. *Source of these provisions*. Subsection (a)(1) derives from UCC § 8-102(a)(1). Subsection (a)(2) derives from UCC § 8-303.

Subsections (c) and (e) derive from UCC §§ 8-302(a) and (b) (concerning the rights of a purchaser).

Subsection (f) derives from UCC § 8-303(b) (concerning the rights of a protected purchaser).

Subsection (g) derives from UCC § 8-502 (protecting entitlement holders).

Subsections (h) and (i) derive from UCC § 8-105(a) and (e) (concerning notice of an adverse claim); however, it omits § 8-105(a)(3), which addresses persons having a duty to investigate whether an adverse claim exists.

2. *Applicability of other law*. As a general matter, this section would leave to other law the resolution of questions concerning the transfer of rights in a controllable electronic record, such as the acts that must be taken in order to effectuate a transfer of rights and the scope of the rights that a transferee acquires. Subsections (c) through (i) contain important exceptions to this subsection.

The "law other than this article" that may apply to the transfer of rights in a controllable electronic record includes UCC Article 9. UCC § 9-203 would apply, for example, to determine whether a purported secured party acquired an enforceable security interest in a controllable electronic record.

3. *Rights of purchaser.* Under subsection (c) a purchaser of a controllable electronic record acquires not only the rights that the transferor had but also the rights that the transferor had power to transfer. Similar rules apply to other kinds of property.[6]

4. *The take-free rules.* Subsections (f) and (g) make controllable electronic records highly negotiable. They protect a qualified purchaser of a controllable electronic record against adverse claims to the controllable electronic record as well as adverse claims to any account or payment intangible that is included in the benefit that can be derived from the controllable electronic record. These are accounts and payment intangibles that "run with" the controllable electronic record. Part 2 of this Memorandum contains an example of such an account or payment intangible.

5. *"Qualified purchaser."* To qualify for the benefit of the take-free rules, one must be a qualified purchaser. Like a "protected purchaser" of a security under UCC § 8-303, a qualified purchaser is a "purchaser" that (1) obtains control (2) for value and (3) without notice of any adverse claim.

As a general matter, law other than this article would determine whether any particular transaction creates a property interest in a controllable electronic record. See subsection (b). The applicable law may provide that a hacker, who is essentially a thief, acquires no rights in a stolen controllable electronic record. If that is the case, a person that acquires the controllable electronic record from the hacker would acquire no rights, would not qualify as a "purchaser" of the controllable electronic record,[7] would not be a "qualified purchaser," and would not enjoy the protection of the take-free rules. Subsection (d) and the second sentence of subsection (a)(2) would change that outcome. They would enable a nonpurchaser that obtains control from a hacker in a voluntary transaction and that otherwise meets the definition of "qualified purchaser" (for value and without notice of adverse claims) to take the controllable electronic record and any related account or payment intangible free of adverse claims. The Committee may wish to consider whether a qualified purchaser should take free of all claims, not just adverse claims.

6. *Relation of subsection (f) to subsection (g).* The rule in subsection (f) was originally designed for securities, and the rule in subsection (g) for security entitlements. The former assumes that both the person having control and a third person hold a property claim against the same asset. The latter recognizes that the person having control holds a property claim against an asset that is arguably traceable to the asset against which a third person held a property claim but is not the identical asset. This section would protect a qualified purchaser, regardless of whether it obtained control of the same controllable electronic record against which the third party asserts a claim, or whether it obtained control of a controllable electronic record that is traceable to the controllable electronic record against which the third party assets a claim.

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[6] *See, e.g.,* UCC §§ 2-403(1); 8-302(a).

[7] "'Purchaser" means a person that takes by purchase." UCC § 1-201(b)(29). "'Purchase' means taking by sale, lease, discount, negotiation, mortgage, pledge, lien, security interest, issue or reissue, gift, or any other voluntary transaction creating an interest in property." UCC § 1-201(b)(28).

Suppose, for example, that a controllable electronic record "migrates" from one system to another and a third person held a claim against the pre-migration asset. If the post-migration controllable electronic record is the same asset as the pre-migration one, subsection (f) would protect the qualified purchaser. If the two assets are different assets, subsection (g) would afford protection.

A more specific example might arise if *SP* holds a security interest in the debtor's Bitcoin unspent transaction output. The debtor uses the transaction output as a transaction input to transfer Bitcoins to a purchaser. Under subsection (g), the purchaser would take free of *SP*'s security interest, even if the Bitcoins were recorded in a transaction output that is not the same as the claimed transaction input. Subsection (f) would protect the purchaser from *SP*'s claim that the Bitcoins recorded in the transaction input are the same as the Bitcoins recorded in the transaction output.

7. *Creating the functional equivalent of a negotiable instrument.* Two defining characteristics of an Article 3 negotiable instrument are that a holder in due course (1) takes free of claims of a property or possessory right to the instrument (UCC § 3-306) and (2) takes free of most defenses and claims in recoupment (UCC § 3-305). Article 3 applies only to written instruments. This draft would provide a method for reaching a similar result with respect to some intangible records, specifically an account or payment intangible that is included in the benefit that can be derived from a controllable electronic record. As regards the first characteristic, a qualified purchaser of the controllable electronic record would acquire the account or payment intangible free of any adverse claim. As regards the second, UCC § 9-403 ordinarily would give effect to the account debtor's agreement not to assert claims or defenses.

SECTION 12-105. CONTROL OF CONTROLLABLE ELECTRONIC RECORD.

(a) A person has "control" of a controllable electronic record if:

(1) the following conditions are met:

(A) the controllable electronic record or the system in which it is recorded, if any, gives the person:

(i) the power to derive substantially all the benefit from the controllable electronic record;

(ii) subject to subsection (b), the exclusive power to prevent others from deriving substantially all the benefit from the controllable electronic record; and

(iii) subject to subsection (b), the exclusive power to transfer control of the controllable electronic record to another person or cause another person to obtain control of a controllable electronic record that derives from the controllable electronic record; and

(B) the controllable electronic record, a record attached to or logically associated with the controllable electronic record, or the system in which the controllable

electronic record is recorded, if any, enables the person to readily identify itself as having the powers specified in subparagraph (A)[; or

(2) another person obtains control of the controllable electronic record on behalf of the person or, having previously obtained control of the controllable electronic record, acknowledges that it has control on behalf of the person].

(b) A power specified in subparagraphs (a)(1)(A)(ii) or (a)(1)(A)(iii) can be "exclusive," even if:

(1) the controllable electronic record or the system in which it is recorded, if any, limits the use to which the controllable electronic record may be put or has protocols that are programmed to result in a transfer of control; and

(2) the person has agreed to share the power with another person.

(c) For the purposes of subparagraph (a)(1)(B), a person may be identified in any way, including by name, identifying number, cryptographic key, office, or account number.

Reporter's Notes

1. *Why "control" matters.* Control would serve three major functions in this article. An electronic record would be a "controllable electronic record" and would be subject to the provisions of this article only if it is susceptible to control under this section. *See* Sections 12-102 and 12-103. A person having control of a controllable electronic record would be eligible to become a qualified purchaser and so take free of third-party claims to the controllable electronic record under Section 12-104. And a person having control would have the power to transfer rights to a qualified purchaser, even if the person having control has no rights itself. *See* Section 12-104.

2. *Control through a third party*. As a general matter, the law of agency supplements the provisions of the UCC. UCC § 1-103(b). Accordingly, a person may have control through an agent.

Subsection (a)(2), which derives from UCC § 8-106(d)(3), would enable a person to have control if another person has control on behalf of the person or, having previously acquired control, acknowledges that it has control on behalf of the person. The other person need not be the purchaser's agent. This subsection is bracketed to reflect uncertainty as to whether it is necessary.

3. *Powers; inability to exercise a power*. This section would condition control on a person's having the three powers specified in subsection (a)(1)(A). A person would have a "power" described in this section if the controllable electronic record or any system in which it is recorded gives the purchaser that power, even if the characteristics of the particular purchaser disable the person from exercising the power (as would be the case, *e.g.*, if the purchaser holds the private key required to access the benefit of the controllable electronic record but lacks the hardware required to use it).

4. *Power to derive benefit*. Subsection (a)(1)(A)(i) would allow for a purchaser to have control, even if another person also enjoys the power to derive substantially all the benefit from the controllable electronic record.

The system in which a controllable electronic record is recorded may limit the benefit from the controllable electronic record that is available to those who interact with the system. In determining whether a person has the power to derive substantially all the benefit from a controllable electronic record under subsection (a)(1)(A)(i), only the benefit that the system makes available should be considered.

5. *Exclusive powers*. Unlike the power in subsection (a)(1)(A)(i), the powers in subsections (a)(1)(A)(ii) and (a)(1)(B)(iii) must be held exclusively by the person claiming control in order to establish control.

Subsection (b) contains two limitations on the term "exclusive" as used in subsection (a). Under subsection (b), a power can be "exclusive," even if one or both of these limitations apply.

Subsection (b)(1) takes account of the fact that the powers of a purchaser of a controllable electronic record necessarily are subject to the attributes of the controllable electronic record and the protocols of any system in which the controllable electronic record is recorded.

One effect of subsection (b)(2) is that, under a multi-signature (multi-sig) agreement, any person that is readily identifiable under subsection (a)(1) and shares the relevant power would be eligible to have control, even if the action of another person is a condition for the exercise of the power.

6. *Power to retrieve information*. By definition, the information constituting an electronic record must be "retrievable in perceivable form." UCC § 1-201. The power to retrieve the record in perceivable form is included in the benefit that can be derived from a controllable electronic record. "Perceivable form" means that the contents of the record are intelligible; the ability to perceive the indecipherable jumble of an encrypted record does not give a person the power to retrieve the record in perceivable form. A person must have at least the nonexclusive power to derive this benefit in order to have control of a controllable electronic record under subparagraph (a)(1)(A)(i). If a person also has the exclusive power to decrypt the encrypted record, the person would have the exclusive power to prevent others from deriving substantially all benefit from the controllable electronic record and thereby satisfy the condition in subparagraph (a)(1)(A)(3).

7. *Readily identify*. Subparagraph (a)(1)(B) provides that a person does not have control of a controllable electronic record unless the controllable electronic record, a record attached to or logically associated with the controllable electronic record, or any system in which the controllable electronic record is recorded enables the person to readily identify itself as the person having the requisite powers. This subparagraph does not obligate a person to identify itself as having control. However, to prove that it has control, a person would need to prove that

the relevant records or any system in which the controllable electronic record is recorded readily identifies the person as such.

An official comment could give examples of records that are attached to or logically associated with a controllable electronic record.

Subsection (c) derives from UCC § 3-110(c). It adds "cryptographic key" as an example of a way in which a person may be identified for purposes of subparagraph (a)(1)(B).

SECTION 12-106. DISCHARGE OF ACCOUNT DEBTOR ON ACCOUNT OR PAYMENT INTANGIBLE INCLUDED IN CONTROLLABLE ELECTRONIC RECORD.

(a) Subject to subsections (b) through (f), if an account or payment intangible is included in the benefit that can be derived from a controllable electronic record, the account debtor may discharge its obligation on the account or payment intangible:

(1) by paying the person having control of the controllable electronic record; or

(2) by paying a person that formerly had control of the controllable electronic record.

(b) Subject to subsection (f), an account debtor may not discharge its obligation by paying a person that formerly had control if, before the payment, the account debtor receives a notification, authenticated by the person having control, that notifies the account debtor that the person has control of the controllable electronic record, reasonably identifies the controllable electronic record, and provides a reasonable method by which the account debtor is to make payments. After receipt of the notification, the account debtor may discharge its obligation by paying in accordance with the notification and may not discharge the obligation by paying a person that formerly had control.

(c) **[When notification ineffective.]** Subject to subsection (f), notification is ineffective under subsection (b):

(1) to the extent that an agreement between an account debtor and a seller of a payment intangible limits the account debtor's duty to pay a person other than the seller and the limitation is effective under law other than this article; or

(2) at the option of the account debtor, if the notification notifies the account debtor to divide a payment and send portions by more than one method.

(d) **[Proof of assignment.]** Subject to subsection (f), if requested by the account debtor, the person giving the notification shall seasonably furnish reasonable proof that the person has control of the controllable electronic record. Unless the person complies, the account debtor may discharge its obligation by paying a person that formerly had control, even if the account debtor has received a notification under subsection (b).

(e) **[Subsection (c)(2) not waivable.]** Subject to subsection (f), an account debtor may not waive or vary its option under subsection (c)(2).

(f) **[Rule for individual under other law.]** This section is subject to law other than this article which establishes a different rule for an account debtor who is an individual and who incurred the obligation primarily for personal, family, or household purposes.

Reporter's Notes

1. *Source of these provisions.* These provisions derive from UCC § 3-602, which governs the discharge of a person obligated on a negotiable instrument, and UCC § 9-406, which governs the discharge of a person obligated on an account or payment intangible or other account debtor.

2. *The basic rules.* This section governs the discharge of a person obligated on an account or payment intangible that is included in the benefit that can be derived from a controllable electronic record. As explained in Part 2 above, these are payment obligations that "run with" a controllable electronic record, in the sense that a person having control of the controllable electronic record, and thus the power to derive substantially all the benefit from the controllable electronic record, *ipso facto* has the power to derive the benefit from the account or payment intangible.

Under subsection (a)(1), the account debtor may discharge its obligation on the account by paying the person that has control of the related controllable electronic record at the time of payment. Subsections (a)(2) and (b) remove from an account debtor the burden of determining who has control of the related controllable electronic record at any given time—a burden that, with respect to some controllable electronic records, may be impossible to satisfy. It provides that an account debtor may discharge its obligation by paying a person that formerly had control of the related controllable electronic record. Presumably, an account debtor can determine who has control of a controllable electronic record when it is created. Thus, subject to subsection (b), the account debtor can discharge its obligation by paying that person.

Subsection (b) reflects the fact that a person to which control has been transferred may not wish to take the risk that an account debtor will discharge its obligation by paying the transferor. Subsection (b) would protect the transferee by providing that, if the transferee notifies the account debtor before the account debtor makes payment, the account debtor may discharge its obligation by paying in accordance with the notification and not by paying a person that formerly had control.

To be effective under subsection (b), a notification must notify the account debtor that the person has control of the controllable electronic record, reasonably identify the controllable electronic record, and provide a method by which the account debtor is to make payments. A change of control should not impose a significant burden on the account debtor. However, one can imagine a method of making payment that would be burdensome, *e.g.*, making a payment through a trading platform or payment service with which the account debtor does not have an account. For this reason, the method of making payment must be "reasonable."

Upon the account debtor's request, the person giving the notification must seasonably furnish reasonable proof that it has control of the controllable electronic record. A person that has control should have no difficulty complying with the request, as a person cannot have control unless it can readily identify itself as having the requisite powers. See draft § 12-105(a)(1)(B). If the person does not comply with the request, the account debtor may ignore the notification and discharge its obligation by a paying a person formerly in control.

3. *Relationship to UCC § 9-406.* UCC § 9-406 governs the discharge of the obligation of an account debtor. It will need to be amended to carve out transactions covered by this section.

SECTION 12-107. GOVERNING LAW. [to come]

ARTICLE 9

SECURED TRANSACTIONS

SECTION 9-102. DEFINITIONS AND INDEX OF DEFINITIONS.

* * *

(b) **[Definitions in other articles.]** The following definitions in other articles apply to this article:

* * *

"Controllable electronic record" Section 12-102.

* * *

SECTION 9-107A. CONTROL OF ACCOUNT, PAYMENT INTANGIBLE, OR CONTROLLABLE ELECTRONIC RECORD.

(a) A secured party has "control" of an account or payment intangible if:

(1) the account or payment intangible is included in the benefit that can be derived from a controllable electronic record; and

(2) the secured party has control of the controllable electronic record under Section 12-105.

(b) A secured party has "control" of a controllable electronic record as provided in Section 12-105.

Reporter's Notes

1. *Purpose of this section.* Under current law, the general rule is that a security interest in an account or general intangible (including a payment intangible) may be perfected by filing. Draft § 9-314 would allow for control as an alternative method of perfection for certain accounts and payment intangibles, as well as for controllable electronic records. This section explains what is meant by "control" with respect to collateral of that kind.

2. *Certain accounts and payment intangibles.* Subsection (a) applies to those accounts and payment intangibles that are "included in the benefit that can be derived from a controllable electronic record," *i.e.*, that "run with" a controllable electronic record. It provides that control of such an account or payment intangible can be achieved by having control of the related controllable electronic record.

The fact that an account or payment intangible is included in the benefit that can be derived from a controllable electronic record does not affect the other applicable provisions of Article 9, including provisions that give effect to the account debtor's agreement not to assert its claims or defenses (UCC § 9-403) and the statutory overrides of legal and contractual restrictions on the assignability of accounts and payment intangibles (UCC §§ 9-406, 9-408).

3. *Controllable electronic records.* Subsection (b) applies to controllable electronic records under Article 12. Bitcoin might be an example of collateral to which subsection (b) would apply. Subsection (b) would not apply to, for example, the buyer's right to the seller's performance under a contract for the sale of goods. Such a right is not a controllable electronic record, even if it is evidenced by a controllable electronic record or is included in the benefit that can be derived from a controllable electronic record.

SECTION 9-310. WHEN FILING REQUIRED TO PERFECT SECURITY INTEREST OR AGRICULTURAL LIEN; SECURITY INTERESTS AND AGRICULTURAL LIENS TO WHICH FILING PROVISIONS DO NOT APPLY.

(a) **[General rule: perfection by filing.]** Except as otherwise provided in subsection (b) and Section 9-312(b), a financing statement must be filed to perfect all security interests and agricultural liens.

(b) **[Exceptions: filing not necessary.]** The filing of a financing statement is not necessary to perfect a security interest:

* * *

(8) in deposit accounts, electronic chattel paper, investment property, <u>accounts, payment intangibles, controllable electronic records,</u> or letter-of-credit rights which is perfected by control under Section 9-314;

* * *

SECTION 9-312. PERFECTION OF SECURITY INTERESTS IN CHATTEL PAPER, DEPOSIT ACCOUNTS, DOCUMENTS, GOODS COVERED BY DOCUMENTS, INSTRUMENTS, INVESTMENT PROPERTY, CONTROLLABLE ELECTRONIC RECORDS, CERTAIN ACCOUNTS AND PAYMENT INTANGIBLES, LETTER-OF-CREDIT RIGHTS, AND MONEY; PERFECTION BY PERMISSIVE FILING; TEMPORARY PERFECTION WITHOUT FILING OR TRANSFER OF POSSESSION.

(a) **[Perfection by filing permitted.]** A security interest in chattel paper, negotiable documents, instruments, ~~or~~ investment property, controllable electronic records, and accounts or payment intangibles that are included in the benefit that can be derived from a controllable electronic record may be perfected by filing.

SECTION 9-314. PERFECTION BY CONTROL.

(a) **[Perfection by control.]** A security interest in investment property, deposit accounts, letter-of-credit rights, accounts, payment intangibles, controllable electronic records, or electronic chattel paper may be perfected by control of the collateral under Section 9-104, 9-105, 9-106, ~~or~~ 9-107, or 9-107A.

(b) **[Specified collateral: time of perfection by control; continuation of perfection.]** A security interest in deposit accounts, electronic chattel paper, accounts, payment intangibles, controllable electronic records, or letter-of-credit rights is perfected by control under Section 9-104, 9-105, ~~or~~ 9-107, or 9-107A when the secured party obtains control and remains perfected by control only while the secured party retains control.

Reporter's Notes

1. *Scope of this section.* This section would provide an alternative method for perfection of a security interest in accounts, payment intangibles, and controllable electronic records. Draft § 9-107A explains how a person may obtain control of collateral of this kind. As discussed in the Reporter's Notes to § 9-331, perfection by control would not *ipso facto* afford a superpriority over earlier-perfected security interests.

SECTION 9-331. PRIORITY OF RIGHTS OF PURCHASERS OF INSTRUMENTS, DOCUMENTS, ~~AND~~ SECURITIES, AND CONTROLLABLE ELECTRONIC RECORDS UNDER OTHER ARTICLES; PRIORITY OF INTERESTS IN FINANCIAL ASSETS AND SECURITY ENTITLEMENTS UNDER ARTICLE 8 AND CONTROLLABLE ELECTRONIC RECORDS UNDER ARTICLE 12.

(a) **[Rights under Articles 3, 7, ~~and~~ 8, and 12 not limited.]** This article does not limit the rights of a holder in due course of a negotiable instrument, a holder to which a negotiable document of title has been duly negotiated, ~~or~~ a protected purchaser of a security, or a qualified purchaser of a controllable electronic record. These holders or purchasers take priority over an earlier security interest, even if perfected, to the extent provided in Articles 3, 7, ~~and~~ 8, and 12.

(b) **[Protection under ~~Article~~ Articles 8 and 12.]** This article does not limit the rights of or impose liability on a person to the extent that the person is protected against the assertion of a claim under Article 8 or 12.

(c) **[Filing not notice.]** Filing under this article does not constitute notice of a claim or defense to the holders, or purchasers, or persons described in subsections (a) and (b).

Reporter's Notes

1. *Purpose of this section.* Under draft § 12-104, a qualified purchaser takes its rights in a controllable electronic record and any account or payment intangible that is included in the benefit of the controllable electronic record free of any adverse claim. A secured party is a purchaser. A security interest may be an adverse claim, but the filing of a financing statement would not be notice of the adverse claim. See draft § 12-104(i).

2. *Superpriority (non-temporal priority).* The draft would apply the normal first-to-file-or-perfect rule (UCC § 9-322(a)(1)) to a security interest that is perfected by control. It does not include a superpriority rule analogous to those in UCC § 9-330.[8] Instead, a secured party holding a security interest in a controllable electronic record which is perfected by control may achieve priority over an earlier-perfected security interest by becoming a qualified purchaser under draft § 12-104. Suppose, for example, that *SP-1* and *SP-2* each hold a perfected by filing security interest in a controllable electronic record and that each of these security interests secures an obligation. After *SP-1* files to perfect, *SP-2* obtains control and becomes a qualified purchaser. Under the take-free rules in draft § 12-104, *SP-2* would take its security interest free of *SP-1*'s adverse claim. In essence, *SP-2* would achieve priority over *SP-1*. *SP-2* would hold a senior security interest, and *SP-1*'s security interest would become junior.

ARTICLE 11

EFFECTIVE DATE AND TRANSITION PROVISIONS

SECTION 11-901. This [Act] takes effect . . .

SECTION 11-902. SAVINGS CLAUSE/TRANSITION. [to come]

[8] For example, UCC § 9-330(b) provides, "A purchaser of chattel paper has priority over a security interest in the chattel paper which is claimed other than merely as proceeds of inventory subject to a security interest if the purchaser gives new value and . . . obtains control of the chattel paper under Section 9-105 in good faith, in the ordinary course of the purchaser's business, and without knowledge that the purchase violates the rights of the secured party."