**Business Justification**

**for the development of new ISO 20022 financial repository items**

# Name of the request:

Proxy for Banking Account Numbers

# Submitting organisation:

SPRING – IT Standing Committee/ e-Financial Services Technical Committee/ Singapore Payment Standard Evaluation Group (in cooperation with VocaLink UK)

1 Fusionopolis Walk,

#01-02 South Tower, Solaris,

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# Scope of the new development:

As shared the Managing Director of Monetary Authority of Singapore during the closing meeting of SIBOS 2015 on 16 Oct 2015, banks in Singapore are exploring plan for money transfers using proxies such as mobile numbers. This is aimed at simplifying transfers and increasing convenience to bank customers.

The new ISO 20022 messages are intended to support requirements related to:

1. Registration of proxies for bank account numbers
2. Amending proxies for bank account numbers
3. Deactivating proxies for bank account numbers
4. Overriding proxies for bank account numbers
5. Look-up of bank account number using various proxies
6. Enquiring about registration based on proxies or registered information

The new message definitions will use the ISO 20022 Business Application Header (BAH) with repeating header elements within the message. The exact number of messages is not known at the moment and it will be confirmed after the detailed business analysis has been completed.

The submitting organisation wants to deploy the future messages in the default ISO 20022 XML syntax only.

The proposed new business area for the set of messages is “prxy” for proxy management.

Based on the scope, the submitting organisation proposes to assign the Payment Standards Evaluation Group(s) (SEG) for the evaluation of the candidate ISO 20022 messages, once developed.

# Purpose of the new development:

There are no existing ISO 20022 messages containing a comparable set of information as the intended new messages for the transmission of the respective data required for proxies for bank account number purposes. Where existing ISO 20022 messages are used for the transmission of information about the settlement and reconciliation of transactions between the market agents, the proposed new messages will take this into account by using existing ISO 20022 business concepts and by registering additional business concepts whenever required to address the addressing requirement.

Rather than modifying the existing messages used for business purposes to comply with the requirements for the regulatory reporting, it is proposed to develop specific proxies management messages complying with the addressing requirements. By adopting the ISO 20022 methodology the new messages will also bring significant gains in efficiency for processing of the data which will provide a further incentive for a prompt implementation.

Building on the adoption of the ISO 20022 standard, the proxies management obligations continues to develop and promote adoption of the ISO 20022 standard in the payment space.

# Community of users and benefits:

The community of users for these new message definitions is represented by the Singapore banking industry and subsequently, their partners.

1. Benefits/savings:

The proposed message definitions will improve the efficiency of the internal data processing of the initiating institutions as it will make use of existing ISO 20022 business concepts. In this way reporting institutions who are already using ISO 20022 will be able to apply consistent definitions of the information for payment requirements. Additionally, the usage of standards is likely to improve data quality and ensure global semantic interoperability with all other ISO 20022 based systems.

1. Adoption scenario:

The adoption of the new message definitions will take place as soon as the Message Format Specifications is signed of by the banking industry’s association in 2017.

1. Volumes:

The addressing obligation is a new requirement; therefore no precise estimates of the volumes are available at this stage.

1. Sponsors and adopters:

Once endorsed by the Singapore Industry Working Group, the adoption of the new message definitions by all institutions and banks are expected to start development of the messages in 2016 and implement the message by 2016.

# Timing and development:

The submitting organisation expects to have the new candidate ISO 20022 business and message definition models developed and ready for submission to the RA in the first half of 2017.

# Commitments of the submitting organisations:

The submitting organisation confirms that it can and will:

* undertake the development of the candidate ISO 20022 business and message models that it will submit to the RA for compliance review and evaluation. The submission will be compliant with the [ISO 20022 Master Rules](http://www.iso20022.org/documents/general/ISO20022_MasterRules.ZIP) and include a draft Part 1 of the Message Definition Report (MDR) compliant with the [template for MDR part 1](http://www.iso20022.org/documents/general/ISO20022_MasterRules.ZIP) provided by the RA, the [ISO 20022 Message Transport Mode](http://www.iso20022.org/documents/general/MessageTransportModes.xls) (MTM) that the submitting organization recommends to consider with the submitted message set
* address any queries related to the description of the models and messages as published by the RA on the ISO 20022 website.
* promptly inform the RA about any changes or more accurate information about the number of candidate messages and the timing of their submission to the RA.

The submitting organisation confirms that:

* it will inform and consult the market on the addressing messages but it does not intend to organize any testing of the candidate messages once they have been reviewed and qualified by the RA and before their submission to the SEG(s) for approval.

The submitting organisation confirms the knowledge and acceptance of the ISO 20022 Intellectual Property Rights policy for contributing organisations, as follows:

“Organizations that contribute information to be incorporated into the ISO 20022 Repository shall keep any Intellectual Property Rights (IPR) they have on this information. A contributing organization warrants that it has sufficient rights on the contributed information to have it published in the ISO 20022 Repository through the ISO 20022 Registration Authority in accordance with the rules set in ISO 20022. To ascertain a widespread, public and uniform use of the ISO 20022 Repository information, the contributing organization grants third parties a non-exclusive, royalty-free license to use the published information”.

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# Comments from the RMG members and disposition of comments by the submitting organisation:

**Comments from the US delegation:**

*The US recommends that this BJ be reviewed jointly by the submitter, the Cards SEG/TG1 and the Payments SEG to establish a common approach addressing all domain requirements,*

*TG1 is currently developing tokenization messages (so-called "TOKE" messages) for use in ATICA (which will eventually be included within CAPE), to cover requests for tokens, issuance of tokens, and updating token information (e.g., assurance levels).   These messages are intended for retail payments (in whatever format, including mobile) as well as money transfers (between accounts and between individuals).*

*Also, ISO 12812 (Mobile Payments) includes details for use by a Mobile Payment Service Provider (MPSP) of mobile passcodes (i.e., codes other than PINs) for mobile transactions.  While ISO 12812 does NOT contain any separate messages, it refers implementers to ISO 8583 and ISO 20022 for such messages.*

***Disposition of US comments by SPRING*:**

*The use cases for Card and Payment domains are typically very different and this is the very reason that we have Card and Payment SEG. We will appreciate that all parties do note that the tokenization flow and some of its related security considerations is result by the fact that debit authorization occurred during the transaction process while direct authorization typically occurred outside the payment process. However, if TG1 does have an existing draft TOKE messages definition, we agree that a common xml structure or syntax should be used. In addition, as part of the Message Definition approving process, maybe it is useful for us to get both Payment and Card SEG to review the TOKE and PRXY messages before it is endorsed. This will ensure that both Business Justifications are reviewed jointly by both Card SEG/TG1 and Payment SEG.*

**Comments from the Finnish delegation:**

*We support the Business Justification raised by the SPRING for the development of ISO 20022 messages for the management of Proxy for Banking Account Numbers.*

*However, at the same time we would like to raise attention to the fact that there are initiatives on development of proxy management and exchange message ongoing in different groups and settings. Therefore we would like to suggest that before drafting ISO 20022 message standards for further consultation, the SPRING takes stock of ongoing initiatives, e.g. in Europe (the Mobile Proxy Forum under the ERPB (European Retail Payment Board) and the Berlin Group.*

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Petri Aalto*

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***Disposition of Finnish comments by SPRING*:**

*The draft message standard will be submitted to Payment SEG (whereby representatives of European Central Bank are members) and subsequently Card SEG for comments. If there is existing proprietary definition using ISO 20022 dictionary developed by Mobile Proxy Forum, we will gladly attempt to include them in the draft message standard if it can be shared with us by Feb 2017.*

**Comments from French Delegation:**

***Proxy for Banking Account Numbers ISO 20022 BJ and Token Provision card payment services***

***1. Background***

*SPRING – The IT Standing Committee/e-Financial Services Technical Committee / Singapore Payment Standard Evaluation Group has submitted for further evaluation and endorsement an ISO 20022 Business Justification related to proxies in payments (non-card payments) aimed at simplifying funds transfers and increasing convenience to bank customers when proxies such as mobile telephone numbers are used as aliases to bank account numbers.*

*The proposal addresses the management of those proxies (registration, deactivation, updates, retrievals, enquiries, etc.) and the development of a new set of messages “prxy” to meet this objective.*

***2. Proxies vs. tokens management***

*The proposal is issued on the rationale that existing ISO 20022 messages are used for the transmission of information related to payment, clearing, settlement and reconciliation of transactions between market agents and not for addressing requirements essentially related to the management of proxies.*

*The card payment industry has been confronted those last years to the development of tokens used as surrogate values to payment card numbers in order to reduce the risk of fraud when tokens are used in replacement of PANs (Primary Account Number – both a card identifier and a routing mechanism to a card account maintained by a card issuer).*

*The functional architecture related to the actual usage of tokens, whilst being different from the usage envisaged for non-card payments, offers however a lot of similarities when the management of tokens is at stake (allocation, de-allocation, activation, de-activation, updates, retrievals, provisioning, secure registration and safeguard, etc. of tokens). Furthermore, the card payment industry will be even more confronted in the future to the use of mobile phone numbers as aliases to the use of PANs even though a PAN may still be the preferred option for card payment schemes to route transactions on their network.*

*Both the card and non-card payment industries may therefore share the same vested interest in finding common ways to manage tokens and proxies along the same approach and, possibly, by using the same generic messages.*

***3. ISO 20022 Token (TOKE) Business Justification***

*nexo, an international non-profit association of card payment stakeholders and ISO TC68/SC7/TG1 have jointly submitted in November 2014 a Business Justification for the management of tokens*

*The Business Justification addresses the registration of a set of messages to ensure the proper management of payment tokens associated with token requests, token issuance, token provisioning and, in general, all actions related to the proper management and maintenance of payment tokens by a Token Service Provider (TSP).*

*Both Business Justifications offer a lot of similarities as regards the management of tokens and proxies in a highly secure way. Furthermore - and given that in most cases the same actors may be involved in this process (e.g. a card issuer or a proxy manager being possibly the same institution) - the adoption of a common methodology and mechanism would simplify the whole management process of tokens and proxies and reduce costs since this activity could also be performed by third parties under a similar set of management rules.*

***4. Proposal for cooperation***

*France suggests that both Submitting Organisations, namely SPRING and ISO TC68/SC7/TG1, do liaise on this specific issue to assess the possibilities for cooperation with the aim to achieve potentially a common approach in the management of proxies and tokens. This proposal found also a similar interest and support among TG1 members who have already initiated the development of TOKE messages for the management of tokens for the whole card payments industry. Several of those members are also members of the ISO 20022 Cards SEG where the same support for this joint initiative may be expected.*

*A dedicated Study Group or a simple liaison could be set up for this purpose in order to assess the commonalities and common interest of the industry to work together on this proposal and this in liaison with the ISO 20022 Cross SEG Harmonization Task Force.*

*Apart from the Payment SEG, the Cards SEG could also be involved in the evaluation of the BJ – should the proposal of a common development be endorsed by the stakeholders of the industry.*

*A preliminary but already mature draft of TOKE messages has already been worked out by TG1. This material could be used as a basis for a further common development should this proposal of cooperation be acknowledged by both Submitting Organisations.*

***Disposition of French comments by SPRING*:**

*The use cases for Card and Payment domains are typically very different and this is the very reason that we have Card and Payment SEG. We will appreciate that all parties do note that the tokenization flow and some of its related security considerations is result by the fact that debit authorization occurred during the transaction process while direct authorization typically occurred outside the payment process. However, if TG1 does have an existing draft TOKE messages definition, we agree that a common xml structure or syntax should be used. In addition, as part of the Message Definition approving process, maybe it is useful for us to get both Payment and Card SEG to review the TOKE and PRXY messages before it is endorsed. This will ensure that both Business Justifications are reviewed jointly by both Card SEG/TG1 and Payment SEG.*

**Comments from UK delegation:**

* *Whist we are comfortable with the proposal to explore the area, we would note that there are many live deployments in this space already (Paym, Swish, Denmark’s Mobile Pay, Jiffy, PayPal, M-Pesa etc…); these groups should be represented on the expert committee.*
* *We would also note though that given how mature these other systems are, achieving consensus may be a challenge.*
* *The majority of payment accounts where a proxy is used are operating outside of the pure banking space (mobile network operators such as Vodafone, Tigo MTN), and that these organisations should also be included in the process.*
* *There are workstreams for building interoperability between individual Proxy based schemes (the ERPB’s Mobile Proxy forum being one, Gates Foundation’s work being another), and it would make sense to include those at the outset.*

***Disposition of UK comments by SPRING*:**

*If there is existing proprietary definition using ISO 20022 dictionary developed by the respective parties stated (e.g. PayM of UK), we will gladly attempt to include them in the draft message standard if it can be shared with us by Feb 2017. We fully agree with the observations made by the UK delegate and strongly felt that it is important for ISO 20022 to start the process to define an international standard to prevent further fragmentation. For work developed later, there is an established maintenance progress whereby we can incorporate those request.*

**Comments from the Payments SEG**

*Bob Blair (US): there is a similar initiative developed in the Cards business domain, the Cards SEG should be involved in the message development process. Harri Rantanen shares this opinion.*

*Pierre Epaillard (FR):*

 *- If we are not against to create such proxies, some important topics like security and maintenance are not described in this BJ. More precisely we have some concerns about the way this worldwide database could be created and maintained. It seems quite ambitious and maybe not realistic to set up such a worldwide database.*

 *- This proxy Database if implemented will be set up by whom and where? Who will be in charge, who will pay the maintenance?*

 *- Which entity will manage the updates, creation, and erase of data?*

 *- How to ensure the security of this database*

 *- Who will have access to it?*

*From Ortwin Scheja (DE): investigations have been made in Europe for this business case, ran by the Berlin Group, the EPC…About the security matter, Ortwin said that investigations conducted in Europe in the context of PSD2 could be of interest for this project.*

*Sharon Jablon (US) suggests that banks are involved in this project to identify future developments.*

*Heike Adewa (UK) suggests that communities that are adopting or have adopted a similar initiative are contacted to collect their feedback.*

***Disposition of Payments SEG comments by SPRING*:**

*In response to US comments, we proposed that as part of the Message Definition approving process, maybe it is useful for us to get both Payment and Card SEG to review the TOKE and PRXY messages before it is endorsed. This will ensure that both Business Justifications are reviewed jointly by both Card SEG/TG1 and Payment SEG..*

*In response to FR comments, Singapore Community is leveraging on their Real-Time Payment Infrastructure whereby only banks have secured access to the infrastructure. The intended implementation is meant for users and banks in Singapore and no Worldwide database is included in the scope of the Business Justification.*

*In response to DE, US & UK comments, if there is existing proprietary definition using ISO 20022 dictionary developed by the respective parties stated (e.g. PayM of UK), we will gladly attempt to include them in the draft message standard if it can be shared with us by Feb 2017.*

**Comments from Cards SEG:**

1. ***Background***

*SPRING – The IT Standing Committee/e-Financial Services Technical Committee / Singapore Payment Standard Evaluation Group has submitted for further evaluation and endorsement an ISO 20022 Business Justification related to proxies in payments (non-card payments) aimed at simplifying funds transfers and increasing convenience to bank customers when proxies such as mobile telephone numbers are used as aliases to bank account numbers.*

*The proposal addresses the management of those proxies (registration, deactivation, updates, retrievals, enquiries, etc.) and the development of a new set of messages “prxy” to meet this objective.*

1. ***Proxies vs. tokens management: both a functional and security issue***

*The Cards SEG endorsed in November 2014 a Business Justification jointly submitted by nexo and ISO TC68/SC7/TG1 on the management of token by Token Service Providers (TOKE).*

*The Business Justification submitted by SPRING presents a lot of similarities with the TOKE initiative as both aim at managing proxies in a way which is similar to the management of tokens by a Token Service Provider (TOKE series of ISO 20022 candidate messages under development).*

*The card payment industry has been confronted those last years to the development of tokens used as surrogate values to payment card numbers in order to reduce the risk of fraud when tokens are used in replacement of PANs (Primary Account Number – both a card identifier and a routing mechanism to a card account maintained by a card issuer). As for proxies, a PAN is also linked to a bank account managed by an account service entity.*

*Both initiatives do share not only the same functional objectives in the management of aliases to a bank account or to a PAN (allocation, de-allocation, activation, de-activation, updates, retrievals, provisioning, secure registration and safeguard, etc. of tokens), but they are also confronted to the same security requirements in securing this information to comply with today’s bank or industry requirements in storing a person’s sensitive information in a secure place (or secure vault).*

*Furthermore, the card payment industry will be even more confronted in the future to the use of mobile phone numbers (and also e-mails) as aliases to the use of PANs even though a PAN may still be the preferred option today for card payment processors to route transactions on their network.*

*Both the card and non-card payment industries may therefore share the same vested interest in finding common ways to manage tokens and proxies along the same approach and, possibly, by using the same generic messages.*

1. ***Joint collaboration SPRING and TG1***

*The Cards SEG suggests that both SPRING and ISO TC68/SC7/TG1 work together to ensure a generic approach to the development of messages for the management of aliases (proxies for payments, tokens for card payments) which meet the security requirements of the industry.*

*This joint approach in response to the same business requirements would help the industry to avoid that two different series of messages be developed to achieve the same functional and security objectives.*

*This would also help the industry to reduce costs in the actual implementation and management of the messages since the same entities may possibly be acting as both the requestors and - directly or indirectly - providers of those aliases (e.g. a card issuer or a proxy manager being possibly the same institution).*

1. ***Joint cooperation Payment and Cards SEGs***

*Similarly and assuming that both organisations would work together on this initiative, the Cards SEG would be ready to cooperate with the Payment SEG in the evaluation of this joint initiative; each for its own level of expertise and in the framework of the joint liaison existing today between both groups and in line with the guidelines of the Cross-SEG Harmonisation Group.*

*The current development of draft candidate ISO 20022 TOKE messages to be possibly used as a basis for this work could be seen as a benefit in this process since both initiatives could already take advantage of the design and development phases carried out by TG1 as regards the management of those aliases in a card payment environment.*

***Disposition of Cards SEG comments by SPRING*:**

*The use cases for Card and Payment domains are typically very different and this is the very reason that we have Card and Payment SEG. We will appreciate that all parties do note that the tokenization flow and some of its related security considerations is result by the fact that debit authorization occurred during the transaction process while direct authorization typically occurred outside the payment process. However, if TG1 does have an existing draft TOKE messages definition, we agree that a common xml structure or syntax should be used. In addition, as part of the Message Definition approving process, maybe it is useful for us to get both Payment and Card SEG to review the TOKE and PRXY messages before it is endorsed. This will ensure that both Business Justifications are reviewed jointly by both Card SEG/TG1 and Payment SEG.*

**Comments from the European Payments Council (EPC):**

*The EPC kindly invites the submitter ‘SPRING’ to take stock of other ongoing initiatives related to the use of proxies for banking account numbers. As an example, please be advised that the EPC is providing secretariat support to the Steering Committee of the Mobile Proxy Forum, which was created in March 2016. Its key objective is to set up a pan-European standardised proxy lookup (SPL) service and interoperability framework which allow P2P mobile payment data (i.e. proxy + IBAN) to be exchanged among P2P mobile payment solutions on a pan-European level, in line with the recommendations endorsed by the Euro Retail Payments Board (ERPB) in June 2015. The Steering Committee will have regard to future support for additional proxy types and account identifiers.*

***Disposition of EPC comments by SPRING*:**

*If there is existing proprietary definition using ISO 20022 dictionary developed or specific requirements or recommendations from ERPB, we will gladly attempt to include them in the draft message standard if it can be shared with us by Feb 2017.*