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EURO BANKING ASSOCIATION

B2B Remittance Data – Challenges and Solutions

Discussion Paper

Contents

1. Introduction

This paper assesses the current remittance data situation in B2B payments and opportunities to facilitate end-to-end reconciliation by payment receivers. Specifically it reviews the challenges faced by corporates, various industry standards and solutions, and the opportunities for banks to play a key role in helping their clients achieve optimal end-to-end reconciliation.

As part of its 2014 work programme, the EBA Supply Chain Working Group (SCWG) decided to focus on B2B payments as part of its analysis of banking opportunities along corporate supply chains. Having made a study of Supply Chain Finance (SCF) as captured in the EBA Market Guide to Supply Chain Finance (first published in 2013 and updated in 2014), a more holistic review of the end-to-end supply chain was considered valuable and this includes payments, where banks play a major role in the order to cash process.

Payments in general are well covered by industry analysis and debate especially in the clearing and settlement space. Remittance data associated with B2B payments, however, represents an area of value-add where banks could perhaps do more to help corporates improve the end-to-end reconciliation process and the efficiency of the supply chain. The ability to achieve automated end-to-end reconciliation represents a continuing and significant 'pain-point' for many corporates and is the focus of an increasing number of industry initiatives.

This paper approaches the remittance data issue in three parts:

- The Remittance Data Challenge
- Current and Proposed Solutions Landscape
- Recommendations and observations

2. The Remittance Data Challenge

Fundamental to the supply chain is the generation of the invoice by the supplier to the buyer for products sold and/or services rendered, leading to payment by the buyer against that invoice and provision of remittance detail to enable the supplier to apply the payment to their outstanding invoices / receivables. Timely invoice generation, payments, and reconciliation of remittance data to the payment is critical to the supplier's management of the days sales outstanding (DSO) metric, their working capital position and their ability to ship additional products and services in circumstances where the buyer's outstanding invoices are close to their credit limit.

Whether paying a single invoice or multiple invoices, the ability to reconcile remittance information with specific invoices is dependent on receipt of sufficient remittance detail (e.g., invoice number, deductions, etc.). The following quote succinctly captures the remittance data challenge:

"(...) the efficient reconciliation of business-to-business (B2B) payments with remittance information—i.e., the reason for the payment—remains a major hurdle in all parts of the globe including those with high electronic payments adoption (e.g., Germany, the Netherlands, Switzerland, Sweden). This is due in part to the complexity of remittance data that varies significantly by industry and context. In some cases, individual corporate remittance requirements also differ. Combined with the multiple standards and different technologies for transmitting payment related information, compound the issues in accurately identifying incoming payments and posting them to the correct accounts without manual intervention."[1]

Key issues in the conveyance of remittance data in the end-to end payments chain are as follows:

– **Insufficient data** - Failure of the buyer/paying party to provide full and accurate remittance data, whether with the payment or perhaps separately. Data required can vary by industry or company, but typically includes invoice number, invoice amount, deduction codes, etc. Provision of inadequate data may also be in part due to a lack of clarity in the supplier's invoice in the first place.

– **Data truncation** - Inability of the banks and/or their clearing and settlement mechanisms (CSMs) to pass along sufficient remittance data provided with the payment. Data is at risk of being truncated at various stages in the payment process.

– **Limited space messages** - Inadequate space in the payment message (e.g., the UK BACS scheme only allows an 18 character reference field) can result in insufficient information provided by the buyer or the separation of the remittance data from the payment and the resulting challenge of matching and reconciling the two components.

– **Provision of data to receiving corporates** - Inability or unwillingness by receiving banks (perhaps motivated by a lack of perceived business case) to deliver complete remittance data in a convenient form to the receiving customer to ensure a consistent customer experience. Alternatively, the inability of receiving banks to deliver complete data may be due to the corporate's inability to receive the data.

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[1] *Source: CGI paper "The Drive to Electronic Remittance Exchange in Business-to-Business Payment Automation', June 2014*

– **Alternatives** - The inconsistent performance of the payments industry in this area has led to the development of many alternative routines involving remittance advices, corporate web portals and call centre activity

3. Current and Proposed Solutions Landscape

The last few years have witnessed a number of initiatives addressing remittance data both provided as part of and separately from the payment. The current and proposed solutions can be categorized into 'short form' solutions and 'extended remittance data' solutions.

3.1. Short Form Solutions

A major step forward in Europe, and for the industry, is the SEPA Credit Transfer (based on the ISO 20022 Credit Transfer message), which adopted a 140-character remittance field length, and within it offering both an 'unstructured' and a 'structured' option. It also applied to the SEPA Direct Debit. While it fell short of those seeking extended remittance data capabilities, it minimized required payments infrastructure changes, established an industry bar for acceptable field length, and arguably met the remittance data requirements for the great majority of payments (perhaps over 80%). A major advance was the 'legal'/rules-based requirement (as articulated in the SEPA Rulebook for Credit Transfers) that all remittance data contained within the 140 character message be passed along by all parties whether by the payment origination bank, clearing system or receiving bank.

The existence of the structured creditor reference (ISO RF 11649) creates the potential for embodying the remittance data in a structured field but is currently underutilized for various reasons the most important of which is probably lack of education and promotion by all stakeholders including the payments industry. Another problem is that this standard can only address a single invoice related to a single payment and does not provide codes for deductions and dilutions. Nevertheless, as the single invoice/single payment mode relates to the majority of B2B payments, there could be an opportunity to significantly increase end-to-end reconciliation quality through use of ISO RF 11649. The gradual adoption of electronic invoicing and automated supply chain processes generally could aid this process.

Some years ago, the European Association of Corporate Treasurers (EACT) published and promoted formatting rules for a SEPA 'Unstructured' 140-character message for optimizing the use of remittance information.   It includes the following elements that can be specified as remittance detail:
– The customer number as issued by the Creditor
– The unique reference as issued by the Creditor
– Details of documents e.g. invoice being settled
– The purpose of the payment
– Reference to a separate remittance advice message (e.g., for extended remittance data)
– Additional free text

Note that the second to the last bullet above allows for reference to a separate remittance advice message for extended remittance data (see the "link to Remittance Data' section below).

3.2. Extended Remittance Data Solutions

3.2.1 Remittance Data Carried with the Payment

Much industry debate has occurred around the need for extended remittance data where the short-form field length is considered inadequate for the quantity or complexity of the required information to be transmitted.

For example, the Finnish Additional Service Option (AOS2) within the SEPA framework builds on SCT (structured and unstructured) to facilitate straight-though-processing of multiple invoices tied to a single payment. AOS2 operates mainly within the Finnish banking community (closed user group of SEPA participants open for all SEPA banks to join). The Finnish AOS2 currently includes one unstructured message of 140 characters in length intended for non-AOS banks. It then allows for aggregate information on multiple invoices and credit notes bundled into a single payment to be used by AOS2 participants. This information is reflected in a minimum of two and maximum of nine structured remittance fields, each with a maximum of 280 characters and each representing a single invoice or credit note (maximum of 9 invoices or credit notes per payment). Projected to be effective November 2015, the maximum number of invoices will increase to 999 in line with EBA STEP2 capabilities.

EBA CLEARING announced at EBA day 2014 that STEP2 would be in a position by May 2015 (now November 2015) to handle extended remittance capacity of up to 999 invoices and credit note references in a single payment transaction. In the United States (US), Fedwire, CHIPS and NACHA now offer extended message sizes of up to 9,000 characters of additional remittance data. NACHA rules in particular require that all remittance data delivered to the payment receiver. It should be noted that since the US introduced extended remittance facilities, it is reported that there has been limited uptake so far. It is possible that under-use of all current extended remittance data facilities is partly a function of limited or inconsistent use of the short-form remittance data fields. More research is required in this area.

A further more recent initiative is the UK's Richer Data project in which the UK government is engaged in a dialogue with the payments industry and other stakeholders to explore the potential for more granular and extensive remittance information. This arose initially from the introduction of a new social security benefit called Universal Credit but it is felt that if any modifications to payment systems are justified then the opportunity should be taken to explore other requirements such as in B2B payments. The 18-character limitation is also under review.

In all the above propositions the remittance data travels with the payment and appears as an integral part of the payment message in the hands of the receiver. From a detailed architectural and systems design point of view the system may create a by-pass mode, which handles the additional messaging component to avoid heavy re-engineering of the core payments engine(s) but this is invisible to system users.

3.2.2 Link to Remittance Data referenced in the Payment by the payments industry

In addition to the above extended remittance data options whereby the remittance data travels inside the payment message, there have been a number of industry proposals

and implementations in which the remittance data is separated from the payment and placed in a common repository (e.g., portal, cloud) provided by an Originator Bank, a CSM or a third party service provider. A reference would be provided (URL) in the payment message enabling the supplier to access the data. The European Payments Council (EPC) has made such a proposal for discussion - to separate remittance information underline exceeding 140 characters from the SEPA Credit Transfer (or SEPA Direct Debit) message into a separate message and only carry information about the location of the extended information (URI) in the payment message. Other solutions discussed above include such an option, such as EACT standard, Fedwire, CHIPS and NACHA.

A recent development is the introduction of the ISO 20022 XML based standalone remittance standard enabling provision of 'unlimited' (richer) remittance data. The development of this standard is the result of a collaborative effort lead by the Interactive Financial eXchange (IFX), which brings together a number of financial technology vendors and major financial institutions centred in the US but with a global focus. The organisation has produced a number of standards and standards usage guidelines covering a wide range of B2B activities for use in bank developed and vendor systems. For remittance data it has produced two stand-alone messages, one containing the full remittance detail and a second containing the remittance location advice, specifying where the details can be found (comparable to the solutions described above). It has been successfully piloted, although there are acknowledged issues to be worked out around the difficulty of packing and unpacking the messages as they enter and exit the banking infrastructure. It also requires that the trading parties (buyer, supplier) are on SWIFT and can handle XML and that the sending and receiving banks support the messages. This standalone remittance standard opens up opportunities for banks to facilitate the standard by supporting the messaging and by providing further value-added services (e.g., conversion of data supplied in a non-compliant format into the ISO 20022 format).

3.2.3   Remittance Data managed and/or transmitted in other ways

The corporate community itself could create a common repository similar to that described in the previous section as a collaborative venture but this seems unlikely in practice and it is more likely that the corporate community would look to the banking and payments community to incorporate these features in a payments industry solution.

On an individual basis, however, it is increasingly common for corporate payers to take advantage of the 140 character remittance data field in imaginative ways or to provide digital remittance advice detail in a system or self-service portal deployed in its own supply chain platform and fully accessible to payment receivers. The question arises as to whether these solutions are seen as 'work-rounds' in the absence of well-accepted industry or payment system level solutions, or whether they represent the most pragmatic long-term answer. However such solutions often only apply where the originating payer is a large entity and so solutions are still required for other B2B payment traffic.

There are examples of corporate and vendor solutions, which extract the critical remittance data from free text in the unstructured 140 character message field, and enabling automated reconciliation of the payment and invoice data. With such approaches remittance data for up to three or four invoices can be provided within the 140 characters. It is further reported that some companies working with SAP ERPs employ a hybrid process in which the 140 unstructured field is used for any payments with three invoices or less. For payments with more than 3 invoices, remittance data is

provided separately from the payments, including use of a reference ID (URI) providing access to a portal, or more basically, the remittance detail can be a PDF sent via email.

Individual banks and third party providers are also adding individual solutions to the mix. For example, in Australia, some banks are offering customers a service, which associates a payment with a file via and identifier in the 18-character free text field of the BECS bulk payments systems. The identifying code is referenced in the related accounting information, ERP or financial system information sent separately to the beneficiary.

While the number of previously described solutions create a complex landscape of opportunities, many were developed with global standardisation and harmonisation in mind, particularly those built around the ISO 20022 XML standards. An important initiative supporting standardisation and harmonisation is the Common Global Implementation Market Practice (CGI-MP) initiative. The goal of CGI-MP is to '…simplify implementation for corporate users and, thereby, to promote wider acceptance of ISO 20022 as the common XML standard used between corporates and banks'. All the above initiatives are summarized in three basic models for the provision of remittance data in a table in the Annex to this paper.

The growth of e-invoicing is potentially a game changer for the improvement of remittance data. Just as Purchase Orders are 'flipped' to generate the core of an invoice, key invoice data existing in digital form can be flipped to provide the nucleus of improved remittance data. With digitization of the invoice, e-invoicing creates much greater clarity of information, making the whole process of reconciling remittance data with the payment much simpler. A large proportion of e-invoices and related B2B data such as Purchase Orders are carried in a variety of B2B networks, which are well positioned to support their customers and the banking industry to improve the quality and integration of remittance data at appropriate points in the end-to-end process.

4.   Recommendations and observations

The multiple industry initiatives described above point to an increased awareness of and focus on the remittance data challenge. However, these various initiatives may also have the unintended consequence of creating additional complexity and may be a barrier to the efficiency that stakeholders seek. Further convergence and harmonisation would be a desirable objective.

The following recommendations are orientated toward the payments industry, although a recommendation directed towards the corporate community is also included:

1.   **Promote and optimize use of the short form remittance data facilities** –

Recognizing the positive advancement already achieved with the SEPA Credit Transfer (and SEPA Direct Debit) allowing up to 140 characters of unstructured or structured remittance data, the payments industry should support wide and better use of the standard. The 140 character short form is more than sufficient to carry remittance information for the more than 80 percent of payments that cover either a single invoice or up to three invoices. Recommended actions are:

–   More robustly propagate the structured creditor reference (ISO 11649) to achieve greater end-to-end reconciliation / straight through processing for remittance data in single invoice / single payment scenarios. Educate and promote the standard with clients (as well as internally with client facing resources).

–   At the same time, promote full use of the unstructured message, where the ISO standard is not an option, to reduce instances of remittance data passed separately from the payment. Potentially encourage use of the EACT format standard (or similar conventions) and/or encourage implementation of other capabilities that can read free text, identify remittance data and automatically reconcile and apply the payment to the associated outstanding invoice.

–   Exert pressure on non-SEPA payment schemes and their bank participants currently offering insufficient space for remittance data to meet the minimum SEPA standard of 140 characters, including the obligation to transport the remittance data to the end-receiver in its complete form.

–   It is a matter for industry debate as to whether the prime effort at this stage should be to promote the use of the short form standard in a pervasive way as the key deliverable for rapid improvement.

2.   **Deliver end-to-end support and solutions** - Fully support the payment leg of the supply chain, which on the receiving end means a focus on facilitating efficient and automated receipt and reconciliation of remittance data. This involves:

–   Collectively make available services that provide the appropriate field length for supporting remittance data, including any required extended data.

- Ensuring that individual banks can support the appropriate standards such as the structured creditor reference ISO11649, the EACT standard format, the new ISO 20022 standalone remittance message, the upcoming EBA CLEARING optional service for extended remittance data, and other global equivalents.

- Enter into a dialogue with adjacent providers such as e-invoicing and B2B networks to establish ways to access and integrate relevant data references.

- Explore opportunities to more robustly support and provide value-added services that facilitate remittance data reconciliation.

- Provide a predictable and consistent client experience around the receipt of payments and the end-to-end delivery of remittance data

3. Manage the plethora of remittance data initiatives on a concerted basis at an industry level

This is a challenging agenda and requires the following:

- Establish a governance model at regional and global level to manage the remittance data issue on a concerted basis with an eye to best practice and rationalization of effort

- Create opportunities to individually and collaboratively support and promote industry initiatives that reduce complexity, that support the use of industry standards, that can achieve broad geographic and potentially global reach, and that are appealing to corporates. The EBA Clearing model could be considered as such a solution.

- Support initiatives that reduce or eliminate the truncation of data – that make it a requirement that the full set of and format of the remittance data provided at payment origination reaches the beneficiary. The SEPA rulebook makes this a compulsory rule for credit transfers and direct debits as does NACHA and the AOS2 extended remittance solution (Finnish / EBA CLEARING STEP2).

4. Educate and promote solutions to the B2B market

The banking and payments industry could play a major educational and promotional role: to convince customers on the merits of standards and available solutions. Provide advice around enhanced remittance data capture starting with how they are invoicing and using the structured creditor reference as well as the unstructured message to enhance receipt and reconciliation of remittance data. Educate internal client facing and support staff to equip them with the needed knowledge when they are advising and selling to clients.

The benefits of this to the payments industry include creating a constructive approach to supply chain management, a positive corporate image, and a contribution to reducing errors, complexity and expensive work-rounds. This further creates value added opportunities

5. Corporates focus on automation

As discussed above there needs to be a communication with corporate entities to emphasise the benefits of improved supply chains based on transparency of data and automation. They should be encouraged to continue to automate the supply chain by ensuring the capability to receive the ISO 20022 for SEPA Credit Transfers and through solutions such as e-invoicing that facilitate and automate the remittance data reconciliation process. Corporates should be encouraged to work with their banks to explore and implement solutions that build on standards and optimize end-to-end reconciliation.

6. Further research and development

There are a number of areas where further industry analysis and research would be helpful, for example:

- Assembling metrics on the breakdown of payments referring to a single invoice and those referring to multiple invoices

- Assessing the cost of missing remittance data - direct and indirect additional costs associated with individual reconciliations?

- Create a better understanding of the business case for banks in handling remittance data including both originating and receiving bank. Are there sufficient built in incentives to improving the environment for improving the processes which support payment reconciliation

- In these ways the banking and payments industry could work with key stakeholders including adjacent B2B networks to create greater understanding of the opportunities and challenges to build an effective and customer focused environment.

Annex 1 – Summary of Remittance Data Methods

Remittance Data Model	Model Version	Advantages	Challenges
1. Short Form Solutions (Based on the ISO 20022 Credit Transfer message with 140 character remittance field length)	Unstructured SEPA Credit Transfer (Free text)	• Adequate space for remittance data for a minimum of one invoice up to three invoices • Rulebook requires that full remittance data be transferred with the payment – information must be delivered to the beneficiary as formatted by the originator	• Message space limited to remittance data for 3 invoices • Automated reconciliation requires software that can pull invoice / other data from free text
	Structured SEPA Credit Transfer via ISO RF 11649	For single invoice / single payment, enables end-to-end reconciliation	• Only applicable in single invoice / single payment situations • Does not include deduction codes beyond one code assumed to be the discount deduction • Not widely promoted, understood
	EACT formatting rules for a SEPA 'Unstructured' 140-character message	• Enables automated processing of remittance information by the beneficiary • Facilitates optimal use of the remittance data	
2. Extended Remittance Data Solutions	**2.a. Remittance data carried with the payment**		
	Finnish AOS2	• Facilitates end-of-end reconciliation of multiple invoices (currently up to 9) associated with a single invoice. • In November 2015, in alignment with EBA STEP2 capabilities, the number of invoices and credit reference notes allowed with a	• Currently limited to 9 invoices (although to increase to 999 in November 2015) • Limited to Finnish AOS2 banks (currently 14, primarily in Finland)

Remittance Data Model	Model Version	Advantages	Challenges
		single payment transaction will increase to 999	
	EBA CLEARING – STEP2 payment platform (May 2015)	• From May 2015, STEP 2 will support up to 999 invoices and credit note references in a single payments transaction • Facilitates end-to-end reconciliation • The service will be supported by all banks that already provide their customers with the present, more limited, extended remittance information service	• Not yet implemented • The initial support will be limited to the banks in the Finnish AOS2
	US - Fedwire / CHIPS	• Allows up to 9,000 characters of additional remittance information • Facilitates end-to-end reconciliation	• Limited uptake on extended message (Fedwire & CHIPS) due to challenges of supporting variety of options and formats as well as need to change interfaces (from bank and provider systems to corporate systems) • No rules requiring that full remittance data be transferred with the payment
	US NACHA	• Allows unlimited remittance data to travel with the payment • Facilitates end-to-end reconciliation • Rules mandate that banks provide payment related information carried in the ACH payment to corporate customers	
	2.b. Link to Remittance Data referenced in the Payment by the payment industry		
	URI imbedded in the payment / remittance data accessed in common repository	• Access to remittance data travels with the payment • Eliminates challenge of matching payment and remittance data sent separately • Multiple industry formats can be supported without impacting the payment chain	• Separate step to access the data and reconcile • Does not achieve end-to-end reconciliation
	EACT formatting standard using the	• Access to remittance data travels with the	• Separate step to access the data and

Remittance Data Model	Model Version	Advantages	Challenges
	unstructured model – Option involving provision of the payment ID in the 140 character remittance data field	payment • Eliminates challenge of matching payment and remittance data sent separately • Multiple industry formats can be supported without impacting the payment chain.	reconcile • Does not achieve end-to-end reconciliation
	Stand-alone remittance standard approved by ISO in April 2014 - collaborative development effort led by Interactive Financial eXchange (IFX)	• Facilitates end-to-end reconciliation / full automation of the process	• Issues to be worked out around difficulty of packing / unpacking the messages as they enter and exit the banking infrastructure • Limited number of banks currently supporting • Still in pilot stage
3. Remittance Data managed and/or transmitted in other ways	**3a. Individual Corporate Solutions**		
	There are multiple and varied solutions in place agreed between individual suppliers and buyers to address transmission of remittance data for multiple invoices. Some of these can be quite sophisticated and result in end-to-end reconciliation / STP	• Companies able to fully meet their specific needs • Frequently STP achieved	• Duplication of efforts / inefficiencies in the system • Adds overall complexity • Requires individual bilateral agreements between a single supplier and single buyer
	3b. Individual Bank and/or Provider Solutions		
	In order to meet client needs, many banks are offering solutions to facilitate STP for their clients – e.g., • Use of identifiers for accessing the remittance data sent separately and/or stored in a data repository / portal • Virtual account solutions	• Facilitate reconciliation of remittance data with the payment	• Disparate and one-off solutions that do not incorporate standardization / overall efficiencies for the industry