BUSINESS JUSTIFICATION
FOR THE DEVELOPMENT OF NEW ISO 20022 FINANCIAL REPOSITORY ITEMS

A. Name of the request:
Collateral Management

B. Submitting organisations:
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Hillsborough, NJ 08844

C. Scope of the new development:
This registration request covers the Collateral Management flows as shown below.
Collateral Management generally refers to the processes by which two parties negotiate and manage collateral positions to protect one party against the credit risk of another party. Collateral is exchanged in relation to repurchase agreements, securities lending, OTC derivative trading, CCP default fund contribution and many other exposure types. All exposure types are in scope of this project.
These processes encompass the Collateral Claim, the Collateral Substitution, the Collateral Recall, the Collateral Reporting and the Collateral Interest Payment.
Following a recent ISDA proposal for standardization of the collateral process for OTC derivatives in which ISDA encourages the use of standardized FpML messages, the four co-submitting organizations decided to pool their efforts to make the collateral messages ISO
compliant on the model level. The development of the messages will be based on the ISDA/FpML requirements published recently in November 2009 by the ISDA Collateral Committee.

This development will also reverse engineer the existing ISO 15022 (Annex 1) and the FIX Protocol (Annex 2) model and messages that support the business flows between the Collateral Taker and the Collateral Giver.

This effort will lead, in a first phase, to the creation of a common business and logical ISO 20022 models for collateral management processes with ISO 20022 XML, FpML and FIX syntaxes as an output. This approach was discussed and agreed upon by the Standards Coordination Group. This group comprises of SWIFT, FPL, ISDA/FpML, ISITC, FISD, and XBRL, and is the author of the Investment Roadmap. The usage of different syntaxes will be clarified by the Investment Roadmap.

The need for three syntaxes has been identified considering the variety of actors and processes collateral management involves. The community of users for each syntax is described in section E. They may overlap.

As a second phase, the model will describe the surrounding processes, such as downstream settlement processes, to ensure the complete collateral management picture is documented.

**Processes and flows in scope.**

![Collateral Management Diagram]

The following table outlines the overall scope. This would represent approximately 20 messages.

<table>
<thead>
<tr>
<th>Exposure Types</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collateral Types</td>
<td>Cash</td>
</tr>
<tr>
<td></td>
<td>Securities</td>
</tr>
<tr>
<td></td>
<td>Letter Of Credit/Guarantees</td>
</tr>
</tbody>
</table>

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2 http://www.fixprotocol.org/documents/3993/InvestmentRoadmap_final.zip
Or any other assets that could be used as collateral

<table>
<thead>
<tr>
<th>Business area</th>
<th>Collateral Management (Bilateral) - Colr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business processes</td>
<td>Collateral Call*</td>
</tr>
<tr>
<td></td>
<td>Collateral Recall</td>
</tr>
<tr>
<td></td>
<td>Collateral Reporting - Collateral and Exposure Statement</td>
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<tr>
<td></td>
<td>Collateral Reporting - Inquiry (Request for Collateral Status)</td>
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<tr>
<td></td>
<td>Collateral Reporting – Status and Processing Advice</td>
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<tr>
<td></td>
<td>Collateral Substitution</td>
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<tr>
<td></td>
<td>Collateral Interest Payment</td>
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<tr>
<td>* Terminology may vary. One of the objectives of the project will be to align terminology as much as possible.</td>
<td></td>
</tr>
</tbody>
</table>

| Out of scope                           | Tri-Party Collateral Management. A business justification for the reverse engineering of ISO 15022 tri-party collateral management messages already exists (see ISO20022BJ_TripartyCollateralManagement_with_comments.pdf). The submitter (SWIFT) will ensure that both models will be aligned. |

It is to be noted that another business justification, CCP Clearing (see ISO20022BJ_CCP_Clearing_v4_withcomments.pdf) includes as part of its scope some collateral management process. It has been agreed with the CCP Clearing project co-submitters (SWIFT and FPL) that those collateral management requirements would be integrated in the development for which this business justification is submitted. The alignment will be ensured by the overlap of submitters and developers. CCP collateral management requirements (already agreed by CCPs) will be presented by the CCP BJ submitters as input to the collateral management review process. Any process that is common and generic will be part of this project; while anything specific will remain part of the CCP project.

In view of the scope, we recommend that the Securities SEG be assigned the evaluation of the candidate ISO 20022 models and messages.

D. Purpose of the new development:

There are a number of objectives supporting this business justification:

- Initiate the transition of Collateral Management messages from the existing ISO 15022 standards to new ISO 20022 message model and incorporate the requirements of existing FIX standards. This will be done in accordance with the ISDA/FpML requirements identified for the business processes in scope.

- Increase automation, allow for scalability, enhance security, and provide an audit trail. The market needs tools that facilitate collateral messages to be exchanged electronically between participants in an open standard that allows for interoperability between existing syntaxes, be they ISO 20022 XML, FIX or FpML based.
- Allow market participants to utilise their vendor of choice and exchange messages with another participant regardless of whether they are a user of the same vendor platform.

- Ensure straight-through processing within collateral management processes, and between collateral management and other processes such as trading and downstream cash and securities collateral movement processes.

E. Community of users and benefits:

Collateral management has matured to the point where the International Swaps and Derivatives Association estimates (ISDA survey 2009) that the total collateral value in circulation has grown from about $200 billion to almost $4 trillion since 2000. The number of agreements in place has grown from about 12,000 to almost 151,000 during the same period. Collateral coverage continues to grow, both in terms of trade volume subject to collateral agreements and of exposure covered by collateral. For all OTC derivatives (2009), 65% of trades are subject to collateral agreements, compared with 63% in 2008 and 30% in 2003.

These numbers are only for OTC derivatives. Collateral management is a general process used in many businesses, therefore the total figures are higher.

With the recent financial crisis, the industry has realized that current processes, largely manual, needed to be automated and integrated urgently. Automation projects have started and are planned for Q2 2010 (see below).

The actors who will directly benefit from the introduction of standards for Collateral management are:

Financial institutions which conclude any type of transactions for their own account or on behalf of a third party and subject to collateralization process will benefit from the proposed collateral management message models.

Financial institutions hereby mentioned cover Broker-dealers, Banks, Corporates, Asset management and Investment management firms, Hedge Funds, Custodians, Central Banks, Central Counterparties, Third party service providers and beyond.

The communities of users identified for the different syntaxes are as follows:

ISO 20022 XML

SWIFT’s intention is to replace the bilateral collateral management ISO 15022 messages. The ISO 15022 scope and usage is not specific to any exposure type. The ISO 20022 XML messages would therefore be available for any collateral management communication needs.

SWIFT has identified for 2010 the need for candidate ISO 20022 XML messages in two areas:


- Collateral Management project supported by an approved SWIFT Board Paper (DP162). Pilot is planned in Q2 2010 with vendors and customers.

1. Benefits/savings: today’s communication is mainly done through emails, faxes and phone calls. This way of working has proved to be risky and not efficient during the
latest financial crisis. There are no studies available on the amounts of money lost due to bad collateral management but the risk has been identified as one that needed to be tackled.

As far as automation is concerned, an internal client survey (5 institutions) shows that the monthly number of OTC derivative margin calls (handled manually) ranges from 250 in a medium size firm to 20,000 in a large bank. Automation of the average 5 exchanges of information required for each margin call would lead to a saving of 1 to 2 FTE and reduce considerably the risk associated with manual processing.

2. Adoption scenario: A pilot will take place in Q2 2010. It is anticipated that this pilot will provide invaluable practical feedback which will contribute to the development of the models and messages before they are submitted to the SEG for official ISO 20022 approval.

3. Volumes: The estimate number of firms that could implement these standards is difficult to assess as it goes across all securities domains and business areas. As far as the volume of message exchanges, for the 5 medium to large size institutions mentioned in point 1 only, it would mean a minimum of 160,000 messages a month.

4. Sponsors and adopters: this information cannot be provided for the moment. Confidentiality on the participants of the planned pilot is required.

FIX:

FPL intend to reverse engineer the FIX messages that support Collateral Management into the ISO 20022 model and may choose to develop new messages based on the ISO model to fill any additional requirements from our community of users. We expect that through the collaborative efforts of this project that the ISO 20022 model will be richer than the existing FIX messages for this business area.

FIX's set of Collateral Management messages have been part of the FIX Protocol specification since 2003 when a need was identified by a community of users for the automation of collateral management for repo trades and other financing activities (e.g. securities lending). The messages were developed and included into FIX Protocol version 4.4 to support these requirements. In FIX 5.0 further enhancements were made to the messages to support the requirements of clearing houses.

In last few years there has been a greater uptake in the implementation of these messages by clearing houses to facilitate margin account collateral management with their members (primarily in the US) and by investment management, broker/dealer and inter-dealer broker institutions and the vendors that service this user community for other exposure areas such as repo collateral and securities lending. Other users who may also interact with the aforementioned user communities may also be using these messages. As FPL does not operate a network we do not have any statistics on actual number of firms or message volumes using the existing FIX messages for this business area, but these messages are already implemented in production environments.

FIX's Margin Requirement messages have been included into the FIX Protocol since 2009 as part of the requirements put forth by the FIA Post Trade Working Group.

3 It is acknowledged that any early adopters implementing the model prior to the ISO 20022 approval of the model will do so at their own risk - the risk being that the model may change during the evaluation process.
The FIA Post Trade Working Group is currently actively working with FPL to further enhance FIX’s collateral management messages with new requirements to be submitted to FPL in Q1 2010.

FIX's messages' scope and usage is not specific to a particular exposure type and can be used to support collateral management process for any exposure types.

**FpML:**

As part of the regulatory commitments around collateral management, delivered by the 15 major OTC derivatives dealers and a group of buy side representatives, The OTC Derivatives Industry will streamline and automate the collateral management process for OTC derivatives as detailed in the ISDA publication on Standards for the Electronic Exchange of OTC Derivatives Margin Calls. In addition to this work to streamline the OTC derivatives collateral process, work is ongoing in areas such as dispute resolution for collateral posted for OTC derivatives.

1. **Benefits/savings:** Automation of the collateral management processes for the OTC Derivatives is critical and the use of FpML is seen as a key factor for STP in such processes for OTC derivatives. Manual tasks in transaction processing should be avoided as much as possible since they are inefficient and increase operational risk.

2. **Adoption scenario:** FpML collateral messages will be synchronized with the ISO 20022 model. An initial set of messages will be published by ISDA in Q2 2010. The full coverage of the collateral messages is expected to be completed during 2010.

3. **Volumes:** Most participants in the OTC derivatives industry are using FpML in existing implementations. These FpML users include dealers, brokers, asset managers, custodians, service providers (confirmation platforms, etc.) and technology companies. The scope of FpML will be consistently expanded to support collateral management processes for OTC derivatives. Collateral management processes are in some cases still manual processes so the adoption of FpML for collateral will be done along the automation of such processes during 2010 and 2011.

   The 2009 ISDA Margin Survey shows an explosive growth in the number of reported collateral agreements for OTC derivatives (from 12,000 agreements in 2000 to 70,892 (+491%) in 2005 to 150,881 in 2009 (+113%), or a 32% annualized growth rate over this nine-year period). Most of the processes associated with these agreements are managed manually.

4. **Sponsors and adopters:** As part of the regulatory commitments around collateral management, delivered by the 15 major OTC derivatives dealers and a group of buy side representatives, the OTC Derivatives Industry will streamline and automate the collateral management process for OTC derivatives as detailed in the ISDA publication on Standards for the Electronic Exchange of OTC Derivatives Margin Calls. An FpML Collateral Working Group has been established to develop the FpML messages in sync with the ISO 20022 model.

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4 see the following links for an overview of all current commitments:

F. Timing and development:

The proposed messages will be submitted to the Registration Authority for review at the end of Q1 2011. It is to be noted that these candidate messages will have been piloted by at least one of the submitters. This will ensure that they meet the needs of the industry.

To build the models, SWIFT, ISDA/FpML, FPL and ISITC will establish a working group where members will represent the four co-submitters. Each submitter will manage their membership input into this working group following their own processes.

G. Commitments of the submitting organisations:

SWIFT is committed to

Undertake the development of the candidate ISO 20022 business models and message models that it will submit to the RA (Registration Authority) for compliance review and evaluation. The submission will include Business Process Diagrams (activity diagram), Message Flow Diagrams (sequence diagram) and Message Definition Diagrams (class diagram), as well as other descriptive material that will be used by the RA to generate the Message Definition Report.

Address any queries related to the description of the models and messages as published by the RA on the ISO 20022 website.

SWIFT intends to organize the testing and implementation of the resultant message schemas.

SWIFT is also committed to initiate and/or participate in future message maintenance.

FPL is committed to

Provide resources to work jointly with SWIFT on the reverse engineering of existing FIX Collateral Management and Margin Requirement messages, coordinate any forth coming FIA Post Trade Working Group requirements, and assist with the development of the new candidate ISO 20022 messages.

FPL will assist in addressing any queries related to the descriptions of the models and messages as published by the RA on the ISO 20022 website.

FPL will initiate and/or participate in future message maintenance.

FPL will continue its work to generate FIX messages from the ISO 20022 model.

ISDA/FpML is committed to

Provide resources to work jointly with the other submitting organizations on the development of the ISO 20022 models.

ISDA/FpML will assist in addressing any queries related to the descriptions of the models and messages as published by the RA on the ISO 20022 website.

ISDA/FpML will initiate and/or participate in future message maintenance.

ISDA/FpML will generate FpML messages, based on the ISDA requirements and coordinate the consistency between the FpML syntax and the ISO collateral model.
ISITC is committed to

Provide resources to work jointly with the co-submitters on the development of the new candidate ISO 20022 messages.

ISITC will assist in addressing any queries related to the descriptions of the models and messages as published by the RA on the ISO 20022 website.

ISITC will initiate and/or participate in future message maintenance.

The four submitting organisations confirm that they will 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.

SWIFT, FPL, ISDA/FpML and ISITC acknowledge and accept the following:

“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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I. Comments from the RMG members and Securities SEG and disposition of comments by the submitting organisations:

Securities SEG comments and disposition of comments

The Securities SEG supports this business justification.

Disposition of comment:

The submitting organisations thank the Securities SEG for its support.

Comments from France and disposition of comments

We welcome the co-submission of an ISO business justification from SWIFT scrl, FIX Protocol Limited (FPL), ISDA / Financial products Markup Language (FpML) and ISITC in relation to Collateral Management.

We consider there is a strong requirement for international standardisation of the collateral management flows, and some organisations may put on hold some of their projects, as they will wait for these new messages and use them.

Disposition of comment:

The submitting organisations thank France for their support.

However, we have a certain number of comments relative to the request which we set out below.

C. Scope of the new development

The scope is ambitious. Its description indeed highlights that collateral is exchanged in relation with several underlying products ie repurchase agreement, securities lending, OTC derivative trading, CCP default contribution, (…). And that the processes encompass the Collateral claim, the Collateral Substitution, the Collateral Recall, the Collateral Reporting, and the Collateral Interest Payment.

The four co-submitting organisations decided to make the collateral messages ISO compliant at the model level. In a first phase, the effort will lead to the creation of a common and logical ISO 20022 model for collateral management processes, with ISO 20022 XML, FpML and FIX Syntaxes as an output.

Question: as the development of the messages will be based on the ISDA/FpML requirements published in November 2009, would not all readers also need to be familiar with this publication? How is this ISDA publication [Standards for the Electronic Exchange of OTC Derivatives Margin Calls] distributed?

Disposition of comment:

The ISDA publication is freely available on the ISDA website and indicated by a link in footnote 1 in the Business Justification. The link to these ISDA/FpML requirements is http://www.isda.org/c_and_a/pdf/Electronic-Messaging.pdf

Question: as the usage of different syntaxes will be clarified by the Investment Roadmap, wouldn’t it bring some clarification to re-explain in the BJ what the Investment Roadmap was aiming at? When will the Standards Coordination Group clarify the usage of different syntaxes?
Disposition of comment:

The Standards Coordination Group is currently working on updating the Investment Roadmap and is planning to publish a new version in June 2010. The updated version will clarify the available syntax and their usage in the various business areas across the different asset types.

Within the financial services industry, there are multiple standards being used, hence the desire to ensure some level of interoperability. It is clear that the FIX Protocol is the de facto standard for pre-trade and trading, and in post-trade/pre-settlement for certain asset classes and user community, that FpML is the de facto standard for OTC Derivatives and that ISO is the de facto standard for settlement. We need an approach that leverages and includes these standards into a broader framework without reinventing and creating redundant messages that increase implementation costs and cause confusion for the industry.

The purpose of the collaboration between these organizations is to produce a consistent direction for financial services messaging standards and communicate that direction clearly. This will allow the industry to spend its money more wisely.

Processes and flows in scope

The list of the (new) messages is approximate, which could generate potential naming issues of the messages themselves.

Disposition of comment:

The list of messages and their number will only be known at the end of the process when all requirements will have been taken into consideration. They will be in line with the ISO 20022 naming convention and their scope will clearly explain what each message should be used for. They will be aligned with the ISDA, FPL and other business requirements.

There is still a need for aligning the scope of the two existing BJ (the current one, and the [ISO 20022 BJ TripartyCollateralManagement]. It is stated that the alignment will be ensured by the overlap of submitters and developers. When and how will the international community be informed of this alignment?

Disposition of comment:

The scopes of tri-party and bilateral Collateral Management cover different processes and are clear in nature. The alignment we refer to will be focused on ensuring common flows and data elements are used when applicable.

Globally this does not properly reflect the huge work the four submitters have accomplished until the publication of this BJ.

There is a need for clarification.

Disposition of comment:

The BJ does not aim at providing any development plan or status on the work already achieved. Some preliminary analysis has already started on the business requirements related to this BJ.
(also see comments attached to part E Community of users and benefits)

E. Community of users and benefits

The actors who will benefit from the introduction of standards for Collateral management are financial institutions:
- Broker-dealers,
- Banks,
- Corporates,
- Asset management and Investment management firms,
- Hedge Funds,
- Custodians,
- Central Banks,
- Central counterparties,
- Third party service providers

Could the co-submitters provide a phased approach highlighting which actor might be impacted in a first step? Is ALL the industry impacted at first, in the same timeframe? Or should the readers understand that the 4 co-submitters were not aiming at finding a common and consensual planning, and that every actor would be informed by (a) co-submitter whenever he would be concerned?

Disposition of comment:

For certain groups of users in the US (i.e., the signatories on the recent March 1 letter addressed to the New York Federal Reserve regarding OTC Derivatives collateral management), ISDA’s expectations are that piloting and/or adoption will start as soon as the FpML messages are available. For the US community, an update to the Collateral Roadmap is expected April 15th and will provide further guidance on the timing

SWIFT has plans for piloting in 2010, a phase that will be followed by implementation in Q1 2011. For more information on these internal SWIFT dates, please contact banu.apers@swift.com.

As far as FIX messages are concerned, the FIX collateral management messages are already in use. The objective of FPL is to ensure the ISO 20022 model covers the flows and data elements already included in the FIX messages.

1. Benefits and savings: the criticality of collateral management processes (securities lending, repos, OTC derivatives) is obvious. The French community agrees.

2. Adoption scenario: what is it the readers should keep in mind?
- SWIFT > a pilot will take place in Q1 2010. DP162 > Pilot is planned in Q2 2010 with vendors and customers (?)

Disposition of comments

SWIFT has plans for piloting in 2010. For more information on these internal SWIFT dates, please contact banu.apers@swift.com.
- FIX > The FIA Post Trade Working Group may submit new requirements (for enhancing FIX's collateral management messages) to FPL in 2010

Disposition of comments

FIX messages are already in use by the listed derivatives community and by other market participants for repo collateral. FPL is also working closely with the FIA Post Trade Working Group to determine whether there are additional requirements for listed derivatives.

- FpML > an initial set of messages will be published by ISDA in Q2 2010.

Disposition of comments

This will be done in line with various other ongoing collateral initiatives at ISDA.

3. Volumes : as the readers do not know which communities are respectively included in each scope, the statistics published here do not ‘make sense’ by themselves.

Disposition of comment:

Those statistics are extracted from an ISDA study, and therefore refer specifically to OTC derivatives, i.e., the ISDA community of users.

4. Sponsors and adopters

Globally the information concerning the ‘sponsors and adopters’ is not disclosed.

In summary, this initiative is very positive for the French community. Some actors may well want to participate. However the business justification suffers from having been written by multiple submitters, as it prevents the readers from clearly understanding the major milestones: phasing of the project, deliverables …If it is not envisaged by the four co-submitters to establish a common agenda, it might be more transparent to state it in the paper. And the French Community would still approve the Business Justification.

Disposition of comment:

It is not envisaged to publish a common agenda. Each submitter will indeed manage its agenda based on its own constituencies need.
### Annex 1 Inventory of existing ISO 15022 messages

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT 503</td>
<td>Collateral Claim</td>
</tr>
<tr>
<td>MT504</td>
<td>Collateral Proposal</td>
</tr>
<tr>
<td>MT505</td>
<td>Collateral Substitution</td>
</tr>
<tr>
<td>MT506</td>
<td>Collateral and Exposure Statement</td>
</tr>
<tr>
<td>MT507</td>
<td>Collateral Status and Processing Advice</td>
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</tbody>
</table>

### Annex 2 Inventory of existing FIX messages

**Collateral Management**

<table>
<thead>
<tr>
<th>Message Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CollateralRequest</td>
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