

#### Staff Notice 21-306

### Notice of Filing of Form 21-101F5 Initial Operation Report for Information Processor

#### **April 20, 2007**

#### Introduction

The Canadian Securities Administrators (CSA or we) are publishing this notice to seek comments from market participants on the summary of applications for the information processor role, included at **Schedule A**, and to solicit feedback on a number of specific issues.

#### **Background**

#### 1. Transparency

National Instrument 21-101 *Marketplace Operation* (NI 21-101) imposes transparency requirements onto marketplaces, dealers and inter-dealer bond brokers (IDBs) for exchange-traded securities and fixed income securities. Transparency facilitates the price discovery process and compliance with regulatory requirements, such as best execution and short selling. Transparency also supports competition between marketplaces by enabling market participants to have access to information regarding securities being traded.

Part 7 of NI 21-101 requires that marketplaces that display orders of exchange-traded securities provide information regarding these orders to an information processor or, if there is no information processor, to an information vendor. Part 8 of NI 21-101 requires that marketplaces that display orders of corporate debt securities provide order information for corporate debt securities to an information processor. In addition, marketplaces, IDBs and dealers executing trades of corporate debt securities are required to provide information regarding details of trades to an information processor or, in the absence of an information processor, to an information vendor. Further details on the information to be reported to the information processor are included in Part 10 of Companion Policy 21-101CP to NI 21-101 (21-101CP).

At this time, CanPX Inc. (CanPX) is the approved information processor for corporate debt. There is currently no information processor for the equity securities. However, order and trade information is provided to information vendors.

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Part 8 of NI 21-101 also sets out the transparency requirements applicable to government debt securities, however, these have been postponed until December 31, 2011.

### 2. Regulatory requirements, multiple marketplaces and information consolidation

The CSA initially proposed the creation of a data consolidator in 1999 with the introduction of the ATS Rules.<sup>2</sup> However, based on recommendations by an industry committee struck to review data consolidation and market integration<sup>3</sup> for the equity markets, we accepted the industry committee's view that a market-based solution would develop to achieve consolidation and removed the requirements for data consolidation and market integration.<sup>4</sup> They also expressed views on market integration.

On July 14, 2006, we proposed several amendments<sup>5</sup> to the ATS Rules and their companion policies (together, the proposed amendments). One of the amendments<sup>6</sup>, which has since been adopted, clarified our expectation that, in order to comply with best execution obligations, dealers should take into account order information from all marketplaces where a security is traded and should not just consider information from marketplaces where a dealer is a participant, as appropriate. Comments received to the proposed amendments indicated that such requirements would be more feasible with a market integrator or data consolidator/information processor. While we disagreed that market integration or data consolidation was necessary in order for dealers to comply with the best execution obligations, we agreed that the existence of an information processor<sup>7</sup> that provides consolidated data could be a helpful tool for meeting best execution and other regulatory requirements. That is, an information processor would ensure the availability of a source of consolidated data that meets regulatory standards and which users, including dealers, could use, at their choice, to demonstrate how they met their best execution obligations. The existence of an information processor would not preclude marketplace participants from using data provided by other information sources such as data vendors or from obtaining direct data feeds from the marketplaces.

As stated above, the purpose of data consolidation is to facilitate the price discovery process and regulatory compliance in a multiple marketplace environment. It enables market participants to use one source to see all prices and trades of a particular security and provides a benchmark for market participants and regulators to evaluate compliance with certain regulatory requirements like best execution, short selling and "best price" obligations, especially in a multiple marketplace environment. An information processor could ensure a central source of consolidated data that is consistent and meets standards approved by regulators.

NI 21-101 together with National Instrument 23-101 *Trading Rules* are the ATS Rules. First published at (1999) 22 OSCB ATS Supp (the ATS Supplement). A discussion about the "Consolidated Plan" can be found on page 93.

<sup>5</sup> The proposed amendments were published in Ontario on July 14, 2006, at (2006) 29 OSCB 5735.

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Market integration enables a buyer or a seller of securities to access any order on any other marketplaces, regardless of whether they are a marketplace participant of that marketplace. See the ATS Supplement for a detailed description of market integration.

See the industry report at (2003) 26 OSCB 4385.

These amendments have subsequently been implemented in subsection 4.1(8) of Companion Policy to NI 23-

An information processor is defined as a company that receives and provides information under NI 21-101 and has filed Form 21-101F5.

For these reasons, we invited interested parties to apply for the role of the information processor and published a separate notice of request for this purpose.<sup>8</sup> In response to our request, we received six filings of Form 21-101F5 for the information processor, as follows:

- Bourse de Montréal (MX) for fixed income and equity securities;
- CanPX for fixed income securities;
- CDS Inc. for fixed income and equity securities;
- Gmarkets Inc. (Gmarkets) for fixed income securities;
- TSX Inc. (TSX) in conjunction with CanDeal.ca Inc. (CanDeal) for fixed income securities; and
- TSX for equity securities.

On October 27, 2006, we extended CanPX's approval as the information processor for corporate fixed income securities from December 31, 2006 until December 31, 2007 in order to allow sufficient time for market participants to transition to a new information processor, in case a different entity is selected to perform this role. <sup>9</sup>

#### **Criteria and Evaluation of Applications**

#### 1. Criteria

Section 16.2 of 21-101CP states that the CSA will review Form 21-101F5 to determine whether it is contrary to the public interest for the filer to act as an information processor. We are considering a number of objective factors to evaluate the filings received. Specifically, we are looking for a financially viable entity that meets the following criteria:

a. Organization and governance – the applicant has a strong management team and board of directors with independent representation, if feasible; it has sufficient staff resources with adequate industry knowledge and expertise assigned to run the information processor business; if facing inherent conflicts of interest, such as those associated with the collection, handling and distribution of data provided by competing organizations, it has adequate processes to manage such conflicts.

#### b. Systems

O Development and implementation – staff assigned to develop and implement the system necessary to perform the role of the information processor have adequate technical capability; the time required to go live by the system, if not already operational, is reasonable and connectivity is easy, in terms of standards, cost and time; in addition, the system has an adequate Central Processing Unit, network performance and capacity, an adequate testing plan that includes capacity stress tests, as well as adequate customer contract and Service Level Agreements.

<sup>8</sup> CSA Notice 21-304 Request for Filing of Form 21-101F5 Initial Operation Report for Information Processor by Interested Information Processors (Request for Filing of Form 21-101F5), published in Ontario on July 14, 2006 at (2006) 29 OSCB 5757.

<sup>&</sup>lt;sup>9</sup> CSA Staff Notice 21-305 Extension of Approval of Information Processor for Corporate Fixed Income Securities, published in Ontario at (2006) 29 OSCB 8364.

Operations and data integrity – it has, or can develop, a system that has adequate hardware, software and network redundancy, physical and logical security, customer support activities and data validation processes; it has adequate backup procedures and a disaster recovery plan that ensures that the feed is re-established within a reasonable timeline in the event of a significant disaster; problem resolution and change management are given adequate priority and are handled by staff with the necessary capability.

#### c. Commitment to transparency

- o <u>Fixed income securities</u> the applicant is committed to receiving data feeds of trade details for designated corporate securities reported by marketplaces, IDBs and dealers in accordance with the requirements of NI 21-101 and 21-101 CP, <sup>10</sup> and to provide a consolidated data feed of such information, as required by NI 21-101; in addition, it has adequate, timely and transparent criteria and processes to select the designated corporate fixed income securities.
- Equity securities it is committed to receiving data feeds for orders and trades in exchange-traded securities reported by marketplaces in accordance with the requirements of NI 21-101 containing, at a minimum, information such as the marketplace, time of entry, price, volume and appropriate regulatory identifiers; it can provide a consolidated feed of the bid and ask prices, as well as trade information transmitted to it.
- d. Fees and revenue sharing the applicant has a competitive fee structure and revenue sharing plan and, if sharing revenue with the data contributors, the allocation is fair.

The summary of the filings received included as **Schedule A** to this notice is organized under the four general criteria listed above. <sup>11</sup>

#### 2. Specific requests for comment

In addition to written submissions with respect to the summary of filings included in **Schedule A**, we request specific comments in a number of areas, set out below.

#### a. General

We are requesting feedback on the proposals received and the criteria developed for evaluation.

Subsection 10.1(3) of 21-101CP requires marketplaces trading corporate debt securities, IDBs and dealers trading corporate debt securities outside of a marketplace to provide details of trades of all corporate debt securities designated by the information processor, including: the type of counterparty, issuer, type of security, class, series, coupon and maturity, price and time of the trade and, subject to certain volume caps, the volume traded, within one hour from the time of trade.

Note that the summary does not include proprietary and commercial information provided by the applicants.

Question #1: What are the advantages and disadvantages associated with each proposal summarized in Schedule A?

Question #2: Are the criteria used for evaluation of the applications adequate? Should other factors be considered by the CSA in reviewing the applications?

#### b. Feed versus display

One issue we considered was whether an information processor should disseminate a standardized display of data that would ensure that all market participants view the same consolidated information in the same way. Discussions with marketplace representatives indicated, however, that the specific information needs of market participants may be better met if the information processor disseminates data feeds that can be acquired by users, directly from the information processor or through information vendors, and can be varied and customized to meet their needs.

Question #3: Should an information processor be required to create and disseminate a standardized, consolidated display of data? Alternatively, should the information processor disseminate consolidated data feeds that may be accessed by market participants to create their own displays?

### c. Multiple information processors

We note that, while NI 21-101 sets out the process to become an information processor and 21-101CP states that the CSA must make a determination whether it is contrary to the public interest for a filer to act as an information processor, there are no restrictions on the number of entities that may act as information processors, provided they meet the required criteria. Further, in CSA Notice 21-304 Request for Filing of Form 21-101F5, we recognize that an entity may apply to be the information processor for the fixed income market, for the equity market, or for both.

We acknowledge the synergies and advantages, both in terms of cost savings and ease of connectivity, associated with a single information processor. In addition, a single information processor would ensure the availability of a single source of consolidated information and uniformity of data distributed to the public. However, there may be advantages to having multiple information processors. For example, some believe that having different information processors for the fixed income and equity markets would ensure that the distinct needs of the participants of these two markets are better met. Further, there are views that the availability of multiple information processors may promote competitiveness and create efficiencies, both in terms of fees and operations.

Question #4: What would be the advantages and disadvantages of having one versus multiple information processors? For example, how would each alternative impact market participants' ability to achieve best execution or comply with trade-through or other obligations? Should the information processors for the fixed income and equity markets be different?

#### **Comments and Questions**

We are reviewing the filings received based on the criteria specified earlier. Subject to any comments received by June 4, 2007, we intend to make a final recommendation regarding the information processor to each Commission in July, 2007 and publish the results shortly thereafter.

You should send submissions to all of the CSA listed below in care of the OSC, in duplicate, as indicated below:

Alberta Securities Commission

**British Columbia Securities Commission** 

Manitoba Securities Commission

New Brunswick Securities Commission

Securities Commission of Newfoundland and Labrador

Registrar of Securities, Department of Justice, Government of the Northwest Territories

Nova Scotia Securities Commission

Registrar of Securities, Legal Registries Division, Department of Justice, Government of Nunavut

**Ontario Securities Commission** 

Prince Edward Island Securities Office

Saskatchewan Financial Services Commission

Registrar of Securities, Government of Yukon

c/o John Stevenson, Secretary **Ontario Securities Commission** 20 Queen Street West Suite 1900. Box 55 Toronto, Ontario M5H 3S8 e-mail: jstevenson@osc.gov.on.ca

Submissions should also be addressed to the Autorité des marchés financiers (Québec) as follows:

Madame Anne-Marie Beaudoin Directrice du secrétariat Autorité des marchés financiers 800, square Victoria, 22<sup>e</sup> étage C.P. 246, tour de la Bourse Montréal, Québec H4Z 1G3

e-mail: consultation-en-cours@lautorite.gc.ca

A diskette containing the submissions should also be submitted. As securities legislation in certain provinces requires a summary of written comments during the comment period be published, confidentiality of submissions cannot be maintained.

# Questions may be referred to any of:

Serge Boisvert Autorité des marchés financiers Phone: (514) 395-0558 X 4358

Shaun Fluker Alberta Securities Commission Phone: (403) 297-3308

Tony Wong British Columbia Securities Commission Phone: (604) 899-6764

Doug Brown Manitoba Securities Commission Phone: (204) 945-0605

Randee Pavalow Ontario Securities Commission Phone: (416) 593-8257

Tracey Stern Ontario Securities Commission Phone: (416) 593-8167

SCHEDULE A SUMMARY OF FILINGS RECEIVED								
Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)		
1. ORGANIZATIO	ON AND GOVERNANC	E						
1. Overview	CanPX is a for-profit, privately-held corporation.	Gmarkets is a for-profit, privately-held corporation.	The application is made jointly by TSX and CanDeal.  The vehicle pursuant to which TSX/CanDeal will deliver the functions of the IP (and consequently, the governance structure for the IP) has not been finalized at this time.  TSX/CanDeal anticipate that the structure will facilitate the involvement of, and input from, various industry participants including those who are independent of TSX/CanDeal.	MX is a for-profit, privately-held corporation.  It proposes two alternative structures for the information processor:  1. The CSA could form a not-for-profit legal entity which would carry on its activities as an IP. The IP would:  • contract with MX to provide the technical service through its Information Technology Solutions business	The IP services would be provided by CDS Inc., a wholly-owned subsidiary of The Canadian Depository for Securities Limited.	TSX Inc. (TSX) is a for-profit corporation and a wholly-owned subsidiary of TSX Group Inc., a public company.		

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
				unit (MX-ITS); and establish Policy and Technical Committees comprised of industry volunteers for each market (equity and debt) that would make all policy decisions applicable to the IP, as well as decisions on fees and revenue sharing.		
				2. MX could take on direct responsibility to operate as an IP and could establish a separate entity with an independent governance for this purpose.		

SCHEDULE A

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
2. Board of Directors <sup>12</sup>	The board of directors of CanPX is composed of eight directors. All are related to dealers or IDBs.	There are three shareholders, two of which are also directors of Gmarkets. While no directors are independent of the applicant, they have no relationship with any dealers, IDBs or marketplaces.	The governance model for the vehicle has not yet been finalized. TSX/CanDeal anticipate facilitating the involvement of, and input from, various industry participants, including those independent of TSX/CanDeal.	The composition of the Board will be determined once the optimal governance structure to perform the IP role has been determined between the CSA, the data contributors and the applicant.	The Canadian Depository for Securities Limited has a board of 15 directors; currently, 4 of these directors are independent.	The TSX board of directors has 14 directors, 12 of which are independent.
3. Key personnel	An Operating Committee composed of the President (a representative of a dealer), Secretary- Treasurer (from the	Key personnel consists of the President and CEO, as well as the Secretary and Director. In addition, there is a Client Services group	Key personnel responsible for the services of the IP will include: • Staff of TSX Datalinx, the market	Key personnel will be comprised of the 120 individuals employed by the MX-ITS and 5 of the Market Data Services divisions of	Selected staff of CDS Inc. will be responsible, among others, for the operations of the IP. Such staff will include:  • The Executive	Personnel will be employed by either TSX or an affiliate, and any personnel employed by an affiliate will be shared with TSX under

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<sup>&</sup>lt;sup>12</sup> For the purposes of this summary, we interpreted independence broadly to mean the lack of a direct or indirect material relationship with an applicant; a material relationship would be reasonably expected to interfere with the exercise of a director's independent judgement.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	Investment Industry Association of Canada (IIAC) and one of the Directors (an IDB), is responsible for the ongoing operations of CanPX.  4 individuals employed by the IIAC are responsible for ensuring high-level compliance with corporate governance requirements, accounting, the day-to- day operations of CanPX, oversight of the technical facilitator, monitoring timeliness of data reported to and displayed by the system, and other	responsible for data quality assurance, entitlements, administration and first level client support.	data division of TSX;  TSX and CanDeal technologies staff;  Staff of TSX Markets, the trading division of TSX; and  Senior staff from TSX and CanDeal.  The IP will leverage TSX staff in Network Operations/ Support, Vendor Services, Market Services and Product Management.  The IP will also leverage TSX staff in Development, Quality Assurance and Project Management on an "as	MX.	Director, CDS Inc.;  The Managing Director, CDS Inc. Business, reporting to the Executive Director; and  A Business Manager, IP, reporting to the Managing Director, CDS Inc. Business.  The Business Manager, IP position will be created and dedicated full-time to the operations of the IP. This individual will be charged with recommending and executing strategies for the overall management	a service agreement.  Core personnel that would be involved in the operations of the IP would be certain staff of TSX Datalinx, Market Services, Technology Operations, Technology Development, Product Management and Market Services.  IP products will share dedicated staff in Operations, Network Support, Vendor Services and Product Management and will share staff with other products on an "as needed" basis in

**SCHEDULE A** 

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	ongoing functions.		needed" basis.		of the IP operations.  At this time, it is anticipated that two business analysts, reporting to the Business Manager, IP, will be dedicated full-time to the operations of the IP.	Development, Quality Assurance and in the Project Management Office.
4. Management of potential conflicts of interest <sup>13</sup>	As no directors are independent of a dealer or IDB, and some may serve on Board of other parties with an interest in the debt markets, CanPX has a number of measures to help preserve independence,	The application indicates that Gmarkets does not have a conflict of interest in pursuing the role of IP for the Canadian debt markets, as it does not derive any income from trading in these markets, and none	TSX/CanDeal will put into place the necessary policies, procedures and processes (both system and non-system) to manage potential conflicts of interest associated with the receipt of data from	MX's conflicts of interest are specific to an exchange and relate to the inherent conflicts from ownership of the exchange shares. Such conflicts are managed through restrictions on share ownership.	CDS Inc. does not compete at any level with any of the providers of data to the IP, nor with any of the potential users of such data.  However, it has	Data transmitted to the IP by marketplaces will not be inappropriately manipulated by TSX. That is, data will not be modified, except to reformat it if required, to remove unnecessary data elements and add

<sup>&</sup>lt;sup>13</sup> While, as an information processor, the main conflict of interest is that related to the handling of data contributed by other entities, some of which may be competitors, this summary considers all potential conflicts of interests identified by applicants.

SCHEDULE A

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
Description						
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed	(Equity and Fixed	(Equity)
				Income)	Income)	
	as follows:	of its shareholders and	competitors of TSX or		processes to manage	necessary new data
	Broad share	directors are employed	CanDeal. As a general	In addition, the	potential conflicts of	elements. TSX staff
	ownership with	by a Canadian	matter, access to data	technical infrastructure	interest that it would	who do not require
	provision for others	marketplace, dealer or	will be on an "as	for the consolidated	face as an IP, due to	knowledge of or access
	to become	IDB.	needed" basis.	data feeds will be	receipt of data from	to competitor data or
	shareholders;		Specifically:	separate from the MX	competitors of its	client information for
	<ul> <li>Secretariat services</li> </ul>		<ul> <li>Employees of</li> </ul>	infrastructure.	shareholders. For	purposes of operating
	provided by a third		Shorcan Brokers	Operational processes	example, data received	the IP or carrying out
	party (the IIAC);		Limited (an IDB	are automated, and only	by CDS Inc. in its	TSX processes will not
	<ul> <li>Declaration by</li> </ul>		subsidiary of TSX)	operational staff	capacity as an IP will	have access to the data
	directors of any		will not be granted	specifically required to	not be made available to	or client information.
	known conflicts of		access by	maintain the service	its Board of Directors	
	interest during		TSX/CanDeal to	will be authorized to	(or the Board of its	TSX is able to bill and
	Board meetings;		competitor IDB	access the applications.	parent, CDS Limited).	collect other
	Periodic guest		data;		New service strategy	marketplace fees or
	participation of a		<ul> <li>Employees of</li> </ul>	The reception,	papers and business	coordinate appropriate
	Bank of Canada		CanDeal's	processing and	cases are reviewed and	direct billing
	representative;		Revolution Trading	dissemination of the	approved by the Board	administration with
	<ul> <li>Shareholders do not</li> </ul>		division will not be	data takes only a	of Directors. Similarly,	them. In the latter case,
	acquire data directly		granted access by	fraction of a second,	status reports on various	as an additional control,
	from CanPX but		TSX/CanDeal to	therefore, potential	lines of business are	vendors must report the
	from CanPX		competitor IDB	conflicts of interest	presented to the Board	numbers that access to

SCHEDULE A

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	vendors at the same prices, time and terms as other parties;  • Quarterly communication to all data contributors of Board meeting minutes;  • Annual circulation to all contributors of audited financial statements; and  • Easy access to secretariat staff and access to assistant corporate secretary (from a third-party law firm) for all corporate governance matters.		data; and • Access to the contributed inbound sources will be restricted to those who require access for the purposes of the performing IP functions.  The existing safeguards that are put in place by TSX in order to ensure that the interests of competing equity marketplaces that provide equity trading data for distribution by the TSX are not compromised will also be put into place by TSX/CanDeal as the IP.	from human manipulation is virtually non-existent as the information is made public within milliseconds.  All MX employees and consultants sign a code of ethics with sections related to confidential and privileged information.	of Directors from time to time for review and comment. However, management screens such documents for sensitive, competitive or confidential information prior to pre-mailing the documents to the Board members. In the event that such information must be tabled with the Board, the director with a conflict of interest is expected to declare same and recuse him/herself from that portion of the meeting.	marketplace subscriptions directly to marketplaces not administered by TSX.  The proposed fee schedule for the Consolidated Data Feed does not charge clients a second time for the same data-if they already subscribe to a marketplace's data feed.  The fee model levels the playing field such that clients do not have incentive to unsubscribe from a marketplace's feed when subscribing to the Consolidated Feed, and addition of

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Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
			In addition, TSX/CanDeal will put into place dispute resolution mechanisms to ensure the independence and fairness of the process for bond selection (described in section 3(a)).			the Consolidated Feed comes at a nominal price, \$5, which will not be a barrier to access.
2. SYSTEMS	•			'		,
1. Systems overview	Technical services are currently provided by Reuters Canada Limited (Reuters), which administers the CanPX Transparency System, as instructed by CanPX.	Bluesky System LLC currently provides the systems and application software, maintenance and upgrades, as well as systems administration and second level client support.	The data will be collected through CanDeal, which has in place a network between itself and 12 primary dealers, and distributed through TSX's market data distribution platform.	MX will create the SOLA® Canadian Consolidated Market Feed Technology Solution to receive, consolidate, disseminate and manage quote and trade information for fixed income and equity	CDS Inc. proposes to engage a software development firm (Tata Consultancy Services) to create the required system solution and to use CDS Inc. to operate and maintain the resultant system.	The primary system is TSX's RTMD messaging middleware and distribution platform that manages the input, throughput, processing and distribution of data feeds and their related

SCHEDULE A SUMMARY OF FILINGS RECEIVED							
Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)	
				securities.		protocols.	
2. Development and a. Implementation timeline	The system is currently live.	It estimates that it can provide a production-ready system within 60 to 90 days.	The system is currently "live" in that CanDeal collects data from its dealer contributors and the data is subsequently distributed by TSX.	While the implementation timeline will depend on the final requirements and scope of the IP (i.e. equity, debt or both), it is currently anticipated that the timeline for development and implementation for the system will be 12 months.	Currently, it is anticipated that the development and implementation timeline will be 18 months, including 12 months for system development work and 6 months for implementation, including community testing and readiness.	A timeline for rolling out the feed will be established once specifications are determined.	
3. Connectivity a. Connection method	Dealers  Dealers report via a page or item-based feed in a proprietary protocol.	Participating firms reporting trades on an hourly basis The applicant will implement redundant FTP servers to receive	Data files will be collected by CanDeal using a Secured File Transfer Protocol (SFTP) over the Internet.	Physical access to the system will be achieved by making use of the MX data network linking data centres, numerous points of	The data transmitted will be in the standard industry protocol FIX format.  Data will be transmitted via secured Internet	Information from the marketplaces can be transmitted to the IP in any format and will be reformatted if necessary. STAMP is	

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	The proprietary feed is transmitted to the CanPX system using redundant communication facilities including dedicated circuits, hardware and transmission points.  Several dealers have chosen a File Transfer Protocol (FTP) to transmit data.  IDBs  IDBs transmit proprietary feeds, on a voluntary basis, using redundant communications facilities including dedicated circuits,	hourly Extensible Markup Language (XML) files.  Participating firms that will voluntarily report orders or trades on a real-time basis  The applicant will determine the most efficient language protocol in consultation with each participating firm.		presence (POP), and through third-party network providers. In addition to direct POP connections and connections through one of several supported third party network providers, connectivity would also be available over the internet, using a VPN connection.  The marketplaces providing the source feeds may connect to any of the POPs through direct connections to one of the MX POPs, through third party network providers or over the	transport or SFTP (for smaller firms).  CDS Inc. will transform, in real time, the FIX format into a standard format for subsequent processing.	preferred, however TSX can accommodate other formats.  Each marketplace will supply data via two identical feeds on dual independent lines to the IP.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	hardware and termination points.			internet.  A single, industry wide protocol is envisaged, but the system can be extended to support additional protocols.		
b. Connectivity costs	Internal costs to establish a connection to CanPX are borne by the participating firms.	Each participating firm is responsible for their connectivity costs to transmit data.	The cost to connect to the IP is the responsibility of the participant, and there will not be a mark-up passed along by CanDeal/TSX. There will be no additional costs attributed to the 12 primary dealers currently connected to CanDeal.	Marketplaces, dealers and IDB providing information will pay their own connectivity fees.	CDS Inc. already has existing network connection with all stock exchanges and most bond dealers across Canada, therefore, there are unlikely to be any additional connectivity costs for data providers.  However, if a data provider does not have an existing network	Each marketplace will be responsible at its own expense for installing, operating and maintaining connectivity lines to the IP.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
c. Fees to provide data	None	Gmarkets will charge participating firms \$1,500 per month. However, firms currently providing information on a voluntary basis will not pay this fee.	None.	None	connection to CDS, such connection can be put in place through a service provider such as Allstream, at a monthly connection fee of \$500 plus a hardware fee of \$167 per month.  None.	TSX will charge an inbound connection fee of \$1,600 per month to each marketplace that submits a feed to be included in the consolidated feed to cover costs incurred by TSX such as: ports, routers, processors and network connectivity, as well as upfront development to process feeds that are in the

SCHEDULE A SUMMARY OF F	ILINGS RECEIVED					
Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
						STAMP format.
4. Operations and		G 1 G	m · · · · ·	1 7 22 3 4 4 4	and it	411 . 1
a. Training and support	The technical facilitator provides online help and learning materials.  Client trainers make visits to educate clients on their products.  A team of five specialists at Reuters are available to provide customer support.	Gmarkets Client Services provides support and application training to subscribers free of charge. Additional development and technical consulting services from Gmarkets are available at \$150 per hour.  In addition, Gmarkets will provide an Extensible Markup Language (XML) Feed Specification Document to participating firms providing trade data on an hourly basis, and will provide a Feed	Training and materia will include:  • Specifications an examples of inbound and outbound feeds;  • Instructions regarding the content and content and content and content and content and content and glo (non-English nat language) institutional participants will have an approprilevel of understanding of	data or receive the consolidated feed will be provided with specifications for the consolidated feed protocol and the required network connectivity.  MX will provide connectivity support to these external entities and an environment for testing.  In addition, MX-ITS will provide operations support and will make a help desk available for	CDS currently provides onsite training programs and publishes user manuals on its website to support the customers for existing services.  It will use the existing infrastructure to implement user training programs and publish user manuals to support the IP user community in the same manner as the other services.  A help-desk program is currently in production.	All external recipients of the consolidated service will receive a functional specification and a Business Design Guide outlining the connectivity requirements as well as the Message Protocol.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
		Specification Document detailing required data fields and connection information to firms choosing to report orders or trades in real time.	data content;  Support to parties providing and receiving information from the IP;  Online documentation and training materials to help explain the content of the data; and  Educational materials for the investing public and subscriber base.	SOLA® Canadian Consolidated Market Feed Technological Solution.		

Trade data for

designated corporate

Trade data for

designated corporate

Trade data for

designated corporate

1. Corporate bond

information to be

Trade data for

designated corporate

Trade data for

designated corporate

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
provided	bonds is transmitted by dealers and marketplaces with a market share in excess of 0.5% within one hour of the trade. The following data fields are transmitted:  • type of counterparty;  • issuer;  • security type*;  • class*;  • series*;  • coupon;  • maturity;  • price;  • time of the trade; and  • volume traded, subject to volume	debt securities will be transmitted by entities required to contribute such data by NI 21-101.	debt securities will be transmitted by entities required to contribute such data by NI 21-101. The following information will be reported, as required by 21-101CP:  • type of counterparty;  • issuer;  • security type;  • class;  • series;  • coupon;  • maturity;  • price;  • time of the trade; and  • volume traded, subject to volume	debt securities will be transmitted by entities required to contribute such data by NI 21-101. The following information will be reported, as required by 21-101CP:  • type of counterparty;  • issuer;  • security type;  • class;  • series;  • coupon;  • maturity;  • price;  • time of the trade; and  • volume traded, subject to volume	debt securities will be transmitted by entities required to contribute such data by NI 21-101. The following information will be reported, as required by 21-101CP:  • type of counterparty;  • issuer;  • type of security;  • class;  • series;  • coupon;  • maturity;  • price;  • time of trade; and  • volume traded, subject to volume caps.	

SCHEDULE A						
SUMMARY OF I	FILINGS RECEIVED	Y				
Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	caps.  *Inserted from Reuters master file.		caps.  Based on the input from industry participants, other data fields, such as yield and type of trade (buy/sell), will also be transmitted.	caps.  In addition, the applicant will collect any other information that may be required by NI 21-101.	In addition, the following information will also be collected:  • type of trade (buy or sell);  • yield; and  • security cusip or ISIN.	
2. Corporate bond	information to be dissemin	ated				
a. Method of distribution	Information is displayed through Reuters frontend display products. CanPX data is made available on the internet.  Data is also redistributed by information vendors as feeds or via internet	Gmarkets will distribute the fixed income information via a desktop application called Gmarkets Pilot (prefabricated page displays) and through feed products (such as raw data for resellers), specifically: Gmarkets Feed API or Gmarkets	TSX/CanDeal will make the consolidated fixed income information feed initially available through the following distribution channels:  TSX's website; and A fully described, logical, record- based feed from the	MX will make available the consolidated feed with a published protocol for connection.  Internet access to post-trade data can be incorporated in the solution, if required.	CDS Inc. will make the consolidated data feed output from the IP available through various distribution channels that will include:  • Access via the Internet; and • Depending on requirements,	

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	access.  CanPX benchmark yield data is also available on the CanPX website.	Feed in XML.	existing TSX infrastructure on dedicated circuits.  In the future, TSX/CanDeal anticipate utilizing internet protocol to distribute the feed.		message feeds over various transport mechanisms.	
b. Information disseminated	CanPX consolidates the post-trade bond data and displays it every hour, on the hour.  The information published includes:  Issuer;  Coupon;  Maturity;  Trade price;  Trade yield	Gmarkets will consolidate the post-trade bond data and display it in real time.	Data will be consolidated into the feed and displayed on a trade-by-trade basis.	Details of trades are required to be reported to the information processor no later than one hour from the time of the trade. The IP will not require a shorter timeframe, unless a future review indicates that this would be beneficial to the marketplace. The trade	CDS Inc. will provide a consolidated feed in real time of all corporate fixed income trade data received. In addition to the data fields received, it will also display:  The moving average price by security; and A volume analysis	

SCHEDULE A						
SUMMARY OF F	TILINGS RECEIVED					
Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	; • Volume (subject to volume caps); • Trade date; • Trade time (to the hour); and • Aggregate volume.			data will be published by the IP as soon as it is received.	by security.	
3. Process for corp.	orate bond selection, select	ion criteria and method fo	or communication			
a. Process	The selection is done on a quarterly basis.	The corporate bonds will be selected using the same criteria as the	The selection will be done in consultation with industry	The list of designated corporate bonds will be reviewed and updated	CDS Inc. will analyze the data being gathered and will monitor the	
	The list of corporate fixed income securities is maintained by the	S&P/TSX Canadian Bond Index.	participants, including the Capital Markets Committee of the IDA,	quarterly.  The first review would	market for changes that need to be reflected in the data gathered and	
	Corporate Bond Working Group of the		buy side customers, issuers and retail	be done by the IP Policy Committee,	distributed.	
	IIAC's Canada Debt Markets Committee and reviewed and approved		participants, and based on the review of the most actively securities	based on the criteria described below.	CDS Inc. will meet on a quarterly basis with data providers and	
	quarterly by the CanPX Operating Committee.		list. The selection will be done on a quarterly basis. The final decision	A process will be put in place where outside parties can request	regulators to identify new securities that meet the established selection	

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	New issues are added		on the corporate bond	corporate bond	criteria that should be	
	to, and issues may be		securities to be included	additions to the list for	included in the service.	
	removed (e.g. if not		will be made by the IP.	the next quarterly		
	actively traded and		The IP will put into	review.		
	prices are less accurate)		place appropriate			
	from the list, subject to		dispute resolution	A proposed, revised list		
	the constraints of the		mechanisms.	will be provided to		
	technical facilitator.			applicable industry		
			The list of designated	committee(s) for		
	A proposed revised list		bonds will be updated	comments, modification		
	is circulated to the		quarterly by the IP	and approval.		
	Corporate Bond		using the following			
	Working Group for		process:	The list will be		
	comments and further		• Based on the criteria	approved by the IP		
	revisions or approval.		described below,	board, at which time		
			major dealers will	MX-ITS (as the		
	The list is presented to		be polled for	technology provider)		
	the CanPX Board for		corporate bonds to	would be advised of any		
	approval by e-mail.		be added/deleted;	changes, as well as the		
			and	CSA and all affected		
	Other parties can		• The list will be	vendors.		
	suggest adding		consolidated based			

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	corporate bonds to the list via the internet.  Upon CanPX Board approval, the final list is sent to the technical facilitator for implementation and to vendors and to the OSC for information.		on consensus (majority of the dealers polled).			
b. Criteria	Applicable criteria for corporate bonds include:  • Trading volumes;  • Whether bonds are included in domestic Canadian corporate bond indices;  • Minimum issue size of \$250 million;  • Bonds should be	As set out above, the corporate bonds will be selected from the S&P/TSX Canadian Bond Index. The S&P/TSX Canadian Bond Index uses the following criteria for bond selection:  • An S&P rating of BBB- or better;  • Minimum par	Applicable criteria for corporate bonds will include:  • Minimum total issue sizes (including reopenings) of \$250 million;  • Bonds will be highly liquid relative to comparables;  • Bonds will represent	Applicable criteria for corporate bonds will include:  • Issue size, with a minimum total issue size of \$250 million;  • Bonds will be highly liquid;  • Bonds will represent a majority of trade flow within the	Initially, CDS will follow the selection criteria currently used by CanPX, as follows:  • Minimum total issue sizes (including reopenings) of \$250 million;  • Bonds will be highly liquid relative to comparables;	

SUMMARY OF FI	LINGS RECEIVED	Y	Y		Y	
Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	issued by issuers among the major industrial groups of issuers;  Bonds should be highly liquid;  Bonds should represent a majority of trade flow within the corporate bond markets;  Bonds should, between themselves, include short-term maturities, mid-term maturities and long- term bonds; and  Bonds should be from each industry classification (with at least two from each classification).	amount of \$50 million (or \$100 million for Government of Canada or federally- guaranteed); • Minimum of two independent dealers providing bid prices each day to the TSX (available as a subscription from the TSX); • Minimum term of 18 months to maturity at the time of inclusion.	a majority of trade flow within the corporate bond markets;  • Bonds will represent, among themselves, all major industrial groups of issuers (including financial, utility, telecom, and oil and gas);  • TSX/CanDeal will attempt to include at least 2 bonds from each industry classification;  • Bonds will represent, among themselves, all maturity buckets, including 0-5 years,	corporate bond markets;  • Bonds will represent major industrial groups of issuers (including, but not limited to: financial, utility, telecom, oil and gas);  • Bonds will be from each industry classification;  • Bonds will include all maturities including 0-5 years; 5-10 years; and 10 years and over; and  • Bonds will be those of broad interest to retail investors.	<ul> <li>Bonds will represent a majority of trade flow within the corporate bond markets;</li> <li>Bonds will represent, among themselves, all major industrial groups of issuers (including financial, utility, telecom, and oil and gas); an attempt will be made to include at least 2 bonds from each industry classification;</li> <li>Bonds will represent, among themselves, all maturity buckets,</li> </ul>	

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed	CDS Inc. (Equity and Fixed	TSX (Equity)
				Income)	Income)	\ <b>1 U</b> /
			5-10 years, and 10 and over years; and  • Bonds will include debt securities of broad interest to retail investors, including bonds issued by well known corporations, bonds represented in an industry standard corporate bond index, bonds with terms to maturity of less than 5 years and bonds priced at a discount.		including 0-5 years, 5-10 years, and 10 and over years; and  • Bonds will include debt securities of broad interest to retail investors, including bonds issued by well known corporations, bonds represented in an industry standard corporate bond index, bonds with terms to maturity of less than 5 years and bonds priced at a discount.	
					Thereafter, CDS plans to update the selection criteria in consultation	

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
c Method of	Reuters posts the	The rules for selection	The list of	The information will be	with the industry and regulators, and will work to expand it on a quarterly basis.  CDS Inc. will report	
<ul> <li>Method of communication</li> <li>Reuters posts the list on the CanPX website;</li> <li>The IIAC website posts a link to the list on the CanPX website.</li> </ul>	of bonds are published on S&P and TSX websites and all	addition/deletions will be published for all firms providing the information two weeks prior to the change taking effect.	published on the IP web site.	additions, deletions and changes to the bond list through an e-mail notification list that will be maintained by it.  In addition, CDS Inc.		
		Gmarkets will also publish the list on its website.	The new list of corporate bonds will be distributed quarterly via email to designated individuals at each firm. It will be posted on TSX's website.		will publish information on the additions, deletions and changes to the bond list in the news section on its website and also incorporate the changes	
					list, which will be permanently displayed	

SCHEDULE A

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
					on the website.	
4. Other bond	CanPX collects	Some participants	The IP may collect and	The infrastructure will	CDS, through its	
information that	bid/offer prices and	currently report, and	disseminate data that is	be designed to support	subsidiary CDS	
will be reported	trade information for	may continue to do so,	provided by parties that	consolidated pre- and	Innovations, offers a	
and	Government bonds and	government (such as	are not required to	post-trade information	number of ancillary	
disseminated <sup>14</sup>	Government of Canada	Canadian T-bills or	contribute or from those	on government fixed	services that provide a	
	T-bills voluntarily	government debt	parties that contribute in	income securities, and	cross section of	
	transmitted by IDBs.	securities) or corporate	order to supplement or	MX would provide the	information on bonds.	
		bond data in real-time.	enhance the product.	consolidation and	These ancillary services	
	In addition, it collects	Gmarkets has proposed	For example,	dissemination of this	include:	
	and disseminates	to support the continued	TSX/CanDeal proposes	information if and when	Security Masterfile	
	information relating to	aggregation and	to initially collect,	this is made mandatory	<ul><li>– which, among</li></ul>	
	certain TSX-listed fixed	dissemination of	aggregate and	by the CSA.	other things,	
	income securities.	voluntary products.	disseminate (all in real		provides details on	
			time) price information	MX can accept and	security	
	It disseminates the	The published fields	for the following	publish this information	identification,	
	following information	reported for these	securities: all	if it is provided during	interest rate,	
	in real time:	securities will include:	Government of Canada	the current exemption	maturity rate, and	
		issuer; coupon;	bonds; all Government	period from	security features	

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<sup>&</sup>lt;sup>14</sup> Some participating firms are, or may be, providing other fixed income information (such as government fixed income data) to the entities applying for the position of the IP on a voluntary basis. This section describes the type of information that the applicants are or expect to collect and disseminate on a voluntary basis and is included for information purposes.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	Government bonds Bid price; offer price; bid size; offer size; bid yield; offer yield; bid price change from previous day's close; bid yield change from previous day's close; hit or take of last trade; last trade price; last trade size; last trade time or date; and aggregate volume of the day for the instrument.  Government T-bills Bid yield; offer yield; bid size; offer size; bid yield change from the previous day's close; hit or take of last trade; last trade yield; last trade	maturity; order price (buy/sell); order size (buy/sell); order yield (buy/sell); bid price (best price, for multiple bids and offers, and where multiple best prices exist, the best price will aggregate volumes); bid yield; bid size; offer price; offer yield; offer size; trade price; trade yield; trade size; net change; and whether a security is benchmark.  The government bonds will be selected from the S&P/TSX Canadian Bond Index. The S&P/TSX Canadian	of Canada T-bills; approximately 130 Provincial Bonds; and 50 corporate bonds.	transparency requirements for government bonds.  The infrastructure will be designed to support consolidated pre-trade information on corporate fixed income securities, if there is a requirement for this.	such as interest frequency, early redemption etc.;  • Entitlement Products – which provide various degrees of entitlement coverage in different formats and include CDS Entitlement Bulletin (a web-based product), Entitlement Data Feed (an end-of-day batch product) and the ISO 15022 compliant MT564 Entitlement Message (a real time product);	

SCHEDULE A SUMMARY OF FILINGS RECEIVED									
Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)			
	size; last trade time or date; and aggregate volume of the day for the instrument.  Provincial bonds Bid yield spread; offer yield spread; bid size;	Bond Index uses the following selection criteria: (1) an S&P rating of BBB- or better; (2) minimum par amount of \$50 million (or \$100 million for Government of Canada			SCRIBE – which provides access to document filings made by all issuers across Canada.				

yield spread; bid size; offer size; bid yield

spread change from

previous day's close; hit

or take of last trade; last

trade spread; last trade

size; last trade time or

volume of the day for

data and aggregate

or federally-

guaranteed); (3)

minimum of two

independent dealers

providing bid prices

minimum term of 18

months to maturity at

each day; and (4)

the instrument. the time of inclusion. **3(b) COMMITMENT TO TRANSPARENCY - EQUITY** Marketplaces will Marketplaces will 1. Pre-trade Marketplaces will report the following transmit all orders for information to be report the following information in real information in real reported every security (i.e. full

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
				time:  • identification of the marketplace;  • order type (buy/sell);  • volume;  • symbol;  • price; and  • time of the order.  Any additional information that may be required by NI 21-101 will also be reported.	time:  • name of marketplace;  • time of order entry;  • price;  • volume;  • symbol;  • cusip or ISIN.	depth of book).  Each message will contain one quote/order from a marketplace and will include at least the following information:  • message type (order);  • IP sequence number;  • marketplace identifier;  • marketplace trading system time stamp;  • IP time stamp;  • broker number;  • security type;  • issuer;  • symbol;  • series;

SUMINIARY OF FI	LINGS RECEIVED					T
Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
2 Post trade				Modratulo oca vvill	Mankatula aga will	<ul> <li>class;</li> <li>price;</li> <li>volume; and</li> <li>business action (buy or sell).</li> </ul>
2. Post-trade information to be reported				Marketplaces will report the following information in real time:  • identification of the marketplace;  • volume;  • symbol;  • price and  • time of the trade.  Any additional information that may be required by NI 21-101 in the future will be reported.	Marketplaces will report the following information in real time:  • marketplace; • time of trade; • price; • volume; • security symbol; and • security cusip or ISIN.	In addition to the data elements included in the order information message (other than 'message type (order)'), each trade message will include at least the following information:  • message type (trade);  • broker number (both sides);  • trade number;  • type of trade (marketplace, internal trade, etc.); and

SCHEDULE A SUMMARY OF FI	LINGS RECEIVED					
Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
						• business action (trade).
3. Equity Information	on to be Disseminated					
a. Method of distribution				MX will distribute a consolidated data feed with a published protocol for connection.	The distribution method will be the same as that used for fixed income securities.	The consolidated data feed will be delivered via an industry approved standard protocol designated by the IP.
						Network protocol for the consolidated services will be disseminated via Multicast.
b. Information disseminated				Pre-trade Will provide, in real time, a consolidated feed of pre-trade data to five price levels.	Pre-trade Will provide a consolidated feed of the bid and ask prices received.	Will provide a consolidated feed of pre and post-trade information.

**SCHEDULE A** 

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
				Post-trade Will provide, in real time, a consolidated feed of post-trade market data.	Post-trade Will provide a consolidated feed of each trade including the following fields: • marketplace; • time of trade; • price; and • volume.	The information disseminated will have the same data elements as those received from the marketplaces (listed above).  TSX is prepared to offer a display of this information if required by the market.
4. FEES AND RE	VENUE SHARING					
1. Subscriber <sup>15</sup> fees	• Reuters fee - \$25/terminal/month in addition to base Reuters service charge;	Connection fee (per login Gmarkets Pilot) \$50 per month per user, with add-on charges for data subscriptions, as follows:	Monthly institutional professional subscriber access fee \$75-100 per month  Non-professional 17	The fees will be determined by the Policy Committees.	Data will be made available on its website at no charge. Users will only be able to view the information on this free website service. CDS	<ul> <li>Monthly professional subscriber fee</li> <li>If the professional subscriber already subscribes to data feeds from</li> </ul>

Generally, a subscriber is an individual or entity that has entered into an agreement to receive information from the information processor (directly or through a vendor).

16 A securities professional means any broker, dealer, investment advisor or person employed by an organization conducting professional activities involving the buying and selling of financial instruments.

SCHEDULE A

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
	<ul> <li>G-Markets - \$50/month;</li> <li>Other vendors - fees to be determined.</li> <li>Government bonds</li> <li>Reuters fee \$25/terminal/month on top of base Reuters service charge;</li> <li>G-Markets - \$50/month;</li> <li>Other vendors - to be determined.</li> </ul>	<ul> <li>\$10 for corporate fixed income data;</li> <li>\$10 for government fixed income data.</li> <li>In addition, the charge for the end-of-day file (including last trade and/or price for each security) is \$1,500 per month.</li> </ul>	<ul> <li>usage-based fees</li> <li>\$0.02 per security instrument quote, capped at \$10 per month; or</li> <li>\$10 per month for data stream.</li> <li>Snapshot data web access via tsx.com</li> <li>Free</li> </ul>		will also offer a "security watch" product that would be delivered over the Internet to individual investors at a price of \$35 per month.	marketplaces <sup>18</sup> , the charge will be a TSX administrative fee of \$5 that will cover the costs of operating, processing and administering the feed;  • If the professional subscriber does not subscribe to data feeds from marketplaces, the charge will be: the TSX administrative fee of \$5 + the current TSX charge

<sup>&</sup>lt;sup>17</sup> A non-professional subscriber means an individual that is not a securities professional, cannot be a consultant, independent contractor, software developer or others that use market data for any purpose other than trading for their personal account.

<sup>18</sup> Vendors and firms will be allowed to subscribe to marketplace feeds separately.

<sup>19</sup> Published at http://www.tsx.com/en/data/product\_sheets

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
						(refer to TSX 2007 pricing schedule for all pricing details and tiers <sup>19</sup> ) + the fee(s) charged by each marketplace.
						Monthly non- professional subscriber fee
						If the non- professional subscriber already subscribes to data
						feeds from marketplaces, the charge will be the TSX administrative fee of \$2.50;
						If the non-professional subscriber does not

SCHEDULE A

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
						subscribe to data feeds from marketplaces, the charge will be: the TSX administrative fee of \$2.50 + the current TSX charge (refer to TSX 2007 pricing schedule for all pricing details and tiers) + the fee(s) charged by each marketplace.  The fees will be indexed to inflation
2. Vendor <sup>20</sup> fees	<ul> <li>\$2,000 per month for corporate bonds</li> <li>\$4,000 per month for government</li> </ul>	Connection fee: \$1,500 per month per connection per site, with add-on charges as	\$500 per month.	The fees will be determined by the Policy Committees.	An equity product containing all information on a daily, real time or batch basis	Note: this fee also applies to participant organizations (POs) with direct connection

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<sup>&</sup>lt;sup>20</sup> Generally, a vendor is an individual or entity that enters into agreements to receive information from the IP in connection with the business or distributing this information to others.

	LINGS RECEIVED		DCV/C D	NAV	CDCI	DON
Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	bonds	follows:  • \$10 per user for corporate fixed income data  • \$10 per user for government fixed income data.  In addition, \$1,500 per month will be charged for the end-of-day file (last trade and/or price for each security).			will be made available at a price of \$25,000 per year. Segmented files by industry group will be made available at a cost of \$5,000 per year.  A fixed income product containing all fixed income information on a daily, real time or batch basis will also be made available at a price of \$25,000 per year. Segmented files by type of fixed income will be made available at a cost of \$5,000 per year.	<ul> <li>to the TSX consolidated feed.</li> <li>If the vendor or PO already subscribes to data feeds from marketplaces, the charge will be a TSX administrative fee of \$500 per month.</li> <li>If the vendor or PO does not subscribe to data feeds from marketplaces, the charge will be: the TSX administrative fee of \$500 + current TSX charge of \$3,000 (refer to TSX 2007 pricing schedule for all pricing details and</li> </ul>

SCHEDULE A

	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
(Fi	ixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
						tiers) + the fee(s) charged by each marketplace.
Revenue sharing  allocate sharehouse the probelow:  First, the revenue between Market dollar value in total during IDBs a Corpor (total durades in trades in the probelow:	wenue will be ted between olders based on ocess outlined the total net the is allocated ten the IDB t (defined as total volume of trades I market issues a period by all as a group), rate Bond Market dollar volume of in corporate during a period	Data subscription fees for the corporate fixed income and government fixed income securities (\$10 per user or subscriber as described above) will be allocated as follows: 75% to the participating firms; and 25% to Gmarkets.	TSX/CanDeal does not anticipate sharing revenues with the dealer participants at this time, as it believes that the IP will carry the cost associated with transparency, and the dealers will benefit from cost efficiencies.	A. Revenue determination Each market (fixed income and equity) will have its own revenue streams from sales of the consolidated market data specific to that market.  B. Cost determination A. Net Revenue Calculation The cost to develop, implement, operate and administer the SOLA® Canadian Consolidated Market Feed Solution	CDS Inc. will allocate 50% of net revenues (i.e. excess of revenue over expenses) to data providers. Each data provider's share of the net revenue will be based on market activity (i.e. the relative volume of transactions submitted.	TSX currently provides data distribution services for multiple marketplaces and several asset classes. The TSX IP will leverage its established infrastructure including hardware, software, physical premises (raised floor, network services, operations monitoring stations and tools, etc.) resources as well as administration (contractual, billing, reporting, auditing etc.), help desk and vendor

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	group) and ATS Market (total volume of trades during a period by all ATS participants, if any, as a group).  This allocation is based on the percentage of trading volume attributable to each of the separate markets.  After this initial allocation, the net revenues will be distributed as follows:  IDB market revenue will be split 50/50 between dealers and IDBs			cost based on a 5 year contract, CPI indexed. This annual cost will be allocated to each market (fixed income and equity, at the start of the service), based on that market's share of total revenues for both markets for the period (i.e. revenues from data distributors and subscribers for all services).  C. Revenue sharing After deducting costs from revenues associated with each market (A-B), net revenue would then be		support, and legal, product and sales support. There will be additional development, hardware, and support resources required which will depend on the number of marketplaces and the bandwidth and structure of their feeds however, TSX will absorb these costs upfront and expect to recoup them over a period of time from the fees.  Revenues will be shared back to the marketplaces in the amount that those
	Corporate Bond     Market revenue will			distributed between the		marketplace chose to

Description	CanPX	Gmarkets	TSX/CanDeal	MX	CDS Inc.	TSX
	(Fixed Income)	(Fixed Income)	(Fixed Income)	(Equity and Fixed Income)	(Equity and Fixed Income)	(Equity)
	be allocated to dealer market- makers based on proportionate trading share of corporate bonds  • ATS Market revenue will be allocated to ATS participants based on proportionate trading share of total market issues in the ATS market.			contributors to the service for each market (fixed income and equity).  For each market, excess revenues will be allocated based on each contributor's proportion of the total number of trades for that market, and also based on whether the entity contributes to both preand post-trade information, or only to post-trade information. Contributors who supply both would receive a higher proportion.  In the model,		charge vendors and subscribers. The administrative fee and marketplace connection fees will be retained by TSX.

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
				contribution to post- trade information would be worth 50% of the calculation of the revenue share of each entity, while the remaining 50% would be allocated to entities that are also providers of pre-trade information. However, the model could be revised with any weighting that would be reasonable for a specific market.		
				Contributor Proportion of net revenue = [(50% times the contributor's proportion of total trades for the		

Description	CanPX (Fixed Income)	Gmarkets (Fixed Income)	TSX/CanDeal (Fixed Income)	MX (Equity and Fixed Income)	CDS Inc. (Equity and Fixed Income)	TSX (Equity)
				market)+(50% times the contributor's proportion of the total number of trades of all contributors supplying pre-trade information, if this information is also supplied)].  Contributor revenue share = net revenue for the market times contributor proportion of net revenue.		