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Comments on the Canadian Capital Markets Association Best Practices and Standards Institutional Trade Processing, Entitlements and Securities Lending

"What Doesn't Work, and Why"

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Prepared by: Additon Consulting, Inc.
Dan Brennan, Principal
Andrew Wilson
Andris Cuksts
Tom Kutti
Kevin Yung

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Introduction

Additon Consulting, Inc. presents this document to the Canadian Capital Markets Association in response to its request for comments and questions regarding the *Best Practices and Standards: Institutional Trade Processing, Entitlements and Securities* ("BP&S") released in June 2003.

Additon Consulting has an active role in the CCMA's Institutional Trade Processing Working Group, and we have accordingly focused our attention on this specific area of the BP&S. We have outlined areas of concern that we believe have general industry impact. These concerns have emerged from our own examination of the BP&S, participation in the series of BP&S workshops and the industry experience of our team.

We have benefited considerably from the time graciously extended to us by dedicated individuals in investment manager, brokerage, custody, software vendor and service provider firms over the past few months. Their willingness to exchange opinions and share ideas is indicative of the spirit that will persevere through the effort to build STP, and we hereby acknowledge their tremendous help with our gratitude. We mention in particular the extended assistance granted to us by Nigel Etherington, whose dedication, commitment of time, resource and expertise has been especially welcome and fundamental to our response.

As we outline below, our chief concern rests with how the industry will approach the choices left to them by the BP&S, and whether that approach will naturally promote the swift and targeted resolution of STP in Canada. The following sections provide the details about these concerns and our suggestions for dealing with them.

Additon Consulting offers these comments constructively to help the achievement of the CCMA's STP targets. We invite questions and comments about this paper, and can be reached by e-mail at info@additon.ca, or by post at Additon Consulting, Inc., 25 Cumberland Lane, Unit 303, Ajax, Ontario Canada, L1S 7K1.

Rudimentary Concerns

A Call to "Wait and See"

The approach chosen for the BP&S to drive the industry towards STP has been the exploration of two paths: one with a VMU (or with many VMU's) and the other without a VMU. The BP&S tries not to choose the option, preferring to afford each option equal treatment.

The difficulty of that approach is that, while perhaps diplomatic and inclusive, it has left no evident drivers for choosing one option over the other. Moreover, since the non-VMU option closely resembles the *status quo*, the option to continue with the *status quo*, at least for now, will appear viable, particularly in conjunction with a "wait-and-see" approach to determine which option, if either, will dominate the industry. The approach itself, by carefully straddling two competing options, conveys the message that the industry hasn't decided yet, implying that participants should "wait and see" which is their better choice.

Will one solution naturally emerge over the other, or more importantly, over the *status quo*? To answer that, each option must be explored at a level beyond the level presented by the BP&S. Of each of the VMU and non-VMU options we must ask, "What do you have to believe to believe that option will dominate?" In other words, what conditions must be true before either option will come naturally to emerge in the Canadian marketplace. If either set of conditions holds true, then the emerging option will be apparent. If both hold true, the option resting on the stronger of the conditions will probably emerge. If neither holds true, neither option will emerge. We consider these questions below.

What you have to believe to believe the VMU Solution will dominate:

For the VMU solution to emerge dominant, you have to believe each of the following will happen:

- One or more parties will build one or more Canadian VMU's;
- IM's, brokers and Custodians will pay the fees those builders charge: fees that will be high enough to provide a return for those builders;
- IM's who don't have electronic systems to connect to the VMU will buy such systems and connect them;
- Electronic systems can be purchased by IM's (and possibly brokers) to connect to the VMU;
- Brokers will upgrade their institutional trade processing systems to deliver NOE's with full enrichments to the VMU;
- Custodians will spend to upgrade systems to receive the protocol of firms setting themselves up as VMU's.
- Industry participants will be able to tell which VMU or VMU's will become dominant. Once that happens, these industry participants will begin developing interconnectivity based on the standards that will be supported by such VMU's. All of this specification, development, testing (possibly including street-wide testing) will occur in timeframes short enough to meet CCMA targets.

Challenges to those beliefs:

Far from having convincing evidence that the conditions above will be met, there are in fact a number of strong impediments. These impediments, at a minimum, would slow the progress of a natural VMU development within the market, and may possibly derail such progress:

- *There are no VMU's to buy today.*

  Despite efforts to the contrary, there is little indication that new players are rushing in to the Canadian institutional trading space. We note that CDS did not reach agreement with a third party to supply a VMU, at least suggesting strong barriers to entry for providers in the Canadian market. We don't know the specifics of those discussions, but it begs the question: if no third parties were prepared to invest in what was presumably a favourable market circumstance, how could a compelling business case be made for such third parties in the absence of such a favourable circumstance? The cost of creating VMU software or of "Canadianizing" existing U.S. software is not insignificant, and the expectation by third parties of recouping their investment seems missing.

- *There are no systems in Canada to connect to VMU's today.*

  Since there are no released VMU's, naturally there are no applications to connect to any VMU's that may emerge. The systems that could be expected to connect to those VMU's often exist at high price points that are inappropriate for or out of reach of smaller IM's.

- *Participants who* do *decide to upgrade their systems to support VMU connection have no standards to build toward.*

  ISO 15022 does provide content guidelines, but not communications or message transfer protocols needed to move that content from one system to another. Without that, participants really cannot progress their development initiatives beyond the conceptual stage. Software takes considerable time, particularly mission-critical software. It is also expensive, and few firms invest in software without a clear strategic direction — a direction lacking until the choice of VMU becomes obvious. This creates a vicious circle: industry participants will be forced to wait until the VMU choice becomes obvious, but the choice won't become obvious until industry participants stop waiting. Even if several courageous firms make a choice that ultimately establishes the choice for VMU, development will likely need to happen serially, with industry participants and their software vendors waiting for completion of specifications and code against which to build their own specification and testing processes. Consider that *each* of these software cycles can be in the range of 12 to 18 months and you can appreciate the challenge this presents to the CCMA target time lines.

What you have to believe to believe the non-VMU Solution will dominate:

For the VMU solution to emerge dominant, you have to believe each of the following will happen:

- About 300 IM's, a dozen brokers and a half dozen custodians will agree on the protocols and content interpretations necessary to exchange data electronically;
- Either service bureaux or software products will emerge to provide IM's the connectivity they need;

- Brokers will upgrade their institutional trade processing systems to deliver NOE's with full enrichments to each of those bureaux or software products;
- Brokers will support interfaces to receive allocations from each of those products or bureaux;
- Custodians will support systems to receive VMU protocols.

Challenges to those beliefs:

As with the beliefs for the VMU environment, there are a number of strong impediments to the beliefs that a non-VMU environment will independently emerge. Again, these issues at a minimum would slow the progress of a non-VMU interconnectivity development within the market, and may possibly derail such progress:

- *No products exist today.*

  "Canadianization" of an existing U.S. product can be expected to take 6 to 24 months before launch. Creation of a new Canadian product can be expected to take 12 to 30 months[†]. Beyond that, integration and testing with client systems will be required. It may be possible, albeit difficult, to fit this software build cycle into the CCMA time frames. However, such development would need to start almost immediately. There is insufficient time to wait for the market to point to a dominant solution and begin the software build cycle to support it. There is even less time to wait for one or more firms to choose to enter the VMU market space in advance of any software efforts.

- *No protocol standard has been endorsed by the BP&S*

  This forces the participants to agree among themselves on one or more communications protocols. Although ISO 15022 was endorsed by the BP&S as a standard, it identifies content, not communications or messaging protocols. Even the ISO 15022 standard presents challenges since the mapping to Canadian markets is not unambiguous. Without both an agreed communications and content protocol combined with identical interpretation of the ISO 15022 rules for Canada, it is very difficult to get participants "talking" electronically.

What might happen now?

In light of these challenges, three potential industry responses appear likely:

Participants do nothing — if participants believe these challenges will not be overcome, they may choose to do nothing, at least for now. This would likely push needed investment in STP work back one budget cycle, potentially a fiscal year.

Participants wait to see the market direction— with no clear choice laid out for them and a sense that the market should be providing a commercial solution, firms may elect to wait out the activity until winning competitive solutions become apparent. The difficulty here is that, if the market isn't moving, isn't waiting for a market direction the same as the "do nothing" outcome?

Participants pick their own solution and press on — some participants, particularly those that already have a significant information technology budget, may simply make their own choices and move forward. In fact, some of that activity has already begun. This poses two difficulties. It requires participants to build, test, support and maintain as many protocols as there are selected solutions.

[†] This is a general comment. We are aware of one product being prepared for the Canadian marketplace that could operate in a non-VMU environment, scheduled for availability late this year or early next year.

Further, it doesn't involve the entire industry, and depending on whether those participants who do pick a solution share that solution, some large sections of the industry could be excluded.

Lessons from where this is working — U.S.A.

As a guide to picking a direction, it is useful to review some of the factors that apply where the drive to implement STP is working. In the U.S.A., a strong push by the SIA and SEC for STP is being widely heeded. Participants in the U.S. have alternatives to build toward: the FIX protocol, supported by a wide variety of vendors, and the Omgeo VMU. U.S. participants are also helped by having a central authority with the authority to make and apply decisions for the industry throughout the U.S.A.

Dangers of Doing Nothing (or equivalent)

With STP in place, the SEC is in a position to implement T+1. Once that announcement is made the clock starts ticking for Canada. It is unlikely the SEC will wait for us to catch up. Could we meet the timetable? What happens if we're late?

Could we meet the timetable?

To meet that timetable, all the challenges outlined above would need to be overcome, and all the systems in question need to be designed, built, tested and implemented. It may be necessary to set up and execute one or more street wide tests. Pricing, terms and contracts for all systems built need to negotiated and put in place. It is important to understand that this activity would be very unlikely to be compressed into less than a two-year period. That kind of short time frame usually requires strong impetus to impel firms to spend money and dedicate resources on a priority basis. With two sophisticated pathways now open for investigation and consideration, it is probably safe to say that the Canadian markets are not experiencing that kind of impetus.

What happens if we're late?

If T+1 is offered in the U.S. before it is offered in Canada, gradually order flow will begin moving to the U.S. It will not be a sudden change, but it will be very hard to reverse. T+1 settlement really is better risk and capital management than T+3, and institutions looking to sell positions will naturally consider U.S. markets, other factors being equal. Costs from currency exchange and U.S. execution will play a factor, but perhaps only to the extent of prolonging the time for the full effect. Currency risk can be limited in the short time frame, and execution costs can be managed profitably by extending mechanisms for existing U.S. order flow.

Systems are already in place to take order and trade flow from Canada. Many Canadian institutional participants have automated systems to route orders and trades to the U.S. and may require little to put more traditional Canadian order flow through those existing pathways. The longer that happens, the more the sheer bulk of institutional order flow will improve Canadian markets in the U.S. — and decay Canadian markets in Canada. As this continues, more processes will be put in place to improve that order path further, likely at the expense of efforts to promote STP.

How far could this go? As Canadian markets in the U.S. improve, so capital flow will follow. Sellers will have the first incentive to move, but as more of them seek out the U.S. markets, so will buyers have to follow, pursuing the growing volumes and improving prices.

Over time, activity on the Canadian capital markets would dwindle. Could this ultimately transform the TSX into a junior market, or a Philadelphia-style branch operation of a U.S. market?

It may all depend on how late we are.

A Path Forward

A solution is needed: a standard to rally the STP movement from here. Two available solutions will not set that standard. Canada does not have the benefit of an SEC-style central authority, but a regulation set by the OSC could achieve the same effect. Which solution should the OSC pick? One solution *is* better, but either solution is vastly superior to the "do nothing" option. Minimal time should be spent determining the better solution — the focus must be on driving a decision.

- ***If a VMU solution is selected***, the OSC should pick one and put regulatory conditions in place to encourage later competition. Note that in the U.S. Omgeo was selected as the first VMU, but by regulation it must interoperate with other VMU's as they arrive. Industry-wide fees or assessments can be determined and regulated that will provide VMU vendors a reasonable return on investment to ensure competitive bids for the business. Smaller firms that cannot justify investment in technology can be allowed to gain access through correspondent-style access to the VMU.
- ***If a non-VMU solution is selected***, the OSC should dictate standards that will drive independent intercommunication. In the U.S., the FIX 4.*x* protocol has wide acceptance and we believe this would be a very good start in the Canadian markets (particularly FIX 4.3 and up). Several industry participants already have FIX technology in place (albeit for earlier versions of FIX that support order management, although presumably these applications will be upgraded if only to remain current with FIX releases). At least one Canadian firm is well down the path in development of FIX 4.3 connectivity, and there are enough U.S. firms with FIX gateways to expect competition for such business in Canada.
- ***Establish a deadline for STP*** that aims to beat that for the U.S. That way the Canadian capital markets will be ready, avoiding the risks of being late for the eventual T+1 deadline.

Because the OSC has limited jurisdiction, other jurisdictions may or may not follow. So be it…they take the associated risks, and brokers and custodians can determine how best to cost-effectively service such markets. Since what is necessary is a rallying standard, the lack of participation of other markets may even be irrelevant. Once a decision is made, particularly in the large Ontario market, the competitive conditions needed for action in other markets will effectively be established.

The OSC operates in the public interest above the interests of the industry it regulates. Consider the effect of a flow of Canada's capital markets to the U.S., which may be the outcome of Canada's inability to meet STP and ultimately T+1 deadlines. How many Canadian companies would be forced to seek capital in the better markets? How much protection would Canadian citizens receive in the U.S. markets if forced to send their order flow there for execution. How much control could Canada exert over its own markets if the "real" market is beyond Canada's jurisdiction?

For these reasons, we believe the OSC should act. Moving the industry in either of the two directions explored in the BP&S will protect our markets by ensuring we are ready to match the U.S. timetables. We hope that the OSC will agree, and indeed that other industry participants will support this approach. It is an approach that will move the industry swiftly to STP. It will also point the direction the industry can depend upon to plan and build both STP and the security of Canada's capital markets.