Ernest Thiessen & Peter Holt<sup>\*</sup>

This article presents the case for significant reduction in the cost of resolving insurance claims by rewarding good negotiating behaviour using Smartsettle ONE with its online Visual Blind Bidding<sup>™</sup> platform.

The resolution of insurance claims is costly for both parties. Costs include:

- 1 legal fees and expenses;
- 2 gathering and marshalling evidence (medical reports, surveillance, other experts);
- 3 mediation, including the cost of the mediator as well as travel, accommodation and meeting rooms;
- 4 time, money and stress associated with the tedious negotiation 'dance';
- 5 harmed relationships between the insurer and its customers (the claimants), when things turn adversarial often leading to the termination of the specific relationship (and unhappy claimants tell their family and friends); and
- 6 for the insurer, the net amount paid to settle the claim.

iCan Systems Inc., headquartered in Canada, has developed a suite of products, powered by artificial intelligence and proprietary algorithms designed to encourage a collaborative approach that overcomes the problems that plague ordinary negotiations, from very simple to the most complex on earth. Negotiators using iCan's negotiation support systems communicate via a secure neutral site server on the Internet (Figure 1). The neutral site allows negotiators to stay in control of a Visual Blind Bidding<sup>1</sup> process that is designed to identify and reward good negotiating behaviour and quickly produce fair and efficient outcomes.

Smartsettle employs a neutral site server on the Internet that acts as an unbiased, super intelligent and totally trusted automated mediator with historical knowledge<sup>2</sup> of similar cases. The server uses optimization algorithms to suggest outcomes that will objectively satisfy both parties – artificial intelligence at its best.

The Smartsettle neutral site employs eight sophisticated patented optimization algorithms to simplify complex negotiations, keep party preferences confi-

<sup>\*</sup> Ernest Thiessen is President of iCan Systems Inc of British Columbia, developers of the Smartsettle eNegotiation and visual blind bidding system. Peter Holt is Chief Product Development Officer at iCan Systems Inc. Adapted from similar paper co-authored with LTD insurance mediator Rick Weiler of Weiler ADR.

<sup>1</sup> See, https://en.wikipedia.org/wiki/Online\_dispute\_resolution.

<sup>2</sup> The part of the technology dependent on historical knowledge is still in development.

### Figure 1 Neutral Site Server



dential and generate 'suggestions' for achieving the objectives of fairness<sup>3</sup> and efficiency. iCan has two products that span the negotiation spectrum, Smartsettle Infinity for complex negotiations involving many issues between many parties and ONE for simple negotiations that can be reduced to a single numerical issue between two parties. This article discusses how Smartsettle ONE can be applied to simple insurance claim settlements that can be reduced to one monetary issue between two parties.

The following five algorithms<sup>4</sup> are employed by Smartsettle ONE:

- 1 Single Negotiating Framework (SNF)
  - focuses parties on the solution
- 2 Visual Blind Bidding (VBB)
  - saves valuable time without prejudicing parties
- 3 Automatic Deal Closer (ADC)
  - increases settlement rates with adjustable 'gap-bridging'
- 4 Reward Early Effort (REE)
  - motivates a collaborative approach
- 5 Expert Neutral Deal Closer (END)
  - guarantees a collaborative outcome

The Smartsettle process may be entirely online or some combination of online and face-to-face. Whether parties choose to meet face-to-face, depends upon their personal preference and includes a number of factors such as

- 3 Fairness is like beauty; it exists almost entirely in the eye of the beholder (http://andrewolmsted. com/archives/2007/01/the\_beauty\_of\_f.html). Fairness achieved with Smartsettle is determined by the negotiators themselves. They predetermine the fairness of the outcome by first accepting the process as fair. It's like the slicer-picks-last rule. Most people perceive that to be a fair procedure because it strikes a fair balance between the importance of the outcome and the cost of getting there (http://legaltheorylexicon.blogspot.com/2004/02/legal-theory-lexicon-023-procedural. html).
- 4 Not described in this document are three more algorithms that are applicable in negotiations that are more complex than typically found in low-value insurance disputes.

- physical distance between the parties,
- time schedules,
- the state of the current relationship and
- the importance of future relationships.

Smartsettle ONE is optimized for negotiations that can be easily reduced to a single monetary issue. It is particularly effective when a motivated and collaborative claimant realizes that he or she will achieve more with a quick settlement using ONE than a long-drawn-out adversarial battle with mounting legal costs.

How ONE works is best explained in the context of a hypothetical dispute. For this illustration, we will settle an insurance dispute between two imaginary parties named Claimant and Insurco and show how they encounter the Smartsettle ONE interface.

The following particulars are adapted from a recent real-world Long Term Disability (LTD) case:  $^{5}$ 

- Claimant date of birth/age: 23 January 1960 (53)
- Change of Definition: 1 August 2017
- LTD Benefit: \$1,200 per month, net of CPP/\$14,400 per year, non-taxable, no COLA
- Date of Negotiation: 1 April 2018
- Arrears currently owing: \$8,400, plus PJI (\$20)
- NPV of future to age 65 (3% DR): \$88,869
- Value of Past and Future: \$97,289

Claimant was paid monthly benefits during the whole 24 own-occupation period and then, based on various assessments, Insurco concluded that Claimant did not meet the definition of 'totally disabled from any occupation' set out in the policy. If Claimant appeals Insurco's decision, it is faced with a negotiation. The reasonable goal of such a negotiation is to reach a fair and acceptable outcome that both parties can agree to on an 'all things considered' basis.

Negotiators will typically start the negotiation with optimistic proposals. In order to reach an outcome, they typically must resort to a 'negotiation dance' and hope for the best. Smartsettle ONE's VBB process does away with the need for that 'dance' and the associated costs.

In our example, Claimant appeals Insurco's decision and, as part of the appeal process, Claimant accepts Insurco's offer to attempt to negotiate a mutually acceptable full and final resolution (this is already a common practice) to the dispute using Insurco's Smartsettle ONE VBB platform.

As part of the appeal process, both sides have exchanged all necessary information. From Claimant's point of view, it all boils down to its *net cash in its pocket*. Obviously, Claimant wants a high value and Insurco wants a low value.

Claimant has decided that the acceptable range of settlement is likely between \$40,000 and \$60,000. This information may have come from consulta-

<sup>5</sup> Compliments of Weiler ADR (rickweiler.com).

tion with counsel on a limited retainer basis or through artificial intelligence comparing the facts of this case with a historical database.

The process starts with the creation of an SNF. The SNF is identical to the final settlement agreement with just the settlement amount left out. The settlement amount is represented by a blank and a negotiating range. A simplified<sup>6</sup> SNF for this negotiation might look like the following:

Single Negotiating Framework			
I	Insurco will pay \$(0-100,000), to settle the matter;		
2	Claimant hereby releases all claims under this policy, past, present or future;		
3	Claimant hereby agrees to keep the terms of settlement confidential;		
4	No T4 will be used in connection with this settlement.		

Once both parties have agreed to the SNF, Insurco sets up the case and invites Claimant. Insurco's moves may be totally automated if desired. Upon responding to the invitation, Claimant sees the following slider bar graphic screen (Figure 2).

Figure 2 Smartsettle ONE Opening Screen – Claimant Perspective



Session 1 - waiting for you to make an initial proposal (green flag)

This is the opening screen as seen by Claimant. The glowing green icon labelled Insurco indicates that it is presently online. But in fact, it could be the robot playing on Insurco's behalf.

Claimant is invited to make an initial visible bid and moves the green flag from \$100,000 to \$80,000. Insurco's initial visible bid of \$25,000 is also revealed at this time.

Claimant receives a message by chat text from Insurco that this is a generous offer based on the past plus one year into the future, particularly since there is significant doubt Claimant currently satisfies the definition of totally disabled under the policy.

Claimant responds that it expects more than that and then moves its yellow flag, representing a secret bid to \$55,000. Claimant's information about similar cases gives it confidence that this is close to what it should get. Meanwhile, Insurco also makes a secret bid, but only to \$40,000, deliberately holding back. We shall see later that this is not a good strategy.

6 A more comprehensive SNF may include details about access to care and other aspects of the settlement that are of particular interest to the Claimant.

On learning that Insurco has also made a secret bid, Claimant agrees to end Session 1. Both parties are hoping for an early settlement but are told that they did not reach agreement in this session. Claimant's view at this point is shown in Figure 3.



Claimant's View at the End of Session 1 Figure 3

Shown on this panel are the initial visible bids of Insurco and Claimant, \$25,000 and \$80,000, respectively. Also shown, by the yellow flag, is Claimant's secret bid of \$55,000. Insurco's secret bid of \$40,000 is not shown. There remains an invisible gap of \$15,000 that parties will try to bridge in Session 2.

Next (in Figure 4), Claimant sees that Insurco has visibly conceded to \$30,000. Insurco says that this represents an additional 6 months of benefits. Claimant summarily declares Final Session while responding that it appreciates the offer and moving its own visible bid flag to \$70,000. Claimant also moves its secret bid flag to \$48,000. Claimant has decided that this is as far as it will concede and ends Final Session.

#### Figure 4 Session 2 Moves from Claimant's Perspective



Session 2 - you are done, waiting for Insurco to end session

Insurco and Claimant have made visible concessions to \$30,000 and \$70,000, respectively. Claimant has also made a secret bid of \$48,000. Insurco is caught off guard, not expecting Claimant to declare Final Session so soon. It responds with a secret bid of \$54,000 and ends the session. Claimant is informed that a settlement of \$52,000 has been reached – \$4000 more than it had secretly conceded to. Claimant is very pleased. Figure 5 shows the final view from its perspective.

Claimant 20.000 40 000 0 60.000 80.000 100.000 Settlement Amount (CAD) **DECLARE FINAL SESSION** 

Session 2 - You may wish to make a visible concession next (green flag)

# Claimant Claimant 2000 40,000 60,000 80,000 100,000 Settlement Amount (CAD)

#### Figure 5 View of Agreement from Claimant's Perspective

Negotiations have ended with an agreement

There was an overlap in Session 2. Claimant had secretly moved to \$48,000 and Insurco had moved to \$54,000 (not visible to Claimant). The REE algorithm calculated an agreement of \$52,000, which was \$4000 more than Claimant was prepared to accept.

Figure 6 shows Insurco's final view from its own screen. Note that Insurco is now on the right and sees only its own secret bidding history. The settlement was less than what Insurco was willing to pay, but Insurco could have achieved even better if it had not held back so much at the beginning. Claimant was favoured because it made more of an effort to settle with its initial moves. How this works is explained in greater detail later in this article.

#### Figure 6 View of Agreement from Insurco's Perspective



Negotiations have ended with an agreement

There was an overlap in Session 2. Claimant had secretly moved to \$48,000 (not visible to Insurco) and Insurco had moved to \$54,000. The REE algorithm calculated an agreement of \$52,000, which was \$2000 less than what Insurco was prepared to pay. As a final step in the process, Smartsettle ONE simply replaces the blank and range from \$0 to \$100,000 with the single accepted value of \$52,000 and generates a completed settlement agreement available for download by both parties.

Final Agreement		
I	Insurco will pay \$52,000 to settle the matter;	
2	Claimant hereby releases all claims under this policy, past, present or future;	
3	Claimant hereby agrees to keep the terms of settlement confidential;	
4	No T4 will be used in connection with this settlement.	

Table 1 summarizes how Smartsettle ONE rewards good negotiating behaviour. Acceptance of a fair outcome is the first prerequisite for achieving an outcome that benefits both parties. Smartsettle enables this behaviour in a process where parties can place secret bids. The party that moves early to the Zone of Possible Agreement is rewarded with a bigger portion of the overlap. The chance of reaching an agreement is increased if parties agree to the ADC.<sup>7</sup> These behaviours all contribute to quickly achieving a fair outcome in a simple negotiation that is only about money.

Behaviour	Reward	Objective
Acceptance of a fair outcome	A timely win-win outcome	Fairness
Earlier movement to the Zone of Possible Agreement	Bigger portion of the overlap	_
Agreement to ADC or END	Increased likelihood of agree- ment	Efficiency
Collaboration	Improved relationships	Customer satisfaction

#### Table 1 Smartsettle ONE Rewards for Good Negotiating Behaviour

Table 2 summarizes how Smartsettle ONE reduces the costs associated with resolving insurance disputes.

Cost	How Smartsettle ONE Reduces Cost		
Legai	Lawyer involvement significantly decreased or eliminated.		
Gathering and marshalling evidence	Reduced amount of evidence required by settling cases early		
Mediation	Reduced number of cases going to mediation as result of increased use of online platform		
The negotiation 'dance'	VBB allows parties to safely identify an acceptable outcome at the outset, which allows a settlement without the usual tedious nego- tiation dance. Taking advantage of automation results in further savings.		
Relationship	Less adversarial approach to negotiation will enhance customer retention.		
Settlement dollars	Given the collaborative incentivized approach of the online plat- form, an opportunity exists to settle claims at amounts lower than what was historically experienced.		

#### Table 2Smartsettle ONE Reduces Costs

Smartsettle ONE holds the promise of significantly reducing costs associated with resolving insurance disputes, particularly those involving motivated and collabo-

7 Just as with any negotiation, the possibility of no agreement still exists with the voluntary process described in this document. In development is another algorithm called the Expert Neutral Deal-closer, which will guarantee a settlement for parties that are willing to abide by it. We envision this to initially be suitable for impasses where only a little human intervention is needed to close the gap.



#### Figure 7 Single Negotiating Framework Algorithm

rative claimants. Insurers moving early to incorporate Smartsettle ONE in their dispute resolution processes will enjoy a competitive advantage.

The five algorithms referred to in this article are described herewith in further detail.

#### 1. Single Negotiating Framework

The Smartsettle ONE negotiation process begins with the creation of an SNF. The SNF is like a final agreement except for the blank that represents the monetary settlement value not yet agreed. Negotiators identify a negotiating range for that monetary value in the SNF. They may also wish to discuss certain facts of the case that may impact that range. This part of the process starts the negotiation off on the right foot by encouraging negotiators to focus on their own interests rather than on winning. This is designed to avoid adversarial confrontation and clear the path towards mutual gain.

Convenient face-to-face meetings may well be the most productive venue for relationship building and creation of the SNF (see Figure 7). Video or phone conferencing would also work. Once the SNF is in place, parties may proceed efficiently online with the exchange of proposals and then come back to a warm physical handshake at the end of that process.

How to build an SNF is not easy to specify in detail. The artistic skills of a trained facilitator will paint a different picture every time. Still, from a high level you can see an algorithm that produces a comprehensive document with blanks and negotiating ranges for every issue yet to be resolved.

#### 2. Visual Blind Bidding

Once their negotiation is modelled, parties may commence to exchange proposals using VBB. This is done conveniently using a slider bar graphical interface where monetary bids can be displayed and compared.

Smartsettle's unique VBB<sup>8</sup> gives Smartsettle negotiators the best of all worlds in that it supports both visible and secret bids.<sup>9</sup> Parties start the first session with visible bids within the established negotiating ranges. At the beginning of any subsequent session, either party may declare Final Session. This feature makes sure that a negotiation does not remain stalled or deteriorate into the same tedious negotiation dance that it is designed to eliminate.

An agreement is declared when the system detects an overlap of the secret bids at the end of a session or if the gap is small enough to trigger the ADC. If there is no deal, the secret bids are not revealed and the parties may try again.

With Smartsettle's server-based technology, progress towards an agreement is made both synchronously and asynchronously to make the best use of each party's scheduling constraints. Structuring the negotiation process with sessions helps asynchronous communications progress more quickly due to the fact that each party can make at least two moves per turn. A session would usually be in progress when a party returns to the negotiating panel. That party would typically make a move to end that session and then, if there has been no agreement, make another move to start the next session. If the party makes both a visible and a secret bid in each session, then one turn could actually consist of four moves (or even six if you count the ADC moves).

The VBB process results in earlier agreements and virtually eliminates the tedious negotiation dance that characterizes most ordinary negotiations.

#### 3. Reward Early Effort (aka Smallest Last Move)

Early settlement is promoted by rewarding the party that makes the earliest reasonable effort to settle. Figure 8 shows how Claimant is rewarded in the example described at the beginning of this article. The reward is calculated by an algo-

<sup>8</sup> Smartsettle's method of blind bidding differs from ordinary blind bidding in what is blind. In ordinary blind bidding, the proposals (offers and demands) are blind. In Smartsettle's method, the acceptance of a value or package is secret until there is a deal.

<sup>9</sup> We say 'bid' for colloquial clarity, but it's really the acceptance that is secret, not the bid itself. Smartsettle first generates suggestions visible for all to see (not secret) and then the parties decide whether or not to secretly accept them.

rithm<sup>10</sup> that favours<sup>11</sup> whoever made the smallest last move. This encourages parties to move sooner to the Zone of Possible Agreement.<sup>12</sup>

Figure 8 Reward for Early Effort



An agreement is declared by Smartsettle ONE when the last moves made by Insurco and Claimant overlap. The yellow bars show the secret moves made by each party in each session. At the end of the first session, Claimant had secretly accepted a fairly reasonable value of \$55,000, while Insurco was holding back at \$40,000. Neither of these secret bids was revealed to the other party. In the Final Session, Claimant accepted a value of \$48,000 and Insurco responded with a relatively large move to \$54,000. The final agreement could have been anywhere between \$48,000 and \$54,000 since all those values had been mutually accepted.

- 10 The formula used for determining the agreement value when there is an overlap simplifies to the following for the example shown in Figure 6: Agreement = (Tc × Ac + Ti × Ai)/(Tc + Ti) where Ac = final secret bid of Claimant Ai = final secret bid of Insurco Tc = size of Claimant's move in the last session Ti = size of Insurco's move in the last session
- 11 This algorithm is in contrast to 'split-the-difference', which is commonly used in other blind bidding solutions. Research has shown that parties will hold back more if they expect the overlap or difference to be split evenly.
- 12 Each negotiator has a zone of acceptability. If they are to find agreement, then these zones must overlap. This is the Zone of Possible Agreement in which the final agreement on whatever is being negotiated may be found.

Smartsettle declared the agreement to be \$52,000, which proportionately rewarded Claimant, which made a greater early effort to settle, evidenced by the smallest move in the Final Session.

#### 4. Automatic Deal Closer

In spite of all the incentives, there may still be a gap at the end. But much experience has shown that parties will still agree to settle a case if the gap is small. The ADC lets parties automatically close the gap by asking them to choose a maximum amount that their own bid may be extended by.

In our example with the same background, imagine a scenario where Claimant makes the same moves in Session 1, but Insurco doesn't hold back so much with its first secret move and agrees to the ADC. If the parties are at \$45,000 and \$55,000 and each agrees to extend by at least \$5000, then the ADC will close the gap and the parties will have a fair deal at \$50,000 right away in Session 1 as shown in Figure 9.

Parties can opt to close a small gap at the end of a session and arrive at a settlement earlier by agreeing to use Smartsettle's ADC. In this scenario, Insurco and Claimant make visible proposals of \$20,000 and \$80,000 and secret bids of \$45,000 and \$55,000. They also agree to mutually extend their bids by \$5000 when asked by the ADC. Since their initial secret moves are identical, the ADC using REE splits the gap evenly and declares the agreement to be \$50,000.

If the last secret moves are lopsided, then REE would favour the party that made the smallest last move. If those extensions are enough to close the gap, then Smartsettle will divide the gap using the REE algorithm.

#### 5. Expert Neutral Deal Closer

In cases where the gap is too large to close with the ADC but not large enough for court to be economical, parties may opt for human intervention using the END. In this case, three members from a public Expert Neutral roster will independently attend the case and give their private opinion of fair without being biased by the proposals or secret bidding history. The Expert Neutrals must make their section of 'fair' from a range of values that is centred on the gap and includes at least one of the most recent visible proposals. The middle opinion is selected as the official 'fair' and then the party closest to fair is favoured by declaring the outcome halfway between.



