

***WORLDSMART TECHNOLOGY PTY
LTD***

SUBMISSION TO THE

**INDEPENDENT GAMBLING
AUTHORITY**

Inquiry into Smartcard Technology

March 2005

Worldsmart Technology Pty Ltd.

Background.

Worldsmart is a leader in the provision of consumer loyalty services utilising the unique features of smartcard technology. Currently operational in the hotel, gaming and retail sectors in South Australia and Queensland.

Company profile and current business activities

The Company is South Australian based and its Directors have been involved in developing and operating smartcard based loyalty systems for over eight years. Worldsmart currently provides loyalty services (and smartcard application technology), it has a combined loyalty and payment system operating on smartcard in association with St.George Bank and Visa International recommends the Company as a provider of smartcard based loyalty programs associated with Visa smartcard products.

Gaming and hotels and clubs

Worldsmart's loyalty system has been tested and well proven in over 90 licensed gaming venues (approximately 3600 gaming terminals) in South Australia participating in the Jackpot Club, a franchised loyalty program that currently has over 250,000 smartcard cardholders in South Australia and a further 52,000 smartcards in Queensland. The vast majority of these cards are capable of supporting pre-commitment functionality.

Worldsmart is responsible for providing the loyalty system, reporting services, management of databases, privacy and audit compliance (including funds management). It manages the hardware and card supplies, ongoing system development and enhancement, terminal maintenance, venue and cardholder support services.

Worldsmart continues to modify and enhance its product to take advantage of the rapid advancements in technology. Future cards will incorporate a number of separate technologies on the card. These include, contact applications (requiring the card to be inserted into a card reader), Contactless or "proximity cards" (where the card is held near a reader) and magnetic stripe cards (less secure, basic functionality, limited storage capacity). The primary reason for including all three technologies on the one card is to enable greater options for cardholders, and enables a Worldsmart card to be used in a range of terminals, including existing proprietary systems that may have been installed, without the need to replace costly hardware, or extensive database conversions.

In addition to the smartcard system utilised in the Jackpot Club, Worldsmart is the provider of a “standalone” magnetic stripe system which is installed in an additional 40 gaming venues in South Australia, (Approximately 1600 terminals). Much of the functionality to be addressed in this submission is capable of being deployed onto the magnetic stripe system without the need for those venues significantly changing their existing systems.

There are some limitations of those magnetic stripe systems, including the need for cardholders to have venue specific cards and those venues will need to be connected to a central database, which is not currently the case. However, the ability for cardholders to make pre-commitment decisions and detection of excluded persons will be available. It may also be possible for Worldsmart to develop interface solutions to other loyalty systems in the market place. If this is possible, many more venues will have a solution without the need to change their existing loyalty terminals, or their existing cards.

All gaming venues utilizing the Worldsmart smartcard system have a gaming terminal, either installed near each gaming machine or installed into the gaming machine cabinet. Each terminal is connected to an on site computer which is connected to the Monitoring System (Independent Gaming Corporation (IGC)) via the site controller. The on site computer is connected via modem to the Worldsmart host computer. That host computer collects and stores all transactions from all participating venues. The system is not required to be on line and the smartcard stores relevant information, including specific rules set by the cardholder. Therefore, any rules set will be applied to each venue in which the smartcard is presented, regardless of whether the data has been updated via the back end system.

The Worldsmart system communicates with each venue on a daily basis. At that time transactional data is collected, membership databases are updated, cards locked, new applications downloaded and a variety of security checks implemented.

Retail –South Australia

Worldsmart has expanded the successful gaming loyalty program to retail stores in South Australia. Loyalty points are transferable between the Hotels and those stores. The only stipulation is that points earned in the retail stores cannot be redeemed in the gaming area and points earned in gaming are not redeemable outside the hotel environment. This change has been achieved by creating a number of separate purses (unique storage areas) on the card. The retail purse cannot be accessed for the purpose of redeeming points in terminals within the gaming area and the retail terminals are not able to access the gaming purse for the purpose of redeeming points earned in a gaming area. This change was implemented by down loading applications to terminals, all of which are capable of “post loading applications” to the cards

without the need to recall cards. It is the application of this technology which in our submission provides a degree of flexibility enabling the Worldsmart system to respond to the ever changing requirements of the market, and importantly the Regulators.

The awareness by customers about how to use the smartcard and the various functions is creating greater confidence in the use of the technology.

The Worldsmart system has incorporated the stringent smartcard banking requirements, including encryption to protect data stored on the card and data transfer.

Cashless or Card based gaming –South Australia

The smartcard system is also capable of implementing “card based” gaming. However, given the understanding of the limits of the communication protocol for South Australian gaming machines, and the current legislative provisions it is not proposed to discuss “card based” gaming as part of this submission. It is our understanding that for “card based” gaming to be introduced all gaming machines in this State will need to be replaced and that the monitoring system would in all probability will need to be significantly changed or replaced.

Limits of this submission –South Australia

The model presented in this submission is based on the current understanding of the limits of the existing gaming machines and monitoring system and utilizes the existing platform that is part of a very robust loyalty system, to deliver what could be one of a number of different solutions aimed at reducing the incident of problem gambling.

The current constraints on the communication protocols in place in South Australia prevent gaming machines from being switched off or disabled, except by IGC through the site controller. This prevents or limits messages being displayed on gaming machine and limits a range of other options which may be considered as useful harm minimisation measures.

The Worldsmart system overcomes these limitations by not communicating directly with each gaming machine. The system collects data via the site controller and matches the transactions on each machine to the terminal at or in each gaming machine. It then writes to the smartcard inserted in the terminal. This data transfer is real time and enables accurate recording of data. Worldsmart has developed a number of applications to enable communication to various monitoring systems without interference or modification of the monitoring system. The Worldsmart data cabling allows for both data transfer and power supply for all terminals and is isolated from the monitoring systems and gaming machines. Communication is between the monitoring system and the Worldsmart system and therefore it does not

matter what type of gaming machine is being used, or what communications protocols are being used.

It is worth noting that the national standards for gaming machines now require gaming machine manufacturers to make provision for “third party hardware” generally referred to as “player interface modules” or ‘PIM”. Older gaming machines, where no “PIM” is available, can be accommodated with specific metal brackets manufactured, or alternatively, a terminal can be mounted on a pole next to a gaming machine. While this addresses terminal mounting, it does not address the method of communication so even if all gaming machines in South Australia have provision for a PIM the communications issue must still be addressed.

Terms of Reference

In the remainder of this submission the specific issues raised in the Guide for Making Submission will be addressed.

While the Authority has been asked to “identify how Smartcard technology might be implemented with a view to significantly reducing problem gambling” the specific issues require the Authority to “consider and identify available and practicable technologies that may be available to facilitate:

- (a) the setting of limits on gambler’s use of gaming machines for the purpose of minimizing or reducing the actual or potential harm to themselves or those who are dependent on them; and
- (b) the exclusion of particular gamblers (whether voluntary or otherwise) from access to gaming machines or from the ability to play gaming machines.

Pre-Commitment.

The Worldsmart system enables individual card holder to place limits on their cards. Those limits can be personalized and will result in messages, visual and audible at the smartcard terminal, at or in the gaming machine.

In the cashier area of the gaming room a computer screen displays, in real time what is happening at each terminal. The cashier can see what cards are in play, any messages being displayed on the terminal, any requests for assistance and a range of other management tools which enable the staff member to react to address any issues as they arise. The cashier is also able to communicate directly with the terminal at or in each gaming machine.

A cardholder who has placed limits on their card is able to play the gaming machine by the insertion of coin. However, once those limits are reached, a series of visual and audio warnings are given. The warning messages can be personalized, subject to some restrictions. If the cardholder has set time or expenditure limits the information is stored on the card. If the player moves between machines those limits will still apply. In addition the smartcard system enables the cardholder to move between venues and use the same card at all participating venues with the same limits applying to each venue, including taking account of that days gaming activity at other venues.

A range of options have been included into the current system. These limits are not the only limits that may be included, they are only an indication of what might be required or seen as desirable with the current limitations of the South Australian gaming machines and monitoring system.

Cardholders can pre-select a series of options, they include:

Expenditure related

- Maximum wagered, (per game, session, per day, per week)
- Maximum net expenditure (wagered minus wins) per session, per day per week.

Time related

- Maximum minutes per session and if limit exceeded, minimum time period before play can resumes (forced break)
- Maximum hours of play, per day week
- Lockout periods
 - Exclude any hour or time range for each day of week
 - Exclude any day of year
 - Exclude reoccurring dates (e.g. paydays, pension days - every second week on Thursday etc.)

Warnings and messaging

- Ability to set personal warning message and when they are to appear, (up to five messages – 16 characters) (e.g. when 50% of session limit reached, 60% of daily limit, 80% of weekly limit) Configurable from 1 to 100%. These messages are tagged to any of the above restrictions.
- Ability to request terminal to display session total dollar wagered and actual machine return to player.
- Ability to set visual and or audible indicators when limits exceeded, or percentage of limits reached.

Cooling off periods

- Ability to set time period during which an increase in limits is prohibited
- Ability to require third party (e.g. Welfare Counsellor) intervention before any increase in limits is permitted.
- Ability to opt in or out of any loyalty program.

Rules for Engagement

Cardholders have the option of setting initial limits either at the time of enrolling for a card, or at any subsequent time.

At time of enrollment the application form is completed and the limits written to card as part of the enrollment procedure.

At any subsequent time, the cardholder can present the card to any cashier terminal and have the limits added or varied, subject to any restriction on increasing the limits that may have been imposed previously.

Alternatively, a secure web page will be available for the cardholder to log onto and modify any limits. The web server updates the information in the Worldsmart database and then broadcasts those limits to all terminals in the system. Provided the information is downloaded, the next time the card is inserted into any terminal the limits set by the cardholder will be updated onto their card. This site will also enable the cardholder to view their own transactional activity.

This option, subject to the cardholder consenting, will be available to Counsellors, and in those cases, a rule could be imposed, requiring the Counsellor to verify any change that results to increase limits, via a personal identification number (PIN).

The system does not require all cardholders to set limits and as such provides for the recreational gambler to participate without restriction. The recreational gambler will still be able to avail themselves of the option of imposing limits at any time.

It is also possible to set default limits on all cards issued as temporary cards.

Card Issuing

Cardholder can be issued the card on request. A customer completes an application. Some form of identification is sought. The form of identification presented is recorded. The staff member will then enter the customer's name into the venue computer. The most common form of identification used is a photographic driver's licence. However, any form of identification can be used.

As part of the daily download process, Worldsmart receives the daily enrolments from all venues and up dates the database. The updated database, in an encrypted format, is broadcasted to all participating venues.

As part of the enrollment process, the system will search the database and will determine if any other cards have been issued in that name; a series of

stored procedures have been included into the enrollment process that verify names, addresses and dates of birth. This is done without the staff member having to manually perform the process. The stored procedures are protected and cannot be interfered with at venue level. If other cards exist, the staff member is prompted to verify and cross check identification.

At venue level, staff members only have access to the cardholder's details if they enrolled at that venue. They are only permitted to use that data in accordance with the consent given by the cardholder. Staff at a venue cannot access personal information stored at other venues or in the database at Worldsmart.

Once the card is enrolled, the cardholder is issued with the card together with the terms and conditions. The card is then available for immediate use. Enrollment procedures typically take less than five minutes.

A similar process is used for lost cards. If a cardholder reports a card as lost, that information is broadcast to all venues as part of the next down load of data and the card is locked. A replacement card can be issued once the lost card is locked. Any limits or rules that the cardholder had imposed on the previous card are transferred to the new card via the encrypted database and does not require the cardholder to re enter the limits or rules or the staff member to interpret those limits or rules.

Temporary cardholders and visitors can be catered for as each venue has the ability to check for existing cards at point of enrollment. Temporary cards can be preset to cater for any restrictions required.

Exclusions

The current loyalty system operated by Worldsmart allows for all venues to receive broadcasts of all locked or excluded cardholders. Once Worldsmart is notified that a person has been barred or excluded, it broadcasts to all participating venues that a card issued to that person is locked. If the person who has been excluded presents a card at any gaming machine, the terminal will display a warning message, and the cashier terminal will receive a corresponding message and audible sound to alert the staff member. This allows the staff member to address the issue immediately with the cardholder. The terminals installed in gaming machines will secure the card in the reader mechanism and this will require intervention by a staff member to release the card.

The current communication protocol does not allow for the shutting down of a gaming machine when an excluded person attempts to use the machine with a smartcard.

The centralized database ensures that cardholders who are excluded can be removed from any mailing lists associated with any participating venue.

The Worldsmart cards are also capable of storing photographs or fingerprints and communicating with purpose built readers which can be supplied as additional features. This issue is addressed in more detail below.

Protect privacy of player details.

Worldsmart has implemented, and complies with the current Privacy Principles. It is part of the approval granted by the Liquor Licensing Commission in South Australia that Worldsmart does not engage in player tracking. Accordingly, it has not been possible for individual hotels or clubs participants in the system to monitor or track the behaviour of individual cardholders.

Individual venues are not provided with actual spending habits of their customers. No information is provided on individual cardholder activity that occurs outside of a particular venue.

The system however, does record and store every transaction where a card is used. Cardholders are given the option, in accordance with the Privacy Principles, to opt out of receiving information from Worldsmart. In those cases, their transactional data is collected, but the use of their personal information is limited to demographic information. For example, their age, gender and postcode details are used without their identity being disclosed. Their transactional data is stored for audit purposes and to assist in resolving disputes should they arise.

Worldsmart is able to identify the individual, but is prevented from disclosing the identity without consent, or in accordance with the requirements of the Privacy Principles.

The current system complies with the Privacy Principles because it enables each cardholder to consent to the use, or restricted use of their personal information. If however, the system were to be mandatory, then the Privacy Principles would prevent personal information being collected and stored without the cardholder's consent.

Worldsmart would be prevented from providing the personal information to any other person, and it may prevent Worldsmart broadcasting names and addresses, even in encrypted format, to all venues however, the cardholder could still impose their own limits and use the card anonymously.

The web server which is part of the Worldsmart system will allow individual cardholders to log onto the site and view their own transactional data. This site will have appropriate security measures in place including protected passwords to restrict access.

Security and reliability of cards and Terminals.

The cards used in the Worldsmart system are triple DES encrypted. (Internationally accepted security standards). The cards store information and perform limited processing. The card in conjunction with the terminal provides the security and transportability thereby providing a degree of flexibility not available in off line systems.

All cards have a unique numbered and there is no possibility of duplicate ID numbers existing. Some of the cards in use have been in circulation for over eight years and still function according to specification.

All activity on a gaming machine can be configured to require a Personal Identification Number if required. The terminal confirms the name of the cardholder and displays the value of any loyalty points recorded on the card.

The terminals are fitted with display units, keypads and real time clocks.

Some terminals physically secure the card once inserted. Invalid Personal Identification Numbers, excluded or banned players, lost or stolen cards will all be held in the reader and messages displayed on the cashier terminal. Release of these cards will require staff intervention.

All information is stored in encrypted format which protects the cardholder's personal information being downloaded at each venue. The encryption also prevents any person who finds or steals a card from accessing the data. The method of encryption is significantly superior to the magnetic stripe system used for banking purposes and as there is no financial gain to be derived by the finder of the card, it is less likely to be the subject of complex decryption attempts. The cards used by Worldsmart are to international banking standards for smartcards and in over eight years of operation, including three years where the card has been used to store cash for retail transactions, there has not been one attack by hackers, an indication of the strength of smartcard technology over magnetic stripe technologies.

The terminals currently in use as part of the loyalty program have proven to be extremely robust and many have been in operation for over eight years.

Biometrics

Smartcard technology also offers the ability to store photographs and or fingerprint details however, the use of these measures, particularly if mandatory is likely to significantly impact on the recreational gambler, who may well see such measures as a significant infringement on their rights. Particularly when the vast majority of gamblers do so responsibly.

Systems Requirements

The System.

The Worldsmart system consists of the following components:.

- A smartcard terminal for each gaming machine and one at the cashier
- Computer, keyboard mouse and screen
- Worldsmart software and operating system
- Windows operating system
- Power Control Unit, software and network components
- Modem and telephone line
- Internet connection
- Smartcards
- Application Forms
- Terms and Condition (Product Disclosure Statements)
- Independent Gaming Corporation Data Port

Costing and Installation.

Worldsmart has previously provided the Authority with an indicative costing of \$1500 per terminal excluding GST. That cost included the smartcard terminal, computer, screen keyboard, Worldsmart software and operating system, Windows operating system and various other components. A more accurate indicating of costing is

(a)	Smartcard Terminal	\$1210 each
(b)	Ancillary equipment including:	
	Computer and peripherals	
	Modem	
	Worldsmart and Windows software and operating system	
	Power Control Unit, software and connectors	
		\$ 8,800 per venue

The cost of the Ancillary equipment item (b) will be consistent for all sites.

Cards \$4.00 each

(IGC Data Port obtainable for IGC only indicative cost \$5300)

All costs are inclusive of GST.

This cost does not include metal mounting brackets, cabling or Installation as this will vary depending on each sites requirements. However an indicative cost for a 40 machines site is \$3,000. All terminals installed in a gaming machine will require a Service Agent to install.

Existing venues that have the Worldsmart system installed will not require additional hardware, software or cards. Those venues that have the existing Loyalty Link system (Worldsmart' standalone magnetic stripe system) sites may be upgraded without the need to change hardware. Other loyalty system sites may, subject to inspection, be capable of providing some of the functions described in this submission. It may be possible to use existing hardware. Internet connections will be required for Loyalty Link and other loyalty system sites. All of those venues will have an IGC Data Port, as will a number of other venues that use the Data Port for reporting and accounting purposes.

Management and on going Costs

Underlying any system of this kind that collects and manages data, particularly sensitive data needs to be properly maintained. The number of cardholders, transactions and audit processes necessary will require a significant back end data base. In addition a secure web server site will be required to provide full functionality. That site will enable cardholder to log on and view their transactional information.

The Worldsmart data management system is currently collecting data involving over 5,000 gaming machines (South Australia and Queensland) a further 1500 retail terminals and managing in excess of 300,000 cardholders.

Worldsmart has the capacity to manage a significantly larger database. However, the cost of doing so is not determinable until the parameters of the system to be implemented are fully known.

Worldsmart has the capacity to deploy its existing system to 600 sites and could do so within a six to nine month time period.

A monthly fee to manage the process will be needed. It is not possible to accurately determine this fee until the full requirements are known. Variables include the level of reporting that may be required by Regulators, venue operators and cardholders. Will information made available via the webpage

be adequate? Will mailing be required, and if so, how often? Will individual cardholders be able to request more frequent statements? Will the venue operator and or the cardholder be part of a loyalty program? Etc.

Policy and Strategic considerations

We premise our argument on the basis that gambling is a legal activity and that adults have the right to choose to participate in that activity. Those that do participate have the right not to be impacted by undue regulation or arbitrary restrictions. They also have a right to participate in a loyalty programs:

An overwhelming 99% percent of both J Club members and the general public sample think the people of South Australia have the right to choose if they belong to any loyalty schemes. When you extrapolate this figure out for the general public sample, and taking into account the statistical error margin for this sample size, this equates to between 1,008,230 and the entire Adelaide population supporting this right to choose. (Page 8 New Focus Research February 2003)

We also recognize that those who provide a gambling product have an obligation to do so in a responsible and safe manner. But they should not be forced to introduce measures that significantly impact on the majority of their customers who gamble responsibly. We do, however, suggest that there should be consideration given to encouraging operators to embrace technology, where it is proven that the technology may assist those who need to be, and are willing to take responsibility for their own behaviour.

We acknowledge that the system that we are advocating, has not been trialled, and that there is a level of skepticism about a voluntary system. However, we argue that it would be inappropriate to compel every gaming machine venue to install a system without proper research and evaluation. We also argue that it would be a significant infringement of the rights of responsible gamblers to mandate that they can only gamble if they have a card, with the corresponding implication that someone is going to pry into their gambling habits without their consent.

The need for such intrusion appears to be premised on the basis that 2% of the gambling population must be protected. We acknowledge that the 2% need to be assisted, but it should not be done at the expense and inconvenience of the 98% of responsible gamblers.

The previous material, presented by Worldsmart to the Authority found that:

“Seventy-one percent of J Club members and 77% of the general public stated that the ability to restrict their length of play and amount spent on gambling through the card was a good idea.

Forty-five percent of J Club members and only 21% of the general public stated that they would use this feature of the program.” (Pages 16 and 17 New Focus Research February 2003)

This research, in our view, suggests that the introduction of this type of technology must be properly managed and supported by appropriate education and a commitment from the industry. It is submitted that if the recreational gamblers and the industry are forced to adopt such a system it will be doomed from the outset, notwithstanding its possible benefits.

Accordingly it is our submission, notwithstanding that we have significant confidence in the ability of the Worldsmart System, and in Worldsmart’s ability to implement and manage the system, it would be inappropriate to require every gaming machine to have a smartcard reader and that only those people who have a card are able to play gaming machines. We also question the financial viability of introducing such a system if all it does is impose limits on all gamblers.

Rather we suggest that incentives for venues to install terminals, on a voluntary basis, is a fairer system. Venues that install terminals could be offered lower tax rates to compensate them for installing and maintaining the system, for example, a reduced rate of tax payable on each gaming machine that has a terminal could be offered, say, equal to the rate of tax payable by non profit organizations.

Cardholders, who choose to control their gambling activities, could do so in those venues that have terminals or systems installed. In this model, it would not be necessary for every gaming machine to have a smartcard terminal. The incentive for Cardholders could be that they have the right choose to participate in loyalty schemes, which at least means that are being rewarded for using a card, together with their ability to manage their own behaviour. (We are not advocating that the only loyalty scheme that should be available is the Worldsmart system, the purpose of combining a range of different technologies onto the one card is so that cardholders have more options – they can still belong to the magnetic stripe in-house loyalty program and receive the benefits of the pre-commitment system, and the venue can continue to operate their own loyalty system).

If the only purpose of the card is to play gaming machines and each card has mandatory limits imposed it will not be used. It is our experience in managing over 300,000 cards that the more opportunities and benefits that cardholders are given, the more likely it is that they will use the card. Particularly a card that enables them to decide what they will do with the benefits they receive.

The concept of forcing people to use a card, particularly, one that may electronically store their photograph, or even more intrusively, their fingerprints, just so that they can play gaming machines will be met with strong resistance and is over paternalistic. We refer the Authority to the

article and editorial on the “smart” driver’s licence appearing in the “*The Advertiser*” on 12th March 2005.

If this type of draconian measure were to be introduced for gaming machines, consideration should also be given to requiring all other forms of gambling to be controlled in the same way. Because the more restrictions that are placed on gaming machine players, the more attractive other forms of gambling will become particularly to the problem gambler.

Of necessity, if responsible gamblers are to be inconvenienced by having to use a card, sanctions will also need to be developed and applied for those who attempt to circumvent the card system. In particular problem gamblers, who might go out of their way to attempt to cheat or deceive the system.

Conclusion.

Worldsmart is committed to developing a range of applications relating to smartcards. Our experience in loyalty and gaming applications now make us the largest smartcard based loyalty program operating in Australasia. We also believe that the product that we have developed can be used as one of the measures that may assist some problem gamblers. We acknowledge the failings of a voluntary system, but believe that a voluntary system has more likelihood of succeeding. It is also less likely to receive the significant public backlash from those who already gamble responsibly.

Worldsmart has offered to participate in trials to properly evaluate and test smartcard technology and we are committed to that course. We strongly urge caution before introducing smartcard technology, or any other untested systems, particularly if that impacts on an individual’s lawful pursuits and or their right to privacy, however well meaning.

South Australia is well positioned to undertake a trial of this technology, and Worldsmart is prepared to participate.