



## Submission:

To: Senate Environment, Communications, Information Technology and the Arts Legislation Committee.

Regarding: Interactive Gambling Bill 2001

## Introduction

Fujitsu, a global leader in IT Services, Telecommunications & Microelectronics, provides this submission with the objective of assisting the Committee in understanding technology possibilities that may have been overlooked in the Interactive gambling debate to this date.

This submission is written on the premise that there is a possibility that a mid level regulatory approach may turn out to be more enforceable and therefore preferable to all parties rather than an outright ban.

This view has some technology related merit, in that it is readily evident that a simple ban on Internet gambling will be circumvented by existing technology; specifically the anonymous proxy servers commonly used by hackers.

Additionally, gaming operators or their proxies could place new servers offshore to circumvent the ban, and it is likely that any new technology required to keep ahead of ISP filter technology and make the transactions anonymous could be readily developed. It is also clear that Australian interactive gaming operators could move to nearby Pacific countries (which have recently seen amazing growth in the deployment of high bandwidth Internet links, somewhat out of proportion to their population), and from these locations circumvent the proposed legislation.

It is therefore extremely unlikely that the proposed ban will achieve the preferred result. Thus Fujitsu has focused this submission on possible technology solutions that have an excellent chance of achieving real control over interactive gambling.

Fujitsu, through our European subsidiary, ICL, has access to significant smart card technology, and in Australia we have significant experience in developing applications that implement Internet (and other) transactions using smart cards. These systems are extremely secure, and one of our largest customers in the world is the US Treasury (<http://www.fms.treas.gov/> and search on "smart card"), who via their e-commerce group implements our smart card technology at Fort Knox, as well as many military bases, and even in forward military deployments such as the US bases in Bosnia.

In Australia, we have watched the interactive gambling debate, and more importantly, the wider debate about the issues of problem gaming. We have also worked extensively with REGIS Controls Pty Ltd (refer to separate submission from REGIS) and have extensively discussed the issues internally with people interested in resolving problem gaming in Australia. We have come to the conclusion that there may be significant merit in a middle ground regulatory approach targeted specifically at problem gaming, rather than the extremes of outright bans or industry self regulation. We believe that such an approach could take advantage of some of the smart card & Internet technology we have available. In particular it may be possible to enforce business rules determined by Government and applied under the appropriate legislation via a smart card mechanism. Under such an environment we believe the REGIS Controls Pty Ltd approach may well provide the best possible mechanism (in a less than perfect

world) for minimizing problem gambling whilst not restricting fair and reasonable gaming practices for those who wish to enjoy a bet they can afford.

Having said the above, it is not our role, as a technology company, to argue the pros or cons of specific political and legislative solutions to social issues, we are therefore not in this submission going to try to argue how legislation should be framed, or the merits of different means of social control, or the politics of those advantaged or disadvantaged by gambling. This submission simply puts forward a potential pragmatic solution, based on the use of smart cards, and our knowledge of the technology, which could be adjusted to suit the specific requirements (business rules) of government, as determined by some future Acts (Federal and/or State).

We see our value in this debate simply as Fujitsu Australia Limited making its services available to assist the Committee understand where "Business Rules" could technically be enforced under legislation to pragmatically achieve the purpose of the act should the use of smart cards be considered.

In this regard we have built a simple demonstrator application using the same software we use to manage the US Treasury smart card implementations (and some 80 other implementations) but with the business rules and Internet front end modified to implement the REGIS proposal & business rules. The intent of this is to provide to the Committee the best possible "real live" view of how such a system might work, and to assist the Committee in understanding where "business rules" could be implemented to securely & pragmatically enforce legislation.

We encourage the Committee to view a demonstration of this application, and this can be arranged during the Committee hearings. This demonstration is also available on the public Internet at <http://smartcards.fujitsu.com.au/regist> You will need an authorized smart card and Microsoft Windows Certified PC/SC smart card reader for your PC in order to use it. (These can be made available.) There is also "demo mode" passwords for the site that can be used to demonstrate without a smartcard or reader, although this does not fully allow the point we are making to be demonstrated. An attachment to this submission is a Microsoft PowerPoint file with screen shots of the demonstration that may prove useful for Hansard.

## ***Some Basic Smart Card Facts***

Firstly, some basic facts that are relevant but may not be clear to the Committee:

- Smart cards are just low power computers; they simply do not have a screen or keyboard, but are capable of processing data and performing secure functions inside the card itself.
- The types of smart cards that are likely to be used for this application have a secure cryptographic capability. This means that every transaction can be digitally signed and would require a PIN owned by the cardholder, and securely stored on the card itself.
- Smart cards have a unique off-line capability allowing them to implement secure transactions without connection to on-line networks. Whether a transaction is over the Internet, or in a poker machine in the Birdsville Pub when the phone lines are down makes absolutely no difference. The respective transactions can be collected and processed later without compromising the security of the system or the viability of the business rules. (This is why the US Military implements them in Bosnia, because they process the transactions days later in Boston).
- Smart cards can run an application called an e-purse, where a digital token can be used to represent actual money held elsewhere in a trust or float account. Most people think that the banks or Visa/MasterCard can only control these. In fact the traditional payments system players do NOT control most smart card e-purse systems. In the US, Treasury for example runs the smart card system for most of their military implementations.
- If the e-purse system is a fully audited system (like the Fujitsu system the US Government uses) then millions of dollars can potentially be held on a single card, and the security is strong enough so that (should the card be lost or stolen), the card can be re-issued with the correct value on it.
- The current generation of Microsoft Windows PC's (from Windows 95 on) can support a device known as a PC/SC standard smart card reader, and these are about AU \$100 retail price, and about AU \$25 in volume. (About the same price, and price range as a mouse). These are available from a large number of suppliers and are all the hardware that is needed for a PC to implement the REGIS proposal (the rest is implemented in software).

- All new PC's that meet the WinTel standards for Microsoft & Intel certification are required to have PC/SC standard smart card capability as an option at time of manufacture.

## **The Demonstration**

The following are the major elements of the demonstration of the REGIS Controls Pty Ltd proposed business rules, including some discussion as to where legislation and technology could be married together.

- The principle of the REGIS proposal is that controls are placed upstream in the value chain at the point where the player allocates money either to gambling or to other things like food, rent etc.
- The use of money for gaming could be controlled by making it illegal for any Australian bank to provide money directly to a Casino or any other gambling/wagering provider for any form of Internet gaming/wagering application. This could be enforced for debit and credit accounts, and for non-bank sources of effective credit such as American Express. This could be implemented in the regulations placed on banks & gaming/wagering operators in order to retain their respective licenses. The objective here is to apply legislation to cut off the source of funds to offshore as well as on-shore gaming.
- It would however be legal for banks to provide money to the Government (or their system operator) where it was placed (under the rules below) in the players smart card trust account. Any money transferred to any smart card account could only be from Registered bank accounts, and these bank accounts would be cross matched against the players tax file number (held by the banks) to ensure duplicate or multiple identities are not established by problem gamers.
- To start the process, the player needs to apply for a gaming license, very much like a drivers license <DEMO>. Unlike a driver's license, the player may have different speed limits that apply depending on their circumstances and every license is linked to one or more specific bank accounts. Irrespective of how many bank accounts or cards issuers or casinos there are, there would only be **one** limit per player. The Act would set the business rules that need to apply, and these would determine how much money could be transferred per month/week/day to their gaming account based on some affordability formulae. <DEMO> There could be a means test that needs to be applied for larger limits, whereas by default anyone can obtain a monthly limit of (say) \$200.00.
- Like a drivers license, the license is always up for review should the player break various rules, or should their family (or other interested parties) through a prescribed process request suspension of the license because of problem gambling issues <DEMO>.
- This process could be managed either by Government (perhaps Centrelink) or by a disinterested system operator. This could also be a commercial but disinterested party provided they had no links with the traditional stream of funds or gaming itself.
- The system operator then manages an Internet payments system gateway to the banks, which applies the funds download limits set per player <DEMO>. Because the only way to get money onto the players account is via this gateway, there can be no other way that value can be used for gaming. This means that the only payment mechanism that can be used (Globally) for Australian gamers is this smart card based mechanism.
- International gamers could similarly be issued with cards, by mail, but would require similar links to offshore bank accounts, and would have (say) US\$ smart card accounts.
- The on-line casinos and wagering operators would use a software & cryptographic hardware toolkit provided by the system operator that allows them to take money off the card and put winnings back on the smart card over the Internet <DEMO> and subsequently back to their Registered bank account/s<DEMO>.
- Note here that the only way of accessing real money is to move the money back to a Registered bank account, preventing money laundering. Only the Government or its operator gets real access to the funds at any point until settlement,
- Valid transactions can only be generated when the card and cardholder PIN is present, this acts as proof of the gaming transaction and results in cryptographically secure transaction data that is forwarded to the system operator to generate settlements between the float or trust fund and the casino or wagering operator<DEMO>. At this point taxes and any operational costs/charges can be deducted prior to settlement with the casino/wagering operator.

- As all transactions are passed to the system operator, and as they are running a fully balanced and audited system, it is possible for the system operator to comprehensively understand the gaming activity of each cardholder. <DEMO> This is one of the major reasons why this operator needs to run the system under very strict charter and be seen to be disinterested in any form of gaming, banking etc. It may even be important that they not be a Government entity so that there is no conflict of interest from any revenue that is generated by gaming/wagering and the interests of the operator.
- Depending on the privacy requirements of the Act and the Governments preferred position, this transactional data could be data mined anonymously (or otherwise) in order to profile the data in appropriate ways as determined by the Act <DEMO>. This could assist in determining forward gaming policy or assist the various social aid organizations in their role of rectifying problem gaming.
- The mechanism described above, can be equally applied to Internet as to poker machine or other gaming & wagering. In the case of Poker machines, a small device that fits in place of the existing note acceptor in most gaming machines can provide the facilities discussed above. <DEMO>

## **Conclusion**

Fujitsu Australia Limited hopes this submission is of use to the Committee in understanding issues that are necessarily complex and involve continually changing technology.

We recommend the separate submission of REGIS Controls Pty Ltd to the Committee where we feel the political, social and ethical issues will be better stated than in our necessarily technical submission.

We further offer an opportunity for the Committee to view our demonstrator application, which we believe will enable some reality to be placed around the technical issues.

We offer any further reasonable level of technical assistance the Committee might require should this submission generate extended discussion.

We hope the result of this process can be the best possible balance between ethical, regulatory, commercial, individual & public rights and obligation, and that this submission adds in a useful fashion to the debate.

## **Contacts**

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