

無現金為王

為何無現金方式的博彩技術將盛行？

隨著區域內的監管機構和營運商達成協議以落實無現金支付技術，我們現剖釋無現金支付解決方案的發展，以及相關技術如何為綜合度假村 (IR) 行業帶來更合規和負責任發展的未來。

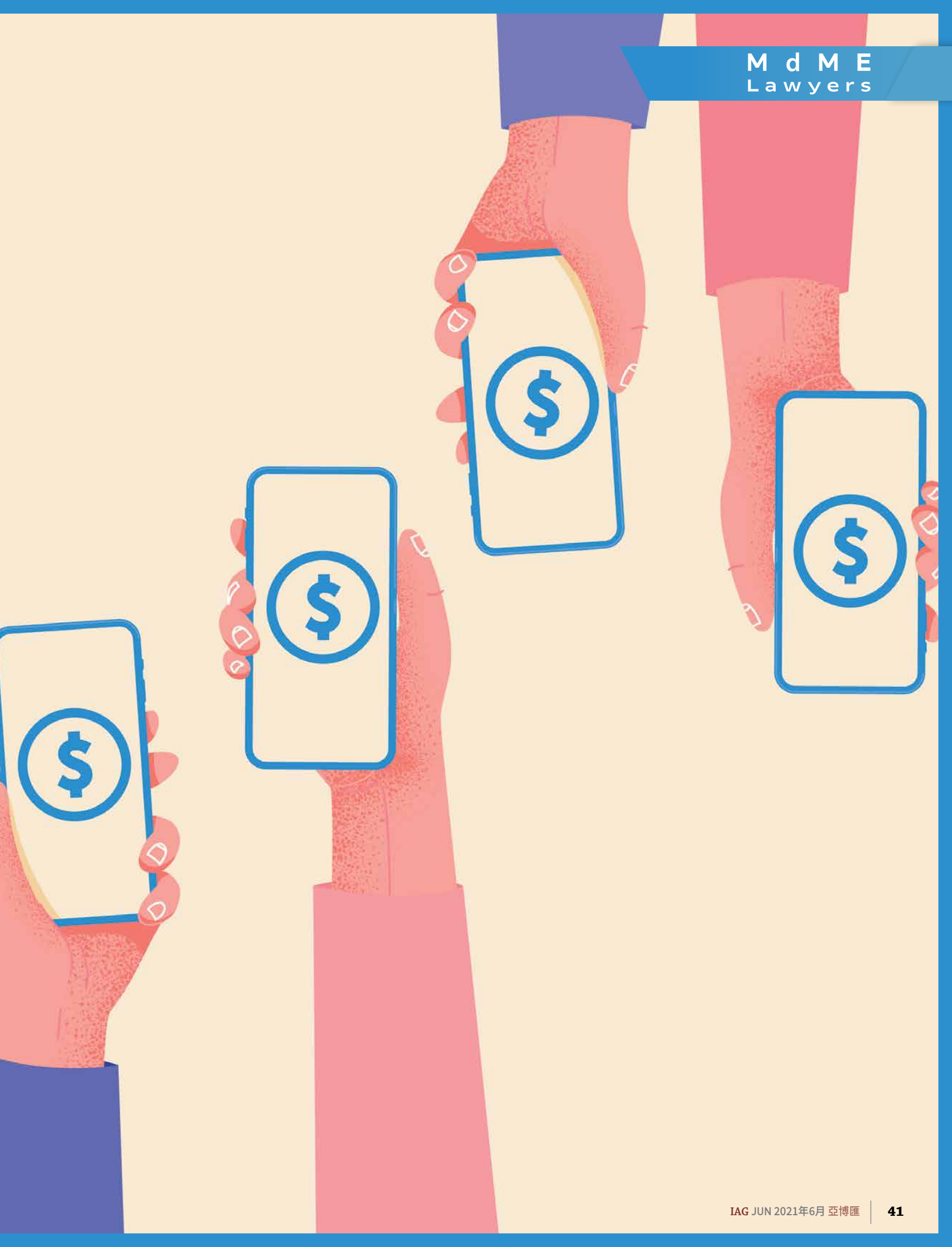
文 **Victoria White** 及 **Daniela Guerreiro**

CASHLESS IS KING

Why cashless gaming technology will dominate

With regulators and operators in the region reaching agreement to implement cashless card technology, we look at developments in cashless payment solutions and why they will lead to a more compliant and responsible future for the IR industry.

By **Victoria White** and **Daniela Guerreiro**



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快、無接觸的支付解決方案，以全面提升消費者的體驗。

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In 2020, the global economy registered record highs for payment transactions via cashless methods. Mobile payments accounted for 84% of all transactions in China, while non-cash payments made up 72% of all payments in the United States.

Cashless payments and digital wallets now lead in consumer transactions as the payment channel of choice, offering quicker, frictionless payment solutions for an all-round improved customer experience. With patrons now accustomed to using mobile payments and e-wallets in their daily lives, the limited availability and acceptance of cashless payments in the present casino environment may appear to handicap the IR industry's drive for future revenue. This is especially relevant to the younger generation of tech-savvy customers who demand a digital-first approach to all customer service and operations.

CAPITALIZING ON INNOVATION

The IR sector has been responsive to harnessing technology developments for the benefit of the industry in the past. TITO systems were first introduced nearly 20 years ago, allowing for coin-free slot machines offering greater convenience for patrons, lower operating costs for casino operators, and a reduced risk of theft or loss. The rise of card-based technology in electronic casino gaming systems then followed, which brought enhanced functionality, especially among electronic cards with embedded microprocessors and chip technology that could store value, track player activity and ratings, and display membership rewards.

With the advent of mobile technology, the next generation of cashless wagering technology has now arrived. This effectively updates existing electronic card systems with their digital counterparts. Gaming



全

全球各國於2020錄得的無現金支付交易總量創下了歷史新高，移動支付佔中國所有交易總量的84%，而非現金支付佔美國所有交易總量的72%。

無現金支付和電子錢包現已成為消費者的首選支付交易渠道，提供更快、無接觸的支付解決方案，以全面提升消費者的體驗。消費者現時已習慣於日常生活中使用移動支付和電子錢包，但目前娛樂場環境中，無現金支付方式的使用性和接受性仍受限，這似乎會阻礙IR行業未來取得更多收入。特別是年輕一代、精通科技的消費者，他們希望客戶服務和營運都採納科技優先的方案。

善用創新

IR行業過去一直適時應對並受惠於科技發展，近20年前首次推出TITO系統，允許使用無投幣式角子機，為玩家提供更大的便利，為娛樂場營運商降低營運成本，並減少盜竊或金錢損失的風險。隨後卡片技術在娛樂場電子遊戲系統中興起，功能性更強，特別是具有嵌入式微型處理器和晶片的電子卡片技術，可以存儲金

額價值、追蹤玩家活動和等級以及顯示會員獎勵。

隨著移動技術出現，下一代無現金投注技術已面世，有效地更新現有的電子卡片系統及其數字副本。博彩遊戲技術公司開發了具有安全登錄功能的電子錢包，可以作為API下載到顧客的智能手機中。電子錢包可連接到玩家的娛樂場/忠誠會員帳戶，並可通過智能手機的API進行一系列電子功能，如資金轉賬、下注和提款。然後，玩家可以使用智能手機的電子錢包API，進行角子機、賭桌遊戲、體育博彩，以及在某些情況下，於度假村內作非博彩零售交易。

可以通過在娛樂場的帳房或自助服務亭為電子錢包充值，或在先進的版本中，可以從銀行和信用卡帳戶透過外部支付網關將資金轉帳至電子錢包。

實務和政策優勢

在客戶的角度而言，電子錢包提供了無縫的支付體驗，減少等待時間、排隊和其他與現金支付相關的不便。尤其是在後疫情時代，無現金和非接觸式支付方案有助於消除公眾擔憂，有關因貨幣兌換和人際互動而引致的病毒傳播風險。



電子錢包也是負責任博彩的重要工具。考慮到電子錢包帳戶中識別和追蹤玩家的既有功能，有關技術可在電子錢包帳戶上實施自願限制或支出預付款，從而幫助用戶解決問題賭博。對營運商而言，電子錢包的支付記錄可令其對娛樂場內的現金流落實更好的實時監督，在更短的時間內偵測出可疑交易及遵守提交可疑交易報告的要求。

基於這些政策原因，博彩設備製造商協會認可採納無現金支付技術。該協會執行董事Marcus Prater表示：「我們總體上支持這一趨勢，我們認為我們這受監管的行業已落後於其他行業，而且

相關收益太多，無法再拖延這一趨勢。遠離全現金世界的好處肯定包括負責任博彩，以及明顯地提高營運效率。」

IGT和SG遊戲最近達成了一項協議，有關無現金角子機遊戲技術的專利交叉許可，這反映了行業推動無現金支付發展。該項協議讓該兩家公司從旗下的娛樂場管理系統產品中，向行業其他營運商提供無現金博彩技術的專利使用。

監管機構：獲批准的途徑

在受監管的行業中經營業務，要採納任何新的電子博彩遊戲

technology companies have developed digital wallets with secure login that can be downloaded as an app to patrons' smartphone devices. The digital wallets link to the players' casino/loyalty member accounts and digitalize functions such as fund transfers, wagering and cash-out through the app on the smartphone devices. Players can then use the digital wallet app on their smartphone to play slot machines and table games, to enjoy sports betting and, in some cases, also for non-gaming retail purchases within the resort.

Funds can be transferred into the digital wallets either by on-site top up at the casino cashier or kiosk, or in advanced versions via external payment gateways that allow fund transfers direct from bank and credit card accounts.

PRACTICAL & POLICY ADVANTAGES

From a customer perspective, digital wallets provide a seamless payment experience by reducing wait times, queuing and inconveniences associated with cash payments. Particularly after the pandemic, cashless payments and contactless solutions help counter public health concerns around risks of transmission through physical money exchanges and human interactions.

These digital wallets also present an important tool in the cause for responsible gaming. Given its inherent ability to identify and track players through their digital wallet accounts, the technology can be directed towards implementing voluntary barring or spending pre-commitments on the digital wallet account to help customers with gambling problems.

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The industry-wide approach to developments in cashless payments is reflected in the recent agreement between IGT and Scientific Games to cross-license patents relating to cashless slot gaming technology.

The records of digital wallet payments also provide operators with better real-time oversight of cashflows within the casino that can assist in detecting suspicious transactions and complying with reporting requirements in a much shorter timeframe.

The Association of Gaming Equipment Manufacturers endorses the adoption of cashless payment technology for these policy reasons. Marcus Prater, Executive Director of AGEM, said: "We're supportive of this trend in general because we believe our regulated industry has fallen behind other industries, and the benefits are too extensive to delay any further. Those benefits definitely include responsible gaming considerations, in addition to the obvious operator efficiencies that would increase by moving away from an all-cash world."

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REGULATORS: PATH TO APPROVALS

Operating in a regulated industry, the path to adoption for any new electronic gaming device or system involves regulatory approvals and compliance with appropriate technical standards.

As a first step, technical standards demonstrate the fairness, security, reliability and integrity of the





澳門計劃修訂法律以允許使用數字貨幣。
Macau plans to update its laws to enable digital currencies to be accepted.

technology systems to the regulators' satisfaction. For cashless systems in casinos, a generic, jurisdiction-agnostic technical standard has been developed by Gaming Laboratories International for card-based cashless systems: GLI-16. However, regulators have generally favoured adopting jurisdiction-specific standards which allow for particular policy, social or legal considerations to be taken into account.

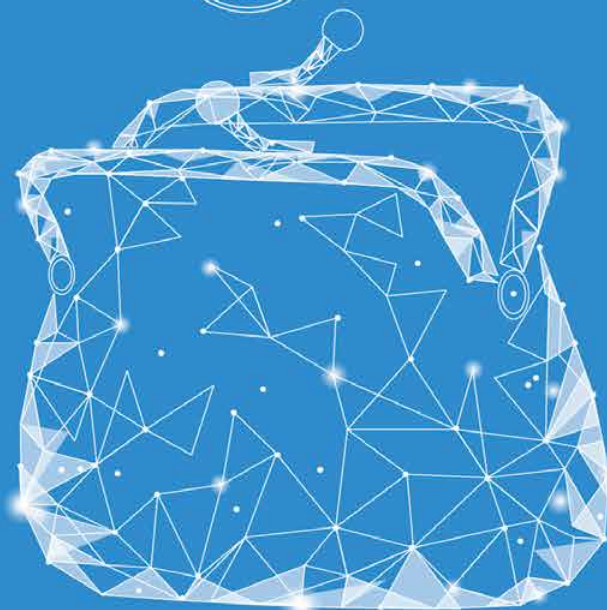
The Nevada Gaming Control Board has released its own technical standards for cashless wagering systems that provide for jurisdiction-specific requirements, such as daily limits on electronic fund transfers and restrictions on fund transfers from credit cards. For the Macau market, the EGM Technical Standards Version 1.10 applies to gaming machines, but the standard refers only to TITO systems and does

設備或系統，都涉及監管機構的批准以及對遵守相關技術標準。

首先，技術標準證明技術系統的公平性、安全性、可靠性和完整性，以使監管機構滿意。對娛樂場中的非現金系統，Gaming Laboratories International已為卡片式的非現金系統制定了可適用於不同司法管轄區的技術標準，即GLI-16。然而，監管機構往往傾向採納適用於特定管轄區的標準，從而允許考慮特定的政策、社會或法律等因素。

內華達州博彩控制委員會就無現金投注系統發布了一套技術標準，制定了適用於特定管轄區的要求，例如設定了電子資金轉賬的每日限制和信用卡資金轉賬限制。對於澳門市場，電子博彩機技術標準版本1.10適用於電子博彩機，但僅適用於TITO系統，尚未考慮其他無現金的博彩遊戲形式。展望未來，澳門博監局或會尋求調整該標準，以適用於在澳門落實的無現金系統。

澳門監管部門另一項需考慮的因素是《金融體系法律制度》的適用範圍，該法授權澳門金融管理局監督澳門所有的金融和信貸機構。目前尚不確定無現金博彩系統的營運商是否符合該法案



所定義的信貸機構，或是否需事前獲金管局的額外批准，又或是否需修法。

為此，澳門特區政府行政長官已透露特區政府打算修法，以便澳門未來容許數字貨幣，為即將推出的數字人民幣做好準備。與此同時，在賭牌於2022年6月到期、重新啟動澳門博彩特許經營權公共招標程序前，澳門將在2021年下半年對現行的博彩法進行諮詢。這兩項進展都表明修訂現行法律框架能帶來機遇，讓澳門IR項目在未來營運上可接納無現金數字技術和系統。

第二，監管機構要求特許經營者/牌照持有人的內部監控規定，重點在於娛樂場營運的完整性和效率、財務報告的可靠性以及遵守適用法律。對於無現金博彩系統，內華達州博彩控制委員會的《最低內部控制標準》明確了主要風險，包括玩家識別、賬戶

安全和及時核對交易。該標準也規定了無現金帳戶轉賬的監控，並要求營運商使用單一銀行帳戶處理所有電子博彩機的資金轉賬，以便區分不同的轉賬及審計。

澳門博監局於2005年為澳門六個賭牌持有人發布《最低內部控制要求》，但該規定明確排除了無現金博彩，因該規定的意圖是讓賭牌持有人就營運進行自我風險評估，並向博監局提交其擬定的內部控制措施。因此，實施無現金博彩技術的評估和緩解措施需由澳門賭牌持有人進行。

其他司法管轄區的監管機構也採取了類似方法，包括澳洲維多利亞州和新南威爾士州。在部署新技術前，娛樂場牌照持有人必須事先進行風險評估和提出內部控制措施。今年5月，新南威爾士州獨立酒業與博彩管理局宣布與IR營運商皇冠度假酒店集團

not yet contemplate other forms of cashless gaming. In future, it is likely that the Macau DICJ will seek to adapt the standard for the context in which cashless systems will operate in Macau.

A further regulatory consideration in Macau is the scope of the Financial System Act, which authorizes the Monetary and Foreign Exchange Authority of Macau (AMCM) to supervise all financial and credit institutions in Macau. It is unconfirmed whether operators of cashless gaming systems would trigger the requirements for credit institutions under the Act, or whether any additional approvals from the AMCM or legislative amendments would be needed.

To this end, the Macau Chief Executive has already disclosed the Government's intention to update Macau laws to enable digital currencies to be accepted in the SAR in future, to prepare for the impending launch of the Chinese digital yuan currency. At the same time, a

legislative review of the current Macau gaming law will take place in the second half of 2021, prior to the public retender process for Macau's gaming concessions which expire in June 2022. Both developments point to opportunities for the current legal framework to be revised to permit use of digital cashless technologies and systems for future operations in Macau IRs.

On a second front, regulators mandate internal control requirements for concessionaires/licensees. These focus on the integrity and efficiency of casino operations, reliability of financial reporting, and compliance with applicable laws. For cashless gaming systems, the Nevada Gaming Control Board's Minimum Internal Control Standards (MICS) identified key risks to be player identification, account security and timely reconciliation of transactions. The MICS prescribe controls for fund transfers to/from cashless accounts and require operators to use a single bank

和星億集團達成協議，以實施與個人身份和認可的金融機構相關的無現金卡片技術。

如上所述，無現金博彩系統利用玩家數據進行識別和活動追蹤，因此必須嚴格遵守數據保護法和數據隱私監管機構的指引。對於技術供應商，隱私合規性認證越來越流行，以向監管機構和客戶展示其系統和產品設計的隱私保護措施符合規定。

提高接受性的教育

監管機構對新科技的看法正迅速演變，特別是疫情加速了相關發展。內華達州博彩控制委員會已分別批准ACS PlayOn和IGT的無現金投注系統，讓資金可轉移至安全的電子錢包，促成減少接觸、無現金博彩。其他製造商，如Boyd Gaming與盛世、貴族的合作，都正在測試階段，尚待監管部門批准。

這些成功的例子可為其他司法管轄區的監管機構提供重要參考，因這些監管機構正著手檢視無

現金博彩技術，以便在相關地區引入。在許多情況下，可以通過傳揚推廣有關電子系統的社會和政策利益，以獲監管機構的支持。為此，美國博彩協會於2020年6月發布《支付現代化政策原則》，教育各州和部落監管機構落實靈活的監管框架，從而允許在娛樂場中實施電子支付。

無現金的數字化未來

從實踐和政策層面上，新的無現金支付系統都帶有優勢，為近期引入有關系統提供有力的論述。IR行業或需自行承擔引入新技術的責任，這顯然地促進實現打擊問題賭博和反洗黑錢的目標。此外，從客戶的角度而言，數字化是必要的，以證明IR行業能吸引熱衷科技的年輕一代，因為新一代沈醉於數字化形式的娛樂。

在IR行業利用正確的工具和資源以吸引未來的目標客群上，無現金博彩技術將發揮關鍵作用。iag

account for all fund transfers to EGMs in order to segregate the transfers and facilitate auditing.

In Macau, the DICJ issued Minimum Internal Control Requirements (MICR) in 2005 for the six Macau concessionaries. However cashless gaming was specifically excluded from the scope of the MICR, as the intention was to oblige concessionaries to undertake their own risk assessments in this area of operation and submit their proposed internal controls for the DICJ's review. The assessment and mitigation measures for the implementation of cashless gaming technology is therefore conducted by the concessionaries in Macau.

A similar approach is taken by a number of regulators in other jurisdictions, including Victoria and New South Wales in Australia. Casino licensees are required

to conduct risk assessments and propose internal controls when seeking to deploy new technology. In May, the NSW Independent Liquor and Gaming Authority announced agreements with IR operators Crown and Star Entertainment Group to implement cashless card technology linked to individuals' identities and recognized financial institutions.

As highlighted above, cashless gaming systems capture player data for identification and activity tracking and, therefore, must strictly conform with data protection laws and data privacy regulators' guidance. Privacy compliance certification is becoming an increasingly popular route for technology vendors to demonstrate to regulators and customers alike the embedded privacy-compliant safeguards in their systems and product design.



內華達州博彩控制委員會已經發佈了自己的無現金投注系統技術標準。
The Nevada Gaming Control Board has released its own technical standards for cashless wagering systems.

EDUCATING TOWARDS ACCEPTANCE

Regulators' outlook towards new technologies is evolving rapidly, accelerated by events during the pandemic. The Nevada Gaming Control Board has approved cashless wagering systems from ACS PlayOn and, separately, IGT, which enable fund transfers to secure digital wallets for reduced-contact, cashless play. Other manufacturers, including Boyd Gaming in partnership with Aristocrat Technologies, have cashless payment technology in trial phase, pending regulatory approvals.

These successful examples may serve as important references for regulators in other jurisdictions who are embarking on their review of cashless gaming technology for introduction in their respective regions. In many cases, regulatory support may be fostered through a thorough understanding of the social and policy benefits which these digital systems can provide. To this end, the American Gaming Association released its Payments

Modernization Policy Principles in June 2020 to educate state and tribal regulators towards a flexible regulatory framework that allows digital payments in the casino environment.

CASHLESS DIGITAL FUTURE

The practical and policy advantages of the new cashless payment systems strongly support the case for introduction in the near term. The IR industry may take it upon itself to adopt new technology which would evidently facilitate objectives combatting problem gaming and money laundering. Furthermore, digitalization is necessary from a customer perspective in order to future-proof the IR industry and to attract the younger, tech-driven generation who exclusively engage in digital forms of entertainment.

Cashless gaming technology will play a key part in equipping the IR industry with the right tools and resources to appeal to the target customer market going forwards. iag