



Microprogram

微程式資訊股份有限公司

Microprogram Information Co., Ltd.



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推薦單位：財團法人中小企業信用保證基金
玉山銀行 台中分行

營業項目：研發設計RFID主被動式智能終端、模組及
物聯網應用解決方案

產品名稱：電子支付終端與模組

雲端門禁卡務解決方案
無線感測網路應用解決方案
公共自行車租賃解決方案
販賣機電子支付收費系統
遊樂園電子支付收費系統
計程車電子支付收費系統
停車場電子支付收費系統
智慧電子鎖

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Recommended by :

Small and Medium Enterprise Credit Guarantee Fund of Taiwan
E.SUN Bank Taichung Branch

Business Items :

R&D and design of active & passive RFID intelligent terminal, module
and IoT solution

Main Products :

E-Payment Terminal & Module
Cloud-based Access Control System
Wireless Sensor Network Solution
Public Bicycle Rental System
E-Payment Vending Machine System
Theme Park E-Ticket System
Taxi E-Payment System
Car Park E-Payment System
Electronic Door Lock



計程車電子支付收費系統
Taxi E-Payment System



停車場電子支付收費系統
Car Park E-Payment System



<http://www.program.com.tw>



微笑單車 Youbike



2015尾牙晚會 2015 MP Year-end Party

微程式資訊創立於1995年，為產業物聯網的系統廠，提供跨產業解決方案，並為全臺最大的電子支付終端供應商，提供交通、金融、零售商、製造、校園、企業等產業服務，並與巨大、可口可樂、佳能、臺灣大車隊、一德金屬等策略合作，發展智慧終端，提供民眾便捷的智慧生活載具及企業大數據應用。

自主開發累積研發實力

2002年微程式邁入新里程，跨入RFID（無線射頻辨識）設計與產業應用，為國內少數自行開發電子支付專業廠商。從早期硬體買賣及RFID系統整合，轉型為RFID及電子支付解決方案提供者，不僅生產設計製造RFID相關軟硬體外，更具備豐富的實務導入經驗，包含園區RFID門禁管理系統、醫療定位追蹤系統、客製化OEM/ODM模組等；更於2006年起投入電子票證開發，包含交通電子票證、電子支付應用等，累積電路設計、軟體整合開發、射頻技

術、雲端軟體平臺、大數據分析服務等系統整合與研發能力，其中電子支付必須在快速且安全的系統設計下完成扣款交易的辨識技術，且需整合電子、軟體、機構等跨領域技術以因應快速且零誤差的功能需求，奠定發展根基。

掌握市場需求變化搶先商機

2010年開放電子票證小額付款跨業應用，微程式在開發交通電子票證的基礎下搶先進入小額付款市場，商機拓展於超商小額消費、園區門禁暨電子支付整合、身分識別等。另外也吸引印表機租賃、自動販賣機服務等系統商將以往以硬幣或磁條卡交易的設備升級為智慧支付終端，節省大量的帳務清算時間與人力，協助產業朝價值鏈下游發展向結構優化邁進。

提供物聯網垂直整合能力

微程式擁有物聯網產業所需裝置、連結、雲端及軟體垂直整合能力，協助產業打造軟硬體整合服務平臺，提供物聯網產品設計製造最



佳化的方式，亦提供客製化服務，以解決產業因應物聯網所面臨的商業模式轉變，成為產業物聯網創新解決方案的提供者。目前已提供YouBike、澎湖電動機車充電柱、可口可樂販賣機、悠遊卡停車場收費管理系統、智慧門鎖等創新應用。

掌握物聯網核心技術，提供產業持續創新

微程式積極與產業聯盟以提供創新服務為使命，與產業共創夥伴關係。在交通產業上與巨大（Giant）共創YouBike，其高周轉率及滿意度讓世界各國爭相取經，儼然成為臺灣之光！在設計上除了捷安特量身打造車體外，由微程式將軟硬體整合的營運管理服務系統更是獨步全球，租借可在1秒內以信用卡或悠遊卡輕鬆借還車，其智慧連網服務，提供使用者透過APP就能查詢各站車輛租借狀況，挑選最適合的租車站點，並能支援維運單位隨時掌握各站的車況，有效調度與保養車輛，維持營運的服務品質。YouBike從單車提升到成為城市最完美的載具，包含觀光、智慧城市、行動消費等，讓後

端服務成為YouBike最有價值之處。

在數位金融服務上與玉山銀行等合作，以多元支付方式因應消費者需求，並結合中小企業，提供多元金流、會員服務、消費積點、跨產業行銷等服務，以解決中小企業規模較小及數位服務發展上不足的限制，協助解決經營問題，奠定智慧城市發展的基礎。

維持創新的DNA

微程式能在20年間因應市場發展蛻變轉型，倚靠的是鼓勵員工不斷創新，讓員工可以充分發揮自己的想像力，打造創新氛圍。在人才培育上，除專業的職能訓練外，微程式與學校及社群間合作分享彼此最新的產業趨勢與實務經驗，以面對瞬息萬變的數位時代。

「蹲得夠深，才能跳得高，從別人不想做的訂單做起，好好累積實力，機會總是給準備好的人。」為總經理吳騰彥一路走來的感觸，透過跨產業聯盟結合，在臺灣擁有資通訊供應鏈的優勢下，與各產業領導者開創更大的全球市場商機，樹立成功典範。■



硬體研究室 Hardware Laboratory



教育訓練 Employee Training Course



Microprogram Information was founded in 1995, as an Internet of Things (IoT) industry service provider, we provide cross-industry solution, and is now the largest electronic payment terminal manufacturer and supplier across Taiwan. We provide industry services in diverse areas such as transportation, digital banking, retail commerce, manufacturing, campuses and enterprises, moreover, collaborate and develop smart terminal equipment with YouBike, Giant, Coca-Cola, Canon, Taiwan Taxi and I-Tek, provide convenient intelligent living tools for citizens and big data analysis for enterprises.

Develop R&D Proficiency Through Independent Development

Microprogram Information has transformed from hardware selling and RFID system integrating company into a RFID solution provider by contributing in the design process and the industrial application of RFID since year 2002. Apart from manufacturing and design RFID related soft and hardware, we possess of extensive practical experiences including science and industrial park RFID access control system, medical tracking system and customized OEM/ODM modules. We also devote ourselves in to the development of electronic farecard in 2006, including farecards in public transportation and electronic payment applications; we had built the ability of system integration and R&D capability through our experiences in schematic design, firmware integration and development, frequency identification, cloud platform software and big data analysis. Electronic payment plays a substantial role amongst all parts of electronic farecard development. Payments need to be done through fast and secure identification system by integrating electronic, software and mechanism design to meet the requirement of instant payment and zero tolerance in error. Above all, under those strict requirements in electronic payment industry, Microprogram is able to meet all demands and has set the stage for collaboration with diverse industries in the future.

Beat Others to it by Grasping Market Demands

Taiwan has open electronic micropayment for cross-industries since 2010, Microprogram has beat others to the market with our development background in electronic farecards. Our goal is to build a convenient living community with RFID technology, making electronic payment available in all kinds of area fields including small transactions and the integration with access control system. The fact of being able to save enormous time and labor in account settlement and help develop towards ubiquitous industrial structure has attract companies from printer rentals and vending machines to upgrade their payment terminal from coins or magnetic strip cards to intelligence payment terminals using electronic payment.

Demonstrate the Ability of Vertical Integration in IoT

Microprogram possessed of elements that are required to build soft and hardware integration service platform in IoT industry, including device, connectivity, cloud and vertical integration for software. To solve the business model conversion problem that different industries have faced due to IoT and to become an industrial IoT innovative solution provider, Microprogram provides the solution to optimized the outcome of product design, also provide application customize service. The innovative cases that we have accomplished in IoT are YouBike, motorcycle charging station, Coca-Cola vending machine, parking system with e-payment and electronic door lock.

Hold the Key of IoT to Innovate Industries Continuously

Microprogram collaborates aggressively with diverse industries to accomplish the mission of providing innovative service. For instance, YouBike is the product of the collaboration with Giant, having the world's top turnover rate and user satisfaction, YouBike has considered a paradigm for public bicycle systems around the world. Other than the Giant's tailor-made bike, Microprogram's original



management system for soft and hardware integration completes every rental transaction within one second; with our intelligence internet service, users can check each station's current rental status through APP, moreover, the support technician team can maintain the service quality by inspecting each station's status. The most valuable thing of YouBike's existence is its back-end service, which has elevated a normal bike in to the best device to promote a city's value by converting its transportation ability in to needs for tourism, social benefits, intelligence city, mobile payment, energy conservation and carbon reduction.

On the digital financing service side, we cooperated with E-Sun bank and small and medium enterprises to provide multi-payment, membership service, consumer rewards and cross-industry marketing services to break the boundaries that are caused by the size of the enterprise and the insufficiency of its digital services' development, in other words, assist enterprises' management problem and set the foundation of its development towards intelligence city.

DNA of Being Innovative

The successful transformation of Microprogram within two decades in response to the market trends can be attributed to the support given to employees, encouraging them to be innovative and creative. Also, Microprogram have been opened to different voices in our company, creating an atmosphere that allows our employees to freely apply their imagination in workplace. In terms of employee cultivation, aside from competency training, Microprogram cooperated with schools and communities in aim of sharing the latest industry's trend and practical experiences. The cooperation created a learning environment that fostered our employees to expand their knowledge and guided them to enhance their working competence, equipping them with the ability to adjust to the versatile digital generation.

“The lower you squat, the higher jump you make. We started from taking orders abandoned by others and accumulated our strength firmly step

by step. Chances always favor the prepared one.” said the General Manager Teng-Yen Wu, after what he has been through. Wu, taking advantages of the developed Information and Communication Technology (ICT) supply chain in Taiwan, has created more global opportunities with market leaders in different industries and set up a successful business model becoming a paradigm of innovative entrepreneur.



微程式車隊 MP Cycling Team



綜合評語 Commentary

以專業電子支付供應商為核心服務，具備創造附加價值的能力，提供相關產業之軟體垂直整合服務。使用RFID技術，運用於YouBike或公共租賃系統。透過與國際自行車大廠策略聯盟，已在臺灣各個城市成功發展綠色交通系統。並逐步將技術整合案件輸出至國際重要城市，前景可期。

With professional electronic payment as its core service, Microprogram is capable of creating added value and provides software vertical integration services for relevant industries. The application of RFID technology in YouBikes and public leasing systems is one of its many successes. By launching strategic alliances with world-leading bicycle makers, it has successfully developed a green transport system in different cities across Taiwan. After progressively exporting technology integration know-how to major cities in the world, its future is promising.