

## 歐洲電信業者共商數位家庭大計 HGI 要讓家庭閘道器標準化

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European Telecom Carriers Plan the Future of Digital Home Equipment  
HGI working toward home gateway standardization

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就過去寬頻網路服務發展進程來看，歐洲電信業先前在 Triple Play 等應用服務起步最快、發展動作也最積極，而就寬頻終端設備市場商機來看，也因為歐洲電信業積極推動 Triple Play 服務所帶動的 IAD 裝置需求，進而為部分台灣網通設備廠創造顯著出貨成長動能。

The European telecom carriers have been aggressively pursuing the development of broadband Internet Triple Play services since their early entry into the market. The expansion of the Triple Play consumer market and the growing demand of Intergraded Access Devices (IAD) have subsequently created a significant exporting growth momentum for Taiwanese broadband equipment manufacturers.

近來在多個不同領域再度被提及重是的數位家庭商機，再度成為歐洲電信業者瞄準的重點市場，在 2004 年成立的 HGI(Home Gateway Initiative)成立目的，就在於為數位家庭中的電信應用服務、家庭閘道器、與相關連網應用裝置建立標準規格(Requirement)，進而打造具共同規格、統一互通的數位家庭環境。

Recently, the European telecom carriers have refocused their sight on the digital home business opportunities. In 2004, the Home Gateway Initiative (HGI) was founded with the goal of shaping a uniform interoperable digital home environment by establishing common requirements of digital home telecommunications services, home gateways, home networks, and related home network devices applications.

而若深究 HGI 此組織成立的最重要目的，其實就在於為既有外界熟知、但未有明確定義的家庭網路閘道器訂出一個明確的規格定義，並且希望透過建立規格標準，讓在數位家庭應用環境中扮演重要樞紐角色的家庭網路閘道器與其他連網裝置，與電信業者所推出的數位家庭應用服務得以順利互通運作。

The most important purpose of HGI is to establish clear specifications for seeming familiar, yet not well-defined home gateways and networking equipment requirements. With common specifications, HGI hopes to ensure the seamless interoperability between the home network gateway devices and the digital home service providers.

因此，以目前參與 HGI 組織的廠商名單來看，包含英國電信(BT)、德意志電信(DT)、義大利電信(Telecom Italia)、Telefonica、法國電信(France Telecom)、NTT docomo、KDDI 等電信業者，而在設備廠商部分，則包含阿爾卡特朗訊(Alcatel-Lucent)、三星電子(Samsung Electronics)、LG-Nortel、思科(Cisco)、Netgear、Sagem、Pirelli、華為、中興，台灣網通設備廠則有友訊、合勤、中磊、

智易等廠商加入，另外博通(Broadcom)、Atheros、英特爾(Intel)等晶片廠也都是 HGI 既有成員。

HGI current members are comprised of several groups: *Broadband Service Providers (BSPs)* including British Telecom (BT), Deutsche Telekom (DT), Telecom Italia, Telefonica, France Telecom, NTT docomo, KDDI and other telecommunication carriers, and *vendor companies*, including Alcatel-Lucent, Samsung Electronics, LG-Nortel, Cisco Systems (Cisco), Netgear, Sagem, Pirelli, Huawei, ZTE and Taiwan based broadband equipment manufacturers, such as D-Link, ZyXEL, SerComm and Arcadyan. Other microchip manufacturers including Broadcom, Atheros, Intel are also members of the HGI.

HGI 技術長 Duncan Bees 就表示，HGI 係由多家歐洲電信網路營運服務商於 2004 年創立，後續並有多家設備廠與晶片廠商加入參與，HGI 成立的最主要目的就在於為電信網路營運服務商積極布建的數位家庭網路應用服務建立標準規格，讓應用服務與裝置設備得以共通互動，其中可能比較被外界熟知的應用服務包括了 VoIP、IPTV 等等。

Duncan Bees, HGI Chief Technology & Business Officer, stated that since 2004, the primary goal of the HGI European broadband service provider group as well as the HGI vendor and microchip manufacturer group has been working toward a standardized digital home network service architecture to connect the services and the equipment including some more commonly known services such as VoIP, IPTV and so on.

隨著數位家庭應用服務持續發展，未來此類應用服務將更為多元，將會有更多不同型式的服務與裝置設備急需要一個可供遵循的平台規格；而對於電信網路營運服務業者而言，透過 HGI 所建立的標準規格，可作為電信業者未來評估採購家庭網路閘道器裝置的參考，而對設備廠商而言，也可以此作為其開發設計產品的依據。

As the digital home services continue to develop, the future of such applications will become more diverse. More services and devices for will be in urgent need of a common platform and specifications. HGI requirements will not only serve as guidelines for the telecommunications network operators in the procurement of home network gateway devices, but also as the basis for the manufacturers in their products development and design.

HGI 董事會成員之一的 Corrado Rocca 表示，以過去歐洲電信業者發展 Triple Play 的經驗來看，在採購 IAD 裝置時，並沒有共同的产品規格標準，而透過 HGI 建立的共同標準，並且經由 HGI 成立的測試實驗室所提供的測試結果，可以提供給電信業者作為其建立家庭網路閘道器採購標準的評估資料，而除了家庭網路閘道器之外，HGI 測試實驗室所產出的數據資料也可延伸用於所有家庭網路環境中的連網應用裝置設備，其中涵蓋不同通訊技術如乙太網路、無線區域網路 (WLAN)、電力線(Powerline)等等。

A HGI board member, Corrado Rocca, stated that the European

telecommunication providers did not have common specifications to go by during the development of Triple Play and the procurement of IAD. To address the need, HGI established testing laboratories and provided telecommunication operators with test results on home network gateway devices and assessment data of procurement standards. Additionally, HGI test laboratory data cover topics of home network environment appliances and equipment, as well as various communication Information technologies such as Ethernet, wireless local area network (WLAN), power lines and so on.

相較於既有 Broadband Forum 或 Wi-Fi 聯盟所提供的共通標準認證，Duncan Bees 表示，Broadband Forum 或 Wi-Fi 聯盟多半都還是以網路互通性標準為主要測試認證的主軸，HGI 也會與此類組織密切合作，但發展主軸卻會是以應用服務為主，就目前 HGI 積極推動的相關標準規格來看，其中包含 QoS、節能等領域，在 QoS 部分，不只單從家庭網路閘道器的網路流量管理標準著眼，而是延伸發展至數位家庭環境中不同裝置所傳送承載的網路應用服務流量需求。

In regards to other existing certification programs, Duncan Bees mentioned that Broadband Forum or Wi-Fi Alliance certification programs mostly centered on testing of standard network interoperability. HGI, although seeking close coloration with such organizations, mainly focuses on developing standard relevant to service applications to address fields of Quality of Service (QoS), energy efficiency and other areas. Regarding QoS, HGI extends beyond the specification data transmission of home network gateway devices to the broader development of home network infrastructure devices.

但對於未來 HGI 是否會與 Wi-Fi 聯盟等組織一樣，推出專屬於 HGI 的測試認證計畫，Duncan Bees 與 Corrado Rocca 則都表示，這的確是目前 HGI 內部正在評估討論的問題，但到目前為止，HGI 還是會以提供業界共通標準規格為發展重點，希望此標準規格能夠協助電信業者與設備業者縮短其導入服務與裝置應用的時間。

In regards to HGI's future plan to launch a HGI certification program similar to the one established by Wi-Fi Alliance, both Duncan Bees and Corrado Rocca stated that internal discussions and evaluations were taking place at present. However, HGI emphasizes its focus on developing common standards for telecom operators and equipment manufacturers to speed the evolution from services concept to deployment reality.