

2017 Newsletter Winter Issue

Cover Story

2017 Taiwan Internet Forum on Internet Trends

From December 12-15, 2017, the Taiwan Network Information Center (TWNIC) held 2017 Taiwan Internet Forum to discuss Internet trends. This forum was a joint event with 2017 Global IPv6 Summit in Taiwan, 29th TWNIC IP Open Policy Meeting, 2017 TWNOG, 2017 Network Security Seminar, and 2017 Taiwan Youth Internet Forum.

On 2017 Global IPv6 Summit in Taiwan, the agenda

discussed Internet trends and IPv6 development from different perspectives. At the beginning of the summit, Ting-I Chan, the Chairperson of National Communications Commission (NCC) gave remarks at the opening ceremony. NCC has been the competent authority of TWNIC since this October. In the opening remarks of the Chairperson Chan, she stated that NCC will continuously not only assist in



▲Photo from 2017 Taiwan Internet Forum (the left to the right): Sunny Yeung from Telstra in Australia; Philip Tseng, the Executive Vice President of Far Eastone; Ting-I Chan, the Chairperson of NCC; Kuo-Feng Lin, the Executive Vice President of Chunghwa Telecom; Hiroki Kawabata from JPNIC; Ai-Chin Lu, Vice CEO of TWNIC; and George Kuo, the Services Director of APNIC.

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Taiwan Internet environment preparation for future Internet trends, Internet governance, and international cooperation in Taiwan, but also promote digital transformation and economics paradigm shift with broadband Internet infrastructure as well.

Then, Kuo-Feng Lin, the Executive Vice President of Chunghwa Telecom, and Philip Tseng, the Executive Vice President of Far Eastone, gave keynote speeches and shared their insights about the challenges and opportunities of Internet of Things, AI, and 5G development in Taiwan with the participants. Following the keynote speeches, on the session of Global IPv6 Development, panelists from Japan and Australia shared the strategies for the development and deployment of IPv6 in their countries. Representatives from governmental agencies and ISPs exchanged their point of views on the following session of IPv6 Upgrade in Taiwan. In the session of Innovations and Applications on the Internet of Things, Cloud, and Big Data, representatives from the Internet-related industries discussed technologies and applications such as smart homes and cloud computing.

On the second day, the representatives from NCC, ISPs, and organizations in the related fields as panelists discussed the industrial innovations in next-

generation telecommunication management. During 2017 TWNOG, representatives from domestic and international Internet-related industries and Asia-Pacific Network Information Centre (APNIC) shared their experiences regarding IPv4 address transfer management and IPv6 management.

In Trend of Global Domain Name Development session on the third day, representatives from domain name registrars exchanged point of views on the future development of global domain names. Also, representatives from governmental agencies and legal field presented their analysis of influence of domain names on brands and intellectual properties from a legal perspective. In the afternoon, during the 2017 Taiwan Youth Internet Forum, members from the Taiwan Youth Internet Forum discussed about the impact of Internet on modern society from the younger generation's perspectives with scholars and representatives from related industries.

On the last day, during 2017 Network Security Seminar—Smart Security for Internet, experts from governmental agencies and well-known domestic and foreign Internet technology companies discussed about the cyber security threats resulting from future new technologies and the possible preventions, drawing a perfect closure for this 4-day forum.

Focus

Taiwan Internet Connectivity Bandwidth Survey Q3 2017

The latest Taiwan Internet Connectivity Bandwidth Survey conducted by the TWNIC revealed that, as of the end of September 2017, the total international bandwidth of Taiwan was 2,236,846 Mbps, an increase of 54,483 Mbps compared with that in the previous quarter. This survey demonstrated that the connectivity bandwidth from Taiwan to foreign countries/regions steadily increased over this period. The TWNIC regularly conducts Internet-related surveys, and the Taiwan Internet Connectivity

Bandwidth Survey provides the latest and most detailed data and trends of domestic and international Internet connectivity.

As of the end of September 2017, Taiwan had Internet connections with 12 countries/regions. The United States accounted for the most international bandwidth traffic at a rate of 1,188,299 Mbps, followed by Japan (416,268 Mbps), Hong Kong (348,138 Mbps), China (189,927 Mbps), and Singapore (43,328 Mbps). Overall, most of the countries connecting to the



Table of International Bandwidth in Mbps, Compiled in October

Rank	Country/Region	Dec, 2016	Mar, 2017	Jun, 2017	Sept, 2017	Percentage	Growth Rate in Relation to a Previous Quarter
1	US	1,101,947	1,141,027	1,168,395	1,188,299	53.12%	1.67%
2	Japan	378,777	387,766	397,766	416,268	18.61%	4.44%
3	Hong Kong	284,485	285,485	328,048	348,138	15.56%	5.77%
4	China	221,561	202,523	199,879	189,927	8.49%	-5.24%
5	Singapore	33,015	32,815	40,327	43,328	1.94%	6.93%
6	South Korea	30,218	30,840	33,328	40,327	1.80%	17.35%
7	The Philippines	10,311	10,156	10,778	10,778	0.48%	0.00%
8	Malaysia	6,110	6,010	6,010	6,010	0.27%	0.00%
9	UK	2,190	2,100	2,100	2,100	0.09%	0.00%
10	Thailand	1,956	556	556	556	0.02%	0.00%
11	The Netherlands	345	189	189	189	0.01%	0.00%
12	Vietnam	156	156	156	156	0.01%	0.00%
Total		2,066,199	2,094,615	2,182,363	2,236,846	100.00%	2.44%

Taiwan Internet were in the Asia Pacific region, except for the United States, the Netherlands, and the United Kingdom. The top three Internet service providers that conduct

the international Internet bandwidth were as follows: HiNet, NCIC, and NTT. For detailed data from this survey, please go to <http://map.twnic.net.tw>.

Event

2017 Taiwan Wireless Internet Usage Survey Explored the Digital Society Development in Taiwan

The lifestyle of being constantly connected to the Internet has sped up the development of a digital society. To further understand digital society development in Taiwan, the research topic of 2017 Taiwan Wireless Internet Usage Survey was specifically set as “Explore the Relationship between the Usage of Wireless Internet and the Development

of Digitalized Society in Taiwan.” To fully discuss the issue, the survey explored the aspects of Taiwan wireless Internet usage, including wireless Internet user population distribution, wireless Internet users’ behaviors, lifestyles in a mobile digital society, and the digital civic literacy of Internet users in Taiwan. The result of this survey was released on the TWNIC

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official website as a reference for academic, industry, and policy-making fields. To observe the development and application of wireless Internet in Taiwan, the

TWNIC annually conducts "Taiwan Wireless Internet Usage Survey." The survey results over the years can be found: <http://statistics.twmic.net.tw/cgi/login.cgi>

Young Entrepreneurs Shared Experiences in .tw/.台灣 and Branding in TANet

Many young people choose to establish a startup company on the Internet and to expand their careers. However, to be successful, they need not only high-quality products, but also strong online marketing strategies and website management. Therefore, TWNIC invited two young entrepreneurs to the 2017 TANet, the founders of Dawoko and of the Little Devil Painted Ice Cream Store, who were also the awardees of the TWNIC Online Startup Writing Contest, to share the importance of .tw/.台灣 to run a brand online. Participants were encouraged by the two young entrepreneurs' startup stories and their marketing abilities in promoting their brands online and enjoyed their sharing very much. In addition, at TWNIC's exhibition booth, videos about

previous online startup writing contest awardees' stories were shown, and puzzle games were provided to attract students. Also, to increase awareness about important Internet issues among students in Taiwan, TWNIC conducted recruitment at the booth to encourage students to join the Taiwan Youth Internet Forum.



Online Startup Writing Contest: Videos of Awardees Demonstrated the Importance of .tw/.台灣 Domain Name

After a fierce competition, seven participants of 2017 TWNIC Online Startup Writing Contest were awarded. The top three awardees had videos which shared their experiences on how they successfully utilized the .tw/.台灣 domain name. For example, the awardee, LiFe of First Chemical Works, used the .tw/.台灣 domain name to change people's stereotype about chemistry into an entertaining and an essential part of life. The Little Devil Painted Ice Cream Store adopted the .tw/.台灣 domain name to give a traditional ice cream company a new brand image. Ucarer Inc. used the .tw/.台灣 domain name to combine e-commerce, creating a caring service that considerably reflected Taiwanese characteristics



▲ Awardees of the TWNIC Online Startup Writing Contest at the awards ceremony

about caring for people.
The 2017 TWNIC Online Startup Writing Contest

Awards Ceremony was held in August, 2017.

For more information, please visit: <https://www.twnic.net.tw/2017ebiz/>

Information Technology Month: TWNIC Demonstrated the Importance of IPv6 and .tw/.台灣

To increase people's understanding of the crucial role of IPv6 and .tw/.台灣 in Taiwan Internet development, in Information Technology Month this year, TWNIC had an exhibition under the theme ".tw/.台灣, IPv6, and Digital Internet Technology" to raise people's awareness of the importance of IPv6 and .tw/.台灣 in an entertaining and interactive way. To present the results of assisting upgrading to IPv6, TWNIC adopted poster walls to demonstrate the results of upgrading the external Internet services and internal networks of governmental offices to IPv6.

To introduce the .tw/.台灣 domain name and to help people understand the benefits of .tw/.台灣, installation art works with the concept of the .tw/.台灣 domain name were created, a vivacious .tw/.台灣 shop street was designed, online shops with special features that use .tw/.台灣 were presented, and videos about these startup online shops were shown. In addition to the aforementioned exhibition held in Taipei, TWNIC is planning to hold exhibitions in Taichung, Tainan, and Kaohsiung to help visitors understand the service of TWNIC for the .tw/.台灣 domain name and IPv6.



Works of New Taiwan Photo Essay Contest Recorded Beautiful Sceneries in Taiwan



The theme of New Taiwan Photo Essay Contest 2017 was "Beautiful Sceneries in Taiwan." The competition was fierce; a total of 340 photographs were submitted. After two-stage reviewing, awards were given to 12 photographs. Their topics included natural sceneries,

cityscape, and traditional culture in Taiwan. The awardees employed excellent photography techniques and beautiful words to depict sincere and moving moments in every corner in Taiwan. The works of awardees were made as an annual collection for

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themselves as a memorial.

TWNIC has been hosting annual photo essay contests for years. The contestants are encouraged to present the sceneries in Taiwan by using beautiful words and images

to make more people to experience Taiwanese culture and see the beautiful sceneries in Taiwan.

The contest website: <https://2017iwrite.twmic.net.tw/>

Taiwan Youth Internet Forum Camp Cultivated Insightful Young Talents

To continue cultivating insights about Internet-related issues among the younger generation in Taiwan and to establish an open platform for them to exchange ideas, TWNIC selected members of the 2nd Taiwan Youth Internet Forum and held a 3-day camp.

At the camp, through lectures, experts in the Internet-related industries and academic field shared their professional knowledge with the members to broaden and deepen their perception of the issues. In addition to listening to the lectures and absorbing the information provided by the experts, the members brainstormed in groups at workshops and presented their diligent works at 2017 Taiwan Internet Forum.

For more details about the Taiwan Youth Internet Forum, please visit: <https://www.facebook.com/groups/taiwanyouthforum/>



▲ Group photo of the camp members of the 2nd Taiwan Youth Internet Forum

NetKing Website Design Contest Encouraged Innovative Website Designs

The theme of the 16th NetKing Website Design Contest was "Story"; this contest encouraged contestants to use new Internet technologies or social media to design websites that fulfilled the theme, contained complete contents, and were rich in innovation to deliver interesting stories. In addition, through the competition, TWNIC discovered the talented contestants in web design and provided startup websites with the .tw/.台灣 domain name an opportunity to demonstrate their capabilities.

To promote the usage of Internet, TWNIC has held 16 NetKing Website Design Contests. Contestants use



the .tw/.台灣 domain name, which is the country code top-level domain name for Taiwan, as their website's identity. Through their website designing skills, they present visual design and content that fulfills the theme of contests.

For more information about the 2017 contest, please visit: <http://netking.tw/> or <http://新人王.台灣>



Training

.tw/.台灣 Trend Lecture Series Held Classes for Website Building

To promote the use of the .tw/.台灣 domain name, this year, .tw/.台灣 Trend Lecture Series included the “Hands-on Introductory Course to Domain Name—Practice Building Your Own Website” series to provide step-by-step guidance on website building to nontechnical people, from registering a domain name and adding name server records to build a website to experience the fun of building a website easily.

In addition, during the .tw/.台灣 Trend Lecture Series, seminars on issues including e-commerce, social media management, and online business management were conducted, and the .tw/.台灣 Registrars offline gatherings were held to help registers to utilize the Internet to expand their business more efficiently. For more information, please visit: <https://www.twnic.net.tw/2017talks>

IPv6 Educational Training 2017 Assisted Enterprises Internal Network Upgrading

To promote the application of IPv6 and to cultivate IPv6 technical personnel in Taiwan, TWNIC continually organized IPv6 Educational Training program this year free of charge to promote enterprises internal network upgrading to IPv6. This education program combined lectures and hands-on practice. During the

training courses, trainers delivered lectures, along with demonstrations, and also provided the learners with hands-on practice. For more details about the courses, please visit: http://lesson.ipv6lab.tw/ipv6_106/

Meeting

ICANN60 Discussed the Issues of the Use of Country and Territory Names as TLDs

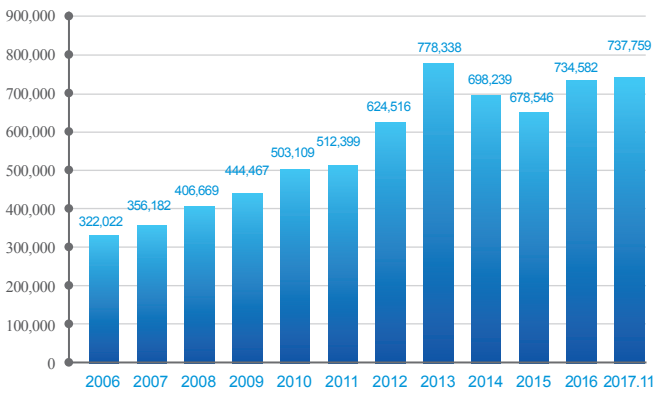
The 60th meeting of the Internet Corporation for Assigned Names and Numbers (ICANN) was held in Abu Dhabi, the United Arab Emirates, from October 18 to November 3, 2017, to continually discuss the key issues following with previous meetings. Regarding the issue of the use of country and territory names as the top-level domain names and using two letters of country codes as the second-level domain name, Country Code Name Supporting Organization (ccNSO) stated their stands on protecting the country

codes according to the New gTLD Application Guide Book. About the issue of the jurisdiction of ICANN, because ICANN was accredited in California, United States, the state government has jurisdiction over ICANN. During the meeting, the potential impacts of the aforementioned situation on registries or registrars were discussed. Also, considering the delay of transferring DNSSEC KSK, the reason for delay was explained, and the root zone KSK transformation was postponed for at least a quarter.

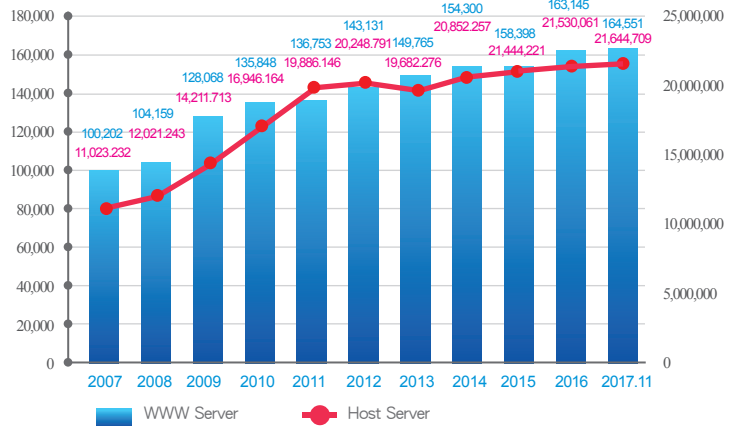
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Statistics

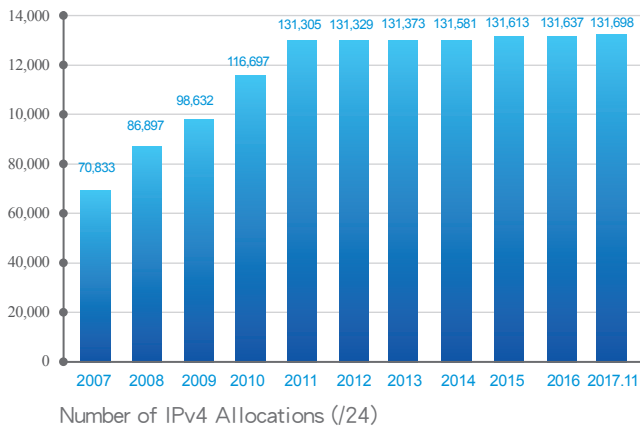
Number of “.tw/.台灣” Domain Name Registrations



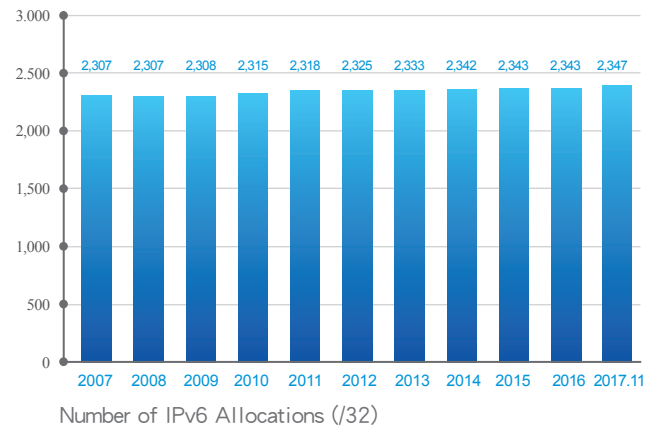
Number of WWW and Host Servers



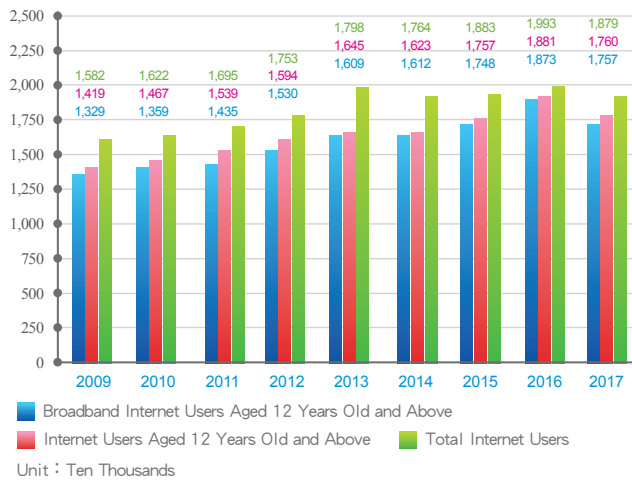
Number of IPv4 Allocations



Number of IPv6 Allocations



Number of Internet Users by Year



Mobile and Wireless Internet Users Aged 12 Years Old and above

