The as early as 2003, the first technical

ThePhilippines is now joining the ranks of the countries in the world for it isnow on its countdown in launching Digital Terrestrial Television (DTT) broadcasts.

This is after the country’s government endorsed the Japan’s Integrated Servicesfor Digital Broadcasting (ISDB-T) standard to the National TelecommunicationsCommission (NTC). The commission have already released its Implementing Rulesand Regulations (IRR) for Integrated Services for Digital Broadcasting (ISDB-T)standard. Withthis new step of the government of using digital television over ISDB-T, Filipinos thirst for clearer and crisper digital audio, video and a robustbroadcast signal will now be quenched. Since the country always experiencecalamities like earthquakes and typhoons, adding the ton of its benefits is thepromise of faster emergency response that will be made possible by theEmergency Warning Broadcast System or EWBS. Forseven long years, Engr. James Rodney Santiago the Association of RadioIndustries and Broadcasters (ARIB) Consultant along with his team lead theproponent pushing of the Integrated Services for Digital Broadcasting (ISDB-T)standard to be the country’s official terrestrial digital standard.

Despite ofother representatives sent by different DTT standards companies like theEuropean’s Digital Video Broadcasting — Second Generation Terrestrial (DVB-T2), after many reviews and checking NTC came to a decision that it is the mostsuited standard for the country. Accordingto Engr. Santiago, they release the first memorandum circular for thedigitalization back in 2010. There were many frustrations before the countryadopted ISDB-

T standard as the official standard for the country. In2006, the process of how ISDB-T came to be the official digital standardstarted.

Eight years ago, the country is already eyeing on the European’sDigital Video Broadcasting — Second Generation Terrestrial (DVB-T2) and therewere even people that are studying about it. Asearly as 2003, the first Technical Working Group, or TWG-1 (a small cluster ofbroadcasters that studies different digital TV systems) is already looking fora possible digital system but was then nullified by NTC because they thoughtthat it is being manipulated by larger broadcasters. In2005, ISDB-T was not among the choices for the digitalization it was purelyATSC AND DVB-T. In the Malaysia’s hosting of ASEAN Digital BroadcastConference, Engr.

Santiago together with Engr. Antonio Leduna and Engr. RichOnipon came across the featuring of ISDB-T. Japan was just trying the to makepromotions for the country. Twoyears after, Engr. Santiago and two others were sent to Japan to be visitingresearchers and tasked to study the Japan’s Integrated Services for DigitalBroadcasting (ISDB-T) standard. They were convinced after three months oftraining that it is the most fit standard for the country.

Thethree engineers are to get back to the Philippines after their training programworrying about the study undergoing in the country about DVB-T. In 2008, theSecond Technical Working Group was launched to further study digital TVstandard and was until 2010 when it decided to pick ISDB-T standard technology. The first days of the study was not in favor of ISDB-T, but Engr. Santiago withthe Japanese technical consultants fight for the standard until 2010 that theywere able to convince NTC. After three more

years, NTC released its secondMemorandum Circular confirming Integrated Services for Digital Broadcasting(ISDB-T) as the official standard for the country.

Thesecond Technical Working Group chose Japan’s ISDB-T over European’s DVB-T2because of the suitability of the standard to the Philippine setting that isbeing hit by 21-26 typhoons, experiencing landslide and flood every year. Stakeholderswith Department of Science and Technology, National Economic DevelopmentAuthority, Philippine Atmospheric, Geophysical and Astronomical Administrationare all up for the decision-making. The Second Technical Working Group (TWG-2)was divided into clusters and studied the specifications of ISDB-T includingits Video and Audio coding and decoding, transmission, frequency planning, andlegal matters concerning the standard. Accordingto Engr.

Santiago, ATSC is very similar to analog and is single carrier meaningits contains everything in a single packaging, so if went down everyinformation will be lost. DVB-Ton the other hand is multiple carrier. It also has a more robust and strongersignal compared to ATSC that it can be utilized for mobile transmission. In 1998, the only advantage of ATSC over others is its full high definitionspecifications and DVB-T promotes its multi-channel standard television. Theessential feature of ISDB-T is its sufficiency in addressing the needs of thePhilippines when it comes to calamity-information dissemination. DVB-T2 on theother hand is really expensive.

And according to Engineer Santiago, the countrydoes not want to deprive the poor of the technology. Despite that thePhilippines is the only country in

South East Asia to use Japan’s IntegratedServices for Digital Broadcasting (ISDB-T) standard, the went on carefulprocess before it was chosen. TheDigital Broadcast Experts Group (DiBEG) and the Ministry of Information andCommunications (MIC) of Japan are now pushing for the Philippines to have themost recent and most upgraded standard version of the Integrated Services forDigital Broadcasting (ISDB-T) standard. It will be a combination of Japan’s andthe South America’s Sistema Brasileiro de Televisão Digital (SBTVD) that isbased on ISDB-T. Withthe different local networks entailing and thinking about additionalinvestments over the planned digitalization, Engr. Santiago says that thecosting will just be the same as what those networks use in their analogformat.

There would be some adjustments at first but because of the standard’sefficiency and large reduction in the transmitter equipment power, it would behelpful in the long run. Headded that using this digital standard of Japan, operational expenses can bereduced by 1/10. So for a network, for example, transmitting 100 kilowatts now, with a 10 kilowatt digital transmission, that will be able to broadcast thesame, in digital quality.” Togive you an example, when (PTV) Channel 4 was transmitting 1 kilowatt from QuezonCity, and that one kilowatt was transmitting from Quezon City to Tagaytay, andthat was 62 kilometres away, and for an analog network to have clear picture atsuch distance, they would need to have at least 50-60 kilowatts. It’s not evenone –tenth of the transmission of digital” – Engr. Santiago. Theoriginal Digital shutdown and migration from analog to digital was for December31 of last year but was later seen not feasible anymore.

This is for the reasonthat the IRR was just released later than the end of 2014. If it was releasedwithin the final month of 2014 then a possible faster shutdown could have seen. DigitalBox in the PhilippinesAccordingto Engr. Santiago, the best time for a shutdown would be once there is alreadya certain level of deployment of people with digital receivers since by thatmoment, majority of the Filipino homes will be ready for shut off.

Digitalreceivers will available in various kinds. It will be fixed receivers, mobilereceivers, set-top boxes and ISDB-T-ready television sets. He added that a lotof companies now are starting to manufacture digital devices, this includesSharp Electronics and DX Antenna and country's television giant-ABS-CBN amongothers. In2007, ABS-CBN Corporation started applying a license from the NationalTelecommunications Commission to operate a digital terrestrial televisionservice in the Philippines. The network planned to run a multiplex ABS-CBNnetworks so they can offer ABS-CBN, Sports+Action (formerly Studio 23), and allother 5 additional ABS-CBN channels. ABS-CBN expects to spend around 5 billionpesos for the next 5 years for the digital terrestrial service transition. ABS-CBN opened two (2) DVB-T test broadcasts; UHF channel 51 Manila (695.

143MHz), and utilized UHF Channel 43 (647. 143 MHz) and was expected to startairing digital by the start of 2009. In2010, the National Telecommunications Commission (NTC) released a circularsaying that it officially chose Japanese standard ISDB-T for digitalbroadcasting in the Philippines. It also ordered the whole country-basednetworks to switch-off all of their analog signal services on or before thelast minute of 2015 Philippine Standard Time (UTC+8) but was later moved to2023 due to the delay of

releasing the Implementing Rules and Regulations (IRR)for digital television broadcast. OnMarch 22, 2012, the ABS-CBN’s set-top box was primarily endorsed in thenetwork’s morning show Umagang Kay Gandathen.

It is then known as TV+ and evenoffered free samples to some of their studio audience. After that, the TV+ wasgiven a price for a raffle segment Failon Ngayon sa DZMM. From then it wascalled “ Ang Mahiwagang Blackbox” Itwas only on December 18, 2014 when the National Telecommunications Commission (NTC)released the implementing rules and regulations (IRR) for digital terrestrialtelevision broadcast in the Philippines. TheABS-CBN TV Plus was officially launched on February 11, 2015 by ABS-CBN Corporationduring an exclusive switch-on of the network. And in July 2015, theMetropolitan Manila Development Authority (MMDA) tied up through a memorandumof agreement with ABS-CBN in the inclusion of the Emergency Warning Broadcastsystem (EWBS) to the product. The redesigned version of ABS-CBN TV+ wasreleased with a new processor and support for HDMI and HDTV resolutions.

Lastyear, ABS-CBN TV Plus was awarded two bronze Stevies for Best in New ProductInnovation and Best in Branded Development in the 2016 Asia Pacific StevieAwards. TheABS-CBN TVplus is capable of receiving digital broadcast transmission in thePhilippines. Currently this includes ABS-CBN, GMA, TV5, BEAM (BroadcastEnterprises and Affiliated Media, Inc) and UNTV. InMetro Manila, the ABS-CBN TV Plus was able to received: 1. ABS-CBN2. SPORTS+ACTION (premium channel)3. CINEMO! (premium channel)4. YEY! (premium channel)5. Knowledge Channel (premium channel)6. DZMM Teleradyo (premium channel)7. GMA SD18. GMA News SD9. Service HD10.

BEAM SD 111. BEAM SD 212. BEAM SD 313. UNTV-114. UNTV-215. ADDTV16. RADYO517. AKSYON TV18. TV5 SD219. TV5 SD20. TV5 SDTheABS-CBN TVplus is also capable of decoding five additional ABS-CBN channels. These are exclusive premium channels of ABS-CBN TVplus and cannot be decoded byother ISDB-T receivers – ABS-CBN Sports+Action, Cinemo, Yey!, KnowledgeChannel, and DZMM Teleradyo.