









### **AEQ REFERENCES FOR SYSTEL IP TELEPHONY SYSTEMS**



INTERCOM | AUDIO | VIDEO | COMUNICACIÓN



## AEQ REFERENCES FOR SYSTEL IP TELEPHONY SYSTEMS

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### **AFRICA**

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ANGOLA	TRES RADIO MAIS	rádiomais
	Radio Mais is an Angolan radio station with the main studios in Luanda and others in Benguela, Huambo and Huila	HUIUIIIHIS
	In 2015, as part of the complete turnkey installation of several digital studios with IP connectivity, a Systel IP 12 was installed in Luanda. The connection to the lines is made through an Asterisk PBX.	
EGYPT	MBC TV	
	MBC Masr is an Egyptian free-to air commercial television channel. It is owned by the Dubai-based MBC Group and is affiliated with the Middle East Broadcasting Corporation network.	mbcTV
	In 2019, a Systel IP 12 and two Systelset+ for radio use were installed in the MCB premises in Cairo by TeK Signals, an integrator in Dubai.	
GHANA	BENNY FM	
GHANA	BENNY FW	<b>—</b>
	In 2015, an Systel IP was installed in order to organize phone calls at this private station	
<del> </del>		T
MAURITIUS	WAZAA FM MAURITIUS.	WAZAR FO
	Wazaa FM is a private radio station in Mauritius. It started operation in May 2019 with a Private Commercial Free to Air FM Radio Broadcasting Licence issued by the Independent Broadcasting Authority-Mauritius.	
	In his inauguration speech, Sunil Gohin, CEO at First Talk Ltd., emphasized the links that Waaza FM wants to build with his listeners. "We are committed to forge relationships of the highest value with our listeners"	





This idea provides value to the installation of Systel IP as a tool to communicate with listeners. The Systel IP 16 system is connected to an IP PBX. Its 16 lines are distributed flexibly among its 4 studios. In three of the studios, in addition to the audio operator using a Systelset + terminal to route the calls to the console, a producer works and prepares the calls with the application running on a PC with a touch screen.

They use the system as a conference call tool associated with radio programs, gluing the calls, previously managed by the producer, and finally sent to the Audio Forum IP Split consoles, which pass those calls ON AIR, one by one, or building a conference call.

MOROCCO	Société Nationale de Radiodiffusion et de Télévision - SNRT	<b>★</b>
	In 2017, the SNRT, Morocco public Radio and Television operator, acquired a Systel IP 12 in the frame of a Project to update a large radio production centre, including not only communications but also local audio routing through a AEQ BC 2000 D matrix	

NIGER	AUDVIDEO	<u>@</u>
	Audvideo, integrator of audiovisual systems and communications in Niger, acquired a Systel IP 12 to be installed in a station in their country.	AUDVIDEO
_		
NIGER	BROADCAST EUROPE	

In 2015, a Systel IP was installed in Niger by Danish integrator



Broadcast Europe.



### **AMERICAs**

BRAZIL	RADIO BANDEIRANTES -SOMPUR	RB
	Radio Bandeirantes is of radio stations network in Brazil, belonging to the Bandeirantes Communication Group, with base in São Paulo.	RÁDIO BANDEIRANTES
	They have a system to provide telephone connectivity in their studio. A Systel IP 12 is shared among all controls, assigning more or less lines depending on the type of program or service to be developed in each studio at a given time.	

CHILE	MEGAVISION	$\omega$
	Mega is a Chilean open television channel that began broadcasting in 1990 as the country's first private television network. It is owned by the Holding Bethia and the Discovery group. Since 2014, Mega has been in the first place in audience for five consecutive years.  In 2018 the company has installed a Systel IP 12 flexibly shared	MEGA
	by 4 studios for coordination of external retransmissions. The control is carried out through Systel IP application running on a touch screen per studio, supported by Systel IP HS handsets. The Project has been developed with the collaboration of the local integrator Intervideo.	

CHILE	RADIO AGRICULTURA	AGRICULTURA ————————————————————————————————————
	Radio Agricultura is a Chilean opinion leader radio station, which has been operating for 75 years.	
	In 2017, when Radio Agricultura moved to a new building and completely renewed their facilities, the broadcaster bet heavily on the technology from AEQ for its headquarters studios. Two new radio studios have been deployed.	
	The installation has been completed with the new SYSTEL-IP platform, allowing for the management of up to 12 simultaneous Voice-over-IP calls dynamically on the three ON AIR studios, using touch screens.	





The entire project has been led by "Radio Agricultura's" CEO, Mr. Luis Langlois, and its Technical Manager, Mr. Marcos Reyes





### **MEXICO CHIVAS TV** CHIVAS" The Chivas Rayadas Sports Club of Guadalajara or simply Chivas, is a professional football club based in Guadalajara, Jalisco, Mexico. Chivas TV is a Mexican Internet platform dedicated exclusively to broadcast contents related to the Chivas Sports Club, as well as its matches in the First Division of Mexico and in the MX Cup. It is the official television medium of the club. This is broadcast on TDN. Chivas TV has various agreements to market their productions, for example with Univision in the USA. To cover these commitments and other future ones, Chivas TV installed in September 2019 a Systel IP 12 controlled by a PC with a touch screen. As its initial application, it is used to establish links between Univisión in the United States and Akron, the stadium of Las Chivas first division football team. Audios signals are sent in English and Spanish, depending on the transmission being made. The flexibility of the equipment makes easy either simultaneous translations, multiconferences between remote commentators, coordination of external retransmissions or putting ON AIR external calls. This allows Chivas TV to achieve a greater operational capacity.





MVS Comunicaciones is a Mexican production company who markets and sells TV channels and contents with international
distribution (Mexico, South America and The Caribbean).
MVS Radio is a group of four international Spanish radio networks owned by the mass media conglomerate MVS Comunicaciones. These radio networks are Exa FM, La Mejor, FM Globo and MVS Noticias.
The company acquired two Systel IP 12 for the Radio Production Centre in Tijuana City in 2018. Later, three Systel IP+ were added to the installation to speed up operations.
Their main application is to perform call management among their reporters in the field and the news production booths.



MEXICO	TELEVISA DEPORTES - TUDN	
	The Televisa Sports-specialized channel TUDN (fusion of Televisa in México with Univision in the United States) has two	Televisa Univision



differentiated signals, one for Mexico and another for the United States. Both are disseminated among various platforms and associated media.

They broadcast the most important sporting events in both countries:

Torneo Apertura 2019 de la Liga MX and the first edition of the Leagues Cup, as well as the MX Cup, the MX Women's League, the Ascent League, the National Soccer Teams - Male and Feminine—, FIFA events, stellar boxing functions, the NFL, the NBA, the MLB, Formula 1, the CMLL wrestling and the World Athletics and Soccer Championship.

From their headquarters in Mexico City they develop countless telephone links with their reporters in national and international sports venues.

They have acquired a Systel IP 12 controlled by touch screen for the integral management of these calls in coordination with the TV signals.



### MEXICO T

### **TELEVISA NOTICIAS – FORO TV**

Noticieros Televisa is the subdivision of Grupo Televisa in charge of the coverage, analysis and information of the events happening everyday through its audience-leader news. They also have a mobile application that informs just when news happen and an internet portal instantaneously updated. Foro TV a television channel focused exclusively on informing of the events that are happening instantly.

At the moment, they use a Systel IP in their most representative broadcast channel's News. Its capacity has been expanded with another Systel unit for the Foro TV news channel.







MEXICO	TELEVISA RADIO	
	Televisa Radio, also formerly known as the Radiopolis System, was the radio division of the Televisa Group and the PRISA Group.  In October 2019, they have installed a Systel IP unit, which is used in the main cabin for call management. It should be noted that this equipment has replaced an AEQ Systel 3000 analogue broadcast telephone system after more than 20 years of uninterrupted operation.	Televisa RADIO

MEXICO	TV AZTECA	
	TV Azteca is a Mexican media conglomerate. It is the second largest generator of Spanish-language television contents in the world.	tvazteca
	It broadcasts 4 national television channels in Mexico, through more than 300 local stations throughout the country. Affiliates include Azteca America Network -the television network focused on the US Hispanic market- and Azteca Web.	
	They acquired 2 Systel IP12 units in 2017 for News coverage, special events and local, state and federal elections.	

PERU	BETHEL RADIO	AFR
	Bethel Radio is a Peruvian radio located in the city of Lima that belongs to the Church of the World Missionary Movement. It has 75 transmission spots that cover the entire Peruvian geography. A Systel IP 16 device with touch-screen control and 4 Systelset+ terminals with screen and phone, is planned to be installed in its main studies in 2020. The lines will be provided by Movistar and the integration will be made by Telefónica Servicios Audiovisuales, a subsidiary of Telefónica de España	BEZZEL
IISΔ	OCEAN CITY PADIO NEW IEDSEV	

USA	OCEAN CITY RADIO , NEW JERSEY	
	In 2018, this company installed a Systel IP with Systelset+ equipment. Its end client was Mr. Eduardo Serrano, in Ocean City, NJ.	





USA	VHRO	
	WRHO is a small, non-commercial educational broadcast facility on the Hartwick College campus in Oneonta, NY. WRHO broadcasts 24 hours per day, 7 days a week, and 365 days a year at 89.7 FM. The studios are located inside the Dewar Union Hall Communication Suite on Hartwick's campus and broadcasts to a listening audience within a 30 mile radius via a 500-watt transmitter.	HARTWICK COLLEGE cst. 1797
	In 2019, this company installed a SYSTELSET + equipment.  With SYSTEL IP 4 to flexibly put ON AIR the calls of station listeners.	



### **ASIA & PACIFIC**

# Katherine Community Radio serves a small, involved community in the Northern Territory of Australia. The population is very interactive in its relationship with the radio station, and that is why Systel IP becomes a fundamental tool for the station and the listener. Broadcast Components (Australia and New Zealand AEQ Distributor and systems integrator) supplied and supported the Systel IP 12 and its integration with two AEQ Capitol IP consoles on air studios. John Zelley, the technical officer for the station is delighted with the stability and feature set of the Systel IP for its use as a multi line talkback device and is thinking about the future for its use as a field news gathering or reporting device.

INDIA	ASIANET NEWS TV	
	ASIANET NEWS is an Indian pay television channel operated by Asianet Digital Network, wholly owned by Star India, in Malayalam language.  The channel is headquartered in Thiruvananthapuram, Kerala. In 2017, a Systel IP was installed for the communications in the main studio of ASIANET NEWS.	asianet news



### **INDIA ESPN Sony ESPN** is an Indian pay-per-view television sports channel which is a joint venture between ESPN Inc. and Sony Pictures Networks India. It was the second sports television channel launched by the company after Sony Six, providing and producing contents such as cricket, football, tennis, NBA basketball, badminton, field hockey, golf, rugby union, Formula E, along with other events. In 2018, a Kroma-by-AEQ intercom system and a Systel IP 4 were installed in Mumbai. The Systel IP4 acquires great operational relevance in the Cricket championships. It allows commentators to be in a remote position, for example in the UK, without having to travel to each match, allowing the station to count with the best professionals with a reasonable operating cost.



### **EUROPE**

CROATIA	HRT CROACIA	
	Hrvatska radiotelevizija, HRT, is the public radio television company of Croatia. It manages five television channels, three national radio stations, eight local radio channels and a multimedia website. Through AVT, AEQ dealer in Croatia, they have acquired and installed in 2018 two Systel IP 12 and two SystelSet + to place listener's calls ON AIR during their radio programs and for their journalists to record chronicles in the field.	

### **FRANCE** FRANCE TELEVISIONS - FRANCE 2 TV, PARIS France Télévisions is the French public television broadcaster. This national Network currently operates five TV terrestrial channels In 2016, and in order to comply with and adapt to a new technical and operational expansion of their central studios for FRANCE 2 TV in Paris, the talk-show system selected has been AEQ SYSTEL IP based on SIP technology. Two complete platforms have been supplied as well as a limited number of gateways allowing the broadcaster to operate the system in combination with their SIP-based PBX for VoIP calls and for calls originating from PSTN (analogue) and ISDN lines. Following the new expansion of its talk-show systems with these units of SYSTEL IP, France Télévisions will be able to manage up to 24 simultaneous calls serving up to 8 different production studios at the same time. This ambitious project has been led by France Télévisions' department of engineering in coordination with AEQ's technical support for its configuration and also assisted by the local partner and installation company Eurocom.



FRANCE	HIT WEST	
	Hit West is a regional, private French music radio station,	hit
	broadcasting in the West of France. It was created from the	wesi
	merge of Radio Frequency Ille and Radio Nantes	
	Its Top30 format focuses on the most popular musical themes	
	in France with a lot of listeners' intervention. This made it	
	convenient for them to install a Systel IP 16 in their Nantes	
	header for the control of telephone calls in 2017	
FRANCE	TLT TELE TOULOUSE	
	Télé Toulouse (abbreviated TLT), created in 1988, is a local	
	television channel in Toulouse. They acquired a Systel IP 12 in	
	2014 for technical coordination and placing calls on the air.	
	1-	
FRANCE	Eurocom	
	Eurocom Broadcast is a French broadcast equipment	EUROCOM
	integrator. He owns two Systel IP 12 for his promotional work.	
FRANCE	RADIO 100%	
	100% is the first independent radio in the Occitania region. It is	
	based in Toulouse and its formula, based on information and	
	entertainment, has given it an audience of around 750,000	
	listeners between its 27 frequencies and the Internet.	
	To interact with their audience, a Systel IP was installed in	
	Toulouse in 2017.	
FRANCE	CATHERINE FM	
	Catherine FM is a French radio station that promotes and sells	
	products on the radio. To control the flow of calls and put	
	them on the antenna, they have found that Systel IP 12 is an ideal tool.	
	1000.0001	



### **FRANCE**

### **RADIO FRANCE**





Radio France is a French public radio service broadcaster. It currently offers six national networks, a regional network and 44 local stations (France Bleu), and more.

In 2016 and 2018, one Systel IP 12 was installed in Paris and Martinique. The technical management of the company decided to select the AEQ Systel IP talk show system to manage all incoming and outgoing calls for the on-air programs in its radio studios on the Caribbean island of Martinique. The studios are located in Fort-De-France, the biggest city on the island.

Taking into account the distance between the island and Paris, the system selected for this purpose needed to be reliable, user-friendly and robust. These criteria influenced Radio France's choice of the Systel IP for the mission.

AEQ Systel-IP is able to put on air several incoming calls simultaneously. The system is also able to distribute the telephone lines in different studios in a flexible way.

In addition, the new touch screen-based SystelSet+ phone interface was also supplied for this project. Some of the highlights of the device are its user-friendly keyboard and a wide touch screen. The SystelSet+ was awarded Radio World's "Best of the Show" prize in the NAB 2018 show.

The touch screen makes management of every single task during a radio show fast and easy.





On the phone terminal itself, using the function keys and the touch screen, calls are dialed or accepted, put on hold or prelistened, their send and return levels are adjusted, they can be put on air, locked on air or hung up. The operational mode can be chosen between call queue or handling several calls on-air simultaneously. The queue is based on the actual lines with an indication of next call to be put on air. It also allows for the management of a call book and call scheduling. Lines can be shared between different programs and the layout is adapted to the number of available lines at each moment, thus making the best use of the phone's touch screen.

Remote control via computer is also possible for operation in a studio or across multiple rooms.

The project was implemented and executed by Eurocom Broadcast. Also, in 2019, this company installed two SYSTEL IP 16 in Paris. Later on during the same year, two additional SystelSet + were installed.

GREECE	<b>ALTER EGO TV</b>
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The Greek multimedia group Alter Ego, one of the leading ones in their country, has launched the One Channel television in 2019. It has purchased through Ariston, AEQ dealer in Greece, two Systel IP 12 and 2 Systelset+ terminals for coordination tasks of mobile units and journalists in the street, as well as to organize listeners' calls input into the studios' mixing consoles.



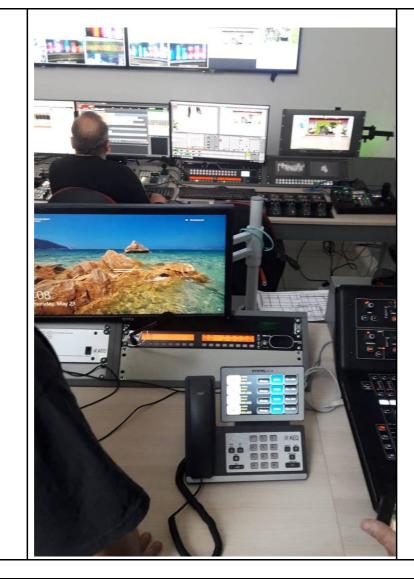
### GREECE

### **OPEN TV**

Open TV, formerly Epsilon TV, is a Greek free-to-air television station, based in Paiania, East Attica. In 2018, two Systel IP and 2 Systelset+ were installed and linked to a Kroma TH5000 Intercom system to give feedback and coordination to ENG teams in the field.







ITALY	ACUSON	
	ACUSON integrator installed three SYSTEL IP 4 for a Lavazza	CCUSAN
	corporate facility in Torino. It was connected to a CISCO Call	CCCC
	Manager.	

ITALY	RAI	Rai
	In 2018, a Systel IP was installed. Also, in 2018, this company installed two more SYSTEL IP 12 systems. The lines access the units through Cisco Call Manager. They are used for coordination of OB Van and street reporters. Audio is routed to the Dante network through two Netbox 32 MX routers. The router's Scheduler function creates different usage scenarios based on the needs in each time slot, routing the lines to the third-party Audio mixers and Codecs, as well as to the main Stagetec matrix .	



MALTA	RTK 103 FM	0
	RTK is a station run by the Malta church. The Archdiocese of Malta acquired for its FM station 3 Systel SET + systems for two studios and the control. They work by controlling a shared Systel IP16. The entire station is connected to a DANTE network. They also have FORUM IP SPLIT, VENUS 3 audiocodecs, a Netbox 32 MX router and two Visual Radio Systems from Broadcast Pix	RTK 103 FM

PORTUGAL	IRIS FM LDA.	
	Iris FM is a radio station centered in the municipality of Benavente, about 60 km from Lisbon. Its objective is to generate plural information, providing a service to the region in which it is inserted. Its production centre is located in the city of Samora Correia.	IRIS FM   91.4
	Its vocation of service to the community has made it give great importance to telephone communications with its audience. That is why they installed one of the first Systel IP 12 units back in 2014.	

PORTUGAL	MEDIALUSO	000
	Medialuso, a member of SGPS Mediapro Portugal and the international group Mediapro / Imagina, has been providing differentiated services in the field of technical television production since 1998.	MEDIALUSO
	With extensive experience and recognition in all areas of television production, its core business is the technical production, either live or deferred, of any kind of sporting events, domestically and internationally.  The technical coordination of the mobile units in the stadiums is essential when live events occur. Therefore, in 2015, a Systel IP 12 for in-house production was installed.	

PORTUGAL	SITE MASTER – RADIO ESTÁDIO	<b>~</b>
	Rádio Estádio is a thematic, information and music radio station with a strong focus on sports. It is governed by the principles of	SITEMASTER
	rigor, independence, creativity and freedom of expression. It has no ideological, political or club dependence or subordination. These firm ideas impose strict technical requirements to its telephone communications.	ESTÁDIO DESPORTO COM FREQUÊNCIA



The Portuguese distributor of equipment for Broadcast Sitemaster assumed the challenge of providing a system adapted to the established requirements. He studied the equipment available in the market, and defined and integrated for Radio Estadio a system composed of two Systel IP 16 and two Systelset +. Sitemaster technicians Miguel Río and Jaime Silva attended a Training course for system configuration and maintenance over time at AEQ Leganés

### **PORTUGAL**

### TSF RADIO JOURNAL, LISBOA

TSF is a Portuguese radio station that produces a newscast every half an hour. It counts on a great network of international correspondents. The coverage area of TSF FM includes the North and Centre of Portugal, but its programs are also broadcasted through a series of local stations in the South, thus practically reaching national coverage.

In 2016, recent popularization of AoIP (audio over IP) distribution systems opened new paths. They installed two Systel IP 12 devices that communicated with the rest of the AoIP equipment through Netbox 32 interfaces. They are controlled with PCs with Touch Screen and analogue operator terminals.









TSF is an innovative broadcaster that relies on AEQ and is usually one of the first customers to use its new products. With the appearance of Systel IP 16 and Systelset +, they replaced their Systel IP 12 to this more current system. Systel IP 16 has more capacity and direct connectivity to the Dante network. Systelset + integrates touch screen control with an IP phone.

They work with two Systelset +, one in Lisbon where Systel IP 16 devices are located, and another one in Porto. AEQ has specially developed for TSF an internal intercom between both Systelset +. The Systel IP 16 works with both Systelset + at the same time, leading to multi-site operation.

### PORTUGAL TVI TELEVISÃO INDEPENDENTE



TVI, Televisão Independente is a Portuguese TV channel. It is the most viewed TV channel in Portugal with 6 national and international DVB and Satellite TV channels.

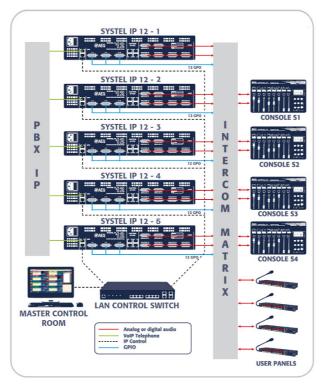




All of its facilities count with a traditional intercom system, that doesn't allow for much flexibility in what regards to external communications. That's the reason why TVI's Technical Management decided to install 5 AEQ SYSTEL IP units in their main headquarters at Lisbon. With this implementation, they can now have up to 60 communications return channels with their external collaborators, OB vans and remote contribution, essentially over VoIP lines, while communication with plain analogue or ISDN lines is still possible by using gateways in the PBX.

When developing these kinds of projects, AEQ studies the most adequate integration to the currently installed intercom system and each station's operative needs. In this case, the "Classic" version of the Systel IP control application has been used, yet with a custom configuration.

There are 5 Systel IP12 connected to the external 4-wire inputs/outputs of a matrix from a European manufacturer, used to generate the external communications of their TV studios. Up to 60 calls can be established in total. 12 queues have been planned within each Systel, with an independent return for each queue, so that each Systel establishes 12 x 4-wire circuits with the matrix.



Each GPO provides pre-programmed instructions in the intercom matrix in order to send the call to each corresponding studio console by means of a 4-wire circuit. The operator establishes the communication with the remote party. When it is ready, Systel IP application leaves the GPO button active. When the operator presses it, a command is sent to the Intercom matrix so it establishes a bi-directional route with the corresponding console or intercom panel using a pre-programmed circuit.



When the call is hung, the GPO button is deactivated until a new call is established. The ON AIR button is always open with an established call.

The Queue outputs are always active and the associated GPO is controlled from the application's button. Fixed associations have been defined between GPO and I/O lines. The operator takes advantage of the multiple-desktop feature offered by Windows 10 in order to control the 4 instances of Systel IP 12 on the same screen. The complete Project has been leaded by TVI's Engineering Manager, Mr. Carlos Gomes.

### **SLOVENIA**

### **RTV SLOVENIA**

THE LATEST VOIP COMMUNICATIONS TECHNOLOGY FOR THE MOST MODERN STUDIOS OF THE NATIONAL BROADCASTER





Radiotelevizija Slovenija is the country's public broadcasting organism. It is based in the capital, Ljubljana, but it also has important production centers at Koper and Maribor. Currently, RTV Slovenia offers 2 national TV programs and 3 regional TV channels, as well as 3 nation-wide radio signals and two special channels for the Italian border area and for a part of the population having Hungarian origin.

RTV Slovenia programming provides a plural contents offer, with important informative contents, while trying to maximize the listeners' participation. It has always been a satisfied AEQ talk-show systems user and now, as part of the central radio headquarters renewal tasks, AEQ SYSTEL IP new platform has been selected to operate in VoIP networks.

AEQ SYSTEL IP is based on a digital matrix using only IP lines, with flexible and dynamic control, paralleling the call queue and the multiplex-console formats for the best convenience of all users.

The complete project in Ljubljana has been coordinated by Mr. Sergey Alekseev from AEQ, in close collaboration with Mr. Dusan Gajic from MTD, the company's local partner for 15 years.





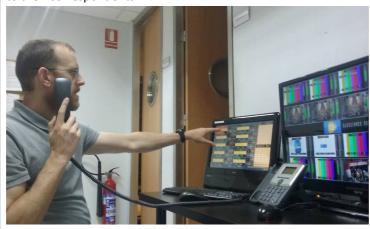
SLOVENIA	RADIO UNIVOX	
	UNIVOX RADIO (FM 106.8 - 107.5): It offers a variety of Slovenian and English music.	R A D I O UNIVOX
	Univox acquired a Systel IP 12 to put the calls of its listeners on the air.	100.0 111 107.3 14112
	The complete project in Kočevje has been coordinated by Mr. Dusan Gajic from MTD, the company's local partner for 15 years.	

### SPAIN 13 TV

TRECE is a Spanish open television channel. Its programming is based on the dissemination of the values and creed of the Catholic Church and focuses on contents for all family members.



In 2015, a Systel IP was installed in the 13 TV Production Centre on the outskirts of Madrid on the occasion of the municipal elections. The core of the system installed in the 13TV sound control was configured for this application with 8 inputs and 8 digital audio outputs in AES 3 format. 8 faders and 8 auxiliaries were used that facilitated the sending of differentiated orders to their correspondents.



It was only necessary to connect the AEQ SYSTEL-IP 12 device to the 13 TV data network with internet access and hire an IP telephony provider to allow up to 12 simultaneous calls to be established. Call management was carried out through two positions, one for production and one for the sound technician. The producer used an all-in-one PC computer and an IP phone as the Handset. Similarly, in the sound control, another all-in-one PC computer was installed, this time without Handset. User profiles were defined so that the producer could manage calls and put them on hold, while the sound technician was only responsible for putting them ON AIR.



Subsequently, when the facilities were moved to the centre of Madrid, a second TV Set was implemented, using a second Systel IP 12 and two Systelset +.

The final operation is as follows: In each TV Set, a control PC and a Systelset+ are present, two if necessary. Each Systelset+ can be configured to work against each of the Systel IP 12 units. Each one uses a line, so that 10 telephony lines remain free on each Systel IP 12 device. The lines are brought online by the NetelIP operator. Systelset+ is operated by an operator who prepares coordination calls. Next, the sound console technician opens the way to the return and coordination system towards each call. If it is necessary to put calls from listeners or correspondents in the air, the system can do it in the same way, by routing the call from the console.



Daniel Cemillán, Technical head of 13 TV, affirmed that AEQ's SYSTEL-IP is a very powerful and flexible communications system, suitable not only for radio stations, but also for TV stations.

### SPAIN ANTOLIN GROUP

The Antolin Group is a Spanish multinational that designs and manufactures components and modules for the interior of the car: roofs, doors, lighting and instrument panels.

The Antolin group covers its communications needs in telemeeting rooms, from the central office located in Burgos, where it needs to make conference calls between its centres spread throughout the world. Systel IP 12 was chosen for this application by the Enco Video Industrial integrator, because it is operated in an agile and productive way, while it also eases the integration work by being fully compatible with most of the switchboards currently available in the market.



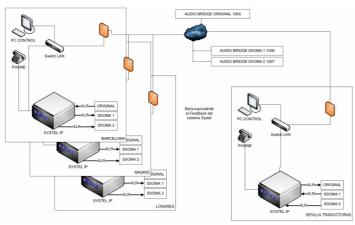


### **SPAIN APUNT MEDIA MÈDIA** À Punt Mèdia, is the official media group of the Valencian Community that performs the functions of public radio and television. In 2018 AEQ won the public contest to equip the radio studios of A Punt. The telephone communications system was based on Systel A multiple communications system over phone lines, consisting on two AEQ SYSTEL IP 12 units, was installed in the Central Control Room as an additional sound source. Each SYSTEL is equivalent to 12 IP phones connected to a digital audio matrix. It allows the station to access any line at any moment, and even to move all the lines to a single studio if that is required. Each system provides service to two studios and a journalist booth. IP telephony line sharing between these technical spaces is flexible in time. For example, in a normal activity situation, 4 lines per studio and two for the booth can be assigned, while if a program with many on-air calls is being produced, that studio can be assigned 10 lines -while leaving another line for the other studio and the last one for the booth-, or even all 12 lines. On the other hand, audio is converted to Dante IP and sent to the studio in a flexible way. It is worth mentioning the great agility and operating flexibility of the system: calls can be queued or simultaneously put on air, they can be also labeled, chatting between stations is possible, and a call book and a call scheduling tool are available, among other functions.



# SPAIN BANCO SABADELL In 2016, a Systel IP was set up for conference rooms and simultaneous translation in London, Madrid and Barcelona.





There are three conference rooms in Barcelona, Madrid and London facilities. There is also a simultaneous translation set in Seville, avoiding moving a team of translators to each location.

In each of the 4 locations there is a Systel IP 12, a Systel IP HS handset, a control PC with touch screen, an IP switch and a Gateway.

The system covers two objectives: On one hand, it allows people to interact simultaneously in each of the conference rooms. On the other, the conversations go to a team of translators located in a fourth location in Seville. A main language is established in each room that comes by public address system. Users determine what language they speak. All conversations are sent to the team of translators separated by languages and, once translated, they are sent back to all rooms. Local conversations in the local language go directly over the public address system, as well as the contributions in local language of the other rooms and the translations of the other languages, from any room, into the local language. Minority interlocutors in a room listen to conversations in their language from any room, as well as translations into their language of conversations from other languages in any room.

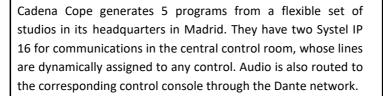
The communication is done through the bank's WAN as far as possible. The gateways are to provide alternative links by standard telephone lines.



### SPAIN CADENA COPE

COPE is a Spanish, generalist and national radio station with around three million listeners. Owned by the Catholic Church, it can be tuned through national DTT station, FM dials, streaming and mobile applications.





There are 11 Systelset + control terminals to control each studio's lines at any time. Depending on the complexity of each program, a terminal is assigned for the audio controller or, also, a second Terminal for the producer. Each Terminal can be assigned at any time in order to control one piece of equipment or the other.





## CANARY ISLAND REGIONAL PUBLIC RADIO Canarias Radio is the public broadcaster of the Canary Islands (Spain). It is part of the Public entity Radio Television Canaria. The

another in Las Palmas de Gran Canaria.



Two Systel IP 12 have been installed in Canarias Radio, one in the Tenerife Production Centre and another in Las Palmas. Each Systel serves three studios and two cabins. There is an analogue handset in the studios in order to talk to callers outside the air. In the cabins, the correspondents are spoken through the microphone and speakers system connected to the console.

station has two locations, one in Santa Cruz de Tenerife and



SPAIN	CEREALTO SIRO FOODS	German dina
	Global agricultural and food company that is dedicated to the development and manufacture of cereal products for retailers and white marketers food companies. It uses the AEQ Systel IP 12 multi-conference system as a means to communicate its different offices spread throughout the world to guarantee its multi-meetings.  The integration has been done by Emco Video Industrial	CEREALTO SIRO Cultivating the future



### SPAIN CRTVG RADIO TELEVISIÓN DE GALICIA

Coordination with in-field reporters is necessary at TVG, public television in the region of Galicia, Spain, as in many other televisions.



A Systel IP 16 has been installed to provide flexible service to up to 4 TV Sets with 4 lines for each one, which can be extended if there is no activity on other TV Sets.

There is a Systelset + per studio, which controls a producer. The audio paths in the sound console are pre-configured, so that the controller does not need to operate regularly, the producer being solely responsible for sending return to each reporter.



To connect the equipment to the existing analogue lines, an Asterisk Switchboard with 25 SIP extensions and 8 analogue modules of 2 lines each has been installed, allowing 16 analogue lines to be connected to the 16 VoIP connections used by Systel IP 16.

### SPAIN TALK RADIO EUROPE (MALAGA)

TRE is a radio station that provides the English speaking communities on the Costas of southern Spain with a range of first class talk programmes, and a judicious mix of music, all matching the eclectic and sophisticated tastes of our listeners. Talk Radio Europe supports charitable and community work and

Talk Radio Europe supports charitable and community work and is the chosen medium for information broadcast on behalf of the Junta de Andalucia, regional Town Halls, the British Consulate and many other official bodies wishing to communicate with the expatriate communities in southern Spain.

TRE Acquired a SYSTEL IP 12 System from Broadcast Radio Ltd. In the UK to handle their Talk-show live contributions from audience, interviewees and correspondents from Spain and all over the world.





### SPAIN KISS FM

Music Radio station that emits across all Spain. It has a Systel IP 12. With this equipment it offers talk show service for its morning programs.





As a particular work mode, it does not use the AEQ Systel control application, but uses NeoScreener, the popular Talk Show suite of the French developer Neogrupe, which has been fully integrated with Systel IP 12 hardware.



### SPAIN M21 RADIO

An ambitious project has been developed inside the installations of the Council of Madrid in the Palace of Cibeles to host the central studios of the new municipal radio station, M21.





A complete AEQ SYSTEL IP phone-in system manages all the external contributions. The equipment receives the calls from the telephone switchboard of the Madrid City Council, based on the Cisco Call Manager infrastructure.

The complete project has been leaded by the station's Chief Coordinator, Mr. Jacobo Rivero and its Technical Director, Jorge Alvarez.

SPAIN	MEDIASET	mediasetespaña.



In 2019 this company installed four SYSTEL IP 16 and 18 Systelset+ control terminals, to provide VoIP service to 6 television studios. Mediaset Spain puts the largest audience generalist TV programs in Spain on Air.

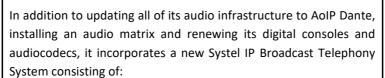
Systel IP is responsible for managing the contribution telephone calls of listeners, collaborators and other interlocutors chosen by the writers of these magazines.

Each Systel IP 16 is typically shared with 2 studios. At each studio there are two Systelset + control stations located in the newsroom, one to attend the morning programs and the other for an afternoon editor. There is a third control station in sound control, ready to organize the passage of calls to the air.

Each editor in their time slot prepares calls and passes them to the sound controller. The calls reach the Systel IP devices routed by the Cisco Call Manager switchboard. Tele5's Dante network transports audio from Systel IP 16 to the sound console at each of the studios.

### SPAIN ONDA MADRID- TELEMADRID RADIO

Telemadrid, Madrid's regional television and radio operator is updating the equipment for its ONDA MADRID radio station by 2020. AEQ has won the tender to develop the Project.



- 3 Systelset+ terminals for ON AIR studio and Recording Studios 1 and 2.
- 4 PC control terminals for the ON AIR studios and recording studios one, two and three.
- A Systel IP 16 equipment to be shared between these spaces. Its audio connections are made through the general IP infrastructure of the Production Centre System, using Dante AoIP protocol.







As requested by the customer, the capacity of the Systel IP control application has been expanded to allow for combined control of the audiocodec pool of the installation from the same software, thus having a unified tool for communications control.

The connection of the lines is done through a SIP trunk provided by Movistar.

### **SPAIN**

### **IB3 TV, PALMA DE MALLORCA**

IB3 is the new regional radio and TV station of the Comunidad Autonoma de Baleares. It now covers all the Balear Islands from its main studios in Palma de Majorca.

It has installed three Systel IP 16 for television coordination. They are currently assigned one for each study, although in special occasions, such as election night, they are all used by a single study to carry out all the communications to the live points. The integration and access to the network is facilitated by Telefonica Servicios Audiovisuales Company, a subsidiary of Telefónica de España.

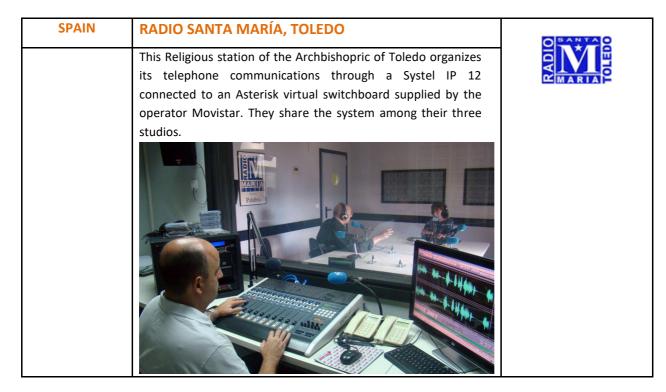






# Radio Maria Spain is a radio station associated with the World Family of Radio Maria that broadcasts a program specialized entirely in religious content from Madrid. Its broadcastings can be heard throughout Spain through DTT, also on FM through associated stations, which coincide with its ideology. On January 1, 2015, it began broadcasting on DAB + digital radio, being the first Spanish radio station to broadcast on DAB +. That is why they installed a Systel IP 12 in Madrid main studios to coordinate calls from the listeners and correspondents. The device is flexibly shared between two studios. There is a control terminal based on touch screen and the Systel IP HS analogue handset terminal at each one. Usually, calls made by listeners responding to different campaigns are put on air, one

after another, in a queue.



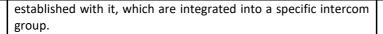
SPAIN	RADIO TORREDONJIMENO	
	Radio Torrredonjimeno is the municipal radio of the city with the same name in the interior part of Andalusia, in Spain. The technical resources are very tight and are used intensively.  A single Systel IP4 with two workstations is used for both receiving the calls of the listeners and to record chronicles: the producer records the interviews in one position. The audio operator puts calls ON AIR with the other in self-control mode.	101.7

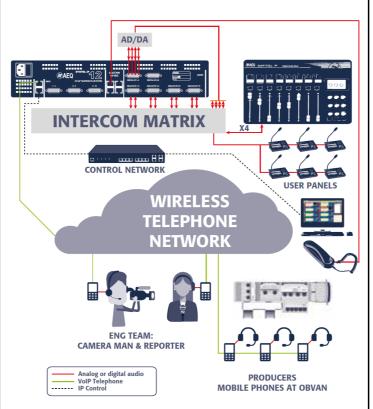


SPAIN	RTVE	rtvo
	In TVE, the Spanish television, with facilities located in Prado del Rey, they need to be able to receive calls to put them on air or record them, as well as to coordinate with reporters in the field.	rtve.es
	For this purpose, a Systel IP 12 Telephone Call Reception System, and four workstations running the Systel IP application, were installed on a PC with a touch screen.	
	This project replaced its old system for receiving calls and broadcasting based on 12 incoming telephone lines using 6 ISDN lines, integrating AEQ Systel IP 12 with 12 IP telephony lines with SIP protocol and connecting to the RTVE corporate switchboard system, based on Cisco Call Manager.	
	Audio of the 12 lines or simultaneous telephone calls is sent to the current 4 studios via 4 digital lines and 8 analogue lines in a flexible way, and the combined audio of the 12 telephone lines can even be sent to any of these audio lines, without losing quality.	

SPAIN	TELEMADRID TV	
	The public radio and television operator of the Madrid region, in Spain, uses SYSTEL IP 12, with SYSTEL IP TV application, integrated with Telemadrid TV Intercom system.	TeleMadrid
	A Systel IP connected to the external 4-wire inputs/outputs of a Drake matrix used to generate the external communications of its studio. It can establish up to 12 calls in total. 12 queues have been planned in Systel, with an independent return for each queue, so that 12 4-wire circuits are established from Systel to the matrix. This matrix only has analogue inputs, so a multichannel A/D-D/A converter has been installed to use the Systel IP 12 digital inputs / outputs.	
	The operator establishes the communication with the remote parties using a handset. The intercom matrix establishes bidirectional routings with the console and complex party-line routings with different panels according to each production's requirements.	
	The main application is coordination with ENG teams through mobile phones. The journalist receives program and coordination returns in his earpiece. The cameraman, in turn, communicates with a 4-wire circuit through a micro-headphone installed on his phone with a party-line circuit programmed in the matrix. When working with an OB van, at least 3 4-wire circuits are	

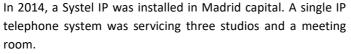






In 2019 they replaced their intercom with another system featuring Dante IP connectivity. For this reason, they also replaced the Systel IP 12 by two Systel IP 16, which means an extension of 12 to 32 lines, as well as local IP connectivity. The application used is still Systel IP TV.

### SPAIN TOP RADIO MADRID



TOP RADIO Spain is one of the stations belonging to the Mexican Media Group, MULTIMEDIOS Radio. Its programming is mainly based upon unforgettable music of all times but they are also generating special programming linking Spain and Mexico with the rest of the stations in the Media Group.

In Madrid we are mixing news and current affairs with music and an in-depth coverage of the city's traffic situation.

Any radio station pretending to communicate with the outside (the audience – and, as in their case, with part of these communications being with Mexico), must have a reliable communication system offering maximum flexibility and, at the





same time, it should contribute to minimizing the operational costs.

The solution from AEQ is a relatively simple one and is helping them to reduce the cost for the call service. What they eventually acquired consists in a SYSTEL IP 12 from AEQ that is distributing the system resources between three studios using the analogue Inputs and Outputs. They changed their traditional analogue telephone system for VoIP with Gateways that convert the PSTN (POTS) and ISDN lines to VoIP channels.



The AEQ SYSTEL IP 12 basically consists on twelve VoIP audiocodecs using SIP (Session initiation protocol) and a 12 x 12 routing matrix for Analogue and Digital I/Os. The main advantage of this system is the possibility to use any of the phone lines in any of studios and at any instance. Even if it is possible to use more than one Output of the SYSTEL IP for the Studios they have opted to connect one Input and one Output for each Studio.

AEQ SYSTEL IP 12 was installed in the technical equipment room using part of the network structured cabling available at TOP RADIO to interconnect the IP telephone Sets and dedicated Handsets. Since they didn't have an IP based PBX, they installed an Asterisk PBX on a standard PC to manage all the extensions, voice mail, call diversion, etc.

# VIDEOREPORT CANARIAS is the company responsible for the production and transmission of the news content for the Public Television Broadcaster in the Canary Islands. In order to provide a comprehensive coverage for the Public Broadcaster on the Canary Islands of the Spanish General elections that took place on June 26, 2016, VIDEOREPORT CANARIAS completed a great technical operation throughout the whole Canary archipelago.





Strategically located DSNG units provided the viewers with live information from polling stations, the different local headquarters of the political parties and other points of interest, on both of the main Islands and all of the smaller ones of the Canary archipelago. The live coverage also involved live connections with the peninsular headquarters of the Spanish political parties and the Regional Government of the Canary Islands.

For this important news coverage, VIDEOREPORT CANARIAS strongly relied on the innovative AEQ SYSTEL IP 12 multichannel communication and talk-show system, through which all the internal and external voice communications and N-1 audio returns were managed.

The SYSTEL IP 12 was integrated with an AEQ intercom matrix. This integration made it possible to establish communications between the different control positions and the external units.

For this particular coverage, VIDEOREPORT relied on two SYSTEL IP 12 units, two AEQ Phoenix VENUS IP audiocodecs and two AEQ Phoenix ALIO portable IP audiocodecs. The equipment allowed interconnecting all the DSNG's at the different locations of polling stations and headquarters of the political parties and the Central Broadcast Control from where the different news teams, programs and interventions were coordinated.

"To make all this possible, we deployed the Phoenix VENUS in one of our DSNG's and the Phoenix ALIO's were used together with our gear at the different election headquarters. This became instrumental when coordinating our Cameras and providing the N-1 for our Editors during the 5 hours of special coverage on June 26", said Jose Saigí Domínguez, Technical Manager of VIDEOREPORT CANARIAS.



UKRAINE	ICTV	<u> </u>
	ICTV (in full, International Commercial Television) is a privately	ICTV
	owned TV channel in Ukraine. Its coverage area allows it to be	
	the fourth in the nation in terms of coverage. In 2018 two Systel	
	IP 4 were installed for coordination of mobile units and reporters	
	deployed outside the studios.	

	T	1
UNITED	BROADCAST RADIO LTD	
KINGDOM		
	In 2018 this company installed a SYSTEL IP 4 for SW	
	development in Broadcast Radio.	Broadcast <b>Radio</b>
	Broadcast Radio Ltd. is AEQ partner for the United Kingdom.	
	Broadcast Radio has a trajectory of over 20 years as a solutions	
	provider for Play-out Automation and ancillary SW solutions.	
	Since Broadcast Radio set their eyes on AEQ and its products at	
	the beginning of 2016, they have tirelessly integrated their	
	existing SW packages with AEQ's hardware using the low-level	
	protocols for operation that AEQ happily provides.	
	The normal in any Self-controlled environment would be to	
	take a phone call directly from the Mixing console. This is	
	possible, but it is also possible to do so from the Play-out	
	automation at the same time. The NEXUS function is an option	
	for the Myriad 5 Play out and Recording application that allows	
	you to take or make a call with the SYSTEL IP, cue the call and	
	place it On-Air. This can be done from the console or from the	
	Myriad 5 - indifferently.	
	myrida 3 mainerendy.	
	This solution is installed by Broadcast Radio on many of its	
	Myriad 5 customers in the UK	
	iviyilad 5 custoffiers ill tile OK	

UNITED KINGDOM	CARDIFF UNIVERSITY	CARDIFF
	Cardiff University is a public research university in Cardiff, Wales. Founded in 1883, it merged with the University of Wales Institute of Science and Technology (UWIST) in 1988.	PRIFYSGOL CAERDYD
	<ul> <li>They have, among others, the degrees of:</li> <li>Journalism and Communications: concerned with the production, content and reception of all journalism and communications.</li> <li>Media, Journalism and Culture: concerned with the study and examination of an essential part of modern</li> </ul>	



<ul> <li>life - the media.</li> <li>And the MA in Broadcast Journalism: an intensive one year course covering radio, television, mobile and digital journalism. For a career in a modern broadcast newsroom.</li> </ul>	
In 2018, Broadcast Radio integrator -AEQ dealer in the UK-installed, among other electronic broadcasting equipment, a Systel IP 12 in Cardiff university to develop practical training.	

UNITED KINGDOM	FADAK TV	69
	Fadak Satellite Channel is a Shia Muslim channel that was founded by a group of Shia Muslims in the United Kingdom with the purpose of conveying Shia Islam to mainly the Arab and Muslim world. The channel broadcasts various programs: ethical, doctrinal, historical, and revival. The channel also features Hawza lectures, Islamic Seminary, studies related to the science of Hadith, as well as a variety of different series of lectures by English, Arabic, French and Persian speakers.  The channel also broadcasts rituals of prayer and celebrations held by the Shia Muslim community at the Al-Muhassin Mosque, London. The channel also offers an open invitation to prominent scholars from the Sunni Faith to debate on controversial historical personalities on a periodic basis. In 2017, a Systel IP 12 was installed in London to handle the external communications and the different invited guest that are going "On-Air" during these TV debates.	FADAK 2

UNITED KINGDOM	LYCA MEDIA FM, LONDON	Lycaradio
	Lyca Media II Ltd, branded as Lycamedia, is the broadcasting division of the mobile phone virtual network company Lycamobile.  This company owns four radio stations, two for the South Asian community in London under the Lyca brand, Lyca Radio and DilSe Radio, a station for the Tamil community, Athavan Radio based in Sri Lanka, which is on DAB Digital Radio in London and a small-scale adult contemporary station under the Time FM brand in Romford.	Lycardquo





Lyca Radio Group's mission is to be the UK's leading South Asian radio broadcaster, using our portfolio of brands to inspire, enrich and inform our community with provocative, innovative relevant and uplifting content, across all our broadcast platforms

In 2018 a Systel IP was installed by Broadcast Radio Ltd. The system was acquired to handle the calls from an audience that are steadily increasing in numbers. Connected to a SIP trunk, service LycaRadio can handle up to 16 simultaneous calls onair.



### **MIDDLE EAST**

JORDAN	HEAT	فيركة فيت للهندسة والتكنولوجيا HEAT FOR ENGINEERING AND TECHNOLOGY
	In 2015, a Systel IP was installed in Amman through the local integrator Heat.	

UAE	RAK MEDIA	
	Ras al-Khaimah emirate is one of the seven emirates inside United Arab Emirates. RAK Media is the public broadcasting organization. They decided to modernize their radio broadcasting studios.	
	The complete deployed system includes the VoIP multi- conference platform AEQ SYSTEL-IP in order to provide IP telephony and IP communications service to the whole facilities, both for incoming and outgoing calls.	
	SYSTEL IP allows for the connection of the broadcast telephone system to the current corporate, IP-based PBXs, voiding the maintenance of conventional lines exclusively for broadcast.	
	"The installation is operative, our staff has been trained and, so far, we are very satisfied", Berné Gonsalves, Technical Manager, expressed to us.	