

Wi-Fi 6E



What Is Wi-Fi 6E and Do I Need It? "

There are many ways to make your internet faster, but the specifics depend on what you're willing to spend right now.

WE COLLECTIVELY

STREAM more movies and TV shows, play more online games, and make more video calls than ever before, and all this activity puts a serious strain on our Wi-Fi networks. We know the latest Wi-Fi 6 standard offers a range of benefits, including faster and more reliable access, but how does Wi-Fi 6E fit in? "Wi-Fi 6E is the name for Wi-Fi 6 devices that operate in the 6-GHz band, a new swath of unlicensed spectrum that more than 58 countries across the Americas. EMEA, and APAC have made available for Wi-Fi to date," explains Kevin Robinson, senior vice president of marketing for the Wi-Fi Alliance.

Wi-Fi 6E Explained

Until now, our Wi-Fi operated on two bands: 2.4 GHz and 5 GHz. The Wi-Fi 6 standard employs various features to improve the efficiency and data throughput of your wireless network and reduce latency for those two bands. "Wi-Fi 6E extends the capacity, efficiency, coverage, and performance benefits of Wi-Fi 6 into the 6-GHz band," says Robinson. "With up to seven additional super-wide 160-MHz channels available, Wi-Fi 6E devices deliver greater network performance and support more Wi-Fi users at once, even in very dense and congested environments."

Each band is a chunk of frequency. The 2.4-GHz band comprises 11 channels that are each 20 megahertz (MHz) wide. The 5-GHz band has 45 channels, but they can be fused to create 40-MHz or 80-MHz channels, enabling them to transmit more data at once. The 6-GHz band supports 60 channels that can be up to 160 MHz wide.

That's a huge chunk of extra capacity. Think of it as going from a single-track road (2.4 GHz) to a three -lane highway (5 GHz) to a six-lane superhighway (6 GHz). The analogy works for coverage too. Higher frequencies have a tougher time penetrating solid walls and floors, so the single track 2.4-GHz roads reach further than the 5-GHz highways, which reach further than the 6-GHz superhighways.

	KTSM-TV	
	KVIA-TV	
	KRWG-TV	
	KBNA-AM/FM & KAMA-AM	
	KHEY-AM/FM, KPRR-FM & KTSM-AM/FM	
	KLAQ-FM, KISS-FM & KROD-AM	
	KPAS-FM- ALGIE A. FELDER CSBE	
	KINT98.COM INTERNET RADIO NETWORK	
	BURST COMMUNICATIONS INC KIRK BASEFSKY	
	JOHN LACKNESS	
	ENTRAVISION COMMUNICATIONS	
	SCMS, INC	
	ABS ADVANCED BROADCAST SERVICES, LLC	
•	KSCE-TV	
	RF Specialties of Texas Dan Sessler.	
	KCOS-TV	
	KELP-AM ARNOLD McClatchy.	
	MARSAND, INC.	
	Ho Tah Say. LLC	





I	Kirk	Basefsky		
President				

Phone: 303.858.9848 Fax: 303.649.9890 kirkb@burstvideo.com





Marsand, INC.	12002			
Consulting Engineer	C AFCCE			
4	SDE-PDE			
Matthew A. Sanderford, Jr., P.E. President				
tycowboy@marsand.com	www.marsand.com			
PO Box 485 * 6100 IH-35W	Office: 817-783-5566			
Alvarado, TX 76009	FAX: 817-783-5577			

Rebranding Standards

Wi-Fi standards have traditionally been quite confusing. he Institute of Electrical and Electronic Engineers (<u>IEEE</u>) establishes Wi-Fi standards, and those standards are certified by the Wi-Fi Alliance, which currently has 866 member companies, including Apple, Facebook, Google, Intel, Microsoft, Qualcomm, Samsung, Sony, and many more.

The Wi-Fi Alliance realized (correctly) that a standard named IEEE 802.11ax might be easier to grasp if it was rebranded as Wi-Fi 6. This move retroactively makes the IEEE 802.11ac standard Wi-Fi 5, IEEE 802.11 becomes Wi-Fi 4, and so on. Each of these standards is an umbrella term for a range of new features and improvements.

To give one example, Wi-Fi 4 introduced MIMO (multiple-input, multiple-output) technology to allow for multiple simultaneous trans missions to and from a device. The second wave of Wi-Fi 5 products introduced MU-MIMO, (MU stands enabling multiple for multi-user), devices to connect simultaneously to send and receive data. Wi-Fi 6 improves MU-MIMO and introduces OFDMA (orthogonal frequencydivision multiple access) enabling a single transmission to deliver data to multiple devices at once. The range of improvements and technologies in Wi-Fi 6 and Wi-Fi 6E is the same. The need for the E comes from the opening up of that 6-GHz band.

"With the density of Wi-Fi devices and neighboring networks increasing dramatically, Wi-Fi 6E provides pristine spectrum to maintain a great user experience," Robinson says.

SBE CHAPTER 38 OFFICERS

<u>CHAIRMAN</u> Antonio Castro SBE member # 11456. KFOX/COX retired Chief Eng. 800 Arredondo dr. El Paso. TX 79912 915-584-1220 home 915-525-8507 cell

> farahjac@sbcglobal.net VICE CHAIRMAN

Bruno Cruz SBE member # 25867 200 E.Alto Mesa El Paso, TX.79912 915-757-7898 915-526-1842 cell Bruno.cruzJR@kfoxtv.com <u>TREASURER</u> Walter Hanthorn SBE member # 18307 KSCE TV 4461 Gen. Maloney El Paso, TX. 79924 915-269-7583 home 915-532-8588 office

CERTIFICATION COMMITTEE: David Halperin.

MEMBERSHIP COMMITTEE: Antonio Castro Warren Reeves

FREQUENCY COORDITATION COMMITTEE: Warren Reeves Owen Smith

SCHOLARSHIP COMMITTEE: Rick Vilardell

WEB SITE COMMITTEE: Norbert Miles

SUSTAINING MEMBERSHIP: Antonio Castro

PROGRAM CHAIRMAN: Warren Reeves

> NEWSLETTER: Antonio Castro

EAS CHAIRMAN: David Halperin

EXECUTIVE COMMITTEE: Antonio Castro Bruno Cruz Walter Hanthorn



DATE 1/18/2022

LOCATION: ZOOM (Antonio's)

MEETING CALLED TO ORDER: 11:00 AM, BY ANTONIO CASTRO. THERE WERE 11 (ELEVEN) ATTENDANTS

REPORT OF THE SECRETARY: MINUTES IN THE DECEMBER NEWS-LETTER. ACCEPTED BY DAVID HALPERIN, SECONDED BY DAVID GRICE

REPORT OF THE TREASURER: \$4,991.03 IN THE BANK, ACCEPTED BY WARREN REEVES, SECONDED BY NORBERT MILES.

REPORT OF THE CERTIFICATION COMMITTEE: NO REPORT

REPORT OF THE MEMBERSHIP COMMITTEE: NO REPORT.

REPORT OF THE FREQUENCY COORDINATOR COMMITTEE: WARREN REPORTS: ALAMOGORDO, CH-6 RADIO ALTERNATIVE, AND BRUNO:LAND MOBILE KUC-10 REPORT INTERFERANCE.

REPORT OF THE SCHOLARSHIP COMMITTEE: Scholarship of \$1K. to be given away from April-May 2022. Posted the application in the website till the end of march.

REPORT OF THE WEBSITE COMMITTEE: NOW 3471 VS. TWO MONTHS BACK 3378 EQUAL 93 HITS. LOOKING GOOD.,

REPORT OF THE EAS CHAIRMAN: TEXAS AND NEW MEXICO-MONTHLY TESTS WERE FINE.

REPORT OF THE PROGRAM COMMITTEE: BERT GOLDMAN FROM GBS MADE THE PRESENTATION ON ZOOM . GREAT STUFF.

NEW BUSINESS OR ANY ITEMS FOR THE CHAPTER INTEREST: NONE

OTHER NONE

NEXT MEETING DATE AND LOCATION: FEBRUARY 15, ZOOM FROM ANTONIO AT 11 AM

MEETING ADJOURNED: 11:27 AM, THEN THE PRESENTATION TIL 11:59 AM PM

IT IS THE TIME TO PAY YOUR CHAPTER MEMBERSHIP DUES. STAY TUNED FOR THE **INVOICES BY MAIL, SQUARE OR YOU CAN** CALL ME WITH YOUR CREDIT CARD ON HAND. THIS YEAR WON'T BE INCREASES IN THE FEE, SO IT IS A BARGAIN !!



walteralvarez@iheartmedia.com

Advanced Broadcast

David Grice

Services LLC

9

D 915-308-1227 6776 Villa Hermosa Dr El Paso TX 79912





BRAD DUBOW

95.5FM

FOR LAST MONTH OF JANUARY, WE HAD THE PRESENTATION OF <u>BERT</u> <u>GOLDMAN FROM "GBS" SOLUTIONS</u>. IT WAS A VERY INFORMATIVE ONE. THANKS BERT.

NOW, FOR THIS FEBRUARY MONTH WE ARE GOING TO HAVE THE PRESENTATION OF *FUELLGRAF CHIMNEY AND TOWER*, THEY SPECIALIZE IN LED AVIATION OBSTRUCTION LIGHTING FOR BRADCAST TOWERS.

THE CATCH IS THAT WE HAVE TO MOVE OUR REGULAR 2ND TUESDAY TO THE 3RD ONE, JUST FOR THIS OCCASION.

WHEN: FEBRUARY 15, 2022

WHERE: ZOOM FROM ANTONIO'S

TIME: WINDOW OPENS AT 10:30 AM FOR WELCOMING AND INFORMAL CHAT, 11 AM WE DO OUR CHAPTER MEETING AND FOLLOWING IT WILL BE THE PRESENTATION

PLEASE TRY TO ATTEND BECAUSE WE HAVE IMPORTANT ISSUES TO DISCUSS. THANK YOU



Do I Need Wi-Fi 6E?

If you're <u>shopping for a new router</u> or looking at <u>mesh systems</u>, you will certainly want to look for Wi-Fi 6 support. There are many other ways to <u>make your Wi-Fi</u> <u>faster</u>, but buying a Wi-Fi 6 router is an important one. It brings all the benefits we've discussed and a few we haven't, including improved security through WPA3 (Wi-Fi Protected Access 3) and reduced battery drain, courtesy of TWT (Target Wake Time).

Whether you need to consider Wi-Fi 6E is a trickier question. We've already mentioned the shorter range, but the other big problem with Wi-Fi 6E is that it requires new hardware, and it's very expensive right now. Only routers and devices with Wi-Fi 6E support can operate on this newly opened 6-GHz band. Existing Wi-Fi 6 routers and any older devices cannot and will never be able to. Opt for Wi-Fi 6E and you're unlikely to see a lot of benefit in the short term. Wi-Fi 6 is enough for most people right now. On the other hand, all of these standards are backward compatible, so if you don't mind spending the money and want to be future-proof for a while, then you might consider a Wi-Fi 6E system. "There will be a wide variety of choices at different price points this year, and more than 58 million Wi-Fi 6E access points will enter the market in 2022," says Robinson.

Whatever you decide, Robinson has a final piece of advice for you: "When purchasing Wi-Fi 6 and Wi-Fi 6E routers, consumers should always look for "Wi-Fi Certified" to help ensure the product delivers strong WPA3 security and interoperability with other devices in the home."