

Contents

Generate AllowedIPs Text / QR Code in Terminal For Granular WireGuard® Tunnel Exclusions	1
Credits	1
Background: WireGuard®	1
Generate AllowedIPs Value As Text String or QR Code in Terminal For Granular WireGuard® Tunnel Exclusions	1
Specific Use-Case (LAN + Security Concerns)	1
Natively Supported WireGuard® Options for LAN Access via Tunnel Bypass	2
Why Is Code Required? Can't I Just Specify The List Myself?	2
Sad Things	2
Caveat Emptor / NOTES	2
Usage	2
Help Output	2
Examples	3
QR Code Support Dependencies	3
(RECOMMENDED) Python Package: qrcode	3
OS Native / Package: qrencode	4
Other Options - Choose Your Own Adventure (TM)	4
TODO	4
License / Copyright	4
WireGuard® License	4

Generate AllowedIPs Text / QR Code in Terminal For Granular WireGuard® Tunnel Exclusions



This project is ****NOT**** affiliated with WireGuard® in any way, nor is it officially supported in any way. I just

Credits

(C) 2020, copyright@mpzqnxow.com, please see licensing terms at end of document*

Background: WireGuard®

Hopefully you know by now, but WireGuard® is an extremely simple yet fast and modern VPN that utilizes state-of-the-art cryptography. You can read more about it [here](#)

Generate AllowedIPs Value As Text String or QR Code in Terminal For Granular WireGuard® Tunnel Exclusions

Given a list of IPv4 addresses (dotted quad, CIDR) print an inclusion list (AllowedIPs string) suitable for the WireGuard® mobile app, optionally generating a QR code using ANSI escape characters in a standard terminal window. Useful for excluding only a partial set of LAN (or WAN) addresses from the WireGuard® tunnel. Currently, the only “easy” option for accessing a LAN is to opt *all* RFC1918/RFC3330 private addresses out of the tunnel, using the checkbox that the WireGuard® client provides. This script allows a more granular specification, and also allows the specification of specific WAN addresses as well

Specific Use-Case (LAN + Security Concerns)

Consider a mobile user with an on-demand WireGuard® VPN connection for the purpose of both privacy and security that needs to access only a small subset of LAN hosts (or WAN hosts) outside of the tunnel. By using fine-grained addresses in the AllowedIPs parameter, this can be accomplished without hassle. The effect:

- As usual, the tunnel is used by default for Internet resources

- – Protects privacy from ISPs that mine and sell browsing habits
- Allow access to only *specific* LAN resources as specified by the exclusion list on the command-line
- – Protects the client from rogue LAN devices by reducing the amount of devices that can interact with your device
- – Protects the broader LAN in the event that your device is compromised by limiting the amount of LAN addresses your device can access

Natively Supported WireGuard® Options for LAN Access via Tunnel Bypass

One existing and very simple solution is to use the built-in “Exclude Private IPs” option in the WireGuard® mobile app, which generates a fixed list that simply generates an **AllowedIPs** address list that excludes all RFC1918/RFC3330 Private Addresses. However, this is a very broad range and is not trivial to tweak

Using this rinky-dink little app, you can specify granular exclusions, e.g. `192.168.1.2 192.168.1.3 192.168.1.4` for the WireGuard® tunnel and receive a list of networks suitable for the **AllowedIPs**

Allowing, e.g., only `192.168.1.2`, `192.168.1.3` and `192.168.1.4` (as opposed to `192.168.0.0/16`) effectively protects the rest of the `192.168.0.0/16` network from being exposed to the device. It also effectively protects the device from the rest of the `192.168.0.0/16` network (and `10/8` and `172.16/12` as well, if relevant)

Why Is Code Required? Can’t I Just Specify The List Myself?

In case it isn’t already clear, WireGuard® mobile only allows the client to specify IP addresses that are “allowed” to use the tunnel. It is an opt-in system, most easily used when performing a LAN-to-LAN tunnel. It does not allow the user to specify a blacklist- to do this, a long list of “non-blacklisted” networks must be generated. Because of this, you can’t briefly or easily say “all traffic except to/from host `192.168.1.3` should transit the tunnel easily”. Instead, you need a list of CIDR notation networks that make up the entire IPv4 address space, excluding “`192.168.1.3`”.

If you’re curious, the value for this specific example looks like this and is rather unwieldy, which is where the QR code functionality comes in handy:

`0.0.0.0/1,128.0.0.0/2,224.0.0.0/3,208.0.0.0/4,200.0.0.0/5,196.0.0.0/6,194.0.0.0/7,193.0.0.0/8,192.0.0.0/9,192.168.0.0/10,192.168.0.0/11,192.168.0.0/12,192.168.0.0/13,192.168.0.0/14,192.168.0.0/15,192.168.0.0/16,192.168.0.0/17,192.168.0.0/18,192.168.0.0/19,192.168.0.0/20,192.168.0.0/21,192.168.0.0/22,192.168.0.0/23,192.168.0.0/24,192.168.0.0/25,192.168.0.0/26,192.168.0.0/27,192.168.0.0/28,192.168.0.0/29,192.168.0.0/30,192.168.0.0/31,192.168.0.0/32,192.168.0.0/33,192.168.0.0/34,192.168.0.0/35,192.168.0.0/36,192.168.0.0/37,192.168.0.0/38,192.168.0.0/39,192.168.0.0/40,192.168.0.0/41,192.168.0.0/42,192.168.0.0/43,192.168.0.0/44,192.168.0.0/45,192.168.0.0/46,192.168.0.0/47,192.168.0.0/48,192.168.0.0/49,192.168.0.0/50,192.168.0.0/51,192.168.0.0/52,192.168.0.0/53,192.168.0.0/54,192.168.0.0/55,192.168.0.0/56,192.168.0.0/57,192.168.0.0/58,192.168.0.0/59,192.168.0.0/60,192.168.0.0/61,192.168.0.0/62,192.168.0.0/63,192.168.0.0/64,192.168.0.0/65,192.168.0.0/66,192.168.0.0/67,192.168.0.0/68,192.168.0.0/69,192.168.0.0/70,192.168.0.0/71,192.168.0.0/72,192.168.0.0/73,192.168.0.0/74,192.168.0.0/75,192.168.0.0/76,192.168.0.0/77,192.168.0.0/78,192.168.0.0/79,192.168.0.0/80,192.168.0.0/81,192.168.0.0/82,192.168.0.0/83,192.168.0.0/84,192.168.0.0/85,192.168.0.0/86,192.168.0.0/87,192.168.0.0/88,192.168.0.0/89,192.168.0.0/90,192.168.0.0/91,192.168.0.0/92,192.168.0.0/93,192.168.0.0/94,192.168.0.0/95,192.168.0.0/96,192.168.0.0/97,192.168.0.0/98,192.168.0.0/99,192.168.0.0/100,192.168.0.0/101,192.168.0.0/102,192.168.0.0/103,192.168.0.0/104,192.168.0.0/105,192.168.0.0/106,192.168.0.0/107,192.168.0.0/108,192.168.0.0/109,192.168.0.0/110,192.168.0.0/111,192.168.0.0/112,192.168.0.0/113,192.168.0.0/114,192.168.0.0/115,192.168.0.0/116,192.168.0.0/117,192.168.0.0/118,192.168.0.0/119,192.168.0.0/120,192.168.0.0/121,192.168.0.0/122,192.168.0.0/123,192.168.0.0/124,192.168.0.0/125,192.168.0.0/126,192.168.0.0/127,192.168.0.0/128,192.168.0.0/129,192.168.0.0/130,192.168.0.0/131,192.168.0.0/132,192.168.0.0/133,192.168.0.0/134,192.168.0.0/135,192.168.0.0/136,192.168.0.0/137,192.168.0.0/138,192.168.0.0/139,192.168.0.0/140,192.168.0.0/141,192.168.0.0/142,192.168.0.0/143,192.168.0.0/144,192.168.0.0/145,192.168.0.0/146,192.168.0.0/147,192.168.0.0/148,192.168.0.0/149,192.168.0.0/150,192.168.0.0/151,192.168.0.0/152,192.168.0.0/153,192.168.0.0/154,192.168.0.0/155,192.168.0.0/156,192.168.0.0/157,192.168.0.0/158,192.168.0.0/159,192.168.0.0/160,192.168.0.0/161,192.168.0.0/162,192.168.0.0/163,192.168.0.0/164,192.168.0.0/165,192.168.0.0/166,192.168.0.0/167,192.168.0.0/168,192.168.0.0/169,192.168.0.0/170,192.168.0.0/171,192.168.0.0/172,192.168.0.0/173,192.168.0.0/174,192.168.0.0/175,192.168.0.0/176,192.168.0.0/177,192.168.0.0/178,192.168.0.0/179,192.168.0.0/180,192.168.0.0/181,192.168.0.0/182,192.168.0.0/183,192.168.0.0/184,192.168.0.0/185,192.168.0.0/186,192.168.0.0/187,192.168.0.0/188,192.168.0.0/189,192.168.0.0/190,192.168.0.0/191,192.168.0.0/192,192.168.0.0/193,192.168.0.0/194,192.168.0.0/195,192.168.0.0/196,192.168.0.0/197,192.168.0.0/198,192.168.0.0/199,192.168.0.0/200,192.168.0.0/201,192.168.0.0/202,192.168.0.0/203,192.168.0.0/204,192.168.0.0/205,192.168.0.0/206,192.168.0.0/207,192.168.0.0/208,192.168.0.0/209,192.168.0.0/210,192.168.0.0/211,192.168.0.0/212,192.168.0.0/213,192.168.0.0/214,192.168.0.0/215,192.168.0.0/216,192.168.0.0/217,192.168.0.0/218,192.168.0.0/219,192.168.0.0/220,192.168.0.0/221,192.168.0.0/222,192.168.0.0/223,192.168.0.0/224,192.168.0.0/225,192.168.0.0/226,192.168.0.0/227,192.168.0.0/228,192.168.0.0/229,192.168.0.0/230,192.168.0.0/231,192.168.0.0/232,192.168.0.0/233,192.168.0.0/234,192.168.0.0/235,192.168.0.0/236,192.168.0.0/237,192.168.0.0/238,192.168.0.0/239,192.168.0.0/240,192.168.0.0/241,192.168.0.0/242,192.168.0.0/243,192.168.0.0/244,192.168.0.0/245,192.168.0.0/246,192.168.0.0/247,192.168.0.0/248,192.168.0.0/249,192.168.0.0/250,192.168.0.0/251,192.168.0.0/252,192.168.0.0/253,192.168.0.0/254,192.168.0.0/255,192.168.0.0/256,192.168.0.0/257,192.168.0.0/258,192.168.0.0/259,192.168.0.0/260,192.168.0.0/261,192.168.0.0/262,192.168.0.0/263,192.168.0.0/264,192.168.0.0/265,192.168.0.0/266,192.168.0.0/267,192.168.0.0/268,192.168.0.0/269,192.168.0.0/270,192.168.0.0/271,192.168.0.0/272,192.168.0.0/273,192.168.0.0/274,192.168.0.0/275,192.168.0.0/276,192.168.0.0/277,192.168.0.0/278,192.168.0.0/279,192.168.0.0/280,192.168.0.0/281,192.168.0.0/282,192.168.0.0/283,192.168.0.0/284,192.168.0.0/285,192.168.0.0/286,192.168.0.0/287,192.168.0.0/288,192.168.0.0/289,192.168.0.0/290,192.168.0.0/291,192.168.0.0/292,192.168.0.0/293,192.168.0.0/294,192.168.0.0/295,192.168.0.0/296,192.168.0.0/297,192.168.0.0/298,192.168.0.0/299,192.168.0.0/300,192.168.0.0/301,192.168.0.0/302,192.168.0.0/303,192.168.0.0/304,192.168.0.0/305,192.168.0.0/306,192.168.0.0/307,192.168.0.0/308,192.168.0.0/309,192.168.0.0/310,192.168.0.0/311,192.168.0.0/312,192.168.0.0/313,192.168.0.0/314,192.168.0.0/315,192.168.0.0/316,192.168.0.0/317,192.168.0.0/318,192.168.0.0/319,192.168.0.0/320,192.168.0.0/321,192.168.0.0/322,192.168.0.0/323,192.168.0.0/324,192.168.0.0/325,192.168.0.0/326,192.168.0.0/327,192.168.0.0/328,192.168.0.0/329,192.168.0.0/330,192.168.0.0/331,192.168.0.0/332,192.168.0.0/333,192.168.0.0/334,192.168.0.0/335,192.168.0.0/336,192.168.0.0/337,192.168.0.0/338,192.168.0.0/339,192.168.0.0/340,192.168.0.0/341,192.168.0.0/342,192.168.0.0/343,192.168.0.0/344,192.168.0.0/345,192.168.0.0/346,192.168.0.0/347,192.168.0.0/348,192.168.0.0/349,192.168.0.0/350,192.168.0.0/351,192.168.0.0/352,192.168.0.0/353,192.168.0.0/354,192.168.0.0/355,192.168.0.0/356,192.168.0.0/357,192.168.0.0/358,192.168.0.0/359,192.168.0.0/360,192.168.0.0/361,192.168.0.0/362,192.168.0.0/363,192.168.0.0/364,192.168.0.0/365,192.168.0.0/366,192.168.0.0/367,192.168.0.0/368,192.168.0.0/369,192.168.0.0/370,192.168.0.0/371,192.168.0.0/372,192.168.0.0/373,192.168.0.0/374,192.168.0.0/375,192.168.0.0/376,192.168.0.0/377,192.168.0.0/378,192.168.0.0/379,192.168.0.0/380,192.168.0.0/381,192.168.0.0/382,192.168.0.0/383,192.168.0.0/384,192.168.0.0/385,192.168.0.0/386,192.168.0.0/387,192.168.0.0/388,192.168.0.0/389,192.168.0.0/390,192.168.0.0/391,192.168.0.0/392,192.168.0.0/393,192.168.0.0/394,192.168.0.0/395,192.168.0.0/396,192.168.0.0/397,192.168.0.0/398,192.168.0.0/399,192.168.0.0/400,192.168.0.0/401,192.168.0.0/402,192.168.0.0/403,192.168.0.0/404,192.168.0.0/405,192.168.0.0/406,192.168.0.0/407,192.168.0.0/408,192.168.0.0/409,192.168.0.0/410,192.168.0.0/411,192.168.0.0/412,192.168.0.0/413,192.168.0.0/414,192.168.0.0/415,192.168.0.0/416,192.168.0.0/417,192.168.0.0/418,192.168.0.0/419,192.168.0.0/420,192.168.0.0/421,192.168.0.0/422,192.168.0.0/423,192.168.0.0/424,192.168.0.0/425,192.168.0.0/426,192.168.0.0/427,192.168.0.0/428,192.168.0.0/429,192.168.0.0/430,192.168.0.0/431,192.168.0.0/432,192.168.0.0/433,192.168.0.0/434,192.168.0.0/435,192.168.0.0/436,192.168.0.0/437,192.168.0.0/438,192.168.0.0/439,192.168.0.0/440,192.168.0.0/441,192.168.0.0/442,192.168.0.0/443,192.168.0.0/444,192.168.0.0/445,192.168.0.0/446,192.168.0.0/447,192.168.0.0/448,192.168.0.0/449,192.168.0.0/450,192.168.0.0/451,192.168.0.0/452,192.168.0.0/453,192.168.0.0/454,192.168.0.0/455,192.168.0.0/456,192.168.0.0/457,192.168.0.0/458,192.168.0.0/459,192.168.0.0/460,192.168.0.0/461,192.168.0.0/462,192.168.0.0/463,192.168.0.0/464,192.168.0.0/465,192.168.0.0/466,192.168.0.0/467,192.168.0.0/468,192.168.0.0/469,192.168.0.0/470,192.168.0.0/471,192.168.0.0/472,192.168.0.0/473,192.168.0.0/474,192.168.0.0/475,192.168.0.0/476,192.168.0.0/477,192.168.0.0/478,192.168.0.0/479,192.168.0.0/480,192.168.0.0/481,192.168.0.0/482,192.168.0.0/483,192.168.0.0/484,192.168.0.0/485,192.168.0.0/486,192.168.0.0/487,192.168.0.0/488,192.168.0.0/489,192.168.0.0/490,192.168.0.0/491,192.168.0.0/492,192.168.0.0/493,192.168.0.0/494,192.168.0.0/495,192.168.0.0/496,192.168.0.0/497,192.168.0.0/498,192.168.0.0/499,192.168.0.0/500,192.168.0.0/501,192.168.0.0/502,192.168.0.0/503,192.168.0.0/504,192.168.0.0/505,192.168.0.0/506,192.168.0.0/507,192.168.0.0/508,192.168.0.0/509,192.168.0.0/510,192.168.0.0/511,192.168.0.0/512,192.168.0.0/513,192.168.0.0/514,192.168.0.0/515,192.168.0.0/516,192.168.0.0/517,192.168.0.0/518,192.168.0.0/519,192.168.0.0/520,192.168.0.0/521,192.168.0.0/522,192.168.0.0/523,192.168.0.0/524,192.168.0.0/525,192.168.0.0/526,192.168.0.0/527,192.168.0.0/528,192.168.0.0/529,192.168.0.0/530,192.168.0.0/531,192.168.0.0/532,192.168.0.0/533,192.168.0.0/534,192.168.0.0/535,192.168.0.0/536,192.168.0.0/537,192.168.0.0/538,192.168.0.0/539,192.168.0.0/540,192.168.0.0/541,192.168.0.0/542,192.168.0.0/543,192.168.0.0/544,192.168.0.0/545,192.168.0.0/546,192.168.0.0/547,192.168.0.0/548,192.168.0.0/549,192.168.0.0/550,192.168.0.0/551,192.168.0.0/552,192.168.0.0/553,192.168.0.0/554,192.168.0.0/555,192.168.0.0/556,192.168.0.0/557,192.168.0.0/558,192.168.0.0/559,192.168.0.0/560,192.168.0.0/561,192.168.0.0/562,192.168.0.0/563,192.168.0.0/564,192.168.0.0/565,192.168.0.0/566,192.168.0.0/567,192.168.0.0/568,192.168.0.0/569,192.168.0.0/570,192.168.0.0/571,192.168.0.0/572,192.168.0.0/573,192.168.0.0/574,192.168.0.0/575,192.168.0.0/576,192.168.0.0/577,192.168.0.0/578,192.168.0.0/579,192.168.0.0/580,192.168.0.0/581,192.168.0.0/582,192.168.0.0/583,192.168.0.0/584,192.168.0.0/585,192.168.0.0/586,192.168.0.0/587,192.168.0.0/588,192.168.0.0/589,192.168.0.0/590,192.168.0.0/591,192.168.0.0/592,192.168.0.0/593,192.168.0.0/594,192.168.0.0/595,192.168.0.0/596,192.168.0.0/597,192.168.0.0/598,192.168.0.0/599,192.168.0.0/600,192.168.0.0/601,192.168.0.0/602,192.168.0.0/603,192.168.0.0/604,192.168.0.0/605,192.168.0.0/606,192.168.0.0/607,192.168.0.0/608,192.168.0.0/609,192.168.0.0/610,192.168.0.0/611,192.168.0.0/612,192.168.0.0/613,192.168.0.0/614,192.168.0.0/615,192.168.0.0/616,192.168.0.0/617,192.168.0.0/618,192.168.0.0/619,192.168.0.0/620,192.168.0.0/621,192.168.0.0/622,192.168.0.0/623,192.168.0.0/624,192.168.0.0/625,192.168.0.0/626,192.168.0.0/627,192.168.0.0/628,192.168.0.0/629,192.168.0.0/630,192.168.0.0/631,192.168.0.0/632,192.168.0.0/633,192.168.0.0/634,192.168.0.0/635,192.168.0.0/636,192.168.0.0/637,192.168.0.0/638,192.168.0.0/639,192.168.0.0/640,192.168.0.0/641,192.168.0.0/642,192.168.0.0/643,192.168.0.0/644,192.168.0.0/645,192.168.0.0/646,192.168.0.0/647,192.168.0.0/648,192.168.0.0/649,192.168.0.0/650,192.168.0.0/651,192.168.0.0/652,192.168.0.0/653,192.168.0.0/654,192.168.0.0/655,192.168.0.0/656,192.168.0.0/657,192.168.0.0/658,192.168.0.0/659,192.168.0.0/660,192.168.0.0/661,192.168.0.0/662,192.168.0.0/663,192.168.0.0/664,192.168.0.0/665,192.168.0.0/666,192.168.0.0/667,192.168.0.0/668,192.168.0.0/669,192.168.0.0/670,192.168.0.0/671,192.168.0.0/672,192.168.0.0/673,192.168.0.0/674,192.168.0.0/675,192.168.0.0/676,192.168.0.0/677,192.168.0.0/678,192.168.0.0/679,192.168.0.0/680,192.168.0.0/681,192.168.0.0/682,192.168.0.0/683,192.168.0.0/684,192.168.0.0/685,192.168.0.0/686,192.168.0.0/687,192.168.0.0/688,192.168.0.0/689,192.168.0.0/690,192.168.0.0/691,192.168.0.0/692,192.168.0.0/693,192.168.0.0/694,192.168.0.0/695,192.168.0.0/696,192.168.0.0/697,192.168.0.0/698,192.168.0.0/699,192.168.0.0/700,192.168.0.0/701,192.168.0.0/702,192.168.0.0/703,192.168.0.0/704,192.168.0.0/705,192.168.0.0/706,192.168.0.0/707,192.168.0.0/708,192.168.0.0/709,192.168.0.0/710,192.168.0.0/711,192.168.0.0/712,192.168.0.0/713,192.168.0.0/714,192.168.0.0/715,192.168.0.0/716,192.168.0.0/717,192.168.0.0/718,192.168.0.0/719,192.168.0.0`

optional arguments:

```
-h, --help            show this help message and exit
--exclude n.n.n.n[/mask] [n.n.n.n[/mask] ...]
                        List of networks and IP addresses separated by commas
                        for exclusion
--loose                Specify strict CIDR block definitions, fail when the
                        host bit is set in a CIDR block
-D, --debug            Enable debug messages
-q, --qrencode         Output a QR code to the screen using ANSI escape chars
-l, --lines-output     Produce output in line-based format
-4, --no-ip6           Do not include ::0/0 output
-W, --no-wireguard-format
                        Exclude the "AllowedIPs = " literal
-C, --no-csv-output    Disable output of single-line CSV (WireGuard-style)
                        format
```

Examples

Use WireGuard® tunnel for all networks except 192.168.1.0/24 and 192.168.2.0/24:

```
$ ./generate-wireguard-allowed-qr.py --exclude 192.168.1.0/24 192.168.2.0/24
AllowedIPs = 0.0.0.0/1,128.0.0.0/2,192.0.0.0/9,192.128.0.0/11,192.160.0.0/13,192.168.0.0/24,192.168.3.0/24,
192.168.4.0/22,192.168.8.0/21,192.168.16.0/20,192.168.32.0/19,192.168.64.0/18,192.168.128.0/17,192.169.0.0/16,
192.170.0.0/15,192.172.0.0/14,192.176.0.0/12,192.192.0.0/10,193.0.0.0/8,194.0.0.0/7,196.0.0.0/6,200.0.0.0/5,
208.0.0.0/4,224.0.0.0/3,::0/0
```

The same, but don't route IPv6 through the tunnel (note the last network in the output):

```
$ ./generate-wireguard-allowed-qr.py -4 --exclude 192.168.1.0/24 192.168.2.0/24
AllowedIPs = 0.0.0.0/1,128.0.0.0/2,192.0.0.0/9,192.128.0.0/11,192.160.0.0/13,192.168.0.0/24,192.168.3.0/24,
192.168.4.0/22,192.168.8.0/21,192.168.16.0/20,192.168.32.0/19,192.168.64.0/18,192.168.128.0/17,192.169.0.0/16,
192.170.0.0/15,192.172.0.0/14,192.176.0.0/12,192.192.0.0/10,193.0.0.0/8,194.0.0.0/7,196.0.0.0/6,200.0.0.0/5,
208.0.0.0/4,224.0.0.0/3
```

Allow only 192.168.1.1 and 192.168.1.2 to bypass the tunnel:

```
$ ./generate-wireguard-allowed-qr.py --exclude 192.168.1.1 192.168.1.2
AllowedIPs = 0.0.0.0/1,128.0.0.0/2,192.0.0.0/9,192.128.0.0/11,192.160.0.0/13,192.168.0.0/24,192.168.1.0/32,
192.168.1.3/32,192.168.1.4/30,192.168.1.8/29,192.168.1.16/28,192.168.1.32/27,192.168.1.64/26,192.168.1.128/25,
192.168.2.0/23,192.168.4.0/22,192.168.8.0/21,192.168.16.0/20,192.168.32.0/19,192.168.64.0/18,192.168.128.0/17,
192.169.0.0/16,192.170.0.0/15,192.172.0.0/14,192.176.0.0/12,192.192.0.0/10,193.0.0.0/8,194.0.0.0/7,196.0.0.0/6,
200.0.0.0/5,208.0.0.0/4,224.0.0.0/3,::0/0
```

The same, but also generate a QR code on the terminal that can be scanned by a mobile device. Note that when using `--qr`, the `AllowedIPs =` literal will not be printed as it is not required on a mobile device

```
$ ./generate-wireguard-allowed-qr.py --no-csv-output --qr --exclude 192.168.1.1 192.168.1.2
...
<QR CODE>
...
```

NOTE: When using QR code, the 'AllowedIPs =' string literal will not be included in the QR data by design, so that the data can be pasted into the value box on the mobile app **IMPORTANT:** You may also need to specify the WireGuard® peer address as an exclusion, you should test this

QR Code Support Dependencies

There are two ways to generate QR codes. By default, the script will try to use the `qrcode` Python module if available. If not available, it will fall back to using the `qrencode` application if it is present on your system. If neither are found, it will report an error

(RECOMMENDED) Python Package: `qrcode`

The `qrcode` is a simple, excellent QR code generation Python package that supports output to terminal windows as well as image files

(RECOMMENDED) Install qrcode via pip

Use `pip install 'qrcode[]'` or `pip install -r requirements.txt`. This will allow QR code generation without any native applications, such as the `qrencode` application

Install qrcode With Your OS Package Manager

This is not recommended as many distributions have dated versions of Python modules in their repositories. The distribution package is probably called `python3-qrcode`

OS Native / Package: qrencode

Use your distribution package manager to install `qrencode`

Debian / Ubuntu / Kali

```
$ sudo apt-get install qrencode
```

RHEL, Fedora, CentOS

```
$ sudo yum install qrencode
```

ArchLinux

```
$ sudo pacman -S qrencode
```

Other Options - Choose Your Own Adventure (TM)

If you would like to use a different QR code generator, you can change the `QR_ENCODE_COMMAND` list in the script, or you can add code to use some other Python library. This isn't recommended

TODO

- Perform additional testing

License / Copyright

(C) 2020, copyright@mzpqnxow.com BSD 3-Clause License
For terms, please see COPYING file



WireGuard® License

WireGuard® Copyright 2015-2020 Jason A. Donenfeld
All Rights Reserved

"WireGuard" and the "WireGuard" logo are registered trademarks of Jason A. Donenfeld.