

IPv6-Matrix

Nachfolgend finden Sie eine IPv6-Matrix mit allen wichtigen Subnetzgrößen und der Anzahl der zugehörigen IP-Adressen:

CIDR	Anzahl der Adressen	IP-Adressbereich	Bemerkungen
/0	340.282.366.920.938.463.463.374.607.431.768.211.456	xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	Gesamter IPv6-Adressbereich
/1	170.141.183.460.469.231.731.687.303.715.884.105.728		
/2	85.070.591.730.234.615.865.843.651.857.942.052.864		
/3	42.535.295.865.117.307.932.921.825.928.971.026.432		Vorgesehener IPv6-Adressbereich für Unicast
/4	21.267.647.932.558.653.966.460.912.964.485.513.216	2xxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	
/5	10.633.823.966.279.326.983.230.456.482.242.756.608		
/6	5.316.911.983.139.663.491.615.228.241.121.378.304		
/7	2.658.455.991.569.831.745.807.614.120.560.689.152		
/8	1.329.227.995.784.915.872.903.807.060.280.344.576	20xx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	
/9	664.613.997.892.457.936.451.903.530.140.172.288		
/10	332.306.998.946.228.968.225.951.765.070.086.144		
/11	166.153.499.473.114.484.112.975.882.535.043.072		
/12	83.076.749.736.557.242.056.487.941.267.521.536	200x:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	Größte Netzgröße für RIR-Assignments (RIPE, ARIN, LACNIC, APNIC, AfriNIC)
/13	41.538.374.868.278.621.028.243.970.633.760.768		
/14	20.769.187.434.139.310.514.121.985.316.880.384		
/15	10.384.593.717.069.655.257.060.992.658.440.192		
/16	5.192.296.858.534.827.628.530.496.329.220.096	2001:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	
/17	2.596.148.429.267.413.814.265.248.164.610.048		
/18	1.298.074.214.633.706.907.132.624.082.305.024		
/19	649.037.107.316.853.453.566.312.041.152.512		
/20	324.518.553.658.426.726.783.156.020.576.256	2001:xxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	
/21	162.280.286.840.214.464.602.688.010.288.128		
/22	81.129.638.414.606.681.695.789.005.144.064		

/23	40.564.819.207.303.340.847.894.502.572.032		Kleinste Netzgröße für RIR-Assignments (RIPE, ARIN, LACNIC, APNIC, AfriNIC)
/24	20.282.409.603.651.670.423.947.251.286.016	2001:xx:xxxx:xxxx:xxxx:xxxx:xxxx	
/25	10.141.204.801.825.835.211.973.625.643.008		
/26	5.070.602.400.912.917.605.986.812.821.504		
/27	2.535.301.200.456.458.802.993.406.410.752		
/28	1.267.650.600.228.229.401.496.703.205.376	2001:x:xxxx:xxxx:xxxx:xxxx:xxxx	
/29	633.825.300.114.114.700.748.351.602.688		Maximale unbegründete Netzgröße für LIRs bei RIPE, ARIN, LACNIC, APNIC, AfriNIC
/30	316.912.650.057.057.350.374.175.801.344		
/31	158.456.325.028.528.675.187.087.900.672		
/32	79.228.162.514.264.337.593.543.950.336	2001::xxxx:xxxx:xxxx:xxxx:xxxx:xxxx	Kleinste Netzgröße für LIRs bei RIPE, ARIN, LACNIC, APNIC, AfriNIC
/33	39.614.081.257.132.168.796.771.975.168		
/34	19.807.040.628.566.084.398.385.987.584		
/35	9.903.520.314.283.042.199.192.993.792		
/36	4.951.760.157.141.521.099.596.496.896	2001::xxx:xxxx:xxxx:xxxx:xxxx:xxxx	
/37	2.475.880.078.570.760.549.798.248.448		
/38	1.237.940.039.285.380.274.899.124.224		
/39	618.970.019.642.690.137.449.562.112		
/40	309.485.009.821.345.068.724.781.056	2001::xx:xxxx:xxxx:xxxx:xxxx:xxxx	
/41	154.742.504.910.672.534.362.390.528		
/42	77.371.252.455.336.267.181.195.264		
/43	38.685.626.227.668.133.590.597.632		
/44	19.342.813.113.834.066.795.298.816	2001::x:xxxx:xxxx:xxxx:xxxx:xxxx	
/45	9.671.406.556.917.033.397.649.408		
/46	4.835.703.278.458.516.698.824.704		
/47	2.417.851.639.229.258.349.412.352		
/48	1.208.925.819.614.629.174.706.176	2001::xxxx:xxxx:xxxx:xxxx:xxxx	Kleinste Netzgröße für Endbenutzer bei RIPE, ARIN, LACNIC, APNIC, AfriNIC
/49	604.462.909.807.314.587.353.088		
/50	302.231.454.903.657.293.676.544		
/51	151.115.727.451.828.646.838.272		
/52	75.557.863.725.914.323.419.136	2001::xxx:xxxx:xxxx:xxxx:xxxx	

/53	37.778.931.862.957.161.709.568		
/54	18.889.465.931.478.580.854.784		
/55	9.444.732.965.739.290.427.392		
/56	4.722.366.482.869.645.213.696	2001::xx:xxxx:xxxx:xxxx	Netzgröße zur Ermittlung der Effizienz, möglich für Heim-Netzwerke
/57	2.361.183.241.434.822.606.848		
/58	1.180.591.620.717.411.303.424		
/59	590.295.810.358.705.651.712		
/60	295.147.905.179.352.825.856	2001::x:xxxx:xxxx:xxxx	
/61	147.573.952.589.676.412.928		
/62	73.786.976.294.838.206.464		
/63	36.893.488.147.419.103.232		
/64	18.446.744.073.709.551.616	2001::xxxx:xxxx:xxxx:xxxx	Kleinste empfohlenes einzelnes reales Netz (z.B. mit EUI-64)
/65	9.223.372.036.854.775.808		
/66	4.611.686.018.427.387.904		
/67	2.305.843.009.213.693.952		
/68	1.152.921.504.606.846.976	2001::xxx:xxxx:xxxx:xxxx	
/69	576.460.752.303.423.488		
/70	288.230.376.151.711.744		
/71	144.115.188.075.855.872		
/72	72.057.594.037.927.936	2001::xx:xxxx:xxxx:xxxx	
/73	36.028.797.018.963.968		
/74	18.014.398.509.481.984		
/75	9.007.199.254.740.992		
/76	4.503.599.627.370.496	2001::x:xxxx:xxxx:xxxx	
/77	2.251.799.813.685.248		
/78	1.125.899.906.842.624		
/79	562.949.953.421.312		
/80	281.474.976.710.656	2001::xxxx:xxxx:xxxx	
/81	140.737.488.355.328		
/82	70.368.744.177.664		
/83	35.184.372.088.832		

/84	17.592.186.044.416	2001::xxx:xxxx:xxxx	
/85	8.796.093.022.208		
/86	4.398.046.511.104		
/87	2.199.023.255.552		
/88	1.099.511.627.776	2001::xx:xxxx:xxxx	
/89	549.755.813.888		
/90	274.877.906.944		
/91	137.438.953.472		
/92	68.719.476.736	2001::x:xxxx:xxxx	
/93	34.359.738.368		
/94	17.179.869.184		
/95	8.589.934.592		
/96	4.294.967.296	2001::xxxx:xxxx	Entspricht dem gesamten IPv4-Adressbereich
/97	2.147.483.648		Entspricht sämtlichen IPv4-Adressen aller Class A-Netze
/98	1.073.741.824		Entspricht sämtlichen IPv4-Adressen aller Class B-Netze
/99	536.870.912		Entspricht sämtlichen IPv4-Adressen aller Class C-Netze
/100	268.435.456	2001::xxx:xxxx	Entspricht sämtlichen IPv4-Adressen aller Class D- bzw. E-Netze
/101	134.217.728		
/102	67.108.864		
/103	33.554.432		
/104	16.777.216	2001::xx:xxxx	Entspricht IPv4 /8 (Class A)
/105	8.388.608		Entspricht IPv4 /9
/106	4.194.304		Entspricht IPv4 /10
/107	2.097.152		Entspricht IPv4 /11
/108	1.048.576	2001::x:xxxx	Entspricht IPv4 /12
/109	524.288		Entspricht IPv4 /13
/110	262.144		Entspricht IPv4 /14
/111	131.072		Entspricht IPv4 /15
/112	65.536	2001::xxxx	Entspricht IPv4 /16 (Class B)
/113	32.768		Entspricht IPv4 /17
/114	16.384		Entspricht IPv4 /18
/115	8.192		Entspricht IPv4 /19

/116	4.096	2001::xxx	Entspricht IPv4 /20
/117	2.048		Entspricht IPv4 /21
/118	1.024		Entspricht IPv4 /22
/119	512		Entspricht IPv4 /23
/120	256	2001::xx	Entspricht IPv4 /24 (Class C)
/121	128		Entspricht IPv4 /25
/122	64		Entspricht IPv4 /26
/123	32		Entspricht IPv4 /27
/124	16	2001::x	Entspricht IPv4 /28
/125	8		Entspricht IPv4 /29
/126	4		Entspricht IPv4 /30
/127	2		Entspricht IPv4 /31, gängig für Inter-Router-Verbindungen
/128	1		Entspricht IPv4 /32, einzelne IPv6-Adresse