network Walks

Key Attributes

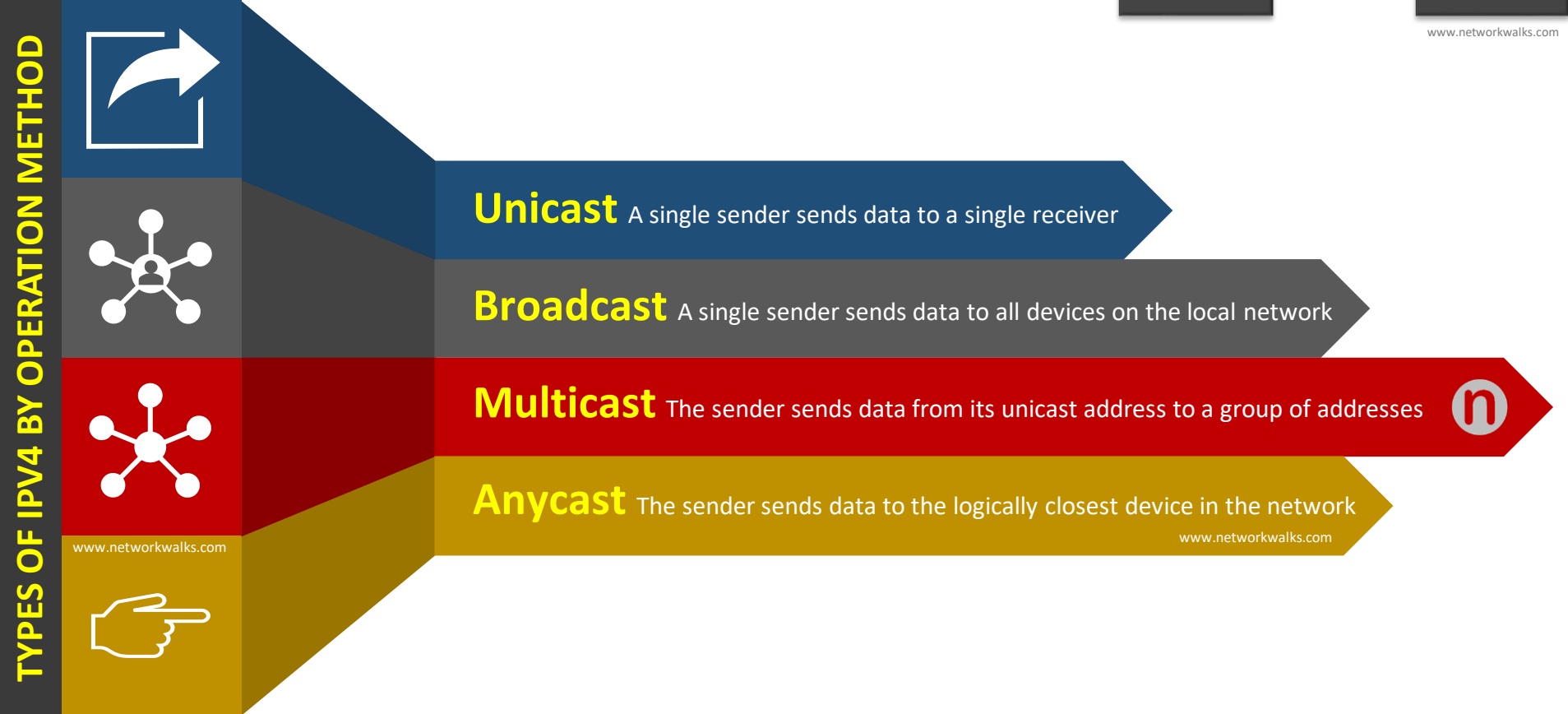|	
Current Standard:	RFC791 (Sep 1981)
Address space:	32-bit
Total no. of addresses:	2^{32} = 4294967296 = 4.3 Billion
Notation:	Dotted Decimal
Official/full name:	Internet Protocol version 4

Types of IPv4 Addresses by Assignment Method

- ❶ Dynamic IP addresses
- ❷ Dynamic IP addresses

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TYPES OF IPV4 BY OPERATION METHOD

Unicast A single sender sends data to a single receiver

Broadcast A single sender sends data to all devices on the local network

Multicast The sender sends data from its unicast address to a group of addresses

Anycast The sender sends data to the logically closest device in the network

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Types of IPv4 Addresses by IP Versions

Class	Address Range	Network /Host Part	Default Subnet Mask	Detail
Class A	1.0.0.1 – 126.255.255.254	N.H.H.H	255.0.0.0	Hosts = $(2^{24} - 2)$ = 16,777,214 = (16M) Networks = $(2^7 - 2)$ = 126 127.0.0.0 - 127.255.255.255 reserved
Class B	128.1.0.1 – 191.255.255.254	N.N.H.H	255.255.0.0	Hosts = $(2^{16} - 2)$ = 65,534 Networks = $(2^{14} - 2)$ = 16,382
Class C	192.0.1.1 – 223.255.254.254	N.N.N.H	255.255.255.0	Hosts = $(2^8 - 2)$ = 254 Networks = $(2^{21} - 2)$ = 2,097,150 (2M)
Class D	224.0.0.0 – 239.255.255.255			Reserved for multicast groups
Class E	240.0.0.0 – 254.255.255.254			Reserved for future use & R&D

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Types of IPv4 Addresses by IP Versions

IPv4	32-bit address space & gives us 4.3Billion addresses
IPv6	128-bit address space & gives us 340 undecillion addresses

Types of IPv4 Addresses by Assignment Method

- ❶ Dynamic IP addresses
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Your Feedback, Comments are always Welcomed: info@networkwalks.com