Basic Concepts

Analytics Vidhya

CIDR
Classless Inter-Domain Routing

Analytics Vidhya

It is an IP addressing scheme that improves the allocation of IP addresses and replaces the old system based on classes A, B, and C.

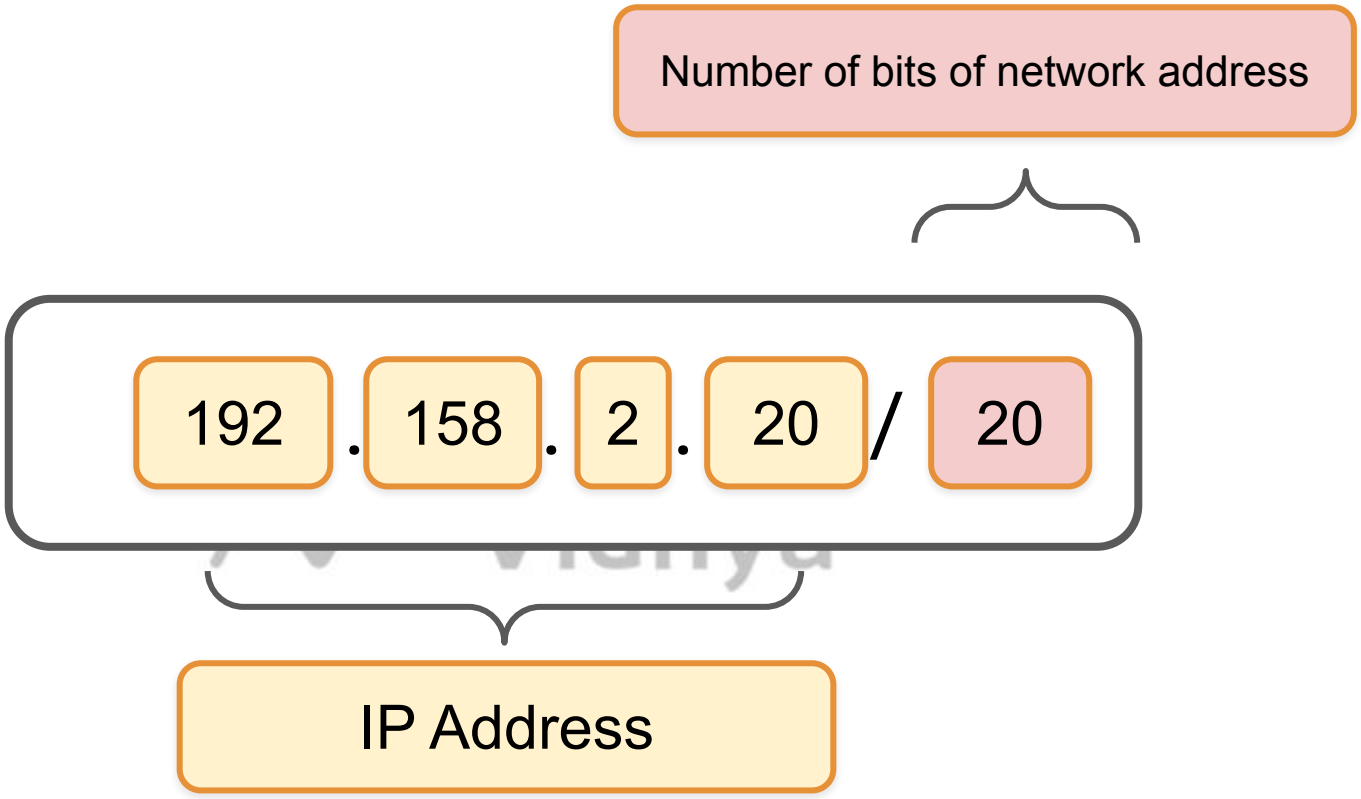
Analytics Vidhya

Class A	16 Million+ Hosts
Class B	65,535 Hosts
Class C	254 Hosts

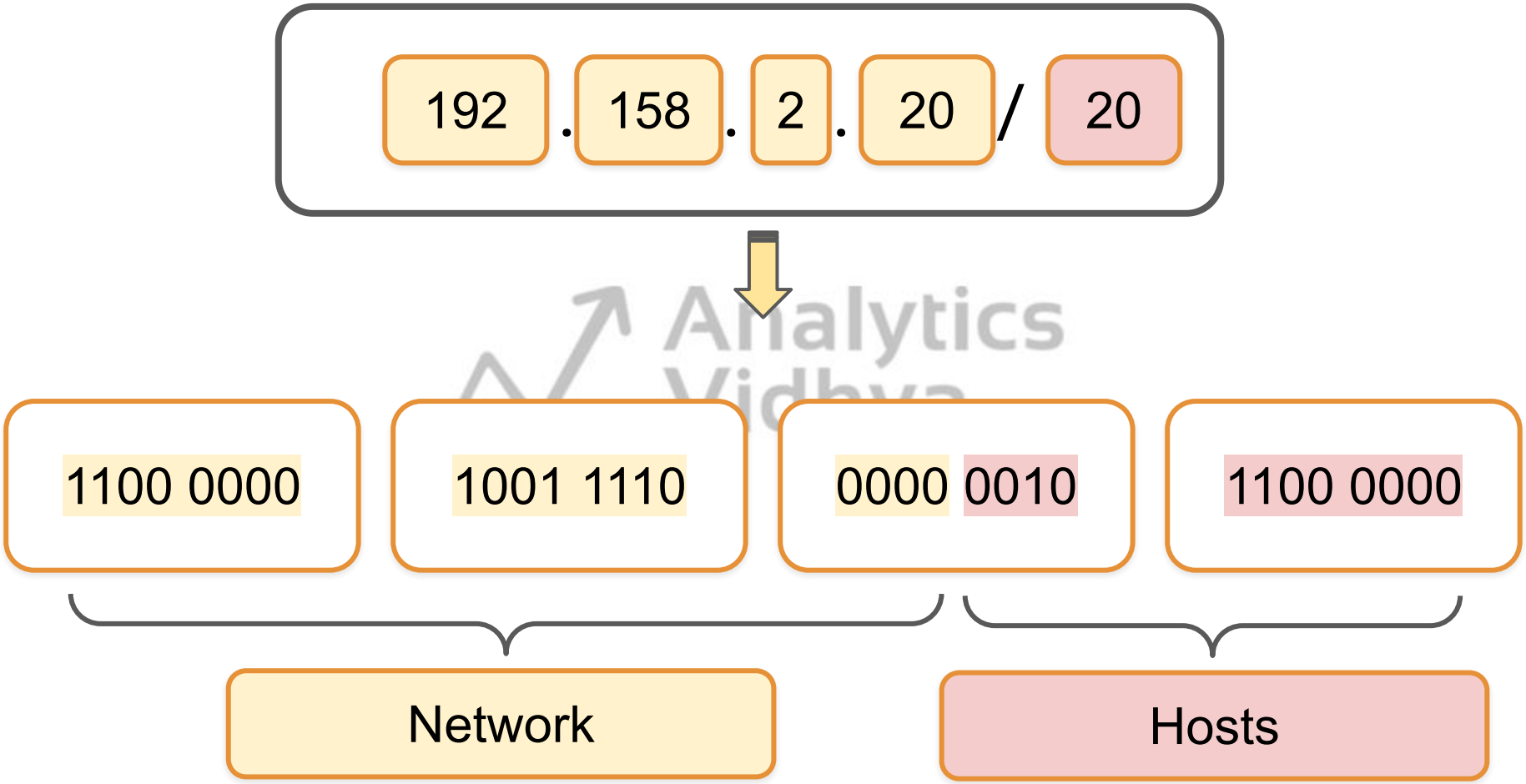
250 Hosts → 300 Hosts

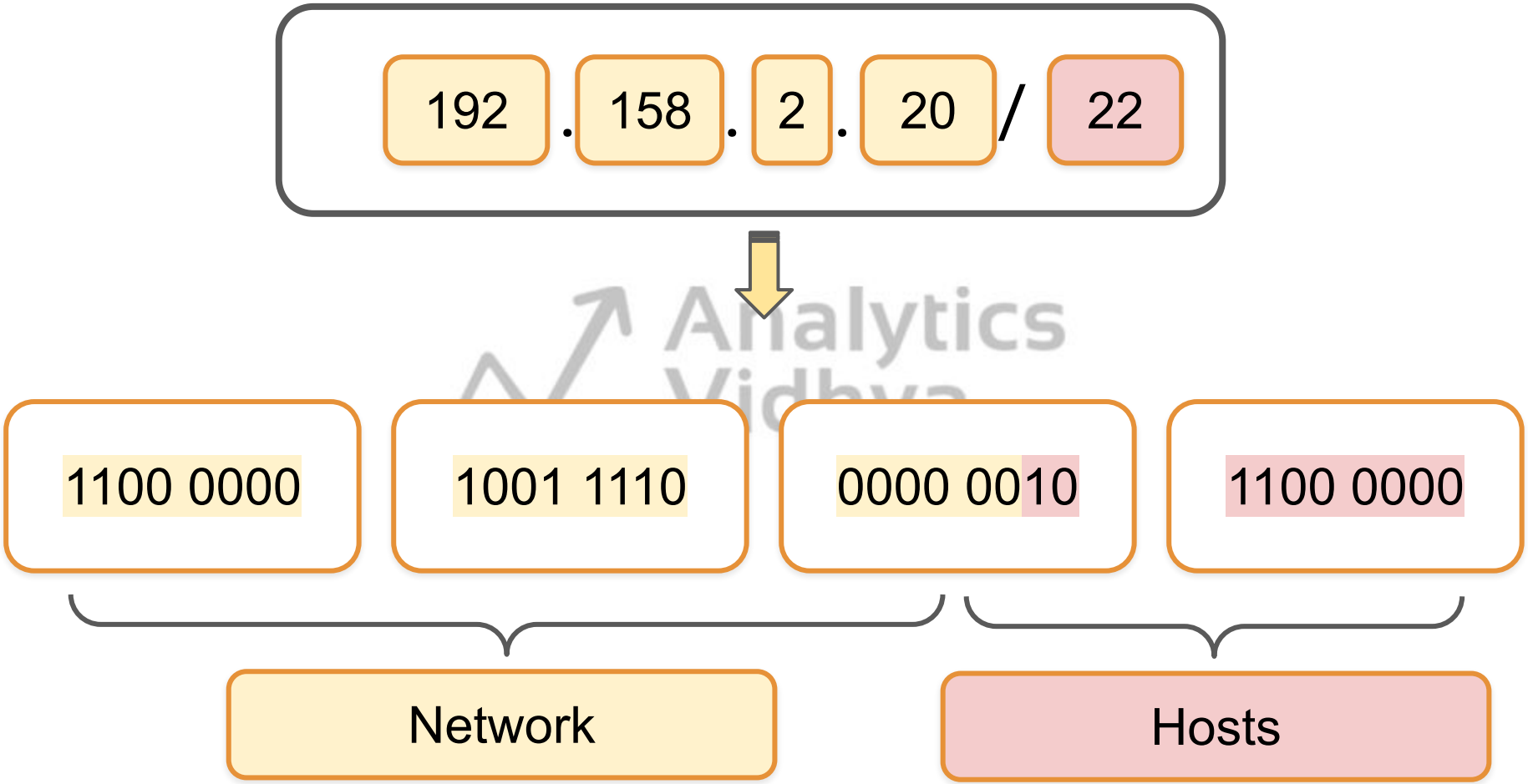
65235

Analytics Vidhya



Analytics Vidhya


192 . 158 . 2 . 20 / 20
1100 0000
1001 1110
0000 0010
1100 0000
Network
Hosts

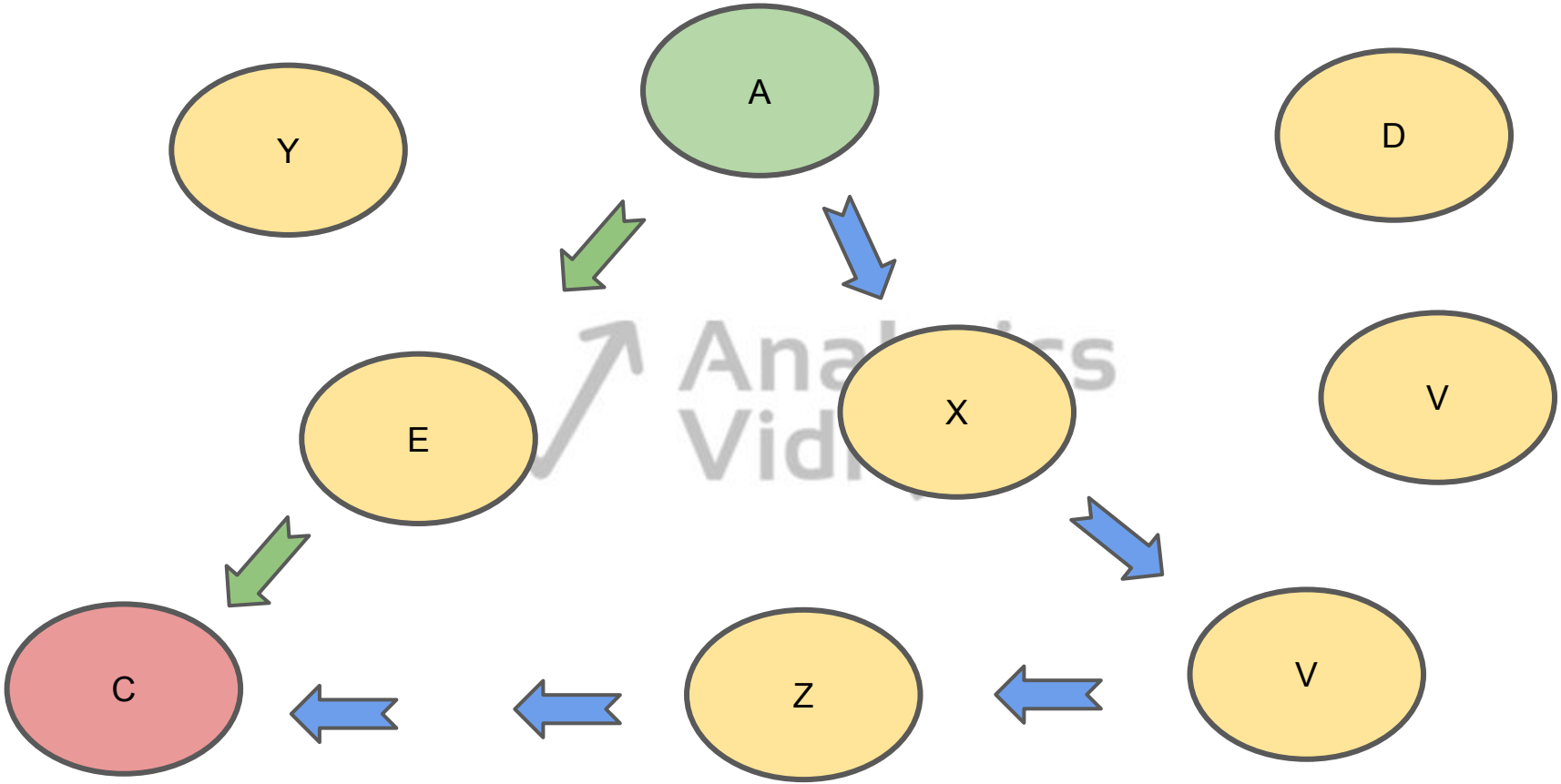

192 . 158 . 2 . 20 / 22
1100 0000
1001 1110
0000 0010
1100 0000
Network
Hosts

Route Tables

Analytics Vidhya

Route tables contains the set of rules and necessary information to forward a packet along the best path toward its destination

Analytics Vidhya


A
Y
D
E
X
V
C
Z
V

```
===========================================================================
Interface List
 11...bc 30 5b a6 b2 6d ......Broadcom NetXtreme 57xx Gigabit Controller
  1...........................Software Loopback Interface 1
 12...00 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter
 14...00 00 00 00 00 00 00 e0 Teredo Tunneling Pseudo-Interface
===========================================================================

IPv4 Route Table
===========================================================================
Active Routes:
Network Destination        Netmask          Gateway       Interface  Metric
          0.0.0.0          0.0.0.0       10.1.0.1      10.1.0.177     11
         10.1.0.0      255.255.0.0         On-link       10.1.0.177    266
       10.1.0.177  255.255.255.255         On-link       10.1.0.177    266
    10.1.255.255  255.255.255.255         On-link       10.1.0.177    266
        127.0.0.0        255.0.0.0         On-link        127.0.0.1    306
        127.0.0.1  255.255.255.255         On-link        127.0.0.1    306
  127.255.255.255  255.255.255.255         On-link        127.0.0.1    306
        224.0.0.0        240.0.0.0         On-link        127.0.0.1    306
        224.0.0.0        240.0.0.0         On-link       10.1.0.177    266
  255.255.255.255  255.255.255.255         On-link        127.0.0.1    306
  255.255.255.255  255.255.255.255         On-link       10.1.0.177    266
===========================================================================
Persistent Routes:
  None
```

Analytics Vidhya

Thank You !!

Analytics Vidhya