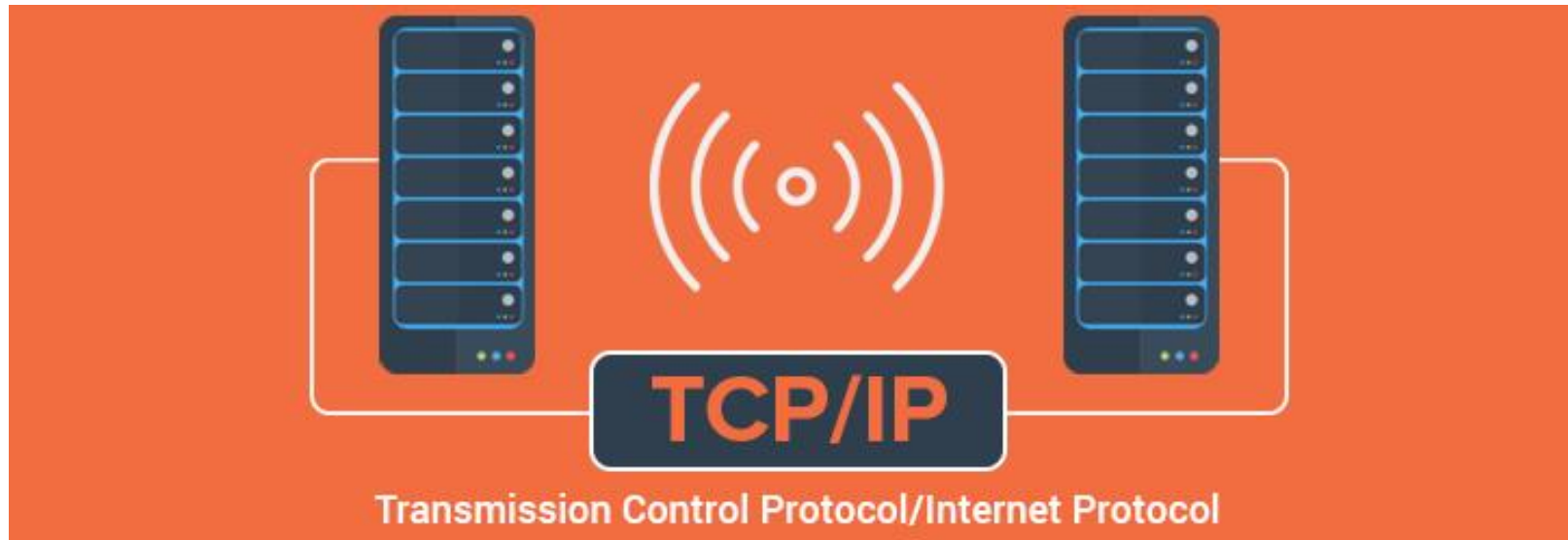
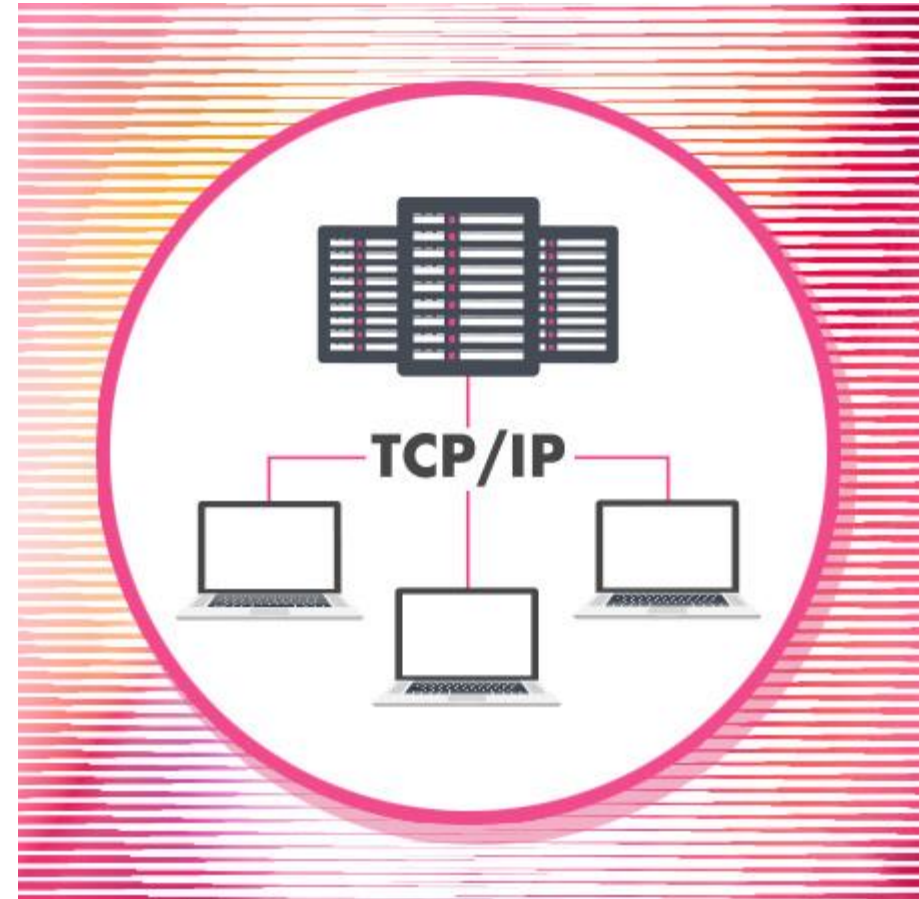


# TCP/IP



# TCP ? IP ?

- Transmission Control Protocol
- Internet Protocol
- Base d'internet et des réseaux informatiques modernes
- Fonctionnement → RFC



# RFC (Request for comments)

- Décrit aspects/specifications techniques liés à internet
- Développement et normalisation des technologies internet
- Remonte au début d'internet
- Numéro de série unique

```
Network Working Group                                Steve Crocker
Request for Comments: 1                             UCLA
                                                    7 April 1969

                Title:  Host Software
                Author:  Steve Crocker
                Installation:  UCLA
                Date:    7 April 1969
Network Working Group Request for Comment:  1

CONTENTS

INTRODUCTION

  I. A Summary of the IMP Software

      Messages

      Links

      IMP Transmission and Error Checking

      Open Questions on the IMP Software

  II. Some Requirements Upon the Host-to-Host Software
```

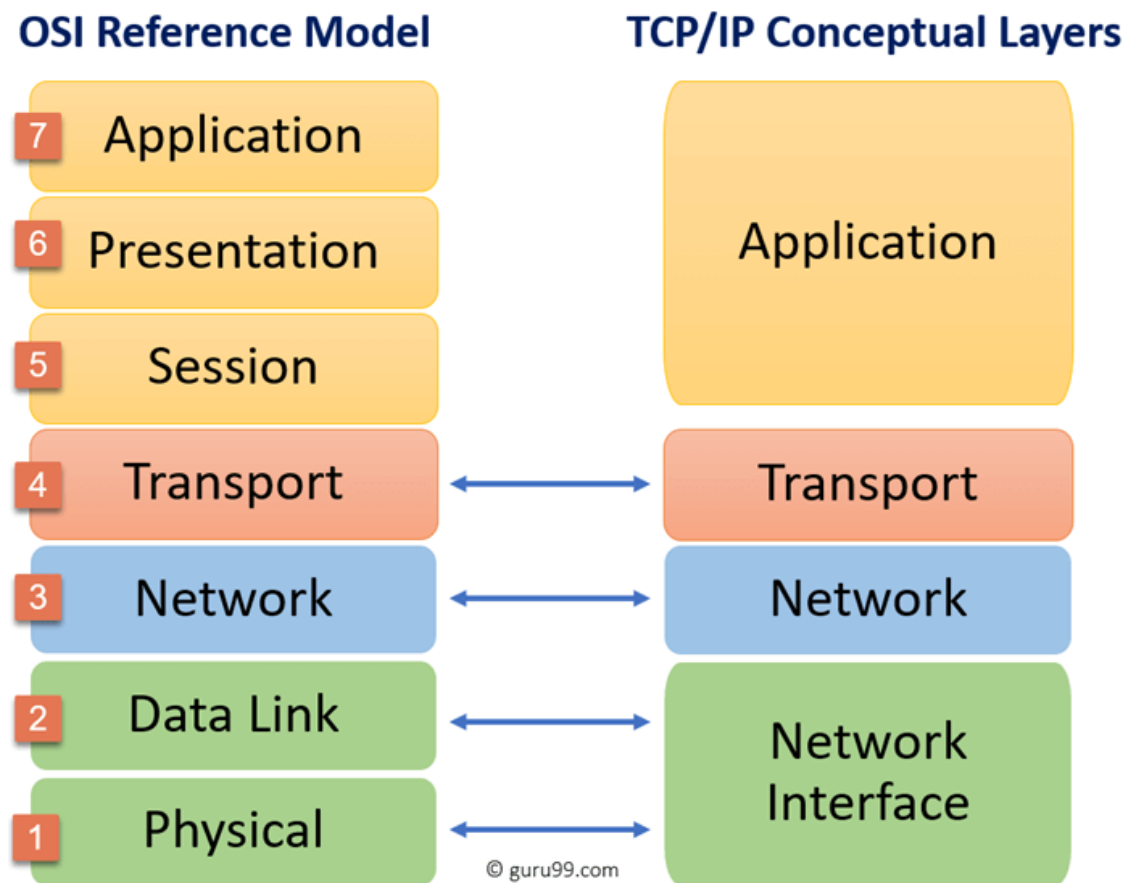
# Publication

- Ouvert et gratuit
- Evolution continue
- Internet Engineering Task Force



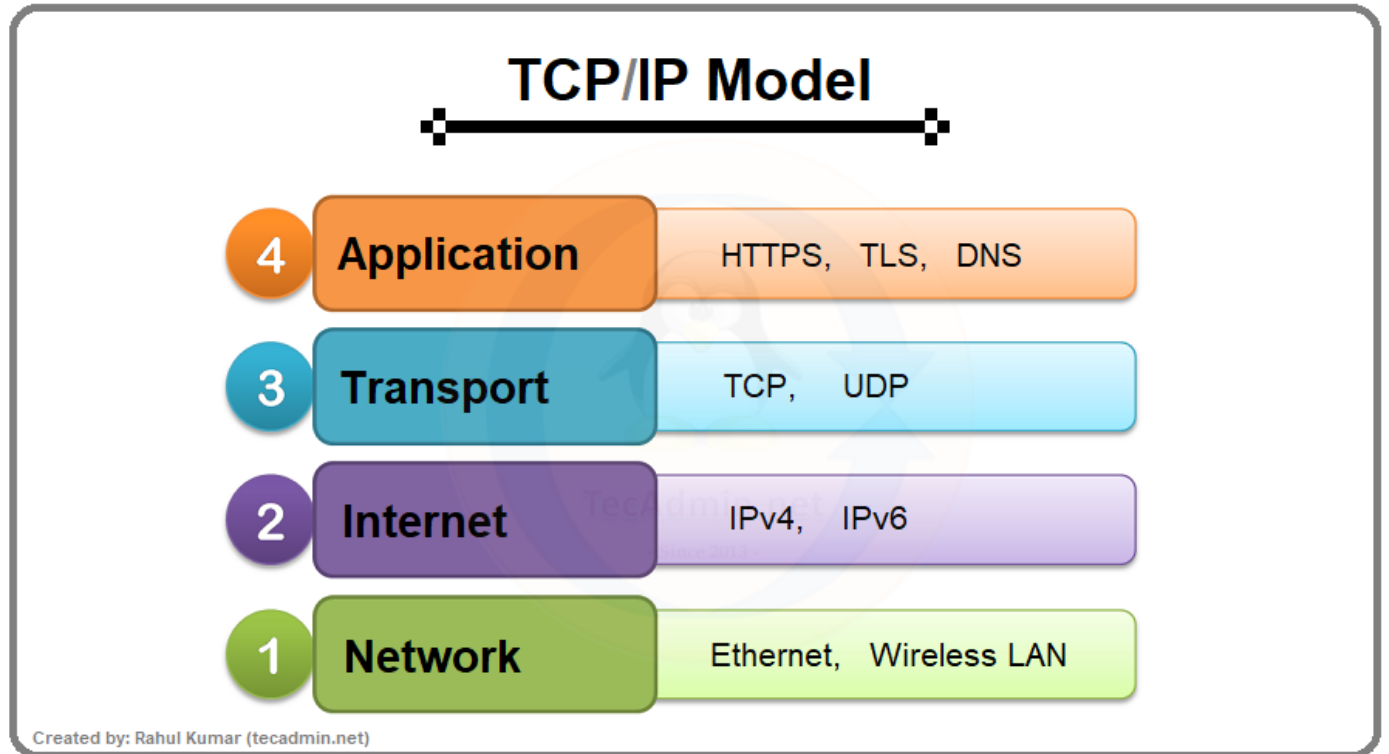
# Modèle TCP/IP

- Modèle internet



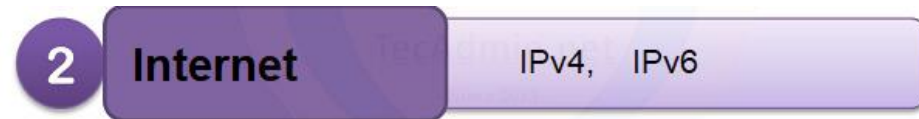
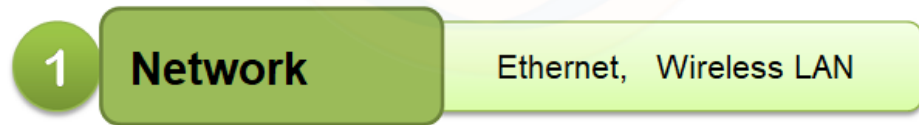
# TCP/IP c'est quoi?

- Modèle conceptuel
- Structure
- 4 couches



# 4 couches

- Liaison de données:
  - Physique (Bits)
  - Communication (LAN)
  
- Couche réseau:
  - Acheminement paquets
  - IP



# 4 couches

- Couche transport:
  - Bout en bout
  - TCP/UDP

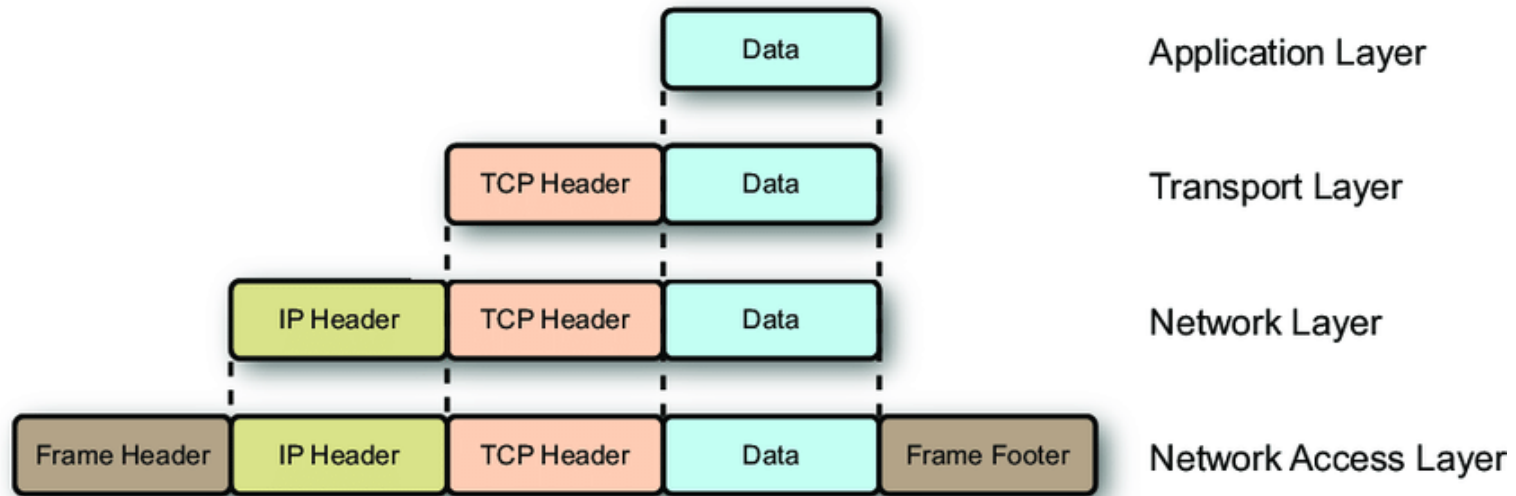


- Couche Application:
  - Haute
  - Utilisation finale (HTTP)



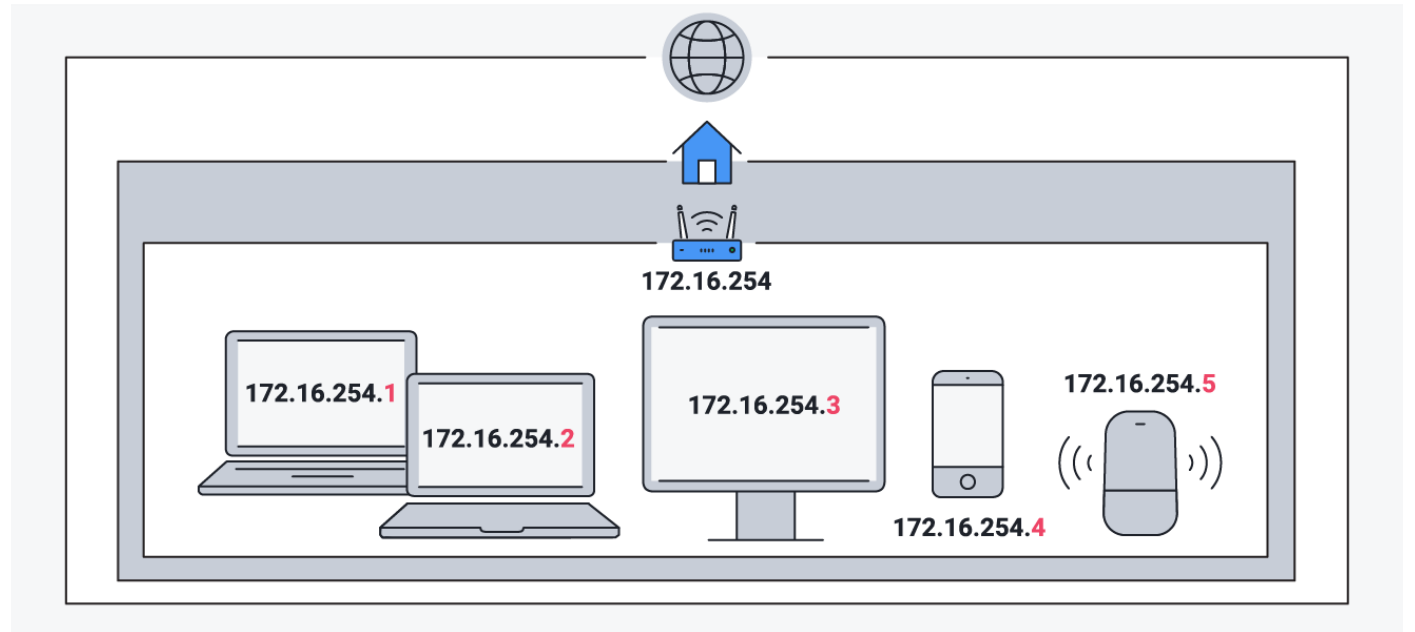


# Encapsulation



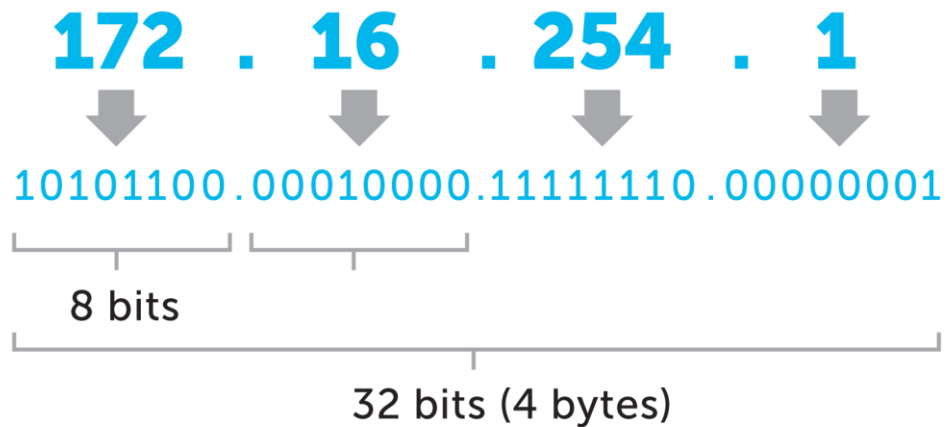
# Adresse IP c'est quoi?

- Identifiant numérique
- Localisation



# IPv4 et IPv6

IPv4 address in dotted-decimal notation



## IPv6 address

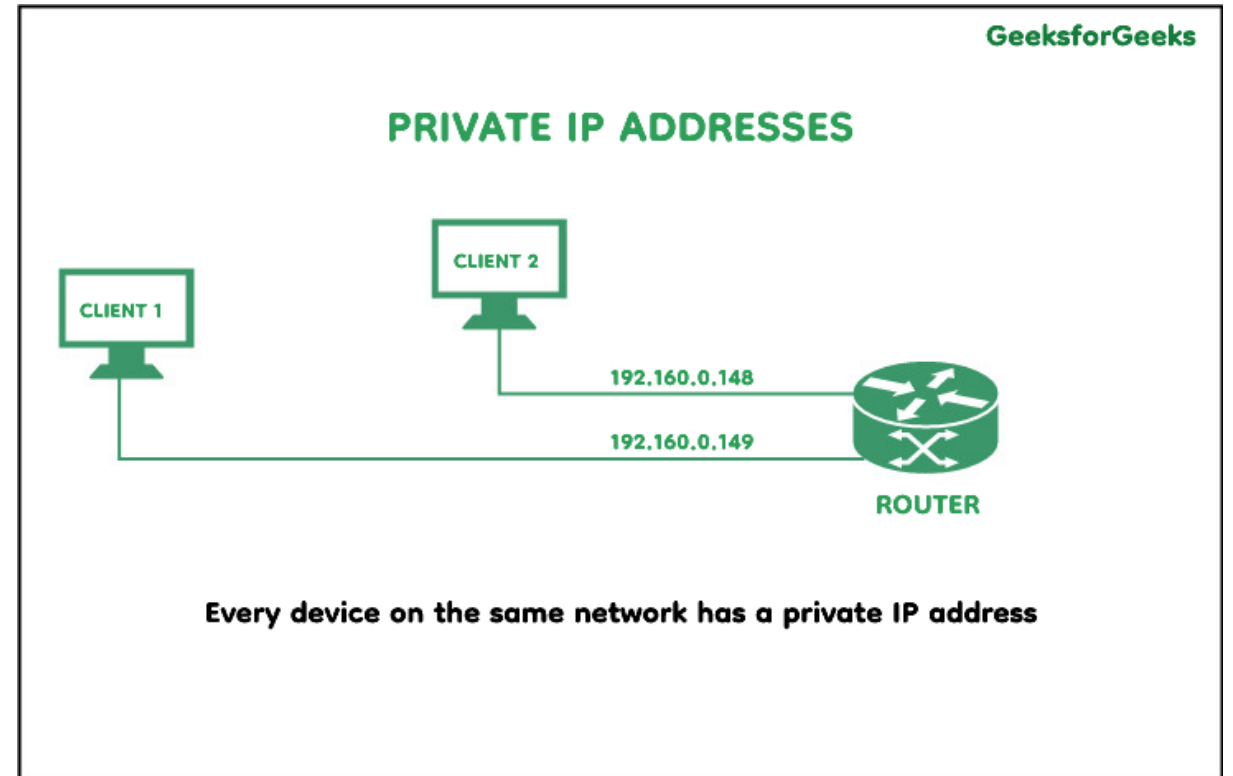
**2001 : 0DC8 : E004 : 0001 : 0000 : 0000 : 0000 : F00A**

16 bits : 16 bits : 16 bits : 16 bits : 16 bits : 16 bits : 16 bits : 16 bits

**128 Bits**

# Adressage privé

- Réseaux domestiques / entreprises
- Isolation et sécurité
- RFC 1918
- Traduction → NAT



# NAT (Network Address Translation)

