The Routing Process

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Static Routing

Subtitle

- Process of path selection
- It ensures that data travels from one network to another

Routing

What is Routing?

Optimal speed

Minimal delay

Integrity maintained

Dynamic
Static

Routing

2 Ways

Routing Metric and Cost

Hop Count
Delay
Bandwidth
Load
Reliability

Static Routing

What is Static Routing?

- Type of Network Routing Technique
- Not a Routing Protocol
- It's a MANUAL Configuration and Selection of a Network route

Static Routing

Advantages

- No Overhead
- Predictability
- Bandwidth
- Security

Static Routing

Disadvantages

- Maintenance
- Updates
- Redundancy
- Input Error

Dynamic Routing

What is Dynamic Routing?

- aka Adaptive Routing
- Used to discover a new routes to reach destination
- If any route goes down, auto adjustment

Dynamic Routing

Advantages

- Easier to Configure
- Respond to Changes

Dynamic Routing

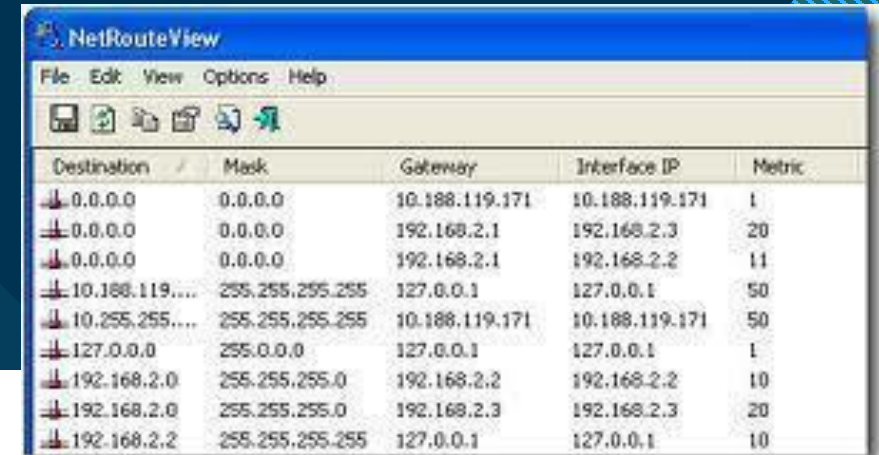Disadvantages

- Expensive
- Less secure

Static VS Dynamic Routing
What's the Difference?

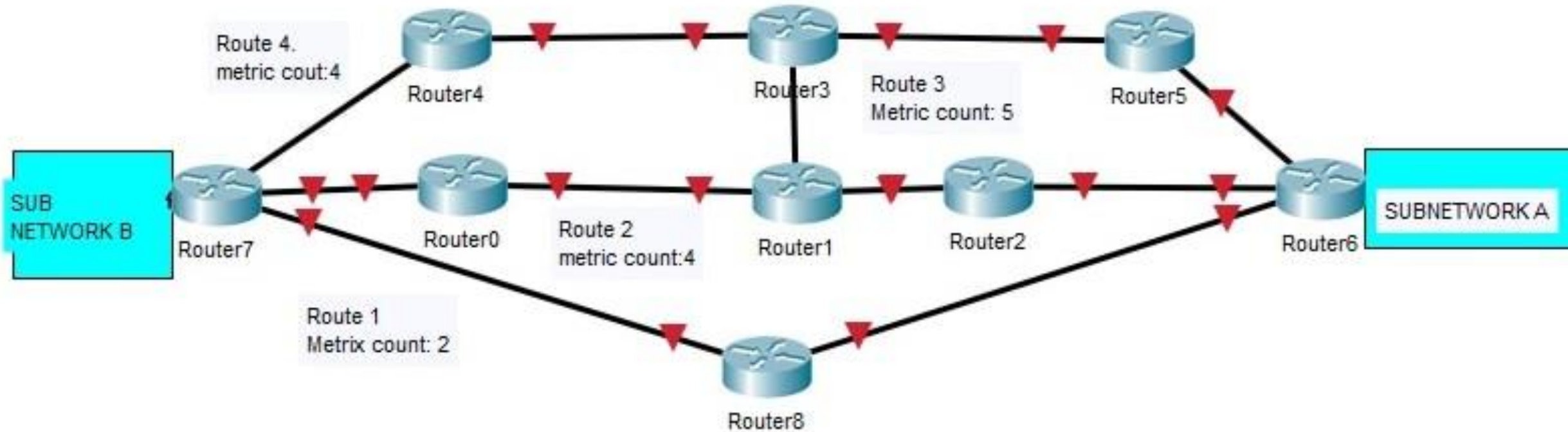| Static	Dynamic
Uses single preconfigured route to send	Provides multiple available routes
Net admin MUST manually configure static route	Uses algorithm to automatically update
Doesn't use protocols	Uses distant protocol RIP & IGRP, OSPF, IS-IS
Requires less compute power and bandwidth	More computational and bandwidth to *"Generate Multiple route possibilities"*

IP Routing
How does it works?

Dynamic Routing Protocols

OSPF – Open Shortest Path First

EIGRP – Enhanced Interior Gateway Routing

RIP – Routing Information Protocol

BGP – Border Gateway Patrol

Thank You!