

Atributos

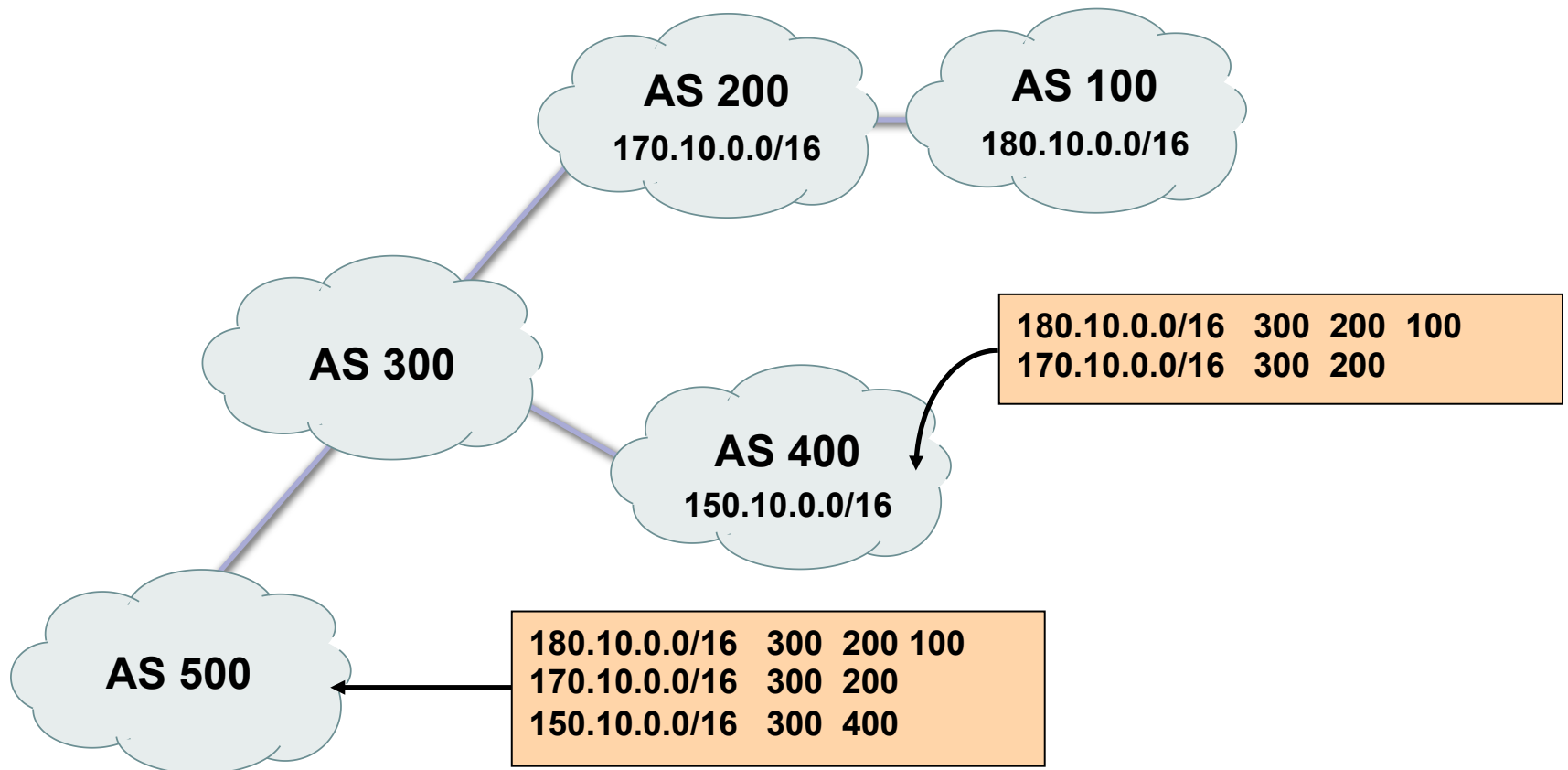
- BGP permite especificar una serie de atributos como parte del anuncio del path
 - **Well-known** (mandatory/discretionary) – deben ser reconocidos por todos los routers y ser mantenidos
 - Mandatory – deben ser incluidos en los mensajes UPDATE
 - **Optional** (transitive/non-transitive) – no todas las implementaciones de BGP deben soportar estos atributos.
 - Transitive – deben ser pasados a otros peers.

Atributos

- ORIGIN (Type Code 1) – mandatory
- AS_PATH (Type Code 2) – mandatory
- NEXT_HOP (Type Code 3) – mandatory
- MULTI_EXIT_DISC (Type Code 4) – non-transitive
- LOCAL_PREF (Type Code 5) – discretionary
- ATOMIC_AGGREGATE (Type Code 6) – discretionary
- AGGREGATOR (Type Code 7) – transitive
- COMMUNITY (Type Code 8) – transitive

AS_PATH

- AS_PATH attribute

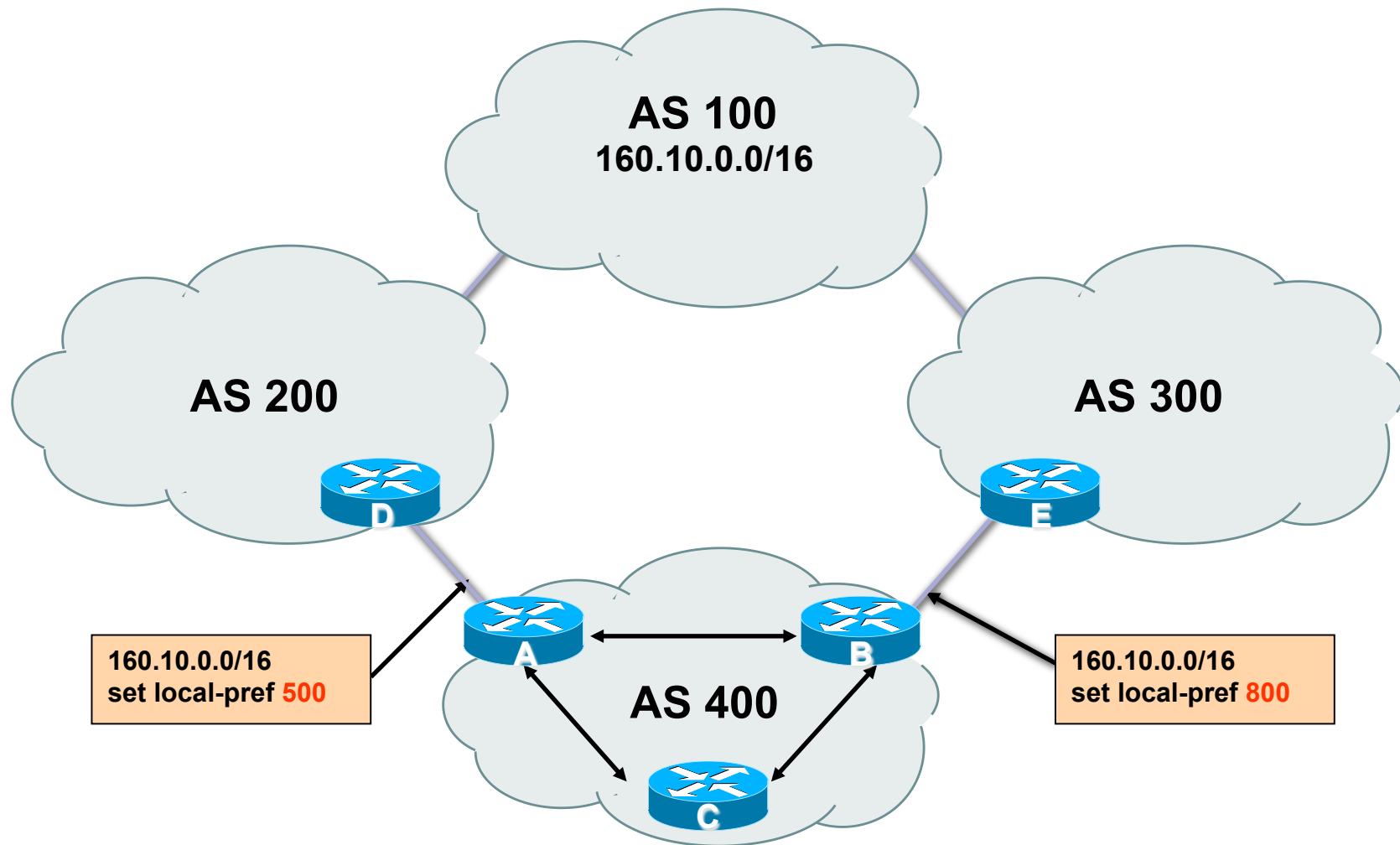


LOCAL_PREF

- Usado en el proceso de selección de rutas
- Es local al AS y es propagado en los anuncios de rutas
- Se prefieren las rutas con mayor LOCAL_PREF
- El valor por default para local preference es 100

LOCAL_PREF

- LOCAL_PREF attribute



LOCAL_PREF

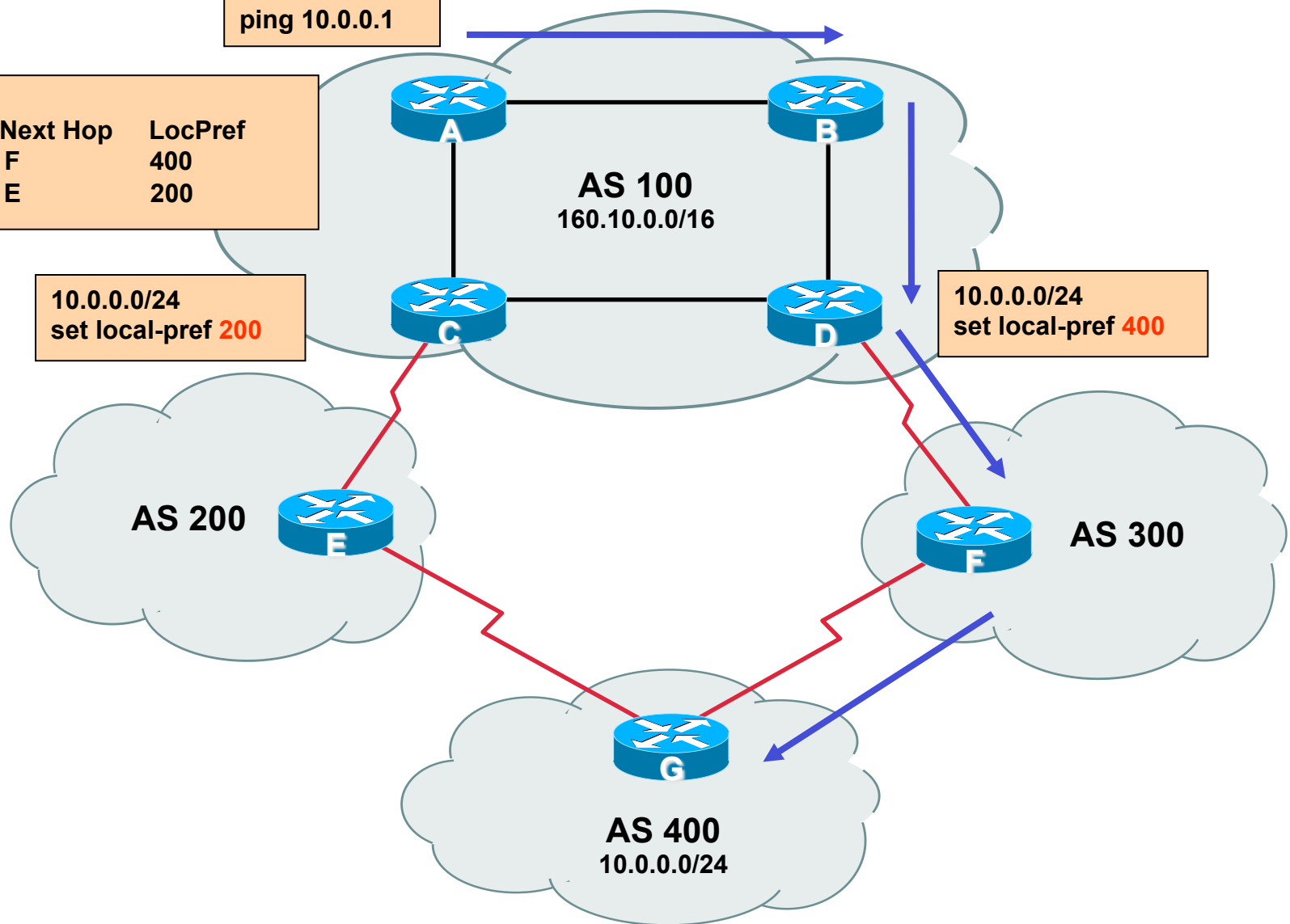
ping 10.0.0.1

Router A

Network	Next Hop	LocPref
*> 10.0.0.0/24	F	400
* 10.0.0.0/24	E	200

10.0.0.0/24
set local-pref 200

10.0.0.0/24
set local-pref 400



COMMUNITY

- The community attribute can be thought of as simply a flat 32-bit value that can be applied to any set of prefixes
- It can be read as a 32-bit value or split into two portions

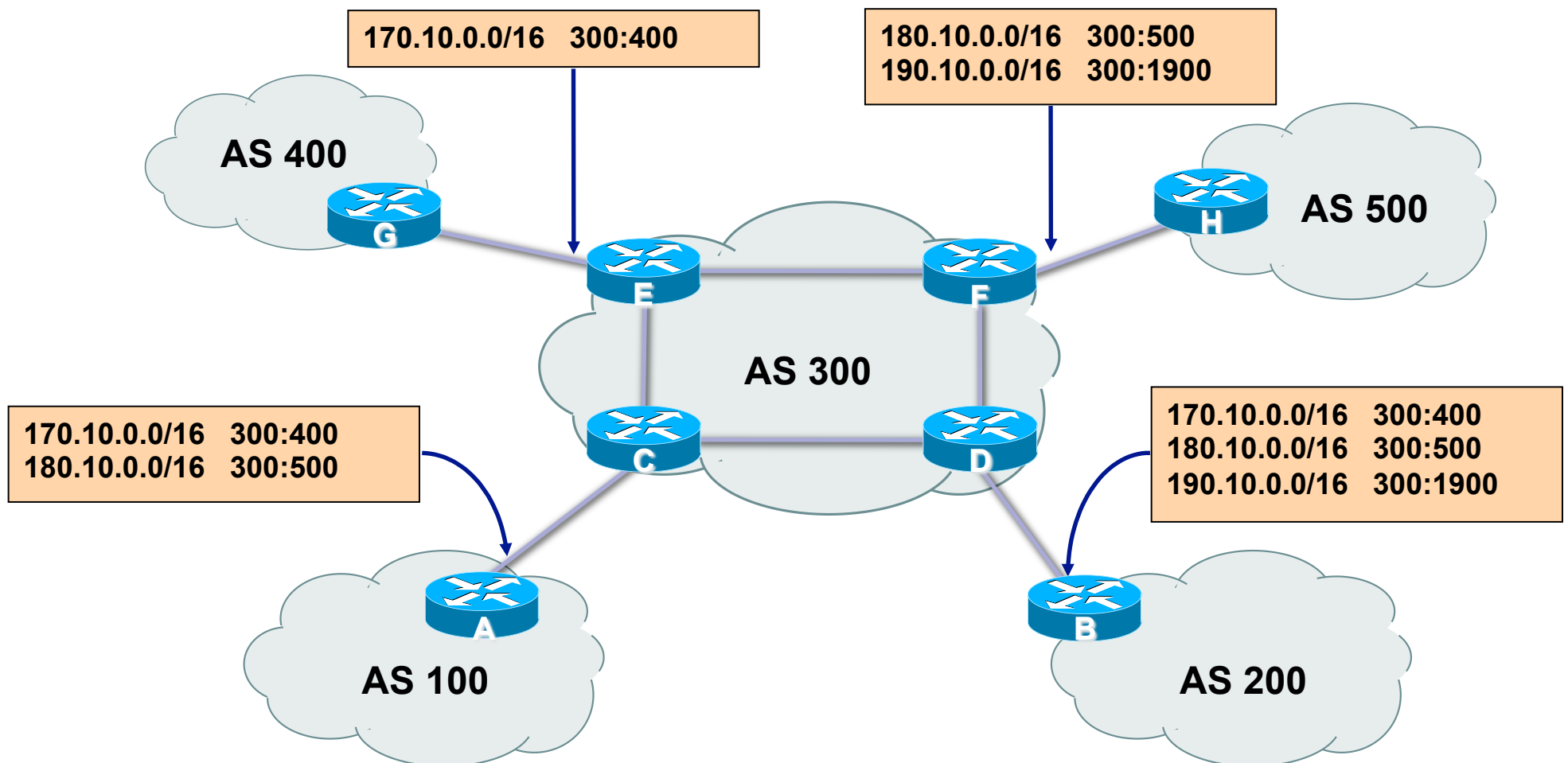
- **BGP Community Attribute**

- **Autonomous System Number (2 Octets)**

- **Value (2 Octets)**

COMMUNITY

- COMMUNITY attribute

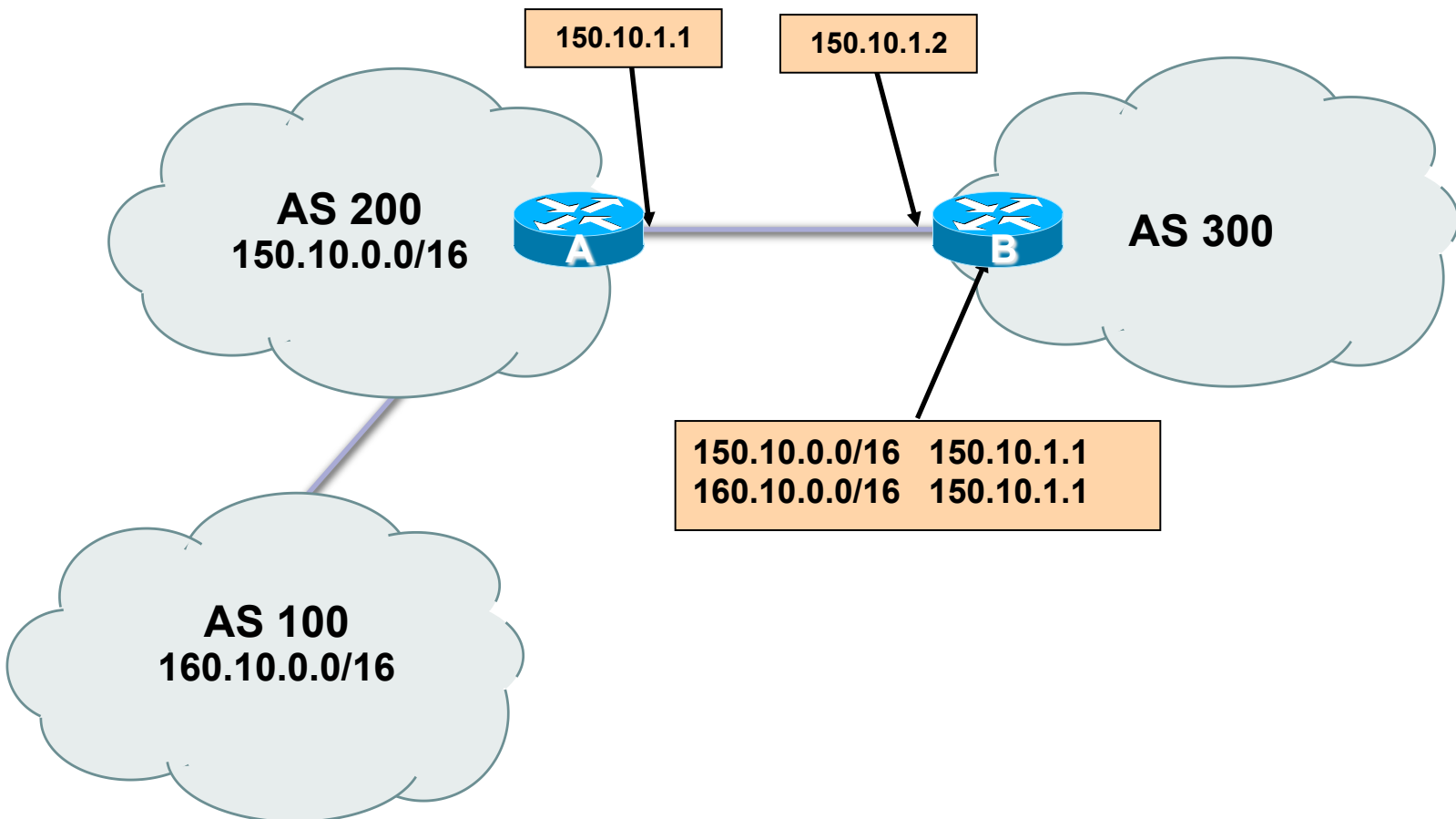


ORIGIN

- **IGP**
 - has a origin inside the AS
 - announced via ***network*** command
 - represented with the letter “i”
- **EGP**
 - learned via EGP
 - represented with the letter “e”
- **Incomplete**
 - redistributed via EGP with unknown origin
 - represented with the symbol “?”
- **Aggregator**
 - IP address of the router who generated the aggregator
 - used to problem resolution
 - doesn't influence the selection of a route

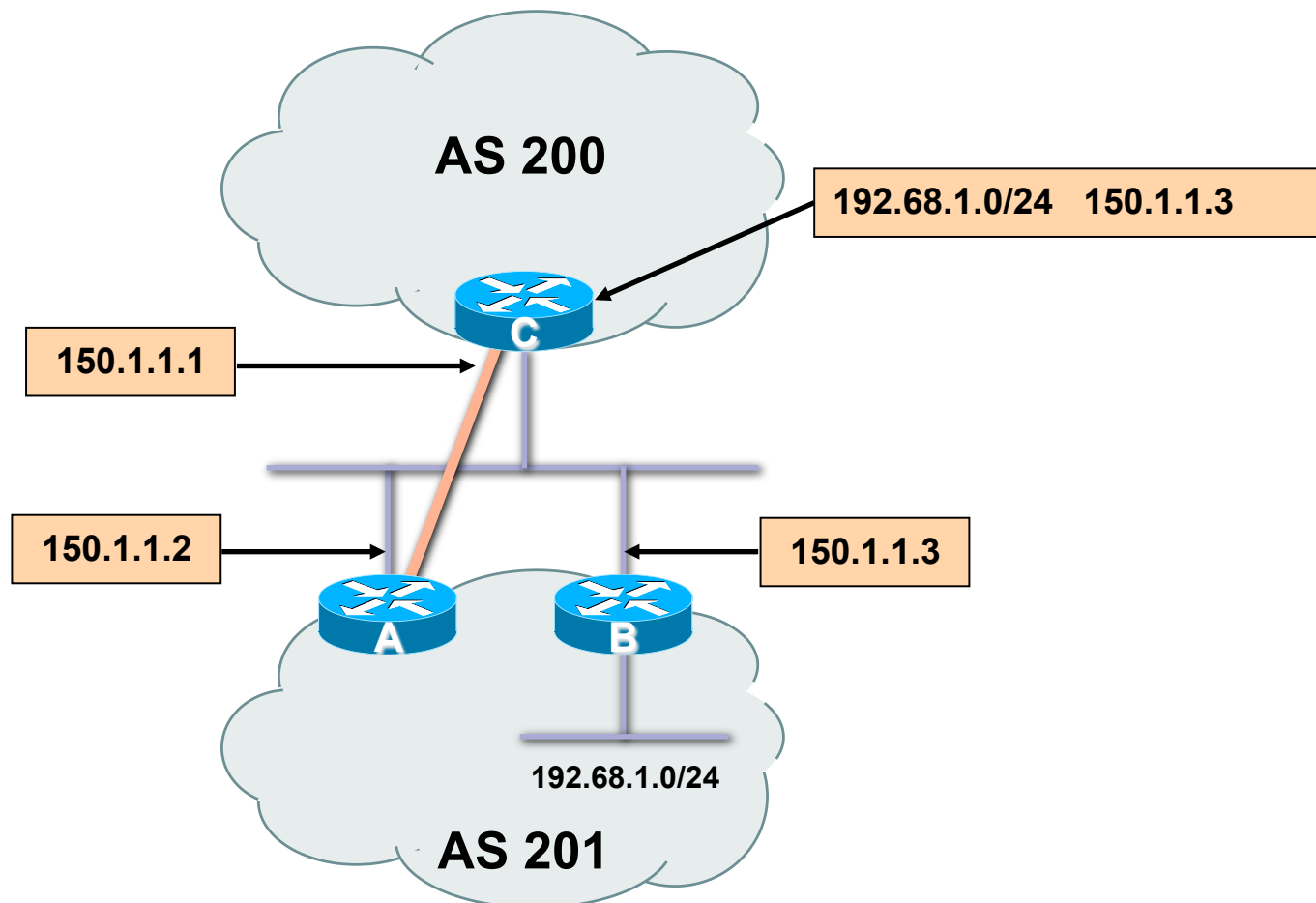
NEXT_HOP

- NEXT_HOP attribute



NEXT_HOP

- NEXT_HOP attribute



NEXT_HOP

- NEXT_HOP attribute

