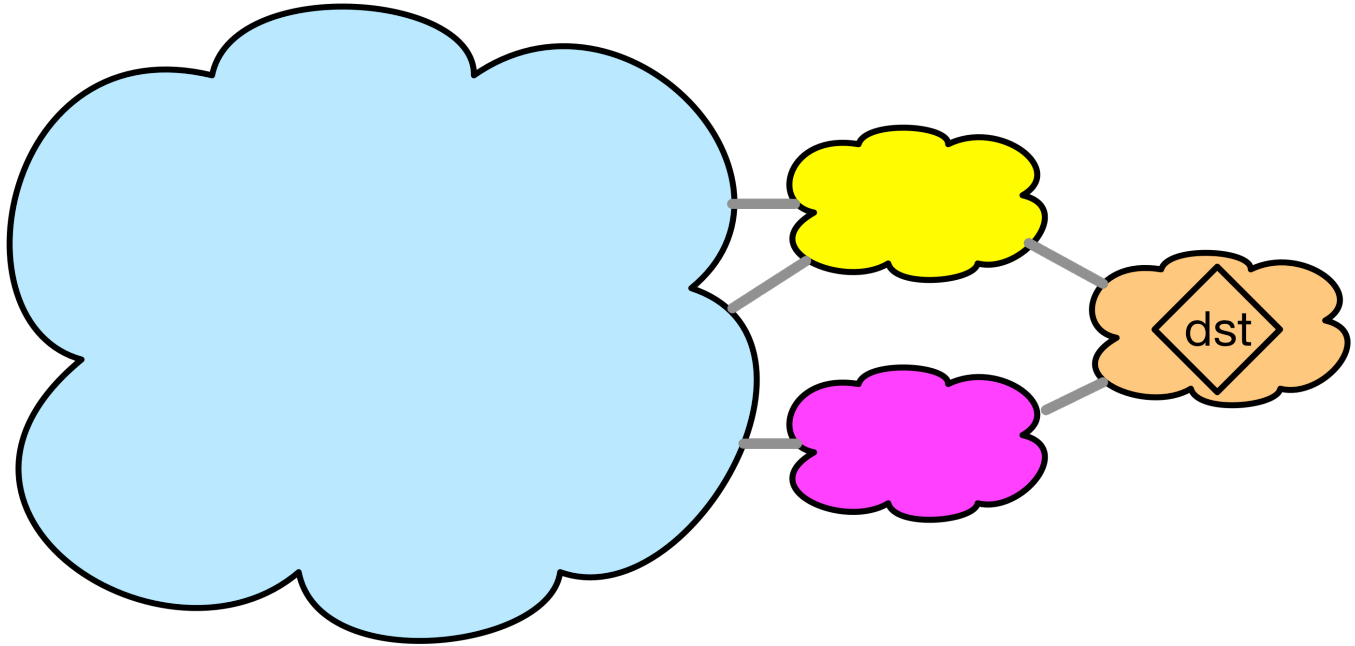
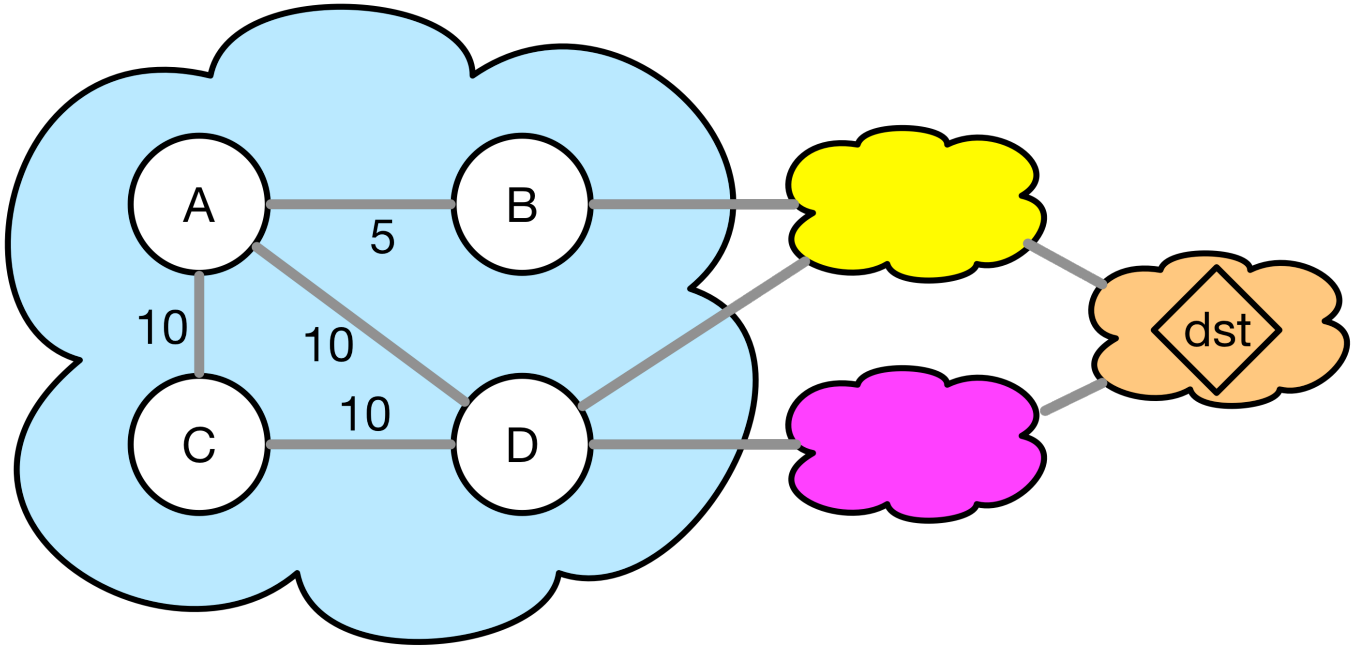
Week 2: Topology and routes

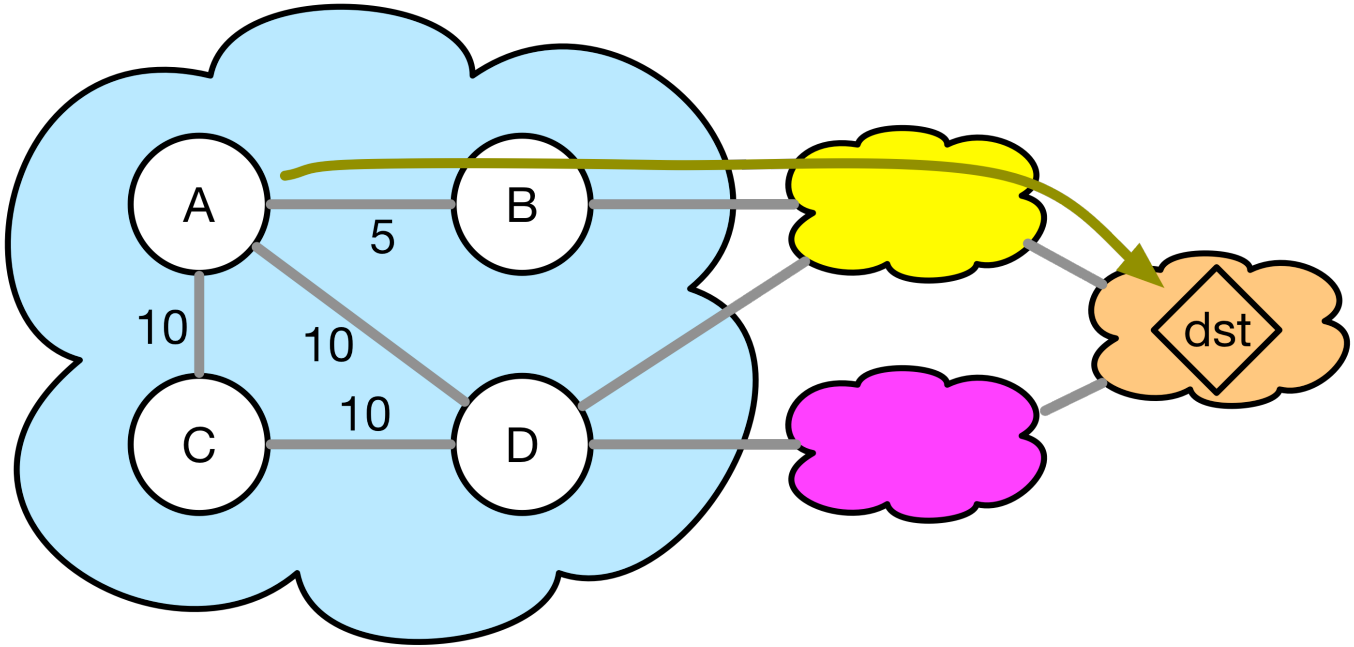
1. Introduction and questions
2. **BGP updates**
   A. Basics
   B. **Limits**
3. Traceroutes
4. Conclusion

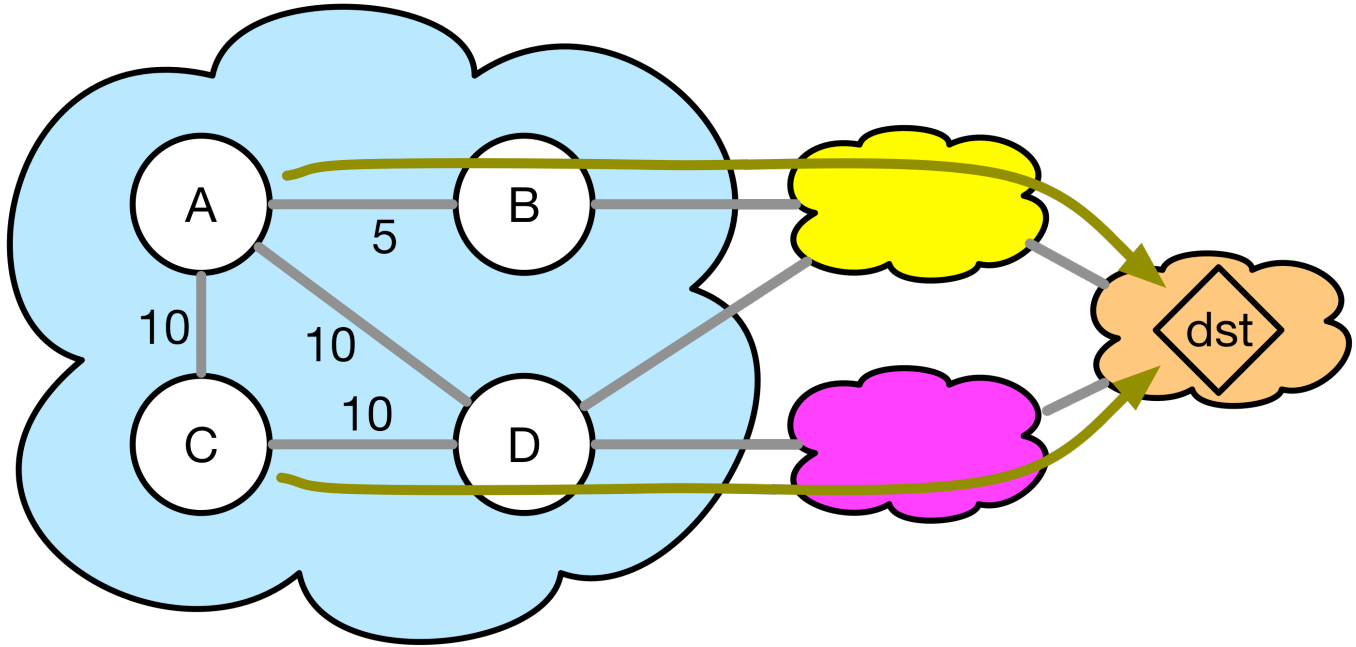
BGP updates - Limits

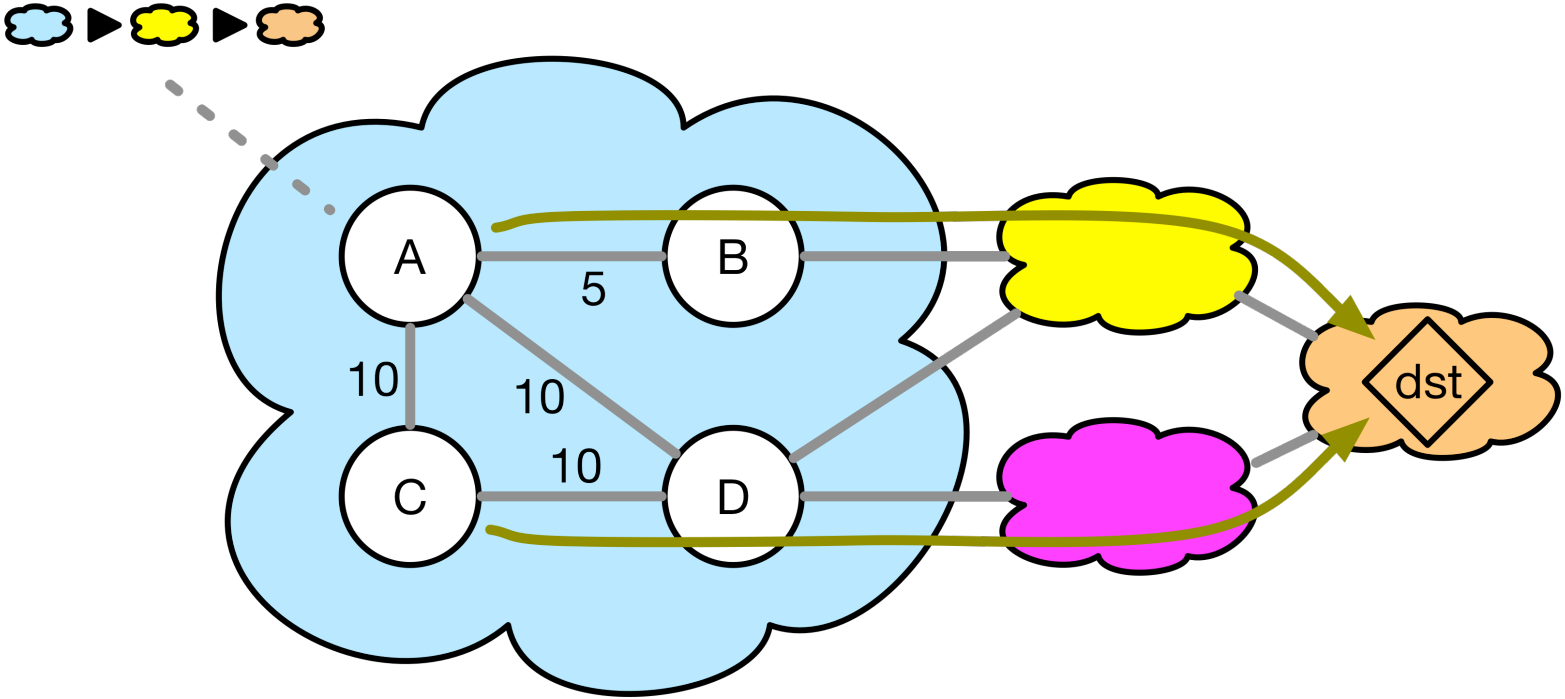
- **Router representativeness**
  - Router speaking for AS or just itself?
- Internal changes
- Aggregation

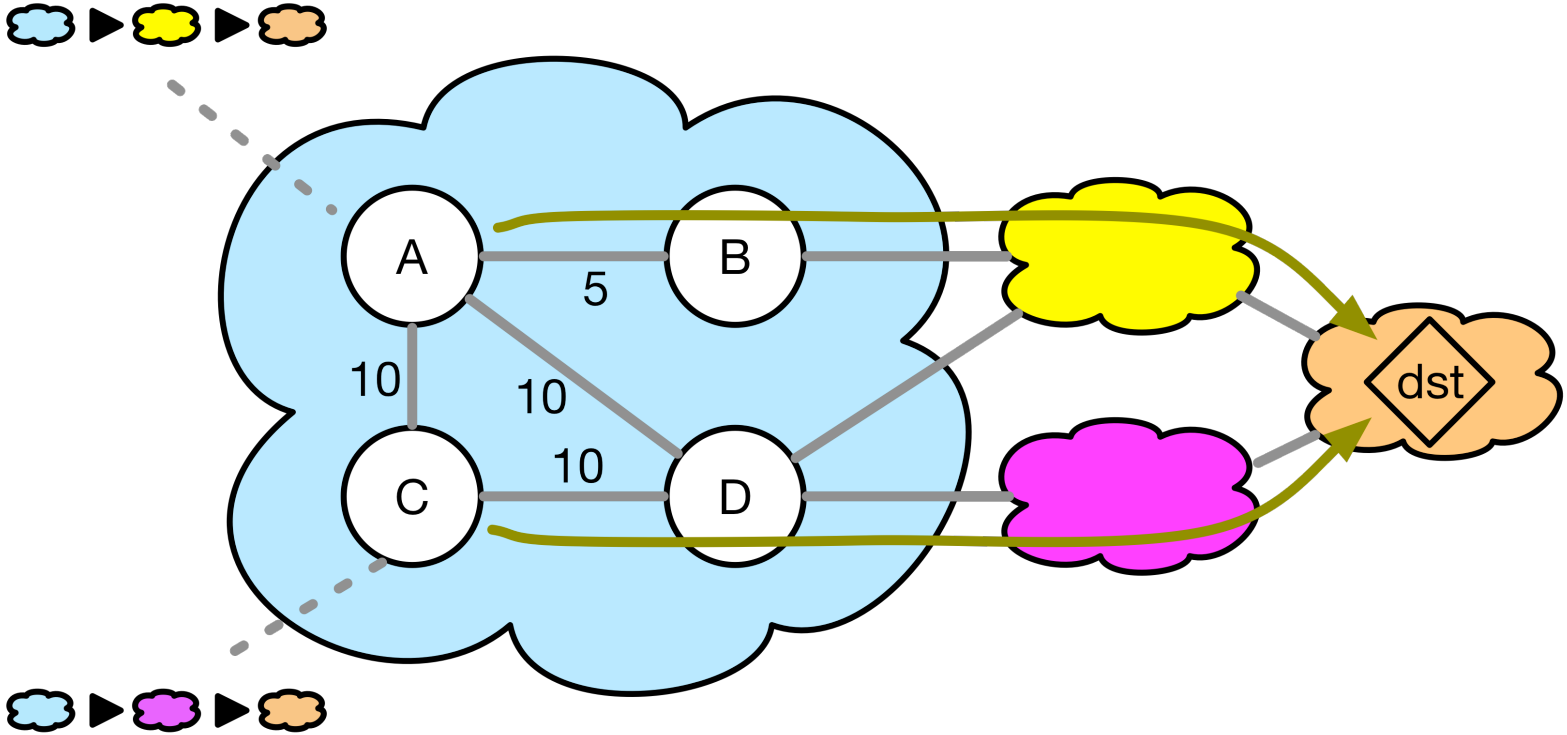

dst


A
B
5
10
10
10
C
D
dst

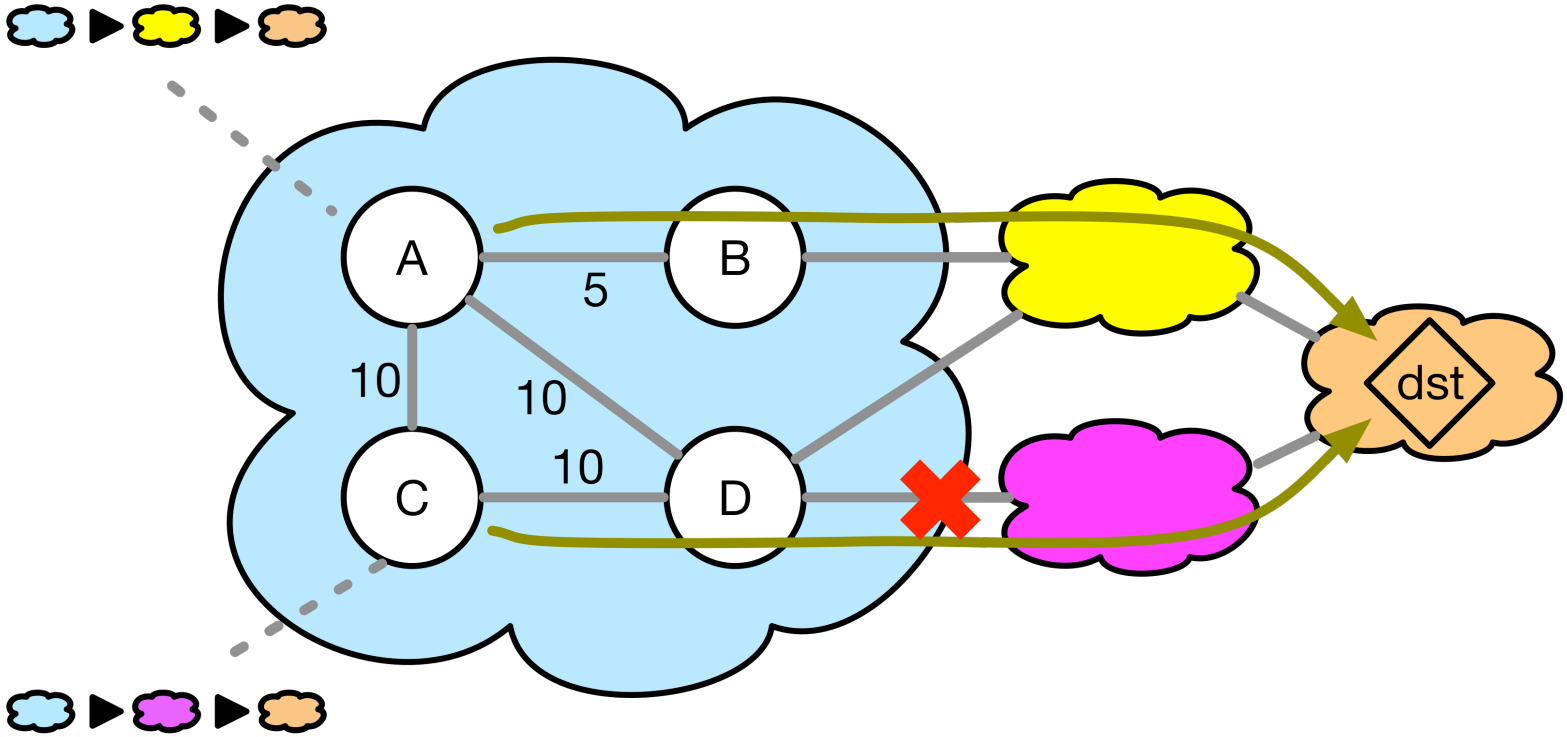

A
B
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dst


A
B
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dst

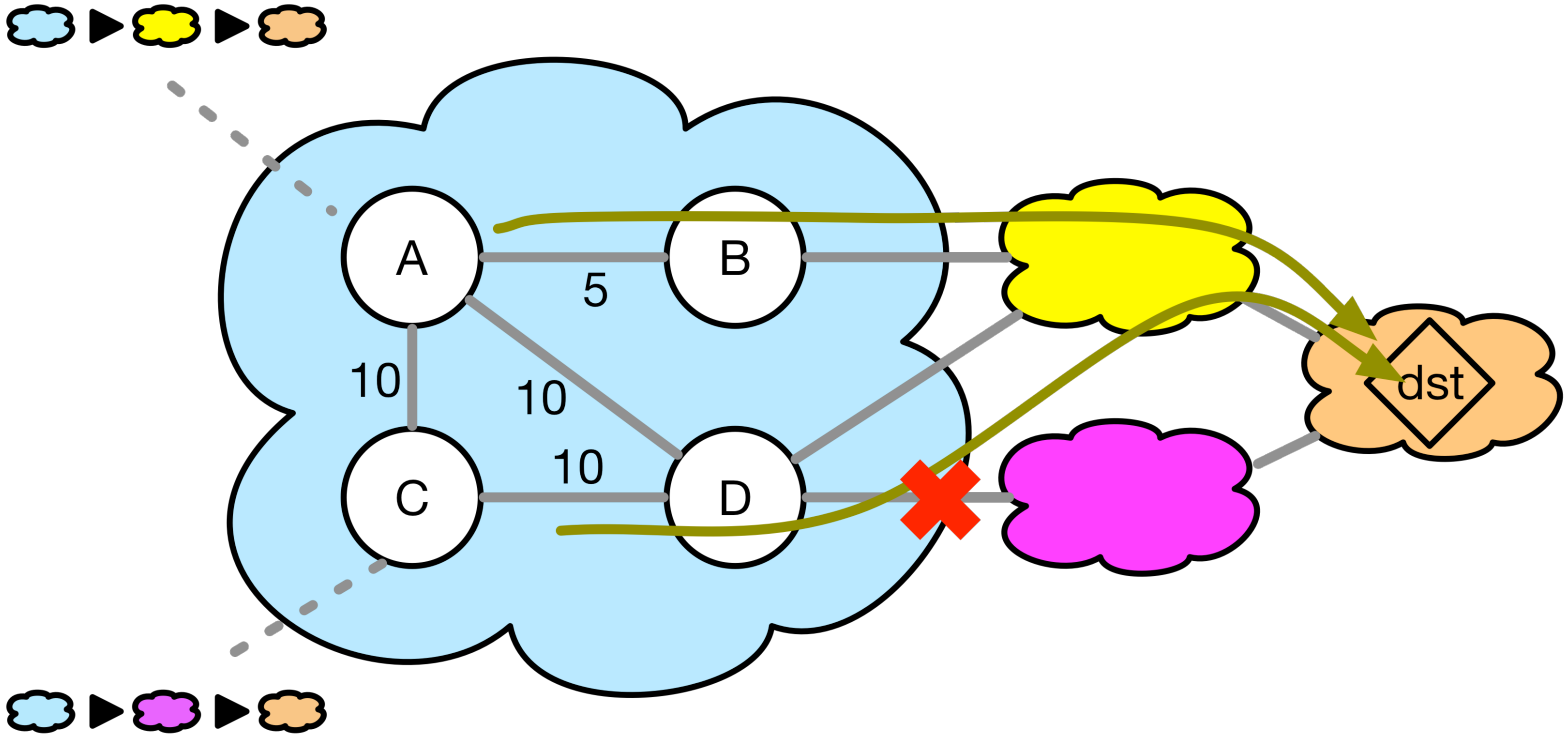

A
B
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D
5
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dst



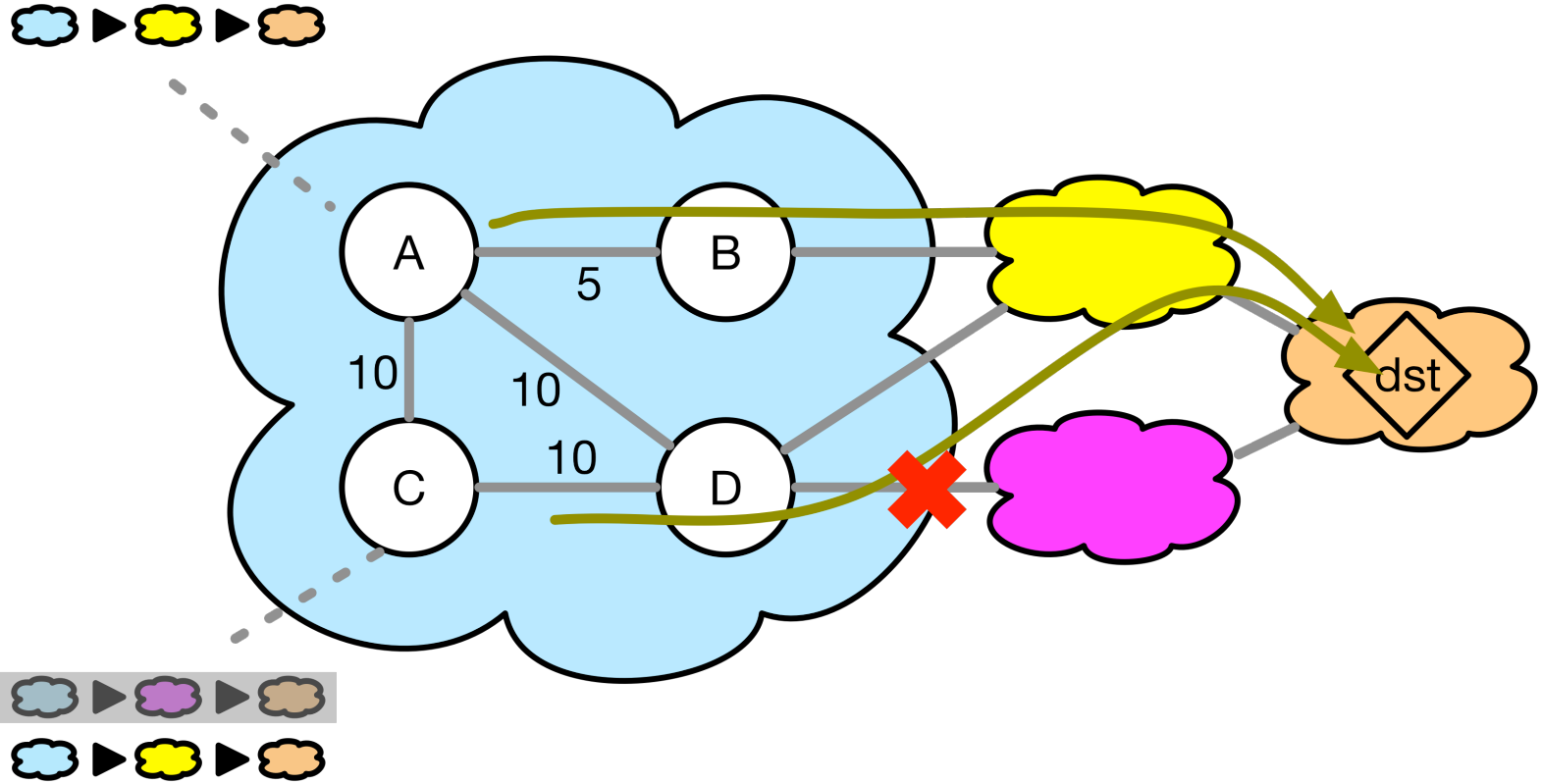
not learned via A



not learned via A



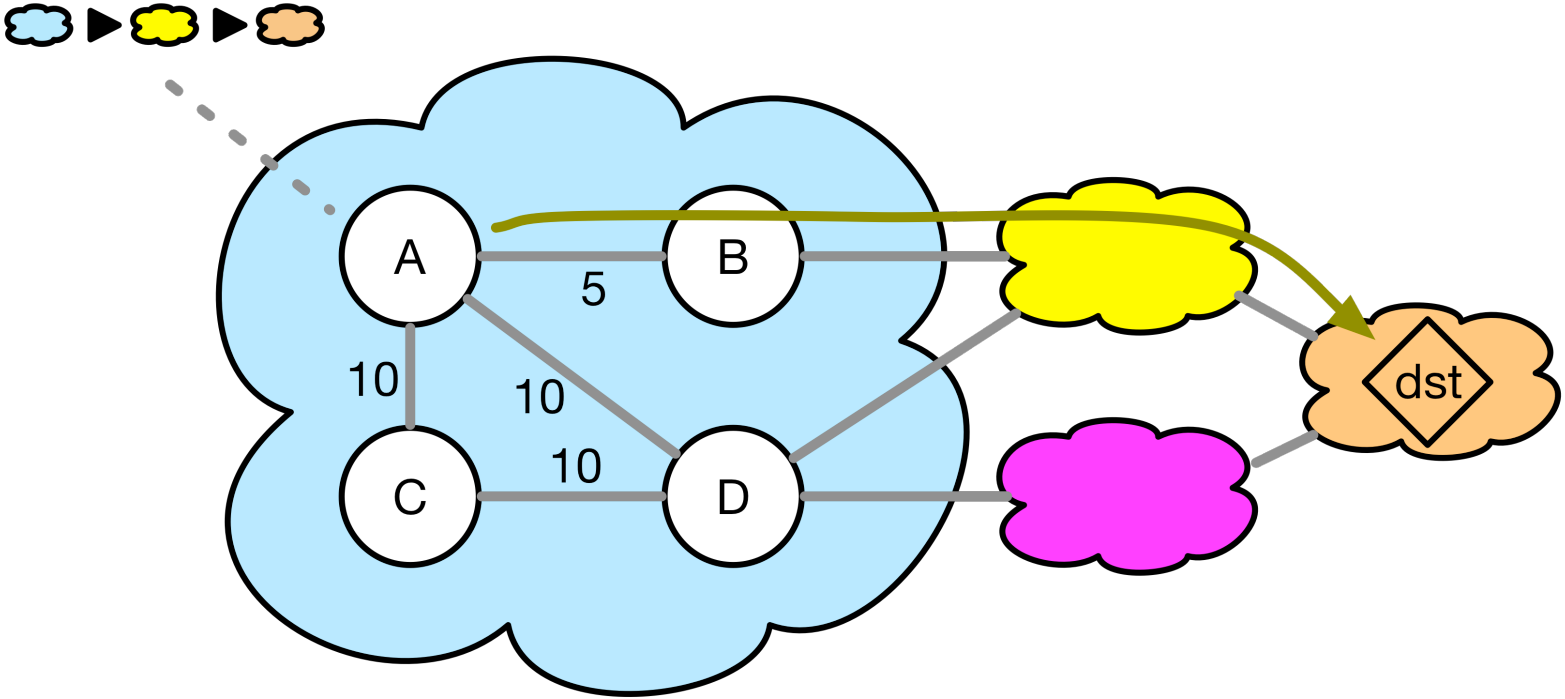
not learned via A

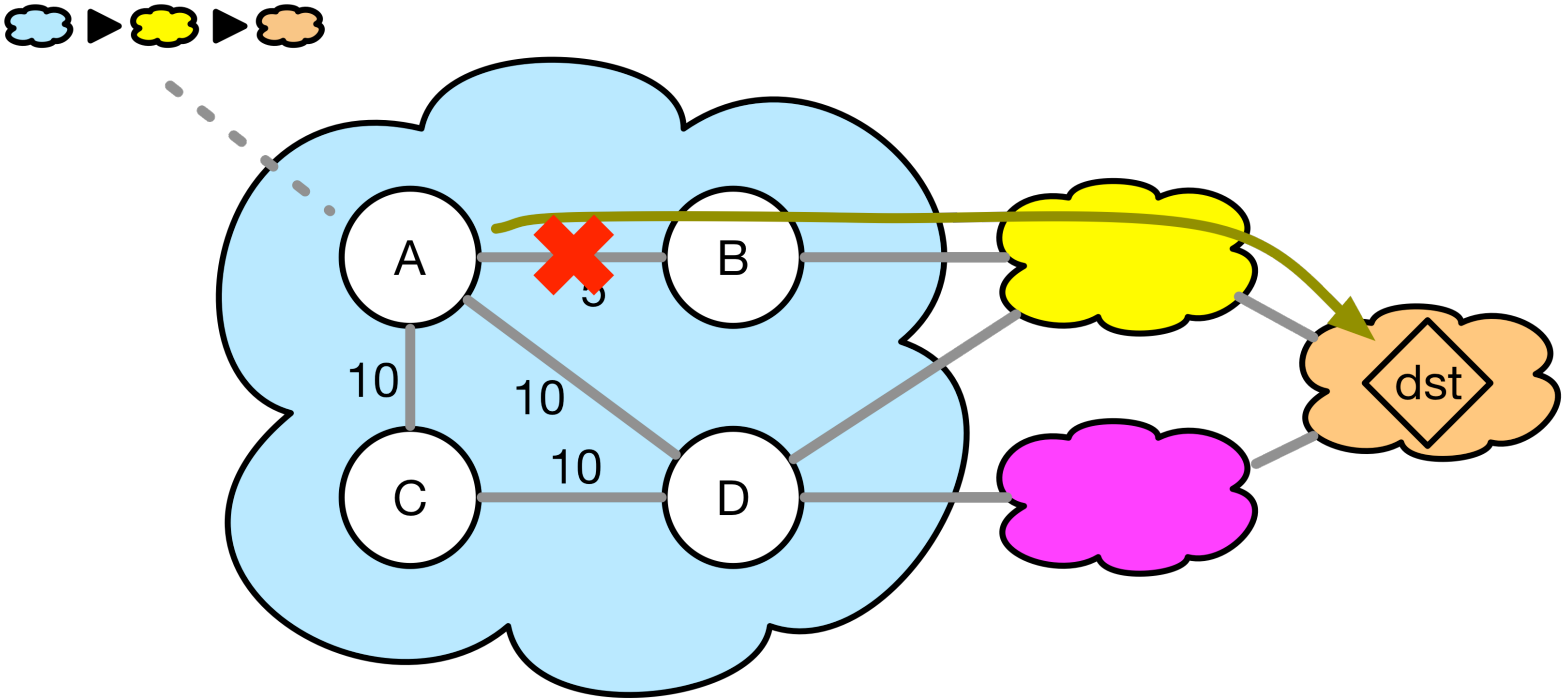


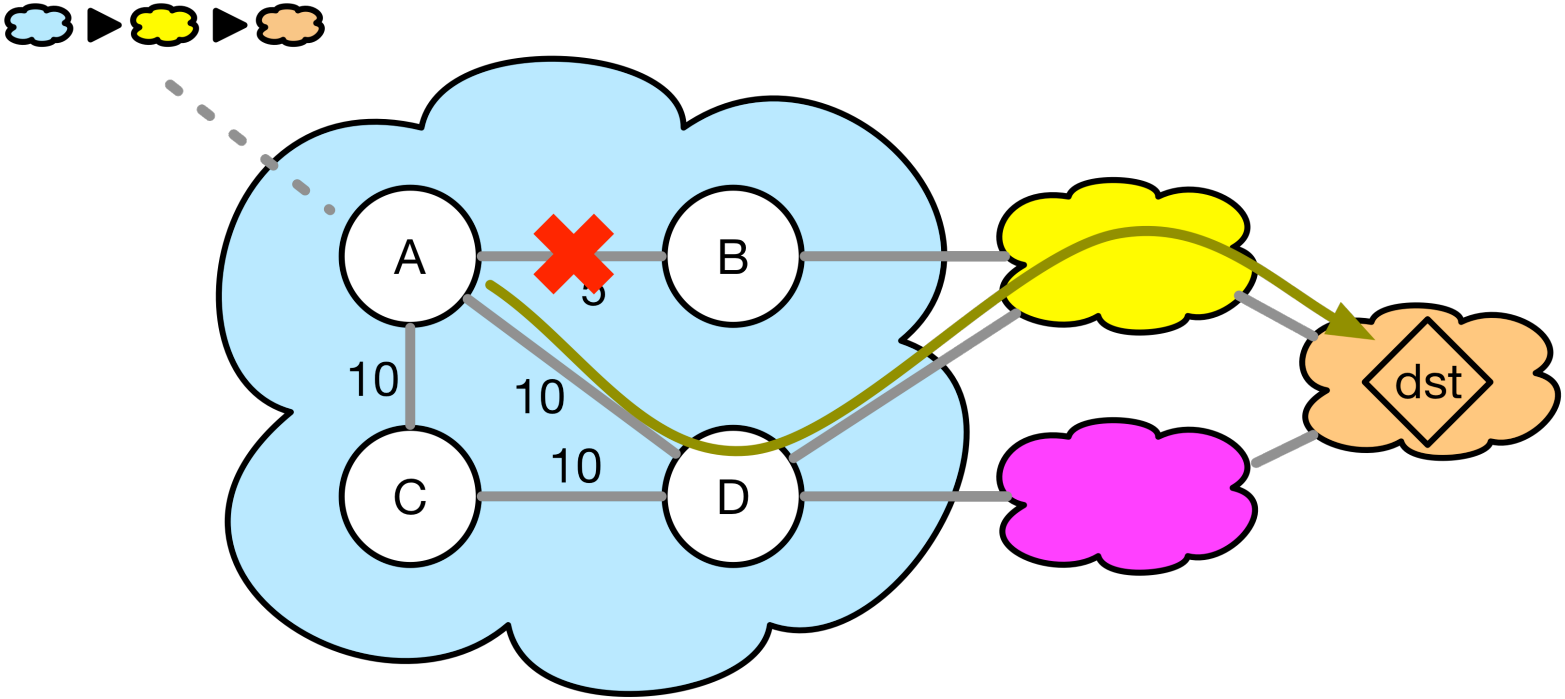
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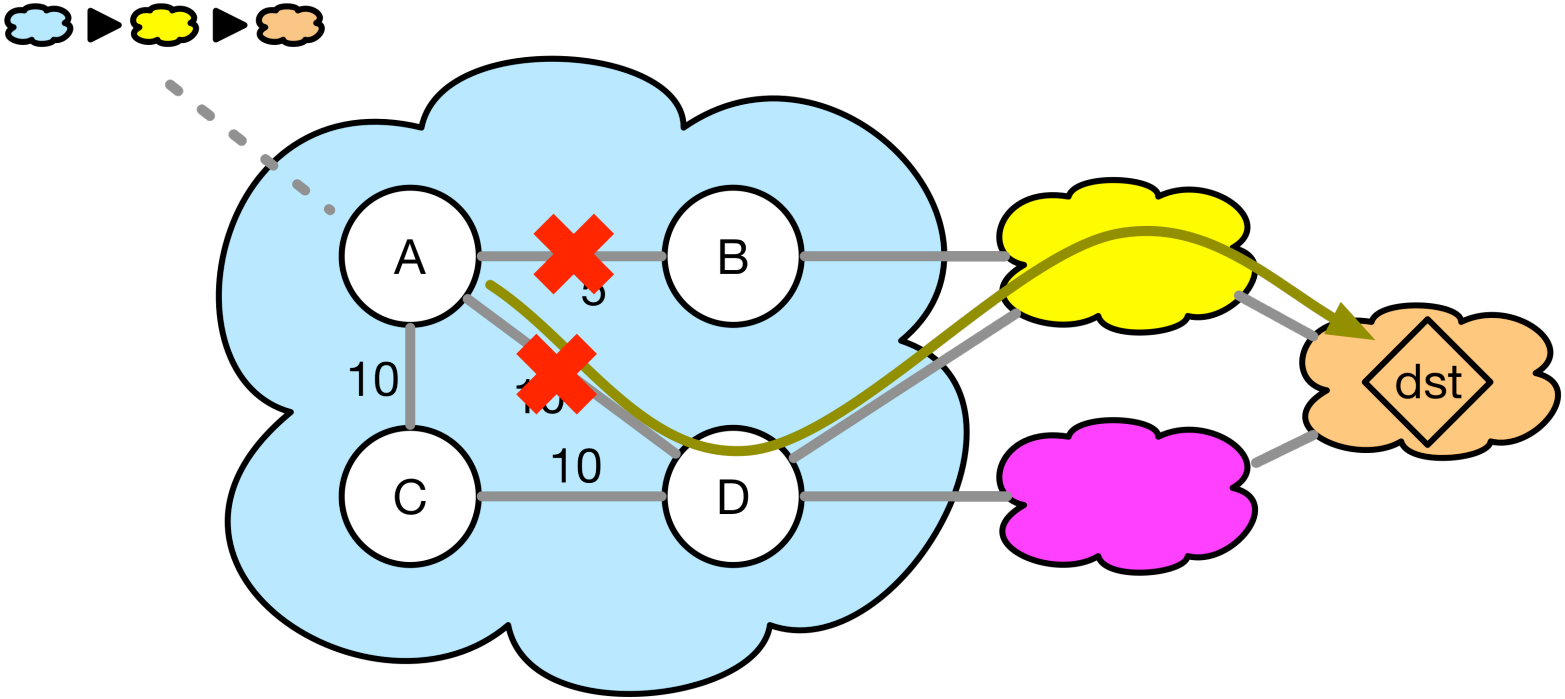
BGP updates - Limits

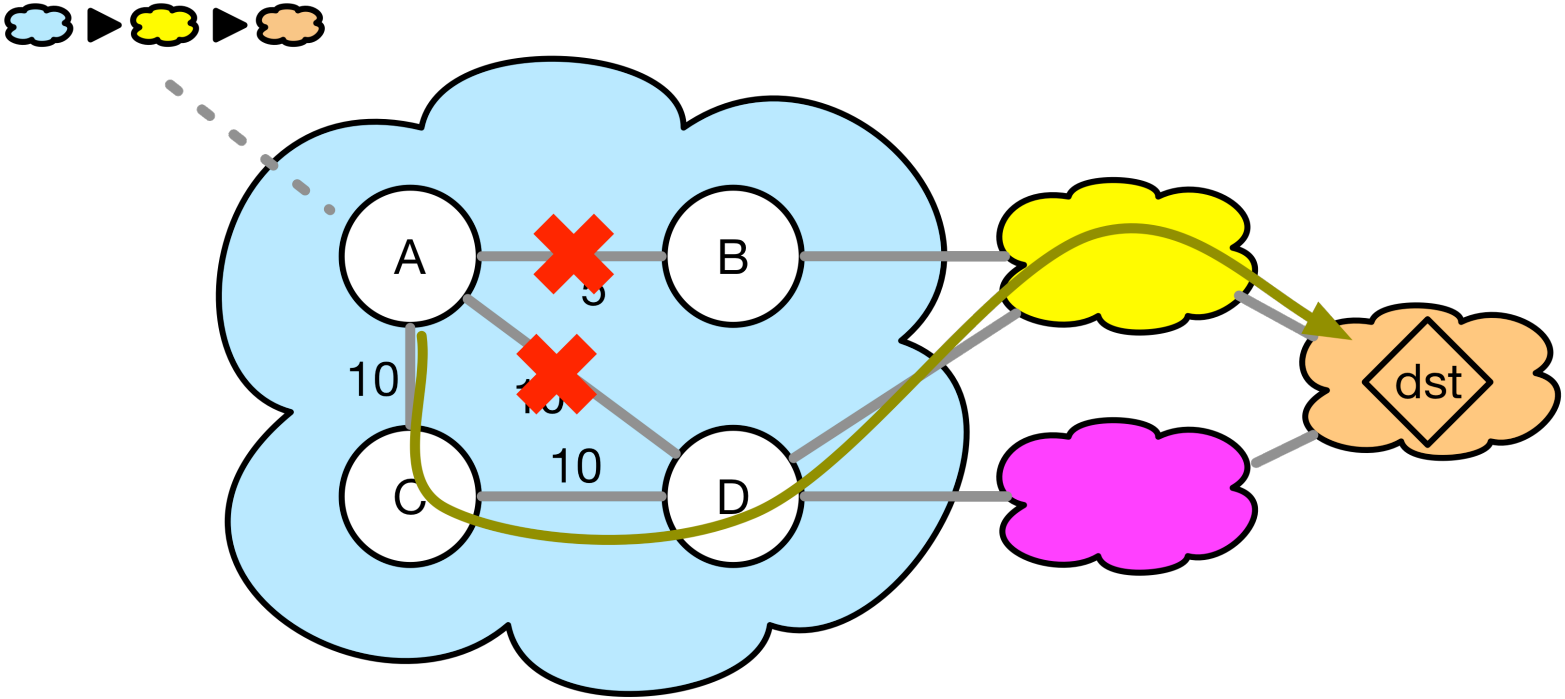
- Router representativeness
  - Router speaking for AS or just itself?
- **Internal changes**
  - Changes not visible unless they affect inter-domain routing
- Aggregation
  - Changes to small prefixes get filtered


A
B
C
D
5
10
10
10
dst


A
B
C
D
10
10
10
dst

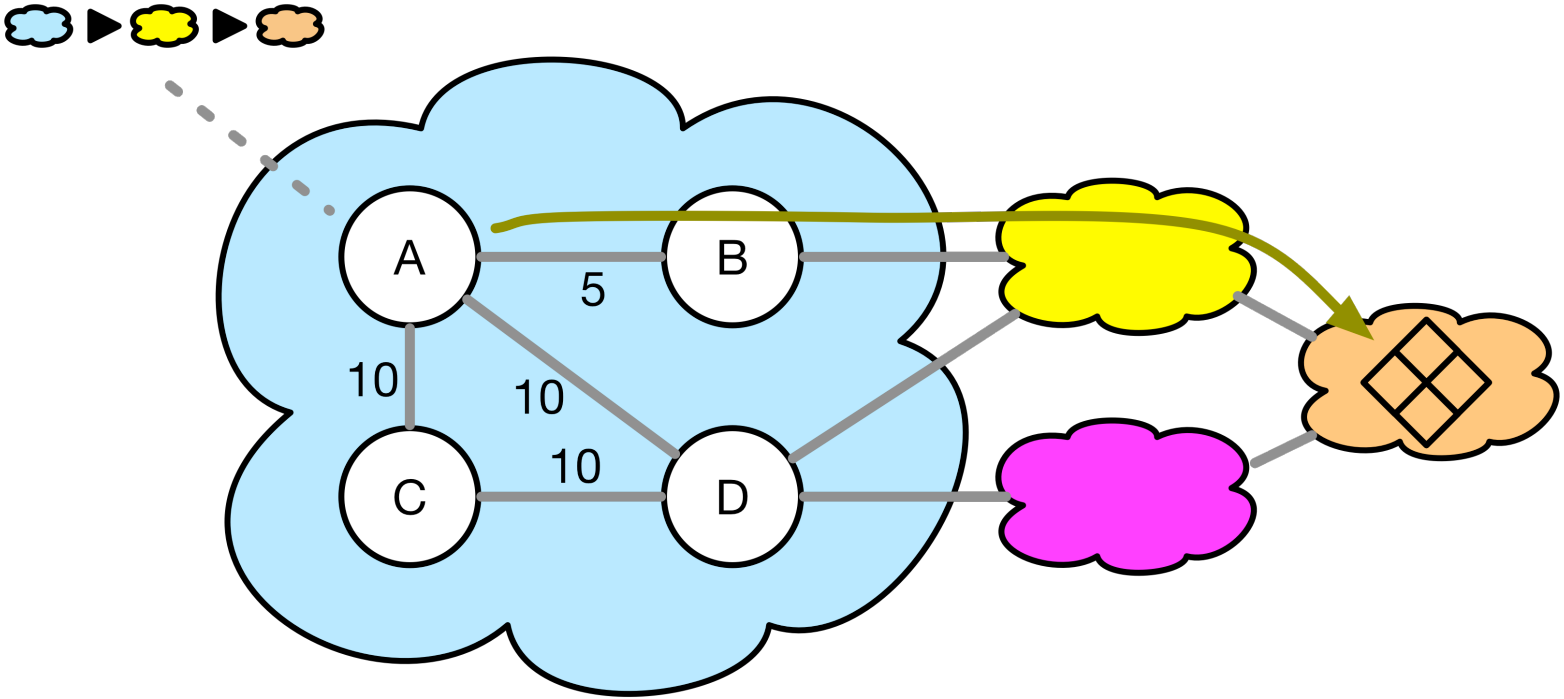

A
B
C
D
9
10
10
10
dst

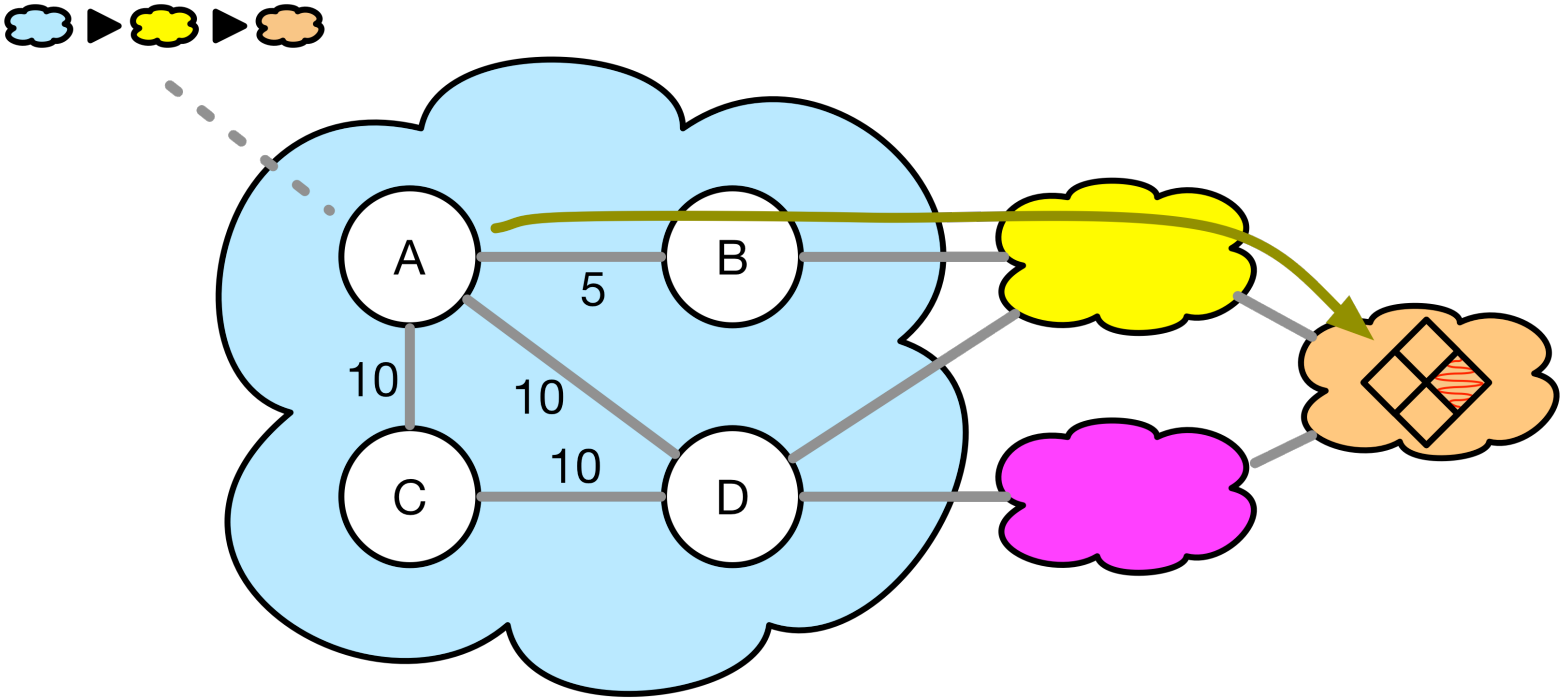

A
B
C
D
10
10
dst


A
B
C
D
10
10
dst

BGP updates - Limits

- Router representativeness
- Internal changes
- **Aggregation**
  - Changes to small prefixes get filtered


A
B
C
D
5
10
10
10


A
B
C
D
5
10
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10

BGP updates - Limits

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