

Hierarchical J/P attributes

draft-ietf-pim-hierarchicaljoinattr-01.txt

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Introduction

- An hierarchical scheme with the following properties
 - If an attribute type and value applies to every (S,G) in the message, only include it once in the message
 - Also, if an attribute type and value applies to every (S,G) for a given group G, only include it once for the group G
- Changes since last version
 - Proposing a way of not inheriting selected attributes

J/P message format

PIM Ver Type Reserved	Checksum
Upstream Neighbor Address (Encoded-Unicast format)	
Reserved Num groups	Holdtime
Group Set 1	
...	
Group Set n	

Each message contains a single Upstream Neighbor Address and a number of group sets

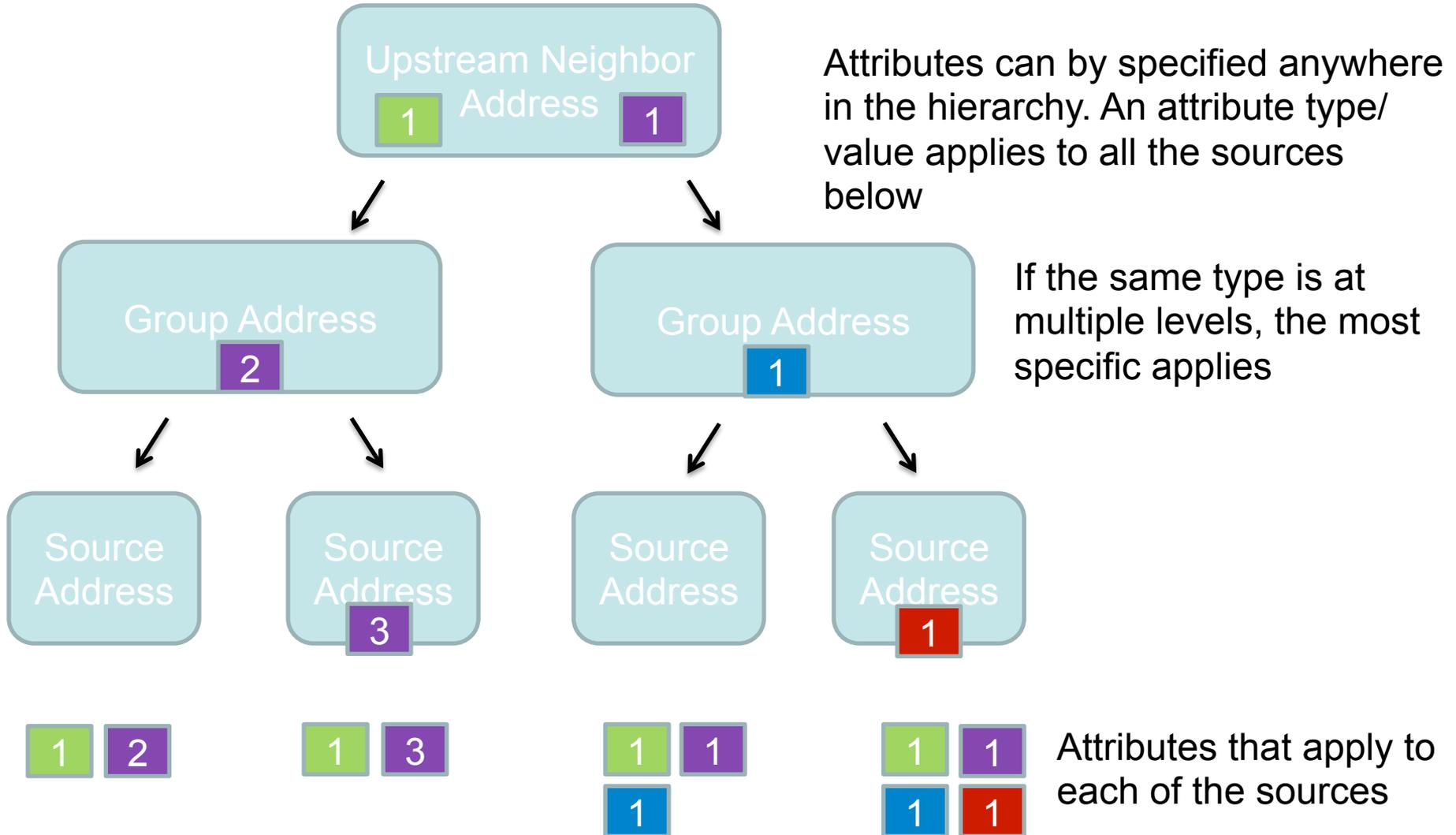
Multicast Group Address 1 (Encoded-Group format)
Number of Joined Sources Number of Pruned Sources
Joined Source Address 1 (Encoded-Source format)
...
Joined Source Address m (Encoded-Source format)
Pruned Source Address 1 (Encoded-Source format)
...
Pruned Source Address k (Encoded-Source format)

Each Group Set contains a Group Address followed by lists of joined sources and pruned sources

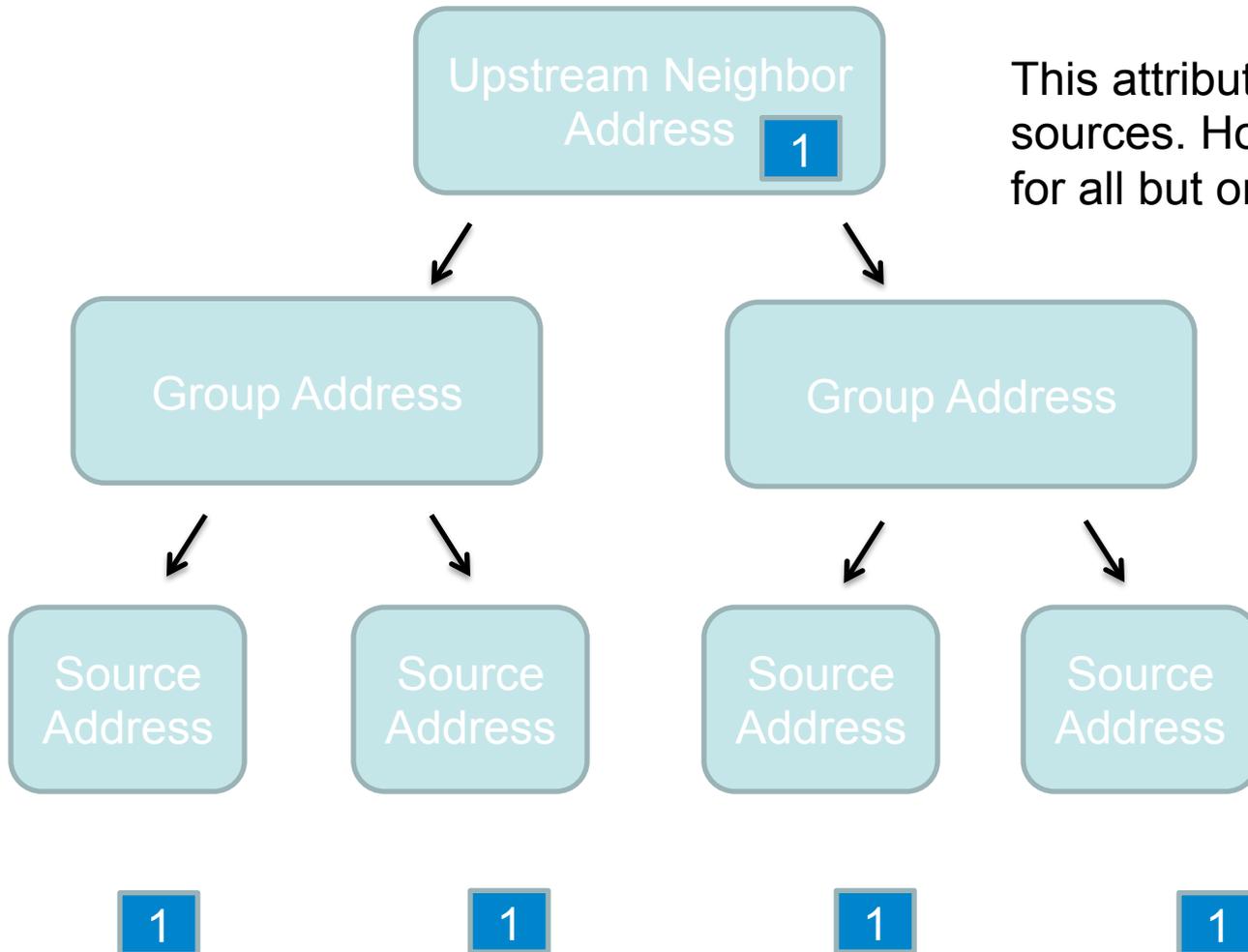
We have 3 different address objects, all in an encoded format

Upstream Neighbor Address
 Multicast Group Address
 Source Address

J/P Attribute Hierarchy



An attribute for all but 1 source?



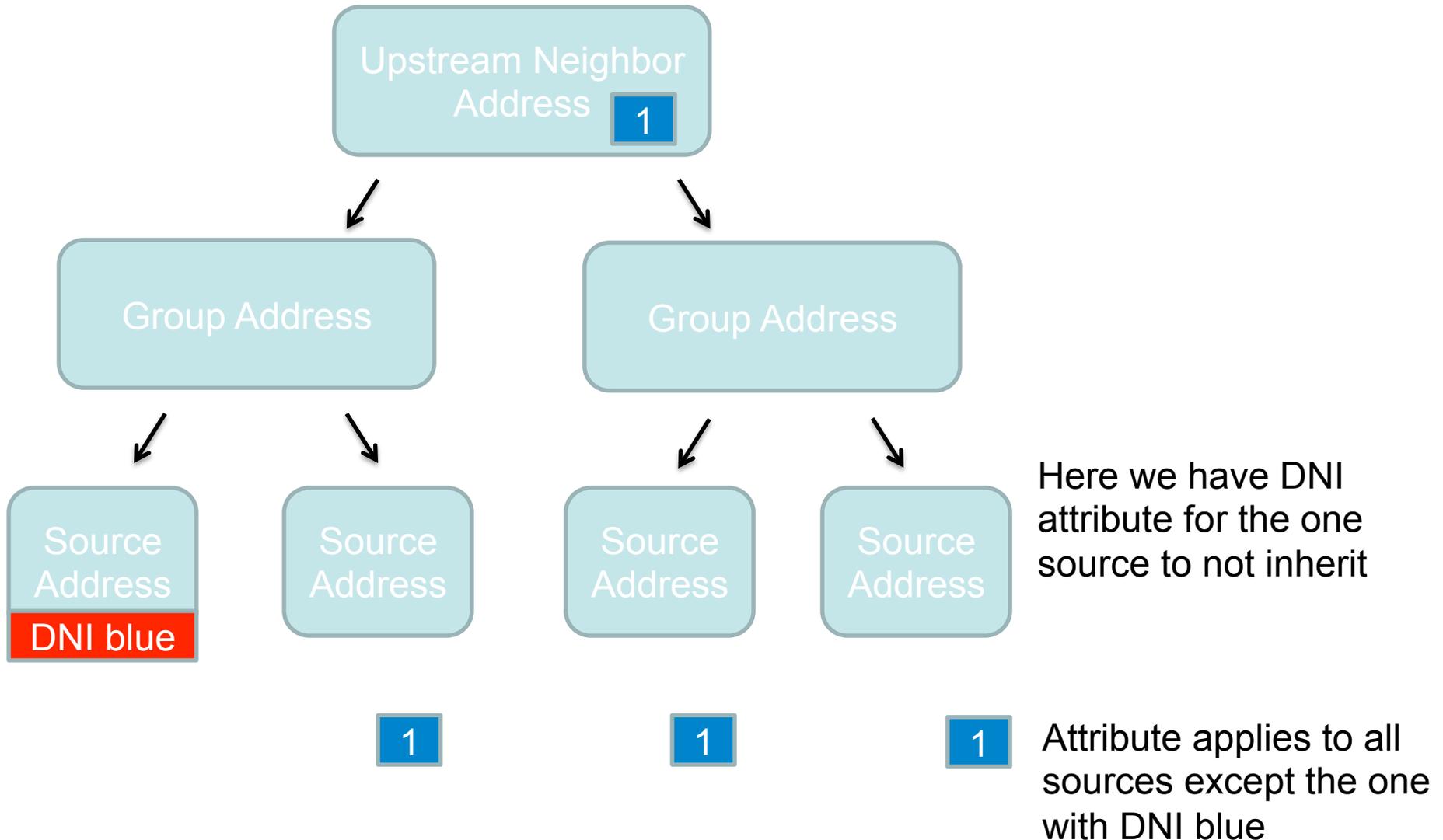
This attribute will apply to all sources. How to have this attribute for all but one source?

Attribute applies to each of the sources. How to have it for all but one source?

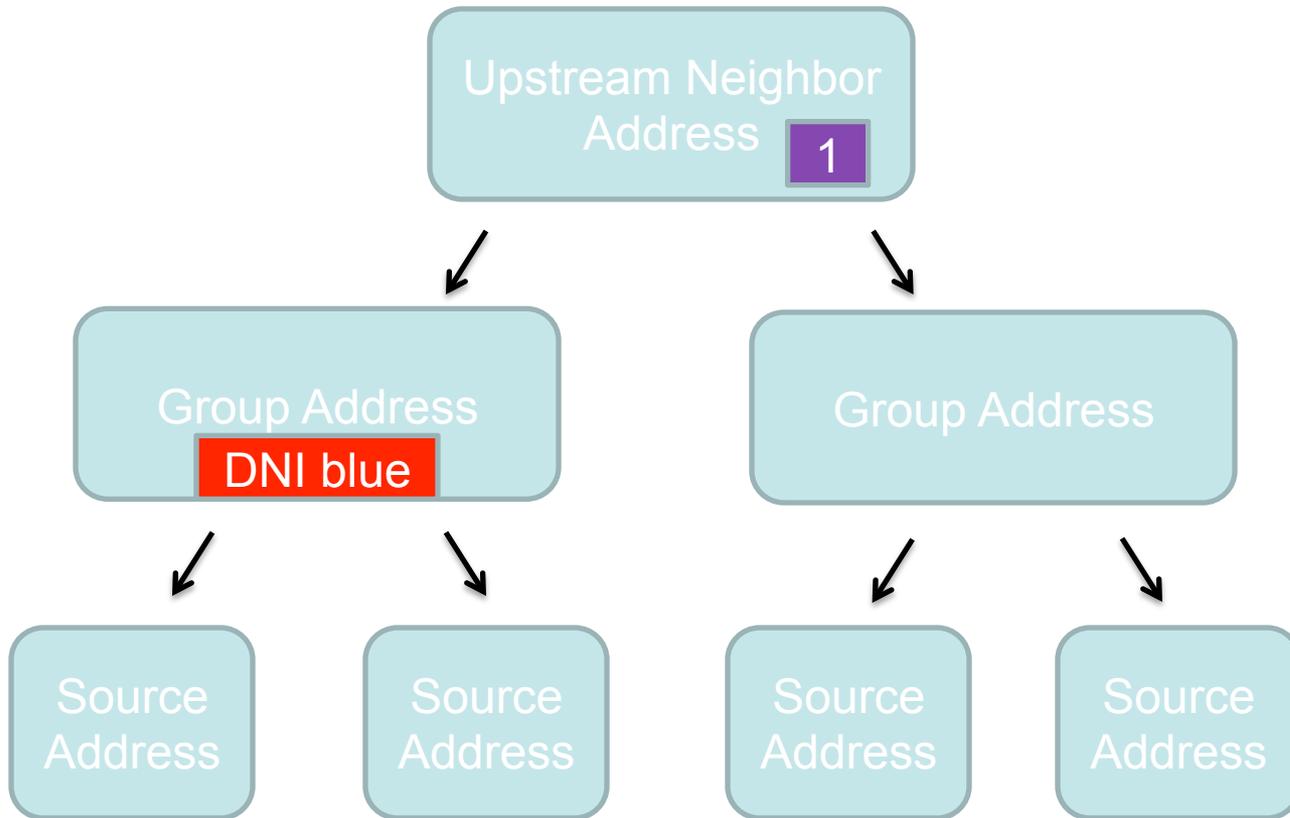
Do Not Inherit (DNI) attribute

- Proposing an attribute that lists attributes that should not be inherited
- The value consists of a list of 1 or more attribute types
- The specified attributes will be ignored if they are specified at a higher level in the hierarchy

An attribute for all but 1 source



An attribute for all but 1 group?



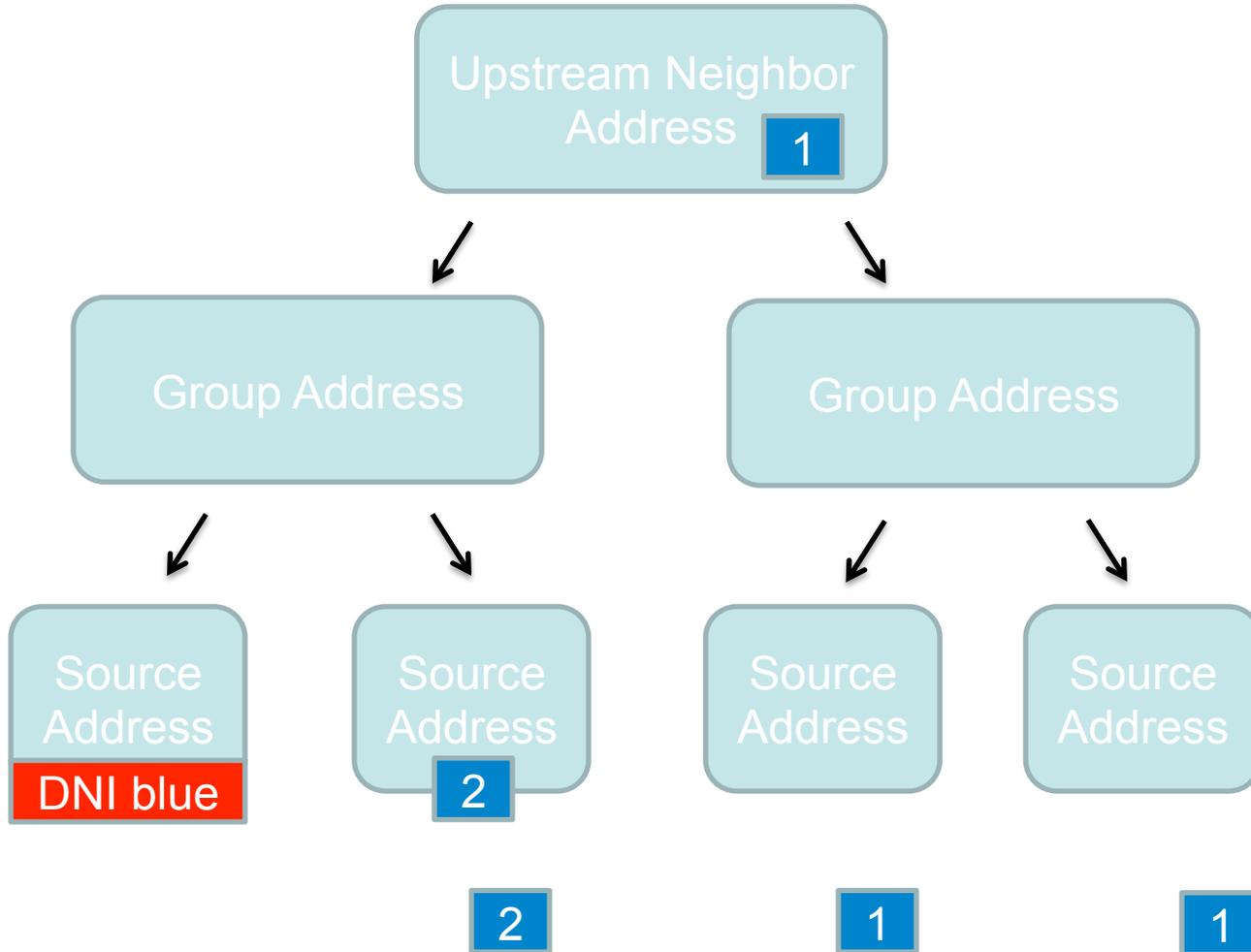
Here we have DNI attribute for the one group to not inherit

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Attribute applies to all sources except the one with DNI blue.

More complex example



Here we have DNI attribute for the one source to not inherit

Attribute applies to all sources except the one with DNI blue

Is Do Not Inherit a good idea?

- Too complex?
- Attributes can always be specified per source instead if needed
- Not that hard to parse
- The logic for using DNI when formatting a J/P more complex

Next steps?

- Keep Do Not Inherit or revert to previous version?
- If we keep DNI, is current draft ready for WGLC?
- If we revert to previous version I will post revision 02 similar to 00. Would it be OK to do WGLC on the new revision?