# BGP communities
# Paul Traina

# Terminology

## Community

- Well known or locally defined 4 octet value
- May be used for policy routing
- Great for emulating the gated "no-advertise" hack.

# Terminology

## Community string

- an unordered vector of communities
- contained in an optional, transitive attribute

# Well known communities

Conformant implementations should respect

- no-advertise
  - do not advertise this path to neighbors
- no-export
  - do not advertise this path to neighboring ASs

# Community operations

## what an implementation should be able to do

- match a community
- add a community
- remove community
- control advertisement based upon communities

# Aggregation properties

## when atomic aggregate generation is to be peformed

- communities are NOT merged into the aggregate route

# Aggregation properties

when AS set generation is to be performed

- set union operation on all communitiy attributes
- behavior not defined with regard to "negation" attributes
  - do we really want to aggregate "no-advertise"?

# Compatibility issues

## Interoperation with non-community-aware BGP speakers

- Optional non-transitive attributes are not molested
- Well known attributes are not respected (darn)

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