

# Virtual Interfaces & BGP



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All VIFs must be connected to an on-prem BGP peer.

Both IPv4 and IPv6 are supported.

BGP MD5 authentication is required.

Some DX locations support two peers for one VIF.

# BGP Prefix Advertisements – Customer to AWS

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- VIFs have a maximum number of prefixes that can be advertised to AWS:
    - Private VIFs – 100
    - Public VIFs – 1,000
  - Exceeding this limit will cause the BGP sessions to go to the IDLE state.

# BGP Prefix Advertisements – AWS to Customer

- VGWs associated with private VIFs advertise all known routes.
- VGWs associated with DX gateways must specify allowed prefixes to be advertised.
  - Only CIDRs matching – or smaller than – listed prefixes will be advertised.



# BGP Prefix Advertisements – AWS to Customer



● For public VIFs, AWS advertises prefixes for:

- All public services in all public AWS Regions.
- Non-Region services such as CloudFront and Route 53.

● Control outbound traffic to these prefixes at your on-prem router.

- Filter outbound traffic with ACLs or firewalls.
- Filter learned prefixes using BGP communities.

A means of labelling BGP prefixes. ●

BGP routers can be configured to handle incoming or outgoing prefixes based on their community values. ●

Comprised of 16-bit ASN and a 16-bit, organization-defined number. ●



AWS automatically applies the following communities to prefixes advertised to public VIFs:

- 7224:8100 – routes to services from the same region as the DX connection.
  - 7224:8200 – routes to services from the same continent as the DX connection.
  - No value – routes to global services.
- AWS advertised prefixes also include the “no\_export” BGP community.

# Local Customer Prefixes and BGP Communities

Customer prefix advertisement is controlled at public VIF.

Use BGP communities to control where AWS can propagate customer prefixes:

- Local AWS Region – 7224:9100

- All Regions in a continent – 7224:9200

- All public Regions – 7224:9300

All VIFs require a customer-configured BGP peer.

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Prefix advertisement defaults and configuration vary by VIF type.

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The customer is responsible for regulating AWS-prefix learning and customer-prefix advertisement.