

# ENABLING RPKI ROV – THE REANNZ EXPERIENCE

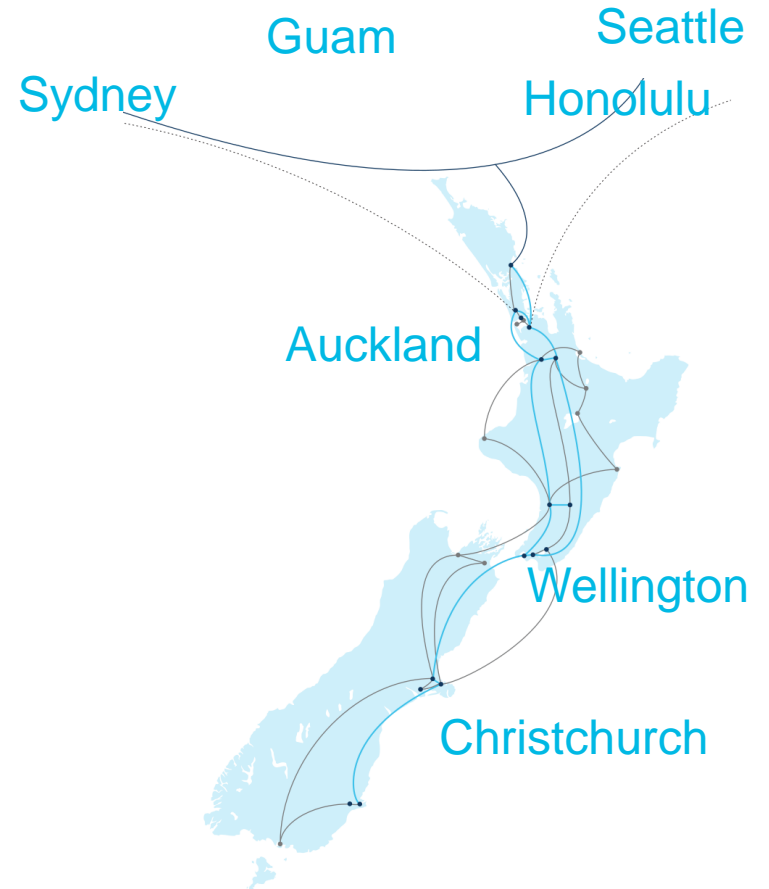
AARON MURRIHY  
aaron.murrihy@reannz.co.nz

REANNZ

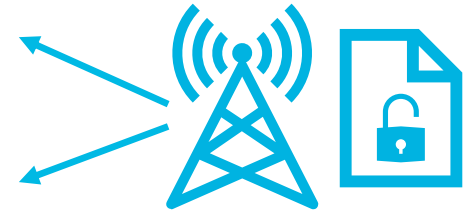


## REANNZ PEERINGS

- Internet
- NREN
- Private Interconnects
- Member (Internet Service Handovers)



## PRE-CHECKS



```
term valid {  
  from {  
    protocol bgp;  
    validation-database valid;  
  }  
  then {  
    validation-state valid;  
    next policy;  
  }  
}
```

```
term invalid {  
  from {  
    protocol bgp;  
    validation-database invalid;  
  }  
  then {  
    validation-state invalid;  
    next policy;  
  }  
}
```

```
term unknown {  
  from {  
    protocol bgp;  
    validation-database unknown;  
  }  
  then {  
    validation-state unknown;  
    next policy;  
  }  
}
```

## PRE-CHECKS

```
aaron@and01-akl-re0> show route table ape.inet.0 validation-state invalid all

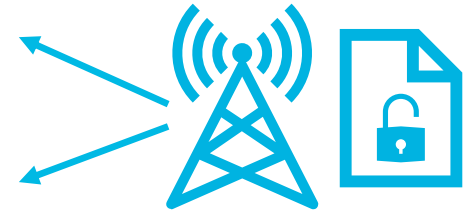
ape.inet.0: 1760 destinations, 2640 routes (1153 active, 0 holddown, 625 hidden)
+ = Active Route, - = Last Active, * = Both

116.90.135.0/24      [BGP ] 1w2d 22:04:10, localpref 100
                   AS path: 4768 23838 I, validation-state: invalid
                   > to 192.203.154.32 via xe-0/0/3.0
203.98.48.0/24      [BGP ] 4w6d 10:12:23, localpref 100
                   AS path: 4768 38748 I, validation-state: invalid
                   > to 192.203.154.33 via xe-0/0/3.0
203.167.131.0/24    [BGP ] 8w0d 21:41:14, localpref 100
                   AS path: 4768 I, validation-state: invalid
                   > to 192.203.154.33 via xe-0/0/3.0
```

## PRE-CHECKS

Invalid Route	Origin AS	Org Name
116.90.135.0/24	23838	Solarix Networks Limited
203.98.48.0/24	38748	Vodafone New Zealand Limited
203.167.131.0/24	4768	Vodafone New Zealand Limited

# TURN IT ON



```
term valid {
  from {
    protocol bgp;
    validation-database valid;
  }
  then {
    validation-state valid;
    next policy;
  }
}
```

```
term invalid {
  from {
    protocol bgp;
    validation-database invalid;
  }
  then {
    validation-state invalid;
    reject;
  }
}
```

```
term unknown {
  from {
    protocol bgp;
    validation-database unknown;
  }
  then {
    validation-state unknown;
    next policy;
  }
}
```

# TURN IT ON



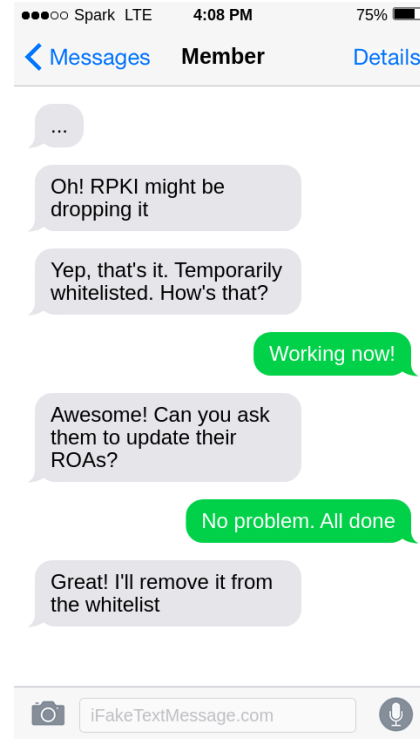
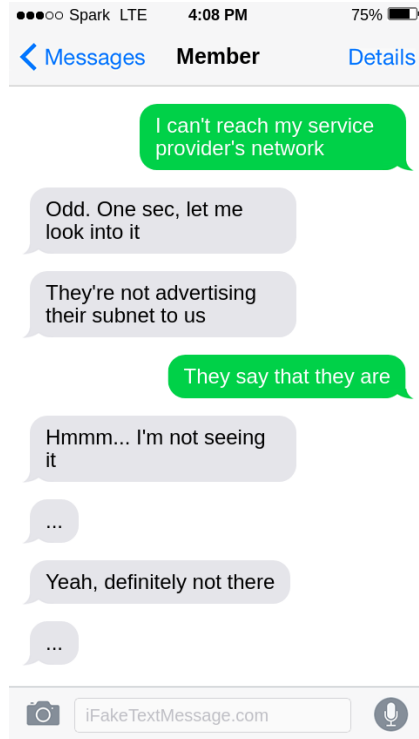
<http://sg-pub.ripe.net/jasper/rpki-web-test>

## POST-CHECKS





# DIAGNOSING ISSUES



## WHAT'S CHANGED SINCE 2019

- In 2019 no one did ROV
  - ~5000 invalids seen
- Now, most IXs and our commodity Internet provider do ROV
  - ~100 invalids seen

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Is there still value in me doing it? Yes!