

Chapter 34

Route Flap Damping

34.1 Route Flap Damping Overview

GateD can be configured to suppress propagation of unstable BGP routes. This feature is commonly referred to as “route flap damping”. For each route to a destination from each peer, GateD maintains an instability metric. Whenever the peer deletes or changes its route to the destination, GateD increments the associated instability metric. The metric decays exponentially with time, with a configurable half-life time; the decay rates can be configured differently when the destination is reachable or unreachable.

When a route’s instability metric crosses a specified upper threshold, GateD suppresses the route. GateD will reuse the route only when the instability metric goes below another configurable lower threshold. GateD suppresses usage of routes that have a stability history that crosses a given configurable threshold.

34.2 Route Flap Damping Syntax

The syntax for the `dampen-flap` clause is as follows:

```
dampen-flap {  
    [ suppress-above flap-metric ; ]  
    [ reuse-below flap-metric ; ]  
    [ max-flap flap-metric ; ]  
    [ reach-decay time ; ]  
    [ unreach-decay time ; ]  
    [ keep-history time ; ]  
};
```

The `dampen-flap` statement follows the `bgp` statement and precedes the policy statements in the run-time configuration file. If the `dampen-flap` statement is absent, GateD will not maintain a route instability history. If a `dampen-flap` statement is present, but without any parameters, the default value of the parameters is used. If a reconfiguration changes the values of any parameter, GateD erases all previous route instability history.

More detailed descriptions of these commands can be found on page 701 of the *Command Reference Guide*.

