

Chapter 30

Route Flap Damping

dampen-flap

Name

dampen-flap - sets options for weighted route damping

Syntax

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

Parameters

suppress-above - value of a route's instability, above which the route is suppressed

reuse-below - value of a route's instability, below which a suppressed route is reused

max-flap - the maximum value of a route's instability history

reach-decay - the time (in seconds) after which a reachable route's instability history decays to half its current value

unreach-decay - the time (in seconds) after which an unreachable route's instability history decays to half its current value

keep-history - the time (in seconds) for which any history of a route's instability is maintained

Description

Weighted route damping treats routes that are being announced and withdrawn (flapping) at a rapid rate as unreachable. If a route flaps at a low rate, it should not be suppressed at all, or suppressed for only a brief period of time. With weighted route damping, the suppression of a route or routes occurs in a manner that adapts to the frequency and duration that a particular route appears to be flapping. The more a route flaps during a period of time, the longer it will be suppressed. The adaptive characteristics of weighted route damping are controlled by a few configurable parameters.

Defaults

```
dampen flap {  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
    max-flap 16.0 ;  
    reach-decay 300;  
    unreach-decay 900;  
    keep-history 1600;  
};
```

Context

global statement

Examples

```
dampen flap {  
    suppress-above 4.0 ;  
    reuse-below 3.0 ;  
    max-flap 17.0 ;  
    reach-decay 200;  
    unreach-decay 800;  
    keep-history 2000;  
};
```

See Also

“Chapter 34 Route Flap Damping” on page 163 of *Configuring GateD*

`keep-history` on page 709

`max-flap` on page 710

`reach-decay` on page 711

`reuse-below` on page 712

`suppress-above` on page 713

`unreach-decay` on page 714

keep-history

Name

keep-history - the time (in seconds) for which any history of a route's instability is maintained

Syntax

```
keep-history time ;
```

Parameters

time - time in seconds

Description

keep-history is the time (in seconds) for which any history of a route's instability is maintained.

Defaults

```
keep-history 1600;
```

Context

dampen-flap statement

Examples

```
dampen flap{
    suppress-above 3.0 ;
    reuse-below 2.0 ;
    reach-decay 300;
    unreach-decay 900;
    keep-history 1600;
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707

max-flap

Name

max-flap - the maximum value of a route's instability history

Syntax

```
max-flap flap-metric ;
```

Parameters

flap-metric - the state that is kept on a per-route basis. This metric increases by 1 each time a route transitions from a reachable state to an unreachable state.

Description

max-flap is the maximum value of a route's instability history. **max-flap**, which must be greater than the **suppress-above** threshold, determines the longest time that a route may be suppressed.

Defaults

```
max-flap 16.0 ;
```

Context

dampen-flap statement

Examples

```
dampen flap{  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
    max-flap 16.0 ;  
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707

reach-decay

Name

reach-decay - the time (in seconds) after which a reachable route's instability history decays to half its current value

Syntax

```
reach-decay time ;
```

Parameters

time - time in seconds

Description

reach-decay is the time (in seconds) after which a reachable route's instability history decays to half its current value.

Defaults

```
reach-decay 300 ;
```

Context

dampen-flap statement

Examples

```
dampen flap{  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
    reach-decay 300;  
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707

reuse-below

Name

reuse-below - value of a route's instability, below which a suppressed route is reused

Syntax

```
reuse-below flap-metric ;
```

Parameters

flap-metric - the state that is kept on a per-route basis. This metric increases by 1 each time a route transitions from a reachable state to an unreachable state.

Description

reuse-below is the value, specified in base-exponent form, of a route's instability, below which a suppressed route is reused. This parameter must be less than the **suppress-above** threshold.

Defaults

```
reuse-below 2.0 ;
```

Context

dampen-flap statement

Examples

```
dampen flap {  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707

suppress-above

Name

suppress-above - value of a route's instability, above which the route is suppressed

Syntax

```
suppress-above flap-metric ;
```

Parameters

flap-metric - the state that is kept on a per-route basis. This metric increases by 1 each time a route transitions from a reachable state to an unreachable state.

Description

suppress-above is the value, specified in base-exponent form, of a route's instability, above which the route is suppressed.

Defaults

```
suppress-above 3.0 ;
```

Context

dampen-flap statement

Examples

```
dampen flap{  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707

unreach-decay

Name

unreach-decay - the time (in seconds) after which an unreachable route's instability history decays to half its current value

Syntax

```
unreach-decay time ;
```

Parameters

time - time in seconds

Description

unreach-decay is the time (in seconds) after which an unreachable route's instability history decays to half its current value.

Defaults

```
unreach-decay 900;
```

Context

dampen-flap statement

Examples

```
dampen flap {  
    suppress-above 3.0 ;  
    reuse-below 2.0 ;  
    reach-decay 300;  
    unreach-decay 900;  
};
```

See Also

"Chapter 34 Route Flap Damping" on page 163 of *Configuring GateD*

dampen-flap on page 707