

Configuring Load Rebalancing for 802.3ad Link Aggregation Groups

You can configure the parameters that the system uses to rebalance the links in a LAG. You can also configure the system to dynamically rebalance the links in the LAG.

Tasks to configure load rebalancing are:

- Configuring Load–Rebalancing Parameters on page 1
- Configuring the System to Dynamically Rebalance the LAG on page 3

Configuring Load–Rebalancing Parameters

To configure load–rebalancing parameters:

1. Specify the LAG interface.

```
host1(config)#interface lag lg1
```

2. Configure parameters that guide the system to rebalance.

```
host1(config-if)#load-rebalance period 120 start-threshold 20 percent  
stop-threshold 100 percent maximum-improvement 300
```

This example specifies that the system rebalance within 120 seconds, can accept imbalance in the LAG in the range 20–100 percent, and can move 300 subscribers to other ports during that time.

Table 1 describes the load balancing algorithm parameters that you can configure.

Table 1: Load Balancing Algorithm Parameters

Keyword	Description
<code>period</code>	Specifies the time period for rebalancing. For example, a period of 120 specifies that rebalancing occurs once every 2 minutes.

Table 1: Load Balancing Algorithm Parameters *(continued)*

Keyword	Description
start-threshold	<p>Specifies the amount of imbalance in the LAG that triggers the algorithm to start rebalancing. The default is 0 percent. Optionally, you can specify one of the following units of measure:</p> <ul style="list-style-type: none">■ percent—Specifies that the amount of imbalance is measured as a percentage of the average load per link. The range is 0–100 percent. For example, the average load per link in a LAG is 500. Specifying start-threshold 5 percent indicates that the algorithm rebalances any link that deviates from the average load per link by 25 (5 percent of 500).■ subscribers—Specifies that the amount of imbalance is measured by the number of subscribers from the average subscriber count in the LAG. The range is 0–10000. For example, specifying start-threshold 20 subscribers indicates that the algorithm rebalances any link with a subscriber count that differs from the average subscriber count by more than 20.
stop-threshold	<p>Specifies the amount of imbalance in the LAG that triggers the algorithm to stop rebalancing. The algorithm continues rebalancing until this value is reached. The default is 0 percent. Optionally, you can specify one of the following units of measure:</p> <ul style="list-style-type: none">■ percent—Specifies that the amount of imbalance is measured as a percentage of the average load per link. The range is 0–100 percent. For example, the average load per link in a LAG is 500. Specifying the stop-threshold 2 percent command indicates that the algorithm stops within 10 of 500 (2 percent of 500). In this case, the algorithm stops when the links are at 510 and 490.■ subscribers—Specifies that the amount of imbalance is measured by the number of subscribers. The range is 0–10000. For example, specifying stop-threshold 100 subscribers indicates that the algorithm continues until each link in the LAG is within 100 subscribers of the average subscriber count.
maximum-improvement	<p>Specifies the maximum number of links to rebalance in the LAG per period. The default is 100 percent. Optionally, you can specify one of the following units of measure:</p> <ul style="list-style-type: none">■ percent—Specifies that the maximum number of links is measured as a percentage of the total links. The range is 0–100 percent. For example, specifying maximum-improvement 1 percent indicates that the algorithm rebalances 10 links per period (1 percent of 1000).■ subscribers—Specifies that the maximum number of links is measured by the number of subscribers. The range is 0–10000 subscribers. For example, specifying maximum-improvement 40 subscribers indicates that the algorithm rebalances 40 subscribers per period.

Configuring the System to Dynamically Rebalance the LAG

To configure the system to dynamically rebalance the LAG:

1. Specify the LAG interface.

```
host1(config)#interface lag lg1
```

2. Issue the load balance command with no keywords:

```
host1(config-if)#load-rebalance
```

- Related Topics**
- Configuring Load Rebalancing for 802.3ad Link Aggregation Groups on page 1
 - QoS for 802.3ad Link Aggregation Interfaces Overview
 - Enabling Default Subscriber Load Balancing for 802.3ad Link Aggregation Groups
 - Configuring the Scheduler Hierarchy for Subscriber Load Balancing in 802.3ad Link Aggregation Groups
 - interface lag
 - load-rebalance

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