NS1.

FAQ: Transitioning to the new Pulsar filters

In September 2021, NS1 introduced four new Pulsar filters that improve traffic steering behavior. These filters replaced the legacy Pulsar Sort and Pulsar Stabilize filters which are now deprecated. All impacted Filter Chain configurations within Pulsar customer accounts were automatically transitioned to use the new filters, so there is no action required.

The new Pulsar filters include:

- Pulsar Performance Stabilize
- Pulsar Availability Threshold
- Pulsar Performance Sort
- Pulsar Availability Sort

Similar to the legacy filters, the new Pulsar filters utilize performance and availability metrics when making traffic steering decisions in your Filter Chain, but they are more flexible in that they allow you to leverage performance and availability data separately. You can create Filter Chain configurations that use one or more of the Pulsar filters — ordering them in such a way to define a more granular DNS traffic steering logic.

This article provides more information about the transition process and what it means for your Filter Chain configurations and expected behavior.

How do these filters affect my current threshold settings?

Now, you can specify thresholds at the filter level. These thresholds apply globally to all answers that have Pulsar metadata attached. If you need to override these settings, you can override the threshold at the answer level in the **pulsar** metadata of the answer.

What is the equivalent of the Pulsar Stabilize filter?

The **Pulsar Availability Threshold** and **Pulsar Performance Stabilize** filters are intended to replace the Pulsar Stabilize filter. These filters do not have to be used in tandem with each other. If you are concerned about availability, these two filters work best together; if you're concerned about performance, you can use the Performance Stabilize filter on its own.

To make the most of both filters, you must:

- Attach a Pulsar job to the metadata of the answer.
- Set the availability or performance thresholds for the filter at the filter definition level.
- Set a Pulsar Performance Stabilize threshold.
- (Optional) If you want to specify a different threshold for specific answers, define that threshold in the answer metadata.

What is the equivalent of the Pulsar Sort filter?

The **Pulsar Availability Threshold** and **Pulsar Performance Sort** filters are intended to replace the Pulsar Sort filter. You should use the Availability Threshold filter before the Performance Sort filter in that order; the Availability Threshold filter removes the answers with availability values that fall under the set threshold, and the Performance Sort filter prioritizes the best-performing answers.

You can optionally enable the **Sort from the worst value** configuration option to reverse the sorting behavior. If sorting by the default behavior, any answer that is above the threshold is removed. This can be useful if, for example, you are setting a threshold for latency, where a higher value can slow the flow of traffic. Conversely, your threshold could be based on bandwidth. if you sort from lowest to highest, the lowest-performing answer will be discarded.

To make the most use of these filters, you must:

- Specify the threshold for availability.
- Ensure that a Pulsar job is attached to the metadata of the answers that you want to be steered by the filter.

Am I billed differently if I use the new filters?

There will be no changes to how Pulsar is billed. If at least one Pulsar filter is included in the Filter Chain, NS1 considers that a single Pulsar query or decision. You will be charged by the number of filter chains per record and **not** the number of filters per record.

Will this impact the performance of Pulsar decisions?

These changes will not change the performance of Pulsar decisions. The new filters simply make it easier to create a policy that meets your needs.

How will reporting work?

Decision reporting has not changed. To support existing semantics, we ensure that decisions are recorded as the winning answer of the last Pulsar filter in a Filter Chain.