How to prioritize incoming traffic in order to use resources appropriately?

Use Case
How to prioritize incoming traffic in order to use server resources appropriately?

Introduction
The NetScaler AppQoE feature helps us to place the request in priority queues, thereby providing an uninterrupted flow of transactions through dynamic traffic flows.

The priority queuing feature lets you filter incoming HTTP traffic on the basis of categories (HIGH, MEDIUM, LOW or LOWEST) that are present, and prioritize those HTTP requests accordingly.

Priority queuing directs high-priority requests to the server ahead of low-priority requests, so that users who need resources for important business purpose receive expedited access to applications.

Priorities of the incoming requests differ from case to case basis, e.g. In web applications, HTML, java script files should have HIGH priority over the image files loading etc.

How to configure priority queuing using AppQoE feature on NetScaler appliance:

1. Enable AppQoE feature on NetScaler

At the command prompt, type the following commands:

- enable ns feature appqoe
- show ns feature

From configuration utility interface, perform following steps:

- Navigate to System > Settings.
- In the details pane, click Configure Advanced Features.
- In the Configure Advanced Features dialog box, select the AppQoE check box.
- Click OK.

2. Configure AppQoE action.
Description for AppQoE action fields;

- **Action Type** – Select NONE option to take benefits of priority queuing feature.
- **Priority** – specifies the order in which waiting requests are to be fulfilled when resources are available. It has various options such as HIGH, MEDIUM, LOW or LOWEST. If priority is not configured, default priority choice set to LOWEST.
- **Policy Queue Depth** – When the policy queue size (number of requests queued for the policy binding this action is attached to) increases to the specified threshold, subsequent requests are dropped to the LOWEST priority level.
- **Queue Depth** – Threshold value for specified priority (HIGH | MEDIUM | LOW). After reaching threshold value subsequent request assigned to LOWEST priority queue.

### AppQoE Actions

<table>
<thead>
<tr>
<th>Name</th>
<th>Action Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PriorityQ_action</td>
<td>PRIORITY_QUEUEING</td>
</tr>
<tr>
<td>user_android_action</td>
<td>NS</td>
</tr>
<tr>
<td>user_mobile_action</td>
<td>NS</td>
</tr>
</tbody>
</table>

3. Configure AppQoE policy and bind AppQoE action to it.
4. Bind AppQoE policy to Load balancing virtual server to prioritize traffic on AppQoE policy.

Hence NetScaler AppQoE priority queuing features helps customers to manage and control their high priority client requests over the low priority client requests for better application performance.