# Advanced Tuning Parameters

# Feature Summary and Revision History

## Summary Data

*Table 1: Summary Data*

| Applicable Product(s) or Functional Area | 5G-PCF |
|---|---|
| Applicable Platform(s) | SMI |
| Feature Default Setting | Disabled – Configuration Required |
| Related Changes in this Release | Not Applicable |
| Related Documentation | Not Applicable |

## Revision History

*Table 2: Revision History*

| Revision Details | Release |
|---|---|
| First Introduced. | 2020.01.0 |

# Feature Description

The PCF Ops Center allows you to configure the advanced tuning parameters for PCF. The tuning parameters primarily consist of the async-threading and http2-threading parameters. These parameters provide the flexibility of the tuning threads responsible for PCF's incoming and outgoing requests over HTTP.

| | |
|---|---|
| **Note** | Configure the advanced tuning parameter values only if you have a strong understanding of the PCF deployment. |

# Configuration Support for the Advanced Tuning Parameters

This section describes how to configure the advanced tuning parameters using the CLI. The configuration of the advanced tuning parameters involves:

1.

2.

## Configuring the Async Threading Parameters

This section describes how to fine tune the async threading parameters.

To configure the http2-threading parameters, use the following configuration in the Policy Ops Center console:

```
config
  advance-tuning
  async-threading
    default-priority default_priority
    default-worker-threads default_worker_threads
    default-queue-size default_queue_size
    default-processing-threads default_processing_threads
    default-drop-oldest-when-full [ true | false ]
    threading-config service_name
    priority priority
    queue-size queue_size
    threads number_threads
    end
```

**NOTES:**

- **advance-tuning** – Enters the advance tuning configuration mode.

- **async-threading** – Enters the async threading configuration mode.

- **default-priority** *default_priority* – Specifies the default priority level.

- **default-worker-threads** *default_worker_threads* – Specifies the default number of worker threads.

- **default-queue-size** *default_queue_size* – Specifies the default size of the queue.

- **default-processing-threads** *default_processing_threads* – Specifies the default number of threads used for processing.

- **default-drop-oldest-when-full [ true | false ]** – Indicates if the oldest message in the queue should be removed when the queue is full.

- **threading-config** *service_name* – Indicates the service name for which the threading configuration is enabled.

- **priority** *priority* – Specifies the priority of the thread.

- **queue-size** *queue_size* – Indicates the queue size.

- **threads** *number_threads* – Specifies the number of threads to be processed.

# Configuring the HTTP2 Threading Parameters

This section describes how to refine the http2-threading parameters.

To configure the http2-threading parameters, use the following configuration in the Policy Ops Center console:

```
config
  http2-threading
  min-thread-pool-size min_thread_pool
  max-thread-pool-size max_thread_pool
    idle-thread-timeout-ms idle_thread_timeout
    max-queue-capacity max_queue_capacity
    disable-validation [ true | false ]
    end
```

**NOTES:**

- **http2-threading** *http2_threading* – Configures the parameters for inbound SBA requests that are received by PCF.

- **min-thread-pool-size** *min_thread_pool* – Specifies the minimum number of threads for processing the inbound SBA request. The accepted range contains integers. Default value is 5.

- **max-thread-pool-size** *max_thread_pool* – Specifies the maximum size of the thread pool.

- **idle-thread-timeout-ms** *idle_thread_timeout* – Specifies the time in milliseconds that the thread can remain idle. *idle_thread_timeout* must contain only integers. Default value is 60000.

- **disable-validation [ true | false ]** – Disables the validation of the request sent to PCF. **[ true | false ]** must contain the value as true or false. Default value is false.

- **max-queue-capacity** *max_queue_capacity* – Specifies the maximum number of requests that can wait in the queue for processing. *max_queue_capacity* must contain only integers. Default value is 5000.

- **max-thread-pool-size** *max_thread_pool* – Specifies the maximum number of threads that PCF can accommodate in the pool. *max_thread_pool_size* must contain only integers. Default value is 20.