

LAMPIRAN

1. Konfigurasi JMeter

HTTP Request

The screenshot shows the 'HTTP Request' configuration window in JMeter. The 'Name' field is set to 'HTTP Request'. The 'Basic' tab is selected, showing the 'Web Server' section with 'Protocol [http]:' set to 'http', 'Server Name or IP:' set to '34.128.64.138', and 'Port Number:' set to '80'. The 'HTTP Request' section shows the method set to 'GET' and the 'Path:' set to '/assets/images/gambar3.png'. There are checkboxes for 'Redirect Automatically' (unchecked), 'Follow Redirects' (checked), 'Use KeepAlive' (checked), 'Use multipart/form-data' (unchecked), and 'Browser-compatible headers' (unchecked). The 'Parameters' tab is also visible, showing a table for 'Send Parameters With the Request:' with columns for 'Name:', 'Value', 'URL Encode?', 'Content-Type', and 'Include Equals?'.

Name:	Value	URL Encode?	Content-Type	Include Equals?
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Thread Group

Uji Kecepatan

Thread 60

The screenshot shows the 'Thread Group' configuration window in JMeter. The 'Name' field is set to 'Thread Group'. The 'Action to be taken after a Sampler error' section has radio buttons for 'Continue' (selected), 'Start Next Thread Loop', 'Stop Thread', 'Stop Test', and 'Stop Test Now'. The 'Thread Properties' section shows 'Number of Threads (users):' set to '60', 'Ramp-up period (seconds):' set to '3', and 'Loop Count:' set to 'Infinite' (checked). There are checkboxes for 'Same user on each iteration' (unchecked), 'Delay Thread creation until needed' (unchecked), and 'Specify Thread lifetime' (checked). The 'Duration (seconds):' is set to '120' and 'Startup delay (seconds):' is set to '0'.

Thread 70

Thread Group

Name:

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

Thread 80

Thread Group

Name:

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

Thread 100

Thread Group

Name:

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

Thread 150

Thread Group

Name:

Comments:

Action to be taken after a Sampler error

☒ Continue ☐ Start Next Thread Loop ☐ Stop Thread ☐ Stop Test ☐ Stop Test Now

Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

Uji Stabilitas

Threshold Validation

Thread Group

Name:

Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue

☐ Start Next Thread Loop

☐ Stop Thread

☐ Stop Test

☐ Stop Test Now

Thread Properties

Number of Threads (users):

60

Ramp-up period (seconds):

30

Loop Count:

☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

Duration (seconds):

180

Startup delay (seconds):

0

Long Hold

Thread Group

Name:

Thread Group

Comments:

Action to be taken after a Sampler error

☒ Continue

☐ Start Next Thread Loop

☐ Stop Thread

☐ Stop Test

☐ Stop Test Now

Thread Properties

Number of Threads (users):

120

Ramp-up period (seconds):

30

Loop Count:

☒ Infinite

☐ Same user on each iteration

☐ Delay Thread creation until needed

☒ Specify Thread lifetime

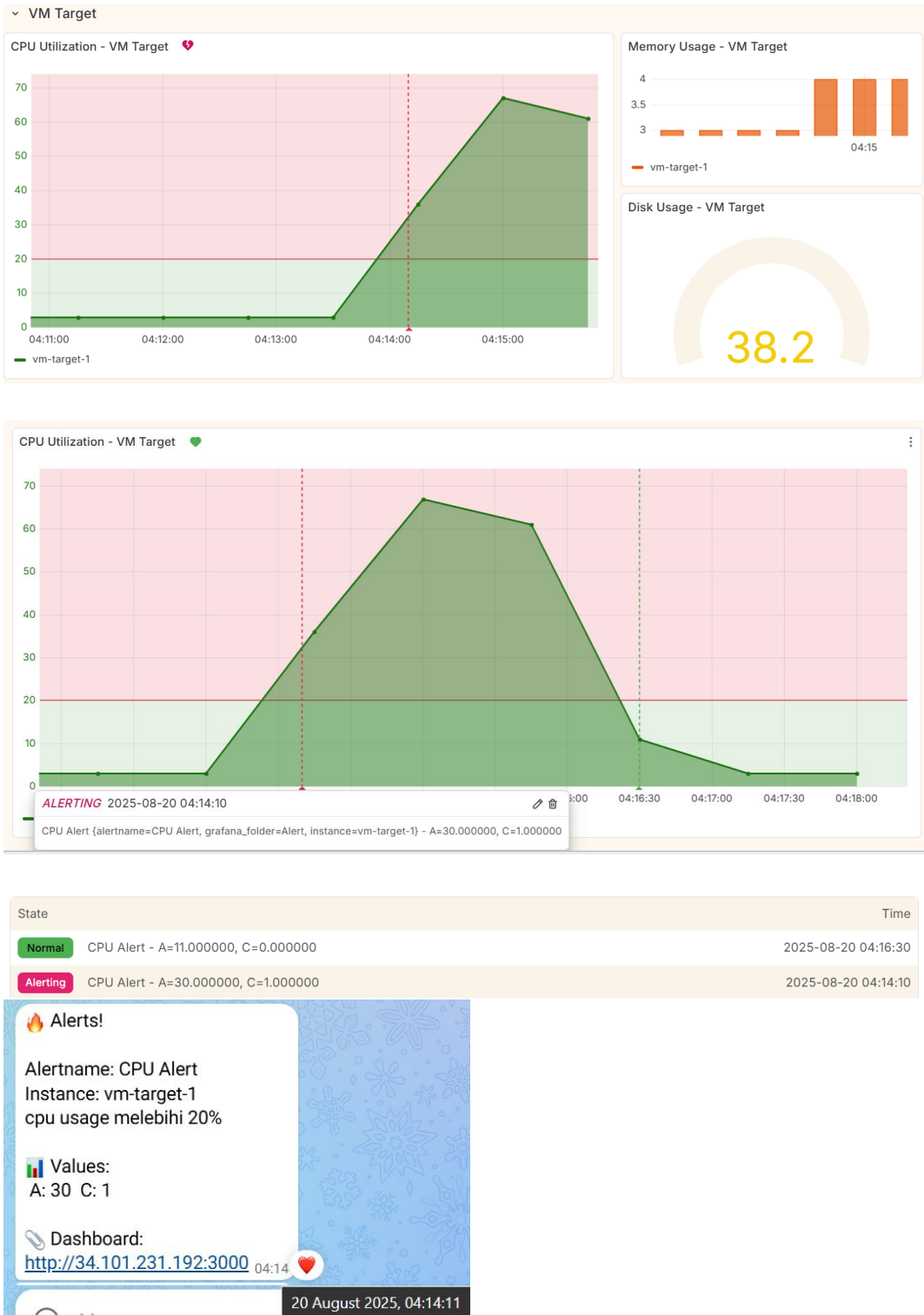
Duration (seconds):

600

Startup delay (seconds):

0

2. Dokumentasi Pengujian Kecepatan
Threads 60



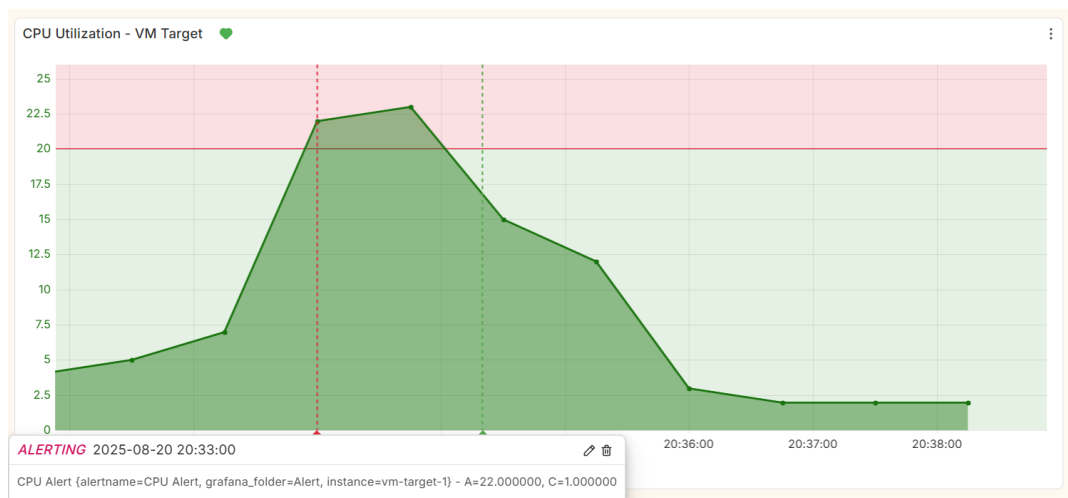
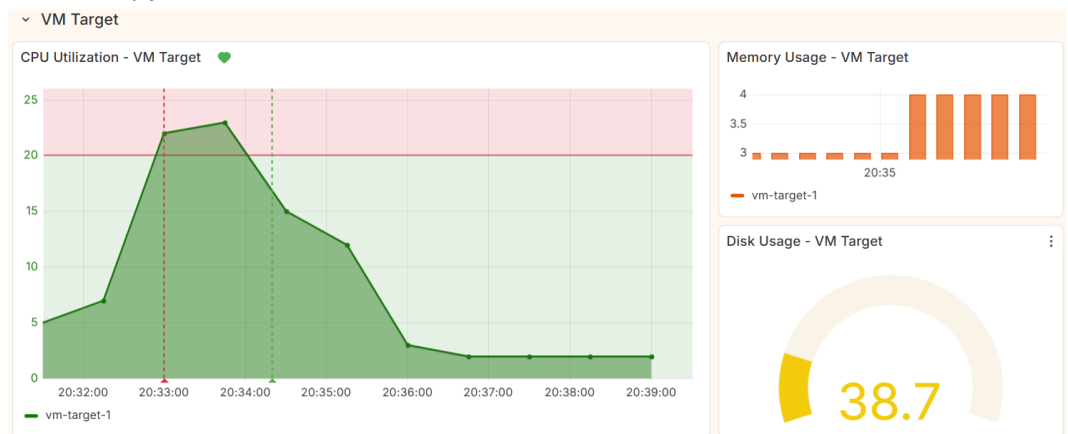
2.

```

golasiyasiyem@irna-vm-penguian:~$ jmeter -n -t speednotif_60-120.jmx -l results/speednotif_60-120.jtl -j logs/speednotif_60-120.log
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
Creating summariser <summary>
Created the tree successfully using speednotif_60-120.jmx
Starting standalone test @ 2025 Aug 20 04:14:01 WIB (1755638041699)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
Warning: Nashorn engine is planned to be removed from a future JDK release
summary + 1 in 00:00:00 = 2.9/s Avg: 79 Min: 79 Max: 79 Err: 0 (0.00%) Active: 6 Started: 6 Finished: 0
summary + 18558 in 00:00:27 = 676.9/s Avg: 77 Min: 5 Max: 1101 Err: 0 (0.00%) Active: 60 Started: 60 Finished: 0
summary = 18559 in 00:00:28 = 668.5/s Avg: 77 Min: 5 Max: 1101 Err: 0 (0.00%)
summary + 10077 in 00:00:30 = 335.8/s Avg: 166 Min: 15 Max: 1144 Err: 0 (0.00%) Active: 60 Started: 60 Finished: 0
summary = 28636 in 00:00:58 = 495.7/s Avg: 109 Min: 5 Max: 1144 Err: 0 (0.00%)
summary + 20331 in 00:00:30 = 677.9/s Avg: 83 Min: 4 Max: 496 Err: 0 (0.00%) Active: 60 Started: 60 Finished: 0
summary = 48967 in 00:01:28 = 557.9/s Avg: 98 Min: 4 Max: 1144 Err: 0 (0.00%)
summary + 12886 in 00:00:30 = 429.5/s Avg: 131 Min: 11 Max: 480 Err: 0 (0.00%) Active: 60 Started: 60 Finished: 0
summary = 61853 in 00:01:58 = 525.2/s Avg: 105 Min: 4 Max: 1144 Err: 0 (0.00%)

```

Threads 70



State		Time
Normal	CPU Alert - A=18.000000, C=0.000000	2025-08-20 20:34:20
Alerting	CPU Alert - A=22.000000, C=1.000000	2025-08-20 20:33:00

Alerts!

Alertname: CPU Alert
Instance: vm-target-1
cpu usage melebihi 20%

Values:
A: 25 C: 1

Dashboard:
<http://34.101.231.192:3000> 20:33

Alerts!

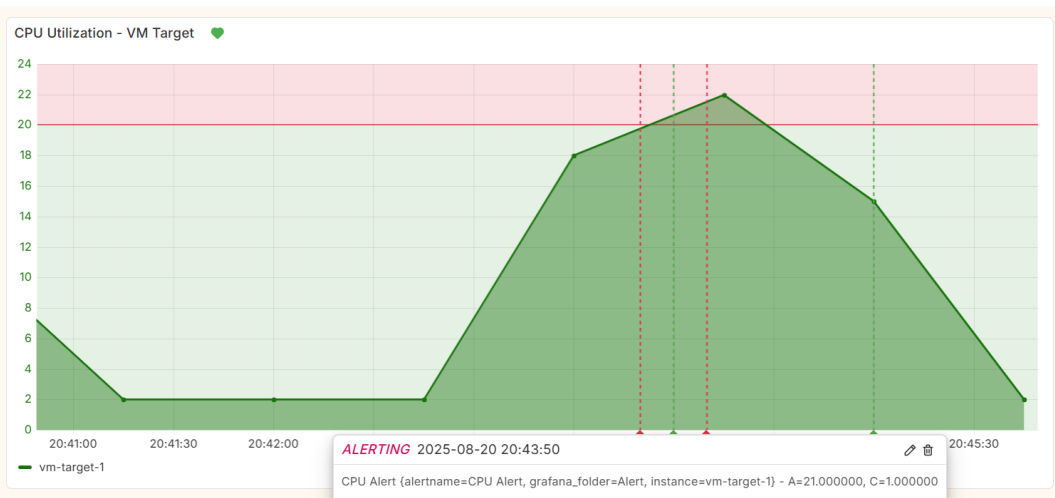
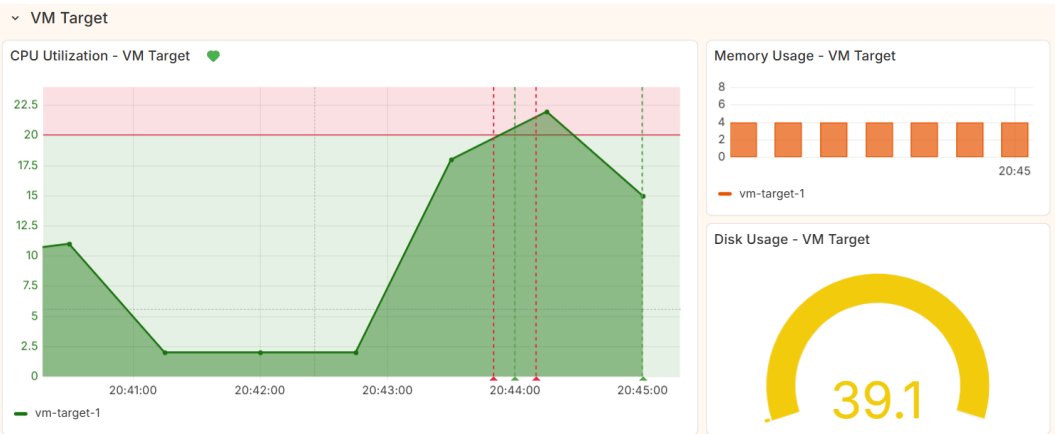
20 August 2025, 20:33:11

```

golaslasiyem@irna-vm-pengujian:~$ jmeter -n -t speednotif_70-120.jmx -l results/speednotif_70-120.jtl -j logs/speednotif_70-120.log
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
Creating summariser <summary>
Created the tree successfully using speednotif_70-120.jmx
Starting standalone test @ 2025 Aug 20 20:32:08 WIB (1755696728934)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
Warning: Nashorn engine is planned to be removed from a future JDK release
summary + 15660 in 00:00:21 = 762.8/s Avg: 74 Min: 3 Max: 1106 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary + 12733 in 00:00:30 = 424.4/s Avg: 156 Min: 10 Max: 939 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary = 28393 in 00:00:51 = 561.9/s Avg: 111 Min: 3 Max: 1106 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary + 17877 in 00:00:30 = 595.6/s Avg: 104 Min: 4 Max: 630 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary = 46270 in 00:01:21 = 574.4/s Avg: 108 Min: 3 Max: 1106 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary + 13924 in 00:00:30 = 464.2/s Avg: 150 Min: 5 Max: 859 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary = 60194 in 00:01:51 = 544.5/s Avg: 118 Min: 3 Max: 1106 Err: 0 (0.00%) Active: 70 Started: 70 Finished: 0
summary + 3474 in 00:00:10 = 355.9/s Avg: 196 Min: 14 Max: 1748 Err: 0 (0.00%) Active: 0 Started: 70 Finished: 70
summary = 63668 in 00:02:00 = 529.2/s Avg: 122 Min: 3 Max: 1748 Err: 0 (0.00%) Active: 0 Started: 70 Finished: 70
Tidying up ... @ 2025 Aug 20 20:34:09 WIB (1755696849774)
... end of run

```

Threads 80



State	Time
Normal CPU Alert - A=15.000000, C=0.000000	2025-08-20 20:45:00
Alerting CPU Alert - A=22.000000, C=1.000000	2025-08-20 20:44:10
Normal CPU Alert - A=20.000000, C=0.000000	2025-08-20 20:44:00
Alerting CPU Alert - A=21.000000, C=1.000000	2025-08-20 20:43:50

🔥 Alerts!

Alertname: CPU Alert
Instance: vm-target-1
cpu usage melebihi 20%

📊 Values:
A: 21 C: 1

🔗 Dashboard:
<http://34.101.231.192:3000> 20:43 ♥

🔥 Alerts!

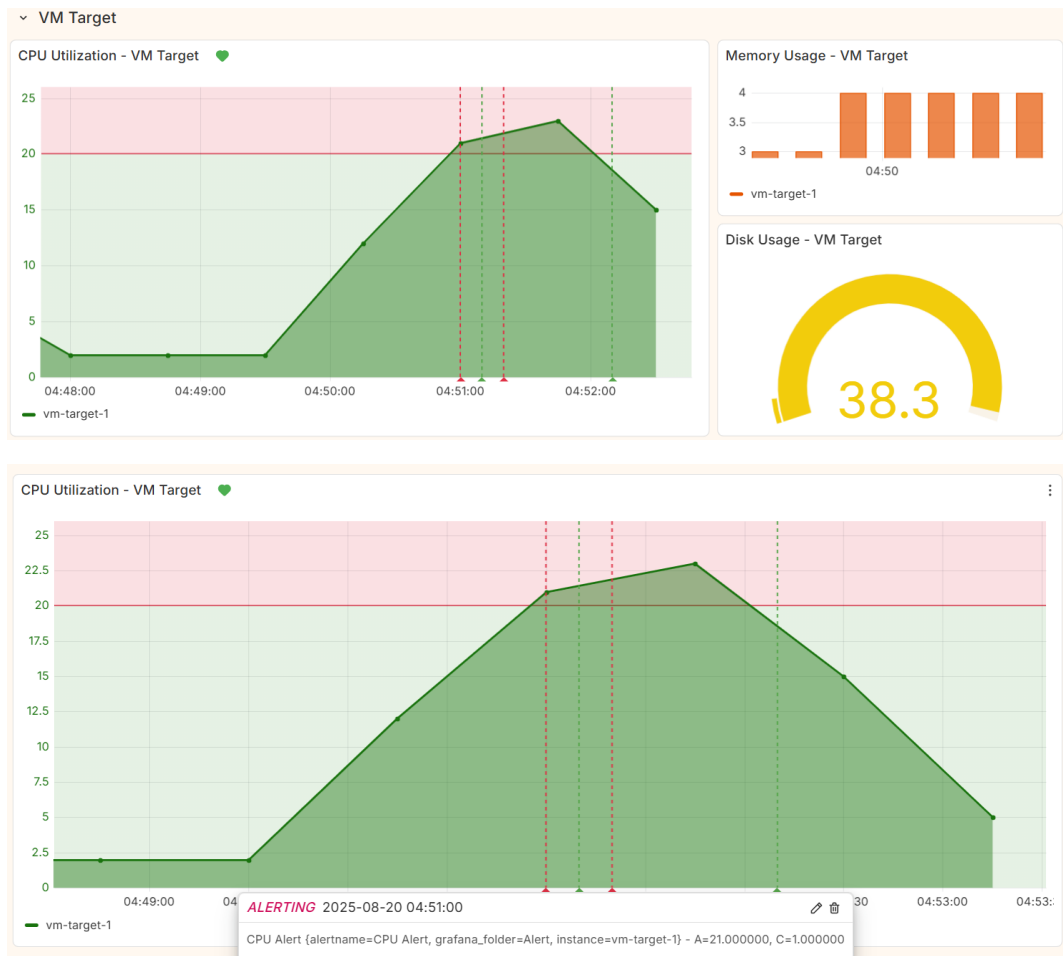
20 August 2025, 20:43:51

```

golaslasiyem@irna-vm-pengujian:~$ jmeter -n -t speednotif_80-120.jmx -l results/sp
WARN StatusConsoleListener The use of package scanning to locate plugins is depreca
WARN StatusConsoleListener The use of package scanning to locate plugins is depreca
WARN StatusConsoleListener The use of package scanning to locate plugins is depreca
WARN StatusConsoleListener The use of package scanning to locate plugins is depreca
Creating summariser <summary>
Created the tree successfully using speednotif_80-120.jmx
Starting standalone test @ 2025 Aug 20 20:42:44 WIB (1755697364760)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
Warning: Nashorn engine is planned to be removed from a future JDK release
summary + 11040 in 00:00:15 = 749.8/s Avg: 76 Min: 5 Max: 413 Err:
0 (0.00%) Active: 80 Started: 80 Finished: 0
summary + 13734 in 00:00:30 = 457.8/s Avg: 153 Min: 5 Max: 1016 Err:
0 (0.00%) Active: 80 Started: 80 Finished: 0
summary = 24774 in 00:00:45 = 553.9/s Avg: 118 Min: 5 Max: 1016 Err:
0 (0.00%)
summary + 16420 in 00:00:30 = 547.4/s Avg: 141 Min: 3 Max: 1235 Err:
0 (0.00%) Active: 80 Started: 80 Finished: 0
summary = 41194 in 00:01:15 = 551.3/s Avg: 127 Min: 3 Max: 1235 Err:
0 (0.00%)
summary + 16222 in 00:00:30 = 540.8/s Avg: 134 Min: 4 Max: 1154 Err:
0 (0.00%) Active: 80 Started: 80 Finished: 0
summary = 57416 in 00:01:45 = 548.3/s Avg: 129 Min: 3 Max: 1235 Err:
0 (0.00%)
summary + 5927 in 00:00:16 = 379.7/s Avg: 212 Min: 11 Max: 1808 Err:
0 (0.00%) Active: 0 Started: 80 Finished: 80
summary = 63343 in 00:02:00 = 526.4/s Avg: 137 Min: 3 Max: 1808 Err:
0 (0.00%)
Tidying up ... @ 2025 Aug 20 20:44:45 WIB (1755697485612)
... end of run

```

Threads 100



State		Time
Normal	CPU Alert - A=18.000000, C=0.000000	2025-08-20 04:52:10
Alerting	CPU Alert - A=22.000000, C=1.000000	2025-08-20 04:51:20
Normal	CPU Alert - A=20.000000, C=0.000000	2025-08-20 04:51:10
Alerting	CPU Alert - A=21.000000, C=1.000000	2025-08-20 04:51:00

Alerts!

Alertname: CPU Alert
Instance: vm-target-1
cpu usage melebihi 20%

Values:
A: 21 C: 1

Dashboard:
<http://34.101.231.192:3000> 04:51

Alerts!

20 August 2025, 04:51:01

```

golaslasiyem@irna-vm-pengujian:~$ jmeter -n -t speednotif_100-150.jmx -l results
/speednotif_100-150.jtl -j logs/speednotif_100-150.log
WARN StatusConsoleListener The use of package scanning to locate plugins is depr
ecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is depr
ecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is depr
ecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is depr
ecated and will be removed in a future release
Creating summariser <summary>
Created the tree successfully using speednotif_100-150.jmx
Starting standalone test @ 2025 Aug 20 04:49:53 WIB (1755640193721)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 44
45
Warning: Nashorn engine is planned to be removed from a future JDK release
summary + 3098 in 00:00:06 = 546.1/s Avg: 58 Min: 7 Max: 740 Err:
0 (0.00%) Active: 100 Started: 100 Finished: 0
summary + 15980 in 00:00:30 = 532.1/s Avg: 135 Min: 5 Max: 1936 Err:
0 (0.00%) Active: 100 Started: 100 Finished: 0
summary = 19078 in 00:00:36 = 533.9/s Avg: 122 Min: 5 Max: 1936 Err:
0 (0.00%)
summary + 10328 in 00:00:30 = 345.0/s Avg: 247 Min: 4 Max: 1741 Err:
0 (0.00%) Active: 100 Started: 100 Finished: 0
summary = 29406 in 00:01:06 = 447.7/s Avg: 166 Min: 4 Max: 1936 Err:
0 (0.00%)
summary + 17496 in 00:00:30 = 583.4/s Avg: 142 Min: 4 Max: 1439 Err:
0 (0.00%) Active: 100 Started: 100 Finished: 0
summary = 46902 in 00:01:36 = 490.2/s Avg: 157 Min: 4 Max: 1936 Err:
0 (0.00%)
summary + 8305 in 00:00:30 = 276.8/s Avg: 259 Min: 5 Max: 1592 Err:
0 (0.00%) Active: 100 Started: 100 Finished: 0
summary = 55207 in 00:02:06 = 439.3/s Avg: 173 Min: 4 Max: 1936 Err:
0 (0.00%)
summary + 10233 in 00:00:25 = 414.1/s Avg: 194 Min: 4 Max: 2263 Err:
0 (0.00%) Active: 0 Started: 100 Finished: 100
summary = 65440 in 00:02:30 = 435.1/s Avg: 176 Min: 4 Max: 2263 Err:
0 (0.00%)
Tidying up ... @ 2025 Aug 20 04:52:24 WIB (1755640344716)
... end of run

```

3. Query

Memory

```
avg by(instance) (
  round(
    100 * (1 - (
      avg_over_time(node_memory_MemFree_bytes
        {instance="vm-target-1"}[10m]) +
      avg_over_time(node_memory_Cached_bytes
        {instance="vm-target-1"}[10m]) +
      avg_over_time(node_memory_Buffers_bytes
        {instance="vm-target-1"}[10m]))
    /
    avg_over_time(node_memory_MemTotal_bytes
      {instance="vm-target-1"}[10m])
  )),
  1
)
```

Disk

```
100 * (
  1 - (
    node_filesystem_free_bytes{mountpoint="/", fstype!~"tmpfs|
overlay", instance="vm-target-1"} /
    node_filesystem_size_bytes{mountpoint="/", fstype!~"tmpfs|
overlay", instance="vm-target-1"}
  )
)
```

4. SSH VM Pengujian pada Google Cloud Shell

