

Test results for /home/cs344-2/P4Perform/bmv2\_router/router.p4  
Calibration method: loopback  
DUT host: cs344-2@packet-5.stanford.edu

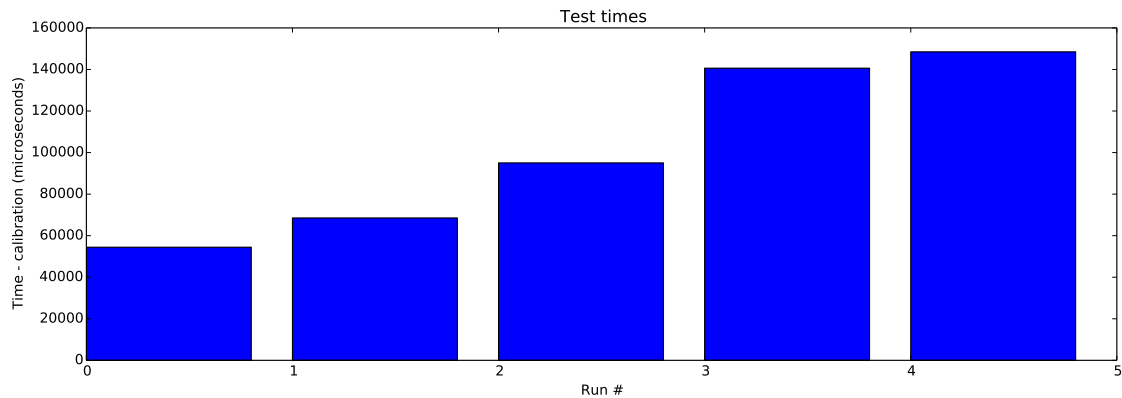
## 1 Test 1

### 1.1 Expected path

```
start
parse_arp
sink
(u'node_3', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
```

### 1.2 Stats (time - calibration time in microseconds)

Mean: 101413.000000  
Std dev: 37634.695880  
Median: 95019.000000



## 2 Test 2

### 2.1 Expected path

```
start
parse_arp
sink
(u'node_3', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
```

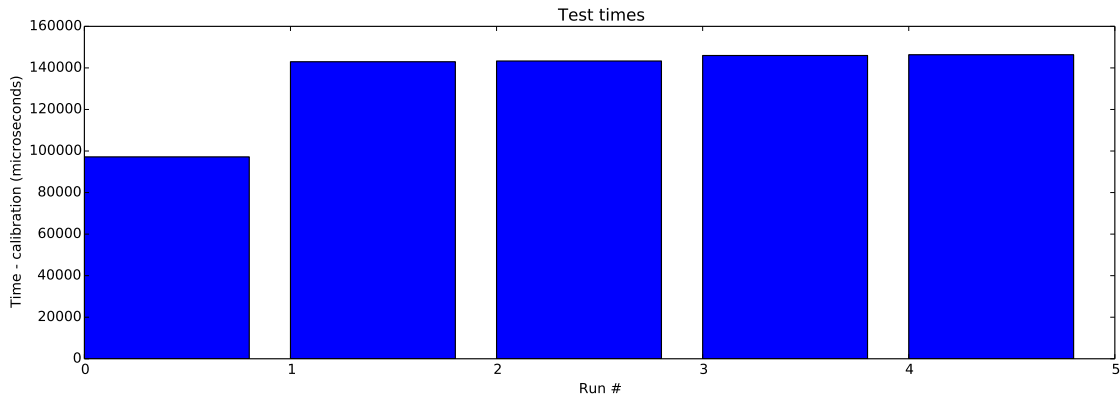
```
(u'node_5', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
```

## 2.2 Stats (time - calibration time in microseconds)

Mean: 135156.000000

Std dev: 19039.347835

Median: 143324.000000



## 3 Test 3

### 3.1 Expected path

start

parse\_ipv4

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

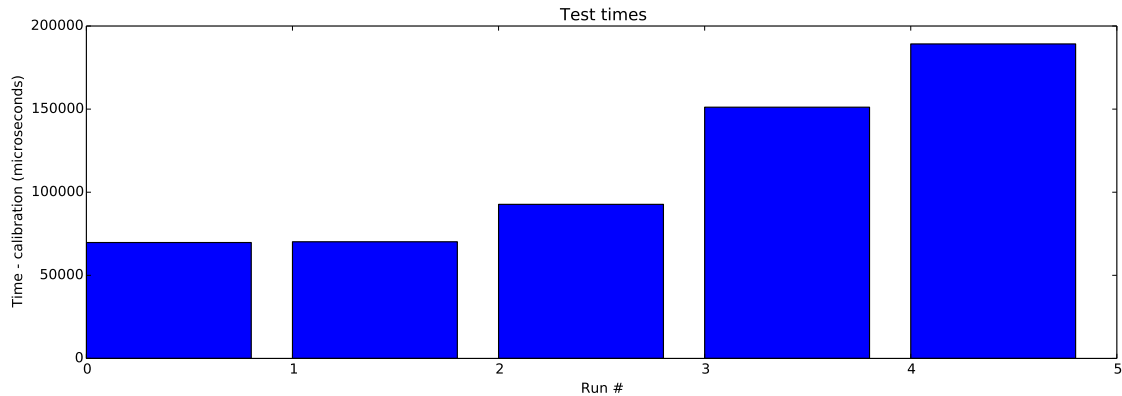
```
(u'MyIngress.routing_table', u'NoAction')
```

```
(u'node_20', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

```
(u'tbl_send_to_cpu_2', u'MyIngress.send_to_cpu')
```

### 3.2 Stats (time - calibration time in microseconds)

Mean: 114598.000000  
Std dev: 47687.308836  
Median: 92699.000000



## 4 Test 4

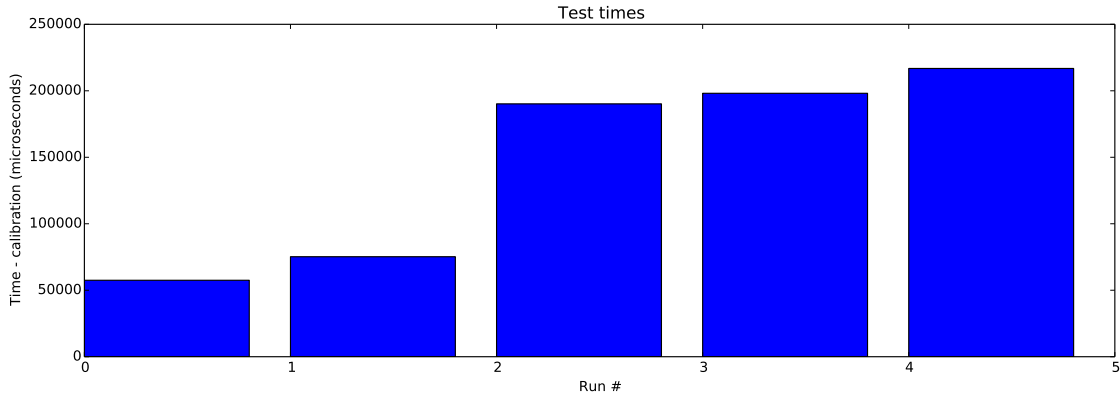
### 4.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'tbl_send_to_cpu_2', u'MyIngress.send_to_cpu')
```

### 4.2 Stats (time - calibration time in microseconds)

Mean: 147559.000000  
Std dev: 67099.075105

Median: 190169.000000



## 5 Test 5

### 5.1 Expected path

start

parse\_ipv4

sink

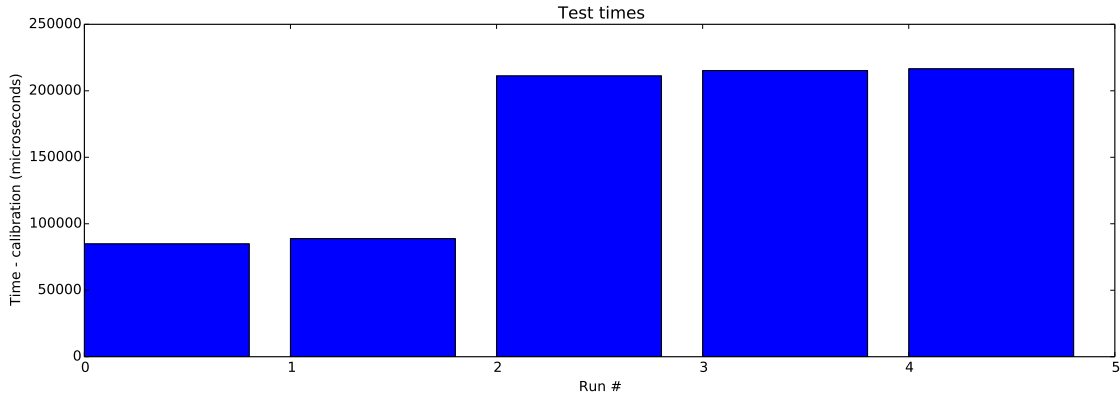
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')
```

### 5.2 Stats (time - calibration time in microseconds)

Mean: 163363.000000

Std dev: 62489.729748

Median: 211259.000000



## 6 Test 6

### 6.1 Expected path

start

parse\_ipv4

sink

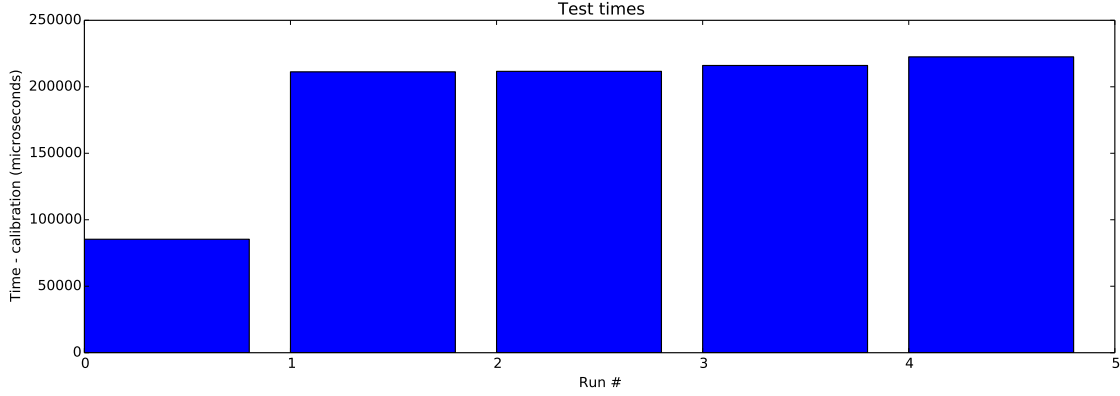
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')
```

### 6.2 Stats (time - calibration time in microseconds)

Mean: 189345.000000

Std dev: 52163.938923

Median: 211614.000000



## 7 Test 7

### 7.1 Expected path

start

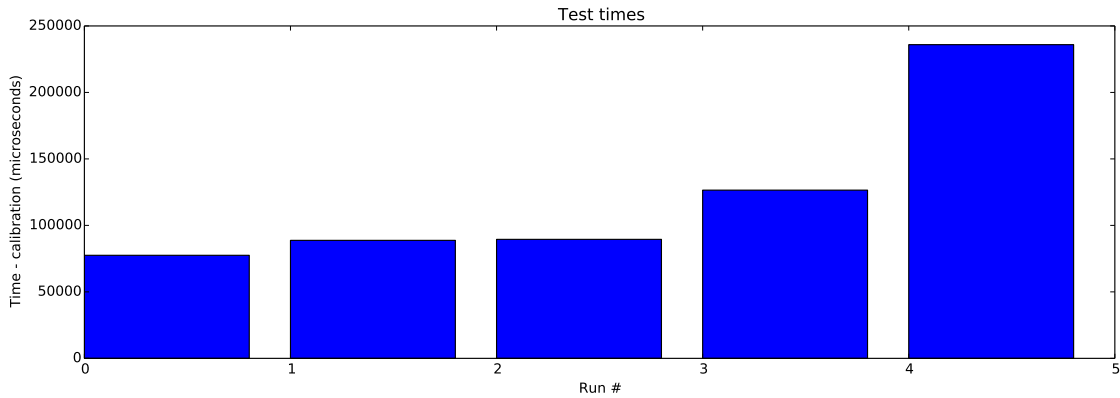
parse\_ipv4

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 7.2 Stats (time - calibration time in microseconds)

Mean: 123635.000000  
Std dev: 58528.861803  
Median: 89494.000000



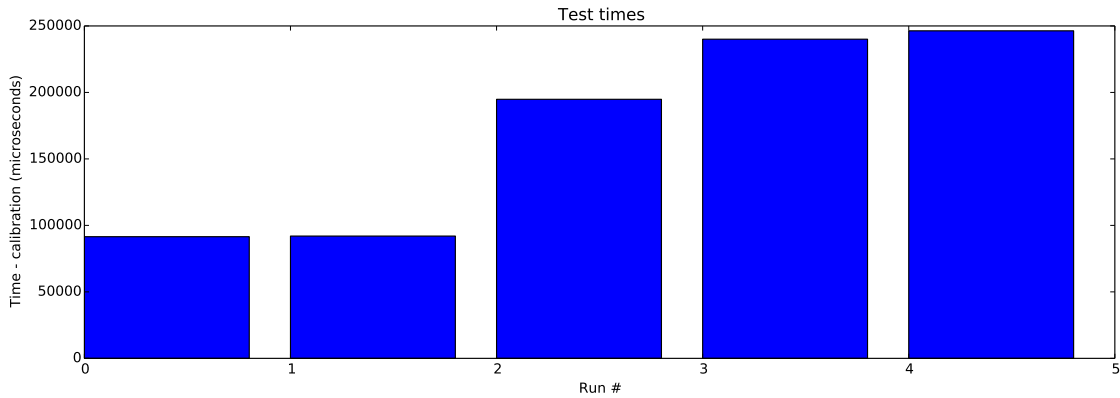
## 8 Test 8

### 8.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 8.2 Stats (time - calibration time in microseconds)

Mean: 172932.000000  
Std dev: 68637.624493  
Median: 194829.000000



## 9 Test 9

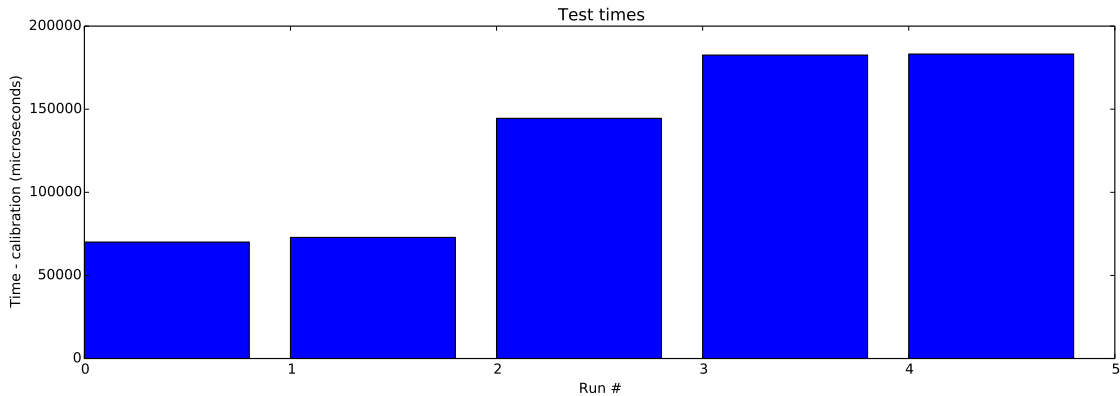
### 9.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```



## 9.2 Stats (time - calibration time in microseconds)

Mean: 130631.000000  
Std dev: 50314.620798  
Median: 144499.000000



## 10 Test 10

### 10.1 Expected path

start

parse\_ipv4

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))  
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))  
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))  
(u'MyIngress.local_ip_table', u'NoAction')  
(u'node_11', (False, None))  
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec  
== 64 ...')))  
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL  
...')))  
(u'MyIngress.routing_table', u'NoAction')  
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))  
(u'MyIngress.port_to_mac', u'NoAction')  
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))  
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))  
(u'MyIngress.arp_cache_table', u'NoAction')  
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))  
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

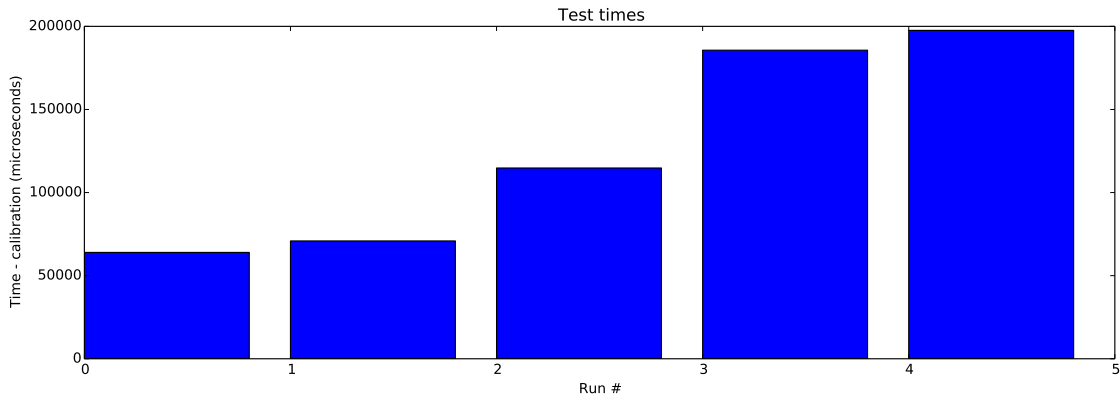
(u'tbl\_send\_to\_cpu\_4', u'MyIngress.send\_to\_cpu')

## 10.2 Stats (time - calibration time in microseconds)

Mean: 126572.000000

Std dev: 56014.888878

Median: 114774.000000



## 11 Test 11

### 11.1 Expected path

start

parse\_ipv4

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

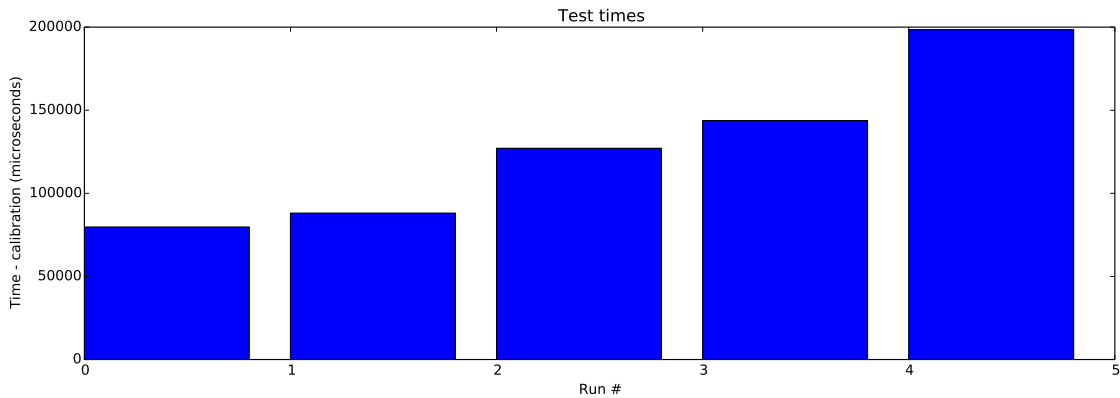
(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

```
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 11.2 Stats (time - calibration time in microseconds)

Mean: 127423.000000  
Std dev: 42754.806209  
Median: 127089.000000



## 12 Test 12

### 12.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
```

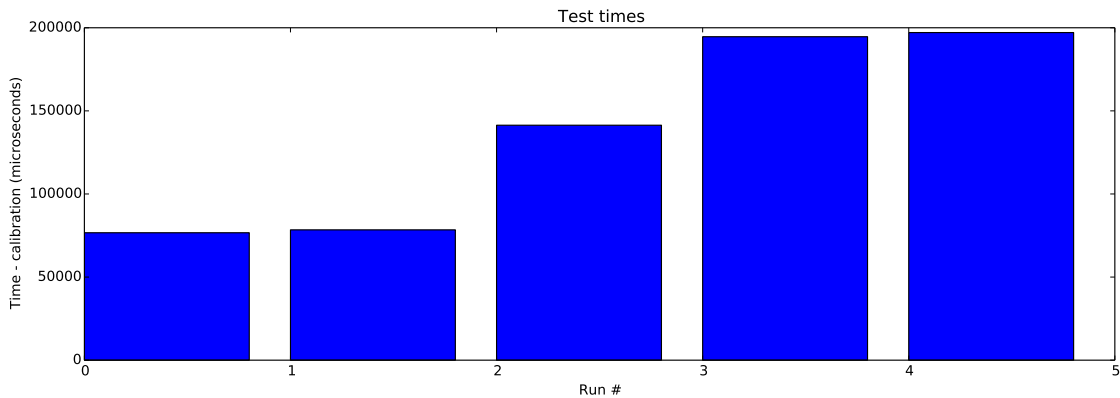
```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 12.2 Stats (time - calibration time in microseconds)

Mean: 137633.000000

Std dev: 52959.282133

Median: 141364.000000



## 13 Test 13

### 13.1 Expected path

start

parse\_ipv4

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
```

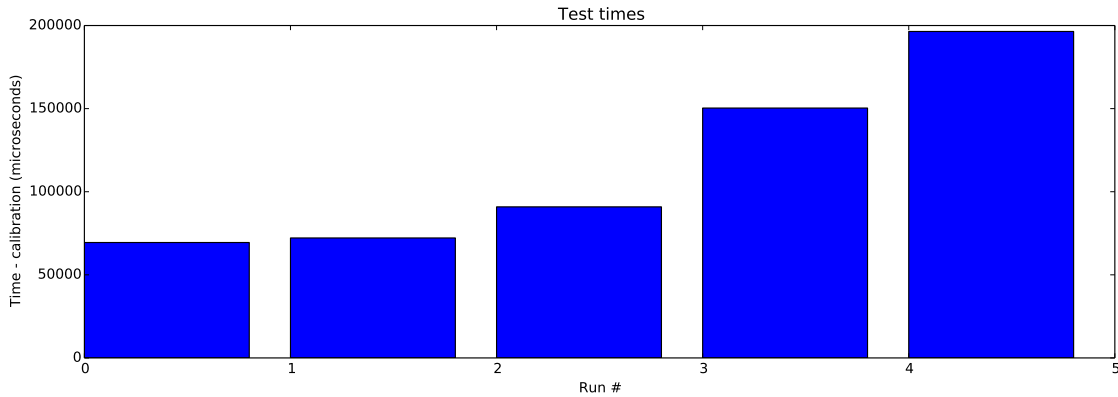
```

(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 13.2 Stats (time - calibration time in microseconds)

Mean: 115856.000000  
 Std dev: 49730.734823  
 Median: 90889.000000



## 14 Test 14

### 14.1 Expected path

```

start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))

```

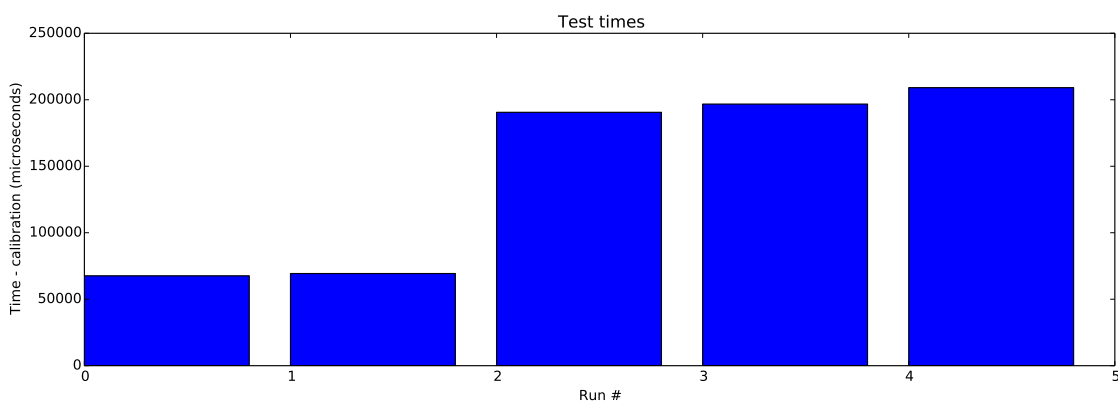
```

(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 14.2 Stats (time - calibration time in microseconds)

Mean: 146671.000000  
 Std dev: 64136.343098  
 Median: 190569.000000



## 15 Test 15

### 15.1 Expected path

```

start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))

```

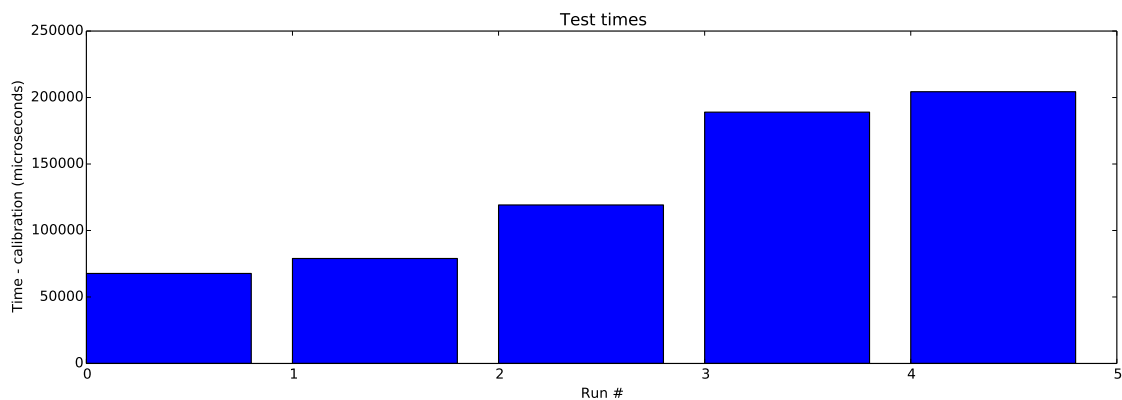
```

(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

```

## 15.2 Stats (time - calibration time in microseconds)

Mean: 131835.000000  
 Std dev: 55862.426406  
 Median: 119194.000000



## 16 Test 16

### 16.1 Expected path

```

start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))

```

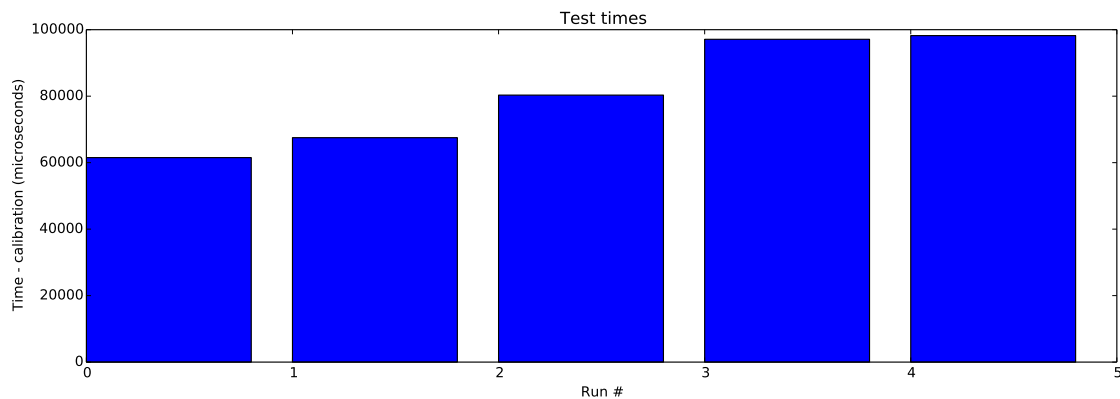
```

(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 16.2 Stats (time - calibration time in microseconds)

Mean: 80936.000000  
 Std dev: 14952.047886  
 Median: 80319.000000



## 17 Test 17

### 17.1 Expected path

```

start
parse_ipv4
sink

```



```

(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

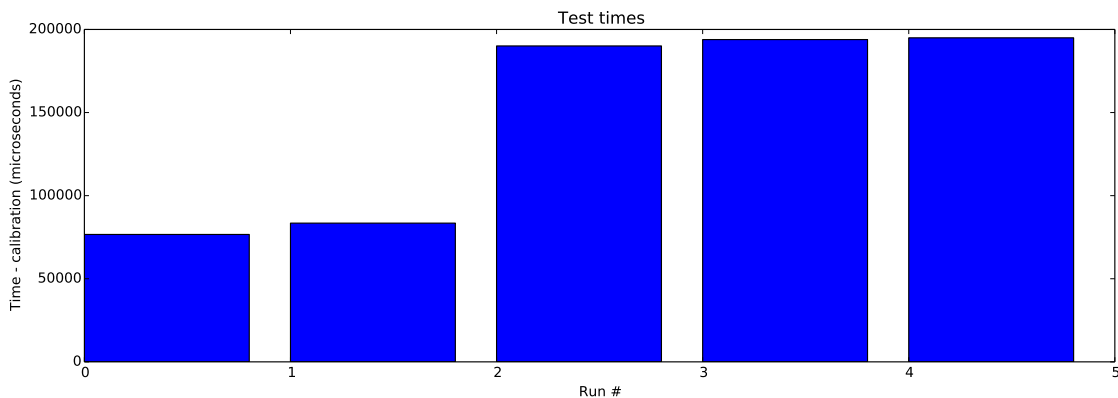
```

## 17.2 Stats (time - calibration time in microseconds)

Mean: 147814.000000

Std dev: 55385.545497

Median: 190074.000000



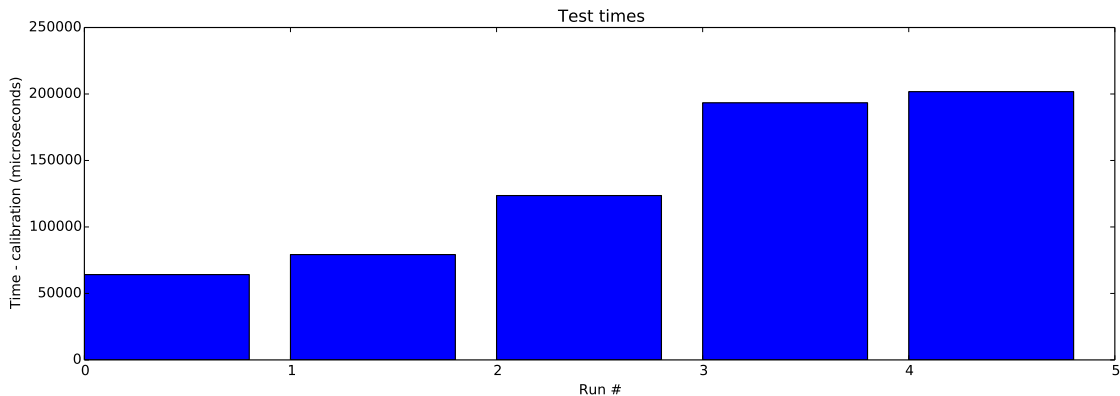
## 18 Test 18

### 18.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 18.2 Stats (time - calibration time in microseconds)

Mean: 132432.000000  
Std dev: 56731.059271  
Median: 123609.000000



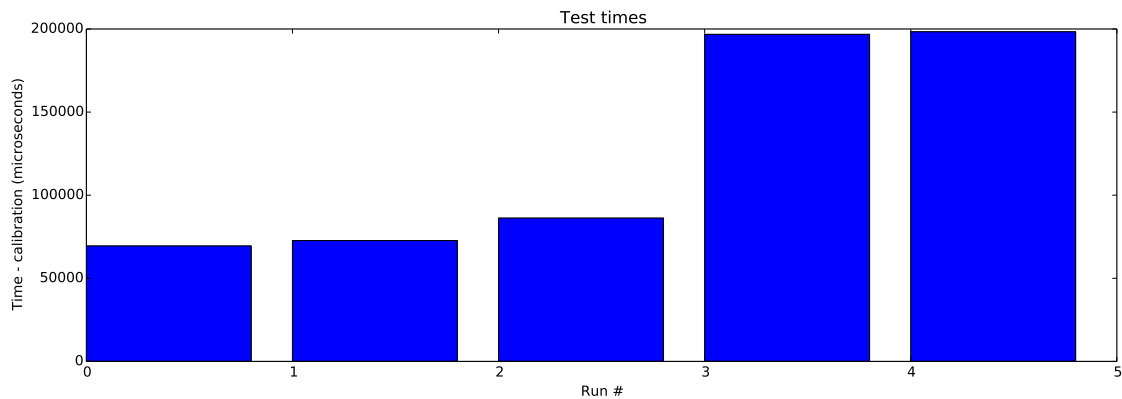
## 19 Test 19

### 19.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')
```

### 19.2 Stats (time - calibration time in microseconds)

Mean: 124721.000000  
Std dev: 59750.055113  
Median: 86264.000000



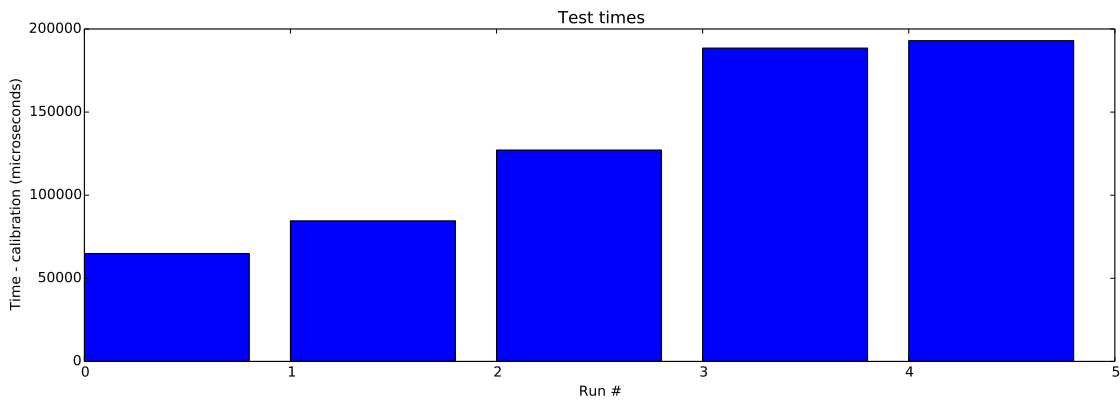
## 20 Test 20

### 20.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')
```

### 20.2 Stats (time - calibration time in microseconds)

Mean: 131603.000000  
Std dev: 52320.274120  
Median: 127144.000000



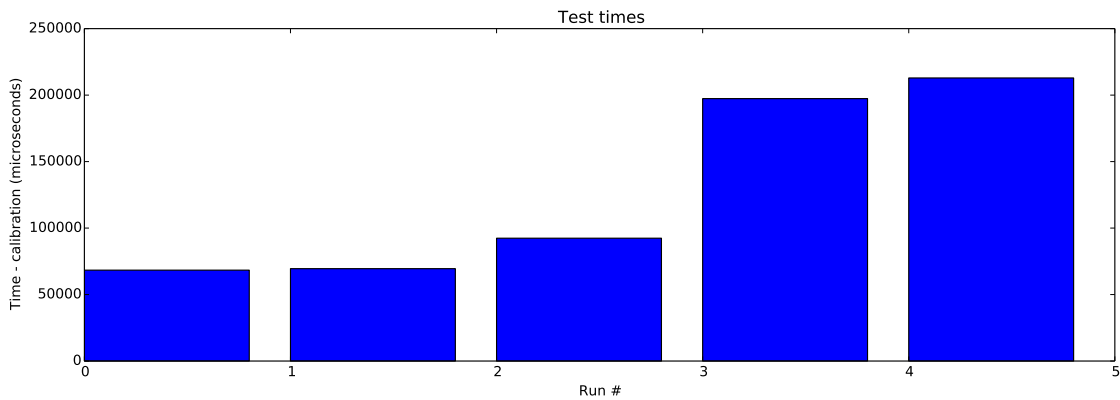
## 21 Test 21

### 21.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 21.2 Stats (time - calibration time in microseconds)

Mean: 128094.000000  
Std dev: 63670.635304  
Median: 92384.000000



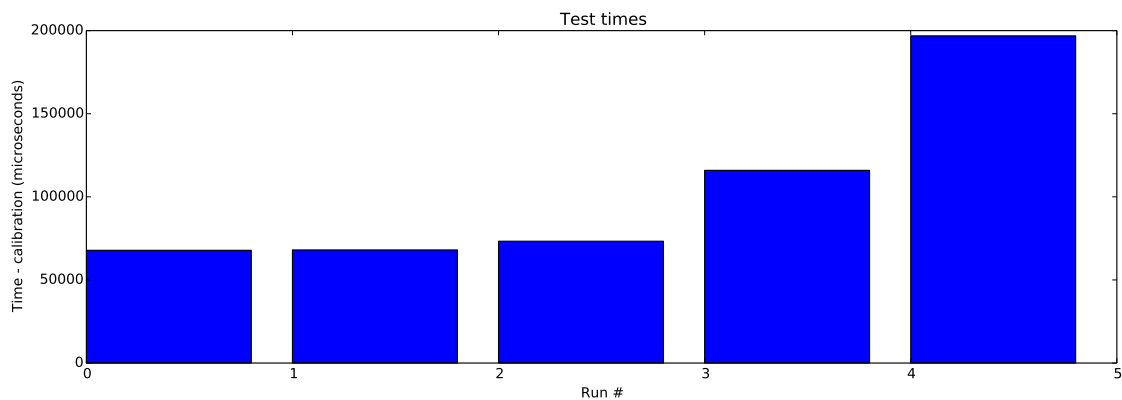
## 22 Test 22

### 22.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 22.2 Stats (time - calibration time in microseconds)

Mean: 104383.000000  
Std dev: 49612.151778  
Median: 73284.000000



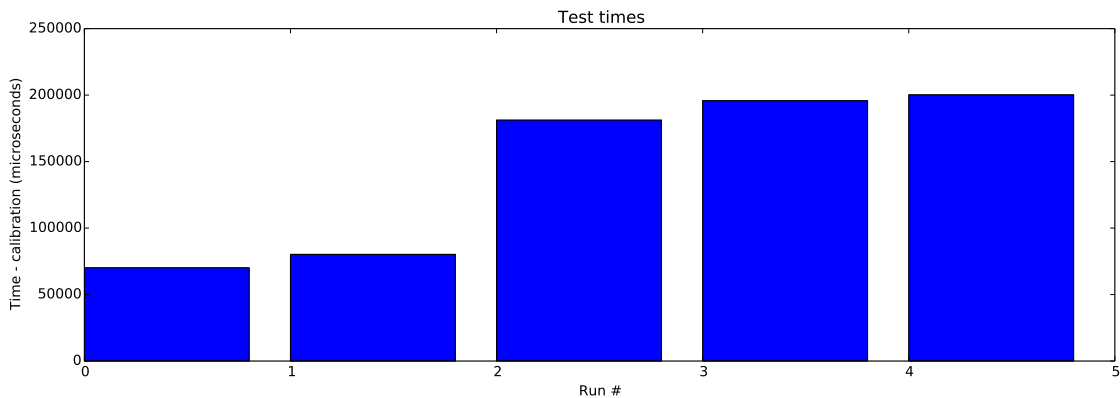
## 23 Test 23

### 23.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 23.2 Stats (time - calibration time in microseconds)

Mean: 145541.000000  
Std dev: 57874.626530  
Median: 181254.000000



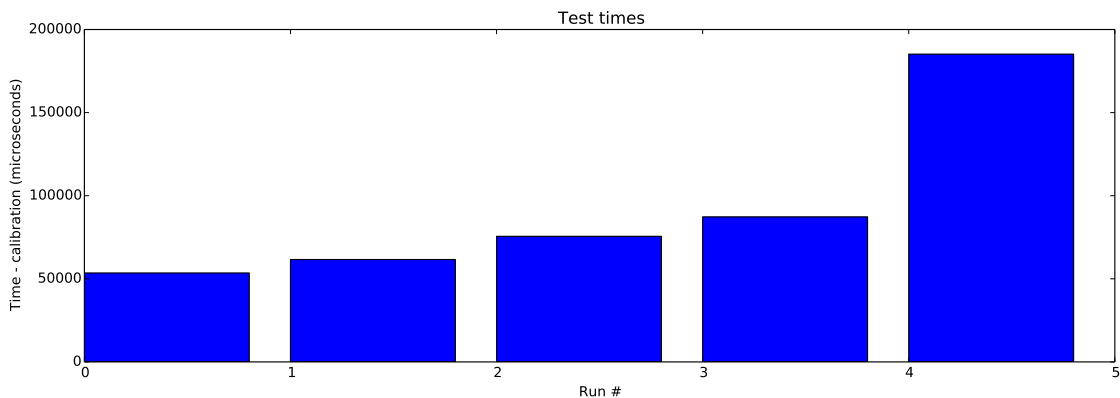
## 24 Test 24

### 24.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 24.2 Stats (time - calibration time in microseconds)

Mean: 92631.000000  
Std dev: 47703.377407  
Median: 75569.000000





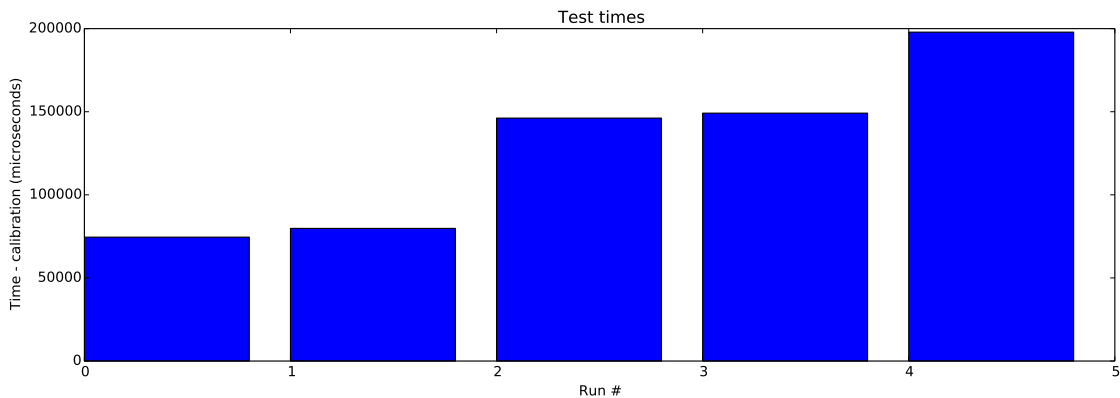
## 25 Test 25

### 25.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 25.2 Stats (time - calibration time in microseconds)

Mean: 129499.000000  
Std dev: 46544.375815  
Median: 146159.000000



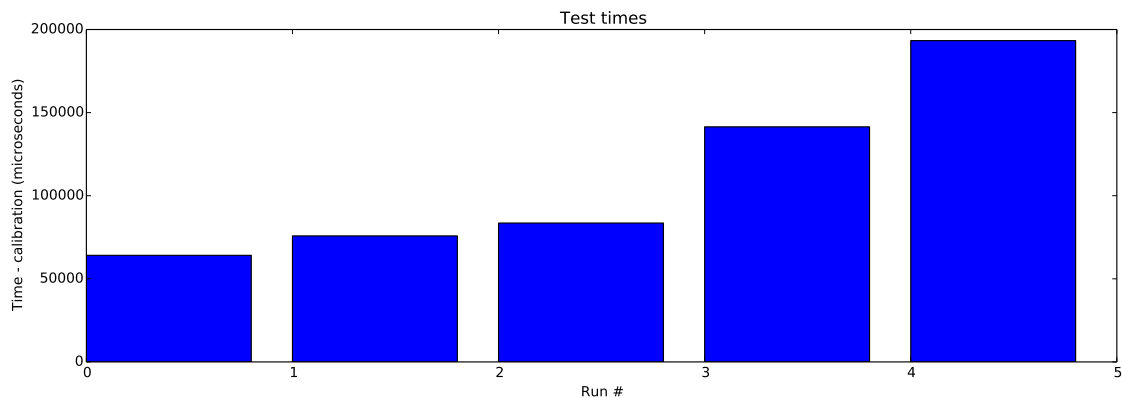
## 26 Test 26

### 26.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 26.2 Stats (time - calibration time in microseconds)

Mean: 111651.000000  
Std dev: 48761.625957  
Median: 83559.000000



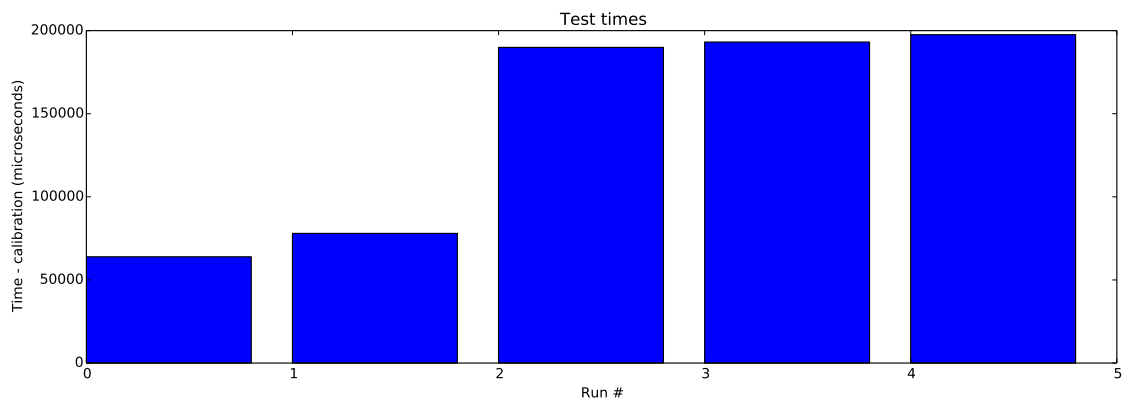
## 27 Test 27

### 27.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 27.2 Stats (time - calibration time in microseconds)

Mean: 144506.000000  
Std dev: 60266.856862  
Median: 189919.000000



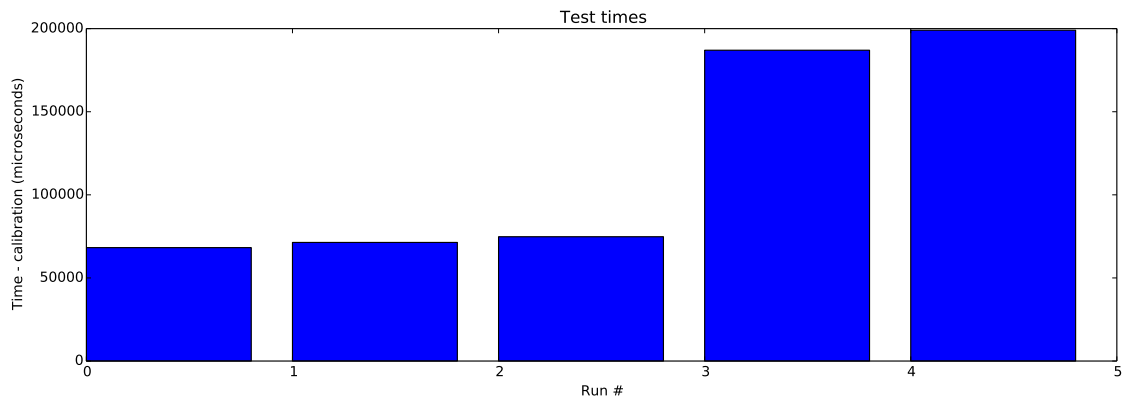
## 28 Test 28

### 28.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 28.2 Stats (time - calibration time in microseconds)

Mean: 120087.000000  
Std dev: 59710.157059  
Median: 74789.000000



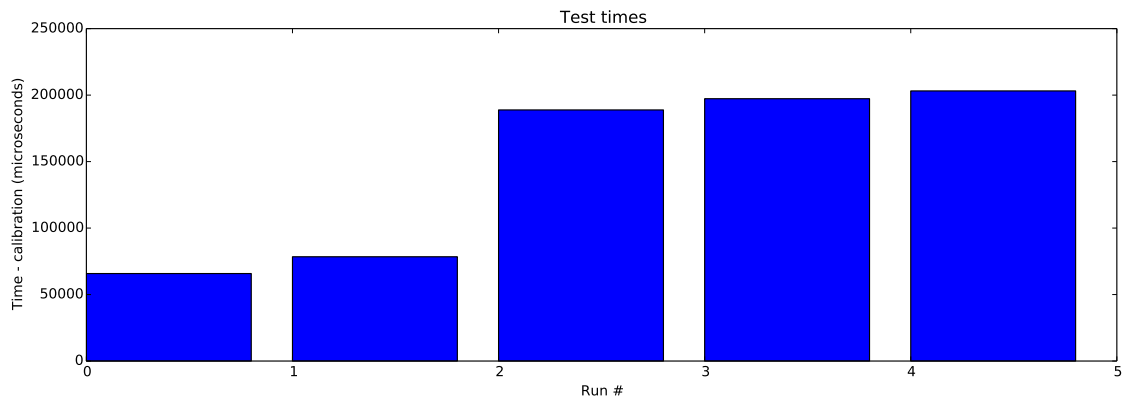
## 29 Test 29

### 29.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 29.2 Stats (time - calibration time in microseconds)

Mean: 146704.000000  
Std dev: 61202.214911  
Median: 188849.000000



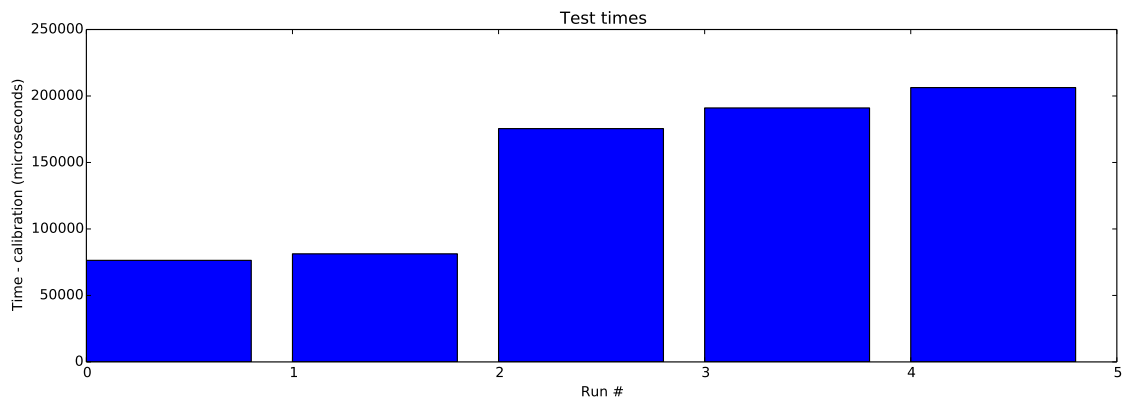
## 30 Test 30

### 30.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 30.2 Stats (time - calibration time in microseconds)

Mean: 146091.000000  
Std dev: 55796.730693  
Median: 175464.000000



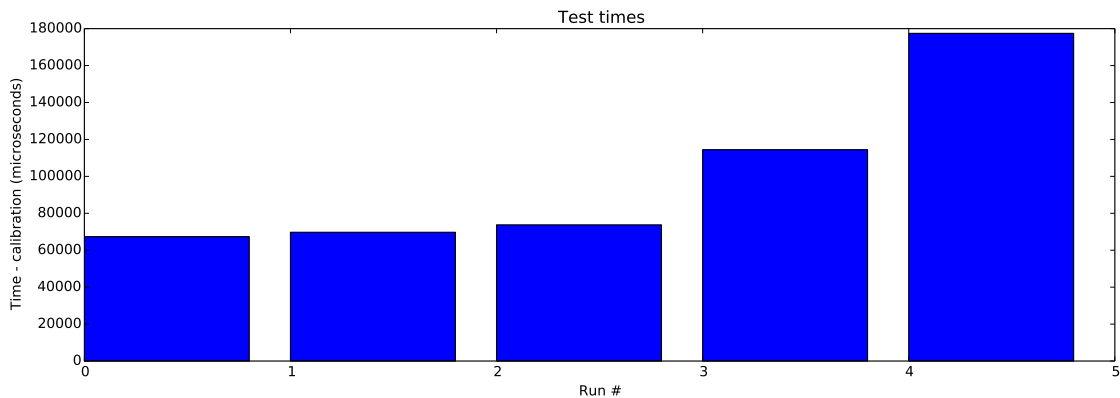
## 31 Test 31

### 31.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 31.2 Stats (time - calibration time in microseconds)

Mean: 100535.000000  
Std dev: 42129.998742  
Median: 73729.000000



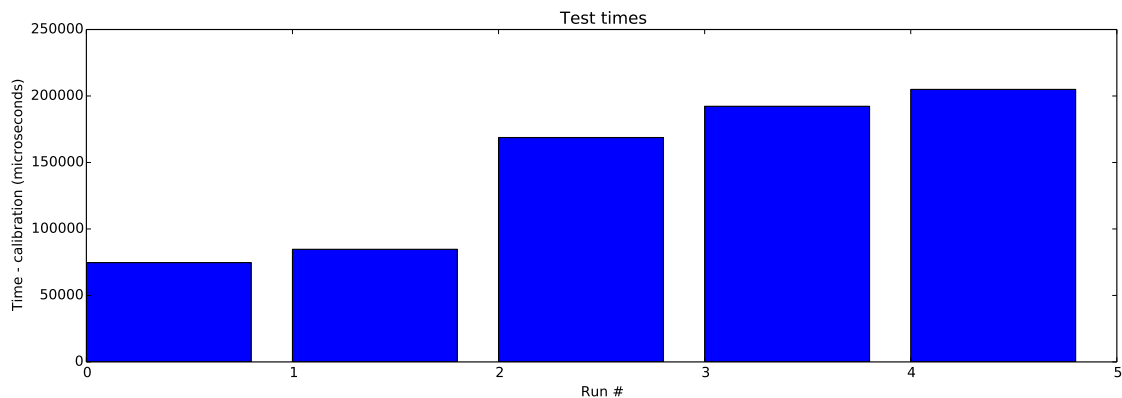
## 32 Test 32

### 32.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 32.2 Stats (time - calibration time in microseconds)

Mean: 145059.000000  
Std dev: 54716.768088  
Median: 168744.000000





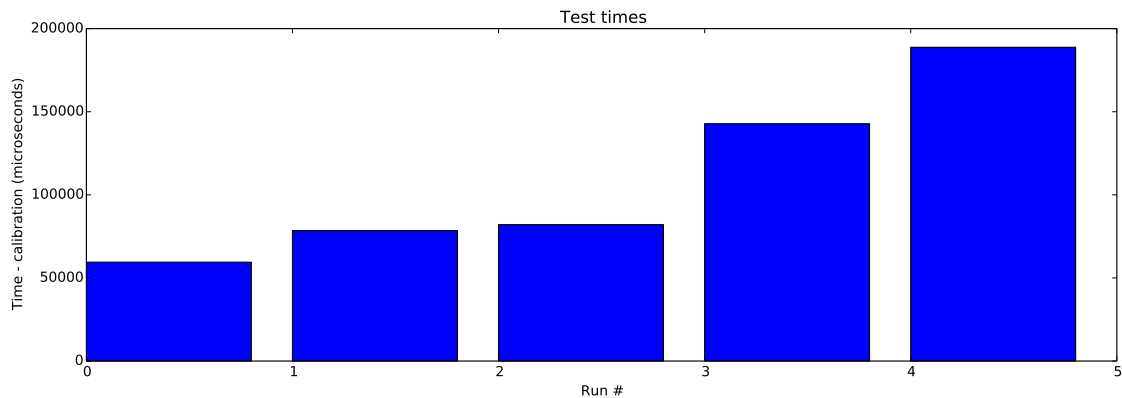
## 33 Test 33

### 33.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 33.2 Stats (time - calibration time in microseconds)

Mean: 110298.000000  
Std dev: 48187.442493  
Median: 82044.000000



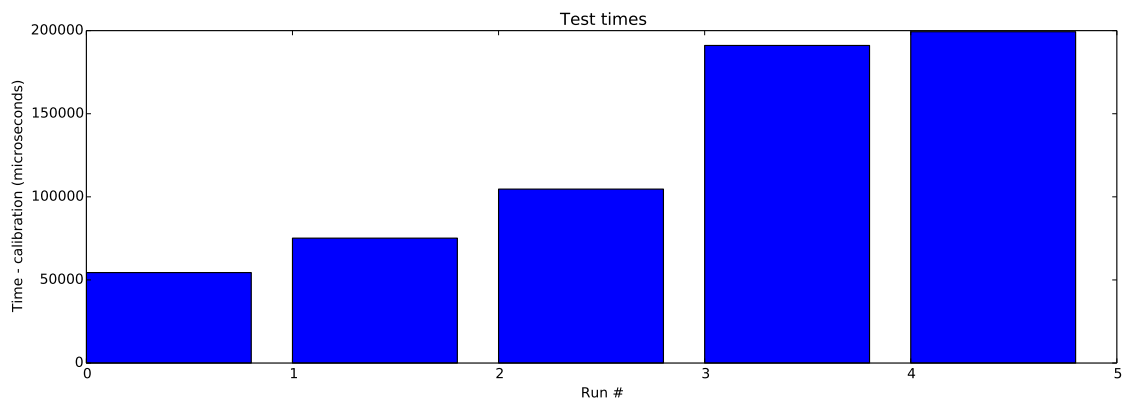
## 34 Test 34

### 34.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 34.2 Stats (time - calibration time in microseconds)

Mean: 124928.000000  
Std dev: 59620.177574  
Median: 104649.000000



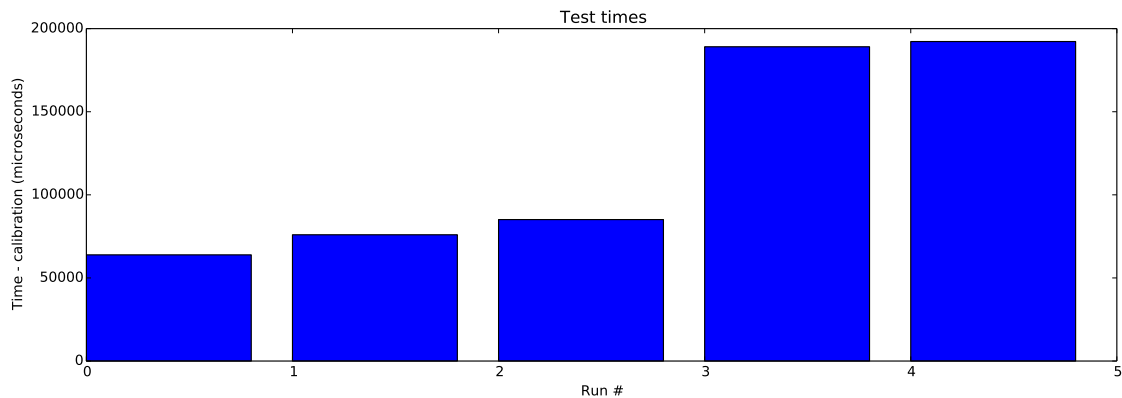
## 35 Test 35

### 35.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 35.2 Stats (time - calibration time in microseconds)

Mean: 121259.000000  
Std dev: 57076.448821  
Median: 85114.000000



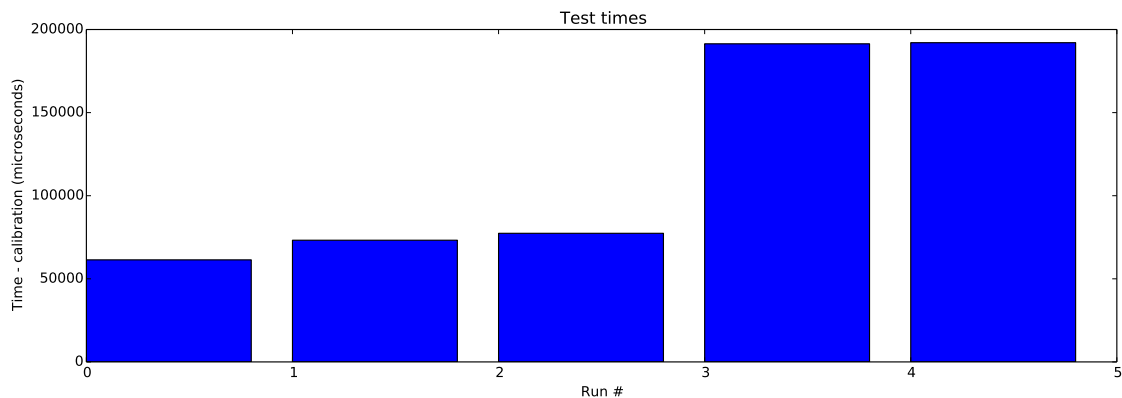
## 36 Test 36

### 36.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 36.2 Stats (time - calibration time in microseconds)

Mean: 119096.000000  
Std dev: 59540.374083  
Median: 77384.000000



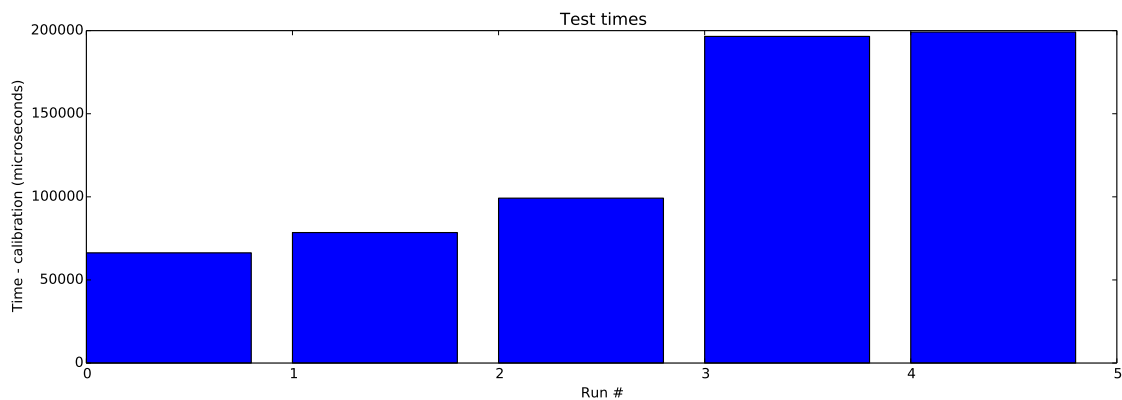
## 37 Test 37

### 37.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 37.2 Stats (time - calibration time in microseconds)

Mean: 127936.000000  
Std dev: 58041.022786  
Median: 99204.000000



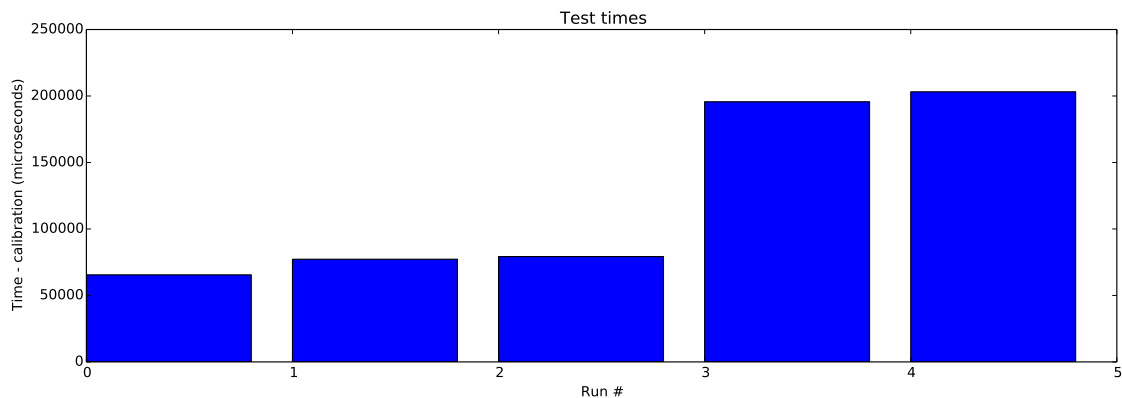
## 38 Test 38

### 38.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 38.2 Stats (time - calibration time in microseconds)

Mean: 124135.000000  
Std dev: 61673.298469  
Median: 79209.000000



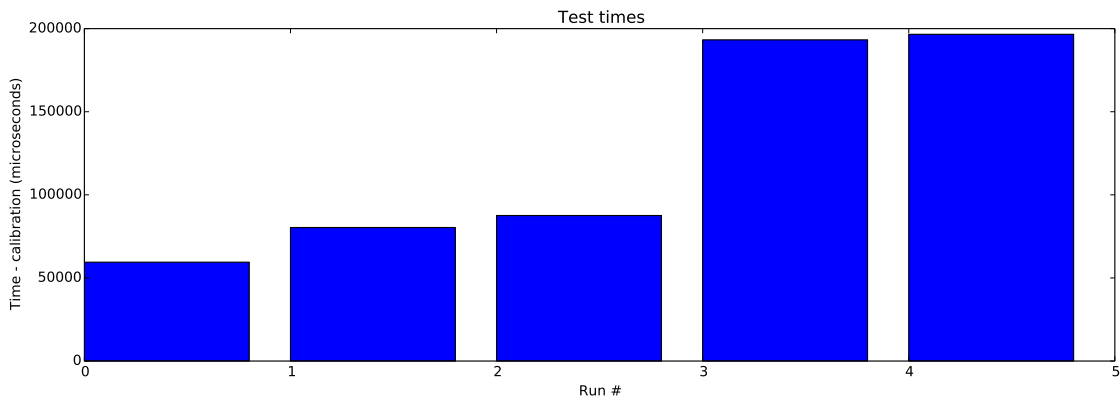
## 39 Test 39

### 39.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 39.2 Stats (time - calibration time in microseconds)

Mean: 123429.000000  
Std dev: 59094.708054  
Median: 87544.000000



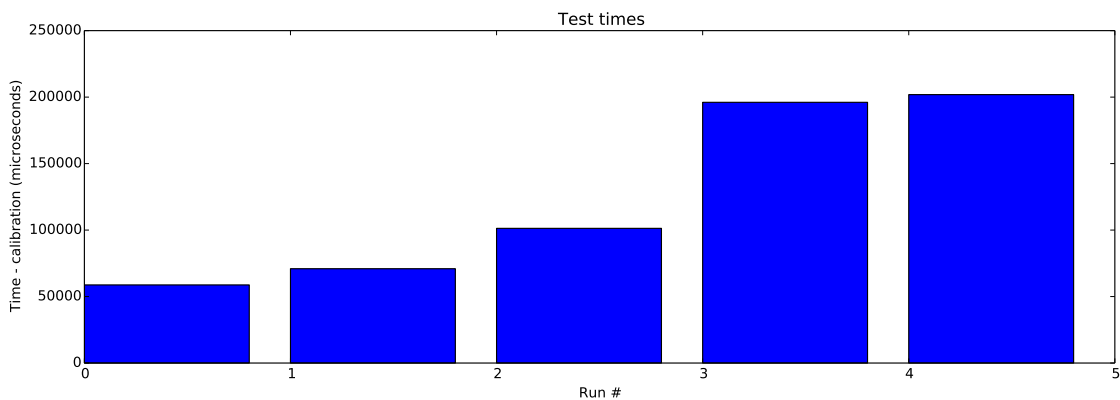
## 40 Test 40

### 40.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

### 40.2 Stats (time - calibration time in microseconds)

Mean: 125787.000000  
Std dev: 61374.056050  
Median: 101294.000000





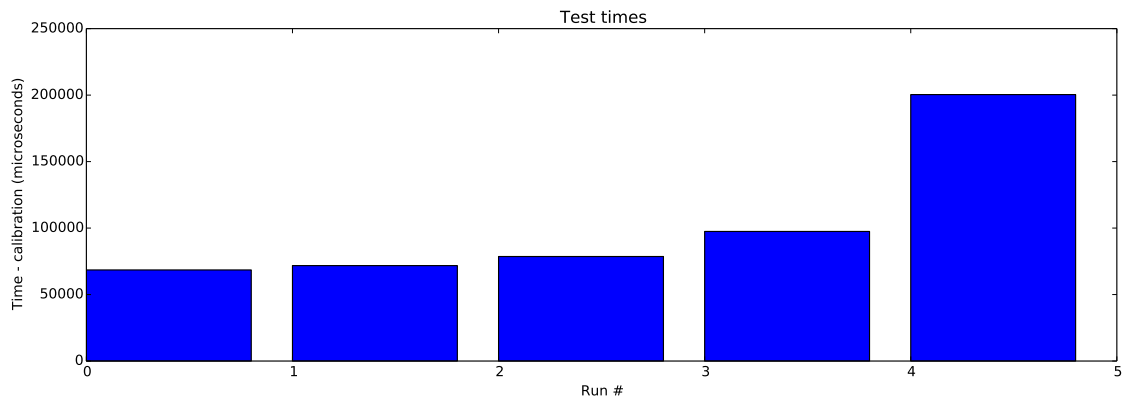
## 41 Test 41

### 41.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 41.2 Stats (time - calibration time in microseconds)

Mean: 103350.000000  
Std dev: 49551.100835  
Median: 78609.000000



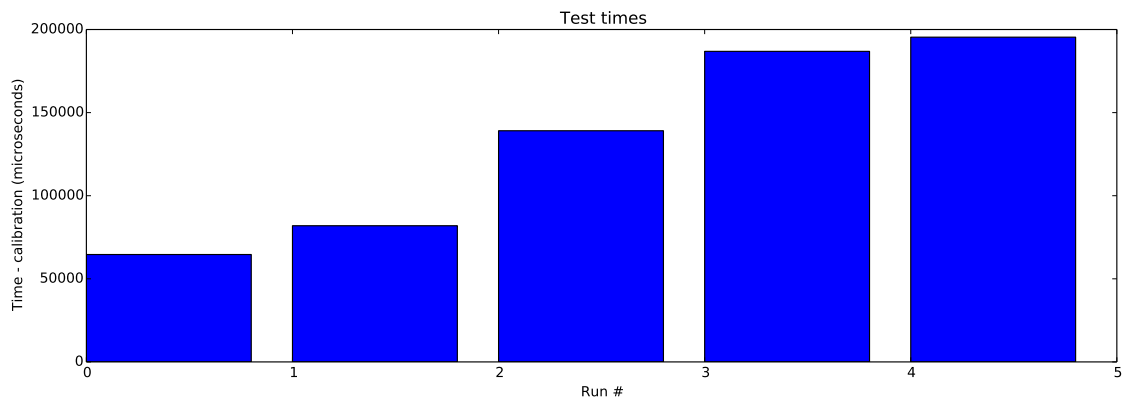
## 42 Test 42

### 42.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 42.2 Stats (time - calibration time in microseconds)

Mean: 133579.000000  
Std dev: 53126.883684  
Median: 139084.000000



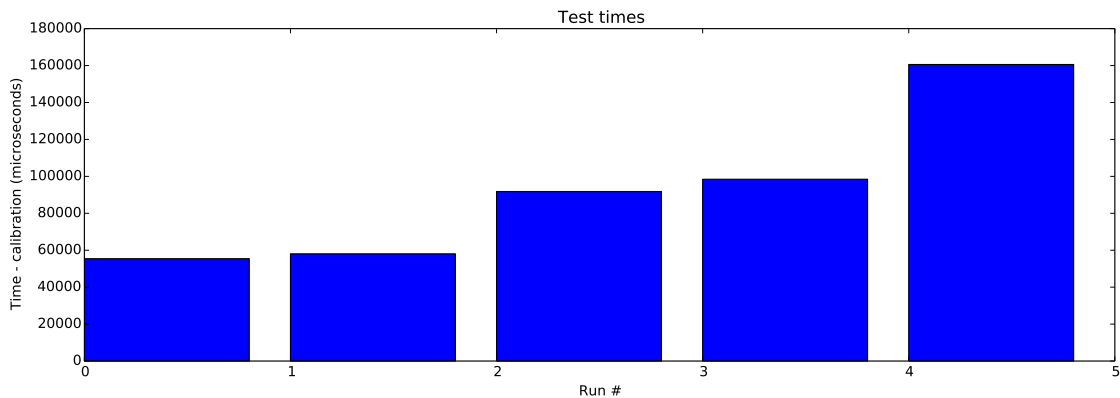
## 43 Test 43

### 43.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 43.2 Stats (time - calibration time in microseconds)

Mean: 92846.000000  
Std dev: 38030.044123  
Median: 91779.000000



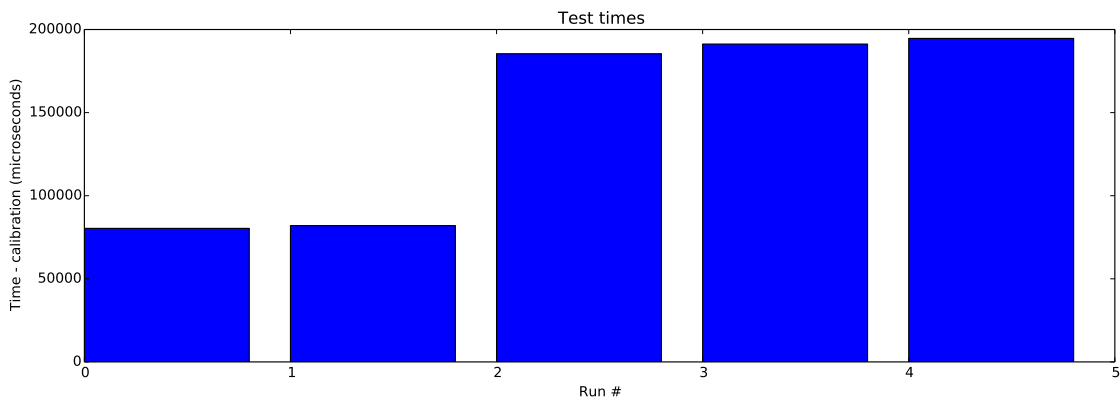
## 44 Test 44

### 44.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

### 44.2 Stats (time - calibration time in microseconds)

Mean: 146728.000000  
Std dev: 53606.243610  
Median: 185419.000000



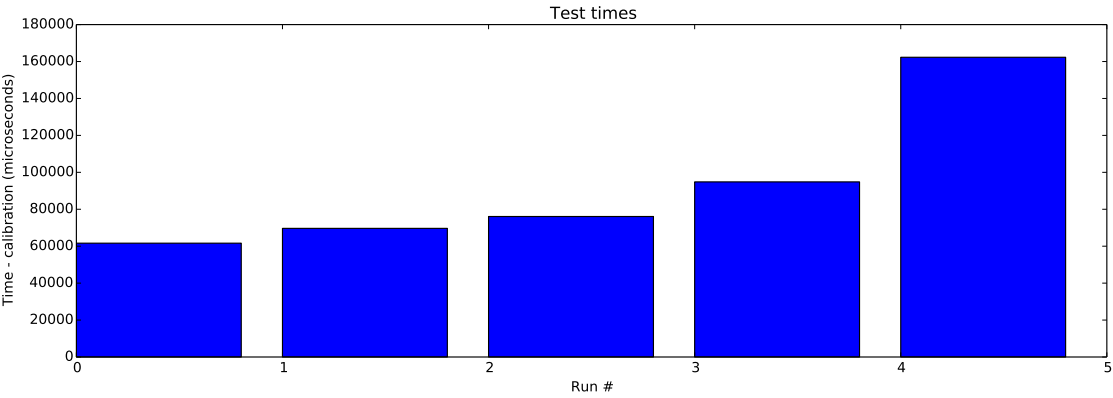
# 45 Test 45

## 45.1 Expected path

```
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'tbl_send_to_cpu_1', u'MyIngress.send_to_cpu')
```

## 45.2 Stats (time - calibration time in microseconds)

Mean: 92898.000000  
Std dev: 36390.886414  
Median: 76079.000000



# 46 Test 46

## 46.1 Expected path

```
start
parse_ipv4
```

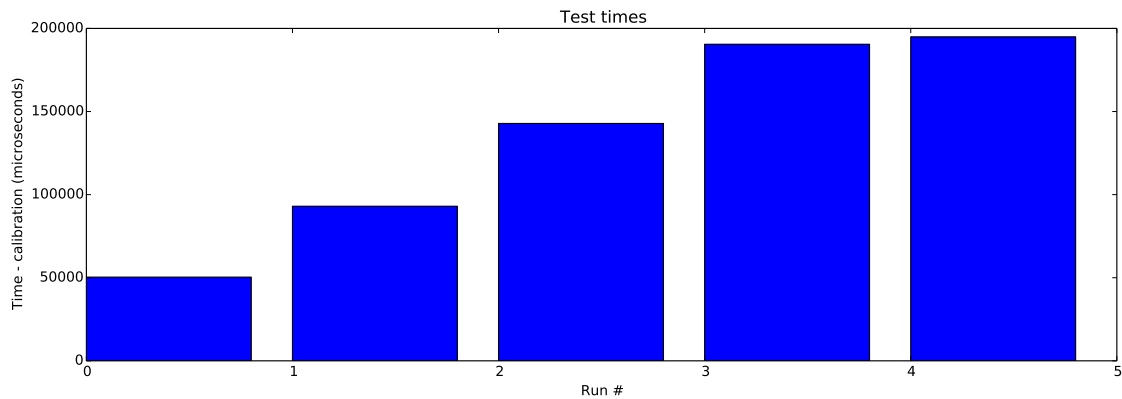
```

sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (True, None))
(u'tbl_send_to_cpu_0', u'MyIngress.send_to_cpu')

```

## 46.2 Stats (time - calibration time in microseconds)

Mean: 134314.000000  
 Std dev: 55955.619110  
 Median: 142809.000000



## 47 Test 47

### 47.1 Expected path

```

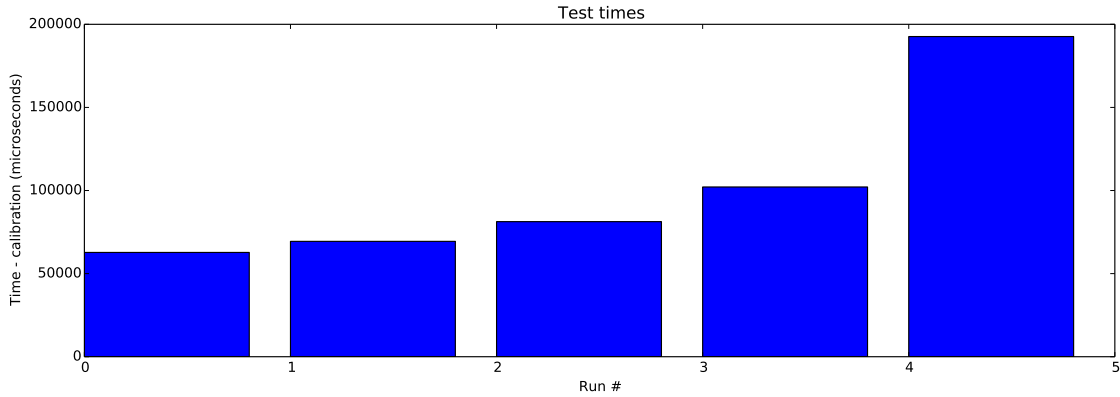
start
parse_ipv4
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'tbl_send_to_cpu', u'MyIngress.send_to_cpu')

```

### 47.2 Stats (time - calibration time in microseconds)

Mean: 101639.000000  
 Std dev: 47429.035938

Median: 81274.000000



## 48 Test 48

### 48.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

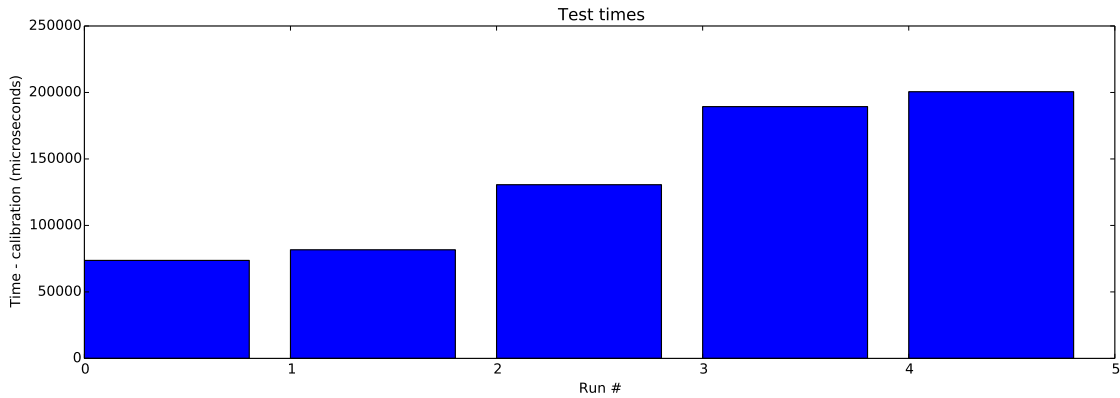
(u'tbl\_send\_to\_cpu\_2', u'MyIngress.send\_to\_cpu')

### 48.2 Stats (time - calibration time in microseconds)

Mean: 135179.000000

Std dev: 52674.466300

Median: 130619.000000



## 49 Test 49

### 49.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'tbl\_send\_to\_cpu\_2', u'MyIngress.send\_to\_cpu')

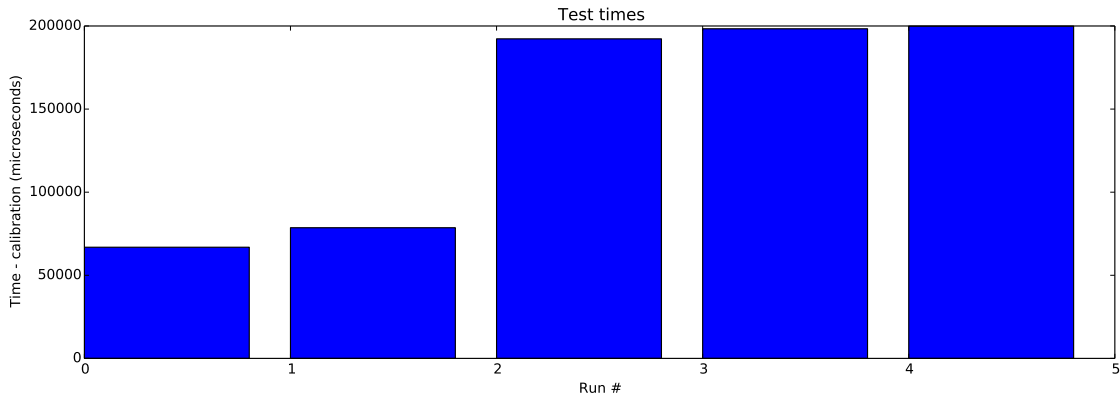
### 49.2 Stats (time - calibration time in microseconds)

Mean: 147200.000000

Std dev: 60955.697141

Median: 192259.000000





## 50 Test 50

### 50.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'tbl_drop', u'MyIngress.drop')

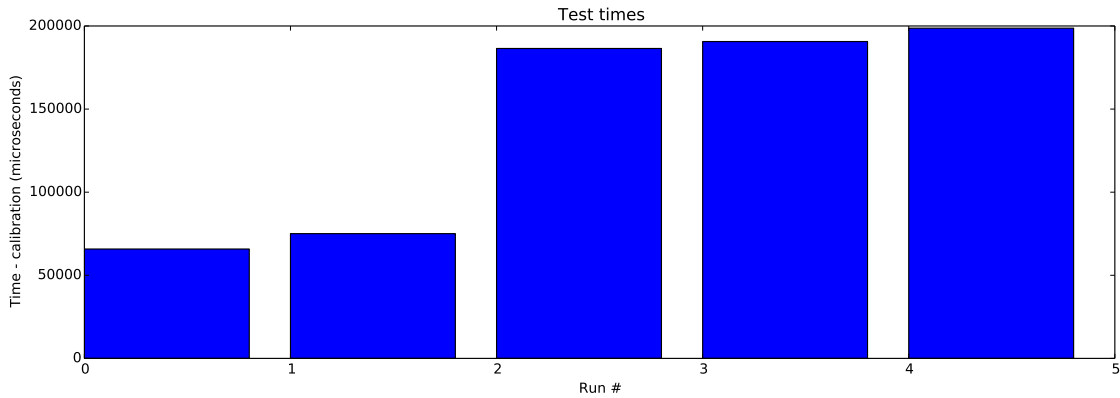
```

### 50.2 Stats (time - calibration time in microseconds)

```

Mean: 143332.000000
Std dev: 59724.138052
Median: 186469.000000

```



## 51 Test 51

### 51.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

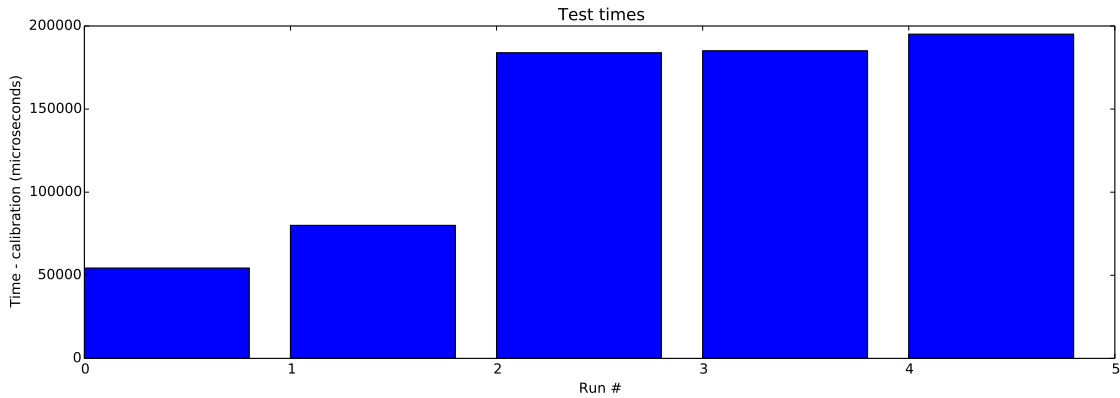
(u'tbl\_drop', u'MyIngress.drop')

### 51.2 Stats (time - calibration time in microseconds)

Mean: 139687.000000

Std dev: 59872.880555

Median: 183899.000000



## 52 Test 52

### 52.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

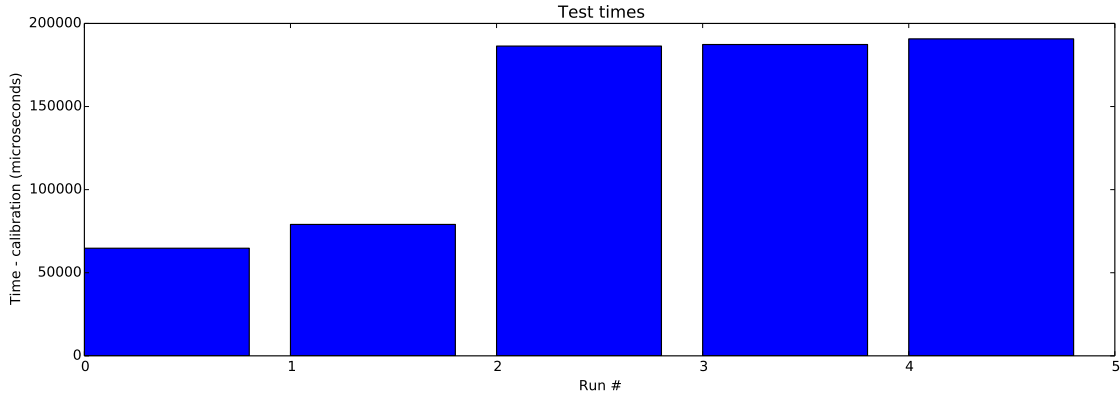
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

### 52.2 Stats (time - calibration time in microseconds)

Mean: 141643.000000

Std dev: 57137.449663

Median: 186379.000000



## 53 Test 53

### 53.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

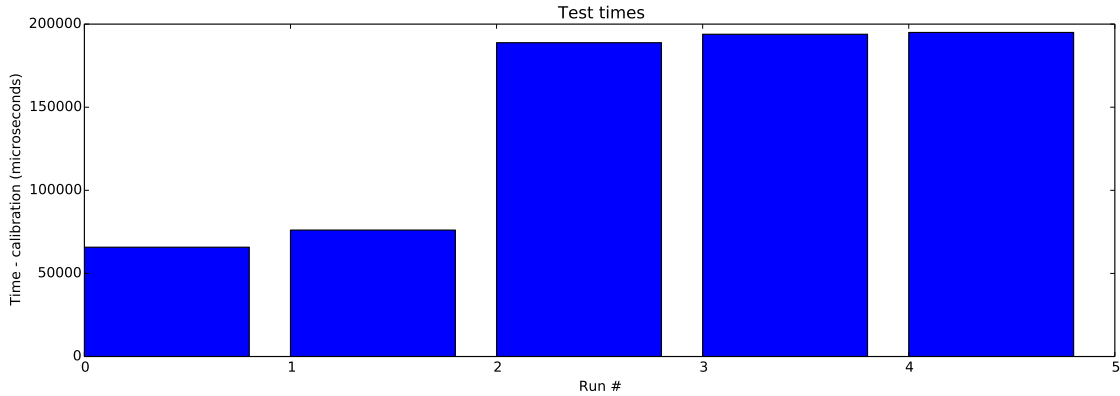
(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

## 53.2 Stats (time - calibration time in microseconds)

Mean: 143903.000000  
Std dev: 59714.557890  
Median: 188804.000000



## 54 Test 54

### 54.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

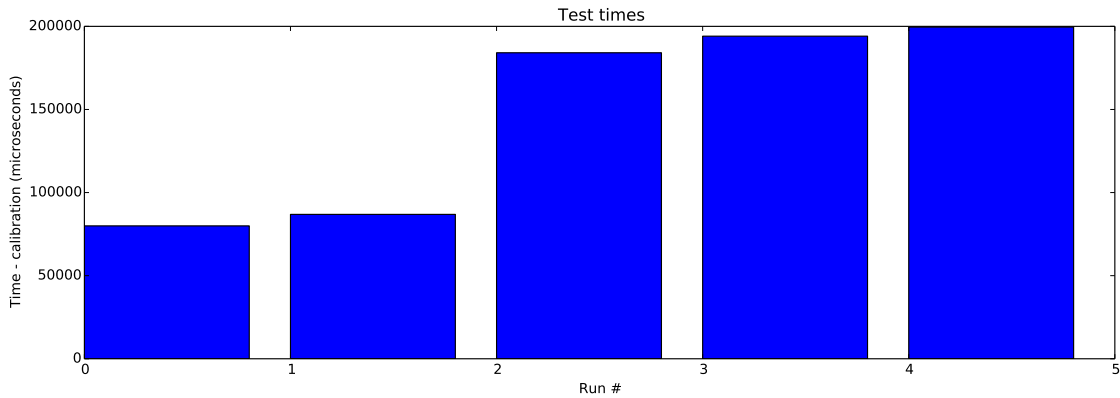
```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 54.2 Stats (time - calibration time in microseconds)

Mean: 148921.000000

Std dev: 53759.817113

Median: 184114.000000



## 55 Test 55

### 55.1 Expected path

start

parse\_ipv4

parse\_udp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

```
(u'MyIngress.routing_table', u'NoAction')
```

```
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

```
(u'MyIngress.port_to_mac', u'NoAction')
```

```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

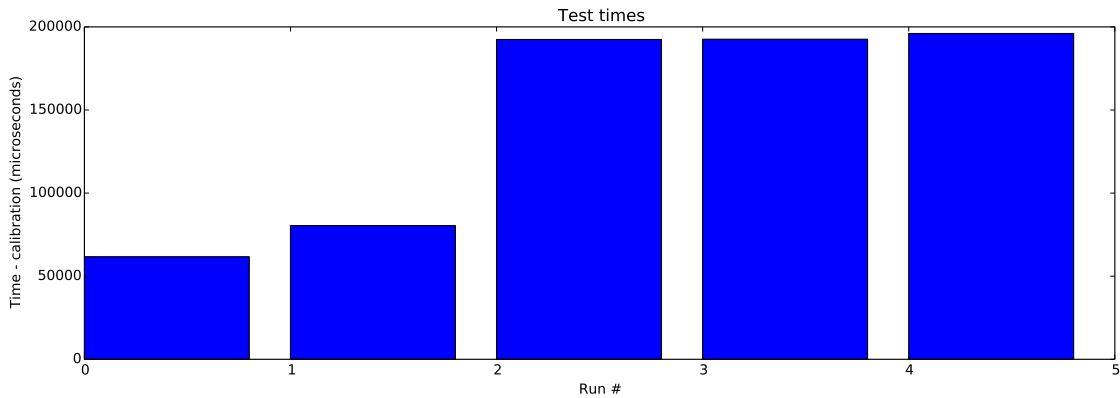
```
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 55.2 Stats (time - calibration time in microseconds)

Mean: 144616.000000

Std dev: 60363.202085

Median: 192404.000000



## 56 Test 56

### 56.1 Expected path

start

parse\_ipv4

parse\_udp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
```

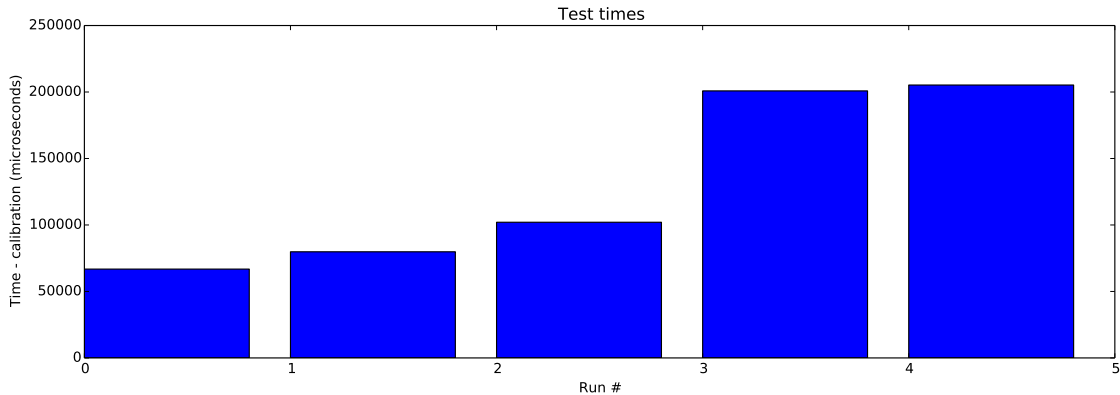
```

(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

```

## 56.2 Stats (time - calibration time in microseconds)

Mean: 130950.000000  
 Std dev: 59943.582926  
 Median: 102044.000000



## 57 Test 57

### 57.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec

```



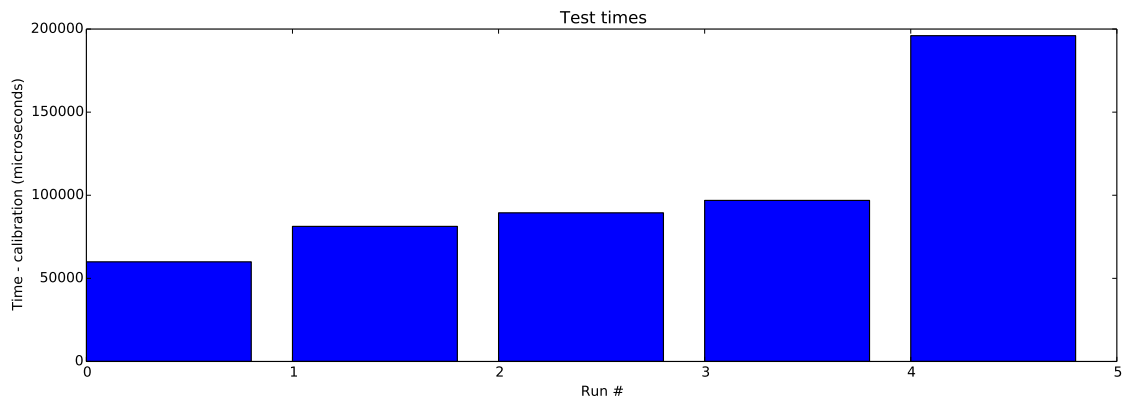
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 57.2 Stats (time - calibration time in microseconds)

Mean: 104708.000000  
 Std dev: 47295.039528  
 Median: 89424.000000



## 58 Test 58

### 58.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

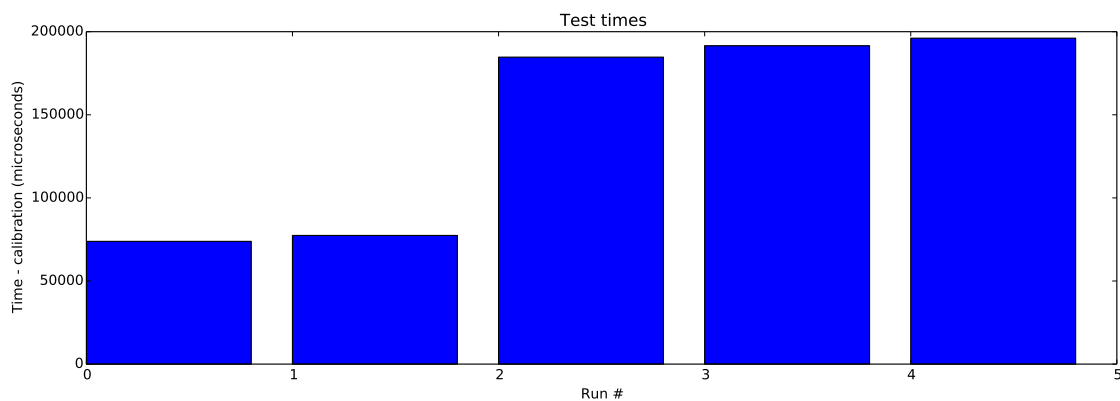
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 58.2 Stats (time - calibration time in microseconds)

Mean: 144709.000000  
 Std dev: 56546.045220  
 Median: 184674.000000



## 59 Test 59

### 59.1 Expected path

```

start
parse_ipv4
parse_udp

```

sink

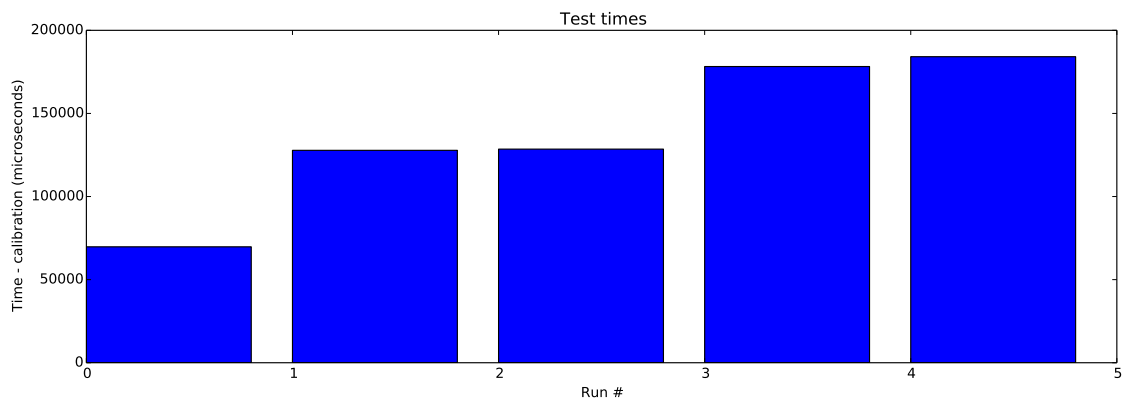
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 59.2 Stats (time - calibration time in microseconds)

Mean: 137683.000000

Std dev: 41467.447040

Median: 128524.000000



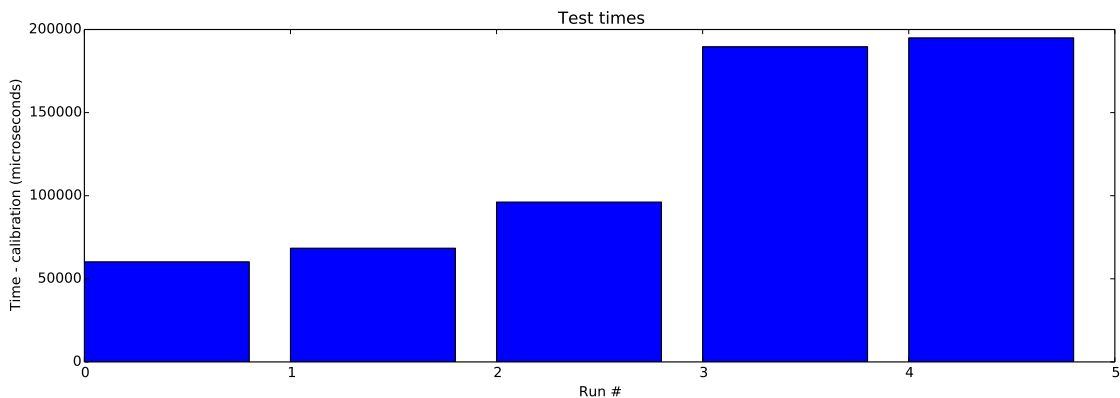
## 60 Test 60

### 60.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 60.2 Stats (time - calibration time in microseconds)

Mean: 121872.000000  
Std dev: 58747.378886  
Median: 96159.000000



## 61 Test 61

### 61.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

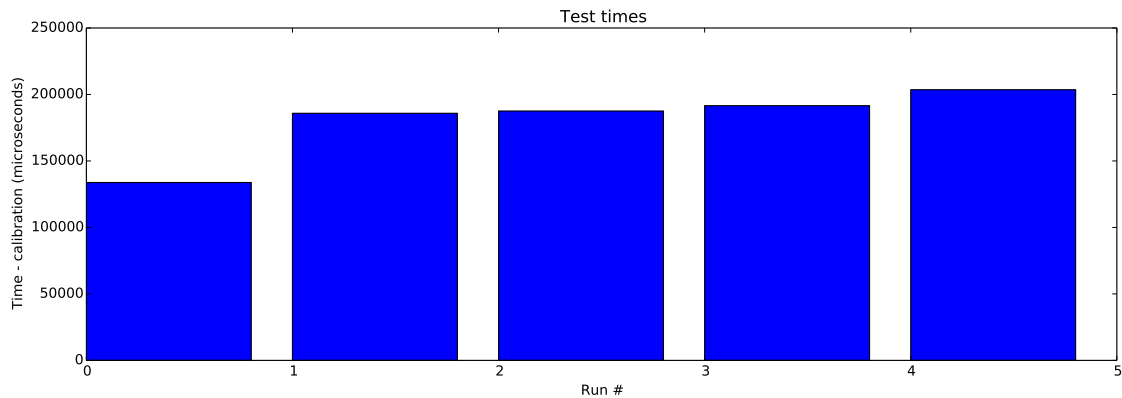
### 61.2 Stats (time - calibration time in microseconds)

```
Mean: 180455.000000
Std dev: 24147.330577
Median: 187549.000000
```

## 62 Test 62

### 62.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

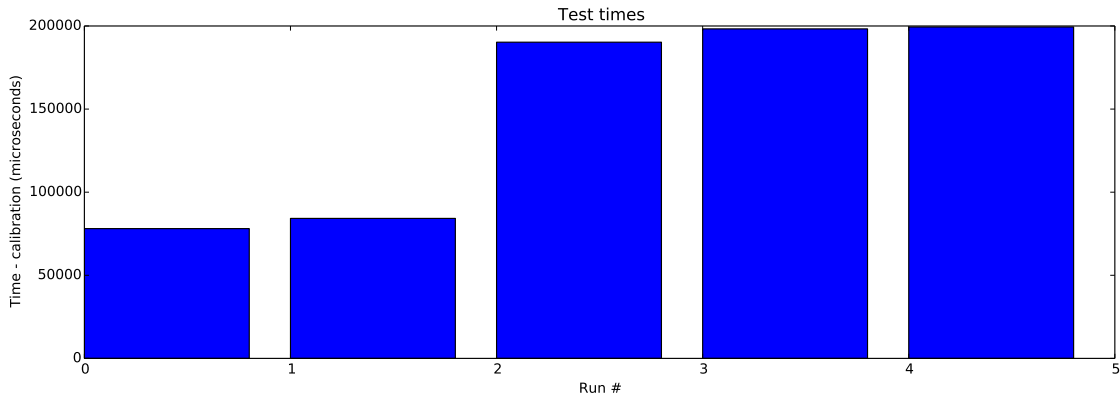
## 62.2 Stats (time - calibration time in microseconds)

Mean: 150044.000000  
Std dev: 56368.273967  
Median: 190249.000000

## 63 Test 63

### 63.1 Expected path

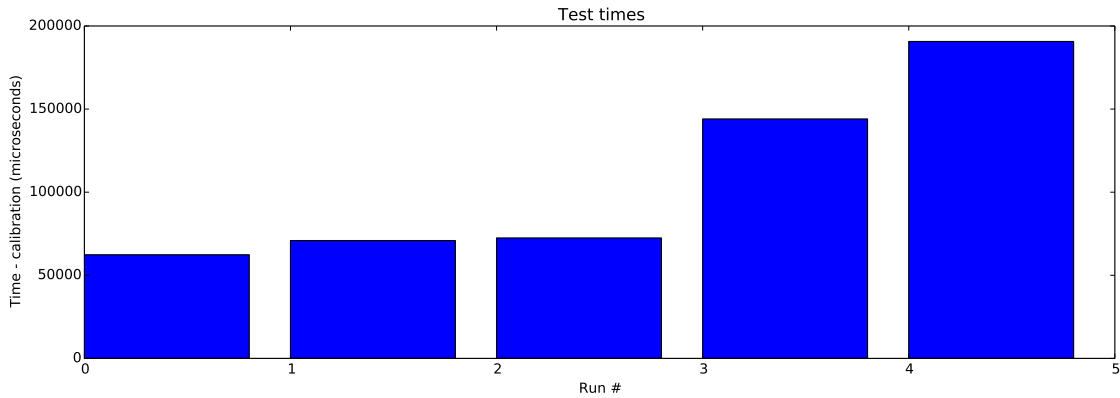
```
start
parse_ipv4
parse_udp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 63.2 Stats (time - calibration time in microseconds)

Mean: 108082.000000  
Std dev: 50713.550714  
Median: 72454.000000



## 64 Test 64

### 64.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'tbl\_drop', u'MyIngress.drop')

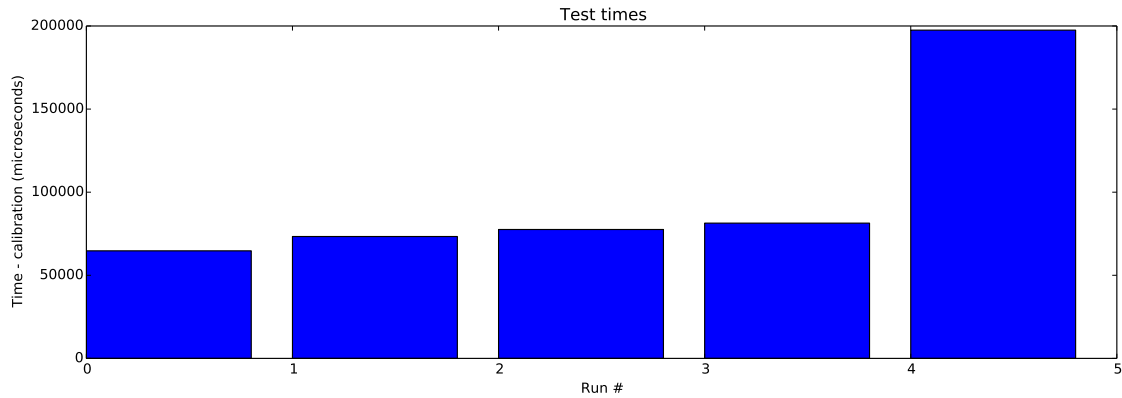
### 64.2 Stats (time - calibration time in microseconds)

Mean: 98894.000000

Std dev: 49610.763248

Median: 77554.000000





## 65 Test 65

### 65.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

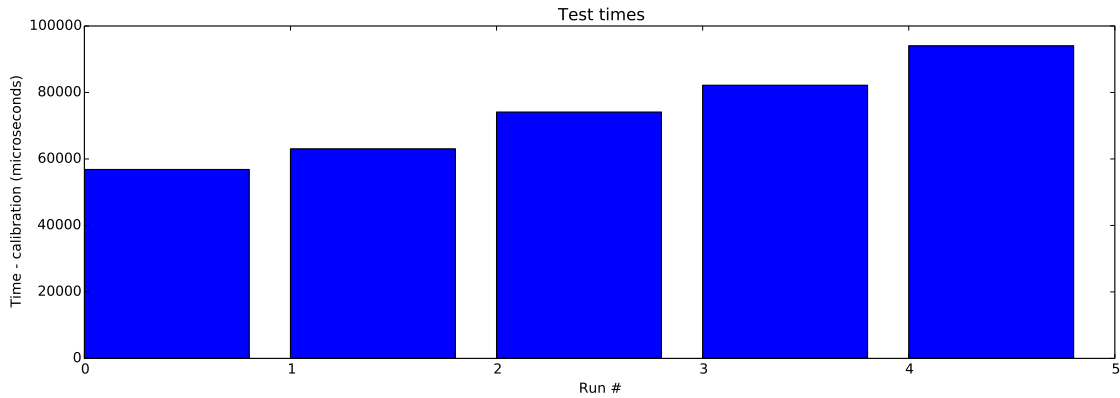
(u'tbl\_drop', u'MyIngress.drop')

### 65.2 Stats (time - calibration time in microseconds)

Mean: 74038.000000

Std dev: 13294.716770

Median: 74104.000000



## 66 Test 66

### 66.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

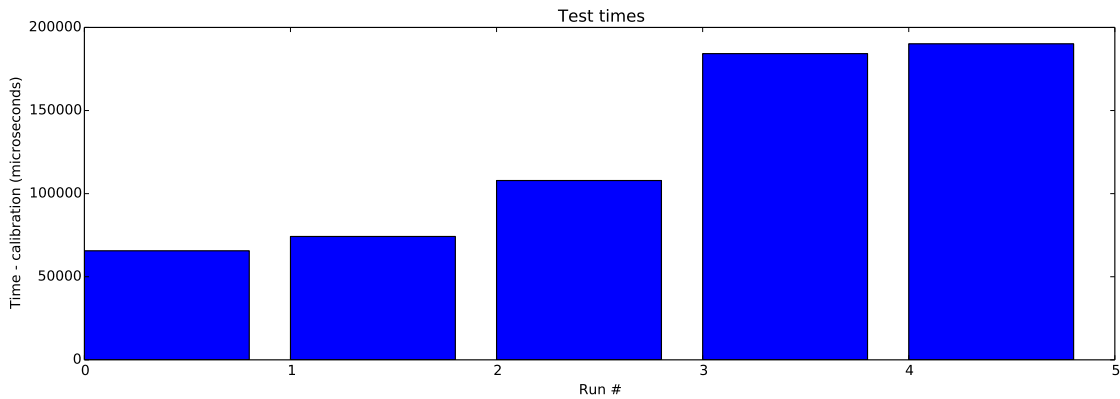
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

### 66.2 Stats (time - calibration time in microseconds)

Mean: 124424.000000

Std dev: 53200.704695

Median: 107889.000000



## 67 Test 67

### 67.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

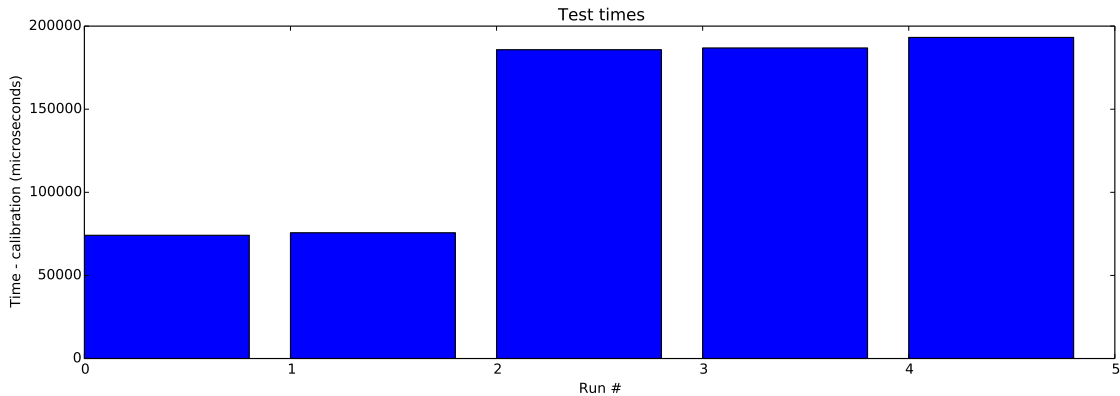
(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

## 67.2 Stats (time - calibration time in microseconds)

Mean: 143124.000000  
Std dev: 55764.798933  
Median: 185794.000000



## 68 Test 68

### 68.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

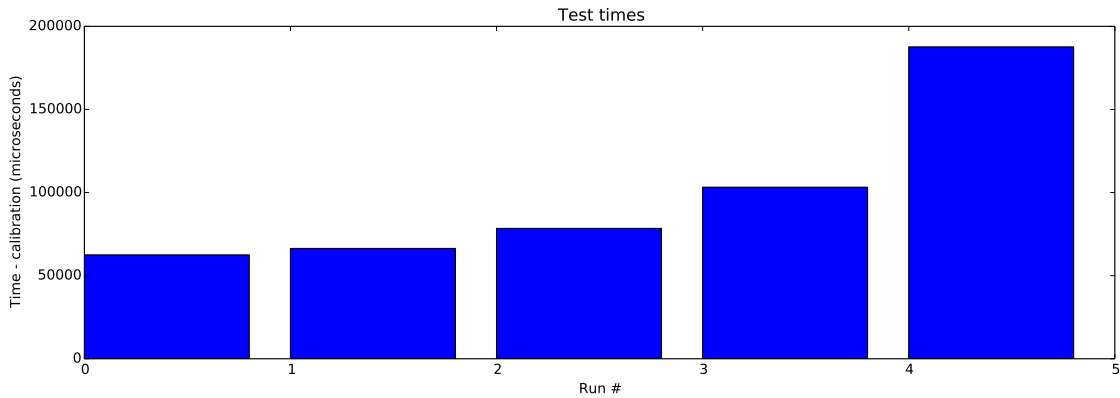
(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 68.2 Stats (time - calibration time in microseconds)

Mean: 99624.000000  
Std dev: 46248.161585  
Median: 78424.000000



## 69 Test 69

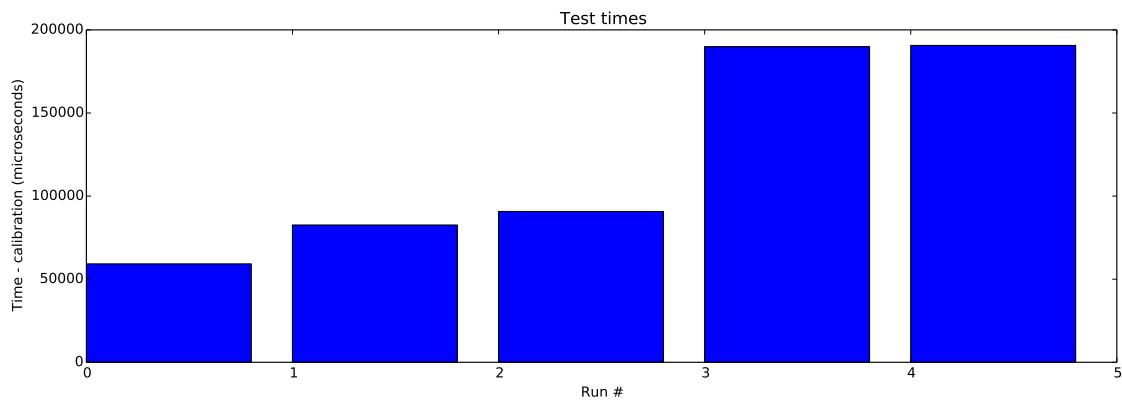
### 69.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

```
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 69.2 Stats (time - calibration time in microseconds)

Mean: 122603.000000  
Std dev: 56201.667004  
Median: 90734.000000



## 70 Test 70

### 70.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
```

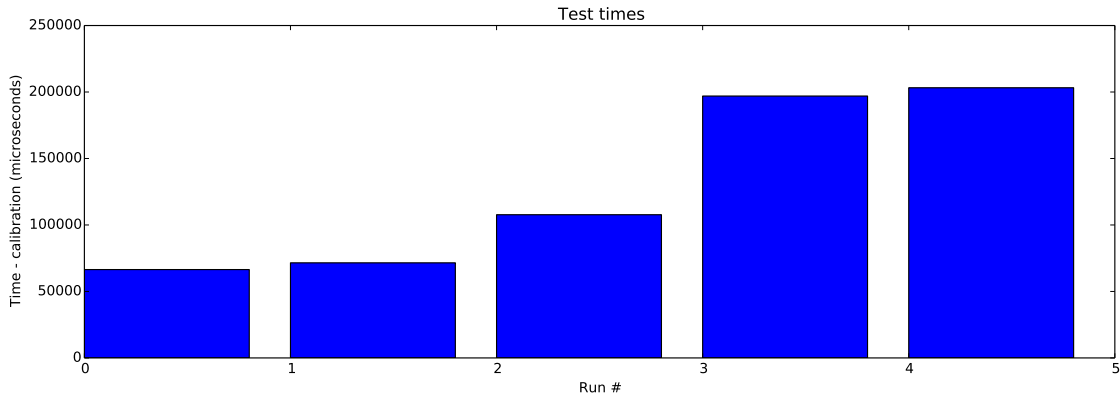
```

(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

```

## 70.2 Stats (time - calibration time in microseconds)

Mean: 129168.000000  
 Std dev: 59653.458357  
 Median: 107704.000000



## 71 Test 71

### 71.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec

```

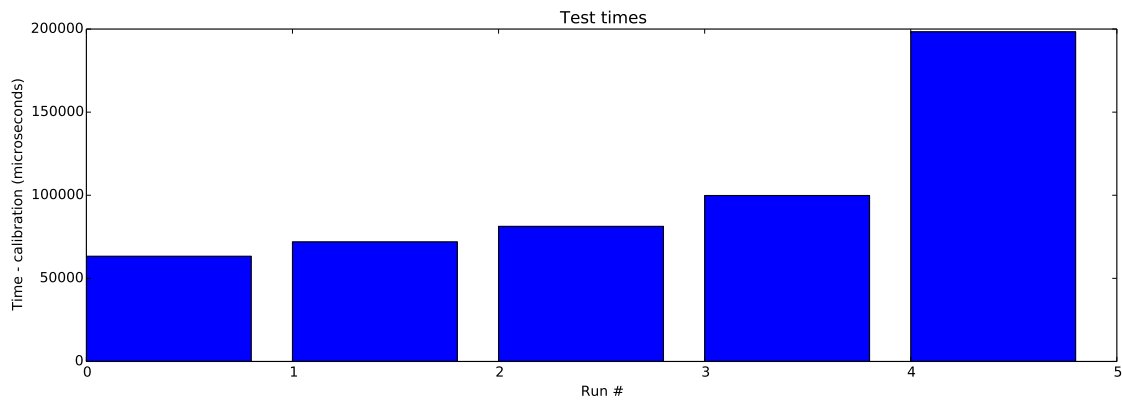
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 71.2 Stats (time - calibration time in microseconds)

Mean: 102954.000000  
 Std dev: 49231.502821  
 Median: 81279.000000



## 72 Test 72

### 72.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```



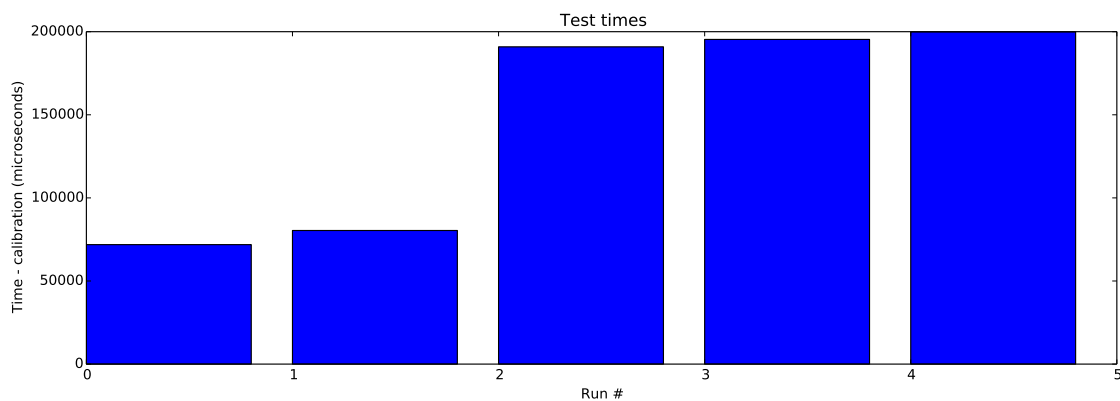
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 72.2 Stats (time - calibration time in microseconds)

Mean: 147673.000000  
 Std dev: 58544.340666  
 Median: 190884.000000



## 73 Test 73

### 73.1 Expected path

```

start
parse_ipv4
parse_udp

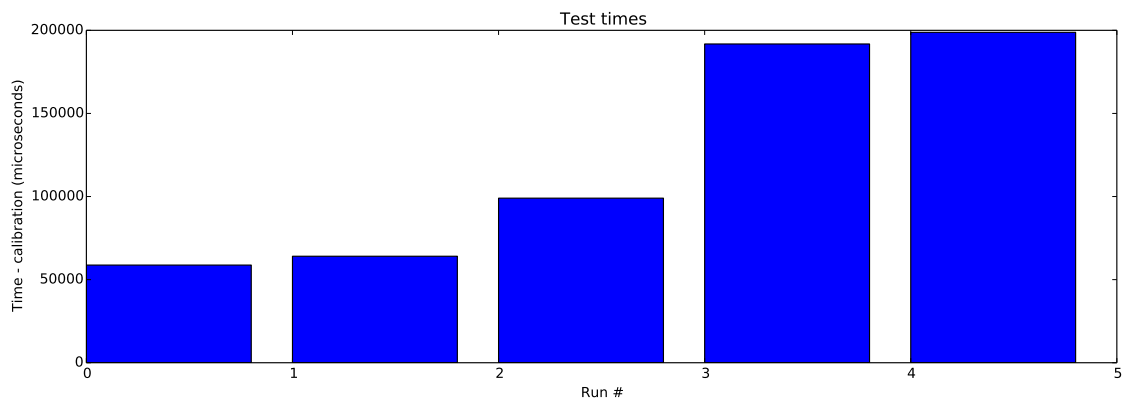
```

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 73.2 Stats (time - calibration time in microseconds)

Mean: 122488.000000  
Std dev: 61074.335232  
Median: 99019.000000



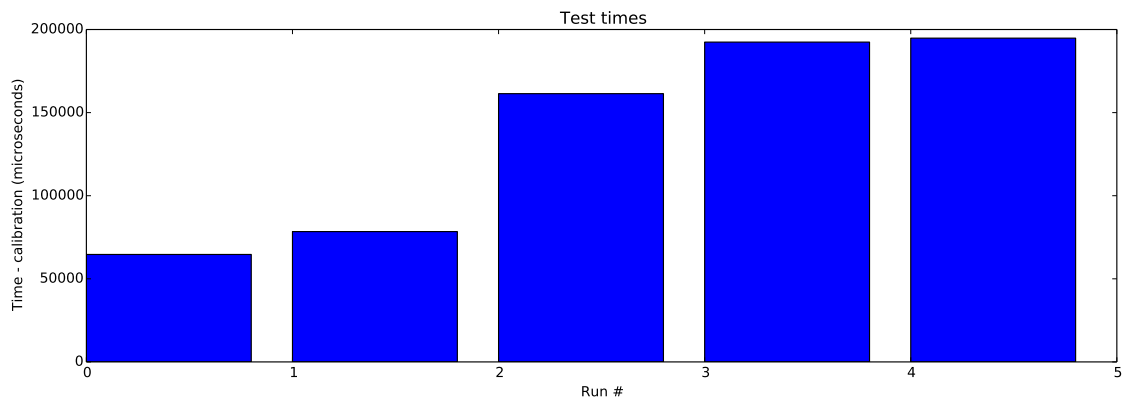
## 74 Test 74

### 74.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 74.2 Stats (time - calibration time in microseconds)

Mean: 138341.000000  
Std dev: 55973.856898  
Median: 161404.000000



## 75 Test 75

### 75.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

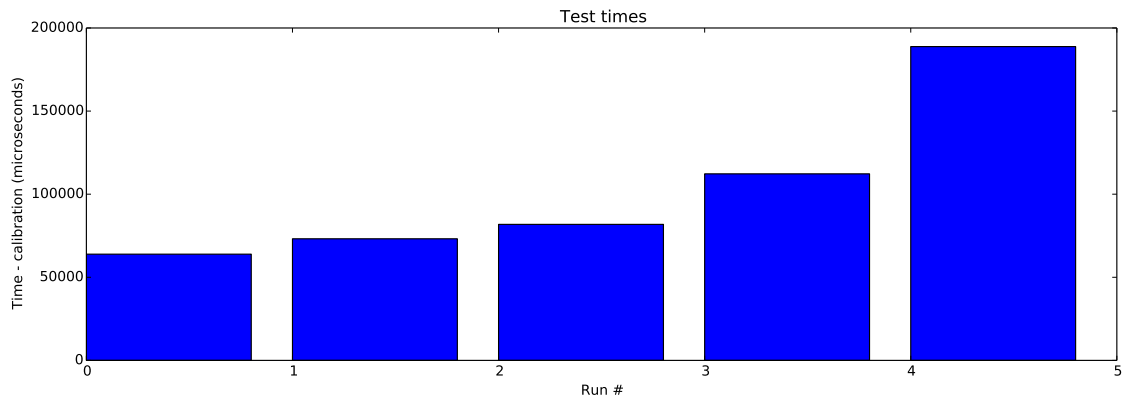
### 75.2 Stats (time - calibration time in microseconds)

```
Mean: 103993.000000
Std dev: 45407.716459
Median: 81839.000000
```

## 76 Test 76

### 76.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

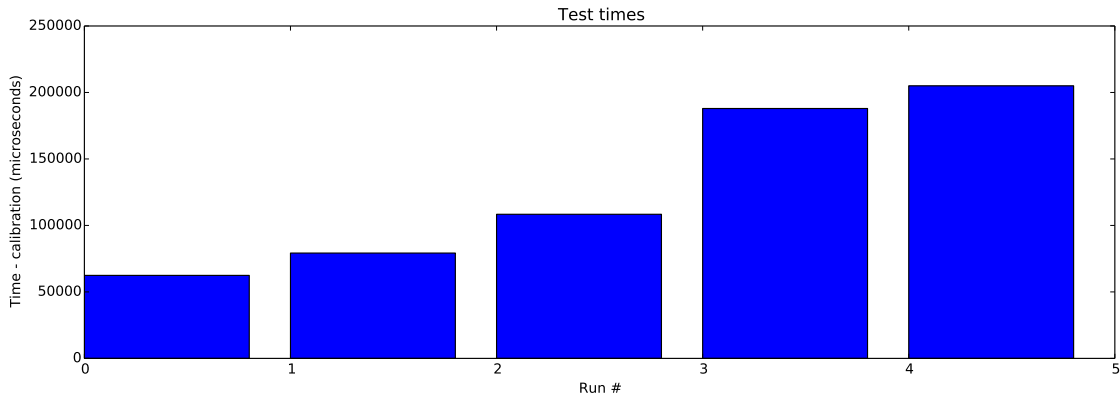
## 76.2 Stats (time - calibration time in microseconds)

Mean: 128596.000000  
Std dev: 57596.265556  
Median: 108384.000000

## 77 Test 77

### 77.1 Expected path

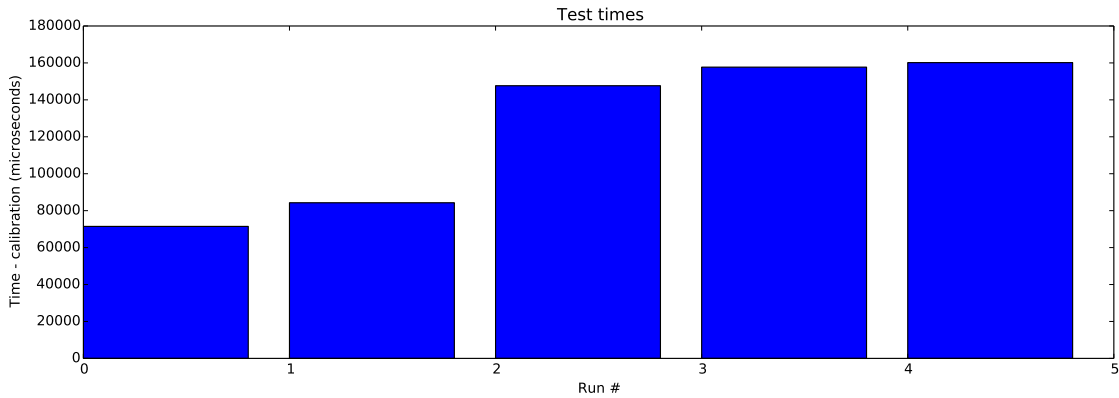
```
start
parse_ipv4
parse_udp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 77.2 Stats (time - calibration time in microseconds)

Mean: 124254.000000  
Std dev: 38315.332440  
Median: 147649.000000



## 78 Test 78

### 78.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

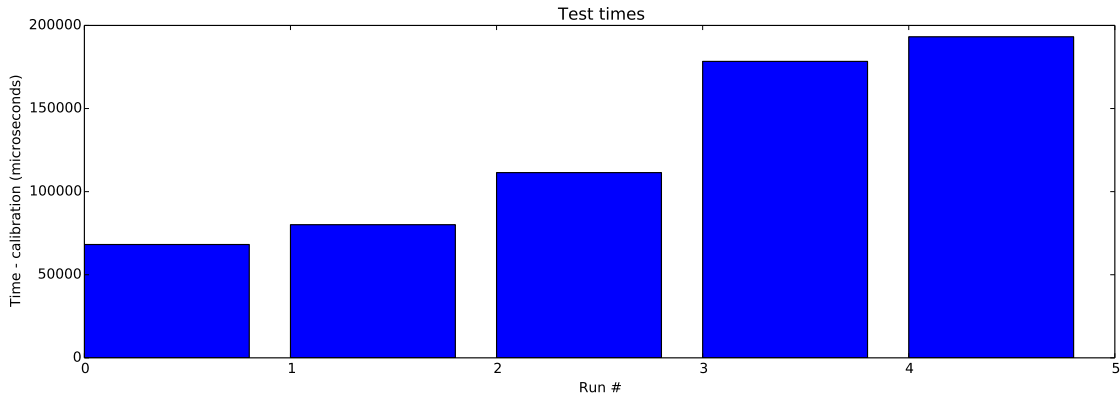
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

### 78.2 Stats (time - calibration time in microseconds)

Mean: 126254.000000

Std dev: 50823.266326

Median: 111444.000000



## 79 Test 79

### 79.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

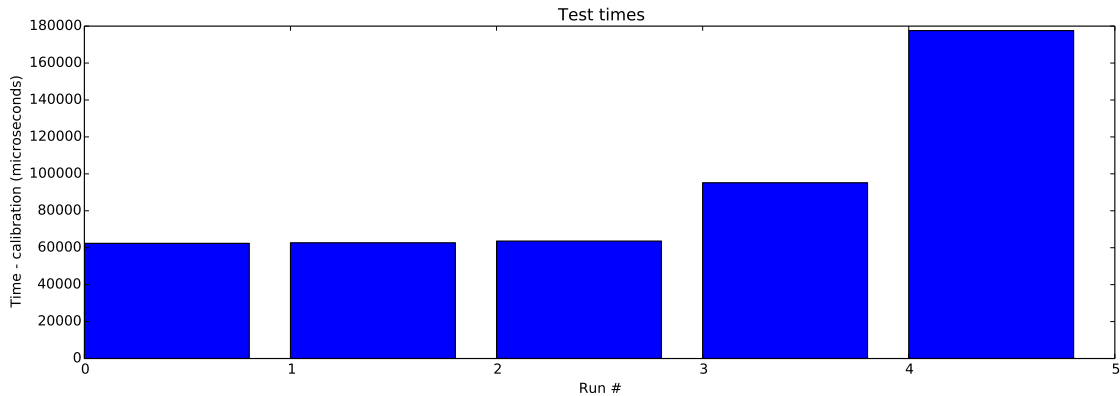
(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')



## 79.2 Stats (time - calibration time in microseconds)

Mean: 92277.000000  
Std dev: 44447.381768  
Median: 63599.000000



## 80 Test 80

### 80.1 Expected path

start

parse\_ipv4

parse\_udp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

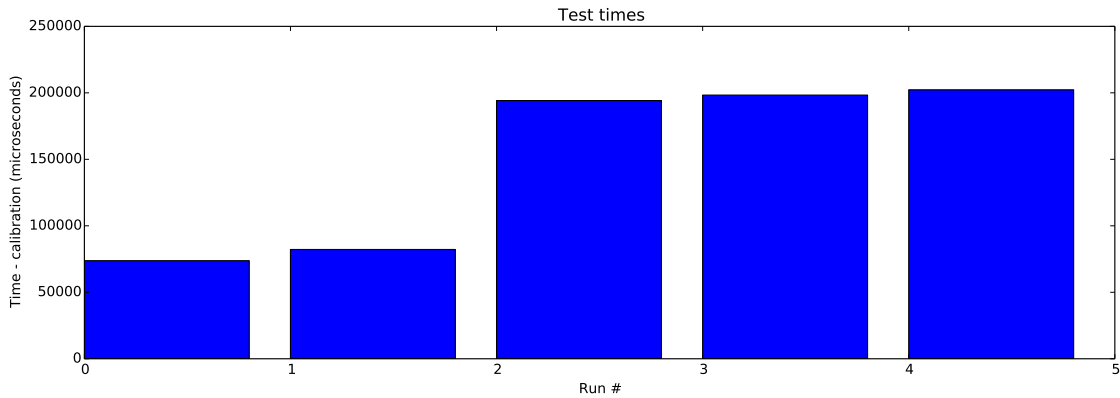
```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 80.2 Stats (time - calibration time in microseconds)

Mean: 150133.000000

Std dev: 59041.392463

Median: 194179.000000



## 81 Test 81

### 81.1 Expected path

start

parse\_ipv4

parse\_udp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

```
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
```

```
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

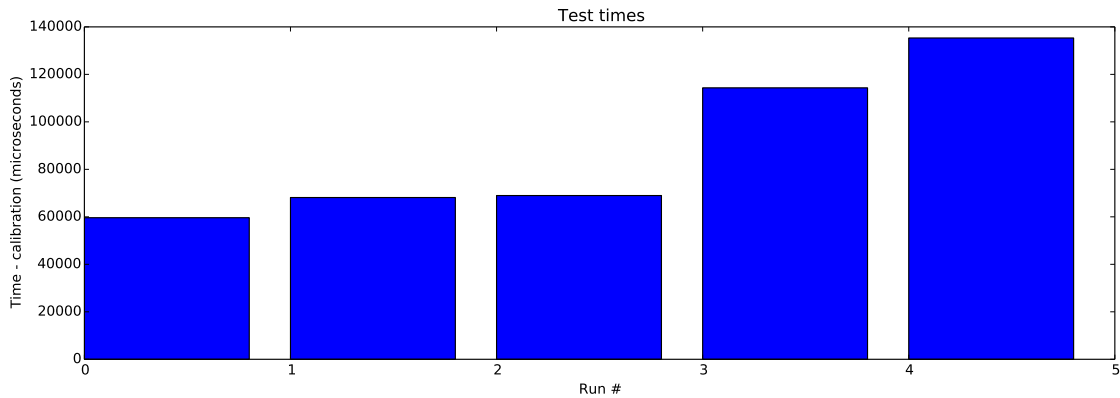
```
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
```

```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

```
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 81.2 Stats (time - calibration time in microseconds)

Mean: 89274.000000  
Std dev: 29955.093557  
Median: 68964.000000



## 82 Test 82

### 82.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
```

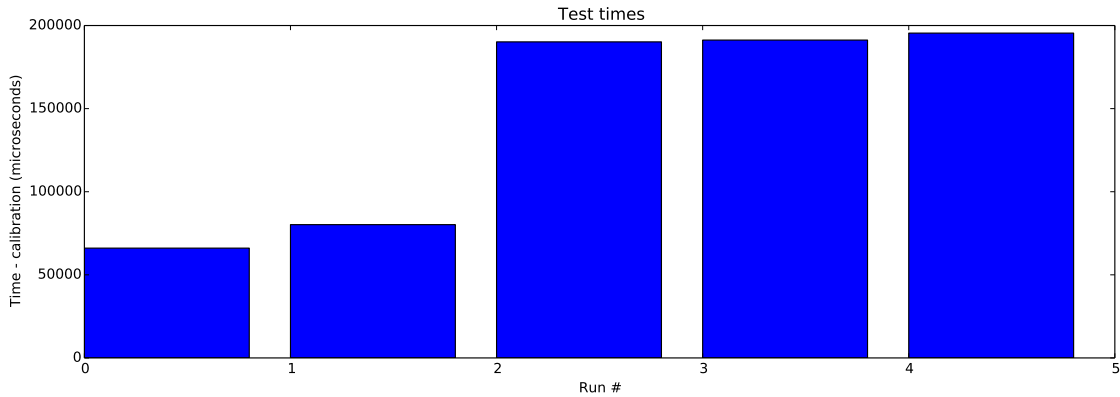
```

(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

```

## 82.2 Stats (time - calibration time in microseconds)

Mean: 144620.000000  
 Std dev: 58569.485690  
 Median: 190159.000000



## 83 Test 83

### 83.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec

```

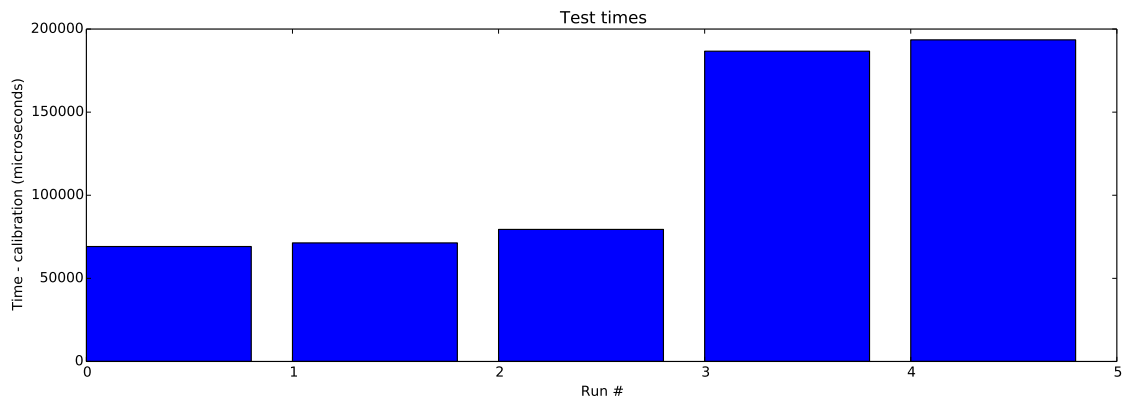
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 83.2 Stats (time - calibration time in microseconds)

Mean: 120016.000000  
 Std dev: 57353.571693  
 Median: 79439.000000



## 84 Test 84

### 84.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

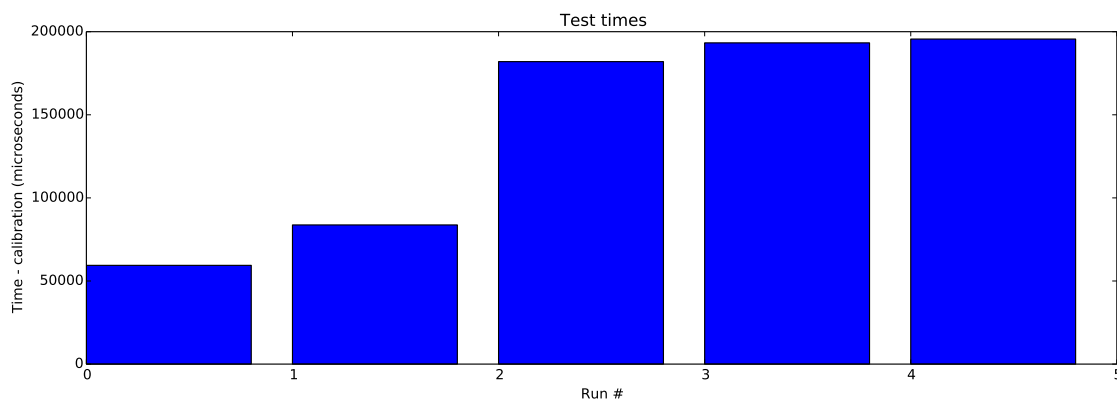
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 84.2 Stats (time - calibration time in microseconds)

Mean: 142793.000000  
 Std dev: 58842.165443  
 Median: 181989.000000



## 85 Test 85

### 85.1 Expected path

```

start
parse_ipv4
parse_udp

```

sink

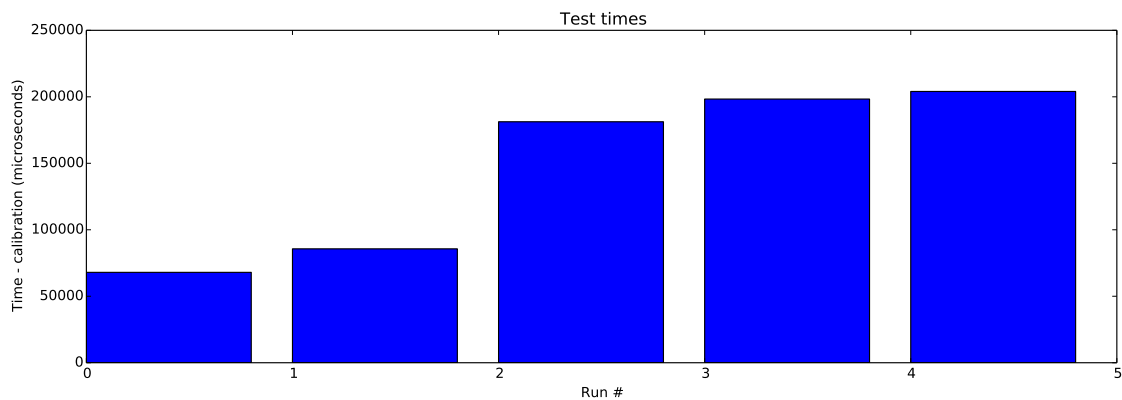
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 85.2 Stats (time - calibration time in microseconds)

Mean: 147439.000000

Std dev: 58418.821625

Median: 181234.000000



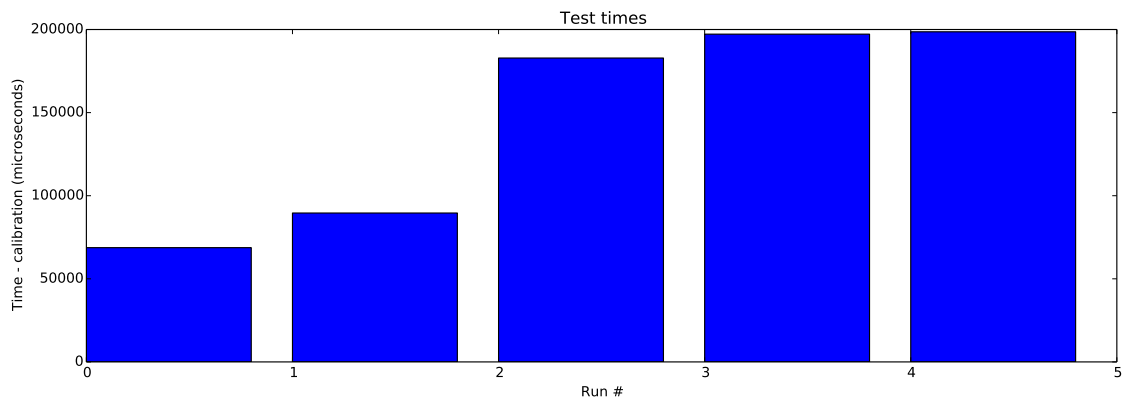
## 86 Test 86

### 86.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 86.2 Stats (time - calibration time in microseconds)

Mean: 147402.000000  
Std dev: 56371.710778  
Median: 182839.000000





## 87 Test 87

### 87.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

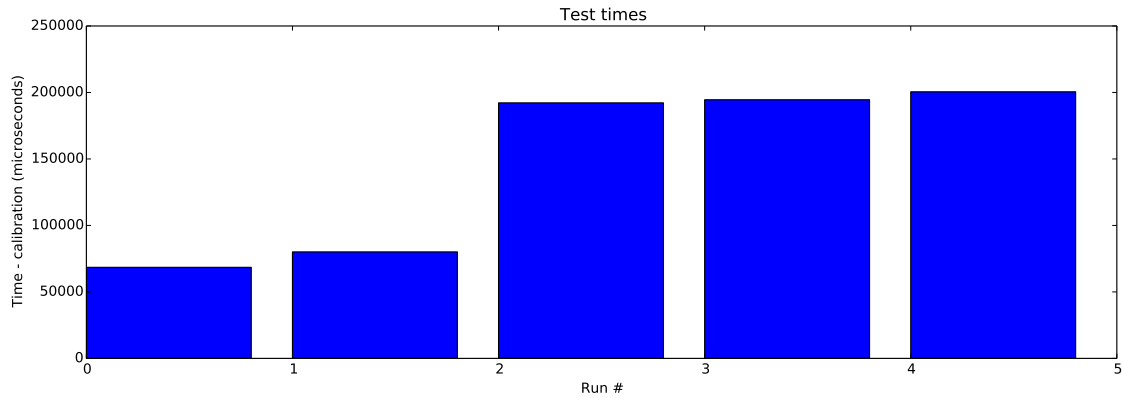
### 87.2 Stats (time - calibration time in microseconds)

Mean: 147148.000000  
Std dev: 59670.080225  
Median: 192174.000000

## 88 Test 88

### 88.1 Expected path

```
start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

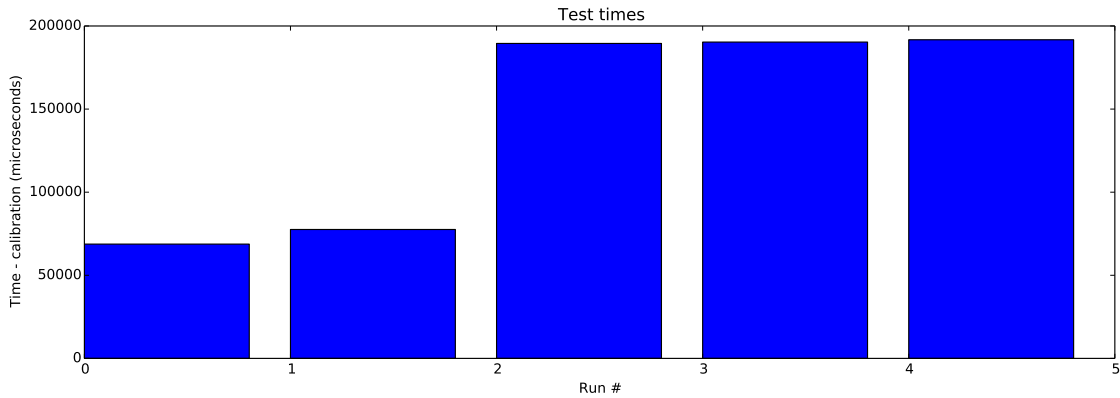
## 88.2 Stats (time - calibration time in microseconds)

Mean: 143570.000000  
Std dev: 57559.911866  
Median: 189494.000000

## 89 Test 89

### 89.1 Expected path

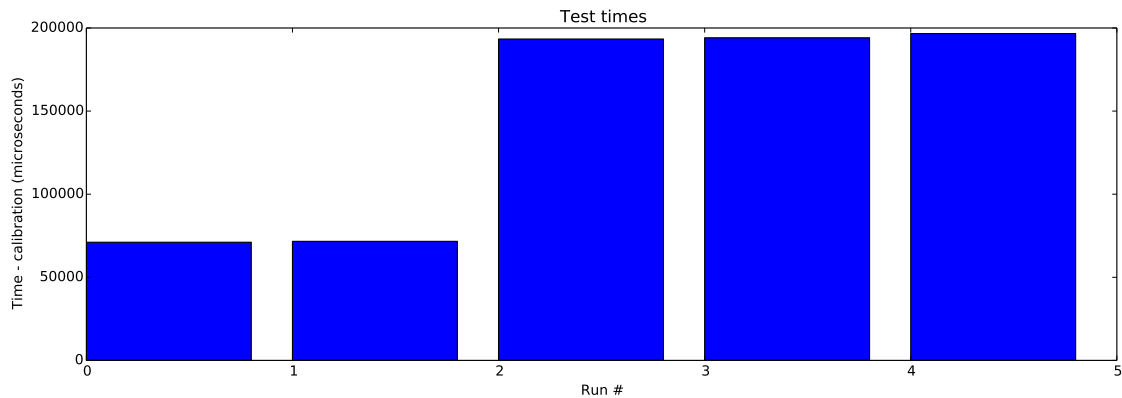
```
start
parse_ipv4
parse_udp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 89.2 Stats (time - calibration time in microseconds)

Mean: 145357.000000  
Std dev: 60439.415748  
Median: 193354.000000



## 90 Test 90

### 90.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (True, None))
(u'tbl_send_to_cpu_0', u'MyIngress.send_to_cpu')

```

### 90.2 Stats (time - calibration time in microseconds)

```

Mean: 115158.000000
Std dev: 51566.102180
Median: 81904.000000

```

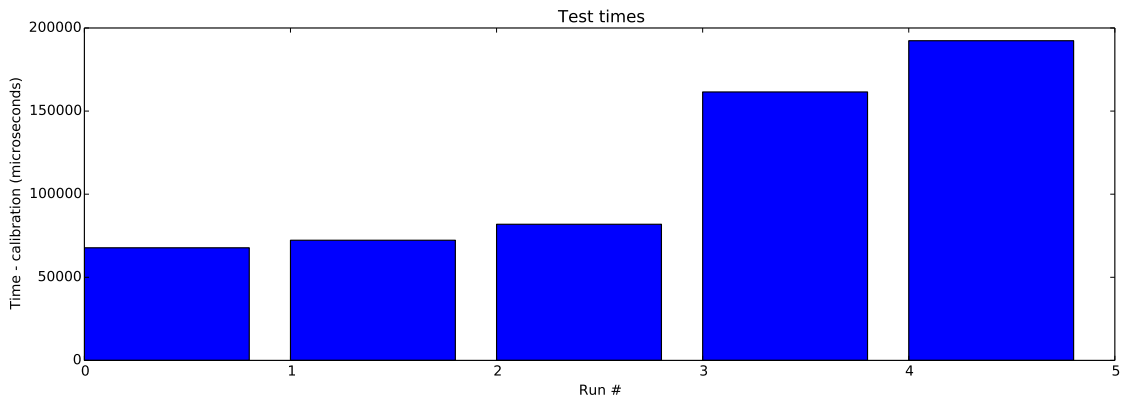
## 91 Test 91

### 91.1 Expected path

```

start
parse_ipv4
parse_udp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))

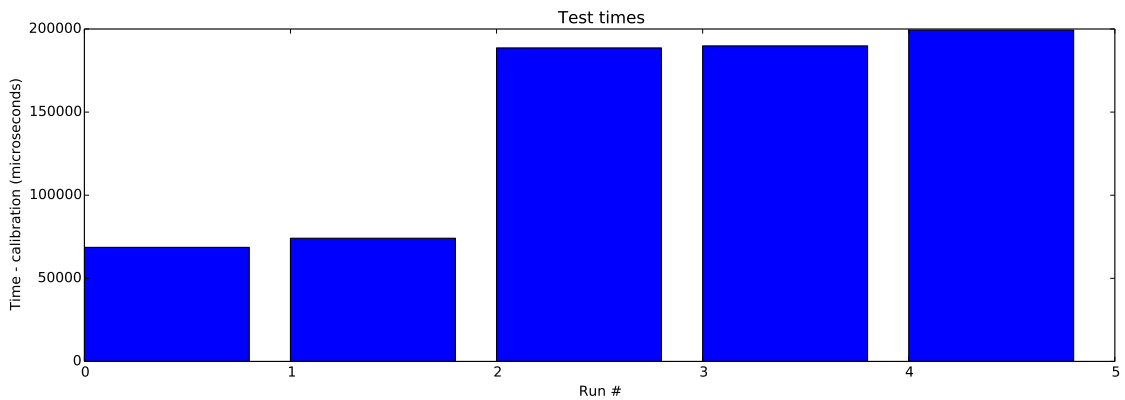
```



```
(u'node_5', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))
(u'tbl_send_to_cpu', u'MyIngress.send_to_cpu'))
```

## 91.2 Stats (time - calibration time in microseconds)

Mean: 144092.000000  
Std dev: 59537.678289  
Median: 188609.000000



## 92 Test 92

### 92.1 Expected path

```
start
parse_ipv4
```

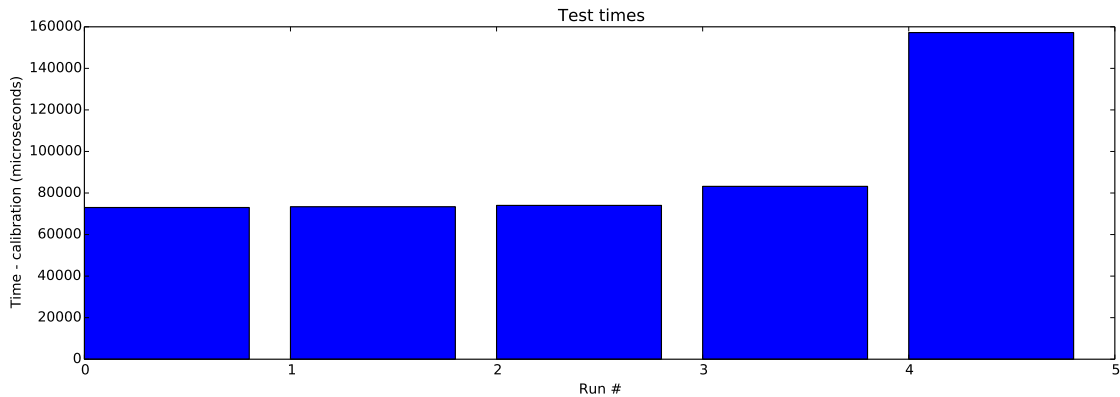
```

parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'tbl_send_to_cpu_2', u'MyIngress.send_to_cpu')

```

## 92.2 Stats (time - calibration time in microseconds)

Mean: 92171.000000  
 Std dev: 32743.021760  
 Median: 74030.000000



## 93 Test 93

### 93.1 Expected path

```

start
parse_ipv4
parse_tcp
sink

```

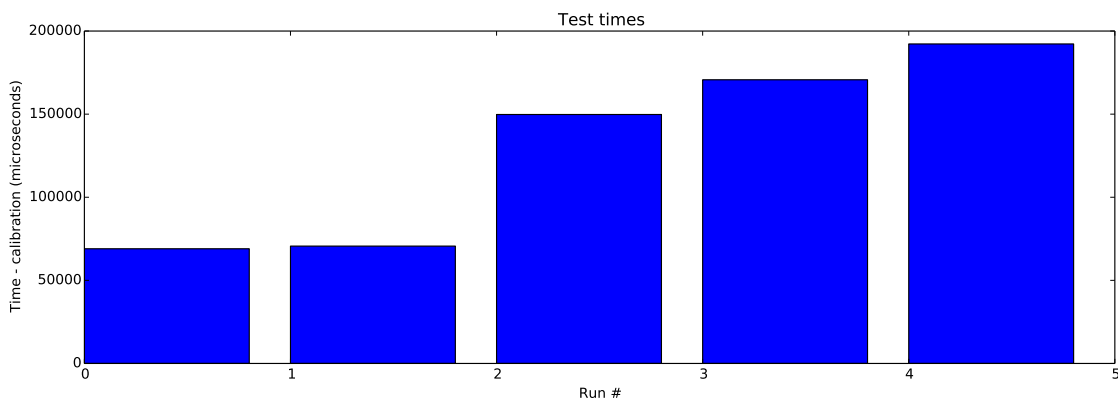
```

(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'tbl_send_to_cpu_2', u'MyIngress.send_to_cpu')

```

## 93.2 Stats (time - calibration time in microseconds)

Mean: 130465.000000  
 Std dev: 51315.864116  
 Median: 149790.000000



## 94 Test 94

### 94.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

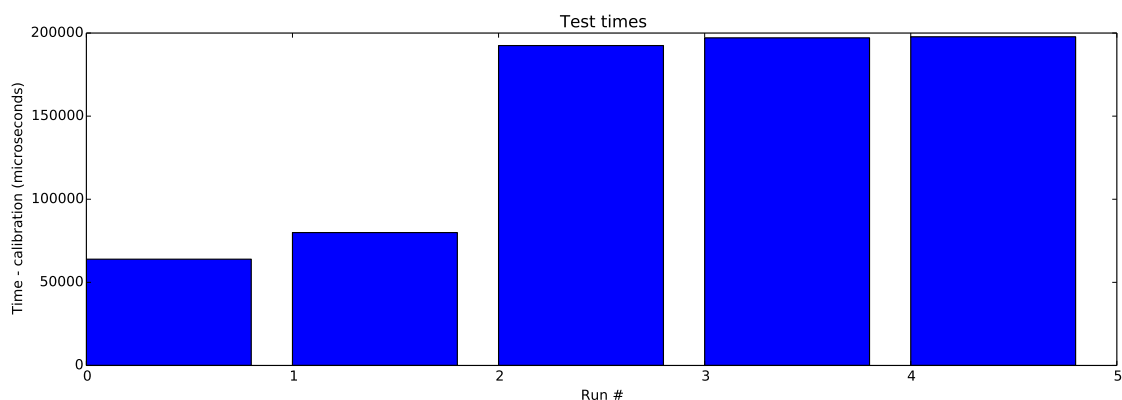
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')

```

## 94.2 Stats (time - calibration time in microseconds)

Mean: 146244.000000  
 Std dev: 60905.241269  
 Median: 192470.000000



## 95 Test 95

### 95.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))

```



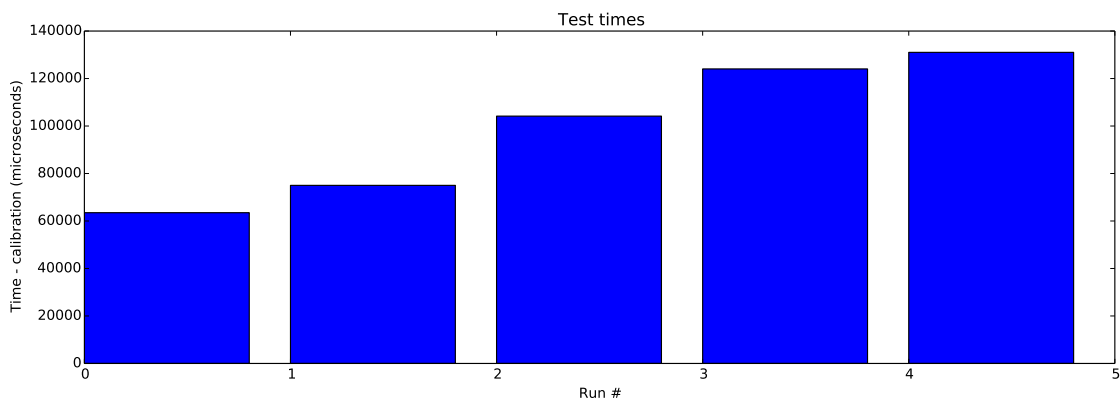
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')

```

## 95.2 Stats (time - calibration time in microseconds)

Mean: 99548.000000  
 Std dev: 26512.054164  
 Median: 104170.000000



## 96 Test 96

### 96.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))

```

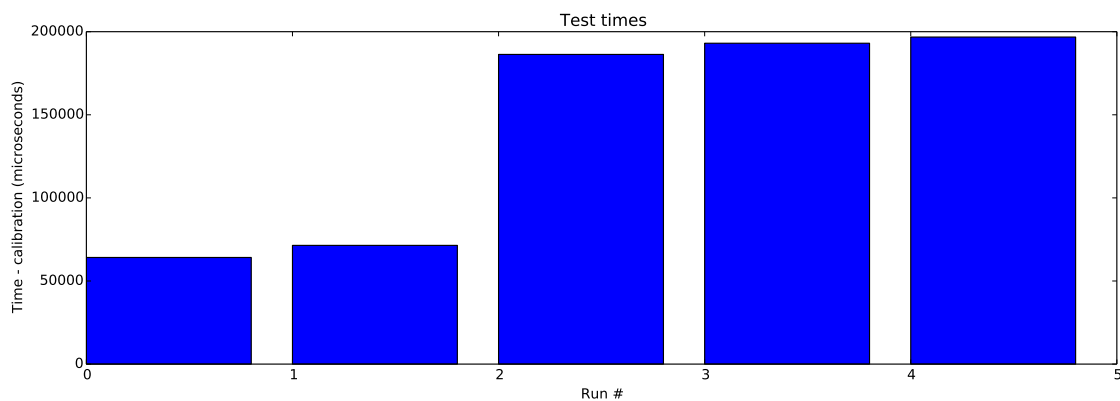
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 96.2 Stats (time - calibration time in microseconds)

Mean: 142343.000000  
 Std dev: 61009.917276  
 Median: 186315.000000



## 97 Test 97

### 97.1 Expected path

```

start
parse_ipv4
parse_tcp

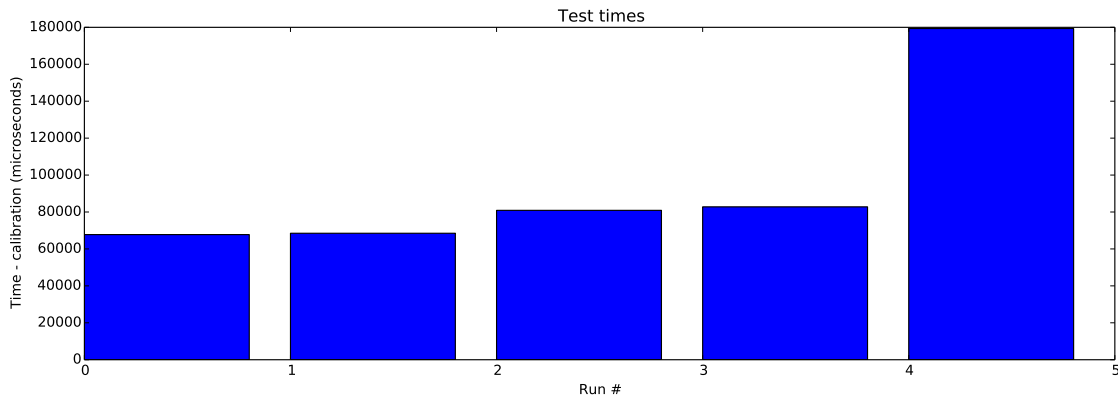
```

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 97.2 Stats (time - calibration time in microseconds)

Mean: 95861.000000  
Std dev: 42204.992762  
Median: 80895.000000



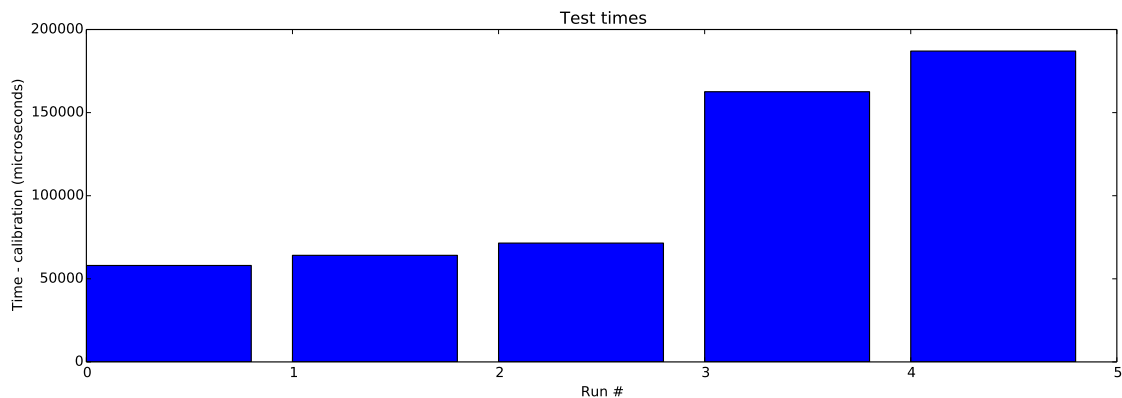
## 98 Test 98

### 98.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 98.2 Stats (time - calibration time in microseconds)

Mean: 108645.000000  
Std dev: 54728.796533  
Median: 71490.000000



## 99 Test 99

### 99.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

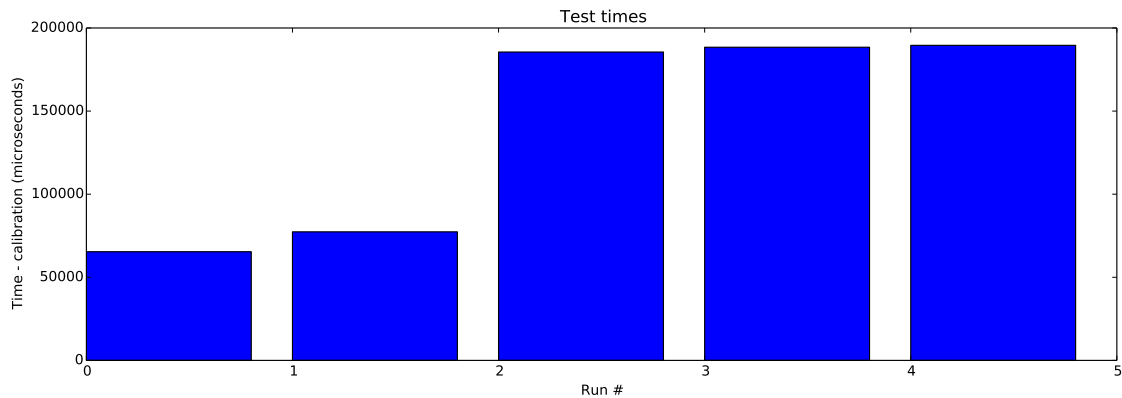
### 99.2 Stats (time - calibration time in microseconds)

```
Mean: 141249.000000
Std dev: 57198.132435
Median: 185535.000000
```

## 100 Test 100

### 100.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

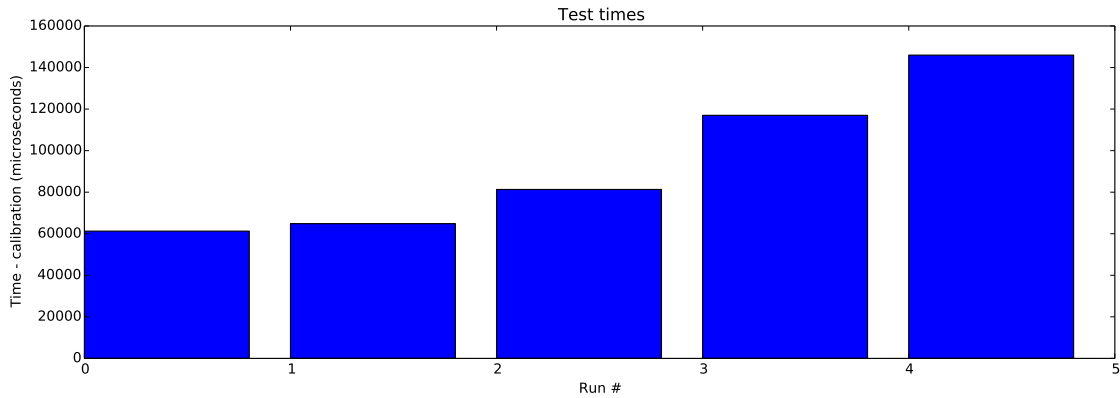
## 100.2 Stats (time - calibration time in microseconds)

Mean: 94074.000000  
Std dev: 32594.677541  
Median: 81305.000000

## 101 Test 101

### 101.1 Expected path

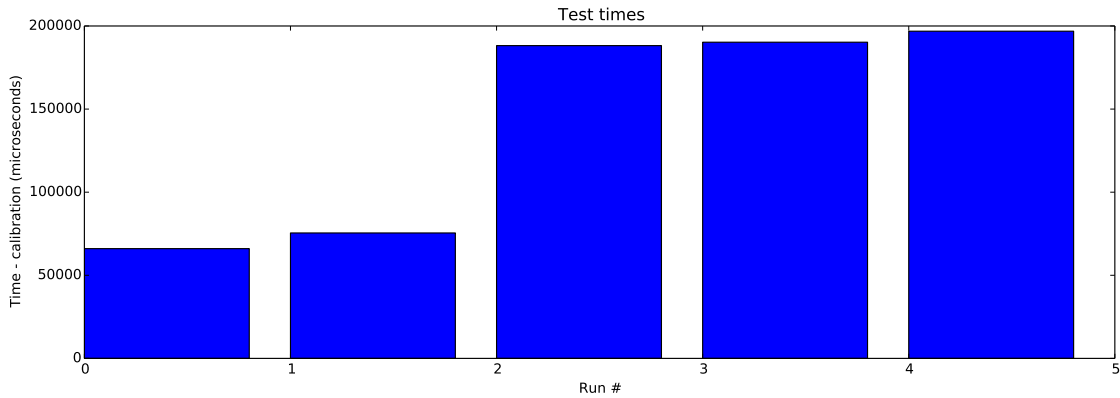
```
start
parse_ipv4
parse_tcp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 101.2 Stats (time - calibration time in microseconds)

Mean: 143356.000000  
Std dev: 59426.732739  
Median: 188185.000000



## 102 Test 102

### 102.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

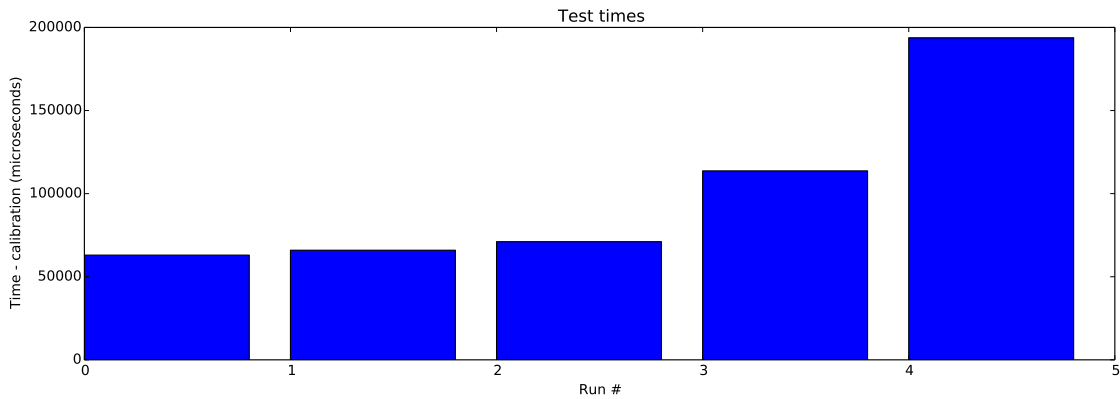
### 102.2 Stats (time - calibration time in microseconds)

```

Mean: 101499.000000
Std dev: 49662.339997
Median: 71090.000000

```





## 103 Test 103

### 103.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

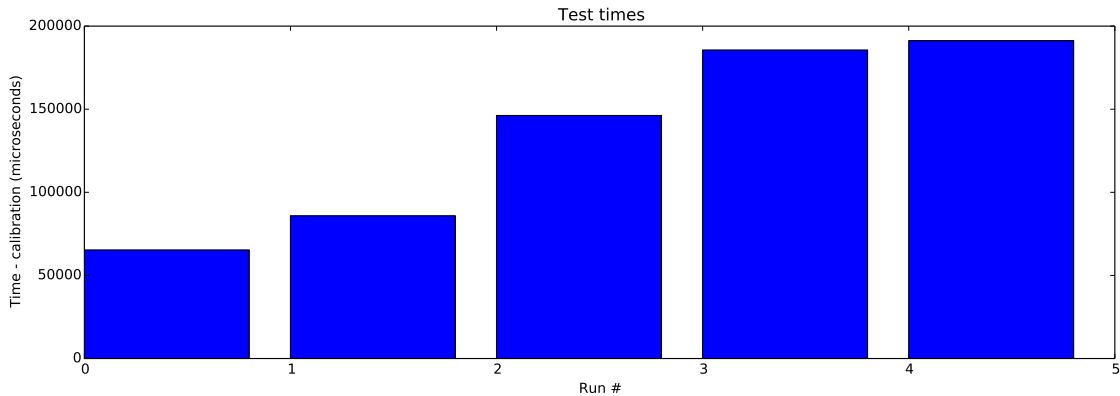
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

## 103.2 Stats (time - calibration time in microseconds)

Mean: 134861.000000

Std dev: 51226.659309

Median: 146210.000000



## 104 Test 104

### 104.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'NoAction')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

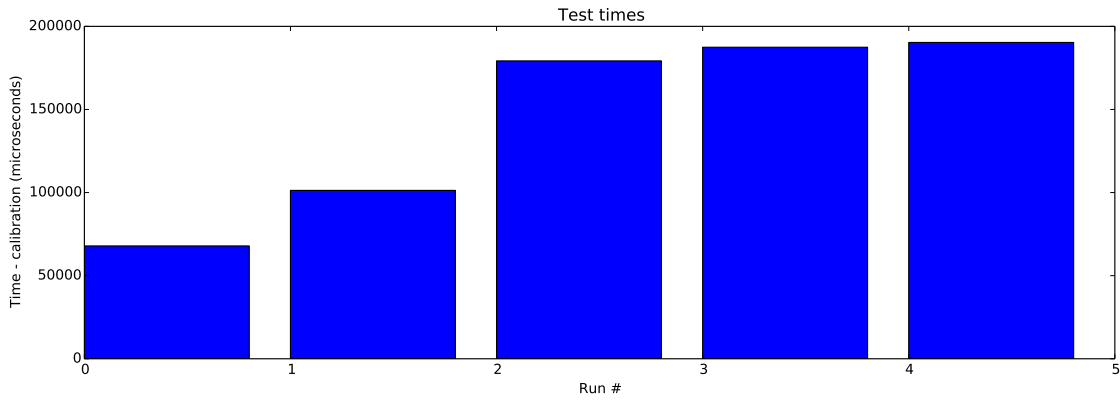
```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 104.2 Stats (time - calibration time in microseconds)

Mean: 145221.000000

Std dev: 50756.880361

Median: 179210.000000



## 105 Test 105

### 105.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

```
(u'MyIngress.routing_table', u'NoAction')
```

```
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

```
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
```

```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

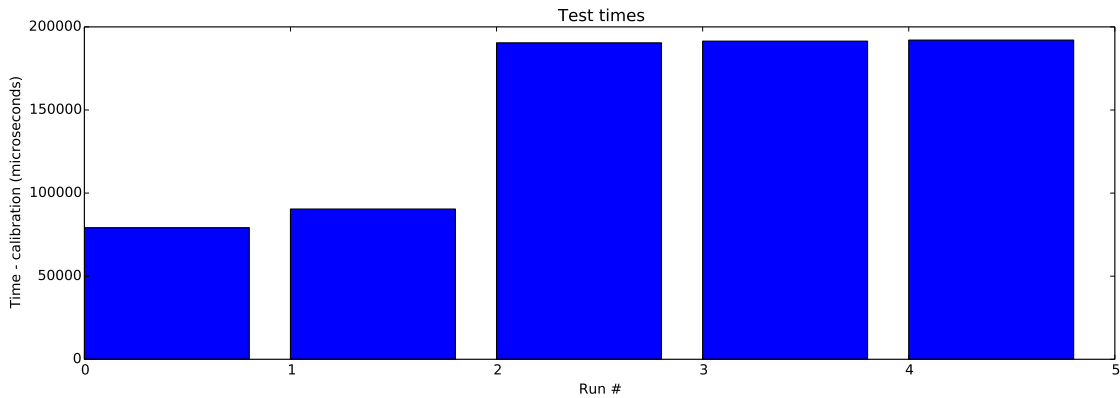
```
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 105.2 Stats (time - calibration time in microseconds)

Mean: 148681.000000

Std dev: 52293.811144

Median: 190390.000000



## 106 Test 106

### 106.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
```

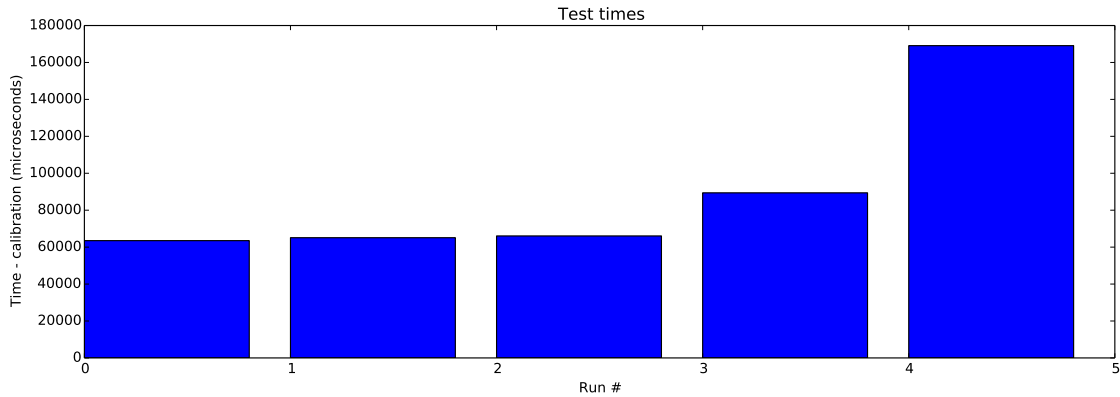
```

(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

```

## 106.2 Stats (time - calibration time in microseconds)

Mean: 90636.000000  
 Std dev: 40371.988730  
 Median: 66060.000000



## 107 Test 107

### 107.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec

```

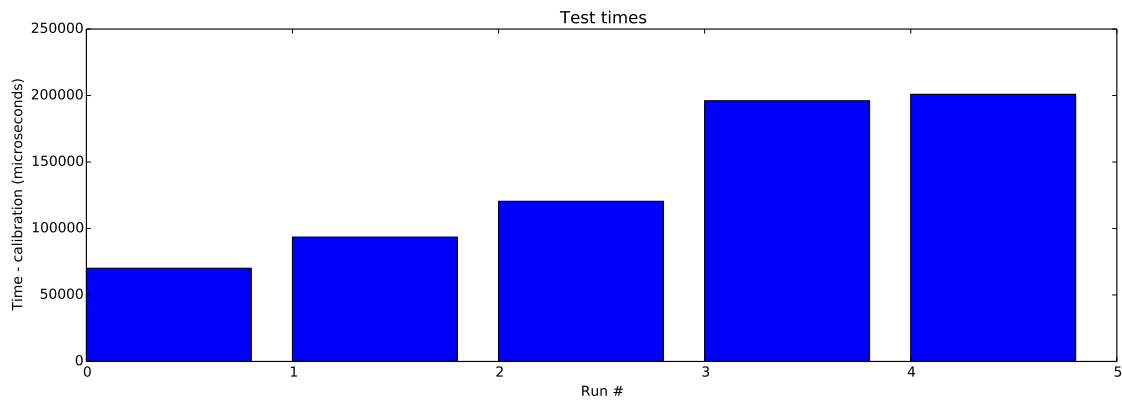
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'NoAction')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 107.2 Stats (time - calibration time in microseconds)

Mean: 136192.000000  
 Std dev: 53313.821341  
 Median: 120425.000000



## 108 Test 108

### 108.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

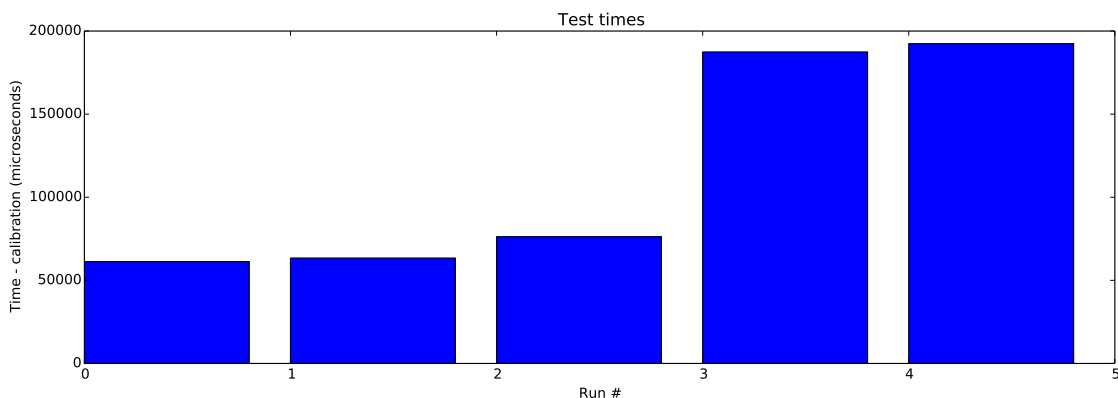
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'tbl_drop', u'MyIngress.drop')

```

## 108.2 Stats (time - calibration time in microseconds)

Mean: 116154.000000  
 Std dev: 60458.203199  
 Median: 76270.000000



## 109 Test 109

### 109.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

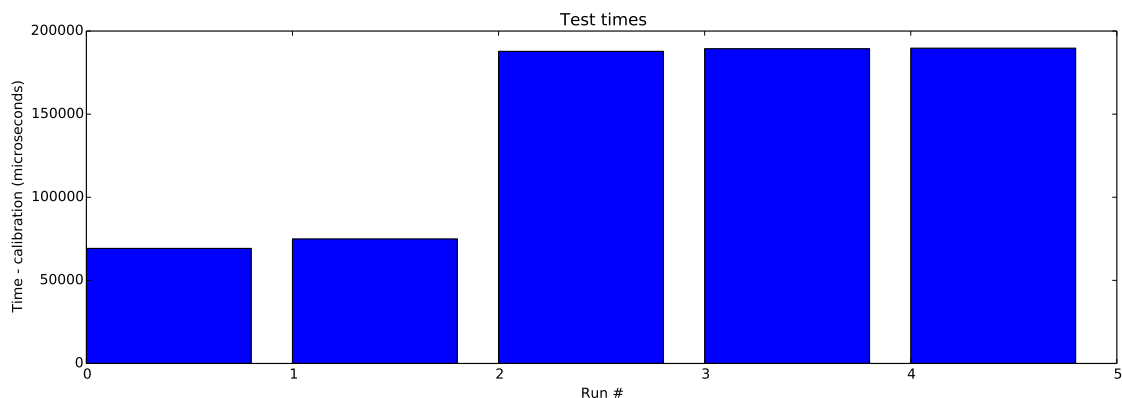
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'tbl_drop', u'MyIngress.drop')

```

## 109.2 Stats (time - calibration time in microseconds)

Mean: 142192.000000  
 Std dev: 57288.743798  
 Median: 187765.000000



## 110 Test 110

### 110.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))

```



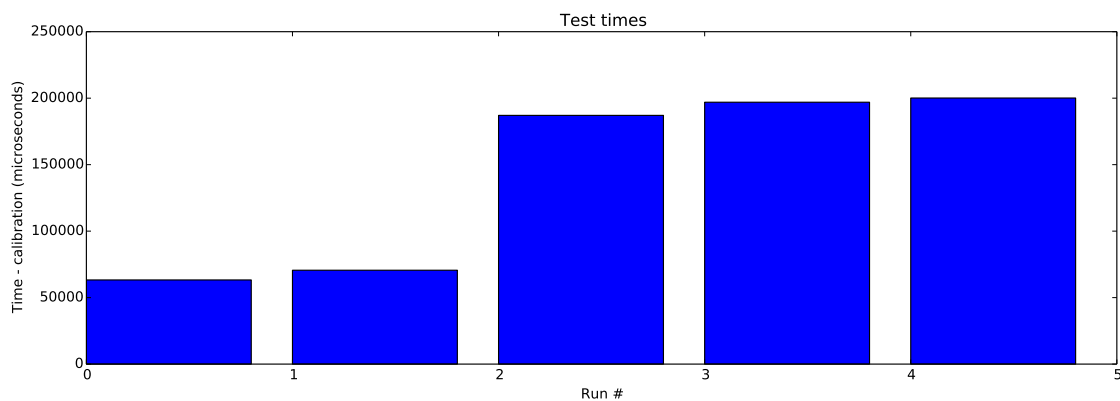
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 110.2 Stats (time - calibration time in microseconds)

Mean: 143597.000000  
 Std dev: 62783.019169  
 Median: 187050.000000



## 111 Test 111

### 111.1 Expected path

```

start
parse_ipv4
parse_tcp

```

sink

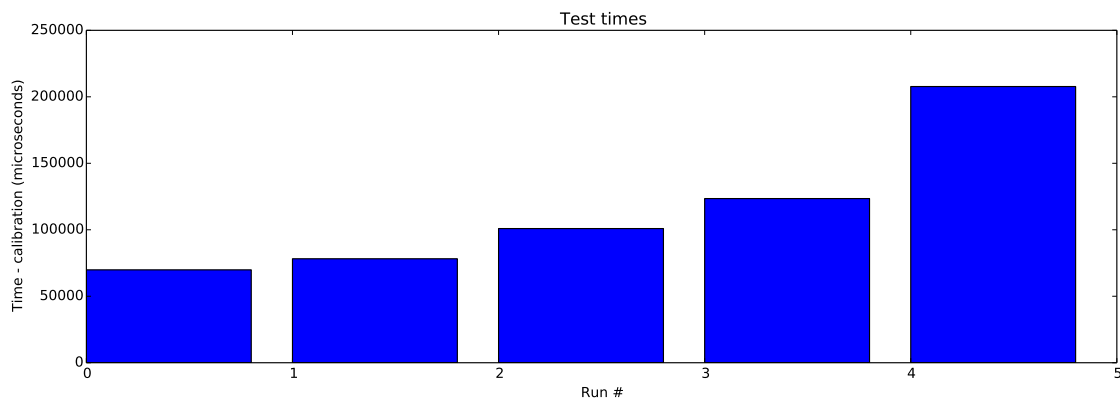
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 111.2 Stats (time - calibration time in microseconds)

Mean: 116033.000000

Std dev: 49509.623469

Median: 100910.000000



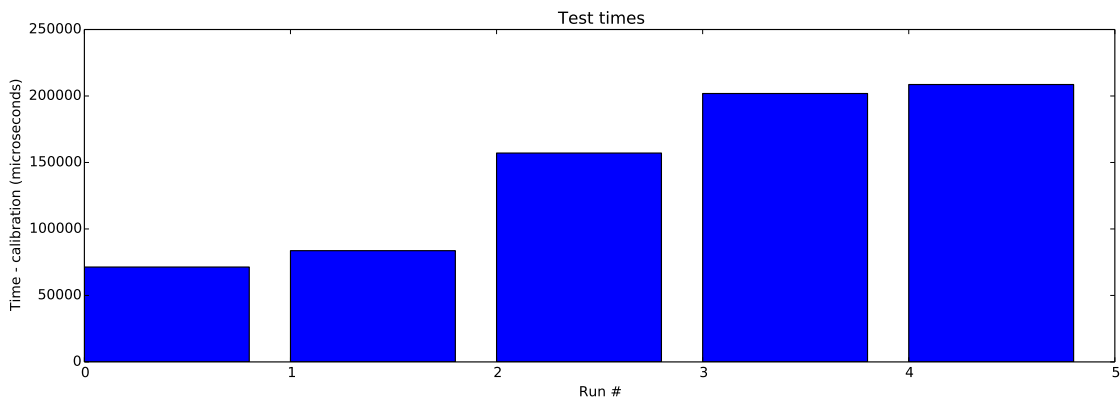
## 112 Test 112

### 112.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 112.2 Stats (time - calibration time in microseconds)

Mean: 144520.000000  
Std dev: 57639.389136  
Median: 157085.000000



## 113 Test 113

### 113.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

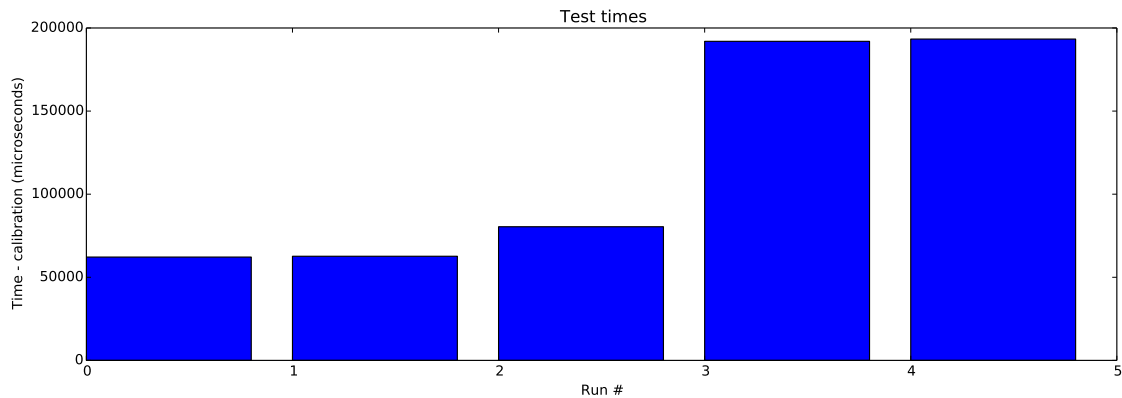
### 113.2 Stats (time - calibration time in microseconds)

```
Mean: 118109.000000
Std dev: 61220.182734
Median: 80415.000000
```

## 114 Test 114

### 114.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

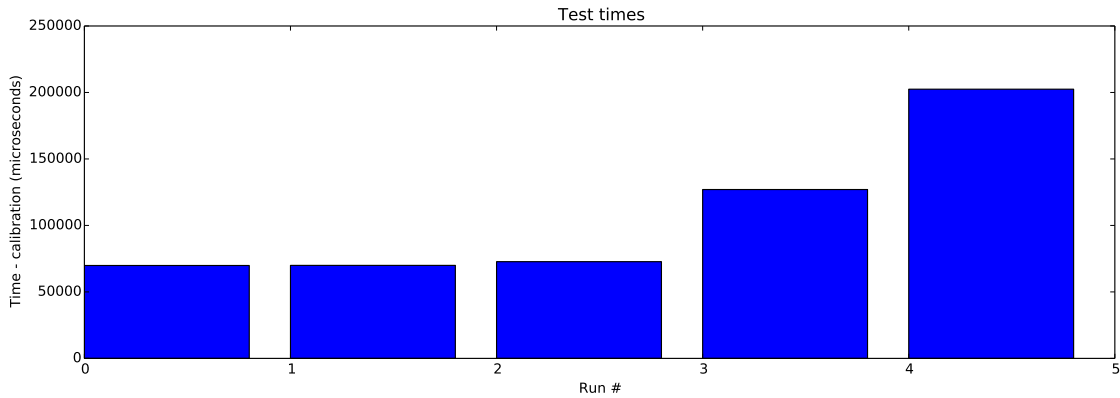
## 114.2 Stats (time - calibration time in microseconds)

Mean: 108405.000000  
Std dev: 51821.782872  
Median: 72745.000000

## 115 Test 115

### 115.1 Expected path

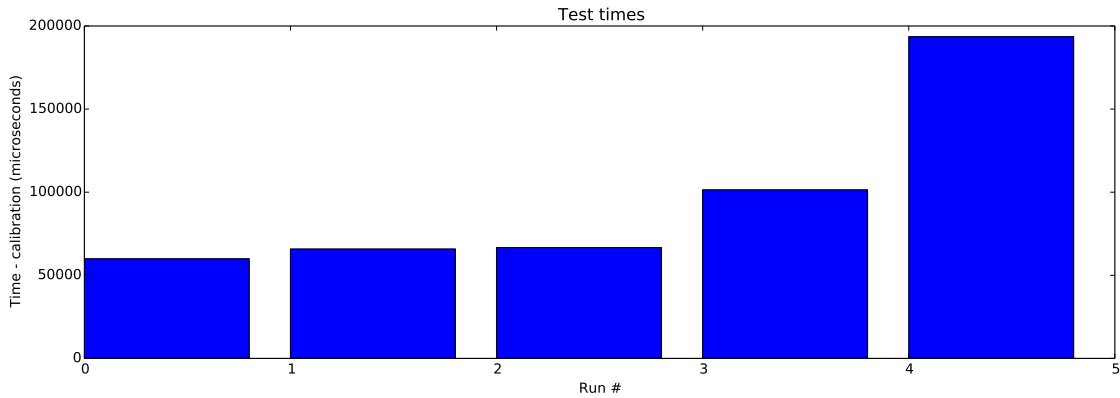
```
start
parse_ipv4
parse_tcp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 115.2 Stats (time - calibration time in microseconds)

Mean: 97496.000000  
Std dev: 50209.727683  
Median: 66675.000000



## 116 Test 116

### 116.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

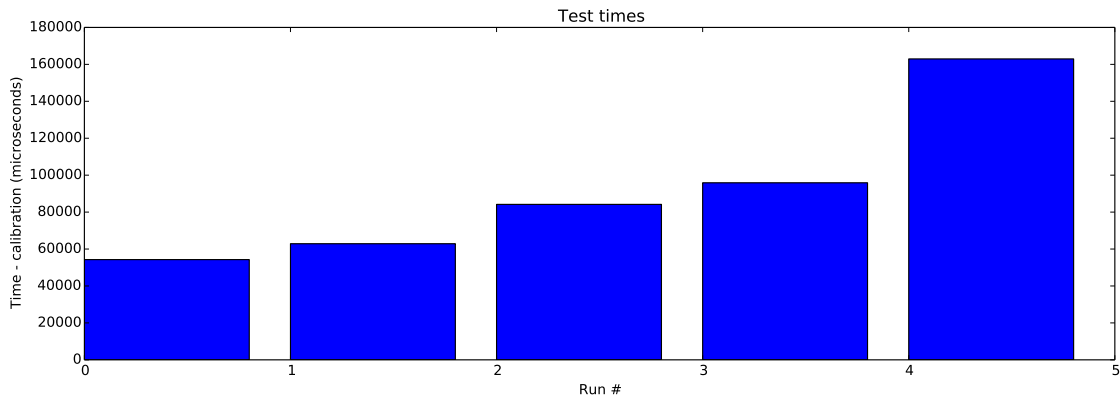
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

### 116.2 Stats (time - calibration time in microseconds)

Mean: 92032.000000

Std dev: 38419.080494

Median: 84180.000000



## 117 Test 117

### 117.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

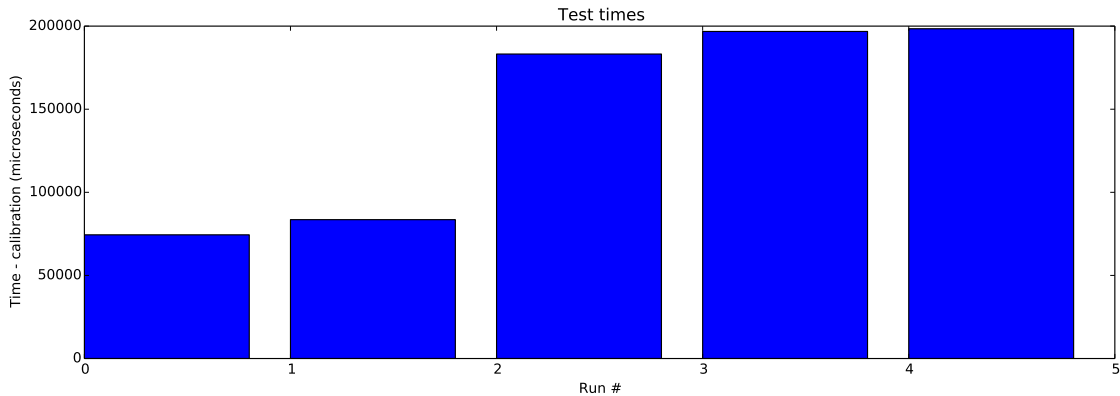


## 117.2 Stats (time - calibration time in microseconds)

Mean: 147275.000000

Std dev: 56082.766337

Median: 183200.000000



## 118 Test 118

### 118.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'NoAction')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

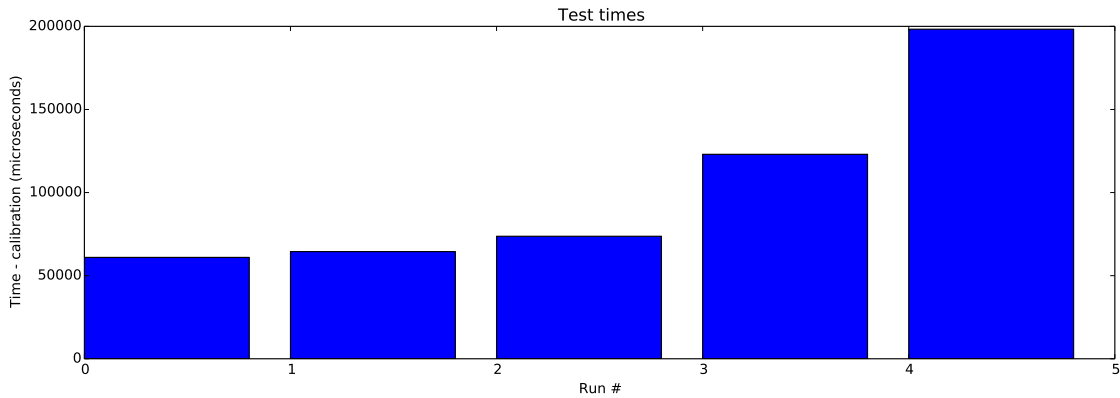
(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 118.2 Stats (time - calibration time in microseconds)

Mean: 104098.000000  
Std dev: 52118.117925  
Median: 73710.000000



## 119 Test 119

### 119.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

```
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
```

```
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

```
(u'MyIngress.port_to_mac', u'NoAction')
```

```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

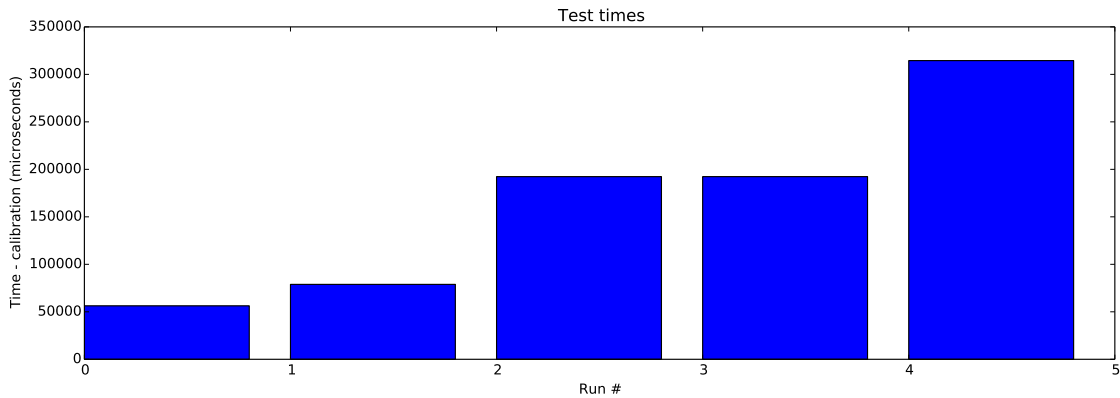
```
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 119.2 Stats (time - calibration time in microseconds)

Mean: 166869.000000

Std dev: 92801.137622

Median: 192325.000000



## 120 Test 120

### 120.1 Expected path

start

parse\_ipv4

parse\_tcp

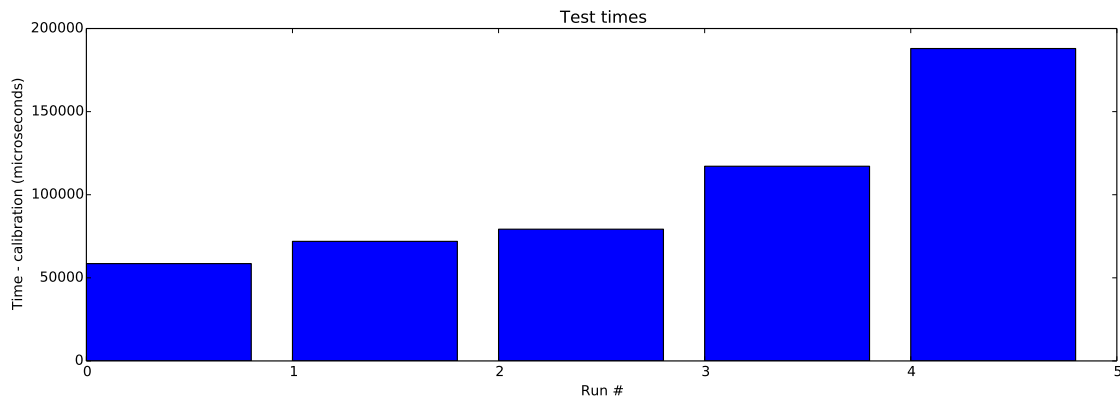
sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
```

```
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

## 120.2 Stats (time - calibration time in microseconds)

Mean: 102969.000000  
Std dev: 46737.511423  
Median: 79260.000000



## 121 Test 121

### 121.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
```

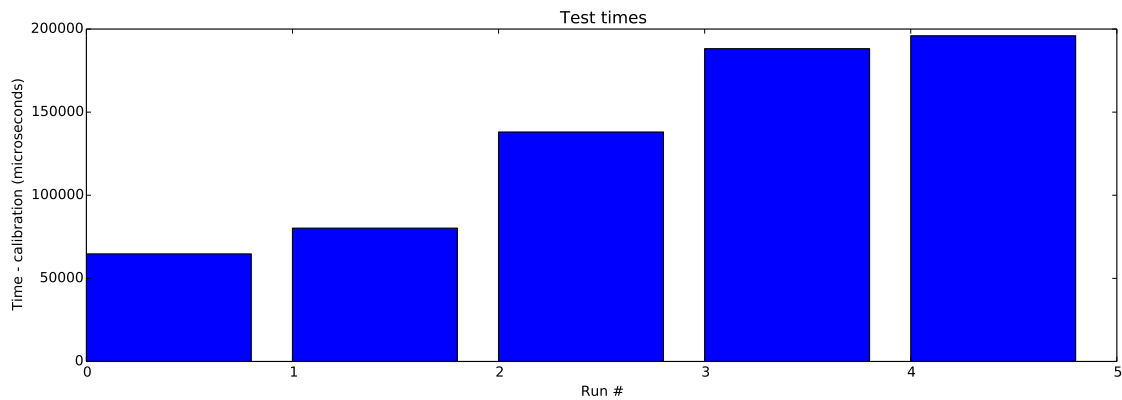
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'NoAction')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 121.2 Stats (time - calibration time in microseconds)

Mean: 133410.000000  
 Std dev: 53822.298725  
 Median: 138045.000000



## 122 Test 122

### 122.1 Expected path

```

start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

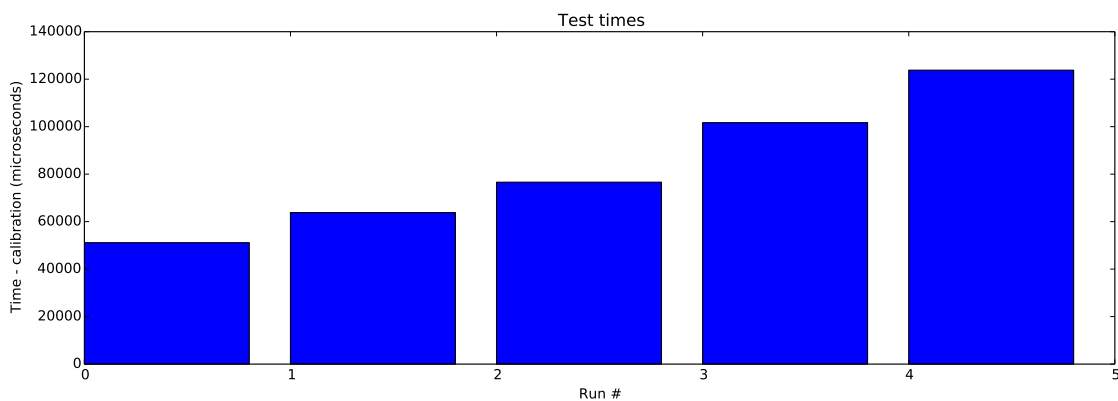
```

(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')

```

## 122.2 Stats (time - calibration time in microseconds)

Mean: 83393.000000  
 Std dev: 26216.238022  
 Median: 76595.000000



## 123 Test 123

### 123.1 Expected path

```

start
parse_ipv4
parse_tcp

```

sink

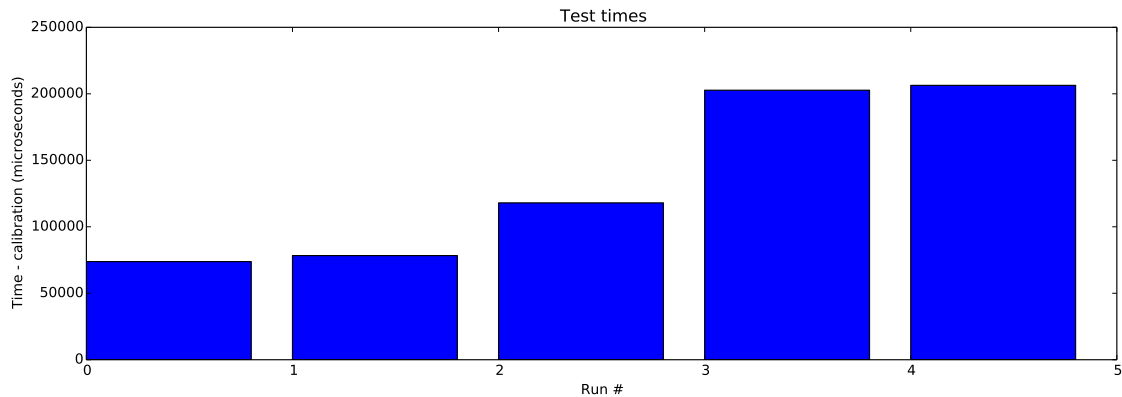
```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'tbl_send_to_cpu_3', u'MyIngress.send_to_cpu')
```

## 123.2 Stats (time - calibration time in microseconds)

Mean: 135835.000000

Std dev: 58167.226081

Median: 117970.000000



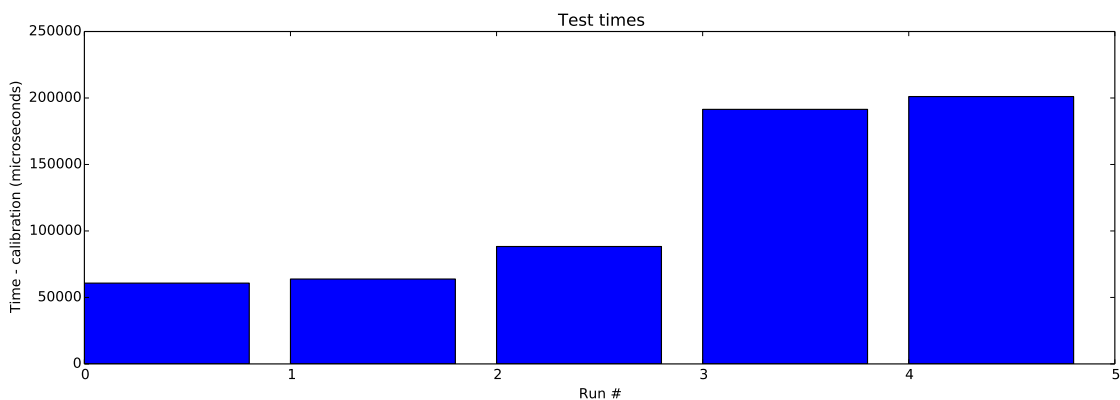
## 124 Test 124

### 124.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

### 124.2 Stats (time - calibration time in microseconds)

Mean: 121081.000000  
Std dev: 62193.373071  
Median: 88295.000000





## 125 Test 125

### 125.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

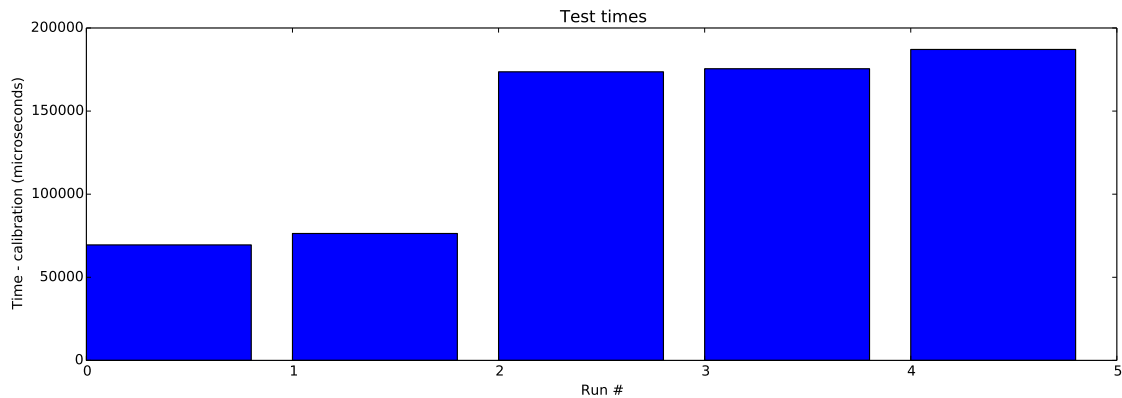
### 125.2 Stats (time - calibration time in microseconds)

```
Mean: 136403.000000
Std dev: 52087.807172
Median: 173625.000000
```

## 126 Test 126

### 126.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```



```
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...')))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCO
...')))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
```

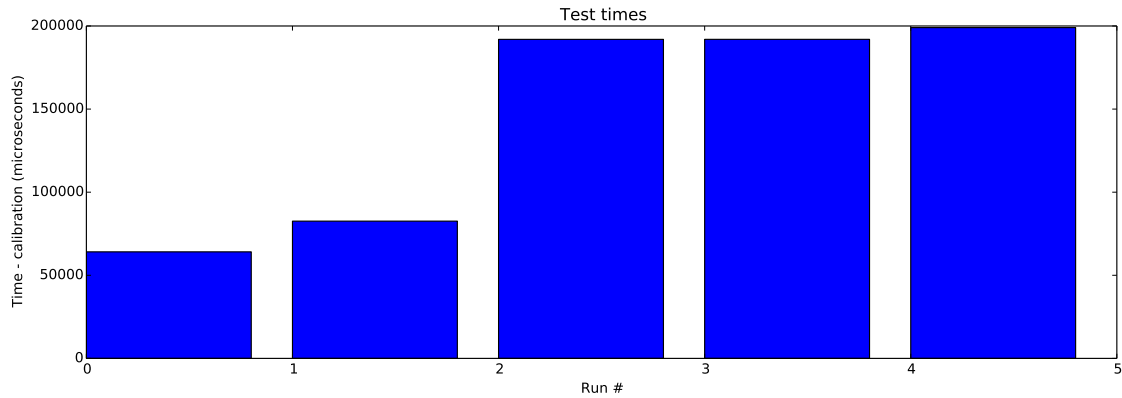
## 126.2 Stats (time - calibration time in microseconds)

Mean: 145924.000000  
Std dev: 59608.142682  
Median: 191945.000000

## 127 Test 127

### 127.1 Expected path

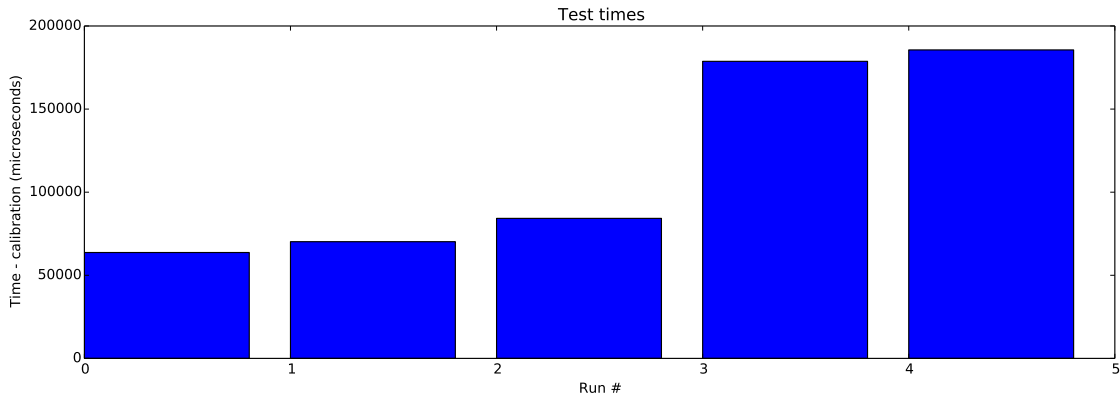
```
start
parse_ipv4
parse_tcp
sink
```



```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec
== 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit'))))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit'))))
(u'node_27', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 127.2 Stats (time - calibration time in microseconds)

Mean: 116498.000000  
Std dev: 54067.902086  
Median: 84245.000000



## 128 Test 128

### 128.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

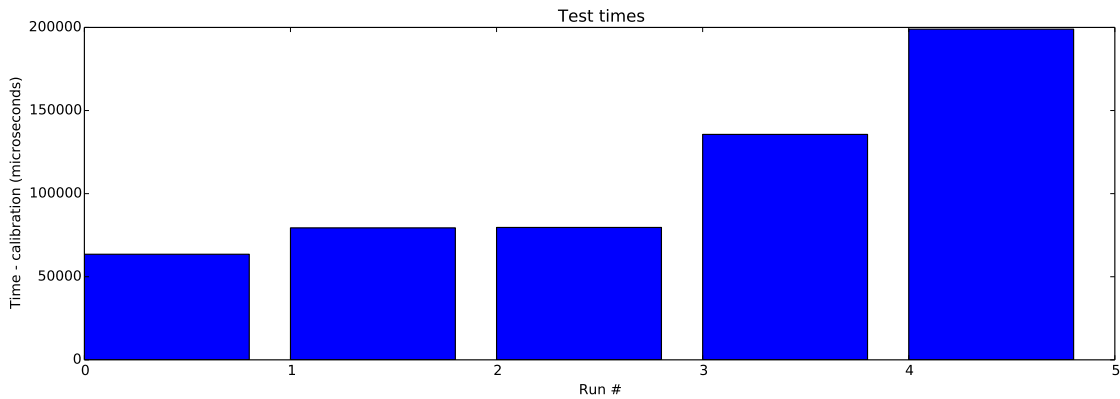
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

### 128.2 Stats (time - calibration time in microseconds)

Mean: 111435.000000

Std dev: 50155.123567

Median: 79650.000000



## 129 Test 129

### 129.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'MyIngress.arp\_hit')

(u'node\_32', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

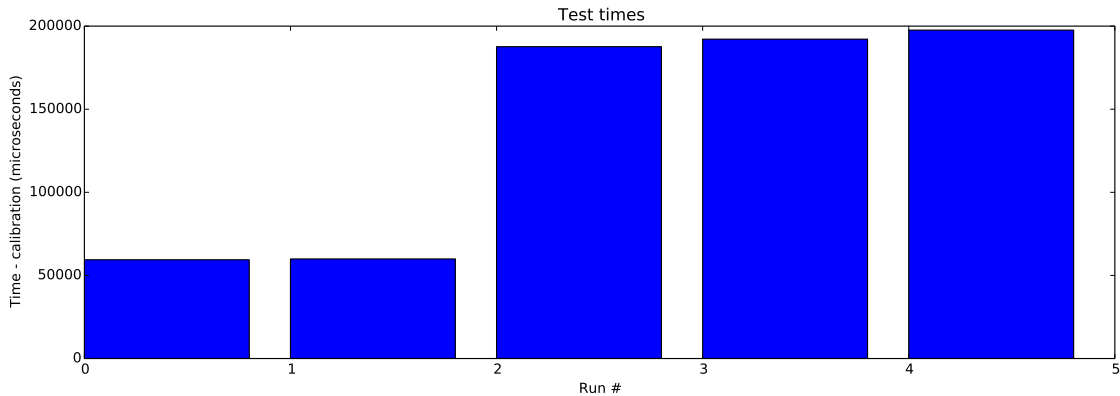
(u'tbl\_send\_to\_cpu\_3', u'MyIngress.send\_to\_cpu')

## 129.2 Stats (time - calibration time in microseconds)

Mean: 139335.000000

Std dev: 65135.195478

Median: 187620.000000



## 130 Test 130

### 130.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

(u'node\_3', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 331, u'hdr.ipv4.isValid()')))

(u'node\_5', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 337, u'hdr.ipv4.version == 6')))

(u'node\_7', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 339, u'hdr.ipv4.isValid()')))

(u'MyIngress.local\_ip\_table', u'NoAction')

(u'node\_11', (False, None))

(u'node\_13', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 342, u'standard\_metadata.egress\_spec == 64 ...')))

(u'node\_15', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF\_PROTOCOL ...')))

(u'MyIngress.routing\_table', u'MyIngress.ipv4\_forward')

(u'node\_20', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 349, u'!routing\_table.apply().hit')))

(u'MyIngress.port\_to\_mac', u'MyIngress.set\_src\_mac')

(u'node\_25', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 351, u'!port\_to\_mac.apply().hit')))

(u'node\_27', (True, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 354, u'meta.next\_hop == 0')))

(u'MyIngress.arp\_cache\_table', u'NoAction')

(u'node\_32', (False, (u'/home/cs344-2/P4Perform/bmv2\_router/router.p4', 358, u'!arp\_cache\_table.apply().hit')))

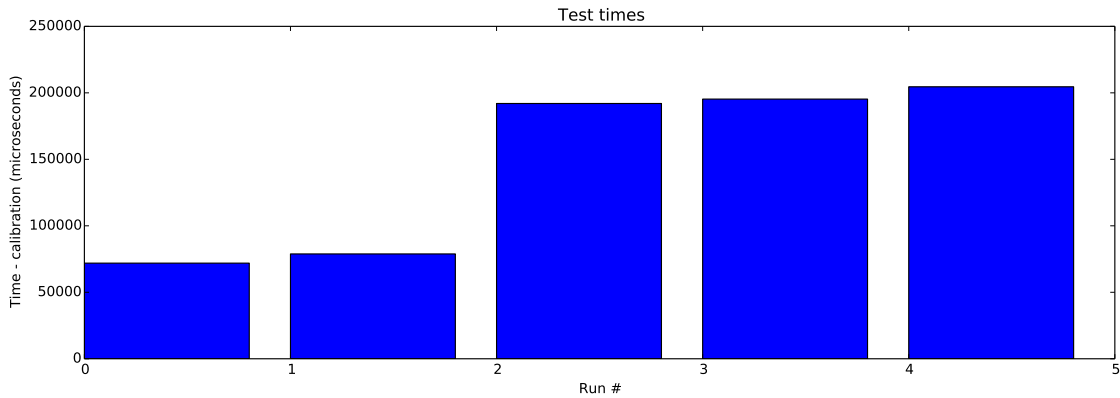
```
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
```

## 130.2 Stats (time - calibration time in microseconds)

Mean: 148519.000000

Std dev: 59899.733672

Median: 191985.000000



## 131 Test 131

### 131.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
```

```
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
```

```
(u'MyIngress.local_ip_table', u'NoAction')
```

```
(u'node_11', (False, None))
```

```
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...')))
```

```
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...')))
```

```
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
```

```
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
```

```
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
```

```
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
```

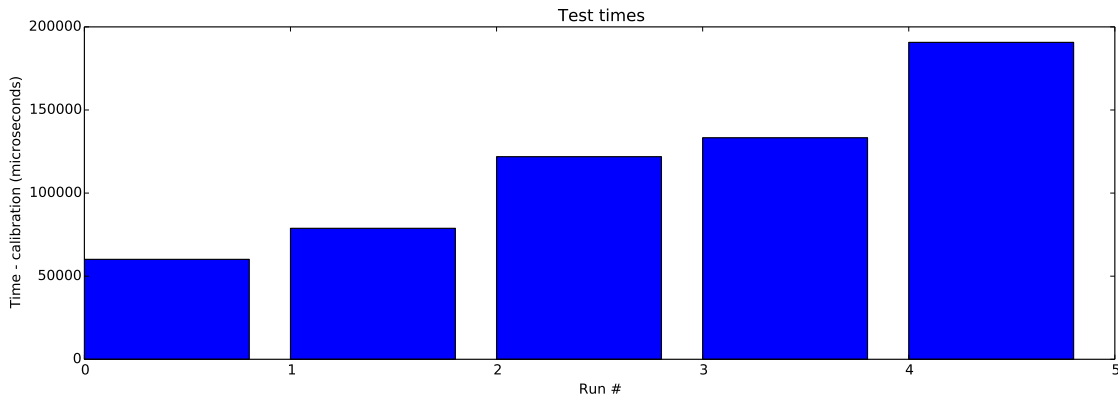
```
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0'))))
(u'MyIngress.arp_cache_table', u'NoAction')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit'))))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0'))))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')
```

## 131.2 Stats (time - calibration time in microseconds)

Mean: 116962.000000

Std dev: 45630.589148

Median: 121900.000000



## 132 Test 132

### 132.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec == 64 ...'))))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL ...'))))
```



```

(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))

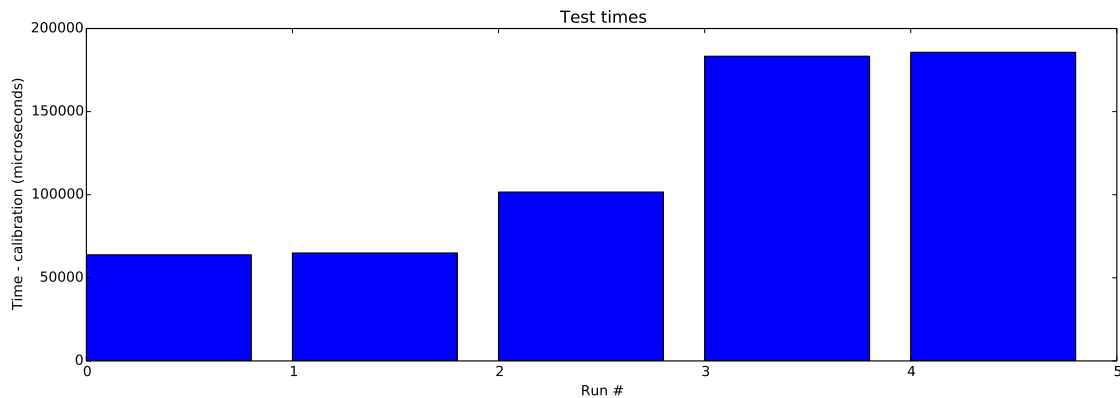
```

## 132.2 Stats (time - calibration time in microseconds)

Mean: 119868.000000

Std dev: 54494.325631

Median: 101600.000000



## 133 Test 133

### 133.1 Expected path

start

parse\_ipv4

parse\_tcp

sink

```

(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()')))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (False, None))
(u'node_13', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 342, u'standard_metadata.egress_spec

```

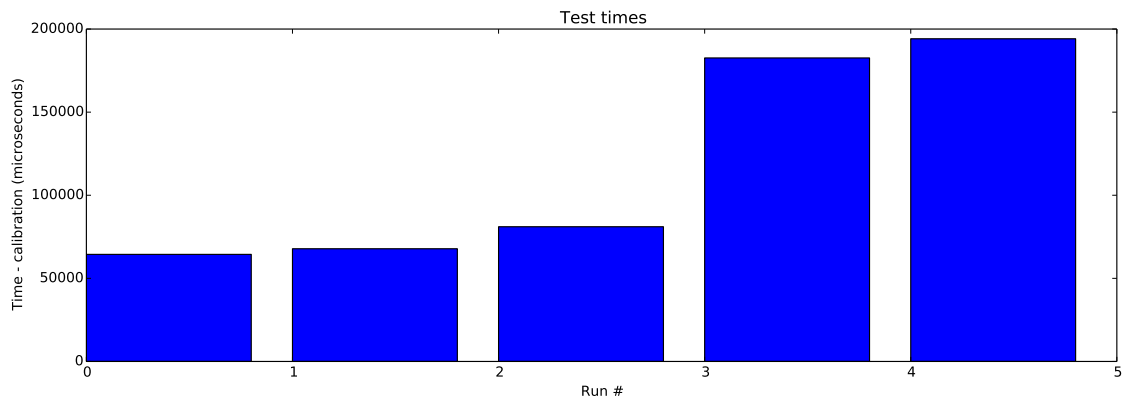
```

== 64 ...'))
(u'node_15', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 346, u'hdr.ipv4.protocol == PWOSPF_PROTOCOL
...'))
(u'MyIngress.routing_table', u'MyIngress.ipv4_forward')
(u'node_20', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 349, u'!routing_table.apply().hit')))
(u'MyIngress.port_to_mac', u'MyIngress.set_src_mac')
(u'node_25', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 351, u'!port_to_mac.apply().hit')))
(u'node_27', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 354, u'meta.next_hop == 0')))
(u'MyIngress.arp_cache_table', u'MyIngress.arp_hit')
(u'node_32', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 358, u'!arp_cache_table.apply().hit')))
(u'node_35', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 362, u'hdr.ipv4.ttl == 0')))
(u'tbl_send_to_cpu_4', u'MyIngress.send_to_cpu')

```

## 133.2 Stats (time - calibration time in microseconds)

Mean: 118010.000000  
 Std dev: 57840.338606  
 Median: 81055.000000



## 134 Test 134

### 134.1 Expected path

```

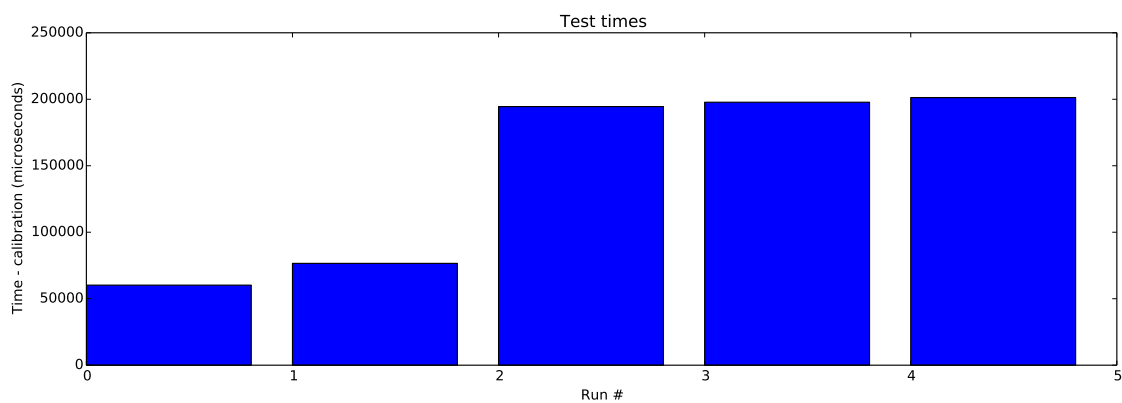
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()')))
(u'node_5', (False, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6')))

```

```
(u'node_7', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 339, u'hdr.ipv4.isValid()'))))
(u'MyIngress.local_ip_table', u'NoAction')
(u'node_11', (True, None))
(u'tbl_send_to_cpu_0', u'MyIngress.send_to_cpu')
```

## 134.2 Stats (time - calibration time in microseconds)

Mean: 146064.000000  
Std dev: 63671.666729  
Median: 194500.000000



## 135 Test 135

### 135.1 Expected path

```
start
parse_ipv4
parse_tcp
sink
(u'node_3', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 331, u'hdr.ipv4.isValid()'))))
(u'node_5', (True, (u'/home/cs344-2/P4Perform/bmv2_router/router.p4', 337, u'hdr.ipv4.version == 6'))))
(u'tbl_send_to_cpu', u'MyIngress.send_to_cpu')
```

### 135.2 Stats (time - calibration time in microseconds)

Mean: 147928.000000  
Std dev: 56650.882659  
Median: 187440.000000

