

Example of Nexthop mandatory keys

We have tried creating xpath with mandatory keys and wanted to highlight what does not work with libyang.

```
#ip route 1.1.1.1/32 blackhole
```

Does not Work

Trial 1

In this case we have tried creating xpath with default values in Yang and creating with not all keys in Xpath.

```
snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s']", "blackhole");  
List keys or position missing ("nexthops[nh-type='blackhole']").
```

```
snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s']", "blackhole", "255.255.255.255");  
List keys or position missing ("nexthops[nh-  
type='blackhole'][gateway='255.255.255.255']").
```

Trail 2

Here we tried to create with all xpath but gave empty string in value. While empty string works for leaf whose type is string but it throws error for ip address when empty string provided.

```
snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s'][interface='%s']", "blackhole", "", "");  
Invalid value " " in "gateway" element.  
YANG path: /frr-ripd:ripd/nexthops[nh-type='blackhole'][gateway=  
'']/gateway
```

Works

Here we tried with all the xpath and provided some default invalid values for keys which were not provided as input, for ip address we used 255.255.255.255 and for interface empty string.

```
Xpath = snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s'][interface='%s']", "blackhole", "255.255.255.255", "  
");
```

Different combinations and Xpath creation

```
#ip route 1.1.1.1/32 eth1
```

```
Xpath = snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s'][interface='%s']", "ifindex", "255.255.255.255", "et  
h1");
```

```
#ip route 1.1.1.1/32 10.10.10.10
```

```
Xpath = snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s'][interface='%s']", "ip4", "10.10.10.10", "");
```

```
#ip route 1.1.1.1/32 10.10.10.10 eth1
```

```
Xpath = snprintf(xpath, sizeof(xpath), "/frr-ripd:ripd/nexthops[nh-  
type='%s'][gateway='%s'][interface='%s']", "ip4-  
ifindex", "10.10.10.10", "eth1");
```