

Towards a Path-Transparency Observatory

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measurement and architecture for a middleboxed internet

measurement

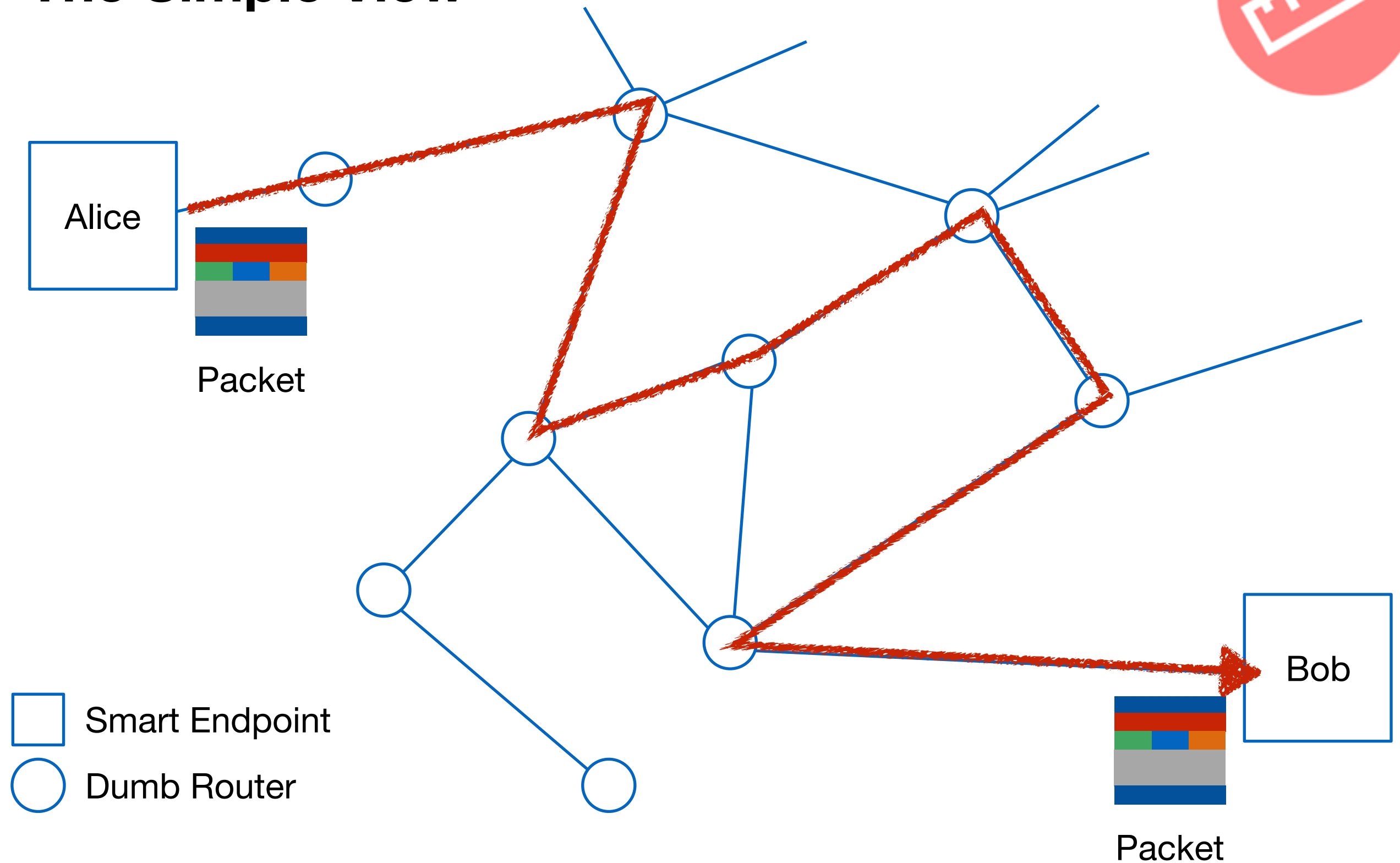
architecture



experimentation

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688421. The opinions expressed and arguments employed reflect only the authors' view. The European Commission is not responsible for any use that may be made of that information.

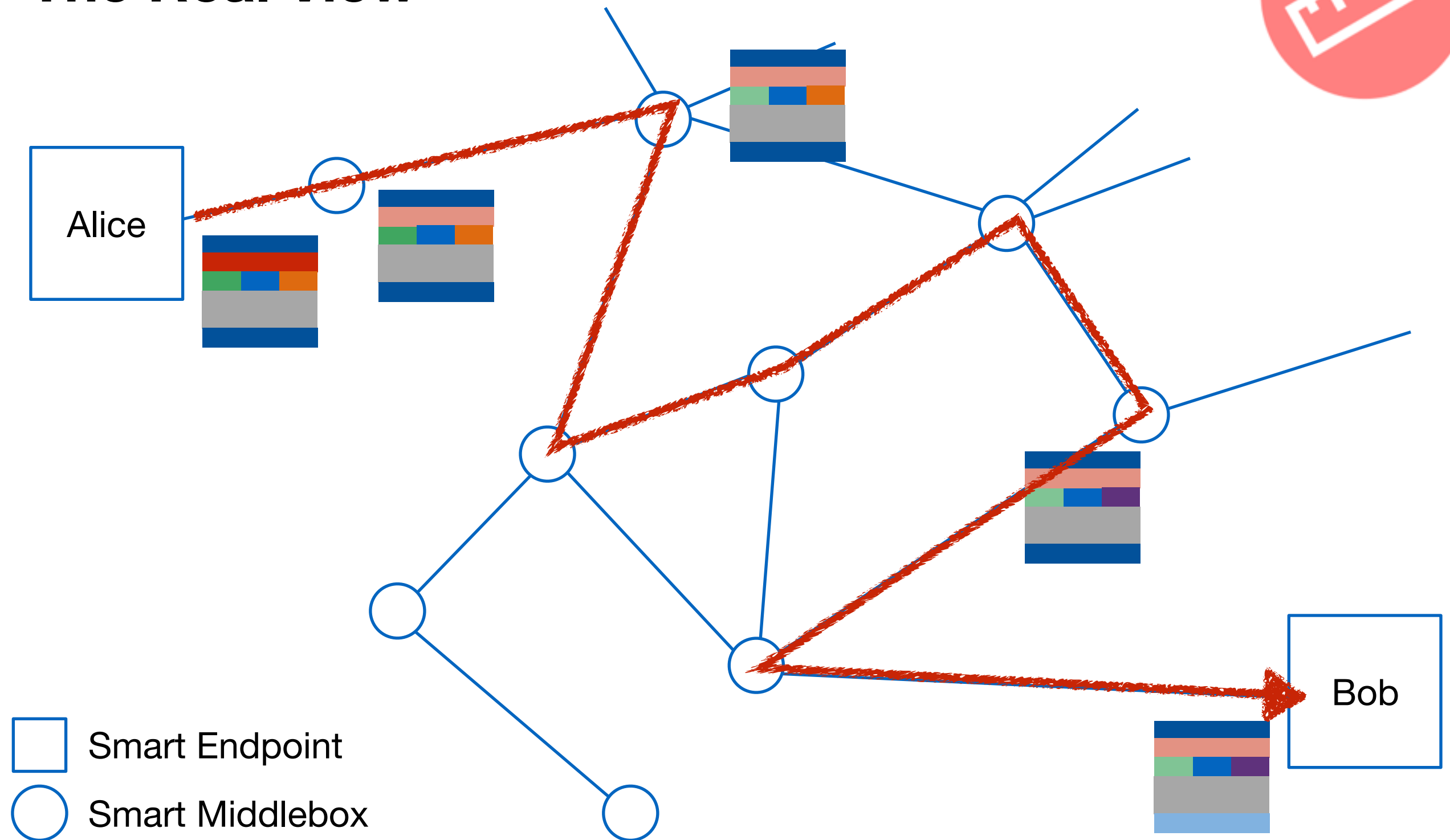


The Simple View



-  Smart Endpoint
-  Dumb Router

The Real View





MAMI Path Transparency Observatory

- Measurement Architecture for a Middleboxed Internet
- H2020 project, Jan 2016 — Jun 2018
 - Find out extent of middlebox manipulation
 - Develop means to allow MB manipulation cooperatively
- Observatory supports first goal:
 - Store raw data from measurement campaigns
 - Allow path transparency measurements on global scale
- No extant observatory to specifically support path transparency research, hence we make a new one



Questions Answered

- Does the Internet run over UDP? (Kühlewind, Trammell, ...)
 - If we can run arbitrary transports over UDP, protocol ossification not so problematic after all
- Do middleboxes interfere with condition signalling? (Ditto)
 - E.g., is Explicit Congestion Notification impacted by MBs, even though the endpoints speak it?
- Pure phenomenology (Donnet, Edeline, ...)
 - Do paths remain stable?
 - Are MBs stable or do they appear and disappear?



Publicly Accessible Part of Observatory

Observatory

Path criteria

Specify which paths you want to include. You may leave field blanks to indicate that no filtering for the field should be done.

Startpoint

Enter an IPv4 or IPv6 address.

On path

Enter IPv4 or IPv6 addresses that should be contained within the path. Use comma to separate multiple addresses.

Endpoint

Enter an IPv4 or IPv6 address.

Condition criteria

Specify filter criteria for path conditions.

Criterion 1

Combinator	MUST
Operator	equals
Condition	
Value	

Query data Add criterion

Path

(no data to show)

Conditions

(no data to show)



**KEEP CALM
and
COME SEE
OUR POSTER**