

# Hey network, what's going on? Virtual assistants for networks



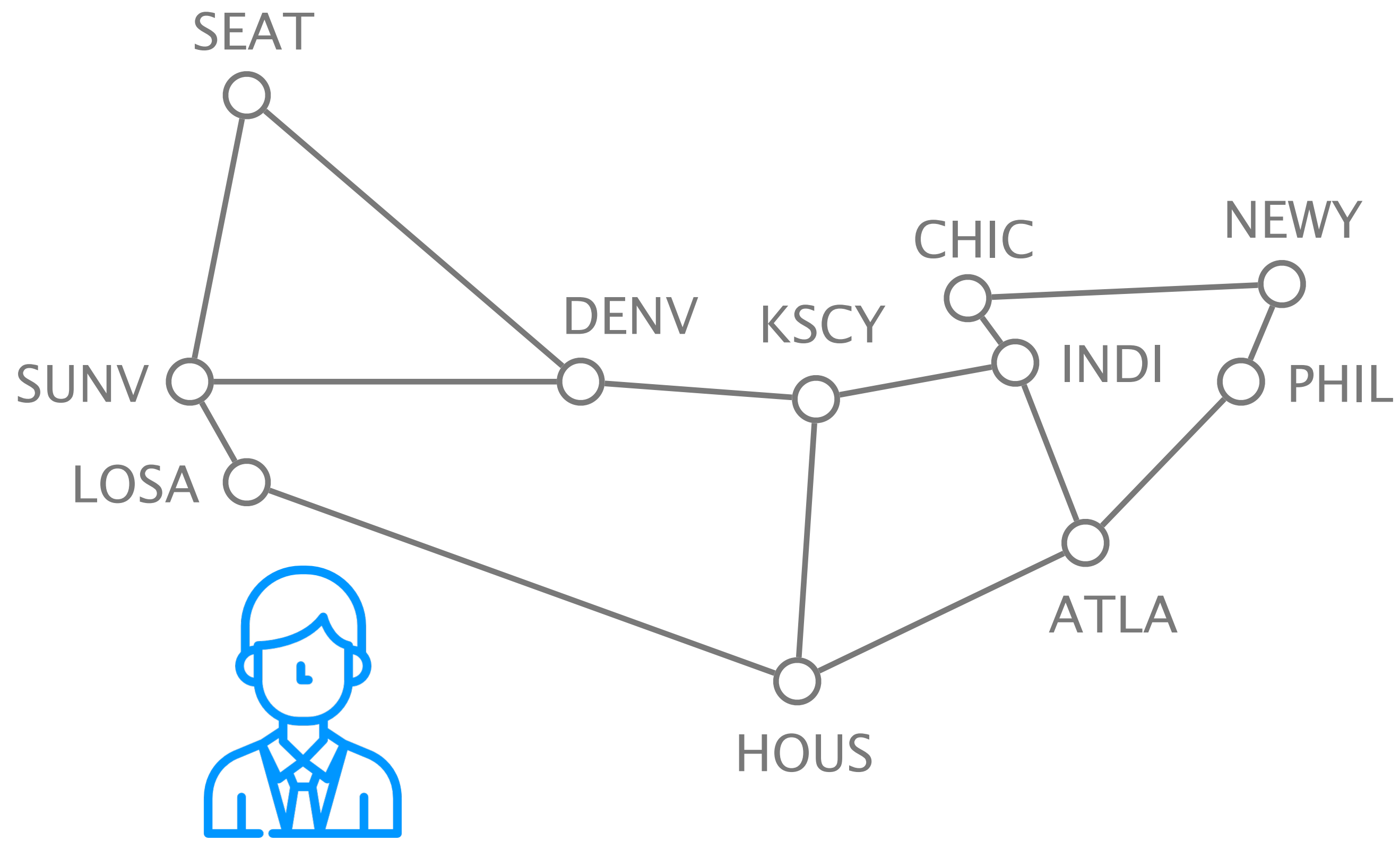
**Rüdiger Birkner**, Dana Drachsler-Cohen,  
Martin Vechev, Laurent Vanbever

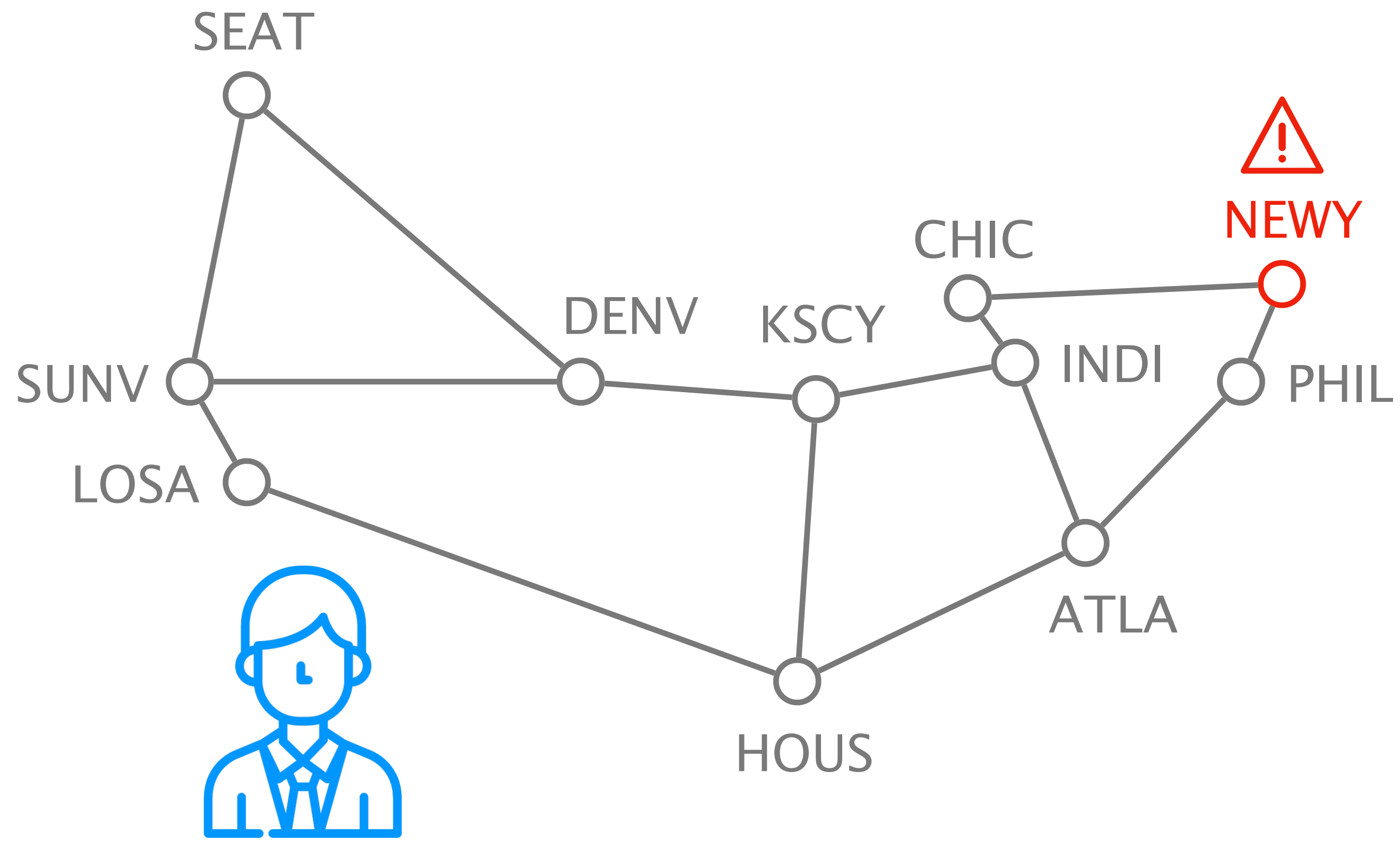
[net2text.net](http://net2text.net)

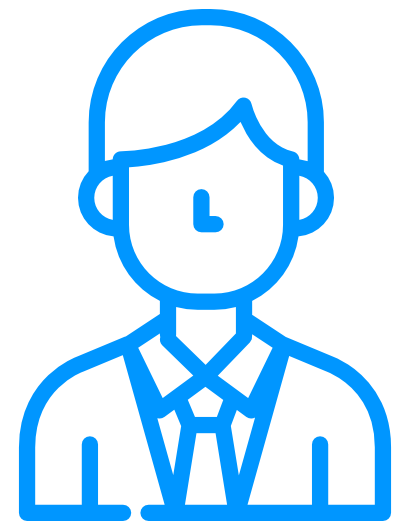
TNC '18

June, 11 2018

**ETH** zürich







Where is the traffic leaving in NEWY  
coming from?

What if you could simply ask the questions...  
and automatically get an answer?

# Net **2** *Text*



Rüdiger Birkner



Dana Drachsler-Cohen



Martin Vechev



Laurent Vanbever

**ETH** zürich

Net **2** *Text*



|Type a message...

Net **2** *Text*



Where is the traffic...



# Net2Text



**question** *in*  
natural language

Where is the traffic leaving  
in NEWY coming from?



Type a message...

# Net2Text



Where is the traffic leaving  
in NEWY coming from?



Type a message...

# Net2Text



Where is the traffic leaving  
in NEWY coming from?



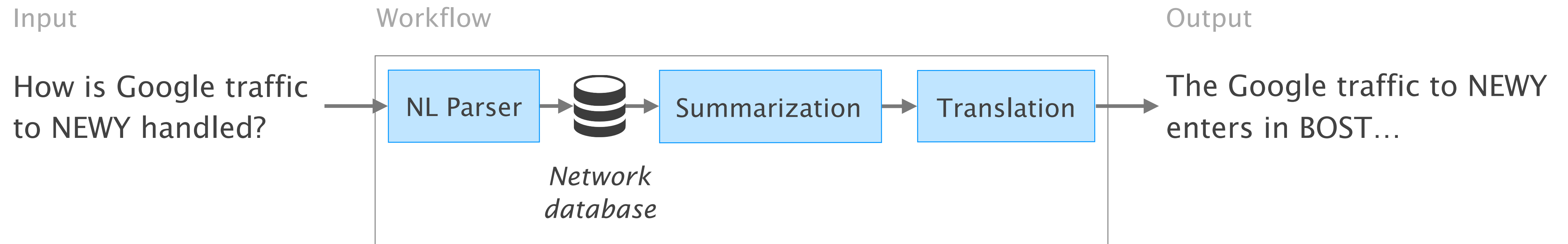
The traffic enters mostly in PHIL  
and goes to Youtube and Netflix.



Type a message...

**summary** *in*  
natural language

Net2Text has four stages:  
parsing, data retrieval, summarization, translation



Net2Text assists the network operator,  
it doesn't replace her

Net2Text assists the network operator,  
it doesn't replace her

Net2Text takes on the tedious, time-consuming tasks  
aggregating low-level data and extracting high-level insights

Net2Text assists the network operator,  
it doesn't replace her

Net2Text takes on the tedious, time-consuming tasks  
aggregating low-level data and extracting high-level insights

Net2Text provides the relevant information  
“Lots of traffic is going to NEWY”

Net2Text assists the network operator,  
it doesn't replace her

Net2Text takes on the tedious, time-consuming tasks  
aggregating low-level data and extracting high-level insights

Net2Text provides the relevant information

“Lots of traffic is going to NEWY”

The operator draws the conclusions and reacts

“Reroute some of the traffic to NEWY”



# Net **2** *Text*

Query-Guided Network Captioning

[net2text.net](http://net2text.net)