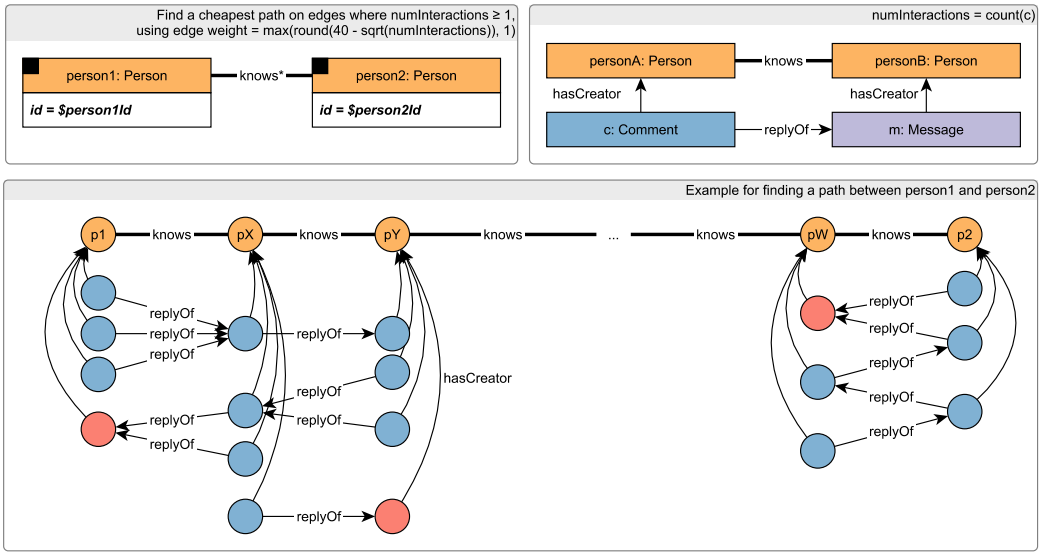
Interactive / complex / 14v2

IC 1
IC 2
IC 3
IC 4
IC 5
IC 6
IC 7
IC 8
IC 9
IC 10
IC 11
IC 12
IC 13
IC 14v1
IC 14v2

query	Interactive / complex / 14v2
title	Trusted connection paths (v2)
pattern	
description	*This query is used in SNB Interactive v2.* Find a cheapest path between two given Persons with IDs `$person1Id` and `$person2Id` in the interaction subgraph. If there are multiple cheapest paths, any of them can be returned. Do not return any rows if there is no path between the Persons. The interaction subgraph is based on a projection of the Person-knows-Person graph. In this projection, only those knows edges are kept whose endpoint Persons have at least one interaction between them. An interaction is defined as a direct reply Comment (by one of the Persons) to a Message (by the other Person). The weights are defined as: $\max(\text{round}(40 - \sqrt{numInteractions}), 1)$ *Note:* Interactions are counted both ways, e.g. if Alice knows Bob, Alice writes 2 reply Comments to Bob's Messages and Bob writes 3 reply Comments to Alice's Messages, their total number of interactions is 5 and the weight of the knows edge is 38. *Remark:* Determinism is ensured by using square root followed by rounding. For all integers between 1 and 100 000, the square root's fractional part is more than 10e-5 from 0.5, where the rounding could be non-deterministic based on floating point inaccuracies. As 10e-5 is significantly larger than the machine epsilon of IEEE 754 floats (both 32- and 64-bit), the floating point inaccuracies have no chance to affect the derived integer edge weights.
params	1 `$person1Id` ID — `(b)` There are no paths between the two Persons; `(b)` There is a 4-hop path between the two Persons 2 `$person2Id` ID
result	1 `personIdsInPath` [ID] C — Identifiers representing an ordered sequence of the Persons in the path 2 `pathWeight` 64-bit Integer C
CPs	3.3, 5.3, 7.6, 7.7, 7.8, 8.1, 8.2, 8.3, 8.6
relevance	This query tests the performance of cheapest path (weighted shortest path) computation.