

Automating SDN Policy Composition --- A Database Perspective

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motivation

forming a correct modular composition is still challenging, relies on human operators for

understanding of module internals

 inter-module interactions depending on traffic context objective and approach

automating SDN composition with database reasoning

dependency analysis

model SDN modules as database query/update a control loop of (check, repair)





if (e_c, fw (lb₁+rt), lb₂ fw rt) where $e_c \triangleq sw = FW \cdot pt = 1 \cdots$

correctness criterion

a composite is correct if it preserves semantics of member modules





