

# Introductory and Advanced Topics on P4 Programmable Data Plane Switches

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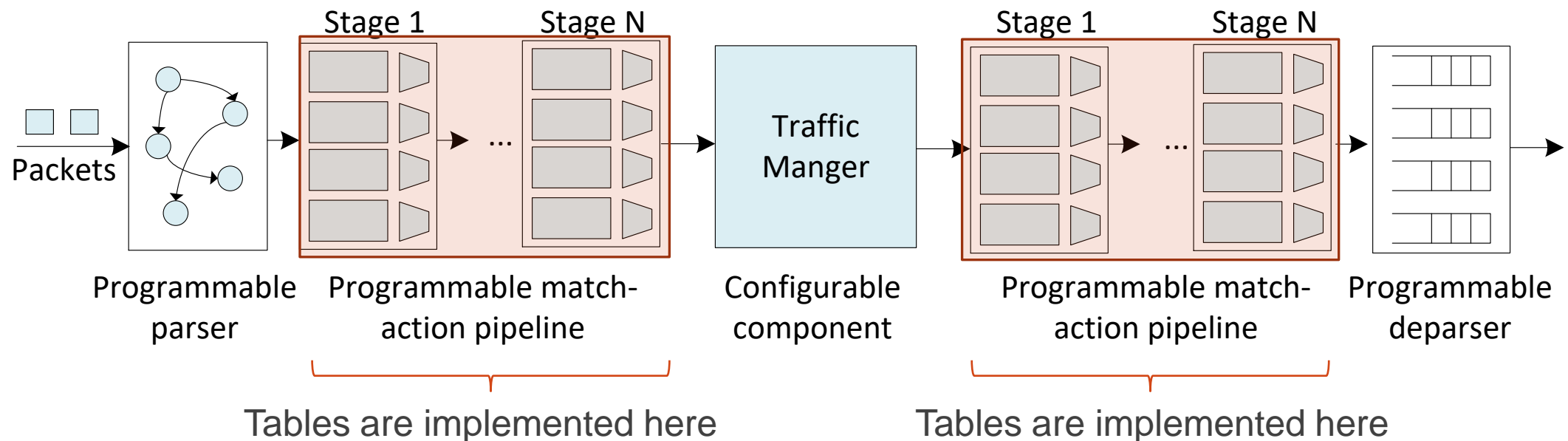
# Match-action Tables (Part 1)

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Lab activities are described in Lab 5, P4 Programmable Data Plane Switches (BMv2) lab series

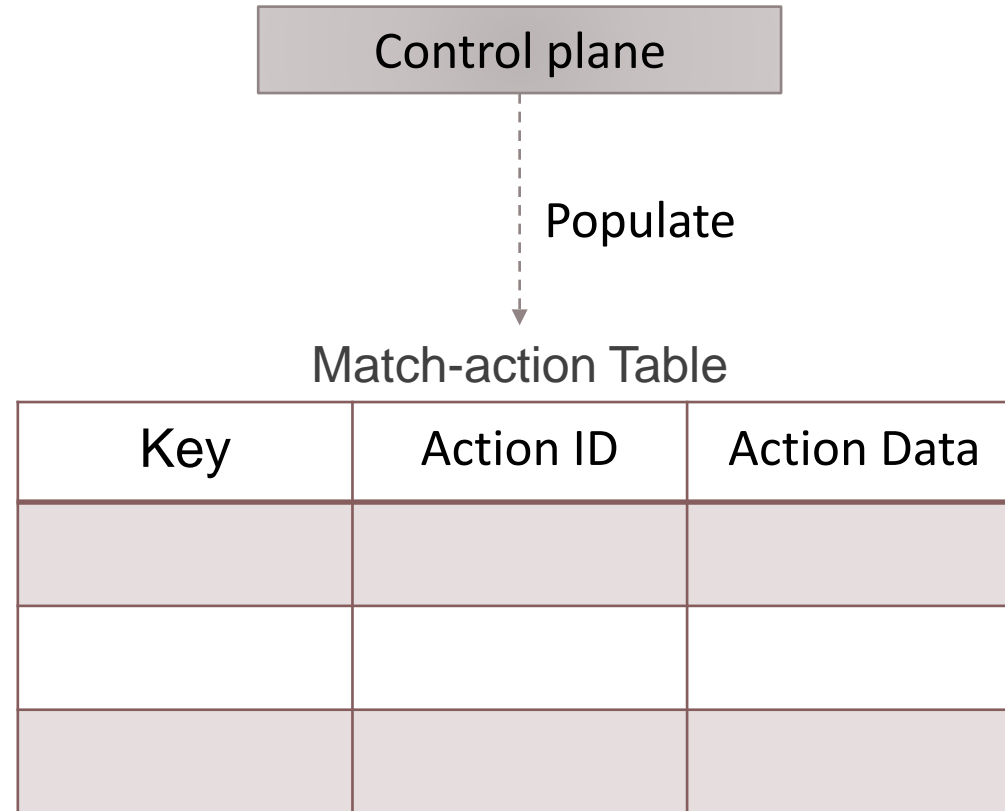
# Match-action Pipeline

- Tables define the processing logic inside the match-action pipeline
- They can be used to implement traditional switch tables (e.g., routing, flow lookup, access-control lists)
- They can implement custom user-defined complex logic

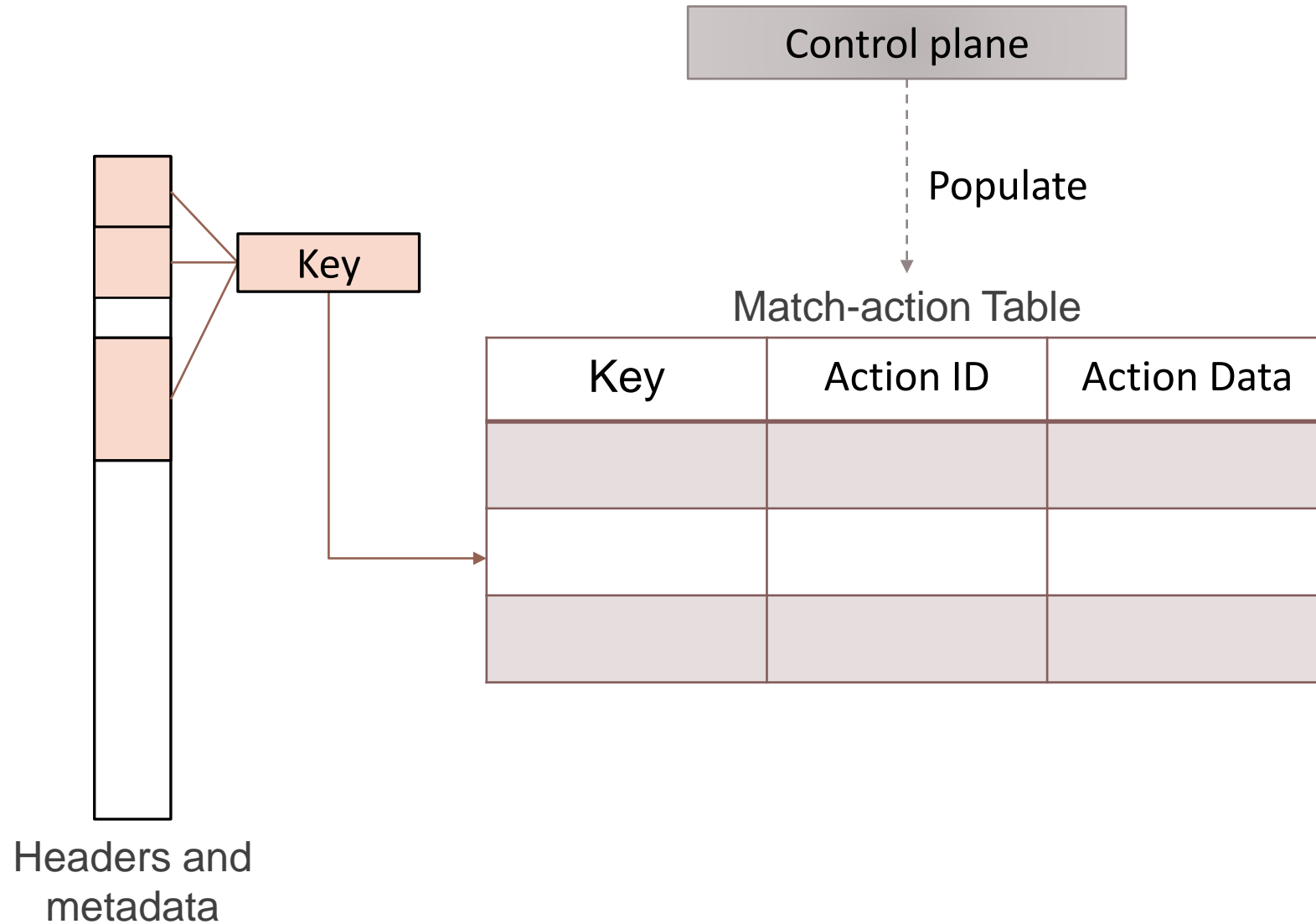


# Match-action Table

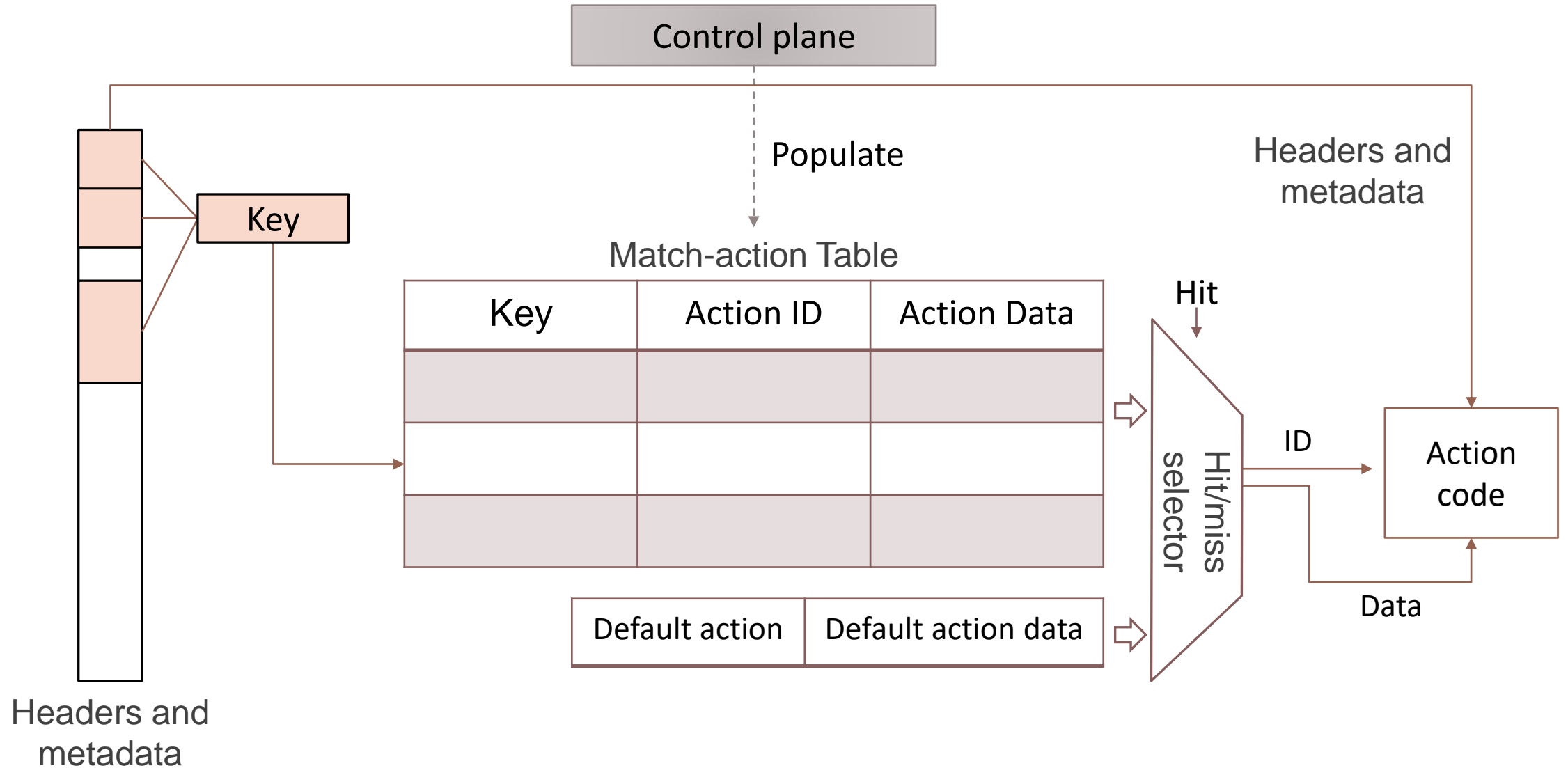
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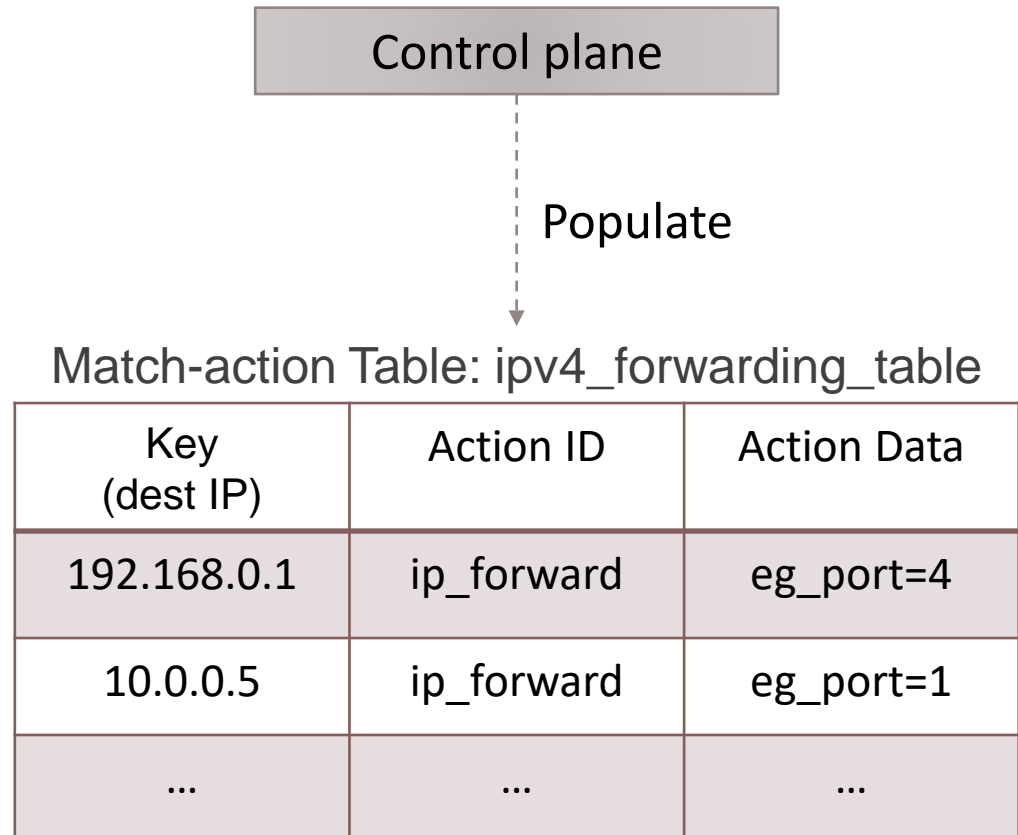
# Match-action Table



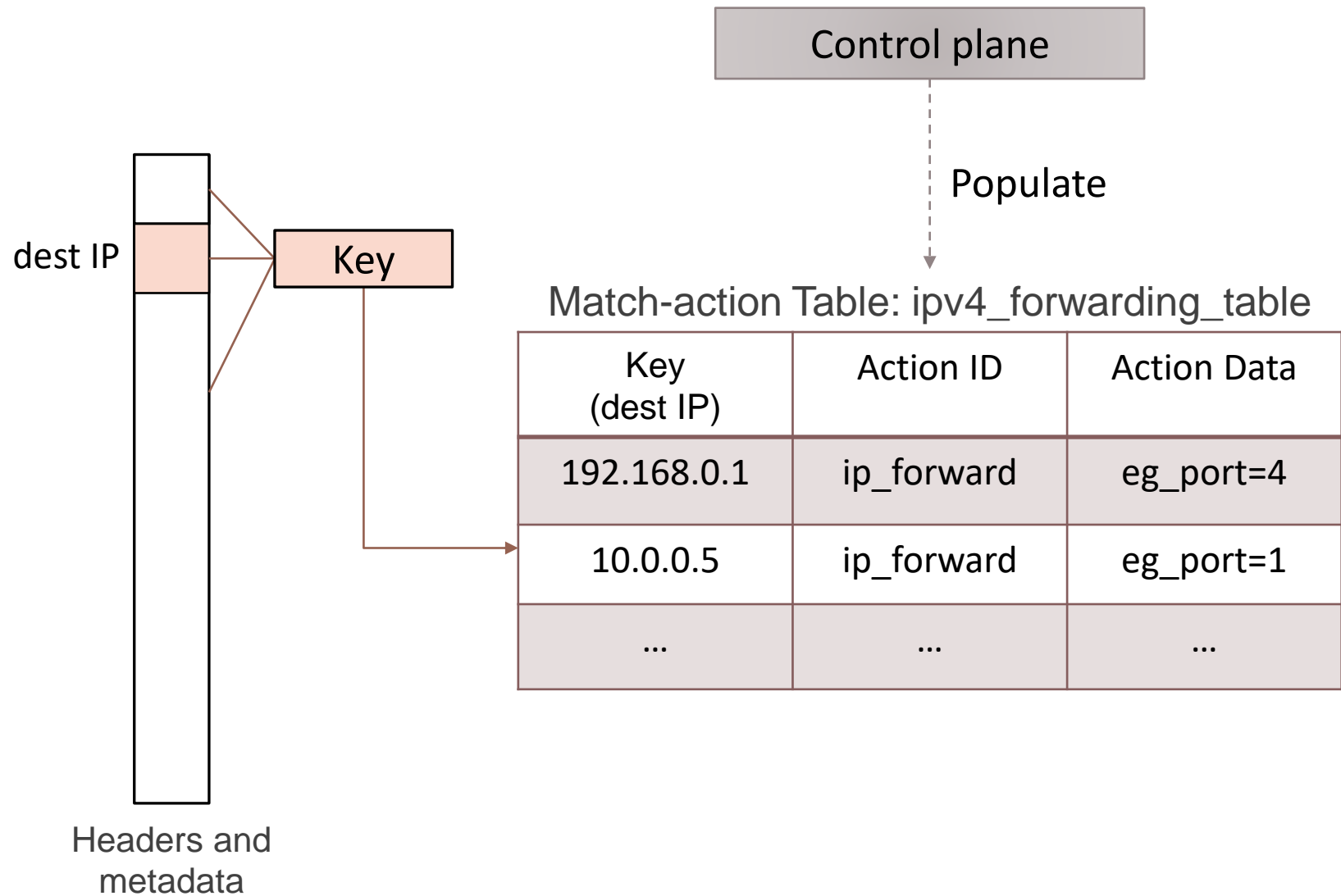
# Match-action Table



# Example: IPv4 Forwarding

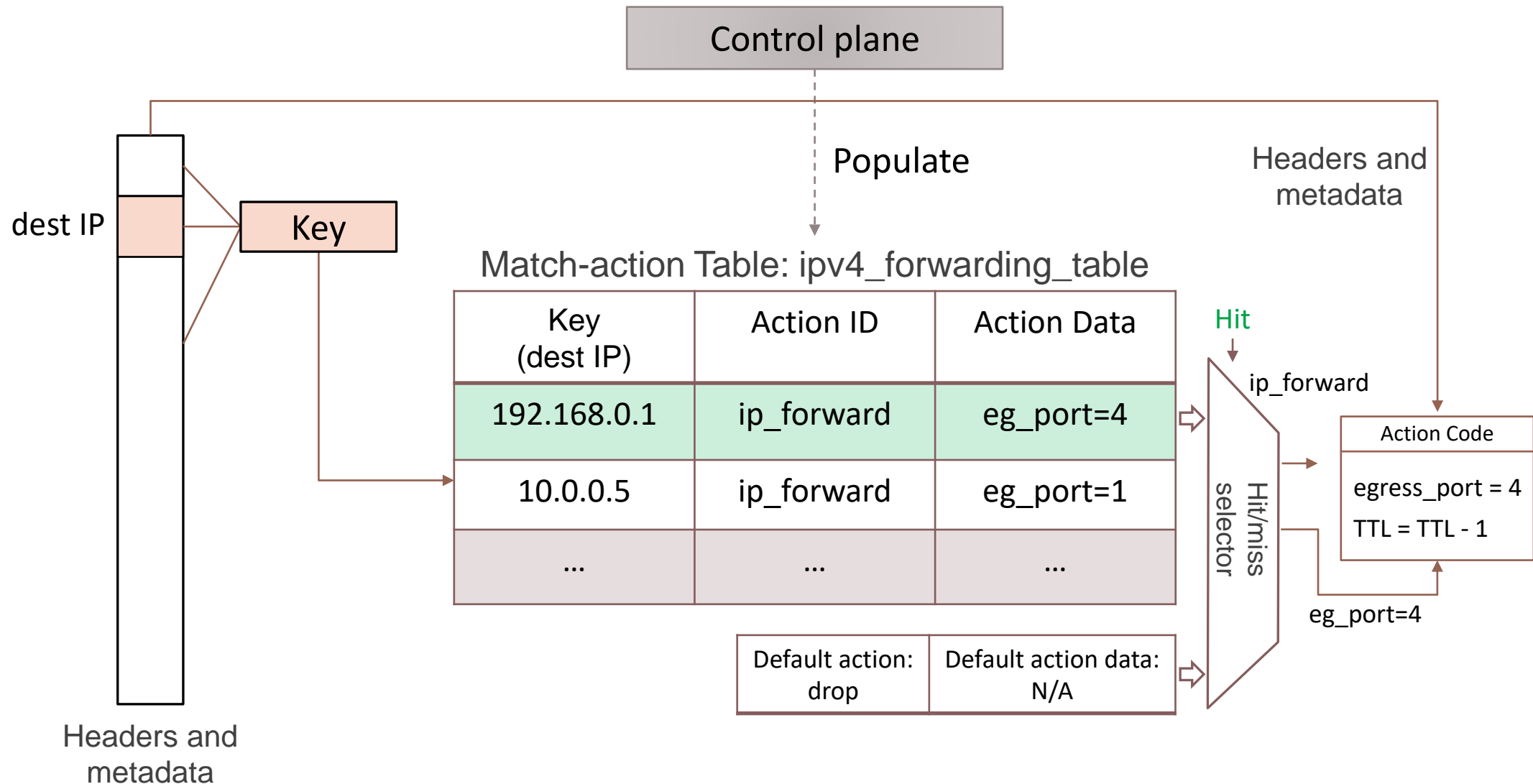


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# Lab Topology and Objectives

- The topology consists of two hosts: h1 and h2; one P4 switch: s1
- Implement a table that matches on the destination IP address in the packet headers using the exact match
- Assign the output port based on the matched IP address

