

## 1. A Survey of Service Function Chains Orchestration in Data Center Networks

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**Abstract:** Service Function Chaining (SFC) is a hot topic in the research field of network function virtualization(NFV). At present,there are many research results related to SFC Orchestration. Emerging trends such as 5G, Internet of Things, Smart Cities, and Industry 4.0 require the dynamic composition of end-to-end services in data center network (DCN) that can meet stringent performance, cost, and flexibility requirements. Therefore,this paper focuses on the SFC orchestration solution in the DCN scenarios. This paper first presents a survey of current researches in SFC Orchestration algorithms respectively from Intra-DC and Inter-DC scenarios. And the related problems in the whole process of SFC Orchestration are described, Moreover, The approaches to solve the problem of SFC orchestration are comprehensively analyzed. At last, several future research directions are proposed. © 2020 IEEE.

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