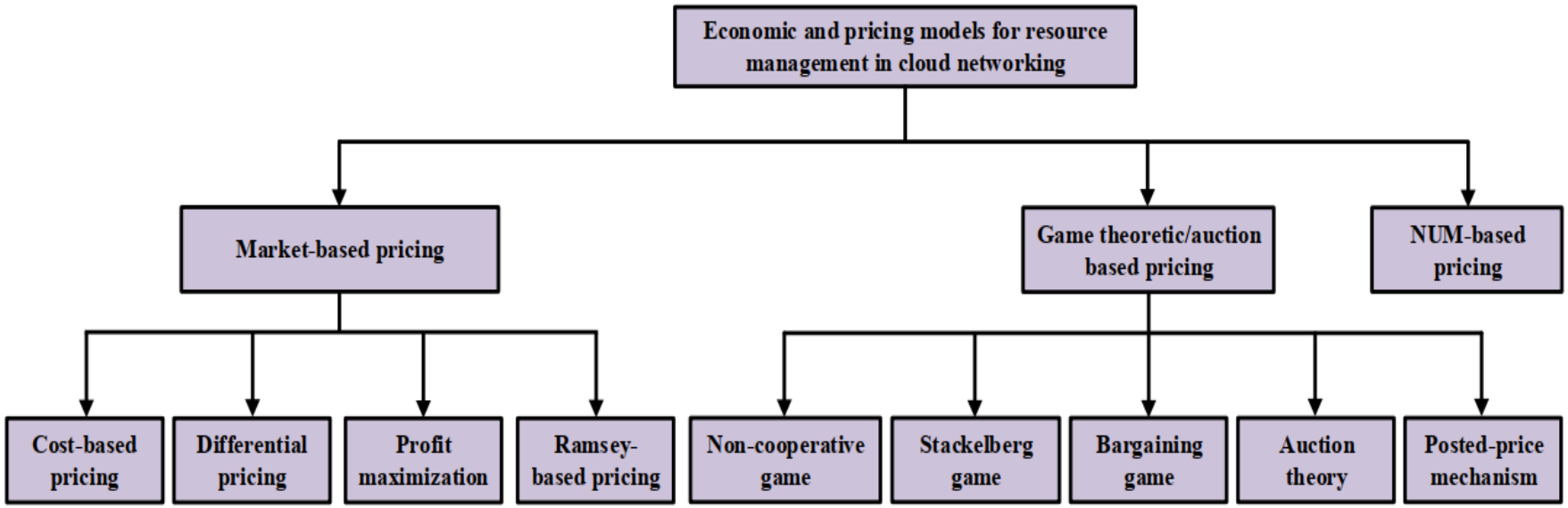
Summary on" Resource Management in Cloud Networking Using Economic Analysis and Pricing Models: A Survey"



Pricing models

- Market-based pricing: single-objective: singe-agent centric e.g., the service provider or the user), the service providers and users not equal
  - Cost-based pricing: no optimization, ensure the service provider profitable
  - Differential pricing: a special cost-based pricing with discrimination
  - Profit maximization: an optimal price for the service providers (maximize the service provider's prfit)

    - Ramsey-based pricing: maximize the social welfares of the users while ensure the service provider profitable

- Game theoretic/auction-based pricing: multiple agent centric, the service provider and the users equal and competitive (or collaborative)
    - Non-cooperative game: the players (service provider and the users) announce their strategies simultaneously and know the strategies of the others
    - Stackbelberg game: leader-follower paradigm, the players announce their strategies sequentially (in some order). The players know the strategies of the others
    - Bargaining game: some players reach an agreement regarding the distribution of monetary profit
    - Auction: establish the price through the bidding process
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- Posted-price mechanism: the sellers arrive in a sequential order, set the price for the commodities of the seller based on the buyer's response

- NUS-based pricing: searching for a price to maximize the social welfares of the users (or the users and the service providers)

Future directions

- Security
    - False-name bidding: the users use several fake ID to bid to gain profits
- Collusion in auction: the users collude with each other to suppress the market