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(54) **Title:** SYSTEMS, METHODS, KITS, AND APPARATUSES FOR MANAGING VALUE CHAIN NETWORKS IN SYSTEM OF SYSTEMS

(57) **Abstract:** Methods and systems described herein may provide control towers and/or mini control towers and/or digital twins to manage a value chain network (VCN). Information associated with a set of value chain network entities of a VCN may be received from a variety of sources. That information may be provided to a set of Artificial Intelligence (AI)-based learning models. The AI-based learning models may use that information along with the control towers and/or mini control towers and/or digital twins to determine a potential risk in the VCN, to determine a potential action to take in the VCN, to configure intelligent procurement in the VCN, to configure predictive sourcing in the VCN, to automate VCN entities, to instruct smart machines in the VCN, and to configure robotic process automation in the VCN.