Study on Interlocking Device on Cloud Computing Environment

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We report our study and proposal on interlocking devices in a cloud computing environment, which realizes resilience, reduction of time and cost for replacement, and provides the interlocking process as a service. The proposed system has the feature of processing interlocking logics of different stations independently. The proposed system has three layers: terminal devices to interface track circuits, signals, and switches, etc., logic units to process interlocking logics, and controllers to assign the interlocking table to logic units. We defined the specification of the terminal devices, logic units and controllers, and carried out verifications on them.