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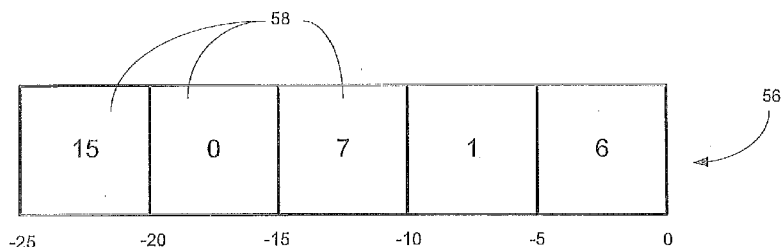


Fig. 5

(57) **Abstract:** To provide overall security to a utility management system, critical command and control messages that are issued to components of the system are explicitly approved by a secure authority. The explicit approval authenticates the requested action and authorizes the performance of the specific action indicated in a message. Key components of the utility management and control system that are associated with access control are placed in a physical bunker. With this approach, it only becomes necessary to bunker those subsystems that are responsible for approving network actions. Other management modules can remain outside the bunker, thereby avoiding the need to partition them into bunkered and non-bunkered components. Access to critical components of each of the non-bunkered subsystems is controlled through the bunkered approval system.