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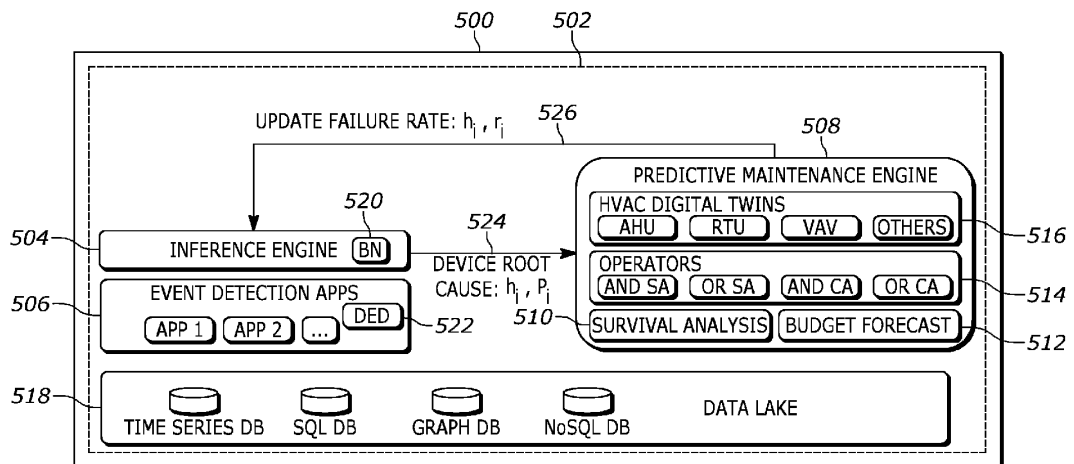


FIG. 5

(57) Abstract: Methods for predictive maintenance with using machine learning in a building automation system (100) and corresponding systems and computer-readable mediums. A method includes receiving (1902) device event data (522) corresponding to a device (112) and executing an inference engine (522) to determine root cause fault data (524) corresponding to the device event data (522). The method includes executing (1906) a predictive maintenance engine (508) to produce a survival analysis (402, 406, 410, 1604) for the physical device (112) based on the root cause fault data (524). The method includes producing (1910) updated failure data (526) by the predictive maintenance engine (508), based on the survival analysis (402, 406, 410, 1604), and providing the updated failure data (526) to the inference engine (522). The inference engine (522) thereafter uses the updated failure data (526) in a subsequent root cause analysis. The method includes outputting (1912) the survival analysis (402, 406, 410, 1604).

[Continued on next page]

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