Defects in production software can incur heavy damage to a business operation; yet most current approaches to software security assessment focus primarily on new code development. The paper aims at introducing a strategic approach for reducing the operational security risk. The familiar top-down structured development process used by internal development groups is totally inappropriate for risk analysis of production software systems. And generally the cost of finding and fixing a bug in a production system is regarded as too high. So there is an imperative necessity to focus on approaches tailored specifically for production software systems which is the one attempted here.
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**Index Terms**

Computer Science

Software Engineering

**Key words**

Risk

Production Software System

Security Risk

Vulnerability

Software Components