

POI Event

Critical Component

OS Kernel
System Auditing

Backward
Causality Analysis

Dependency
Graph

Edge Merge

Dependency Weight
Computation

Feature Extraction

Weighted
Dependency Graph

Dependency Impact
Back-Propagation

Forward Causality
Analysis

Entry Node
Ranking

Phase I: Dependency Graph Generation

Phase II: Dependency Weight Computation

Phase III: Critical Component Identification

