Closed Loop Incident Process Solution (CLIP)

HP Universal CMDB – HP Service Manager –
HP Business Service Management – HP Operations Orchestration

Solution Version: 9.0

Solution Concept Guide

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Table of Contents

Welcome to This Guide

This guide provides general information about the Closed Loop Incident Process (CLIP) solution—what the solution can accomplish and for whom.

This chapter includes:

Note: If you have any feedback or comments about this document, please contact solutionpackagingandscp@hp.com.

How This Guide Is Organized

This guide contains the following chapters:

Chapter 1 Introduction to CLIP

Provides a brief description of the Closed Loop Incident Process (CLIP) solution and illustrates a typical deployment.

Chapter 2 CLIP Customer Scenario

Provides a sample customer scenario implementing the CLIP Solution capabilities. This section demonstrates what you can achieve with this solution.

Who Should Read This Guide

This guide explains the motivation to install and use the CLIP solution. It describes what the solution implementation will achieve, which ITIL processes it will answer, and describes the workflow between the products comprising the solution.

This guide is intended for:

- Customers
- Presales and sales personnel
- PSO
- Anyone who wants to learn about the solution, its workflow, and its contribution

The information in this guide may duplicate information available in other CLIP documentation, but is provided here for convenience.

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Introduction to CLIP

This chapter includes:

Concepts

Reference

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Concepts

CLIP – Overview

One of the objectives of IT organizations today is to maintain certain levels of service availability, as defined in the contracts between the IT organization and their customers. To do this, IT organizations aspire to reduce the Mean Time to Recovery (MTTR), as well as increasing the Mean Time between Failures (MTBF). The implementation of proactive and predictive service operation solutions can assist in fulfilling this objective, as well as other objectives by which the IT organization is measured.

The solution detailed in this document describes the Closed Loop Incident Process (CLIP), a solution that implements two linked Information Technology Infrastructure Library (ITIL) processes—Event Management and Incident Management. This solution enables an IT organization to:

- Reduce the recognition and diagnostic times of incidents
- Reduce the workload on Tier 1 Agents by automatically creating and escalating incidents to Tier 2
- Reduce repair and recovery times by suggesting possible resolutions
- Detect suspect behavior (also known as warning events), allowing problem resolution before thresholds are breached and reducing the number of incidents (exceptions)

CLIP Solution

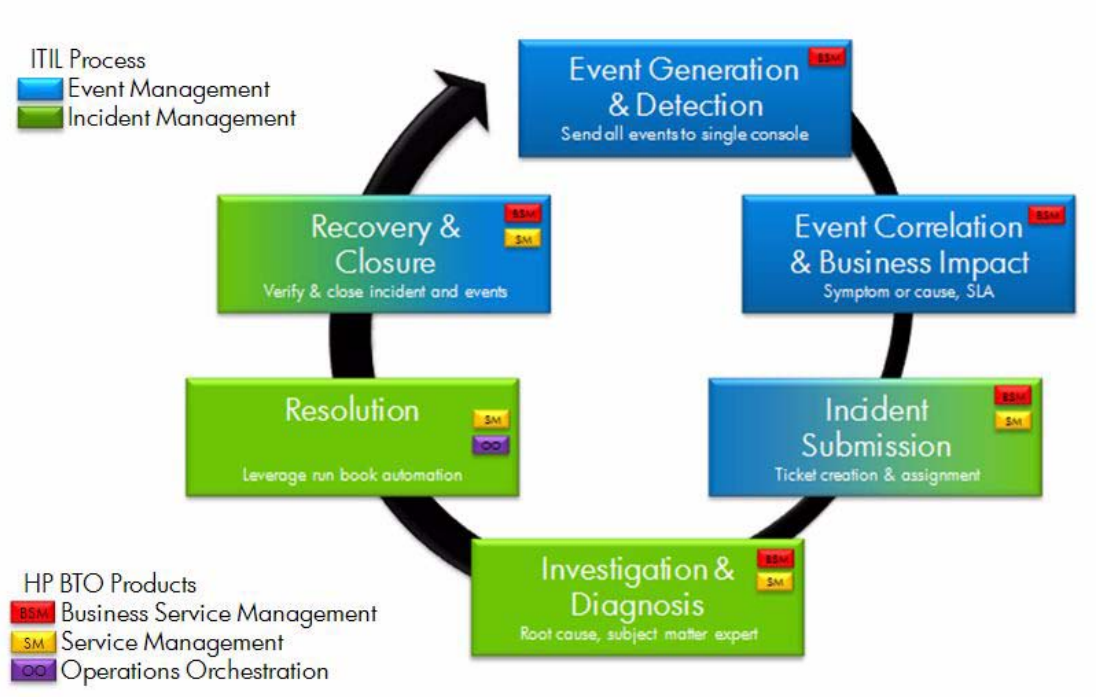
The CLIP solution is comprised of four individual, but integrated products that are brought together. The products that comprise the CLIP solution are:

- HP Universal CMDB (UCMDB)
- HP Service Manager (Service Manager)
- HP Business Service Management (BSM), including HP Operations Manager *i* (OMi)
- HP Operations Orchestration (OO)

For deployment and configuration instructions, see the *Closed Loop Incident Process (CLIP) Deployment and Configuration Guide*.

CLIP 9.0 Solution Flow Diagram

The following diagram displays a high-level description of the major steps in a CLIP flow, implemented by the corresponding ITIL processes.



Personas

The main personas in the following CLIP core story line are as follows:

- Event Console Operator

  Part of the Enterprise Operations Center (EOC). Responsible for identifying exceptions in critical application, system, and network behavior in order to assure maximum application availability for IT customers.

- Business Service Owner

  Responsible for defined availability and performance levels of the application. If there is a problem with the application's operation, responsible for notifying the customers, as well as validating that the problem is handled and will be resolved according to the agreed service level.

- Tier 1 Service Desk Agent

  Responsible for receiving and logging customer/user interactions, as well as contacting them in order to verify/notify resolution of their issues.

- Tier 2 Service Desk Agent

  (also known as Domain Specialist) Part of Level 2 support. Provides more technical expertise in specific fields and escalates to the relevant Tier 3 representative when necessary.

- Tier 3 Service Desk Agent

  (also known as Domain Expert) Part of Level 3 support. Provides even deeper technical expertise in specific fields in order to resolve incidents and perform root cause analysis for problems.

Reference

Terms and Definitions

Business Impact

Composed of associated business services and applications, the status of Service Level Agreements (SLAs), the current operational state of the business services and applications.

Configuration Item (CI)

Any component that needs to be managed in order to deliver an IT service. Information about each CI is recorded in a configuration record within the Configuration Management System and is maintained throughout its life cycle by Configuration Management. CIs typically include IT services, hardware, software, buildings, people, and formal documentation such as process documentation and SLAs.

Information Technology Infrastructure Library (ITIL)

Collection of volumes intended to assist and promote effective and efficient IT service management practices in organizations.

Enterprise Operations Center (EOC)

Central or regional location for monitoring the organization's IT operations.

Incident Management

Process responsible for managing the life cycle of all incidents. Primary objective of incident management is to return the IT service to users as quickly as possible.

Event Management

Process responsible for managing events throughout their life cycle. One of the main activities of IT operations.

Target CI

CI linked to the causal event/incident.

Suspect CI(s)

CI(s) thought to be the cause of the issue at hand.

Affected CI(s)

CI(s) that are impacted by the issue at hand. In most implementations, affected business CI(s) will give greater value to the operation's organization.

Operational Severity

Severity this issue was assigned by Business Service Management (BSM). The components of severity pertain to the seriousness of their effect on the quality of IT service(s) at hand (the Affected CI(s)).

Operational Business Impact

Business Impact this issue was assigned by BSM. Components of Business Impact pertain to the effect the issue has on the implementation of business processes.

Impact is often based on how service levels will be affected.

Impact and Urgency/Severity are used to assign priority.

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CLIP Customer Scenario

The story detailed in this document describes the Closed Loop Incident Process (CLIP), a solution that implements two linked ITIL processes—Event Management and Incident Management.

Concepts

➤ CLIP Use Case Solution on page 19

Tasks

➤ CLIP Customer Scenario on page 22

Concepts

CLIP Use Case Solution

The CLIP use case solution that follows consists of a main story—with variations.

➤ "CLIP Story—Incident Initiated from Event" on page 20

Assumptions and Notes:

- The story focuses on manual incident submission, which is considered the main flow. The automatic capabilities are described in the variation section following the main story.
- Incidents that require changes should be handled through the Problem Management process, which may result in the Change Management process. These two processes are not covered by the CLIP story.

CLIP Story—Incident Initiated from Event

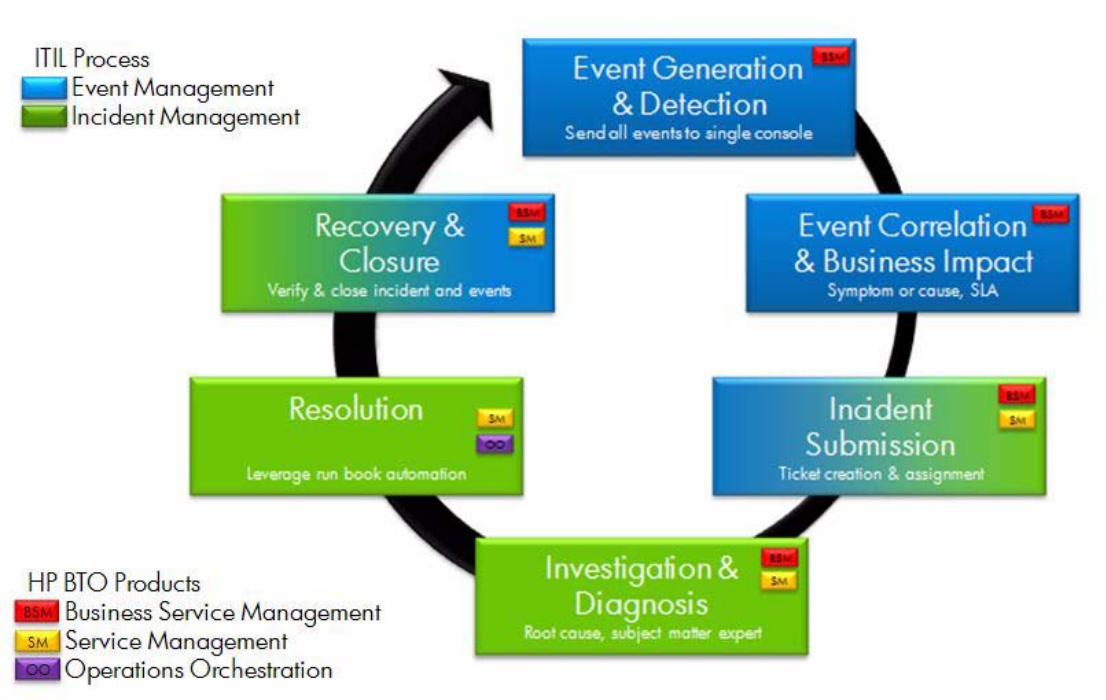
- "Story Overview" on page 20
- "CLIP Story Summary Diagram" on page 21

Story Overview

The main story describes an incident that originates from an event detected by the Business Service Management monitoring solution. This story consists of two parts—**from Event to Incident** and **from Incident to Recovery**. Variations of the story are described in a separate section following the story.

CLIP Story Summary Diagram

The following diagram summarizes the flow detailed in the CLIP story, as well as matching the relevant ITIL processes to the corresponding HP products that implement them.



Tasks

CLIP Customer Scenario

This task illustrates the CLIP story.

➤ "CLIP Story—Incident Initiated from Event" on page 20

CLIP Story—Incident Initiated from Event

Story Main Flow

➤ "Part 1—From Event to Incident" on page 22

➤ "Part 2—From Incident to Recovery" on page 23

➤ "Story—Variations" on page 24

Part 1—From Event to Incident

1 The Event Console Operator receives multiple infrastructure events in the BSM Event Console, indicating that at least one Configuration Item (CI) is at fault.

2 The event-based correlation engine deduces that the events are related to the same underlying cause and are, therefore, symptoms of the same issue. These events contain (in addition to the severity as reported by the CI) a calculated business priority that is associated with the event and is based on an evaluation of the Business Impact.

3 The Business Service Owner of the impacted application/service receives an email notification that the application/service has performance issues. He is now aware of the issue and can respond to his customers, or even notify them in advance that there are certain performance issues.

4 The Event Console Operator is presented with a clear representation of the causal event and does not need to deal with mass quantities of separate events and manually correlate between them. Alerts can be generated to the relevant owners based on the correlated events.

5 The Event Console Operator first gets a deeper understanding of the event's Business Impact by accessing the BSM Service Impact Report. This report supplies the Event Console Operator with the affected business services and associated service level agreements.

6 As the Event Console Operator was not able to resolve the issue, he transfers the ownership to the Service Desk by manually creating an incident in the Service Desk ticketing system from within BSM (the resulting incident will be automatically associated with the event).

7 In the Event Console, the Event Console Operator can see that an open incident is linked to the event. He can, in turn, drill into the incident details in order to track its progress and get further details regarding its nature.

Part 2—From Incident to Recovery

8 A Tier 2 Service Desk Agent was automatically assigned to handle the incident.

Note: In parallel, the Event Console Operator sees that the incident's **Owner** field has been updated in the Event Console.

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9 The Tier 2 Service Desk Agent starts by validating the updated status of the Business Impact in order to get the most recent picture of how the event is affecting business services and SLAs. For that purpose, he accesses the BSM Service Impact Report from the incident. He then accesses the related event information by opening a BSM Event Details window from within the incident. At the end of this process, the Service Desk Agent categorizes and prioritizes the incident accordingly.

Note: In parallel, the Event Console Operator sees that the incident's state is **In Progress** in the Event Console.

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10 He then searches SM Knowledge Management to try and find related articles and possible solutions. He finds a related article, with an OO Flow attached to it.

11 He executes the OO Flow in order to resolve the incident. The result is attached to the incident record.

12 Once the resolution is applied, the agent changes the incident's status to **Resolved**.

Note: In parallel, the Event Console Operator sees that the incident's state has changed to **Resolved** in the Event Console.

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13 The incident is then closed according to the Service Desk policy.

Note: The Event Console Operator sees that the incident status has changed to **Closed**.

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14 Positive follow-up events indicating that the normal behavior has been restored arrive at the Event Console.

15 The event-based correlation engine correlates the positive events to the original events and closes them automatically.

16 The Business Service Owner receives an alert that the application is behaving as expected.

Story—Variations

➤ **Step 5:** The event can automatically launch OO Flows for diagnostic purposes. The results may assist the operator in understanding the nature of the fault. Moreover, the issue can be resolved using OO Flows or OM tools provided within the event.

- **Step 6:** The incident can be automatically opened when the triggering event fulfills specific criteria. Moreover, the event can be manually associated to an existing incident.
- **Step 8:** The incident can be first handled by a Tier 1 Service Desk Agent, who will dispatch it to the relevant Tier 2 Service Desk Agent.
- **Step 12**: The incident may be automatically resolved based on positive follow-up events.
- **Step 13**: The incidents can be closed automatically after a certain period of time has elapsed from resolution.
- **Step 15**: The incidents can be closed automatically after a clear event has arrived indicating that behavior is back to normal or the events can be closed manually by the Event Console Operator.

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