HP UCA Automation

UCA Automation

Version 1.0

Release Notes

Edition: 1.1

For Linux (RHEL 6.4) Operating System

November 2013

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Preface

These Release Notes describe critical information related to the HP UCA Automation product.

Product Name: UCA Automation

Product Version: 1.0

Kit Version: V1.0

Please read this document before installing or using this Software.

Intended Audience

Here are some recommendations based on possible reader profiles:

- Solution Developers
- Software Development Engineers

Software Versions

The term UNIX is used as a generic reference to the operating system, unless otherwise specified.

The software versions referred to in this document are as follows:

Product Version	Supported Operating systems
UCA Automation 1.0	• Linux Red Hat Enterprise Linux Server release 6.4

Table 1 - Software versions

Typographical Conventions

`Courier` Font:

- Source code and examples of file contents.
- Commands that you enter on the screen.
- Pathnames
- Keyboard key names

Italic Text:

- Filenames, programs and parameters.
- The names of other documents referenced in this manual.

Bold Text:

- To introduce new terms and to emphasize important words.

Associated Documents

- HP UCA Automation - Administration Guide
- HP UCA Automation - User Interface Guide
- HP UCA Automation – Installation Guide
- HP UCA Automation – System Integrator's Guide

Support

Please visit our HP Software Support Online Web site at www.hp.com/go/hpsoftwaresupport for contact information, and details about HP Software products, services, and support.

The Software support area of the Software Web site includes the following:

- Downloadable documentation.
- Troubleshooting information.
- Patches and updates.
- Problem reporting.
- Training information.
- Support program information.

Chapter 1

Introduction

In any typical service provider environment, there's always a need for isolation of network related issues and automated resolutions of the same. UCA Automation Software is positioned primarily to address this need. It is implemented as a combination of business rules engine and workflows engine. The system would involve the integration of HP Unified Correlation Analyzer for Event Based Correlation [UCA EBC] system [which provides business rules capability] and HP Service Activator [HPSA] [which provides activation capability] glued via the enterprise service bus called NOM [NGOSS Open Mediation].

Generally, in the resolution solutions available today, there's no separate layering between '*what resolution steps*' need to be carried-out upon the incidence of a specific issue and '*how these resolution steps are carried out*'. This mixed up implementation of processes which represent both *what* and *how* part of the logic on the top of workflow engines OR in some cases on top of business rules engines, makes the workflows or business rules very complex to develop, comprehend, debug and maintain [read as '*modify*' when a business decision changes – say support a new device type, support a new resolution command on the same device or support a new format of the output for an existing resolution command with an upgrade in device firmware].The problem would scale to unimaginable magnitudes considering the different technologies such as DWDM, SDH, DSL, MPLS, LTE [and legacies such as ATM, FR and X.25] and different layers / types of networks such as 'the transport', 'the access', 'the core' , 'the radio access' and so on.

UCA Automation Software which is a combination of both business rule engine and the workflow engine will enable a clear separation of **what to automate** and **how to automate**. All the complexities of actual automation such as how to access a network resource *[could* be a network element, an element component or an EMS or *NMS],* what it's credentials could be, which specific transport mechanism to use to connect to the resource, what specific OS version of the device are to be supported, what specific commands need to be sent, would be abstracted from the business rules. This would enable the administrators to **create-update-read** the business rules with **utmost clarity** and **maintain** them **efficiently**. This would empower the administrators to store the knowledge gained regarding the automation in the form of business rules focusing on **what part** without bothering about the **how part**. One another advantage of UCA Automation software is, for most of the resolution automations – it would require the operator only to know business rules and he need not have knowledge of the business rules technologies to implement day to day operational changes to the decisions.

Thus UCA Automation System is a platform for building value added resolution automations based on a judicious combination of business rules and workflows.

Features

1.1 Network and Service care: resource and service trouble management

One of the key features of UCA automation system is to provide both automatic and manual resource and service trouble management. The primary task which the administrator of the system is expected to perform is to identify all the problems in a specific domain and the corresponding automations associated with them. For building more complex resolutions in which the problem could span through different technologies and layers of network, he needs to design a decision tree based on his needs.

UCA Automation system would work in the way depicted by the following diagram, starts with the original problem, performs tests after tests as per the decision tree design and would either resolve the problem or enrich the problem alarm with complete diagnosis of all the steps performed and can even create a trouble ticket automatically.

In case of manual resolution, the operator is presented a set of problems, the services they are associated with and the list of the types of devices which could support such services. Once the above triplet is chosen, the corresponding resolutions are displayed – which can be invoked manually.
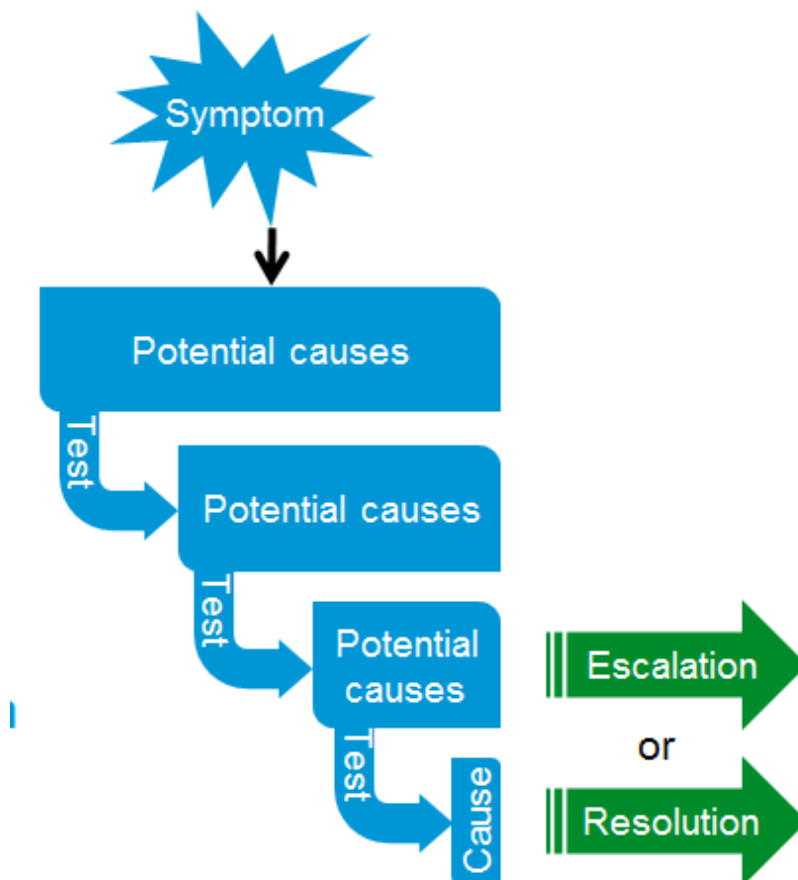
1.2 Decide, Act and Evaluate

In UCA Automation System, the process of problem resolution happens in the way depicted by the following diagram. The administrator or integrator of the system has the option to easily configure the decision tree without the need for any kind of programming. The **decide** and **act** subsystems work based on this configuration. In case the administrator needs to make advanced decisions based on the results of the previous tests, the platform allows him to write his own rules in the **evaluate** block.
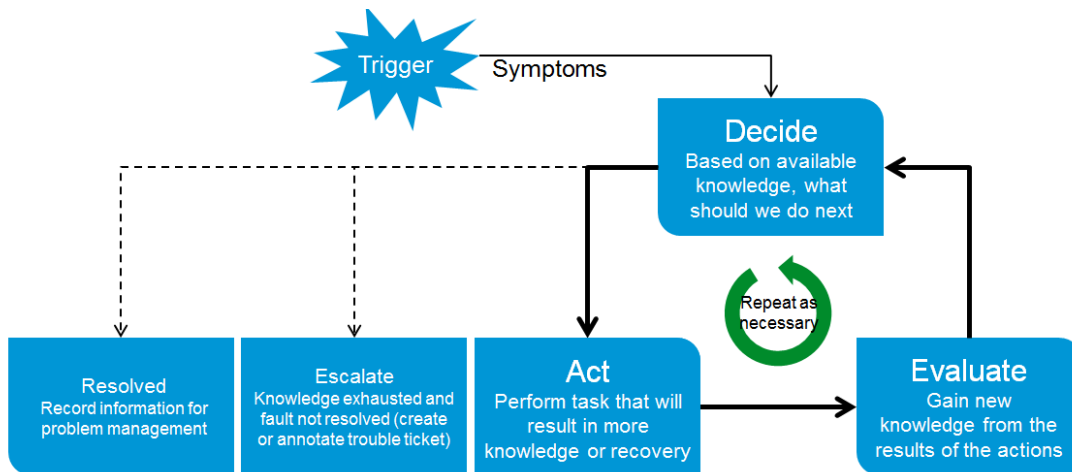
1.3 Open/closed loop automation

The operator has the ability to choose certain resolutions to be fully automatic and certain resolutions to be manual depending on the need. In case of open loop or semi-manual tests, the operator has the ability to view and modify the resolution parameters. In addition, the operator also has the ability to approve or dis-approve a resolution action.

1.4 Context-sensitive diagnostics

This feature is not a part of this 'intermediate release' but, would be a part of the upcoming general availability. This offers the integration capability with TeMIP client. It enables the TeMIP operators to selectively choose an alarm initiate resolution actions on the same. This results in the launch of a context sensitive resolution action based on the inputs present in the alarm chosen by the operator.

Chapter 2

Prerequisites

2.1 Web Client

- Microsoft Internet Explorer 9.0

2.2 Server Platforms

- Red Hat Enterprise Linux 6.4
    - UCA-EBC 3.0
    - HPSA V6.2-1A
    - UCA Automation Console UI 1.0
- Red Hat Enterprise Linux 5.8
    - NOM 6.2

2.3 Hardware

- X86-64 based system
- Atleast 4 GB of memory
- The database system requires space for an Oracle 11g or a PPAS database instance of atleast 4 GB for the product data

2.4 Software

HP UCA-EBC

- UCA for Event Based Correlation Server Version V3.0
- Java JRE/JDK 6 - 1.6.0.08 (or later)
- Red Hat Enterprise Linux Server release 6.4

HP Service Activator

- HP Service Activator version 6.2 - V6.2-1A
- Red Hat Enterprise Linux 6.4 for x86-64 and all available patches

- The ksh shell and X11

- Java SE update 37 JDK or later (version 6, but not version 7).

- Oracle 11g or Postgres Plus Advanced Server 9.2. The database may be installed on the same server or may be accessed remotely (but it must be located in the same subnetwork). You may also use an existing database that is already used by another application. In that case, you need to create a new database user (if Oracle is used) or a new database instance (if Postgres Plus Advanced Server is used) for exclusive use by Service Activator and UCA Automation.

UCA Automation Console UI 1.0

- Red Hat Enterprise Linux Server release 6.4

- Java JRE/JDK 6 - 1.6.0.08 (or later)

NOM

- Red Hat Enterprise Linux Server release 5.8

- The TeMIP Channel Adapter: if your solution involves TeMIP

- NOM Basic SMX Components

- OSS Open Mediation V6.2

- UCA for Event Based Correlation Channel Adapter V3.0

Chapter 3

Known Problems

Reference / Severity	Component	Description	Solution/Suggested workaround
CR 10626 (Low)	UCA Automation Console	The user selected records in the monitor UI are lost because of auto refresh	Set the AutoRefresh option to off to avoid auto refresh of page
CR 10629 (Medium)	HPSA Inventory Tree	When we perform Export Action, we have to provide the absolute path and the filename to capture the Actions XML data.	We must only give the path in the HPSA server, else it throws exception. It should not be the path in the system from where HPSA console has been launched.
CR 10712 (Low)	UCA Automation	Uninstalling UCA Automation removes the license file also.	None. The license copy backup can be maintained.

Table 2 - Known Problems

Chapter 4

Known Limitations

Reference / Severity	Component	Description	Solution/Suggested workaround
Low	Neo4j	Clicking on the Topology View from UCA Automation console launches the Neo4j data browser. Clicking on the icon may not open the graph.	In IE, go to Tools → Compatibility View Settings, and uncheck the option "Display intranet sites in Compatibility View".

Table 3 - Known Limitations