**IT**



**4690 Remote Management of Assets**

**(RMA) – Lite   
Design Overview**

**Version 0.1  
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# Preface

The Boots UK IT Service Desk currently logs on average 30,000 incidents a month on behalf of its customers (BTC Stores), of these around 20,000 are related to hardware or software within the Boots Store environment.

Currently a high percentage of these are the result of the customer contacting the IT Service Desk to log an incident with only a small number automatically generated through alerting technology. The impact is that the IT Service team is operating in the most reactive state possible resulting in extended downtime for the customer eventually leading to lost revenue.

The retail landscape is quickly changing. Retail systems once included the point-of-sale (POS) device used at the end of the shopping experience. Now, retail systems include new devices that present the customer with technology at every step of the in-store experience. A wide range of devices – including handhelds, kiosk, Pin Entry Devices, RF Access Points, Printers and Scanners have introduced several unique needs.

There is a need for extensive, seamless and complete integration with the rest of the infrastructure, including elements that are located within the store, as well as those at the enterprise. It is imperative that these devices remain in service and function as intended. When devices do fail, these failures must be detected and promptly corrected, or the failures be predicted before they occur. This presents a strong need for manageability.

Systems management can be thought of as the ability to control, configure, update and monitor a device (in real time when possible) from outside the device. An operator or an application can monitor and maintain the health of a device with this functionality, taking corrective action when needed. This management is aimed at keeping the device in service. This is especially important in the retail space as a fully functional device means additional ability to serve the customer.

This Design Overview will help define the solution on the 4690 EPOS system using the IBM RMA so that high level estimates can be produced to enable the project to progress.

# Scope of Document

This Design Overview defines the high level context & technology for a light weight delivery of the solution for Stores. For a description of the long term strategic solution for 4690 RMA refer to the High Level Design for the full solution of RMA Alerting and Monitoring.

# Introduction

The IBM 4690 RMA solution is integrated into the 4690 Operating System. Its functionality is switchable via a configuration screen on the EPOS controller for local activation or via a configuration file for remote activation. In either case a controller reload is required to enable the capability. Some agent configuration is also required to control and filter what events and alert are sent to the centre. For the “lite” version the stores will be executing Version 6 Release 2 of the 4690 Operating System. The General Agents run as an embedded agent in a Java Virtual Machine (JVM), as a system service on a 4690 EPOS Controller**.**

**The 4690 RMA Agents** provide the framework for moving store systems inventory, events, configurations, updates, and monitoring data to management applications like IBM Director.

RMA V2 R6 consists of the following two Agents:

* RMA General Agent (GA) - Installed on the 4690 POS systems and supports Classic Mode.
* RMA Master Agent (MA) - Installed on a single system in the store, ISP or Enhanced Controller.

In the RMA-Lite solution the Master Agent is replaced by a JBean component in the DEC/MB that will transport events and messages from the RMA general agents to the centre. All the remaining features of the RMA Master Agent will be unavailable until we deploy the full solution at some point in the future once all the hardware dependencies have been resolved.

**DEC/MicroBroker** is a bespoke Boots development that wraps IBM Microbroker to provide an MQ based message transport. This will be used to send application and 4690 system events to the centre for real-time monitoring and alerting ahead of the full RMA implementation.

# List of Functions Provided

The RMA-Lite feature will deliver the following capabilities.

* The near-time transmission of 4690 events and alerts to the centre.
  + Application events
  + Terminal events
  + Hardware events
  + System events
* On-line / off-line notification of tills and controllers and a subset of devices.
* The DEC/MB plug-in will offer limited filtering capability to avoid flooding the network and dashboard.

# Changes to EPOS

The following changes will be applied to EPOS to enable RMA Lite.

* Enable RMA General Agents on the EPOS controller
* Deploy the DEC/MB RMA JBean Plug-In to EPOS controller
* Configure the message flows doe DEC to WMB at the centre.

# Context Diagram

