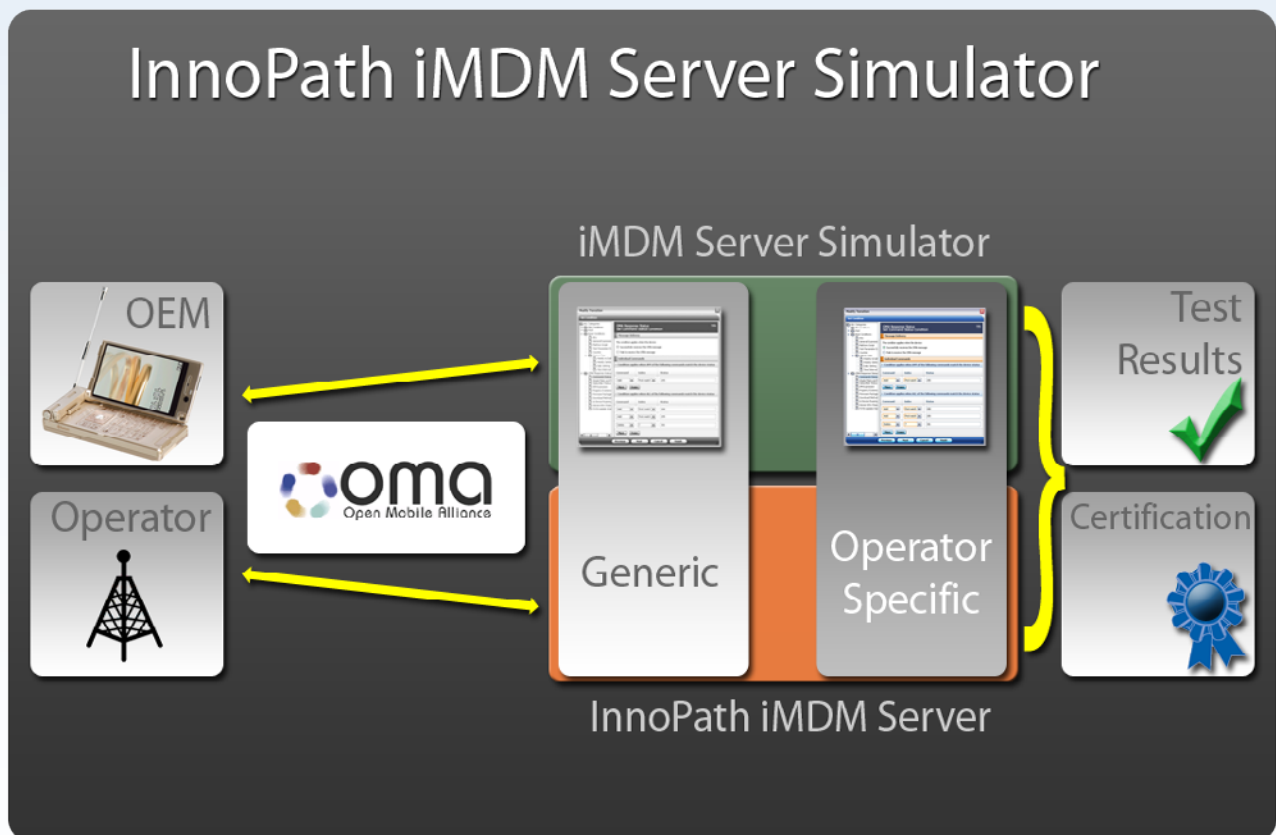


InnoPath iMDM Server Simulator

Handset manufacturers, working with their operator partners, share the goal of bringing new feature-rich devices to market on time with few, if any, bugs. The device management client on the handset must comply with operator device requirements and OMA-DM standards. As growing numbers of network operators are calling for new devices on their networks to be OMA-DM enabled, it becomes increasingly important for device makers to be able to deploy management clients on a variety of different handsets as they are introduced. In order to meet demanding time lines, it is critical for this ability to scale across multiple model lines and operating systems and to potentially hundreds of millions of handsets.

In support of these goals, the InnoPath iMDM Server Simulator builds upon the company's rich client-server device management and standards experience to offer operators and device manufacturers the industry's most complete OMA-DM validation platform. The iMDM Server Simulator, integrating InnoPath's core DM engine from its server suite, is offered as a software package designed to be installed on the premises of OEMs and operators wishing to 'self certify' their OMA-DM clients against a known reference configuration. It is the first phase in tiered certification that includes testing against standard OMA-DM servers as well as operator-specific configurations. InnoPath's Port to Production Program (iP2P) describes the complete program.

As depicted in the diagram below, the iMDM Server Simulator is designed to complement, but not replace, testing against actual OMA-DM servers. For example, server testing is still required for MDM application level functionality such as Configuration Verification, FOTA, and Application Management. Initially, the simulator will support generic OMA-DM testing, while operator-specific scripts will be developed based on operator requirements. The simulator may be considered a 'gate', verifying that a given OMA-DM client implementation is aligned with the standards before entry into the IOT phase. This eliminates any questions or backtracking later in the porting process.



InnoPath iMDM Server Simulator Features and Specifications

Testing Capabilities

- OMA-DM, OMA-DL and OMA-CP primitives
- Provides standard OMA test cases for OMA-DM, FUMO, OMA-CP and OMA-DL out of the box
- Setting delta package file size, type of messages, and host/client communication
- Sending package notification messages to the wireless device
- Sending package information and downloading package files to the device
- Legacy configuration settings
- Supports FOTA call flow
- Alert code support
- Provides SMPP support, to be able to connect to a SMSC
- Provides control over XML and HTTP headers sent to client

OMA-DM Compliance

Full compliance testing support for:

- OMA-DM 1.2
- FUMO 1.0
- OMA-CP 1.1
- OMA-DL 1.0
- OMA SyncML 1.2.1
- Operator specific specifications
- Includes negative test cases

Scripting Interface

- Run automated scripts based on xml and Java BeanShell
- Command wizard support
- Breakpoints

Conformance Testing

- OMA-ETS-DM-V1_2-20070717-C.pdf
- OMA-ETS-FUMO-V1_0-20061215-C.pdf
- OMA-ETS-ClientProvisioning-V1_1-20050722-A.pdf
- OMA-ETS-DL-OTA-v1_0-20040317-A.pdf

Plug-in support

- Extends base platform functionality

Reporting

- Generate reports for tests run
- Flexible logging

DCR Capture

- Interface to InnoPath DCR/DCMP. See relevant datasheet

Operator Customization

- Adapt test plans/cases to operator-specific device requirements

Hardware/Software Requirements

- HW: 2.0 GHz CPU, 4GB 667 MHz DDR2 SDRAM, 60GB HDD
- OS: Windows XP Professional SP2Java Version: 6.0
- Database: HSQLDB 1.8.0
- Application Server: Tomcat
- Device Management Engine: Latest available iMDM DME