



November 15-18, 2009, Santa Clara Marriott, Santa Clara, CA

# DASH 1.0 Conformance Program

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# Disclaimer

- The information in this presentation represents a snapshot of work in progress within the DMTF.
- This information is subject to change. The Standard Specifications remain the normative reference for all information.
- For additional information, see the Distributed Management Task Force (DMTF) Web site.



The DMTF was formed to lead the development, adoption and unification of management standards and initiatives for desktop, enterprise and internet environments



# Outline

- DMTF Initiatives, Conformance Programs, and the SMF
- DASH Initiative and Specifications
- DASH 1.0 Conformance Test Suite
- DASH 1.0 Conformance Program
- DMTF Certification Registry
- DASH 1.0 CP Appeals and Issue Review
- DASH 1.0 CP Current Stats
- Q&R



# DMTF Initiatives, Conformance Programs, and the SMF

- A DMTF Management Initiative focuses on a specific management domain and has
  - Technical components (Specifications, white papers, etc.)
  - Messaging components (Press, presentations, events, web, etc.)
  - Conformance and/or interoperability components
- DMTF Forums are chartered to deliver the “conformance and/or interoperability components” of Initiatives
  - System Management Forum (SMF) – DASH, SMASH
  - Common Diagnostics Mgmt Forum (CDMF) – CDM
  - Virtualization Management Forum (VMF) – VMAN
- SMF activities in support of DASH / SMASH Initiatives
  - Plugfests, development of conformance test suites and conformance programs, operation of conformance programs



# DASH Initiative's DASH 1.0

- DASH 1.0 is defined by DSP0232
  - DASH 1.0 Implementation Specification
- DSP0232 cascades references to other DMTF specifications including
  - WS-Man protocol specifications
  - DMTF CIM profile specifications
  - CIM schema specifications



# DASH 1.0

## Conformance Test Suite

- Source
  - Initial source contributed by SMF members
  - Maintained/distributed exclusively by SMF
- Execution
  - Runs on Linux
  - Configuration file for implementation-specific settings
  - Tests SUT via network connectivity
  - Runs autonomously once started
- Results
  - Produces directory hierarchy of test results, viewable via browser
  - Produces summary results
- Development/release
  - Development overseen by SMF
  - Release candidates validated by SMF; defects tracked via Mantis
  - Release candidate voted/approved by SMF for release to CP



# DASH 1.0 Conformance Program

- DSP5001 - Program rules, instructions, forms
- Conformance requirements
  - Relevant specifications and Allowed exceptions
  - Conformance Test Suite identification and CTS results interpretation
- Process overview
  - Administered by a third party Program Administrator
  - Participant signs and submits an Application (once per program)
  - Participant tests implementation, saves/submits results to Administrator
  - Program Administrator certifies results, publishes in Certification Registry
- Scope of certification
  - Conformance Test Results are certified that they were produced by the SMF's authorized CTS and that the results indicate that all Conformance Requirements stated in DSP5001 were met
  - Certification does NOT apply to the product, only the test results
- Registration of certification
  - Participant is allowed to register certification of results on DMTF web site
  - Results are organized by Product (Model/Version)
  - Results may be applied to other products sharing the same qualification
- Issue reporting and anonymous appeal processes



# Tested and Qualified Products

- Tested Product
  - Test Results are valid for the “Tested Product” only
  - Products are identified by the Participant using the keys “Product Name”, “Product Model”, and “Product Version”
- Qualified Product
  - The product feature, ingredient, or technology that enables the compliant behavior is referred to as the “Qualification”
  - If the Participant has another Product that shares a Qualification with a Tested Product, the Participant is allowed to submit a certification request for the “Qualified Product” based on the tested product results
  - The Participant signifies that the Qualified Product would pass the Conformance Requirements, if tested
  - The Product is listed in the Certification Registry as a Qualified Product, with a link to the Tested Product entry



# DASH 1.0

## Conformance Program Materials

- DSP5001
  - DASH 1.0 Conformance Program Policies Procedures
  - Specifies rules, policies, program conformance requirements, fees
  - Contains forms (Application Form, Submission Form)
- DASH 1.0 Participant Instructions
  - Procedure for collecting test results from DASH 1.0 CTS for submission to PA
- DASH 1.0 CTS v1.0.0
- DASH 1.0 CTS v1.0.0 EULA
  - Members: Software License Compliance Letter
  - Non-members: License “click-to-accept” at download



# DASH 1.0

## Conformance Program Process

- Company applies to participate in the program
  - Submits one Application Agreement per program
  - Pays any applicable Application Fee
- Company obtains the DASH 1.0 CTS from the DMTF web site provided by the PA
- Company tests its product
- Company submits test results using a Submission Form for the Tested Product
  - May submit additional Qualified Products
  - Pays any applicable per-Product Fees
- PA validates the Submission and Test Results
- If Conformance Requirements met and fees paid
  - PA adds details from the Submission Form to the DMTF Certification Registry



# Conformance Program Fees

## Fees and SMF Membership Dues

Membership Level	Conformance Program Fees		SMF Dues <sup>1</sup>
	Application	Per Product <sup>4</sup>	
SMF Leadership	N/C	N/C	\$25,000
SMF Participatory	N/C	\$200 <sup>3</sup>	\$5,000
Other DMTF members <sup>2</sup>	\$2500	\$500	N/A
Non-DMTF members <sup>2</sup>	\$3500	\$1000	N/A

(1) Does not include DMTF dues; (2) Available to non-SMF members at a later date, (3) N/C for 3 first products in a membership year; (4) Per-Product includes Tested and Qualified Products



# DMTF Certification Registry

- DMTF public site for publishing certifications
- All DMTF Conformance Programs represented
- All results are self-generated; the DMTF does not operate any labs or generate any reports
- Certification is a validation that the company
  - followed all the program procedures,
  - used DMTF-sanctioned tool to produce the results,
  - and the results meet Conformance Requirements
- URL: <http://registry.dmtf.org>



# DMTF Home Page: Finding the Certification Registry

All Conformance Programs that certify test results publish them in the DMTF Certification Registry

The Registry can be found under "Conformance"

A screenshot of the DMTF website home page as viewed in Internet Explorer. The browser's address bar shows "http://www.dmtf.org/". The website header includes the DMTF logo and the text "DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide." Below the header is a navigation menu with items: Home, About DMTF, Standards &amp; Technology, News &amp; Events, Learning Center, Conformance, and Join Us. The "Conformance" menu item is circled in red. Below the navigation menu is a main content area with a headline "Registration Open for DMTF's SVM '10" and a "Register Now" button. To the right of this section is a large graphic for "SVM'10 ONTARIO". Below the main content area are three columns of featured content: "Cloud Management", "Conformance Programs", and "Management Standards &amp; Technology". The "Conformance Programs" section is circled in red and contains a link to the "DMTF Certification Registry". At the bottom of the page, there are two news items: "Register Now for the 6th Annual Management Developers Conference" (dated Sep 17) and "DMTF's Open Virtualization Format Achieves ANSI Adoption" (dated Aug 31).

# Certification Registry: Landing Page



Free form text search of descriptive fields

Pre-defined queries of entries for each DMTF Conformance Program

Pre-defined queries of entries for each participating company, regardless of Program

List of program administrator email addresses, for companies interested in participating

A screenshot of the DMTF Certification Registry landing page, displayed in a Windows Internet Explorer browser window. The browser's address bar shows the URL 'http://registry.dmtf.org/'. The page header includes the DMTF logo and the text 'DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide.' There are links for 'Workspace' and 'Members Area'. The main content area features a banner for 'PRODUCTS &amp; CONFORMANCE PROGRAMS' and a search section. The search section includes a 'Keyword search' field with a dropdown menu set to 'With all of the words' and a 'Search' button. Below this is a 'Guided search' section with two categories: 'Standards' and 'Company'. Under 'Standards', there are links for 'Common Diagnostic Model (CDM) 1.0' and 'Desktop and mobile Architecture for System Hardware (DASH) 1.0'. Under 'Company', there are links for 'Dell, Inc. (11)', 'Hewlett-Packard Company (18)', and 'Intel Corporation (1)'. At the bottom, there is a 'Contact a Program Administrator' section with links for 'CDM 1.0 Program Administrator' and 'DASH 1.0 Program Administrator'. The footer contains copyright information and social media links for Twitter and RSS.



# Certification Registry: Company Page

Listing of all entries for a single company

Includes products across all DMTF Conformance Programs

Navigation pane down the right-hand side, allows modification of search parameters

The screenshot shows a web browser window displaying the DMTF Certification Registry website. The browser's address bar shows the URL: [http://registry.dmtf.org/registry/results/field\\_company%3A3A359](http://registry.dmtf.org/registry/results/field_company%3A3A359). The website header includes the DMTF logo and the text "DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide." Below the header, there is a navigation pane with a "Home" button and a "Certification Registry" button. The main content area is titled "Certification Registry: Hewlett-Packard Company" and shows a list of 18 results. The results are displayed in a table with columns for Product, Company, Standard, and Test Suite/Version. The right-hand side of the page features a search navigation pane with sections for "Current search", "Guided search", and "Keyword search". The "Current search" section shows the search criteria: "Company: Hewlett-Packard Company". The "Guided search" section shows the search criteria: "Company: all > Hewlett-Packard Company". The "Keyword search" section includes a search input field, a checkbox for "Search within results", and a "Search" button. At the bottom of the page, there is a "Contact Program Administrator" section with a message: "If you have any questions about certification for the products and standards listed here, please feel free to contact the program administrator for the standard in question:".

Product	Company	Standard	Test Suite/Version
HP Compaq 6000 Pro AIO	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 6005 Pro MT PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 6005 Pro SFF PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 6005 Pro USDT PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8000 Elite CMT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8000 Elite SFF	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8000 Elite USDT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8000f Elite USDT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8100 Elite CMT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq 8100 Elite SFF	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc5850 MT PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc5850 SFF PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 CMT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 SFF	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 USDT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Disk Drive Diagnostic	Hewlett-Packard Company	CDM 1.0	CDM 1.0 CTS Version 1.0.2
HP Z200 SFF Workstation	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Z200 Workstation	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0



# Certification Registry: Initiative Page

Listing of all entries for the selected Initiative Conformance Program

Displays the Initiative and the Conformance Test Suite version used for the submission

Program Admin email addresses at bottom

DMTF Certification Registry - Windows Internet Explorer

http://registry.dmtf.org/registry/results/field\_initiative\_name%3A%22DASH%201.0%22?page=1

DMTF DISTRIBUTED MANAGEMENT TASK FORCE, INC.  
DMTF enables more effective management of IT systems worldwide.

Workspace Members Area

Certification Registry

Home > Certification Registry: DASH 1.0

### Certification Registry: DASH 1.0

Results 21 - 29 of 29

Product	Company	Standard	Test Suite/Version
HP Compaq 8100 Elite SFF	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc5850 MT PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc5850 SFF PC	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 CMT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 SFF	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Compaq dc7900 USDT	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Z200 SFF Workstation	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
HP Z200 Workstation	Hewlett-Packard Company	DASH 1.0	DASH 1.0 CTS Version 1.0.0
Intel® Q45 Executive Series micro-ATX Board	Intel Corporation	DASH 1.0	DASH 1.0 CTS Version 1.0.0

Current search: Standards: DASH 1.0

Guided search: Company: Dell, Inc. (11), Hewlett-Packard Company (17), Intel Corporation (1)

Keyword search: Search within results, More options, Search

Contact Program Administrator

If you have any questions about certification for the products and standards listed here, please feel free to contact the program administrator for the standard in question:

- CDM 1.0 Program Administrator
- DASH 1.0 Program Administrator

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# Certification Registry: Tested Product Entry

One page per Product submitted by the company, either Tested Product or Qualified Product

Link to vendor's product-specific website

Link to Certification Record, which contains details about the Tested Product's test results

A screenshot of a web browser displaying the DMTF Certification Registry page for the Dell OptiPlex 580. The browser window title is "DMTF Certification Registry - Windows Internet Explorer". The address bar shows "http://registry.dmtf.org/products/dell-optiplex-0". The page header includes the DMTF logo and the text "DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide." There are links for "Workspace" and "Members Area". A navigation bar shows "Home > Dell OptiPlex 580". The main content area is titled "Dell OptiPlex 580" and lists "Dell, Inc." as the manufacturer, with the product type "Enterprise Desktop computer". A table lists various qualification details:

Qualification	Tested Product
Certification Record	<a href="#">Dell OptiPlex 580</a>
Model Number	580
Family Name	
Standard:	DASH 1.0
Test Suite/Version:	DASH 1.0 CTS Version 1.0.0
Protocol:	WS-MAN
Profiles Tested:	Base Desktop and Mobile Profile v1.0 CPU Profile v1.0 Fan Profile v1.0 Indications Profile v1.0 Physical Asset Profile v1.0 Power State Management Profile v1.0 Power Supply Profile v1.0 Profile Registration Profile v1.0 Role Based Authorization Profile v1.0 Sensors Profile v1.0 Simple Identity Management Profile v1.0 Software Inventory Profile v1.0 System Memory Profile v1.0

The footer contains copyright information: "Copyright © 2010 DMTF. All rights reserved." and links for "Policies", "Site Map", "Contact Us", and "Administrative Login". There are also social media icons for Twitter and RSS.



# Certification Registry: Qualified Product Entry

Qualified Product entries have link to Tested Product, as well as to the Tested Product's Certification Record

Link to vendor's product-specific website

Link to Certification Record, which contains details about the Tested Product's test results

A screenshot of a web browser displaying the DMTF Certification Registry website. The browser's address bar shows the URL "http://registry.dmtf.org/products/hp-compaq-6005-pro-mt-pc". The page header includes the DMTF logo and the text "DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide." Below the header, there is a navigation bar with a "Certification Registry" link. The main content area displays the entry for "HP Compaq 6005 Pro MT PC" by "Hewlett-Packard Company". The entry is categorized as a "Desktop PC" and lists various qualifications and test results. A table-like structure shows the following details:

Qualification	Meets qualifications of <a href="#">HP Compaq 6005 Pro SFF PC</a>
Certification Record	<a href="#">HP Compaq 6005 Pro SFF PC</a>
Model Number	
Family Name	6005 Pro
Standard:	DASH 1.0
Test Suite/Version:	DASH 1.0 CTS Version 1.0.0
Protocol:	WS-MAN
Profiles Tested:	Base Desktop and Mobile Profile v1.0 Boot Control Profile v1.0 CPU Profile v1.0 Fan Profile v1.0 Indications Profile v1.0 Physical Asset Profile v1.0 Power State Management Profile v1.0 Power Supply Profile v1.0 Profile Registration Profile v1.0 Role Based Authorization Profile v1.0 Sensors Profile v1.0 Simple Identity Management Profile v1.0 Software Inventory Profile v1.0 System Memory Profile v1.0

The footer of the page contains copyright information: "Copyright © 2010 DMTF. All rights reserved. | Policies | Site Map | Contact Us | Administrative Login" and social media links for "Follow DMTF on Twitter" and "RSS".



# Certification Registry: Certification Record

The Certification Record is the official posting of the Test Result for the Tested Product, showing the Test Suite version and the date tested

If there is a specific Qualification for the Product, it is described on this page

Link to vendor's product-specific website

Link to Tested Product page on right-hand side

The screenshot shows a web browser window displaying the DMTF Certification Registry page for Dell OptiPlex XE. The browser's address bar shows the URL: <http://registry.dmtf.org/certifications/dell-optiplex-xe>. The page header includes the DMTF logo and the text "DISTRIBUTED MANAGEMENT TASK FORCE, INC. DMTF enables more effective management of IT systems worldwide." There are links for "Workspace" and "Members Area". A navigation bar contains a "Home" icon and a "Certification Registry" button. Below this, a breadcrumb trail reads "Home > Dell OptiPlex XE".

## Dell OptiPlex XE

**Dell, Inc.**  
**Certification Info**  
Tested on Wed, 2010-05-19

**Tested System Configuration:**  
Product Name: OptiPlex, Model: XE, Version: BIOS A00, Vendor: Dell, Hardware Environment: Broadcom TruManage Network adapter

**Qualification:**  
Broadcom TruManage v12.4

Standard Name	Test Suite/Version	Protocol
DASH 1.0	DASH 1.0 CTS Version 1.0.0	WS-MAN

**Tested Product**  
[About tested products](#)

Product	Updated
Dell OptiPlex XE	18 Aug 2010

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# Appeals and Issue Review

- Issues are reported to the Program Administrator
- If the Participant has the option at issue submission to request that the issue be treated with anonymity
- Program Administrator brings issues to the Test Suite Authority
  - TSA comprised of SMF Leadership members
- Issues are reviewed by the TSA and dispatched as
  - Test Suite Defect – handled by SMF
  - Program Defect – handled by SMF
  - Specification Defect – handled by DMTF TC and Working Groups
  - Rejected
- Provisional Certifications
  - For acknowledged Test Suite Defects, Participants are granted a Provisional Certification
  - Participant obligation to retest when CTS release is available
- Participant may appeal any Rejected issues to the DMTF Technical Committee and, if desired, to the DMTF Board



# DASH 1.0 CP Current Stats

- March 15 – Opened to SMF members
- August 25 – Member results published at [registry.dmtf.org](http://registry.dmtf.org)
- As of November 8, 2010
  - 29 product results certified
    - 20 desktop system products
    - 8 mobile/laptop system products
    - 1 desktop system baseboard product
  - 3 companies represented



# DASH 1.1

## Conformance Program

- DSP0232 v1.1
  - i.e. “DASH 1.1”
  - Additional optional CIM Profiles (see right)
- Conformance Program Definition Phase started
- Targeting 2Q2011 for first CTS Release Candidate available to SMF members
- Profiles added
  - Battery
  - BIOS Management
  - DHCP Client
  - DNS Client
  - Ethernet Port
    - Host LAN Network Port
  - IP Interface
  - KVM Redirection
  - Media Redirection
  - Opaque Management Data
  - OS Status
  - Software Update
  - Text Console Redirection
  - USB Redirection



# Get Involved!

## Be an SMF Member!

- Join the SMF: <http://www.dmtf.org/join/smf>
  - Enrollment open to all DMTF members
  - Dues: \$25K Leadership, \$5K Participatory
    - Prorated; membership year runs April-to-March
- Use the SMF CTSs, report bugs
  - A win-win – improves test suite quality and improves your product’s “time-to-certification”
- Submit results, get certified
  - Certified results are important for your company
- Join—become *directly* involved!

# Q&R

