
Web Services for Management (WS-Management) Specification

*Spécification des services Web pour le management
(WS-Management)*

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194

Foreword

195 The *Web Services for Management (WS-Management) Specification* (DSP0226) was prepared by the
 196 WS-Management sub-group of the WBEM Infrastructure & Protocols Working Group.

197 This International Standard makes use of functionality similar to the following W3C
 198 Recommendations:

- 199 • Web Services Eventing (WS-Eventing)
- 200 • Web Services Transfer (WS-Transfer)
- 201 • Web Services Enumeration (WS-Enumeration)

202 These W3C Recommendations were not available at the time WS-Management was defined, and
 203 similar functionality was incorporated directly into provisions of the WS-Management specification.
 204 Future revisions of WS-Management might incorporate these functions by External Reference to
 205 these W3C Recommendations.

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 207 systems management and interoperability.

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Web Services for Management (WS-Management) Specification

1 Scope

The *Web Services for Management (WS-Management) Specification* describes a Web services protocol based on SOAP for use in management-specific domains. These domains include the management of entities such as PCs, servers, devices, Web services and other applications, and other manageable entities. Services can expose only a WS-Management interface or compose the WS-Management service interface with some of the many other Web service specifications.

A crucial application for these services is in the area of systems management. To promote interoperability between management applications and managed resources, this specification identifies a core set of Web service specifications and usage requirements that expose a common set of operations central to all systems management. This includes the ability to do the following:

- Get, put (update), create, and delete individual resource instances, such as settings and dynamic values
- Enumerate the contents of containers and collections, such as large tables and logs
- Subscribe to events emitted by managed resources
- Execute specific management methods with strongly typed input and output parameters

In each of these areas of scope, this specification defines minimal implementation requirements for conformant Web service implementations. An implementation is free to extend beyond this set of operations, and to choose not to support one or more of the preceding areas of functionality if that functionality is not appropriate to the target device or system.

This specification intends to meet the following requirements:

- Constrain Web services protocols and formats so that Web services can be implemented with a small footprint in both hardware and software management services.
- Define minimum requirements for compliance without constraining richer implementations.
- Ensure backward compatibility and interoperability with WS-Management version 1.0.
- Ensure composability with other Web services specifications.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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373 3 Terms and Definitions

374 For the purposes of this document, the following terms and definitions apply. The fact that a
375 normative term such as "shall", "shall not", "should", "should not", "may", or "need not" may be used in
376 text which does not have an associated rule number does not mean that the text is not normative.

377 3.1

378 **can**

379 used for statements of possibility and capability, whether material, physical, or causal

380 3.2

381 **cannot**

382 used for statements of possibility and capability, whether material, physical, or causal

383 3.3

384 **conditional**

385 indicates requirements to be followed strictly to conform to the document when the specified
386 conditions are met

387 3.4

388 **mandatory**

389 indicates requirements to be followed strictly to conform to the document and from which no deviation
390 is permitted

391 3.5

392 **may**

393 indicates a course of action permissible within the limits of the document

394 3.6

395 **need not**

396 indicates a course of action permissible within the limits of the document

397 3.7

398 **optional**

399 indicates a course of action permissible within the limits of the document

400 3.8

401 **shall**

402 indicates requirements to be followed strictly to conform to the document and from which no deviation
403 is permitted

404 3.9

405 **shall not**

406 indicates requirements to be followed strictly to conform to the document and from which no deviation
407 is permitted