

Workgroup: JMAP
Internet-Draft: draft-baum-jmap-backend-info-00
Published: 6 April 2023
Intended Status: Standards Track
Expires: 8 October 2023
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JMAP Backend Information

Abstract

It is likely that any JMAP implementation has either bugs or intentionally deviates from the standard. To cope with such a unique behavior, JMAP clients need to identify the software behind the JMAP endpoint and apply custom logic. This specification defines the ability to provide details about the product, backend and environment for JMAP servers.

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Table of Contents

- [1. Introduction](#)
 - [1.1. Conventions Used In This Document](#)
 - [1.2. Addition to the capabilities object](#)
 - [1.2.1. urn:ietf:params:jmap:core:backendinfo](#)
- [2. Security considerations](#)
- [3. IANA Considerations](#)
 - [3.1. JMAP Capability Registration for "backendinfo"](#)
- [4. Acknowledgements](#)
- [5. Normative References](#)
- [Authors' Addresses](#)

1. Introduction

Every server-side software has its own quirks. For example, the JMAP standard might only have been partially implemented by a server or design decisions might have been taken that let the server deviate from what is actually required by [\[RFC8620\]](#). Servers might also have unintended bugs or have certain restrictions that are not sufficiently reflected by their list of supported server capabilities.

Such behavior typically occurs for edge-cases. Nonetheless, interoperable clients that aim to have a successful structured data exchange with such "unique" servers need to handle these quirks with workarounds on the client-side. Clients only want to apply special workarounds in situations where they are truly necessary. This is typically done by identifying which server-side software they are communicating with.

JMAP does not provide a standardized way to retrieve an identifier of the product that is residing on the server side. Due to the lack of standardization clients are left to identify misbehaving servers by error-prone means. Examples are checking against a list of known URLs or checking known unique responses, typically only sent by certain products. This makes identifying products time-consuming and brittle.

Related functionality in other standards are the PRODID property in iCalendar [\[RFC5545\]](#) and vCard [\[RFC6350\]](#), which allows identifying the product that produced the files. ManageSieve [\[RFC5804\]](#) and JMAP Sieve [\[I-D.ietf-jmap-sieve\]](#) define an implementation property, which allows identifying the Sieve implementation.

1.1. Conventions Used In This Document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP

14 [[RFC2119](#)] [[RFC8174](#)] when, and only when, they appear in all capitals, as shown here.

The definitions of JSON keys and datatypes in the document follow the conventions described in the core JMAP specification [[RFC8620](#)].

1.2. Addition to the capabilities object

The capabilities object is returned as part of the JMAP Session object; see [[RFC8620](#)], Section 2. This document defines one additional capability URI.

1.2.1. urn:ietf:params:jmap:core:backendinfo

This extension defines one additional urn:ietf:params:jmap:core:backendinfo server capability that provides details about the product, backend and environment.

The value of this property in the JMAP Session capabilities property is an object that MUST contain the following information on server capabilities:

- ***apiBackend**: SoftwareInfo|null Information on the JMAP API backend component.
- ***product**: SoftwareInfo|null Information on the overall application or product.
- ***environment**: String|null Information on the environment the software is running in.

A SoftwareInfo object has the following properties:

- ***name**: String The JMAP API backend software.
- ***version**: String|null The software version.

This extension does not add anything to the account's accountCapabilities property.

Here is an example JSON snippet:

```
{
  "capabilities": {
    "urn:ietf:params:jmap:core:backendinfo": {
      "apiBackend": {
        "name": "OpenXPort/Horde",
        "version": "1.0.0"
      },
      "product": {
        "name": "Horde Webmailer",
        "version": "1.0.0"
      },
      "environment": {
        "name": "PHP",
        "version": "5.5"
      }
    }
  },
  ...
}
```

2. Security considerations

All security considerations of JMAP [[RFC8620](#)] apply to this specification.

3. IANA Considerations

3.1. JMAP Capability Registration for "backendinfo"

IANA will register the "backendinfo" JMAP Capability as follows:

Capability Name: "urn:ietf:params:jmap:backendinfo"

Specification document: this document

Intended use: common

Change Controller: IETF

Security and privacy considerations: this document, [Section 2](#).

4. Acknowledgements

Bron Gondwana, Neil Jenkins, Alexey Melnikov, Ken Murchison, Robert Stepanek and the JMAP working group at the IETF.

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