

Back End Module Health Check Protocol

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| Status | DONE |
| Stakeholders | Back End Developers, System Operators |
| Outcome | All back end modules included in 2021 R2 or later must provide a health check endpoint |
| Created date | 24 Feb 2021 |
| Owner | Marc Johnson Oleksandr Dekin (for Spring Way implementation guidance) |

Context

Need

System operators need to be able to understand if a module instance is healthy enough to be able to participate in the system. FOLIO needs a standard way of allowing operators to determine this.

Previous Decisions

4 years ago RAML Module Builder [defined](#) the `/admin/health` endpoint for checking the health of a module. More recently this was [included](#) in the [formal expectations](#) of a module. Both of these state that the module should always respond with a 200 status code.

Alternative Proposals

[John Malconian](#) has proposed that instead of the "health" endpoint, two endpoints: for readiness and liveness check. See the proposal here:

[OKAPI-904](#) - Getting issue details...

STATUS

. The proposal has been implemented in Okapi but has not seen much uptake.

Decision

All back end modules included in the 2021 R2 (and later) distribution **must** provide a health check endpoint

Protocol Design

The health check endpoint **must** be provided at the path `/admin/health`

The endpoint **must** respond with a status code 200

The response *may* include a body of any form

Rationale

This topic was discussed at the [2021-02-24 Technical Leads meeting](#).

It was agreed that:

- The existing path should continue to be used given that system operators already rely on it for some modules
- A module is considered healthy if it can respond to requests to the health check endpoint, no other criteria applies at this point
- Discussion about any additional criteria for the health of a back end module has been deferred

Implementation Guidance

Spring Way

For comfortable using health check in spring way - we can use dependency: `spring-boot-starter-actuator`. Just add it in pom.xml:

pom.xml

```
<dependency>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-actuator</artifactId>
  <version>2.3.4.RELEASE</version>
</dependency>
```

By default, the health endpoint is mapped to `/actuator/health`. To change it we should add property in the application.properties:

application.properties

```
management.endpoints.web.base-path=/admin
```

Also swagger **automatically** generate endpoint on the UI if you use swagger UI:

operation-handler Operation Handler

GET /admin/health handle

GET /admin/health/** handle

GET /admin/info handle

Example of using:

Request

```
GET /admin/health HTTP/1.1
Host: localhost:8080
```

Response

```
{
  "status": "UP"
}
```

Documentation: <https://docs.spring.io/spring-boot/docs/current/reference/html/production-ready-features.html>

Related JIRAs

- [MSEARCH-65 - Getting issue details...](#) STATUS