

DIVISION OF CORPORATION FINANCE

Mail Stop 4561

August 11, 2017

Jeffrey Sherman Chief Financial Officer HMS Holdings Corp. 5615 High Point Drive Irving, TX 75038

> Re: HMS Holdings Corp. Form 10-K for the Fiscal Year Ended December 31, 2016 Filed June 6, 2017 Form 10-Q for the Quarterly Period Ended June 30, 2017 Filed August 7, 2017 File No. 000-50194

Dear Mr. Sherman:

We have reviewed your August 4, 2017 response to our comment letter and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our July 21, 2017 letter.

Form 10-K for the Fiscal Year Ended December 31, 2016

Notes to the Consolidated Financial Statements

Note 1(b) Summary of Significant Accounting Policies

(xiv) Stock-Based Compensation, page 110

1. Your response to prior comment 1 indicates the awards with both service and market conditions vest over three years. Please further explain whether these awards have

Jeffrey Sherman HMS Holdings Corp. August 11, 2017 Page 2

graded vesting features and if yes, why you believe the straight-line method is appropriate to recognize the compensation costs associated with such awards is appropriate. Refer to the definition of "Award" under ASC 718 and ASC 718-10-35-8.

Form 10-Q for the Quarterly Period Ended June 30, 2017

Notes to the Consolidated Financial Statements

Note 2. Business Combinations, page 13

2. Please explain to us the specific factors that you considered in estimating the useful life of the customer relationships as 36 years. Refer to ASC 350-30-35-3.

You may contact Mengyao Lu, Staff Accountant at (202) 551-7271 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3226 with any other questions.

Sincerely,

/s/ Craig D. Wilson

Craig D. Wilson Sr. Asst. Chief Accountant Office of Information Technologies and Services