



# Monterey County Board of Supervisors

168 West Alisal Street,  
1st Floor  
Salinas, CA 93901  
831.755.5066

## Board Order

### Agreement No.: A-13417

Upon motion of Supervisor Adams, seconded by Supervisor Alejo and carried by those members present, the Board of Supervisors hereby:

- a. Authorized the Deputy Purchasing Agent for Natividad Medical Center (NMC) or his designee to execute Renewal and Amendment No. 2 to the Agreement with Qventus (formerly known as Analytics MD, Inc.) for operational decision support software at NMC to extend the Agreement term for two (2) additional years (October 29, 2017 through October 28, 2019), for a revised full term of October 29, 2015 through October 28, 2019 and increasing the amount by \$190,000 for a revised total agreement amount not to exceed \$381,000.
- b. Authorized the Deputy Purchasing Agent for NMC or his designee to execute up to three (3) future amendments to the agreement which do not significantly alter the scope of work and do not cause an increase of more than ten percent (10%) (\$19,100) of the original cost of the agreement in total.

PASSED AND ADOPTED this 5<sup>th</sup> day of December 2017, by the following vote, to wit:

AYES: Supervisors Alejo, Phillips, Salinas, Parker and Adams  
NOES: None  
ABSENT: None

I, Gail T. Borkowski, Clerk of the Board of Supervisors of the County of Monterey, State of California, hereby certify that the foregoing is a true copy of an original order of said Board of Supervisors duly made and entered in the minutes thereof of Minute Book 80 for the meeting December 5, 2017.

Dated: January 3, 2018  
File ID: A 17-407

Gail T. Borkowski, Clerk of the Board of Supervisors  
County of Monterey, State of California

By Denise Hancock  
Deputy

Renewal and Amendment No. 2  
To Qventus (formerly known as AnalyticsMD Inc.) Software Services Agreement  
By and between Qventus  
and Natividad Medical Center

This Renewal and Amendment No. 2 to the Services Agreement (“Agreement”) which was effective on October 29, 2015 is entered into by and between the County of Monterey, on behalf of Natividad Medical Center (hereinafter “NMC”), and Qventus, formerly known as AnalyticsMD Inc., (hereinafter “CONTRACTOR”); (collectively, the County, NMC and CONTRACTOR are referred to as the “Parties”), with respect to the following:

**WHEREAS**, NMC and CONTRACTOR entered into an Agreement for CONTRACTOR to provide NMC with the license to use its operational decision support software system for the term of October 29, 2015 through October 28, 2016 and a total Agreement amount not to exceed \$91,000; and

**WHEREAS**, that Agreement expired on October 28, 2016; and

**WHEREAS**, NMC and CONTRACTOR amended the Agreement on January 24, 2017 via Renewal and Amendment No. 1 to extend the term for an additional one (1) year period through October 28, 2017 with no additions to the original scope of work and to add an additional \$100,000, thereby increasing the Agreement amount to \$191,000; and

**WHEREAS**, that Agreement expired on October 28, 2017; and

**WHEREAS**, NMC and CONTRACTOR currently wish to amend the Agreement to extend it for an additional two (2) year period through October 28, 2019 to allow for services to continue with additions to the original scope of work attached hereto as “Exhibit A-2 per Renewal and Amendment No. 2” with a \$190,000 increase for the added services for a total Agreement amount of \$381,000.

**AGREEMENT**

**NOW, THEREFORE**, the parties agree to amend the Agreement as follows:

The Agreement is hereby renewed on the terms and conditions as set forth in the Original Software Services Agreement, in Renewal and Amendment No. 1, and Renewal and Amendment No. 2 incorporated herein by this reference, except as specifically set forth below.

1. The parties hereby agree to add **Order Form #003** attached hereto for Qventus Software License for an additional cost of \$190,000 during the period 10/29/17 – 10/28/19, for a revised total Agreement amount not to exceed \$381,000.
2. The second sentence of Section 21 titled, “TERM AND TERMINATION” shall be amended to the following:  
*“The term of this agreement is from October 29, 2015 through October 28, 2019 unless sooner terminated pursuant to the terms of this Agreement.”*

3. Except as provided herein, all remaining terms, conditions and provisions of the Agreement are unchanged and unaffected by this Renewal and Amendment No. 2 and shall continue in full force and effect.
4. A copy of this Renewal and Amendment No. 2 shall be attached to the Original Agreement.
5. This Renewal and Amendment No. 2 shall be effective retroactively on October 29, 2017.

**IN WITNESS WHEREOF**, the Parties hereto are in agreement with this Renewal and Amendment No. 2 on the basis set forth in this document and have executed this Renewal and Amendment No. 2 on the day and year set forth herein.

*~Signature Page to Follow~*

**Natividad Medical Center**

By:   
Gary R. Gray, DO, CEO


Date: 1/3/18

**APPROVED AS TO LEGAL PROVISIONS**

By:   
Monterey County Deputy County Counsel

Date: 11-2-17

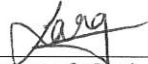
**APPROVED AS TO FISCAL PROVISIONS**

By:   
Monterey County Deputy Auditor/Controller

Date: 11-6-17

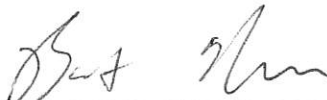
**CONTRACTOR**

Qventus  
**CONTRACTOR's Business Name**  
\*\*\*See instructions below\*\*\*

By:   
(Signature of: Chair, President, or Vice-President)

MUDIT GARG, CEO  
Name and Title

Date: 10/17/2017

By:   
(Signature of: Secretary, Asst. Secretary, CFO, Treasurer, or Asst. Treasurer)

Brent Newkase, Treasurer  
Name and Title

Date: 10/23/17

**\*\*\*Instructions\*\*\***

If **CONTRACTOR** is a corporation; including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers (two signatures required).

If **CONTRACTOR** is a partnership: the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership (two signatures required).

If **CONTRACTOR** is contracting in an individual capacity, the individual shall set forth the name of the business, if any and shall personally sign the Agreement (one signature required).

**Exhibit A-2 per Renewal and Amendment No. 2**  
**Qventus SAAS Services Order Form #003**

Customer			
Name & Address	Natividad Medical Center, 1441 Constitution Blvd, Salinas, CA 93906		
Business Contact	Dr. Chad Harris	Technical Contact	Dr. Chad Harris
BC Email	<a href="mailto:HarrisCR@natividad.com">HarrisCR@natividad.com</a>	TC email	<a href="mailto:HarrisCR@natividad.com">HarrisCR@natividad.com</a>
Product Module & Included Facilities	Fees Description	Time Frame	Annual Recurring Fee
Natividad Charter Partnership Annual Contribution – ER Flow Module	This fee includes ongoing licenses for an unlimited number of users for purposes of optimizing ER Flow.	10/29/17 – 10/28/2018	\$95,000
	Charter partnership provides additional savings for real time “ATC” views in the ED, and access to the entire current library of ED flow optimization recipes. In addition, Natividad will have free access to all ED recipes developed for the duration of the partnership.	10/29/18 – 10/28/2019	\$95,000
		Total	\$190,000
Initial Subscription Term	2 years, from October 29, 2017, to October 28, 2019		
Payment Terms	License paid upfront annually; Monterey County Auditor-Controller shall pay the amount certified within 30 days of receiving a certified invoice.		
*Notes	<p><i>The bundled pricing discount is applicable for selected customers. In exchange for being in the program the customer will:</i></p> <ul style="list-style-type: none"> <li><i>Participate in reasonable number of scheduled reference calls, subject to reasonable availability.</i></li> <li><i>Discuss in good faith and mutually agree upon a join press release to be issued upon execution thereof.</i></li> </ul> <p><i>Permit Company to include Customer in any list of customers.</i></p>		

## DESCRIPTION OF EMERGENCY DEPARTMENT FLOW MODULE

Qventus is a web-based subscription service that uses machine learning and decision science to provide specific data driven decisions in real time. In addition, the product allows staff to visualize and monitor relevant metrics “on the fly.” The service is delivered over the web in a software-as-a-service form. The Service that will be provided to Customer will be comprised of the following components that each provide specific functionality:

- Air Traffic Control / Decision Layer
  - The decision layer is an automated forecast-and-decide system that evaluates real-time data, forecasts the short term implications, and evaluates a set of potential actions to make a recommendation to the manager
  - These decisions use machine learning and optimization algorithms to determine the best course of action based on predicted demand. Specific decisions recipes to be implemented by Qventus during the set up can be chosen from a library of decisions available and for the Customer Project. These may also include an unlimited number of recipes available as part of the ED FLOW module, at Customer’s option, if determined to be feasible by the Company. Example decisions include
    - Warning of impending surge
    - Opening up hallway beds in case of room capacity bottleneck
    - Informing greeter to check in with high likelihood LWBS patients
    - Process Monitoring: Monitor each flow step for a patient in the ER and inform managers if certain patients are waiting for an unusually long time. For example, if a patient’s discharge orders have been written but they haven’t been discharged
    - Recommending adding lab staff when labs slow down
  - The specific set of decisions to be implemented will be evaluated and decided by Customer during the ramp-up at the facility. Available recipes will include, but not be limited to ED Surge Warning, Delayed Discharge, Delayed Admit, Lab backup. Qventus will discuss these decisions with hospital administration to ensure all are practically feasible and acceptable to the hospital.
- Real Time Visualization
  - Dashboards with visualizations regarding Emergency Room Throughput. Visualizations can show both representations of process steps in the E.R. as well as key statistics relating to overall E.R. throughput performance
- Statistical Monitoring
  - Text and Email based alerts for managers and front line users when metrics deviate normal behavior
  - Users may freely opt-in to these alerts, which are delivered via SMS or e-mail
  - Statistical monitoring controls for time-series factors (seasonality, hour of day, etc.) as well as exogenous factors to alert staff only to truly abnormal events
  - All communications from Company to Client which contain protected health information shall be encrypted and compliant with the HIPAA regulations and minimum security standards set forth in this Agreement.
- Individualized Feedback
  - Individualized data feedback allowing doctors, nurses or departments to compare themselves against their peers
  - Feedback can be delivered through the product or over e-mail. Percentile scoring and anonymous ranks also available.
- Root Cause algorithms
  - This component allows users to understand if a metric is too high or low based on factors that may be out of control like acuity and patient volume
  - With a single click, the system will surface the most likely root causes as to why the metric may be deviating
  - Root cause algorithms can be configured to consider additional data streams not immediately related to the target department; for example, process flows in ancillary departments