

**AMENDMENT NUMBER ONE TO AGREEMENT BETWEEN THE COUNTY OF SAN MATEO
AND ZEN HEALTHCARE IT**

THIS AMENDMENT NUMBER ONE TO THE AGREEMENT, entered into this ____ day of _____, 2020 (“Amendment Effective Date”), by and between the COUNTY OF SAN MATEO, hereinafter called “County,” and ZEN HEALTHCARE IT, hereinafter called “Contractor.”

WITNESSETH:

WHEREAS, pursuant to Government Code, Section 31000, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof;

WHEREAS, the parties entered into an Agreement for the purpose of providing healthcare data interoperability consulting and technology services on May 14, 2019 referred to hereinafter as “Agreement”; and

WHEREAS, the parties wish to extend the initial Agreement.

Now, therefore, it is agreed by the parties to this Amendment Number One as follows:

1. Payments. Section 3 of the Agreement, is deleted in its entirety and replaced as follows: In consideration of the Deliverables and Services provided by Contractor in accordance with all terms, conditions, and specifications set forth in this Agreement and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit B. County reserves the right to withhold payment if County determines that the quantity or quality of the work performed is unacceptable. In no event shall County’s total fiscal obligation exceed \$469,000. In the event that the County makes any advance payments, Contractor agrees to refund any amounts in excess of the amount owed by the County at the time of contract termination or expiration. Contractor is not entitled to payment for work not performed as required by this Agreement.

2. Term. Section 4 of the Agreement, is deleted in its entirety and replaced as follows: Subject to compliance with all terms and conditions, the term of this Agreement shall be from May 14, 2019, through May 13, 2022.

3. Notices. Update to Notice Addresses. In accordance with the Agreement, Section 23, the following is the current information for any Notices required under the Agreement.

In the case of County to:

Name/Title: Stephen Dean, CIO
Address: 225 37th Avenue, San Mateo, CA 94403
Telephone: 628-239-0695
Email: sdean@scmgov.org

In the case of Contractor, to:

Name/Title: James D. Benson, CEO
Address: 611 Anton Blvd, Suite 550, Costa Mesa, CA 92626
Facsimile: 1-949-396-1292
Email: jim@consultzen.com

4. Exhibit A and Exhibit B. Exhibit A and Exhibit B of the Agreement are hereby replaced with a new Exhibit A and a new Exhibit B, attached and incorporated by this reference.

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5. All other provisions, terms and conditions of the Agreement shall remain in full force and effect and are applicable to the services provided under this Amendment, except as expressly amended herein.

IN WITNESS WHEREOF, and in agreement with the terms set forth herein, the parties hereto, by their duly authorized representatives, have affixed their respective signatures.

COUNTY OF SAN MATEO

By: _____
(signature)

(type or print)

Title: President, Board of Supervisors, San Mateo County

Attest By: _____
(signature)

(type or print)

Title: Clerk of said Board

ZEN HEALTHCARE IT

By: _____
(signature) 

James D. Benson

(type or print)

Title: CEO

Exhibit A

The following is effective May 14, 2020 through May 13, 2022:

Exhibit A - Services

This Exhibit A describes the services to be undertaken by Zen Healthcare IT (“Zen”) on behalf of the County of San Mateo Health System (“County”) under the terms and conditions of the Agreement for the period of May 14, 2020 through May 13, 2022.

Zen undertakes projects based on Statements of Work (SOW). SOWs define the scope of the work requested, estimate the level of effort/hours required, describe the SOW deliverable(s), describe SOW assumptions, and define Terms and Conditions of the effort.

The services defined in this Exhibit A are designed to be an extension of the initial SOW #1493 - San Mateo Mirth Optimization & Second Tier Support that has a termination date of May 13, 2020. The objective of this new SOW #1903 is to provide for ongoing Zen services from May 14, 2020 through May 13, 2022, based on discussions with the County on current and anticipated future priorities.

As part of this services extension SOW, Zen will continue to provide the database health monitoring and channel alerting and monitoring tool Zen Insight to provide on-going proactive information regarding the underlying database health (and other critical components) of the County’s HIE infrastructure (Mirth Connect, Mirth Results).

In addition, an allocation of time and materials professional services hours are included in this SOW to support the identified short and longer term priorities for the County. County has requested that Zen embark on a multi-phased approach to address a wide variety of HIE related concerns with a flexible engagement that can align according to County’s specific needs as they evolve over time.

County has a list of possible efforts/projects to pursue with Zen including but not limited to:

- Mirth Results database related tuning reviews & performance assistance*
- Ad Hoc SME Support Tickets (for smaller support issues)*
- Auto-trigger C-CDA to Direct Message - from receipt of EDIE Report*
- Mirth Results User Interface customizations (plugins) and associated support*
- CDR data schema and data transfer to a data warehouse*
- Diameter Health & eHealth exchange workflow Integration*
- Diameter Health Integrations and Mapping (future needs)*
- Mirth Connect channel optimizations*
- Consent / Confidentiality support and enhancements*
- Data Quality Issues / Enhancements*

County and Zen will prioritize and define the efforts they will undertake under this Agreement. The hours/effort required for each SOW will be evaluated against the total hours available under this Agreement. County will not approve any SOW whose estimated hours added to accumulated total hours (total of estimate hours for all SOWs under this agreement) will exceed

the hours allocated in the Agreement unless the County's total fiscal obligation is amended to include the additional fees.

Statement of Work - #1903

County Mirth Optimization & 2nd Tier Support Extension

This Statement of Work ("SOW") describes a Project to be undertaken by Zen Healthcare IT ("Zen") on behalf of County of San Mateo Medical Center and Health System ("County") under the terms and conditions of the Agreement.

Project Executive Summary

County Connected Care is a Health Information Exchange (HIE) used for the electronic sharing of health-related information for patients and clients receiving services from the County of San Mateo Medical Center and Health System, and is powered by the NextGen/Mirth ("Mirth") HIE stack. Approximately 120,000 people are served across different health centers and hospitals. The Health System is comprised of 13 divisions; they anticipate this product/service will be utilized by eight of those divisions.

County desires to extend Zen's current 2nd tier technical support and optimization of their Mirth HIE platform. Under the prior SOW, Zen successfully achieved the following in coordination with County staff:

- Deployed Zen Insight to monitor and provide Dashboards for Mirth Results and Mirth Connect. Provided channel alert tuning services to adjust channel monitoring
- Designed the data flow architecture and helped integrate Diameter Health (a 3rd party data quality solution) with County's Mirth HIE stack (Phase 1 Design)
- A Mirth stack assessment was provided and recommendations made on overall stack performance
- Customized the Mirth Results Provider Portal User Interface through the implementation of Mirth Results "plugins", including a new Banner Bar and consent / confidentiality behavior modifications
- Provided ad hoc 2nd Tier Technical Support via tickets submitted to the Zen Service Desk
- Reviewed data quality concerns and made recommendations when appropriate

The goal of this extension to the prior engagement is to cover a longer time span (2 years), and continue to build on the successes from the prior SOW, while continuing to support County ongoing needs related to the following areas:

- Leveraging Zen Insight, provide periodic Mirth Results database related tuning reviews & performance assistance. Provide support for Mirth Connect channel alerts and issue resolution as needed.
- Respond to Ad Hoc SME Support Tickets (for smaller ad-hoc support issues submitted to the Zen Service Desk)
- Design and Implement new data flow - Auto-trigger C-CDA to Direct Message - from receipt of EDIE Report
- Design and Implement a Diameter Health & eHealth exchange workflow
- Implement Mirth Results User Interface customizations (plugins) and provide associated support

- Provide design, consulting and engineering services for CDR data schema and data transfer to a data warehouse
- As needed, support new Diameter Health Integrations and Mappings
- Recommend and implement Mirth Connect channel optimizations as needed for optimal performance
- Provide support and consulting for ongoing enhancements for Consent / Confidentiality workflows
- Provide consulting services for overall HIE Data Quality Issues / Enhancements

There is an ongoing need to further enhance the HIE environment from a technical and optimization standpoint, with the goal of increasing the value and usefulness of this tool within the workflows of County staff.

The time and materials professional services hours estimated in this SOW are based on our prior experience in working with the County during the initial engagement, and also based on a HIE project priorities list developed in collaboration with County HIE staff. However, given a two year scope of this SOW, the Estimated Hours contained in this SOW may not support all future needs. Any additional hours or services outside the limits of this SOW will be handled through change orders or new SOWs as appropriate based on County policies.

Services and Deliverables

Zen will be responsible for the following Services as prioritized by County:

Monitoring, Database Assessments and Ad-hoc SME Services / 2nd Tier Support:

- Zen Insight Monitoring Service
 - Database Health Monitoring Service
 - Zen will maintain the Mirth Results v2 database monitoring service and dashboard
 - Zen Channel Alerting Service
 - Zen will maintain the Mirth Connect Channel Alerting and Monitoring service and dashboard. This will provide proactive monitoring of Mirth Connect channels including message volume, errors, and queue size. Channel Alerts will be modified / updated as County needs evolve over time
- Mirth Database Analysis & Recommendations
 - Zen will perform, as needed, a Mirth Results v2 Database Review and Analysis (frequency and timing will be based on actual Mirth Results performance / reliability). Such Database Analysis may include a review and recommendations regarding:
 - Overall DB Settings review
 - Resource Allocations - current state
 - Dead Tuples Analysis
 - Indices Analysis
 - Vacuum / Analyze Analysis
- Provide Ad Hoc SME Support Tickets (for smaller ad-hoc support issues) as needed by County. County authorized staff will submit tickets to Zen's Service Desk for these requests.

Project based Consulting T&M Services:

- Implement New Data Flow - Auto-trigger of Mirth Results generated C-CDA to a Direct Message - from receipt of EDIE Report
- Design and Implement a Diameter Health & eHealth exchange workflow Integration
- Upon request by designated County project lead, provide Mirth Results v2 User Interface Customizations
 - Support and make requested enhancements to the current Banner Bar / Consent and Confidentiality Plugins.
 - Discuss possibilities, identify gaps (process or system usage), and recommend value added use cases for consideration based on your overall priorities. Includes aspects such as data parsing / tagging in Mirth Results (eg: Service providers, etc) or custom tabs that may surface critical data currently buried within the CDR
- Upon request by designated County project lead, assist with CDR data schema and data transfer to a data warehouse via consulting / engineering services. Zen has a number of approaches to review with County in this area. Some of these options may include services or technologies outside the scope of this SOW and will require a new SOW to be submitted for County review and execution.
- Upon request by designated County project lead, design and implement Diameter Health integrations and mapping for new use cases as they arise
- As recommended and approved by designated County project lead, perform Mirth Connect channel optimizations as needed for optimal performance
- Upon request by designated County project lead, assist, design and develop new Mirth based solutions related to consent / confidentiality behaviors and enhancements
- Upon request by designated County project lead, advise on overall HIE Data Quality Issues and implement approved enhancements
 - Clean up identified datasource data quality issue within Mirth Results v2 using the Zen Targeted Data Cleanup Tool (see Deliverables) as requested by designated County project lead.
- Upon request by designated County project lead, provide Mirth stack technical assessment, design and written recommendations to support County HIE related initiatives;
 - Includes documented architecture and message flows, Appliance resource allocations and configuration / settings review and recommendations
 - Includes assessing and advising on possible Health Data Hub transition against County requirements and existing functionality in Mirth Results v2.
- Upon request by designated County project lead, design and / or implement new interfaces and / or 3rd party SSO integrations
- Upon request by designated County project lead, provide new project / initiative technical scoping and estimates to support County's emerging needs. If such new projects or initiatives cannot be supported under the Estimated Hours included in this Agreement, Zen will advise and work with County to create a new SOW or Amendment

- Routine County Project Status calls to review ongoing work and priorities. These meetings will be led by Zen's Technical Project Manager and scheduled in coordination with the County designated Project lead

Zen will be responsible for the following Deliverables:

- Written documentation of recommendations or best practices when appropriate, based on the Services described above.
- Written documentation on any developed and delivered Plugins / Channels or other engineering work as appropriate for hand off and knowledge sharing with the designated SMC staff
- Zen Targeted Data Cleanup Tool - this tool enables targeted data deletion in Mirth Results v2 for specified datasources when a data quality issue is identified.

Project Plan

Overall Tasks	Owner
<u>Initial Project Kick-off call:</u> Typically held within 5-7 business days from receipt of Retainer and the executed Agreement. Participants include: Zen Project Executive, Zen Lead Engineer and County project owner and any applicable County resources.	Zen / County
<u>Periodic County / Zen Status calls:</u> The Zen TPM will work in coordination with County to schedule ongoing calls to provide status updates and discuss ongoing work priorities.	Zen / County
<u>Respond to ad hoc SME Service Tickets.</u> Zen will perform engineering and consulting services as needed to address submitted Zen Service Desk Tickets.	Zen
<u>Design and Development work to support County project priorities.</u> Zen engineer(s) will provide ongoing Design and Development work as approved by County designated staff.	Zen
<u>Project Executive to report on status and hours used on a periodic basis, as mutually determined with County.</u>	Zen

Background Technology

The following Software is considered Background Technology for purposes of this SOW:

- County's test and/or production instances of Mirth and supporting infrastructure, as required by Zen to meet the obligations under this SOW.

County-Supplied Prerequisites & Assumptions

County will need to provide technical and clinical contacts, connection parameters, and any other information required for Zen to provide the services at project initiation or at such time as required in the Project Schedule. Initial County-Supplied Prerequisites and assumptions are as follows:

- Zen's secure access to Background Technology as needed to successfully complete the Project

- Other prerequisites as mutually identified during assessment phase

Project Kickoff and Technical Project Management

Zen shall begin the Project within seven (7) days of receipt of Retainer (defined below) and the fully executed Agreements, or earlier as mutually agreed to by County and Zen.

During the Term of the Project, a Zen Technical Project Manager (TPM) will be assigned to the Project and will serve as your primary point of contact.

The role of Zen's Technical Project Manager is to provide overall technical project management and be responsible for the County's overall visibility into the project's progress, and for coordinating the Zen technical resources. Project Management calls and other calls may be scheduled as necessary to ensure a positive customer experience and address any issues or questions that arise as work proceeds.

Terms and Conditions

By executing this SOW, County has pre-approved an amount of Professional Service hours as described in Exhibit B, performed under a time and materials engagement, that has been estimated as the number of hours needed to successfully complete the Project based on Zen's good faith effort to scope the engagement with the County (the "Estimated Hours"). However, Zen cannot guarantee that the Project will be completed within the Estimated Hours. Zen will provide County with Project Status Reports for review and discussion with County as the Project proceeds.

If, by mutual agreement, the scope of the Project as outlined in this SOW needs to be materially modified or extended, the Zen Project Executive will work with County to amend the SOW, and if required, generate a new SOW.

Fees, Retainer Payment & Invoicing: Zen requires receipt of an initial upfront payment in the amount of \$82,500 prior to commencement of services (the "Retainer".) The Retainer will be invoiced immediately upon receipt of this executed Amendment Number One. The Year 2 Retainer in the amount of \$82,500 will be invoiced per the payment terms outlined in Exhibit B.

Hours incurred for this Project will be posted against such Retainer at the Quoted Hourly Rate. Hours incurred in excess of the hours covered by the Retainer will be billed as incurred at the Quoted Hourly Rate and invoiced semi-monthly. All payments shall be due Net 30.

Zen will invoice County via email at the Accounts Payable email address of listed in the signature block (below), or such other address as the Parties may later designate through the procedures set forth in the Notice section of the

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Agreement. Please direct any invoice related comments or questions to billing@consultzen.com or by calling 949.396.1295.

Professional Service Hours are billed only as incurred. If the Project is successfully completed for less hours than the Estimated Hours, then the Project and the unused Estimated Hours be closed.

All hours expended by Zen under this SOW will be billed in 15-minute increments, rounded up to the nearest 15-minute increment.

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Exhibit B

The following is effective May 14, 2020 through May 13, 2022:

Exhibit B - Payments and Rates

In consideration of the services provided by Contractor described in Exhibit A and a fully executed Statement of Work, and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

- 1 **Fees.** County will pay the fees for the Services specified in Exhibit A and the applicable SOW. If a SOW specifies that fees will be billed on an hourly basis, such fees will be billed in 15-minute increments, rounded up to the nearest 15-minute increment.
- 2 **Invoicing.** Payment Terms: Unless otherwise specified in the applicable SOW, Zen will invoice County for all fees via email to the following Accounts Payable email addresses HS_HIT_AccountsPayable@smcgov.org or as set forth in the applicable SOW or such other address as the Parties may later designate through the procedures set forth in the Notice section below.
- 3 County shall make full payment within the time specified by the payment terms in the applicable SOW or within thirty (30) days of the date of the invoice if not otherwise specified. Amounts due shall be considered paid when Zen is in receipt of the amount due or, if County is paying by ACH, upon confirmation of receipt by a bank designated by Zen. If County fails to fulfill its payment obligations (other than with respect to amounts being disputed in good faith), Zen shall have the right, in addition to all other rights and remedies provided by the Agreement or applicable law, to (a) charge County for any reasonable collections costs; (b) change the credit terms extended to County; (c) assess a finance charge in the amount not greater than the lower of one and one-half percent per month or the maximum rate permitted by applicable law; and/or (d) suspend or cancel performance of all or part of the Agreement. Any comments or questions regarding invoices should be directed to billing@consultzen.com or by calling 949-396-129

Fee Schedule

The following fees will be invoiced pursuant to the Payment Schedule section below.

Zen Insight Monitoring Services

Description	Recurring Fee
Zen Insight <ul style="list-style-type: none"> Database Health - Zen Channels and Tableau Dashboards that provide visibility to Mirth Results Database Metrics Mirth Connect Channel Alerting - Channel alerting service is designed to provide early warning for Mirth Connect channel issues. Billed monthly in advance; 24 Month Term; Term starting contemporaneously with Amendment Number One Effective Date. 	\$1,500 / Month (\$36,000 for 2 Year Term)



T&M Services

Description	Quoted Hourly Rate	Estimated Hours	Quoted Total
Professional Services delivered under a Time and Materials engagement. <i>Estimated Ad-Hoc SME Services, periodic database assessments and 2nd Tier Support for 24 months.</i>	\$200 / hr	400	\$80,000
Estimated Project Based Professional Services currently anticipated over 24 months, as described in Exhibit A.	\$200 / hr	1,250	\$250,000
T&M Services Sub-Total <i>(Annual Retainer required for each contract year)</i>		1,650	\$330,000 <i>(\$82,500 Annual Retainer for each contract year)</i>
Zen Prebuilt Tools - Targeted Data Cleanup Tool for Mirth Results v2. <i>Invoiced upon installation of the Tool in County Mirth Connect test environment</i>	(Material)	(Fixed Fee)	\$5,000

Description			Quoted Total
Overall Services Total Estimated for 24 month Term:	(T&M Services, Fixed Fee Materials and Total Monthly Fees for 24 months)		\$371,000



Payment Schedule

Payment Schedule		Flat Fee Payment
Initial Retainer Payment	Invoiced Contemporaneously with the Execution hereof.	\$82,500
Year 2 Retainer Payment	Invoiced Upon the first-year anniversary of the Amendment Number One Execution date.	\$82,500
Payment Milestone - Targeted Data Cleanup Tool for Mirth Results v2	Invoiced Upon installation of the tool into San Mateo test environment.	\$5,000

Monthly Recurring Fees

Payment Schedule		Monthly Recurring Payment
Zen Insight Database Health and Channel Alert and Monitoring	Billed monthly, in advance, at the beginning of each month during the 2-year Amendment Number One Term.	\$1,500

- 4 Payment of Subscription Fees. This amendment is a continuation of the Agreement. The Zen Insight Services and payment of the monthly installments will continue during the term of the Agreement.
- 5 Fees for Additional Services. If County seeks any additional Services from Contractor in addition to the services described in Exhibit A, the Parties shall develop and execute a Statement of Work, Order Form and/or Amendment to govern those Additional Services. County shall pay Contractor for those Additional Services pursuant to a fee schedule set forth in the Statement of Work, Order Form and/or Amendment.
- 6 Invoices. Contractor shall submit invoices to the County for payment of fees as outlined in this Agreement. County will work with Contractor to update invoices that County believes, in good faith, are incorrect or incomplete. The Agreement number, as assigned by the County and provided by the Contractor, must appear on all invoices relating to this Agreement. Except as set forth below, any County requirements as it relates to needed information on any Contractor invoice must be identified, in writing, within 10 days from the Effective Date. Any subsequent changes requested to be included within the invoices shall be sent to billing@consultzen.com and any agreed to change will only be effective for invoices prospectively issued.
 - a. Contractor's name, address, Agreement number and Federal Tax identification number;
 - b. Detailed list of billed items
 - c. Sales or use taxes, if applicable; and
 - d. Total Amount Due

7. Overpayments to Contractor. Contractor shall promptly, but in all cases within 30 days of County sending written notice of the overpayment to Contractor, pay to County the full amount of any mutually agreed to erroneous payment or overpayment made by County.
8. Credits. Any credits due County under this Agreement may be applied against Contractor's invoices with appropriate information attached, upon giving notice required herein, if any, by County to Contractor.
9. Payment of Fees. Monthly SaaS fees are: (i) calculated monthly, (ii) set forth in Exhibit B and (iii) are payable for invoices submitted in accordance with Section 5 above within 30 days of the date on such invoices. For SOW Services, upon Contractor's performance of the applicable obligation as required under the Agreement, fees are payable for invoices submitted in accordance with Section 5 above within 30 days of the date on such invoices. Contractor's failure to timely invoice for any installment payment and/or other fees owed shall not act as a waiver by or a release to County of its obligations to pay same in accordance with the terms set forth in the Agreement.
10. Reimbursable Travel Expenses: Zen shall invoice, and County shall reimburse Zen for all *out-of-pocket expenses which are incurred by Zen in connection with the performance of the Services that are (a) specified as reimbursable in the applicable SOW, or (b) approved by the County in writing.*
 - a. Travel related expenses that are reimbursable will be billed in accordance with the following policies: (i) actual travel time of Zen personnel will be billed at the hourly rate applicable to the relevant SOW; (ii) estimates for major expenses, such as airfare and hotel, will be provided in advance for County's approval.
 - b. Travel expenses must be in line with the Federal Government Services Agency rates for the destination city. The following URL contains per diem information for destinations in the United States: <http://www.gsa.gov/portal/content/104877>.
11. Payment. County must pay the fees according to the payment terms set forth herein or in the applicable SOW. Any fees that are owed as of the date of termination or expiration of the Agreement will be immediately due and payable by County within 30 days of such termination or expiration. Except as provided in a SOW, implementation services and Consulting Services are supplied on a time and materials basis (and not on a fixed fee basis) at the rates set forth in this Exhibit B and/or the SOW. Hours and timelines presented in a SOW shall be estimates only. Payment is due as set forth in Exhibit B and/or the applicable SOW.
12. Failure to Pay. If County fails to pay any undisputed amount due under this Agreement within 30 days of the date of Contractor's notice of County's failure to pay, Contractor may, in its sole discretion, (a) terminate this Agreement or the applicable SOW; (b) discontinue any currently provided discount for the affected Products and Services and/or (c) withdraw any previously granted, non-standard payment terms. Unless otherwise agreed to by the parties in writing, Contractor's failure to invoice for any item set forth in Exhibit A and/or Exhibit B and/or the Order Form shall not relieve County's obligation to pay for the items. However, Contractor will not exercise its rights under items (a) through (c) above if County is disputing the applicable charges reasonably and in good faith and is cooperating diligently to resolve the dispute.
13. Taxes. Prices do not include applicable taxes. Contractor will invoice County for any applicable taxes, and County must pay these taxes. Where applicable, County must provide any *tax-exemption claim to Contractor before, or contemporaneously, when placing an order.*

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