AMENDMENT TO AGREEMENT BETWEEN THE COUNTY OF SAN MATEO AND

AT&T CORP. (AT&T CONSULTING)

THIS AMENDMENT TO THE AGREEMENT, entered into this _____ day of

	, 20, by and between the COUNTY OF SAN MATEO, hereinafter		
calle	ed "County," and AT&T Corp. (AT&T Consulting), hereinafter called "Contractor";		
	$\underline{W} \underline{I} \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:		
inde ther	WHEREAS, pursuant to Government Code, Section 31000, County may contract with ependent contractors for the furnishing of such services to or for County or any Department eof;		
SIP	WHEREAS, the parties entered into an Agreement for the initial phases of e911 and transformation services on April 10, 2018; and		
tran	WHEREAS, the parties wish to amend the Agreement for additional e911 and SIP sformation services.		
AS	NOW, THEREFORE, IT IS HEREBY AGREED BY THE PARTIES HERETO FOLLOWS:		
1.	Cover page, Term section, of the Agreement is amended to read as follows:		
	Subject to compliance with all terms and conditions, the term of the Agreement shall be from April 9, $2018 - \text{June } 30$, 2019		
2.	Original Exhibit A, e911 Discovery, Design, and Install section of the Agreement is amended with the addition of the following services:		
	 7. Site Deployment/Migration Configure ERLs per site Configure Switch/Port list and/or Layer 3 subnets per sites Build ERL network maps for each site based upon the use of Subnets, switches, Switch ports or BSSIDs Assign subnets to ERLs (Layer 3 subnet based discovery) Assign switches to ERLs (layer 2 discovery) Assign switch ports to ERLs (layer 2 discovery) Load the EGW with the facility information from data captured during the site survey based on either layer 2 or 3 solutions. Layer 3 – Building Address, Floor/Zone/Area, IP Subnet, and/or 		

- Layer 2 Building Address, Floor/Zone/Area, Room/Cubicle, LAN Switch or port
- Configure EGW with ERLs to Layer 3 subnets or Layer 2 LAN switches and ports
- o Provision ERLs in EGW
- Provision Notification setting for each ERL based on information provided by County of San Mateo
 - Email
 - Audio
- 8. Site Testing
 - Conduct testing of the implemented solution according to the high-level test criteria outlined below:
 - o Automatic discovery of IP phones registered to an IP PBX.
 - o Track phones that move across the campus to a different switch.
 - o Track a station location down to the switch port level or subnet
 - Verify that 911 calls are routed based on physical location, rather than extension.
 - Verify analog phones provisioning
 - o Internal notification.
 - Place several 911 calls from different phones, zones, and locations to verify that the correct internal phone received a call identifying the extension that dialed the 911 call.
 - Verify that the appropriate Web alert (if so configured) is received with proper identification and call information.
- 9. Knowledge Transfer and Documentation
 - Finalize as-built guide documentation
 - Conduct Administration training and knowledge transfer for County's technical resources
- **3.** Original Exhibit A, e911 Discovery, Design, and Install section of the Agreement is amended with the addition of the following deliverables:
 - 5. System Acceptance test results documentation
 - 6. Site configuration of Emergency Gateway (EGW)
 - a. ERLs for thirty-five (35) remote locations
 - 7. Functionality/Site Acceptance test results documentation
 - 8. As-build documentation of the e911 solution
 - 9. System administrator training/knowledge transfer
- **4.** Original Exhibit A, SIP Transformation section of the Agreement is amended with the addition of the following services:
 - 3. SIP Transformation Design Configuration and Test Contractor will develop the detailed design for new components for the centralized SIP trunks as well as current systems that must be modified to integrate the new platforms. The design will include physical connectivity specifics as well as the logical

configuration parameters and test scripts for each device. Physical design specifications include proposed rack layouts, port counts, equipment power, space, environmental, and patch cord requirements for each element in scope.

The following areas will also be addressed during this phase:

- Review Detailed Low-Level design; which will include:
 - o Description of current Telephony architecture along with diagrams
 - Scalability elements of the SIP solution including the transport circuit,
 WAN router, and Session Border Controller (SBC)
 - o Redundancy and High Availability elements of the SIP solution
 - AVPN transport WAN Edge Routers supporting the IP Flexible Reach SIP trunking for ingress / egress including standard County of San Mateo router configuration, QoS configuration, BGP and IP Routing configuration
 - Data center LAN switches used for connectivity related to the Centralized SIP trunking core. The quantity, type and configuration will be determined as part of the detailed design
 - IP Addressing required for SIP transport circuit WAN router, LAN switches, and external, management, and internal interface for the Session Border Controllers.
 - o Session Border Controllers (SBC) connectivity and configuration.
 - o Related internal logical SIP trunking SBC and Avaya CM PBX systems
- Review, Validate, Update dial plan and call routing bound calls digits received, or outbound digits sent, and any manipulation required for routing to internal session management or PBX systems
- Development of County System and Functionality Acceptance Test plan, including:
 - o SIP Head End system test plan
 - o Call flow/Feature testing items
 - Failover test plan that includes network failure, SBC failure, and inter site failover
 - Remote Site cutover test plan to support the remote site cutovers.

4. Execute Core Deployment

Contractor will work in coordination with County and any of County's third parties to support the installation, configuration, testing, and turnover to operation of the proposed centralized SIP solution at the two (2) datacenter and hub sites.

The following high-level tasks will be addressed during this phase:

- Installation and Configuration IP Flexible Reach connectivity from the County (User) side including coordination with the network provider project and engineering team.
- Integration, configuration, and documentation of the IP-PBX and Session Border Controllers at the two telephony data centers as well as configuration and documentation of the networking hardware need to support the SIP and SBC integration.
 - IP Flexible Reach and IP Toll Free related Edge WAN and LAN components
 - High Availability IPFR Enhanced Features

Avaya CM and Session Border Controllers (SBC)

5. Acceptance Testing

Upon the completion of all SIP infrastructure related equipment configuration Contractor will support and perform the BVoIP IP Flexible Reach services Test and Turn-up (TTU) session(s). Based on the outcomes of this testing, the test scripts created in the Detailed Design and Engineering will be finalized.

- Inbound and outbound call flow functionality testing via the two (2) datacenter and hub sites
- Intersite failover testing between each of the two hub site combinations
- Test SIP trunking functionality and integration with production Avaya CM PBX, SBC, and centralized SIP trunking solution
- Production BVoIP IP Flexible Reach services and SBC can be tested with County's Avaya CM PBX
- Provide validation and execution of testing and production environments

6. SIP Transformation – Site Migration

Contractor will assist County with porting of thirty-five (35) remote site numbers to the centralized SIP trunking solution. The development of the Technical Governance plan covering engineering, operations, communications, procurement, and internal PM teams will be completed.

- Overall Technical Governance is provided to cover the following:
 - o Develop detailed technical work plans and schedules
 - Responsible for alerting the local contact at each site concerning the project and the upcoming migration/cutover of TDM service to centralized SIP trunks
 - Discovery and tracking of the TDM circuits that require disconnects. Provide information to Contractor's account team to schedule circuit disconnects.
- Engineering resources are provided to address the following:
 - Contractor will work with AT&T BVoIP Services to support each remote site's telephone porting/cutover. Contractor will provide remote site cutover/porting support.
 - Contractor will conduct per site test plans to validate the call flow functionality
 - Contractor will perform any necessary troubleshooting of siterelated migration and transformation issues

Contractor will provide Day 1 support for each remote/retail store site during cutover during the duration of the project engagement.

7. Knowledge Transfer and Documentation

Contractor conduct administration knowledge transfer with County on the overall SIP architecture solution and configuration elements.

- Conduct knowledge transfer
 - o Onsite session(s) or Off-site Web meeting
 - o Deliver Detailed Design document in Word format
 - o Conduct Presentation of a Detailed Design guide in Microsoft PowerPoint
 - o Review configuration SIP components as necessary
 - o Finalize deliverable documentation
- **5.** Original Exhibit A, SIP Transformation, Engagement Team section of the Agreement is amended to read as follows:

Contractor will provide an engagement team consisting of:

Title	Qty	Responsibility	
Network Engineer	1	Network Engineer is an expert in migration of activities related to SIP Projects. This includes activities defined in migration technical Planning, Technical Governance, and Site Migration. The Network Engineer is responsible for the telephone number porting process and schedule	
Network Engineer II	1	Network Engineer II is the project technical lead for the engagement. Network Consultant II resource is an expert in the technical aspects of SIP Migration and has responsibility for Detailed Design, Execution of the Core SIP Infrastructure, Acceptance Testing, Site Migration, and Knowledge Transfer. The resource will be engaged from the beginning to the completion of the Centralized SIP trunking project.	
Senior Engineer		The Senior Engineer has multiple responsibilities including the responsibility for project technical escalations.	
Engagement Manager 1		The Engagement Manager has multiple responsibilities including the responsibility for the quality of the engagement delivery. Responsibilities include: assignment of resources for the engagement, coordination of kickoff-meeting, accuracy of billing, and first point of escalation.	

6. Original Exhibit B is amended to read as follows:

In consideration of the services provided by Contractor described in Exhibits A and C, and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

The total not to exceed amount for the original Agreement is \$98,050. The total not to exceed amount for Amendment 1 of this Agreement is \$273,650.

The rate structure for this Agreement is:

Title	CALNET ID#	Rate per Person
Network Engineer	ATTNC1	\$150 per hour
Network Engineer II	ATTNC2	\$200 per hour
Senior Engineer	ATTSC	\$250 per hour

Invoices will occur on a monthly basis.

County shall pay Contractor, upon receipt of an invoice, for services rendered. Each invoice submitted must include the following information, at a minimum:

- Agreement number
- PO Number
- Time period covered

Detailed statement of services/work completed will be provided weekly at the status meetings

Payments shall be made within Net 30 days from the date of the applicable undisputed invoice.

7. Original Exhibit B, e911 Discovery, Design, and Install section of the Agreement is amended to read as follows:

Based on the information provided to Contractor, it is estimated that the e911 Discovery, Design, and Install project as outlined in the original Agreement will be completed in approximately 8 weeks excluding any pauses, freezes, or holidays.

The estimated cost for the e911 Discovery, Design, and Install project as outlined in the original Agreement is \$71,050.00 inclusive of travel and related expenses. This price estimate is based on time and expenses. County will be billed for actual time worked.

County is responsible for all applicable taxes due pursuant to CALNET 3, except for taxes due on the net income of AT&T and / or Contractor.

The rate structure for the e911 Discovery, Design, and Install project as outlined in the original Agreement:

Title	Estimated Hours	Not to Exceed Amount per Engineer
Network Engineer	22 hours; part time	\$3,300
Network Engineer II	320 hours; full time lead technical resource	\$64,000
Senior Engineer	15 hours; part time	\$3,750
Total		\$71,050

Based on the information provided to Contractor, it is estimated that the additional e911 Discovery, Design, and Install project as outlined in Amendment 1 to the Agreement will be completed in approximately 14 weeks excluding any pauses, freezes, or holidays.

The estimated cost for the additional e911 Discovery, Design, and Install project as outlined in Amendment 1 to the Agreement is \$132,750 inclusive of travel and related expenses. This price estimate is based on time and expenses. County will be billed for actual time worked.

County is responsible for all applicable taxes due pursuant to CALNET 3, except for taxes due on the net income of AT&T and / or Contractor.

The rate structure for the additional e911 Discovery, Design, and Install project as outlined in Amendment 1 of this Agreement:

Title	Estimated Hours	Not to Exceed Amount per Engineer
Network Engineer	130 hours; part time	\$19,500
Network Engineer II	520 hours; full time lead technical resource	\$104,000
Senior Engineer	37 hours; part time	\$9,250
Total		\$132,750

The total not to exceed amount for the e911 Discovery, Design, and Install is \$203,800. County will only be billed for actual time worked.

8. Original Exhibit B, SIP Transformation section of the Agreement is amended to read as follows:

Based on the information provided to Contractor, it is estimated that the SIP Transformation project as outlined in the original Agreement will be completed in approximately 9 weeks excluding any pauses, freezes, or holidays.

The estimated cost for the SIP Transformation project as outlined in the original Agreement is \$27,000 inclusive of travel and related expenses. This price estimate is based on time and expenses. County will be billed for actual time worked.

County is responsible for all applicable taxes due pursuant to CALNET 3, except for taxes due on the net income of AT&T and / or Contractor.

The rate structure for this portion of the Agreement is:

Title	Estimated Hours	Not to Exceed Amount per Engineer
Network Engineer	180 hours; part time	\$27,000
Total		\$27,000.00

Based on the information provided to Contractor, it is estimated that the additional SIP Transformation project as outlined in Amendment 1 of the Agreement will be completed in approximately 14 weeks excluding any pauses, freezes, or holidays.

The estimated cost for the additional SIP Transformation project as outlined in Amendment 1 of the Agreement is \$140,900 inclusive of travel and related expenses. This price estimate is based on time and expenses. County will be billed for actual time worked.

County is responsible for all applicable taxes due pursuant to CALNET 3, except for taxes due on the net income of AT&T and / or Contractor.

The rate structure for the additional SIP Transformation project as outlined in Amendment 1 of this Agreement:

Title	Estimated Hours	Not to Exceed Amount per Engineer
Network Engineer	131 hours; part time	\$19,650
Network Engineer II	560 hours; full time lead technical resource	\$112,000
Senior Engineer	37 hours; part time	\$9,250
Total		\$140,900

The total not to exceed amount for the SIP Transformation project is \$167,000. County will only be billed for actual time worked.

9. Attachment SP, Contract Dollar Amount section, of the Agreement is amended to read as follows:

In no event shall total payment for services under this Agreement exceed Three Hundred Seventy-One Thousand, Seven Hundred Dollars (\$371,700). County shall notify Contractor thirty (30) days in advance of reaching the \$371,700 Contract Dollar Amount referenced above. In the event the County does not obtain approval to increase the Contract Dollar Amount or provide Contractor with some other form of mutually acceptable payment guarantee for services in excess of the Contract Dollar Amount, Contractor shall have the right stop providing Services to County once the Contract Dollar Amount has been reached.

10. All other terms and conditions of the agreement dated April 10, 2018, between the County and Contractor shall remain in full force and effect.

In witness of and in agreement with this Agreement's terms, the parties, by their duly authorized representatives, affix their respective signatures:			
For Cor	ntractor: AT & T Corp (A	T & T Consulting)	
Contrac	ctor Signature	Date	Contractor Name (please print)
COUNT	ΓΥ OF SAN MATEO		
	By: President, Board of Sup	pervisors, San Mateo County	
	Date:		
ATTES	T:		
By: Clerk o	f Said Board		