REQUEST FOR COUNCIL ACTION
CITY OF SAN DIEGO

CERTIFICATE NUMBER (FOR COMPTROLLER'S USE ONLY) pending

TO:	FROM (ORIGINATING DEPARTMENT):	DATE:
CITY COUNCIL	Police Department	10/20/2014

SUBJECT: Funding for Public Safety Communications Projects: the Police 9-1-1 Call Manager Upgrade and the Enterprise Telephone/Radio Logger Replacement Project

PRIMARY CONTACT (NAME, PHONE):	SECONDARY CONTACT (NAME, PHONE):
Chris Haley,619-531-2401, MS 704A	,

COMPLETE FOR ACCOUNTING PURPOSES

FUND	100000	600001	100000	200228	200374
FUNCTIONAL AREA	OTHR-00000000-PO	OTHR-00000000-PO	OTHR-00000000-PO	OTHR-00000000-FI	OTHR-00000000-FI
COST CENTER	1914151212	1914000001	1914000014	9913000011	1912140013
GENERAL LEDGER ACCT	513002	513104	512172	516014	516014
WBS OR INTERNAL ORDER	N/A	AA1000046-13	N/A	N/A	N/A
CAPITAL PROJECT No.	N/A	N/A	N/A	N/A	N/A
AMOUNT	$0.00	$1,140,156.00	$1,230,275.00	$0.00	$0.00

FUND	100000	600001			
FUNCTIONAL AREA	OTHR-00000000-FI	OTHR-00000000-PO			
COST CENTER	1912170012	1914000001			
GENERAL LEDGER ACCT	516027	513004			
WBS OR INTERNAL ORDER	N/A	AA1000046-13			
CAPITAL PROJECT No.	N/A	N/A			
AMOUNT	$557,726.00	$0.00	0.00	0.00	0.00

COST SUMMARY (IF APPLICABLE):	Police Call Manager	Enterprise Radio/Phone Logger
Initial Preparation	$0	$0
Blueprint	$0	$254,682
Realization	$1,230,275	$1,443,200
Final Prep	$0	$0
Post Go Live Support	$454,891	$0
Total Project	$1,685,166	$1,697,882
Less Prev. Authorized	$0	$0
This Request	$1,685,166	$1,697,882
Future Request	$0	$0

ROUTING AND APPROVALS

CONTRIBUTORS/REVIEWERS:		APPROVING AUTHORITY	APPROVAL SIGNATURE	DATE SIGNED
Financial Management		ORIG DEPT.	Ramirez, David	10/21/2014
Environmental Analysis		CFO		
Equal Opportunity		DEPUTY CHIEF		

Contracting				
Liaison Office		COO		
Comptroller		CITY ATTORNEY		
		COUNCIL PRESIDENTS OFFICE		

PREPARATION OF:	☒ RESOLUTIONS	☐ ORDINANCE(S)	☒ AGREEMENT(S)	☐ DEED(S)

General

The Chief Financial Officer is authorized to appropriate, from available fund balance, $204,333 to the Fire and Lifeguard Facilities Fund (200228), Fire-Rescue Department (1912), for the purpose of transferring funds to the General Fund (100000), to support public safety IT infrastructure.

The Chief Financial Officer is authorized to transfer an amount of $1,788,001 from the General Fund (100000) to General Fund Contributions to the CIP Fund (400265), as follows: $1,230,275 from the Police Department (1914), and $557,726 from the Fire-Rescue Department (1912).

Sub-Item A: San Diego Police Call Manager

Authorize the Mayor or his designee to execute an agreement with the State of California to secure and install the equipment to upgrade the Police Department's primary Customer Premise Equipment (CPE) / 9-1-1 Call Managing System, as well as the equipment for a backup emergency dispatch site for the Police and Fire-Rescue Departments.

Authorize the Mayor or his designee to execute and agreement with AT&T, a state approved vendor in an amount not to exceed $1,230,275, from CIP S15024, Police 9-1-1 Call Manager, fund 400265, GF Contributions to the CIP Fund for the purchase and maintenance of equipment, with reimbursement from the state in December 2017.

The Chief Financial Officer is authorized to add CIP S15024, Police 9-1-1 Call Manager, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15024, Police 9-1-1 Call Manager, and to appropriate and expend $1,230,275 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the 9-1-1 Call Manager project.

Sub-Item B: Enterprise Radio/Phone Logger

The Chief Financial Officer is authorized to add CIP S15025, Enterprise Radio/Phone Logger, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15025, Enterprise Radio/Phone Logger, and to appropriate and expend $1,697,882 as follows: $1,140,156 from the State Grant Fund (600001), State COPS 2013 Grant (1000046-2013); and, $557,726 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the Enterprise Radio/Phone Loggers project.

STAFF RECOMMENDATIONS:
Approve requested actions.

SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)	
COUNCIL DISTRICT(S):	All
COMMUNITY AREA(S):	All
ENVIRONMENTAL IMPACT:	This activity is not a Project as defined in CEQA Guidelines Section 15378(b)(2) and Section 15378(b)(5). Based on the CEQA definitions above, the activities required for the implementation and maintenance of the Police Call Manager and Enterprise Radio/Phone Logger do not meet the definition of a project and would therefore, not be subject to CEQA pursuant to Section 15060(c)(3) of the State CEQA Guidelines.
CITY CLERK INSTRUCTIONS:	Please send an executed copy of the final resolution to Chris Haley at MS 704A and Karly Martin at MS 715.

COUNCIL ACTION
EXECUTIVE SUMMARY SHEET
CITY OF SAN DIEGO

DATE: 10/20/2014
ORIGINATING DEPARTMENT: Police Department
SUBJECT: Funding for Public Safety Communications Projects: the Police 9-1-1 Call Manager Upgrade and the Enterprise Telephone/Radio Logger Replacement Project
COUNCIL DISTRICT(S): All
CONTACT/PHONE NUMBER: Chris Haley/619-531-2401, MS 704A

DESCRIPTIVE SUMMARY OF ITEM:
The Police Department is requesting the City Council approve two interrelated public safety communications projects that are necessary to ensure reliable police and fire response to emergency and non-emergency calls for service. The projects include: an upgraded 9-1-1 call manager for the Police Department and an upgraded enterprise radio/phone logging system for Police and Fire-Rescue communications.
STAFF RECOMMENDATION:
Approve requested actions.
EXECUTIVE SUMMARY OF ITEM BACKGROUND:

The San Diego Police Department currently uses a 23-year old Computer Aided Dispatch (CAD) system for dispatching police officers to 9-1-1 and non-emergency calls for service. To replace this aging equipment, the City approved an enterprise CAD project, which will also be used by the Fire-Rescue Department and other departments with dispatching needs. Proposals received in response to the enterprise CAD request for proposal (RFP) are being evaluated at this time.

In preparation for the new enterprise CAD system, additional business and technical analysis has been underway. During this process, it was determined that there is a critical need to modernize the infrastructure to meet the current standards, redundancy, and security requirements for public safety. These components are interrelated and are essential to ensuring reliable emergency response service to the citizens of San Diego. The identified components include the need for: a new public safety network, which is infrastructure that connects the Police and Fire-Rescue communications systems and provide backup systems; an upgraded 9-1-1 call manager for the San Diego Police Department, which is the system that receives 9-1-1 and non-emergency calls; and an upgraded radio/phone logging system that is used to record Police and Fire-Rescue radio and phone traffic.

The purpose of this report is to request City Council approval for an upgraded 9-1-1 call manager for the Police Department and an upgraded enterprise radio/phone logging system for Police and Fire-Rescue communications.

Please refer to Report to Council for additional information.

FISCAL CONSIDERATIONS:

The costs associated with these projects will be funded by the FY 2015 Police and Fire-Rescue Departments' General Fund budgets and State COPS 2013 Grant funds. Financial Management will be reviewing expenditures in the General Fund for the Police and Fire-Rescue Departments during the Quarterly Budget Monitoring process and requests to increase appropriations for these expenditures may be brought forward at that time.

EQUAL OPPORTUNITY CONTRACTING INFORMAITON (IF APPLICABLE):

This action is subject to the City's Equal Opportunity Contracting Ordinance (San Diego Ordinance No. 18173, Section 22.2701 through 22.22708) and the City's Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

PREVIOUS COUNCIL and/or COMMITTEE ACTION (describe any changes made to the item from what was presented at committee): N/A

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS

San Diego Police and Fire-Rescue Departments, and the residents of the City of San Diego.

Ramirez, David
Originating Department

_____
Deputy Chief/Chief Operating Officer

THE CITY OF SAN DIEGO

REPORT TO THE CITY COUNCIL

DATE ISSUED: November 3, 2014 REPORT NO. 14-066

ATTENTION: Honorable Council President Todd Gloria and Members of City Council

SUBJECT: Public Safety Communications Projects: the Police 9-1-1 Call Manager Upgrade and the Enterprise Telephone/Radio Logger Replacement Project

REFERENCE: None

REQUESTED ACTION:

General

The Chief Financial Officer is authorized to appropriate, from available fund balance, $204,333 to the Fire and Lifeguard Facilities Fund (200228), Fire-Rescue Department (1912), for the purpose of transferring funds to the General Fund (100000), to support public safety IT infrastructure.

The Chief Financial Officer is authorized to transfer an amount of $1,788,001 from the General Fund (100000) to General Fund Contributions to the CIP Fund (400265), as follows: $1,230,275 from the Police Department (1914), and $557,726 from the Fire-Rescue Department (1912).

Sub-Item A: San Diego Police Call Manager

Authorize the Mayor or his designee to execute an agreement with the State of California to secure and install the equipment to upgrade the Police Department's primary Customer Premise Equipment (CPE) / 9-1-1 Call Managing System, as well as the equipment for a backup emergency dispatch site for the Police and Fire-Rescue Departments.

Authorize the Mayor or his designee to execute and agreement with AT&T, a state approved vendor in an amount not to exceed $1,230,275, from CIP S15024, Police 9-1-1 Call Manager, fund 400265, GF Contributions to the CIP Fund for the purchase and maintenance of equipment, with reimbursement from the state in December 2017.

The Chief Financial Officer is authorized to add CIP S15024, Police 9-1-1 Call Manager, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15024, Police 9-1-1 Call Manager, and to appropriate and expend $1,230,275 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the 9-1-1 Call Manager project.

Sub-Item B: Enterprise Radio/Phone Logger

The Chief Financial Officer is authorized to add CIP S15025, Enterprise Radio/Phone Logger, to the Fiscal Year 2015 Capital Improvements Program.

The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in CIP S15025, Enterprise Radio/Phone Logger, and to appropriate and expend $1,697,882 as follows: $1,140,156 from the State Grant Fund (600001), State COPS 2013 Grant (1000046-2013); and, $557,726 from the GF Contributions to the CIP Fund (400265), for the purpose of funding the Enterprise Radio/Phone Loggers project.

STAFF RECOMMENDATION:

Approve requested actions.

EXECUTIVE SUMMARY OF ITEM BACKGROUND:

Background

The San Diego Police Department currently uses a 23-year old Computer Aided Dispatch (CAD) system for dispatching police officers to 9-1-1 and non-emergency calls for service. To replace this aging equipment, the City approved an enterprise CAD project, which will also be used by the Fire-Rescue Department and other departments with dispatching needs. Proposals received in response to the enterprise CAD request for proposal (RFP) are being evaluated at this time.

In preparation for the new enterprise CAD system, additional business and technical analysis has been underway. During this process, it was determined that there is a critical need to modernize the infrastructure to meet the current standards, redundancy, and security requirements for public safety. These components are interrelated and are essential to ensuring reliable emergency response service to the citizens of San Diego. The identified components include the need for: a new public safety network, which is infrastructure that connects the Police and Fire-Rescue communications systems and provide backup systems; an upgraded 9-1-1 call manager for the San Diego Police Department, which is the system that receives 9-1-1 and non-emergency calls; and an upgraded radio/phone logging system that is used to record Police and Fire-Rescue radio and phone traffic.

Enterprise Public Safety Network

The Enterprise Public Safety Network is an underlying project, recently underway, that is necessary to support reliable emergency communications in the City of San Diego. The Police and Fire-Rescue Department's current emergency network infrastructures, which support the critical 9-1-1 Call Manager, Computer Aided Dispatch (CAD), and telephone/radio logger systems, were historically maintained and serviced by engineers from the San Diego Data Processing Center (SDDPC) on a time and materials basis. When the City entered into a contract with Xerox State & Local Solutions, Inc. (Xerox) in July 2012 to provide Citywide voice and data networking services, the Police and Fire-Rescue Departments' emergency network infrastructures continued on a time and materials basis, provided by Xerox. Since this equipment is not part of the networking contract with the City, Xerox provides service upon request, but does not proactively monitor routine maintenance needs and equipment refresh. This year the City initiated a citywide technology roadmap process to ensure all departments are maintaining support technology and have plans and budget to replace legacy technology with 3-5 years of lead-time to avoid these gaps in the future.

In December 2013, the Police Department requested Xerox evaluate its current emergency network infrastructure to determine if the Master Services Agreement (MSA) between the City and Xerox could be modified to include maintenance and service for this critical network. In May 2014, after a thorough examination of the Department's emergency network infrastructure, Xerox concluded that many of the existing components were "end of life" and needed to be upgraded in order to meet requirements necessary to modify the service agreement.

Xerox also evaluated the Fire-Rescue Department's emergency network infrastructure and concluded that some of Fire-Rescue's equipment was similarly out-of-date. Identified components need to be upgraded before the MSA can be modified to cover the Fire-Rescue Department's emergency network infrastructure.

The outdated infrastructure supporting the Police and Fire 9-1-1 phone and CAD systems poses possible public safety risks, since a network failure could result in the inability to answer 9-1-1 calls or dispatch officers to crimes in progress. Redundancy could mitigate potential impacts in the event of a failure, but is not currently available. Also, without a modified MSA that includes these networks, Xerox cannot be held accountable to service levels that are standard for other City infrastructure.

In addition to issues regarding out-of-date emergency infrastructures, the existing networks in the Police and Fire-Rescue Departments will not fully support the planned enterprise CAD system, nor will it support a new geo-diverse 9-1-1 Call Manager configuration and a replacement enterprise telephone/radio logger. The existing emergency networks do not provide the bandwidth requirements to operate and sustain the updated systems and programs. Furthermore, in order to establish redundancy to support the "no single point of failure" initiative and to establish an emergency backup dispatch center for the Police and Fire-Rescue Departments, the existing network infrastructure must be enhanced.

The Police and Fire-Rescue Departments have worked with Xerox, the City's Communications Division, and other pertinent vendors, to design a resilient, highly diverse, geographically redundant network that would meet the Police and Fire-Rescue Departments' requirements. This new network will provide coverage for five sites: San Diego Police Communications, San Diego Fire-Rescue Communications, San Diego Lifeguard Communications, Chollas (the primary public safety radio site), and an emergency backup dispatch site.

Once established, the Enterprise Public Safety Network will have numerous benefits. The new equipment will be owned by Xerox, consistent with the rest of City network equipment. The MSA between the City of San Diego and Xerox will be updated to include the new emergency network infrastructure, resulting in required service levels for support, and regular maintenance. The proposed design will provide redundancy, ensuring no single point of failure, and will allow the Police and Fire-Rescue Departments to establish the City's first emergency backup dispatch site.

The total cost of this project is approximately $473,000, which will be funded jointly by the Police and Fire-Rescue Departments. The Police Department's share of this project is approximately $271,000, which includes $111,000 for the equipment and approximately $160,000 for the first year of maintenance, and will be funded with State COPS 2013 grant funds. The Fire-Rescue Department's share of this project is approximately $202,000, which includes $126,000 for the equipment and $76,000 for the first year of maintenance. This will be funded with the Fire-Rescue Department's General Fund budget. Financial Management will be reviewing expenditures in the General Fund for the Fire-Rescue Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

San Diego Police Call Manager

The Police Department uses the Vesta 2.2 Customer Premise Equipment (CPE)/9-1-1 call managing system to receive 9-1-1 and non-emergency calls from the public. The system runs on the Windows XP operating system (OS) and the manufacturer, Cassidian, will not upgrade the system to a newer OS. The City has mandated the Department upgrade all of its existing computers to the Windows 7 OS, since Microsoft no longer supports or provides security patches for Windows XP. This important migration to Windows 7 cannot be completed without replacing the existing call manager, and continuing to operate on the current Windows XP system poses an increasing risk of failure to this critical system over time.

Additionally, the current system does not provide for redundancy and a backup dispatch site, both critical to avoiding a 9-1-1 outage in the event of failure. Best practices recommend redundancy within these types of critical systems, so if one part of the system fails, operations can continue on redundant components. This supports the principle of having no single point of failure in systems that support the receiving, handling and dispatching of 9-1-1 calls, and is an important goal of the new enterprise CAD system. The upgrade of the call manager equipment will allow for redundancy, and also supports deployment in multiple locations, allowing Police and Fire-Rescue to establish an emergency backup dispatch site.

This upgrade is also needed to support full functionality of the new CAD system and to correct inaccurate and inconsistent reporting of call times between the Police and Fire-Rescue Departments. In an effort to correct these issues, the Police Department has started to transition its existing call taker and radio telephone lines over to Voice over Internet Protocol (VOIP). Cassidian, however, no longer manufactures some of the necessary hardware to support VOIP. The new Vesta 4.2 call manager system is compatible with next generation 9-1-1 technology, and will support full functionality offered by new CAD systems currently available. Finally, there have been recent issues with the reporting component of the current call manager system.

The California 9-1-1 Emergency Communications Branch funds call manager system upgrades for Public Safety Answering Points (PSAPs), such as the San Diego Police Department, on a five-year cycle using funds from the Emergency Telephone Users Surcharge. The California 9-1-1 Branch has agreed to reimburse the City for the mid-cycle upgrade of its existing 9-1-1 call manager. This reimbursement of approximately $1.6 million will occur in December 2017, when the City is due for its five-year upgrade. A sole source request for the purchase and maintenance of this equipment from AT&T, a State approved vendor, has been approved by Purchasing and Contracting.

The Fire-Rescue Department is currently in the process of upgrading its call manager system to Vesta 4.2, with service provided by AT&T. Fire-Rescue's upgrade will be funded by the State 9-1-1 Branch as part of their regular cycle upgrade. With both departments operating on the same type of system and the same service provider, call-taking backup operations will be possible between departments.

Approval is being requested to add this project to the Capital Improvement Program Budget and to appropriate funding for this purpose. The total cost of this project is approximately $1,685,000, which will be funded by Police Department's General Fund budget. Of this amount, $1,230,000 will be used to replace the existing equipment and approximately $455,000 will be used to offset the costs associated with 48 months of maintenance. Financial Management will be reviewing expenditures in the General Fund for the Police Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

Enterprise Radio/Phone Logger

Radio/phone logger equipment records radio and phone traffic. These recordings are essential in investigations, and are frequently utilized during court proceedings. The Police Department's existing Data Instruments telephone/radio logger currently operates on the outdated Gold Elite radio infrastructure, which is no longer in use, and has been replaced by the new Motorola P25 radio system. The existing logger also utilizes an unsupported, and no longer available, interface to record telephone and radio traffic on the Department's radio dispatch consoles. Over time, there have been issues with the Police Department's Data Instruments logger providing complete recording information.

The new Motorola Nice logger will support the full functionality offered by the new enterprise CAD and the new Police and Fire 9-1-1 call managing systems. The new logger will allow the

elimination of the old Gold Elite radio infrastructure, and end the Police Department's reliance on the unsupported interface currently used to record telephone and radio traffic. In addition, the logger will consolidate logging services used by the Police and Fire-Rescue Departments, and could result in additional savings if other City Departments choose to use the logger. Recurring support and maintenance costs will be minimized since these costs will be added to the overall system maintenance contract between the City's Communications Division and Motorola.

Approval is being requested to add this project to the Capital Improvement Program Budget and to appropriate funding for this purpose. The total cost of this project is approximately $1,698,000, which will be funded jointly by the Police and Fire-Rescue Departments. The Police Department's share of this project is approximately $1,140,000 and will be funded with State COPS 2013 grant funds. The Fire-Rescue Department's share of this project is approximately $558,000 and will be funded from the Fire-Rescue General Fund budget. Financial Management will be reviewing expenditures in the General Fund for the Fire-Rescue Department during the Quarterly Budget Monitoring process and a request to increase appropriations for these expenditures may be brought forward at that time.

Conclusion

There is a critical need to modernize the infrastructure to meet the current standards, redundancy, and security requirements for public safety. The equipment requested to be replaced in this action is decades old in some cases and does not contain modern technology functions like redundancy and high availability, and uses operating systems that are past end of life. This year the City initiated a citywide technology roadmap process to ensure all departments are maintaining support technology and have plans and budget to replace legacy technology with 3-5 years of lead-time to avoid delays in replacing and upgrading IT infrastructure in the future. The technology roadmap and the replacements and upgrades requested in this action ensure the City will have an up-to-date public safety network.

FISCAL CONSIDERATIONS:

The costs associated with these projects will be funded by the FY 2015 Police and Fire-Rescue Departments' General Fund budgets and State COPS 2013 Grant funds. Financial Management will be reviewing expenditures in the General Fund for the Police and Fire-Rescue Departments during the Quarterly Budget Monitoring process and requests to increase appropriations for these expenditures may be brought forward at that time.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (if applicable)

This action is subject to the City's Equal Opportunity Contracting Ordinance (San Diego Ordinance No. 18173, Section 22.2701 through 22.22708) and the City's Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

PREVIOUS COUNCIL and/or COMMITTEE ACTIONS: N/A

COMMUNITY PARTICIPATION AND OUTREACH EFFORTS: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS

San Diego Police and Fire-Rescue Departments, and the residents of the City of San Diego.

Police Department

Deputy Chief/Chief Operating Officer

DOCKET SUPPORTING INFORMATION CITY OF SAN DIEGO **EQUAL OPPORTUNITY CONTRACTING PROGRAM EVALUATION**	DATE: October 30, 2014
SUBJECT: Public Safety Communication Projects	

GENERAL CONTRACT INFORMATION

Recommended Agency: Pacific Bell Telephone Company (AT&T)

Amount of this Action: **$3,856,058**

Funding Source: City of San Diego / State of California Cops 2013 Grant

Goal: N/A

SUBCONTRACTOR PARTICIPATION

There is no subcontractor participation associated with this action.

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE

Equal Opportunity: Required

Pacific Bell Telephone Company (AT&T) is a Public Utility, created under authority of law as such, is exempt from submitting Work Force Reports. Refer to San Diego Municipal Code Section 22.2703 (b).

This agreement is not subject to the City's Equal Opportunity Contracting (San Diego Ordinance No. 18173, Section 22.2701 through 22.2708).

This agreement is subject to the City's Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

ADDITIONAL COMMENTS

MB

Quote Summary

at&t

DATE	9/30/2014	Customer Name	
		San Diego Police Department	
Account Manager	Jeff Cushman	System:	VESTA
Phone	858-886-1140		AURORA MIS
Email	jc6785@att.com		
		Number of Positions	48
Tax Exempt		Tax Rate	8.000%

VESTA		Equipment	$	767,110.88
Includes:				
Number of Positions:	48	Taxable Equipment	$	767,110.88
Installation				
Training		Tax	$	61,368.87
		Installation and Training	$	328,958.85
		Subtotal	$	1,157,438.60
	Maintenance:			
	$8,079.20 x 48 Months Maintenance Years 2-5		$	387,801.60
	Year 1 included with system			
		System Total:		$1,545,240.20
AURORA MIS		Equipment and Training	$	34,489.87
Includes:				
Number of Positions:	48	Taxable Equipment	$	34,251.60
Installation				
Training		Tax	$	2,740.13
		Installation	$	841.16
		Subtotal	$	38,071.16
	Maintenance:			
	$347.68 x 48 Months Maintenance Years 2-5		$	16,688.64
	Year 1 included with system			
		System Total:		$54,759.80
		Grand Total:		$1,600,000.00

Customer to supply host network connectivity and high speed remote access

Access to secure customer network or Customer adds DSL or other high speed connection

This Quote Valid until 12/29/2014

Quote Summary

at&t

DATE	9/30/2014	Customer Name	
		San Diego Police Department	
Account Manager	Jeff Cushman	System:	Remote Site VESTA Positions
Phone	858-886-1140		
Email	jc6785@att.com		San Diego PD VESTA 4.x Remote Site
			San Diego PD AURORA Remote Site
		Number of Positions	20
Tax Exempt		Tax Rate	8.000%

San Diego PD VESTA 4.x Remote Site

Includes:

Number of Positions: 20

Installation

Training

Equipment and Training	$	242,510.83
Taxable Equipment	$	241,425.77
Tax	$	19,314.06
Installation	$	64,328.74
Subtotal	$	326,153.62

Maintenance:

$950.00 x 48 Months Maintenance Years 2-5 — $ 45,600.00

Year 1 included with system

System Total: $371,753.62

San Diego PD AURORA Remote Site

Includes:

Number of Positions: 20

Installation

Training

Equipment and Training	$	26,551.72
Taxable Equipment	$	26,551.72
Tax	$	2,124.14
Installation	$	3,700.00
Subtotal	$	32,375.86

Maintenance:

$100.00 x 48 Months Maintenance Years 2-5 — $ 4,800.00

Year 1 included with system

System Total: $37,175.86

San Diego Police Department Remote Total:	$408,929.49
One-Time Discount:	-$323,763.98
Grand Total:	$85,165.51

Customer to supply host network connectivity and high speed remote access

Access to secure customer network or Customer adds DSL or other high speed connection

Quote Summary

DATE	9/30/2014	Customer Name	
		San Diego Police Department	
Account Manager	Jeff Cushman	System:	Remote Site VESTA Positions
Phone	858-886-1140		
Email	jc6785@att.com		San Diego PD VESTA 4.x Remote Site
			San Diego PD AURORA Remote Site
			Number of Positions 20
Tax Exempt		Tax Rate	8.000%
This Quote Valid until	12/29/2014		

EDMUND G. BROWN JR.
GOVERNOR

MARK S. GHILARDUCCI
DIRECTOR

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

June 5, 2014

Shelley Zimmerman, Chief of Police
San Diego Police Department
1401 Broadway
San Diego, CA 92101-5729

SUBJECT: SAN DIEGO POLICE DEPARTMENT'S REQUEST FOR EARLY FUNDING FOR REPLACEMENT OF THE 9-1-1 CUSTOMER PREMISE EQUIPMENT

Dear Chief Zimmerman:

On May 27, 2014, the California 9-1-1 Emergency Communications Branch (CA 9-1-1 Branch) met with staff from the San Diego Police Department (SDPD) to discuss SDPD's request for early funding for replacement of the 9-1-1 Customer Premise Equipment (CPE). The request for early funding stemmed from discontinued support of the Windows XP operating systems, the City of San Diego's mandate to move to Windows 7, and Cassidian's lack of support for the Vesta 2.2. Please reference SDPD letter to CA 9-1-1 Branch dated April 7, 2014.

SDPD proposed four (4) potential options to remedy the situation. The CA 9-1-1 Branch's response letter dated May 13, 2014 identified three (3) potential options to address SDPD's situation. The options proposed by SDPD and the CA 9-1-1 Branch were discussed during the meeting. After further review, SDPD's Options 1 and 2 cannot be supported as follows:

Option 1. Adjust the current December 2017 5-year replacement cycle back to 2015 to compensate for the delayed acceptance of the CPE system. The published policy of the CA 9-1-1 Branch is to fund on the date of CPE system acceptance by the Public Safety Answering Point (PSAP). This date serves as the beginning of the next 5-year replacement cycle.

Option 2. Grant access to CPE funds accrued to-date to partially fund the CPE system replacement. Effective February 20, 2014 new policies and procedures were established that no longer provides for an annual accrual. CPE funding is a fixed allotment that is available to PSAPs at the date of the 5-year replacement cycle.

Of the remaining two SDPD proposed options, the CA 9-1-1 Branch is able to offer assistance towards Options 3 and 4 as follows:

Option 3. Allow SDPD to fund and replace the CPE system and request reimbursement for CPE expenses in December 2017. The CA 9-1-1 Branch can reimburse the SDPD for expenses to procure a new CPE system mid-cycle. The reimbursement would be provided at the end of the current 5-year replacement cycle (December 2017). The following conditions apply:

601 SEQUOIA PACIFIC BLVD, SACRAMENTO, CA 95811
PUBLIC SAFETY COMMUNICATIONS
(916) 657-9369 TELEPHONE (916) 657-9882 FAX

a) The SDPD will not be eligible to replace CPE until the end of the next scheduled 5-year funding cycle as calculated from 2017. SDPD would be eligible for CPE replacement and funding in 2022.
b) If SDPD accepts the CPE system after the current funding cycle end date (2017), the new funding cycle will be based on date of system acceptance.
c) Approved funding is calculated based on SDPD's current 18-month (2013-2014) call volume to determine the maximum fixed funding allotment amount that would be reimbursed. Based on current call volume SDPD's CPE fixed funding allotment would be $1,664,000.00 that would be reimbursable in 2017.
d) Reimbursement will be based on eligible items (CPE and incremental costs) per funding policy in the CA 9-1-1 Operations Manual, Chapter III-Funding. The CA 9-1-1 Branch must review and approve all reimbursable items.
e) SDPD will follow the CA 9-1-1 Branch Reimbursement Claim Process included in the CA 9-1-1 Operations Manual, Chapter III that will require documentation of CPE system purchase and proof of payment.
f) Maintenance will continue to be paid in arrears on the existing CPE system until the new system has been accepted.
g) If SDPD completes the replacement prior to the 2017 cycle, then this would offset the normal replacement cycle. Since SDPD would not be eligible for funding until 2022, the difference in time would have to be covered under extended maintenance. SDPD requested that unused funds from the time of replacement until 2017 be allowed to offset maintenance costs until 2022. The CA 9-1-1 Branch has considered SDPD's request and can support this concept. As CPE maintenance is paid in arrears, currently $187,947.06 remains to be paid in extended maintenance. The amount the CA 9-1-1 Branch will apply will be the adjusted amount from the time the SDPD accepts the new CPE system until 2017. If this amount is not sufficient to cover CPE extended maintenance costs then SDPD will be required to fund the difference.

Option 4. The CA 9-1-1 Branch would partner with the SDPD to seek compensation from Cassidian and Verizon for the costs to remedy the situation. This option was discussed in depth. The CA 9-1-1 Branch agreed to facilitate a call between SDPD, the CA 9-1-1 Branch and Verizon to confirm Verizon's responsibility in this matter for support of the current CPE system. This call will be coordinated by the CA 9-1-1 Branch and scheduled for late June 2014. The CA 9-1-1 Branch had been in contact with Verizon prior to the May 27th meeting. Verizon had advised that the Computer Aided Dispatch (CAD) be separated from the Vesta 2.2 computers and be located on computers that specifically support the CAD system. Verizon has a contractual obligation to maintain the Vesta 2.2 system (which utilizes the Windows XP operating system) until December 2017, when the 5 years of CPE maintenance ends, should the SDPD separate the systems. This course of action would allow for a traditional replacement cycle to continue and SDPD would receive funding at that time for CPE replacement. This will be further evaluated with Verizon during the call.

Should you require any clarification in regards to this correspondence, please direct your questions to Barbara Shackelford, CA 9-1-1 Branch consultant at (916) 657-9680 or via e-mail at Barbara.Shackelford@state.ca.gov.

Sincerely,

WILLIAM D. ANDERSON, Branch Manager
California 9-1-1 Emergency Communications Branch

cc: Jan Goldsmith, City Attorney, City of San Diego
David Ramirez, Executive Assistant Chief of Police
Walter Vasquez, Assistant Chief of Police
Linda Peter, Deputy City Attorney, City of San Diego
Gerardo Gurrola, Program Manager, Police Communications Division
Marta Sullivan, Program Manager, Police Administrative Division
Chris Haley, A/Program Manager, Police Information Services
Monica McGrath, Division Chief, California 9-1-1 Emergency Communications Branch
Dana Earl, Unit Supervisor, California 9-1-1 Emergency Communications Branch
Barbara Shackelford, 9-1-1 Consultant, California 9-1-1 Emergency Communications Branch

2011202-0029

STATE OF CALIFORNIA
STANDARD AGREEMENT
STD 213 (Rev 06/03)

AGREEMENT NUMBER
5-12-58-01
REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME
Department of General Services

CONTRACTOR'S NAME
AT&T California

2. The term of this Agreement is: January 1, 2012, or upon DGS signature or approval through December 31, 2014 With two one-year options to extend

3. The maximum amount of this Agreement is: $ .00

4. The parties agree to comply with the terms and conditions of the following which are by this reference made a part of the Agreement.

The term of this agreement is from 01/1/2012, or upon DGS signature and approval, whichever is later, through 12/31/2014.

This contract is to provide 9-1-1 Systems and Services to State and local government agencies per RFP MPA 1104-014.

Exhibit A – Sample Statement of Work, 6 pages
Exhibit B – Budget Detail and Payment Provision, 1 page
Exhibit C – IT General Provision, 6/08/10, 10 pages
http://www.documents.dgs.ca.gov/pd/modellang/GPIT060810.pdf
American Recovery and Reinvestment Act (ARRA) Supplemental Terms and Conditions, 08/10/09, 2 pages
http://www.documents.dgs.ca.gov/pd/poliproc/ARRATand%20C081009final.pdf
Exhibit D – Price List
http://www.ocio.ca.gov/PSCO/Services/911/default.htm

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR

CONTRACTOR'S NAME *(if other than an individual, state whether a corporation, partnership, etc.)*
AT&T California

BY *(Authorized Signature)*
Eva P. Smith

DATE SIGNED *(Do not type)*
12/2/2011

PRINTED NAME AND TITLE OF PERSON SIGNING
EVA P. SMITH

ADDRESS

STATE OF CALIFORNIA

AGENCY NAME
Department of General Services

BY *(Authorized Signature)*

DATE SIGNED *(Do not type)*
2/1/12

PRINTED NAME AND TITLE OF PERSON SIGNING
~~Jim Butler~~, Deputy Director
RUSS GUARNA

ADDRESS
707 Third Street, 2nd Floor
West Sacramento, CA 95605-2811

California Department of General Services Use Only

ADDRESS

☐ Exempt

TATE OF CALIFORNIA
STANDARD AGREEMENT AMENDMENT
STD. 213 A (Rev 6/03)

☐ CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED Pages _____

AGREEMENT NUMBER	AMENDMENT NUMBER
5-12-58-01	1
REGISTRATION NUMBER	

1. This Agreement is entered into between the State Agency and Contractor named below:
STATE AGENCY'S NAME
CALIFORNIA TECHNOLOGY AGENCY
CONTRACTOR'S NAME
AT&T California

2. The term of this Agreement is: January 1, 2012, or upon Technology Agency signature or approval through December 31, 2014 With Two one-year options to extend term

3. The maximum amount of this Agreement after this amendment is: $0.00

4. The parties mutually agree to this amendment as follows. All actions noted below are by this reference made a part of the Agreement and incorporated herein:

Under Public Contract Code Section 12120, This administrative amendment hereby replaces the State Agency's Name on the STD 213 as follows:

FROM: Department of General Services
TO: California Technology Agency

All references to Department of General Services (DGS) are hereby deleted within this contract and superceded by California Technology Agency, Office of Telecommunications Procurement, 3101 Gold Camp Dr., Rancho Cordova, CA 95670.

Change STD 213 State Signature: FROM: Jim Butler TO: Russ Guarna

This amendment clarifies that RFP # 1104-014 referenced on the STD 213 and the vendors response is hereby incorporated by reference.

All other terms and conditions shall remain the same.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR

CONTRACTOR'S NAME *(If other than an individual, state whether a corporation, partnership, etc.)*

BY *(Authorized Signature)* ✍ | DATE SIGNED *(Do not type)*

PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

STATE OF CALIFORNIA

AGENCY NAME
CALIFORNIA TECHNOLOGY AGENCY

BY *(Authorized Signature)* ✍ Russ Guarna | DATE SIGNED *(Do not type)* 2/1/12

PRINTED NAME AND TITLE OF PERSON SIGNING
Russ Guarna, Deputy Director, Office of Telecommunications Procurement

ADDRESS
3101 Gold Camp, Rancho Cordova, CA 95670

CALIFORNIA Department of General Services Use Only

☐ Exempt per:

STATE OF CALIFORNIA

STANDARD AGREEMENT AMENDMENT

STD. 213 A (Rev 6/03)

☐ CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED _____ Pages

AGREEMENT NUMBER	AMENDMENT NUMBER
5-12-58-01	2
REGISTRATION NUMBER	

1. This Agreement is entered into between the State Agency and Contractor named below:
   STATE AGENCY'S NAME
   California Technology Agency
   CONTRACTOR'S NAME
   AT&T California
2. The term of this Agreement is **January 1, 2012, or upon Technology Agency signature or approval** through **December 31, 2016**
3. The maximum amount of this Agreement after this amendment is: **$0.00**
4. The parties mutually agree to this amendment as follows. All actions noted below are by this reference made a part of the Agreement and incorporated herein:

   Amendment Two extends the term of this Agreement for two (2) years:

   Original Term: January 1, 2012 through December 31, 2014
   Extended Term: January 1, 2012 through December 31, 2016

All other terms and conditions shall remain the same.

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR		CALIFORNIA Department of General Services Use Only
CONTRACTOR'S NAME *(If other than an individual, state whether a corporation, partnership, etc.)*		
AT&T California		
BY *(Authorized Signature)*	DATE SIGNED *(Do not type)*	
✍ Eua P. Smith	12/6/2012	
PRINTED NAME AND TITLE OF PERSON SIGNING		
EUA P. SMITH		
ADDRESS		
1936 Blue Hills DR Roanoke VA 24012		
STATE OF CALIFORNIA		
AGENCY NAME		
California Technology Agency		
BY *(Authorized Signature)*	DATE SIGNED *(Do not type)*	
✍ Pete Modella for	12/14/12	
PRINTED NAME AND TITLE OF PERSON SIGNING		☐ Exempt per:
Russ Guarna, Deputy Director, Office of Telecommunications		
ADDRESS		
3101 Gold Camp, Rancho Cordova, CA 95670		

THE CITY OF SAN DIEGO

M E M O R A N D U M

DATE: October 21, 2014

TO: David Ramirez, Executive Assistant Chief, San Diego Police Department

FROM: Dennis Gakunga, Director, Purchasing & Contracting Department

SUBJECT: Sole Source Request for AT&T

Your Sole Source Request for the above subject with AT&T was approved and is valid through 10/14/2015. In order for a Purchase Order to be issued, your department has to submit a purchase requisition. In the internal header notes of the requisition, please reference Sole Source Case Number 3454. For questions, please contact Thania Bouza at x66150.

Dennis Gakunga,
Director, Purchasing & Contracting Department

DG/pd

cc: Garrin Smith, Police Dispatch Administrator, Communications - Administration
Karly Martin, Associate Management Analyst, Administrative Services, Fiscal Management
Chris Haley, Program Manager, Information Services – Crime Analysis

CITY OF SAN DIEGO
MEMORANDUM

DATE: 10/14/2014

TO: Dennis Gakunga

FROM: Thania Bouza

SUBJECT: Sole Source Request — AT&T for AT&T

Negotiated Total:

Dept. Est. Total: $1,685,252.31

Vendor: AT&T

Expiration Date: 10/14/2015

Recommendation: **Approved**

Determination:
In accordance with SDMC §22.3212 and §22.3037, this is to certify that a sole source award to AT&T is necessary and that a strict compliance with a competitive process would be unavailing or would not produce and advantage, and soliciting bids or proposals would be undesirable, impractical or impossible for the following reasons:

1.Requested from the Department of: Information Services – Police Department
Date Received: September 9, 2014

2.Requesters/ Contact Name: Garrin Smith, Police Dispatch Administrator

3.Requested Supplier/Vendor: AT&T

4.Describe or attach the supporting documentation submitted by the department:
-Sole Source Documentation request from Information Services - Police Department dated September 1, 2014

5.Cost Estimate: $1,685,252.31– Contingent upon Council's Approval

6.Describe number of future purchases contemplated: As Needed

7.The reason the Department is using a sole source* purchasing method is because:
The Police Department - Information Services states that there are currently two State-approved vendors that install, maintain and provide support for the Vesta 9-1-1 call managing system and software in Southern California: Verizon California, Inc. (Verizon), which is the Police Department's current 9-1-1 call manager vendor, and AT&T.

CITY OF SAN DIEGO
MEMORANDUM

The Department has had serious concerns with the services and support Verizon has provided over the past several years, including an unacceptably lengthy installation period for the Department's existing call manager and a failure to fulfill contractual obligations to support two important software upgrades, the Windows XP/Windows 7 operating system and the MS2003/MS2010 server software.
Department requested quotes from both Verizon and AT&T for a proposed 9-1-1 call manager upgrade. After receiving both quotes, the Department had Vesta's manufacturer, Cassidian, review the technical configurations of each quote for completeness. The AT&T quote was suitable for a complete system upgrade, but that Verizon's quote was incomplete. Verizon has not provided an acceptable modified solution in response to these concerns.

8.What necessary feature(s) does this item/vendor provide which are not available from any other source?
AT&T is the only State-approved vendor that has provided the Police Department with a complete solution to upgrade its existing Vesta 9-1-1 call managing system. AT&T service is considered as the only one with the necessary quality, merit or functionality required by the City.

9.What steps were taken to verify that these features are not available elsewhere?
-The Department requested a quote from Verizon for the proposed 9-1-1 call manager upgrade. The proposed technical configuration was evaluated by Vesta's manufacturer, Cassidian. Cassidian's representatives indicated that Verizon's quote lacked essential hardware components and was an incomplete system quote. The Department attempted to communicate this to Verizon. But Verizon was not responsive to identified concerns.
-AT&T is the only State-approved vendor for Vesta 9-1-1 call managing system.

PS: Thania Bouza Date: 10-14-2014

PPS: Yaron Wolff Date:

Deputy Director: Date: 10/17/14

*Sole Source: only one vendor/supplier/product possesses the unique and singularly available capability to meet the requirement of the solicitation or the project.

City of San Diego

EQUAL OPPORTUNITY CONTRACTING (EOC)

1200 Third Avenue • Suite 200 • San Diego, CA 92101

Phone: (619) 236-6000 • Fax: (619) 236-5904

WORK FORCE REPORT

The objective of the *Equal Employment Opportunity Outreach Program*, San Diego Municipal Code Sections 22.3501 through 22.3517, is to ensure that contractors doing business with the City, or receiving funds from the City, do not engage in unlawful discriminatory employment practices prohibited by State and Federal law. Such employment practices include, but are not limited to unlawful discrimination in the following: employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractors are required to provide a completed *Work Force Report (WFR).*

NO OTHER FORMS WILL BE ACCEPTED

CONTRACTOR IDENTIFICATION

Type of Contractor: ☐ Construction ☐ Vendor/Supplier ☐ Financial Institution ☐ Lessee/Lessor ☐ Consultant ☐ Grant Recipient ☐ Insurance Company ☐ Other

Name of Company: PACIFIC BELL TELEPHONE CO.

ADA/DBA: AT&T CALIFORNIA

Address (Corporate Headquarters, where applicable): 208 S. AKARD, ROOM 2240.02

City: DALLAS County: DALLAS State: TEXAS Zip: 75202

Telephone Number: ( ) 214-757-5699 Fax Number: ( )

Name of Company CEO: RANDALL STEPHENSON

Address(es), phone and fax number(s) of company facilities located in San Diego County **(if different from above):**

Address: 7337 TRADE ST.

City: SAN DIEGO County: SAN DIEGO State: CA Zip: 92121

Telephone Number: ( ) 858-886-1140 Fax Number: ( )

Type of Business: TELECOMMUNICATIONS Type of License:

The Company has appointed:

As its Equal Employment Opportunity Officer (EEOO). The EEOO has been given authority to establish, disseminate and enforce equal employment and affirmative action policies of this company. The EEOO may be contacted at:

Address: 208 S. AKARD, ROOM 2240.02

Telephone Number: ( ) 214-757-5699 Fax Number: ( )

☒ One San Diego County (or Most Local County) Work Force - Mandatory

☐ Branch Work Force *

☐ Managing Office Work Force

Check the box above that applies to this WFR.

**Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

I, the undersigned representative of AT&T, INC. *(Firm Name)*

SAN DIEGO *(County)*, CA *(State)* hereby certify that information provided herein is true and correct. This document was executed on this 27 day of OCTOBER, 20 14

Adrian Alexander *(Authorized Signature)*

ADRIAN ALEXANDER *(Print Authorized Signature Name)*

WORK FORCE REPORT – Page 2

NAME OF FIRM: PACIFIC BELL TELEPHONE CO DATE: 10/27/2014

OFFICE(S) or BRANCH(ES): SAN DIEGO COUNTY: SAN DIEGO

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

(1) Black, African-American
(2) Hispanic, Latino, Mexican-American, Puerto Rican
(3) Asian, Pacific Islander
(4) American Indian, Eskimo
(5) Filipino
(6) White, Caucasian
(7) Other ethnicity; not falling into other groups

ADMINISTRATION OCCUPATIONAL CATEGORY	(1) Black		(2) Hispanic		(3) Asian		(4) American Indian		(5) Filipino		(6) White		(7) Other Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Management & Financial	8	8	48	26	7	6	3				97	51	7	1
Professional		4	2	5	1	2					13	5		
A&E, Science, Computer		4	3	12		4		1			3	10		1
Technical	27	2	120			36	3				116	8	20	
Sales	20	66	161	267	14	27	4	5			75	149	4	6
Administrative Support	2	4	4	23		4					2	21		
Services														
Crafts	26	3	92	7	17	2	2				125	18	6	
Operative Workers														
Transportation														
Laborers*														

*Construction laborers and other field employees are not to be included on this page

Totals Each Column	83	91	431	340	75	45	12	6			431	263	37	8

Grand Total All Employees	1,822

Indicate by Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled														

Non-Profit Organizations Only:

Board of Directors														
Volunteers														
Artists														

P25 RADIO SYSTEM AND 911 TELEPHONY LOGGING RECORDER

Motorola Solutions, Inc.
6450 Sequence Drive
San Diego, CA 92121
U.S.A.

October 28, 2014

City of San Diego
Ken Norton
Communications Engineer
Sent VIA EMAIL

RE: Proposal for P25 Radio System and 911 Telephony Logging Recorder Solution

Dear Mr. Norton:

Motorola Solutions, Inc. ("Motorola") is pleased to have the opportunity to provide the City of San Diego with quality communications equipment and services. The attached proposal is for the services and equipment to deploy a redundant IP Logging Recorder solution for your P25 Radio Network and your 911 Telephone system at Police and Fire. The Motorola project team has taken great care to analyze and quote the necessary equipment and services to meet your requirements as which are further defined within the body of the proposal.

This proposal shall remain valid through the 13th day of February, 2015. This proposal is offered pursuant to the provisions of the Motorola / City of San Diego contract, reference number 4600000610, The City may accept the proposal by executing a purchase order which incorporates by reference the proposal, pricing and payment terms. Motorola would be pleased to address any questions you may have regarding the proposal. Please contact your Account Manager, Ken Nordholm with any questions that you might have.

Sincerely,
MOTOROLA SOLUTIONS, INC.

Kelly Kirwan
Corporate Vice President

TABLE OF CONTENTS

SYSTEM DESCRIPTIONS

1.1 OVERVIEW: RADIO AND TELEPHONY LOGGING RECORDER SYSTEMS

Motorola's proposal describes two logging recorder solutions for the City of San Diego; one to record the P25 Radio System and the second to record 911 Telephony. Motorola has described in detail the Radio System recording system in Section 1.2 and NICE has described the recording system in Section 1.3. The overall system architecture drawings are included in this section for both the Radio and 911 recorder solutions.

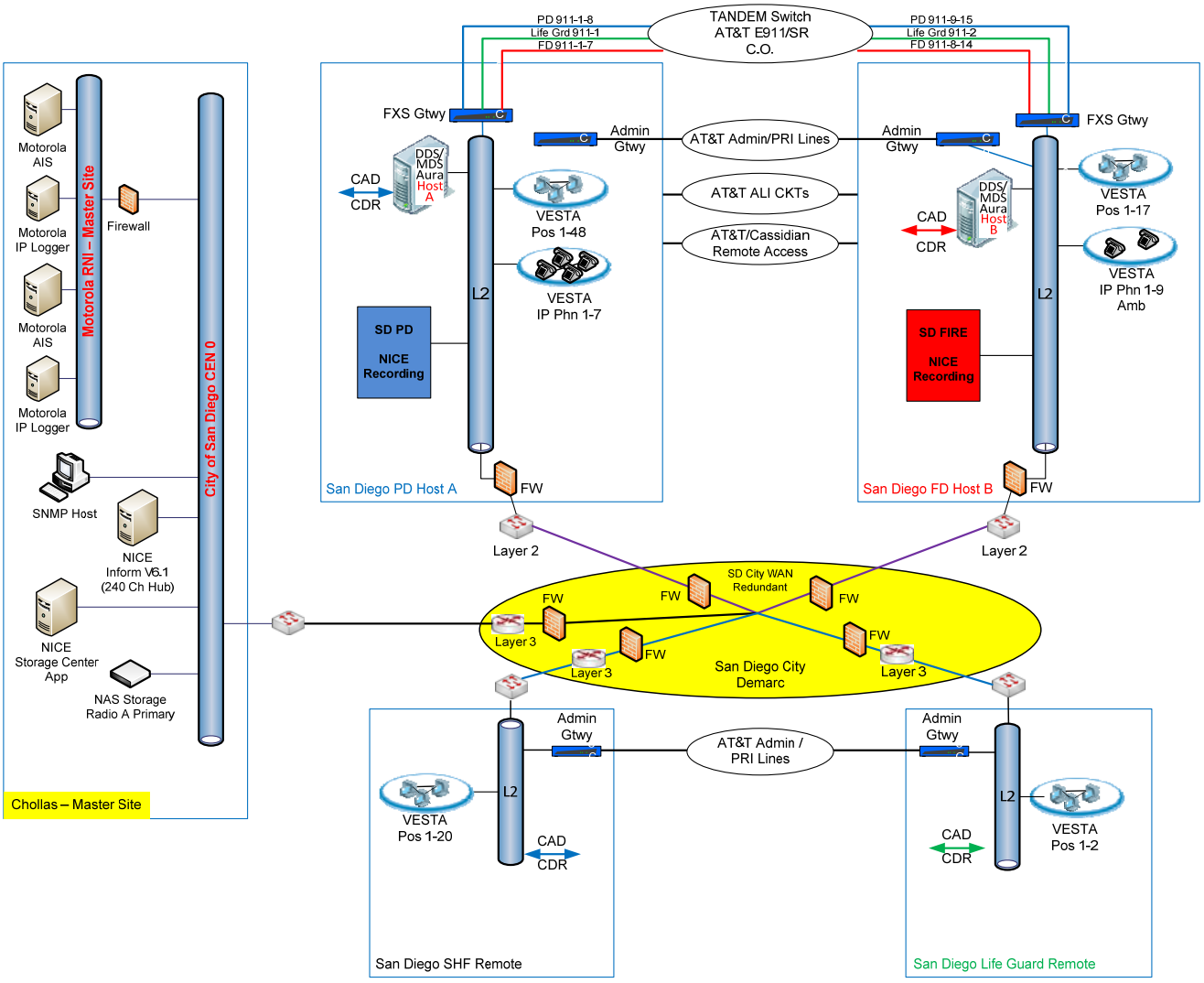


Figure 1-1: Overall Radio IP Logging System Block Diagram

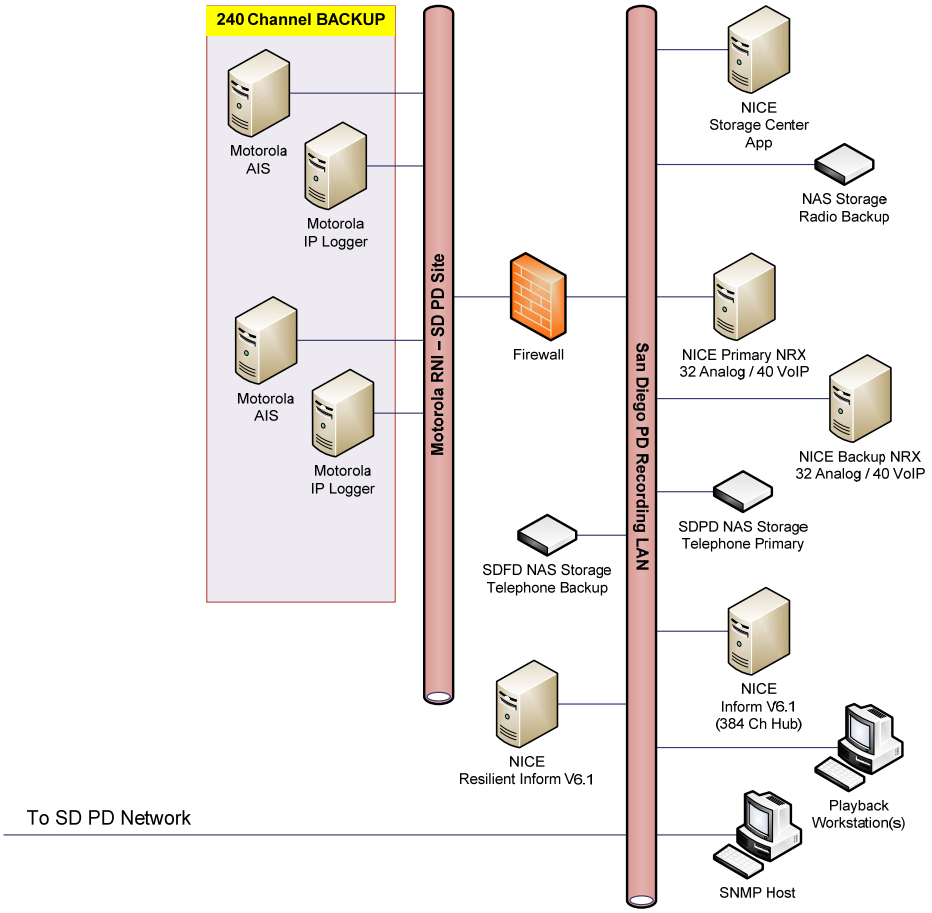


Figure 1-2: Logging Recorder Equipment at Police

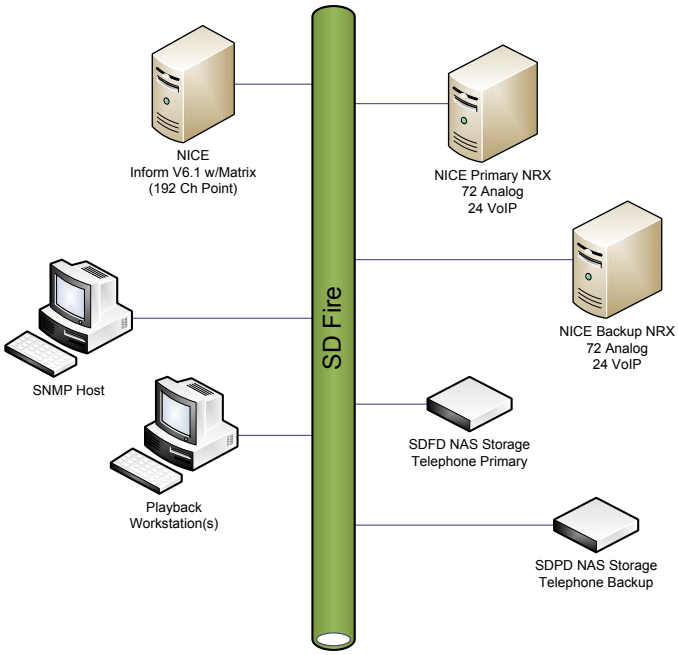


Figure 1-3: Logging Recorder Equipment at Fire

1.2 P25 RADIO IP LOGGING RECORDER SOLUTION SYSTEM OVERVIEW

Motorola Solutions is pleased to offer the following proposal to the City of San Diego for an ASTRO 25 IP logging recorder system. The MCC 7500 IP Logging Recorder developed by Motorola Solutions and NICE Systems, Inc. works exclusively with the MCC 7500 Dispatch Console and is fully integrated and a certified IP radio recording and replay solution for Motorola ASTRO 25 systems. The MCC 7500 IP logging recorder works in conjunction with the Archiving Interface Server (AIS) to provide a mission critical IP-based digital logging solution for ASTRO 25 7.13 systems. It provides a reliable and robust solution for customer audio recording requirements.

Key to the value and strength of the Motorola Solutions MCC 7500 IP logging recorder solution is its integration and certification with the Motorola ASTRO 25 network. The product resides on the radio system's IP network enabling the logging solution to provide more than just audio recording. Valuable data associated with each call including radio ID and Alias is captured.

Integration with ASTRO 25 makes it POSSIBLE to partition your archives. Multiple agencies can share a system to achieve interoperability, streamline storage and lower cost. Each department (police, fire, etc) may have its own dedicated access to just the communication they need to playback.

The addition of secure capability to the dispatch console and the archiving interface server provides true end to end encryption, providing a high degree of security for public safety customers. Radio voice messages remain encrypted the entire time they are being transported between the dispatch console and the two-way radio.

1.2.1 System Design: Radio System IP Logging Recorder

The Radio IP logging recording system designed consists of a MCC 7500 IP Logging Recorder, Archiving Interface Server (AIS), Network Attached Storage (NAS) and user licenses to access the logging recorder to search and playback audio. (Note: The analog and telephony logging solution proposed is described in Section 1.3.)

Two (2) primary 120-channel recorders are included to meet the capacity requirements of the logging recorder and two (2) backup 120-channel recorders are included for the City of San Diego. Each 120-channel logger can accommodate up to 256 talkgroups, for a total capacity of 512 talkgroups. The capacity is sized based on the following information:

- 800 MHz Trunked System – 118 Clear Talkgroups and 10 Secure Talkgroups.
- 700 MHz Trunked System – 80 Clear Talkgroups and 80 Secure Talkgroups.
- 19 Conventional Talkgroups.

The NICE provided analog logging recorders will include the capacity of the following:

- 10 Consoles to record Fire Conventional Select Audio.
- 16 Consoles to record PD Conventional Select Audio.

To provide redundancy both physically and geographically, the City of San Diego Radio IP logging recording system consists of a redundant MCC 7500 IP Logging Recorders, AISs and NAS devices. The primary MCC 7500 IP Logging Recorders, AISs, and NAS device will be located at the City of San Diego 7.13 Master Site located at Chollas. The secondary MCC 7500 IP Logging Recorders, AISs, and NAS device will be located at the City of San Diego Police Department Headquarters. Overall block diagram is shown in Figure 1-1. Figure 1-2 provides an Overall Radio IP Logging System Block Diagram.

At the Chollas Master Site, an MCC 7500 Logging Recorder and AIS (in Figure 1-1A) would be installed on the ASTRO 25 7.13 Radio Network Infrastructure (RNI). The IP logging recorder will capture all audio generated on the radio system that is programmed in the AIS. The agency has the ability to program all individual talkgroups they would like to be recorded at this point. The firewall installed on the RNI will permit audio to be moved between the RNI and Customer Enterprise Network (CEN) to archive the IP logger audio while protecting the Motorola Solutions radio network. On the CEN, a NICE Storage Center Server is installed to direct how and where to archive audio from the Motorola IP radio logger. The end device will be a NAS. The software included with the NAS product will allow audio files to be replicated to the redundant NAS located at the City of San Diego Police Department Headquarters to provide the required redundancy.

At the Police Department Headquarters, the redundant MCC 7500 Logging Recorder and AIS (in Figure 1-1B) will be installed on the RNI. This recorder will only capture all audio on the system in parallel to the MCC 7500 Logging Recorder at the Chollas Master Site. A secondary NAS will be at the Police Department Headquarters to allow for a geographically redundant drive for the Master Site. Another CEN will be included in this proposal at the Police Department Headquarters to protect the radio network from the user network for the playback workstations for only radio audio playback.

In order to allow users to search and playback audio, an Inform Hub Server is installed on the CEN. The users must have local user licenses to log in on the City of San Diego site LAN to search and playback any audio they may need to listen to. The Inform Hub Server would allow troubleshooting efforts by the radio technicians and allow the Police Department to utilize the Inform Matrix module which requires Inform to share audio they have assigned to them.

1.2.2 Archiving Interface Server (AIS): Radio System IP Logging Recorder

The Archiving Interface Server (AIS) provides an interface between the radio system and the MCC 7500 IP logging recorder. This allows calls on the radio system to be recorded together with information associated with the calls. The user can configure the logging recorder to monitor and record a set of radio system resources (trunked or conventional). The AIS monitors those identified resources, pass call-control information to the logging sub-system via an API, and redirects audio for those monitored channels to the logging sub-system via the LAN. The logging recorder then records this information to its storage media.

1.2.3 MCC 7500 IP Logging Recorder: Radio System IP Logging Recorder

The MCC 7500 IP Logging Recorder server stores all the call control information and vocoded audio packets associated with each call that it receives from the AIS. The system administrator specifies the talkgroups, conventional channels, trunked channels that are recorded so that the information can later be easily retrieved when it is needed.

The recorder has the same capacity as the AIS in which it can handle up to 120 simultaneous calls including trunked talkgroups and conventional channels. Audio and data files are written to a DAT 72 drive for archiving.

Type of Calls Recorded Include:

- Announcement group calls.
- Site-wide group calls.
- Talk group calls.
- Analog and digital conventional calls via a digital conventional channel gateway.
- Emergency on trunking/digital conventional.

Information captured for every call includes:

- Date and time stamp.
- Type of call with ID and alias (if applicable).
- Unit ID of the device originating the call.
- Unit ID alias of the device originating the call.
- Site ID where the call originated.
- Zone ID where the call originated.
- Secure on non-secure call designation announcement group calls.

Dispatcher-initiated events recorded include:

- Call alert.
- Emergency alarm
- Emergency acknowledge and knockdown.
- Repeat control.
- Resource status.
- Talk group priority status.
  - Main/Alternate status.
  - Frequency control.

1.2.4 NICE Inform: Radio System IP Logging Recorder

NICE Inform is a multimedia and incident management solution which monitors, searches and manages different recorded audio content for the purpose of investigation and review. It provides a complete, unified and chronological history of incidents in order to enable streamlining of investigations, information sharing and evidence delivery. NICE Inform delivers a powerful audio reconstruction and monitoring platform upon which the world of multimedia consolidation and management can be added as Control Centers become increasingly inundated with data and information which requires organization and management.

1.2.5 NICE Storage Center: Radio System IP Logging Recorder

The NICE Storage Center is an archival management system that enables users to define which of the captured interactions to archive, along with their target location and storage period. A single NICE Storage Center can support multiple capturing units of different types. Its redundancy capabilities together with the ability to leverage existing storage resources offer a robust solution for organizations that need high availability and disaster recovery solution.

Benefits include:

- Centralized storage management - Store recordings anywhere according to the organization's needs.
- Rules-driven archiving - Define rules for archiving: what, when, where, how, and for how long to archive.
- Enhanced archiving options - Choose between constant and periodic archiving for optimized network administration.
- Transparency - When searching and playing back a call, the actual location of the archived data is transparent to the user.
- Leverage existing storage infrastructure investments - NICE Storage Center integration with leading storage vendors enables organizations to leverage existing investments.
- Compliance with regulatory requirements - Helps organizations meet regulatory requirements for disaster recovery, continuity planning, and data retention.

1.2.6 Power: Radio System IP Logging Recorder

The equipment in this proposal has been designed for AC power. There is no AC or DC power system provided in this proposal. The customer is responsible for providing power to the equipment at the Chollas Master Site, Police Department Headquarters and the Fire Department.

1.3 SYSTEM DESIGN OVERVIEW: 911 TELEPHONY

The 911 Telephony recording system design overview from NICE has been included on the following pages.

NICE Recording System Design Overview

for the

City of San Diego

Version 9.0

Table of Contents

Version Information

Date	Author	Version
Jan. 18, 2013	Dave Langlands – Solutions Engineer	1.00
Feb. 21, 2013	Dave Langlands – Solutions Engineer	2.00
Mar. 4, 2013	Dave Langlands – Solutions Engineer	3.00
April 9, 2013	Dave Langlands – Solutions Engineer	4.00
May 9, 2013	Dave Langlands – Solutions Engineer	6.00
April 1, 2014	Dave Langlands – Solutions Engineer	7.00
May 30, 2014	Dave Langlands – Solutions Engineer	8.00
August 20, 2014	Dave Langlands – Solutions Engineer	9.00

***** Versions not mentioned above were internal changes and not distributed.***

City of San Diego Recording Solution
NICE Systems
Design Overview

Hardware Descriptions

NICE Storage Center™ – NICE application that controls what, when, and where audio is stored when 'archived' from the voice logger. This can be disk space on the same server running the application, or can be pointed to other disk storage on the network access using standard UNC paths. Disk systems such as NAS or SAN can be utilized as the destination device. Used for archiving audio from Motorola P25 Radio Systems.

NICE Inform™ – NICE application for the management of recording enterprises including loggers, CLS Servers, Storage Centers and user profiles for authentication.

NICE Inform™ Matrix – NICE Inform servers can be configured in two ways. All off the shelf Inform servers have the ability to be a "hub" server with no additional cost. It is part of the core product. The hub server is configured to share resources with other Inform servers. With the purchase of the Inform Matrix component, an Inform server can be configured as a "point" server. In this configuration, the point server is configured to connect to a hub server and access the shared resources, specific to the point server ID. In typical installations, the hub server is at the master site where all audio is recorded and the point server is at a smaller site that uses a subset of the audio recorded.

Inform Reconstruction™ – NICE Inform application module for the search and playback of audio for incident reconstruction.

Motorola IP Logger – Motorola product designed to recording VoIP packets on a radio network. In the case of the San Diego Police Department, it will be configured to capture the voice and data packets from the radio system via the Motorola Archive Interface Server (AIS).

Motorola Archive Interface Server (AIS) – Motorola product that provides the interface between the Motorola P25 radio system and the IP recorder. The AIS is used to configure the talkgroups to be recorded along with priorities. The AIS and IP logger must be installed in pairs with a maximum of 120 simultaneous call paths or 256 talkgroups per pair.

NICE NRX™ - NICE product utilized for traditional TDM and VoIP voice recording. The NRX uses a combination of COTS servers and NICE software and capture cards for the recording of analog, digital and VoIP audio sources.

City of San Diego Master Site Recording Design for P25 Radio

Please refer to the master multi-vendor drawing as a reference for the following details.

This document will provide an overview of the recording system design with the introduction of two Motorola MCC7500 IP loggers to the enterprise. One recording system will be installed at the City of San Diego Master Site. A second will be installed at the San Diego Police Department (SDPD). Details of the second recorder will be provided later in this document.

In this configuration the P25 recorder at the Master Site will record all audio on the radio system including PD, FD and any other users.

This design provides complete redundancy of the radio system recorder physically and geographically with the second recorder at the SDPD site.

This design will allow the Police Department, Fire Department (FD) and other users to access audio specific to their operations through an Inform directly or using the Inform Matrix component that will be implemented at the SD Fire Site and each of the potential external user sites. This document will focus on the SDPD and SD Fire specifically.

Audio recorded on the IP Loggers at the Master Site recorder will be archived on a NAS device at the Master Site as well as at the SDPD site over the customer provided network. Audio recorded on the IP Loggers at the SDPD site will be archived on a NAS device at the SDPD site as well as at the Master Site over the customer provided network.

Telephony audio specific to the SDPD and SD Fire sites will be recorded locally on NICE NRX recorders and becomes part of the recording enterprise for the City of San Diego. Details of these recorders will be provided later in this document.

Proposed System Design – Master Site

In the new system design for the Master Site, radio audio will be recorded locally at the Master Site on a Motorola IP logger providing support for 240 simultaneous channels and up to 512 Talkgroups.

The following describes the recording process at the **City of San Diego Master Site** location:

- At the Master Site, dual 120 channel MCC7500 AIS and Logger pairs will be installed on the Motorola radio network (RNI). These recorders will capture all audio generated on the radio system that is programmed through the AIS's. Individual talkgroups can be turned off at this point making sure audio is never recorded if that is the requirement of any agency.

- A firewall is installed between the RNI and the CEN0 to permit audio to be moved between the RNI and CEN to archive the IP logger audio while protecting the Motorola radio network.

- On the CEN, a server is installed to run the NICE Storage Center application. This application will direct how and where to archive audio from the Motorola IP radio logger. The end device will be a Network Attached Storage device (NAS). This will be used as Primary audio storage for the local MCC7500 logger and as a backup for the MCC7500 logger at the SDPD site. A second NAS will be located on the CEN at the SDPD as a backup for geographical redundancy of the MCC7500 logger at the Master Site.

- An Inform Hub Server is installed on the CEN at the Master Site. The purpose of an Inform Hub server is two-fold. First, local user licenses (Reconstruction) allows users to log in on the Master Site LAN to search and playback any audio they may need to listen to. This will typically be for radio technicians at this point. Secondly, SD Fire and future users will utilize a local Inform Server configured as a Point Server with the Matrix module installed which allows the Inform Hub Server at the Master Site to share audio each agency has assigned to them.

- A second NAS device is installed on the CEN which will be used as a backup for telephony audio from the SDPD site.

- An SNMP Host running Castlerock SNMP software is installed on the Master Site CEN 0 LAN segment. This SNMP monitoring application is used to monitor the health of the NICE products installed on the CEN. It is not for monitoring the loggers / servers on the RNI. Motorola's UEM is used for that purpose.

- Access to all radio audio from the Master Site and proper operation of this design requires a high speed connection between the City of San Diego Master Site and any other agency with approved access to radio audio recordings. This connection is typically protected using a router and some type of system to ensure network security, such as a VPN. This is the responsibility of Motorola and the customer to configure and utilize.

Proposed System Design – SDPD Site

The following describes the recording process at the **SDPD** location:

- There are dual 120 channel MCC7500 logger and AIS pairs installed at the SDPD site with a total of 240 channels of recording. As in the case of the IP Loggers at the Master Site, this recorder will capture all audio generated on the radio system that are programmed through the AIS's. Individual talkgroups can be turned off at this point making sure audio is never recorded if that is the requirement of any agency. This is the same set of audio being recorded at the Master Site providing complete physical and geographical redundancy of the MCC7500 recording system.

- A firewall is installed between the RNI and the CEN0 to permit audio to be moved between the RNI and CEN to archive the IP logger audio while protecting the Motorola radio network.

- To facilitate recording of telephony at the SDPD site, a pair of 72 channel NICE NRX Loggers will be installed. The channel matrix for these loggers is as follows:

    - 32 Analog Channels
        - Record Trigger: VOX or Contact Closure from ACU
    - 40 Passive VoIP Channels
        - Record Trigger: D-Channel On/Off Hook

  *** Note that the quoted analog channels can be reconfigured as VoIP as the need arises once the system is implemented.*

- The customer is responsible for configuration of the network to allow the passive capture of the RTP packets for each of the above defined VoIP sets. This will require a SPAN port to the NRX loggers as well as RSPAN (Remote SPAN) requirements to multiple Ethernet switches if needed. Further details will be discussed during calls with the assigned Project Manager once the project is kicked off.

- On the CEN, a server is installed to run the NICE Storage Center application. This application will direct how and where to archive audio from the Motorola IP radio logger. The end device will be a Network Attached Storage device (NAS). A second NAS will be located on the CEN at the Master Site for geographical redundancy of this audio.

- An Inform Server is installed on the CEN. The Inform server will allow for the local management of user profiles for the SDPD and access to all telephony and radio audio.

- A Resilient Inform Server is installed on the CEN as a backup access point to the audio in a case where the master Inform server fails.

- Users needing access to manage the recording enterprise, search for and play back audio and manage distribution of the recreated scenarios use a workstation on the customer LAN. The workstations are not dedicated to this purpose and are supplied by the customer. They can be used for other internal applications such as email, word processing, etc. as well as access to the Inform server.

- An SNMP Host running Castlerock SNMP software is installed on the Master Site CEN 0 LAN segment. This SNMP monitoring application is used to monitor the health of the NICE products installed on the CEN. It is not for monitoring the loggers / servers on the RNI. Motorola's UEM is used for that purpose.

- Access to all radio audio from the Master Site and proper operation of this design requires a high speed connection between the City of San Diego Master Site and any other agency with approved access to radio audio recordings. This connection is typically protected using a router and some type of system to ensure network security. This is the responsibility of Motorola and the customer to configure and utilize.

Proposed System Design – SD Fire Site

The following describes the recording process at the **SD Fire** location:

- To facilitate recording of telephony at the SDFD site, a pair of 96 channel NICE NRX Loggers will be installed. The channel matrix for these loggers is as follows:

    - 72 Analog Channels
        - Record Trigger: VOX or Contact Closure from ACU
    - 24 Passive VoIP Channels for Cassidian IP Consoles
        - This is Only when Certified by Cassidian and NICE Engineering

  *** Note that the quoted analog channels can be reconfigured as VoIP as the need arises once the system is implemented.*

- The customer is responsible for demarcation of the analog audio at the installation point of the logger. Additional details will be discussed during calls with the assigned Project Manager once the project is kicked off.

- The customer is responsible for configuration of the network to allow the passive capture of the RTP packets for each of the Cassidian IP consoles. This will require a SPAN port to the NRX loggers with further details that are to be determined once the Cassidian interface is confirmed. Additional details will be discussed during calls with the assigned Project Manager once the project is kicked off.

- On the SD Fire LAN, dual Network Attached Storage (NAS) devices are installed to archive telephony audio from the two NRX loggers. Each NAS is assigned to an individual NRX providing parallel recording paths, each with their own storage.

- An Inform Point Server will allow for the local management of user profiles for SD Fire and access to all telephony audio. In addition, the Inform server will have the Inform Matrix software component installed on it to allow access to the Inform server at the Master Site for radio audio.

- Users needing access to manage the recording enterprise search for and play back audio and manage distribution of the recreated scenarios use a workstation on the SD Fire LAN. The workstations are not dedicated to this purpose and are supplied by the customer. They can be used for other internal applications such as email, word processing, etc. as well as access to the Inform server.

- An SNMP Host running Castlerock SNMP software is installed on the SD Fire LAN. This SNMP monitoring application is used to monitor the health of the NICE products installed at SD Fire.

- Access to all radio audio from the Master Site and proper operation of this design requires a high speed connection between the City of San Diego Master Site and any other agency with approved access to radio audio recordings. This connection is typically protected using a router and some type of system to ensure network security. This is the responsibility of Motorola and the customer to configure and utilize.

NICE Inform Details

NICE Inform is a .NET application that deploys using Microsoft web-based technologies to minimize impact on the client desktop. On first operation, the client software is transferred from the Inform server to the client. Microsoft .net assembly version control keeps a cache of the client software, and will only request the download in future if the version is upgraded on the server or the cache is cleared.

Description	Bytes transferred	Server Port	Notes
Download of NICE codecs for replay	29M	80 (http)	Only required for a new workstation or following a codec upgrade.
Download of Inform client common components (if not in cache)	4.4M	80 (http)	Normally the applications should be in the .net cache (managed by Microsoft)
Verification of Inform client version (if in cache)	119k	80 (http)	
Inform client log-in preparation	41k	8086	
Inform client download on selection (if not in cache): Monitor	410k	80 (http)	
Inform client download on selection (if not in cache): Reconstruction	3.5M	80 (http)	
Inform client download on selection (if not in cache): Organizer	650k	80 (http)	
Inform client download on selection (if not in cache): Audit	384k	80 (http)	
Inform client download on selection (if not in cache): System Administration	1.3M	80 (http)	
Inform client download on selection (if not in cache): User Administration	1.4M	80 (http)	

Before operation, Inform requires decoders (known generically as ‘codecs’) for the NICE recordings to be installed on the client machine, as part of Microsoft’s DirectX framework.

These codecs are downloaded from the Inform server. The user is prompted to download the codecs following an automatic test on start-up of the Inform application. This is a one-off operation; most software upgrades of Inform do not affect the codecs.

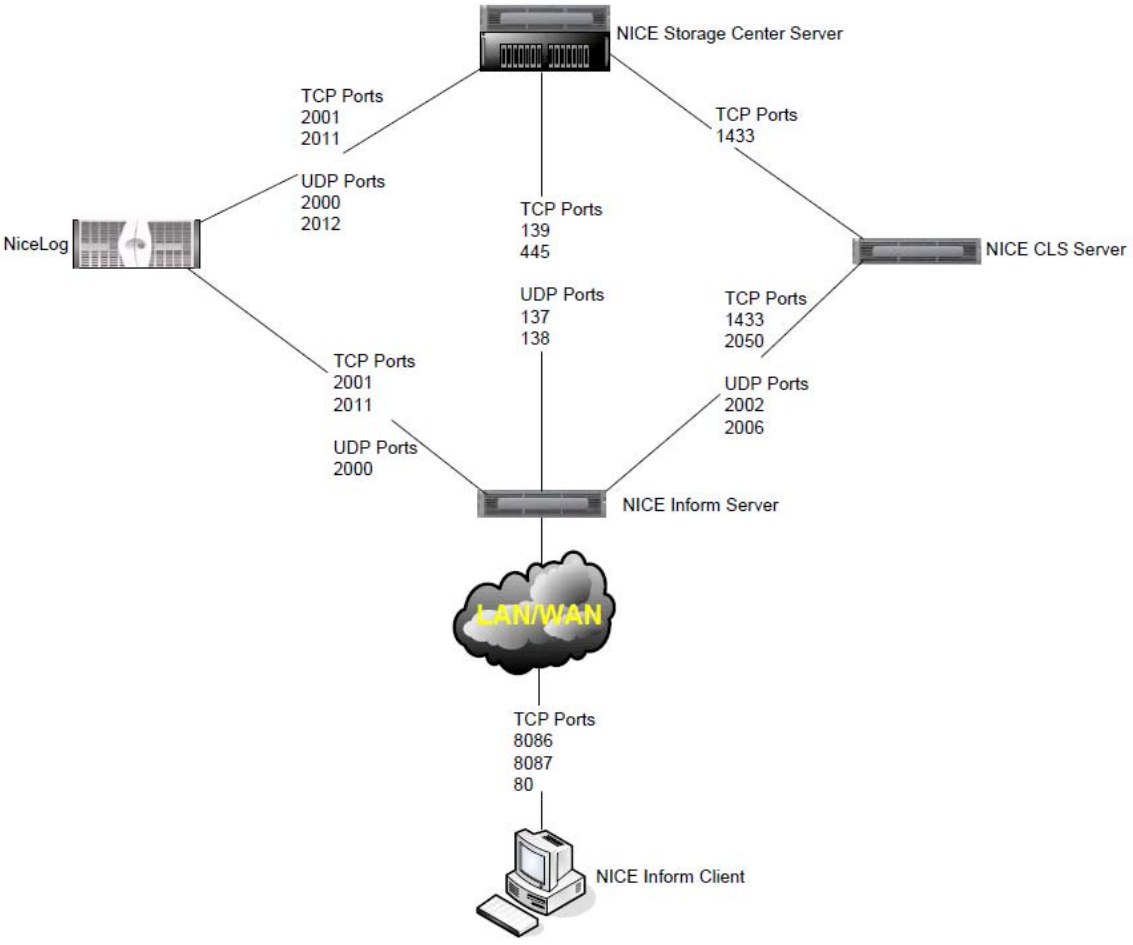
An important point to remember is that User and System Administrative tasks are rarely used and therefore have little impact on overall network use.

Description	Bytes transferred	Server Port	Notes
Monitor, display update with 200 channels shown	2.9k	8086	Per second, average
Monitor, display update with 16 channels shown	2.2k	8086	Per second, average
Monitor, 16 channels shown, four channels monitored, G729A	16k	8086	Per second, average
Reconstruction, search, returning 2,649 records	6.9M	8086	About 2.6kB per record.
Reconstruction, 1m34s call selected for replay	136k	8086	About 1.5kB per second of audio to be replayed.
Organizer, incident created with 5m40s of audio	92k	8086	Four calls. Note audio is not transferred back from the client.
Organizer, 40m8s wav file created for distribution (5m40s audio, silence reconstruction to create total length, spoken date and time)	516k	8086	Output wav file is 75.2MB (stereo, 16-bit, 8kHz, with spoken date/time). Network traffic is restricted to recorded audio with assembly on client.
Audit, search with 499 results	102k	8086	

NICE Inform Network Port Usage

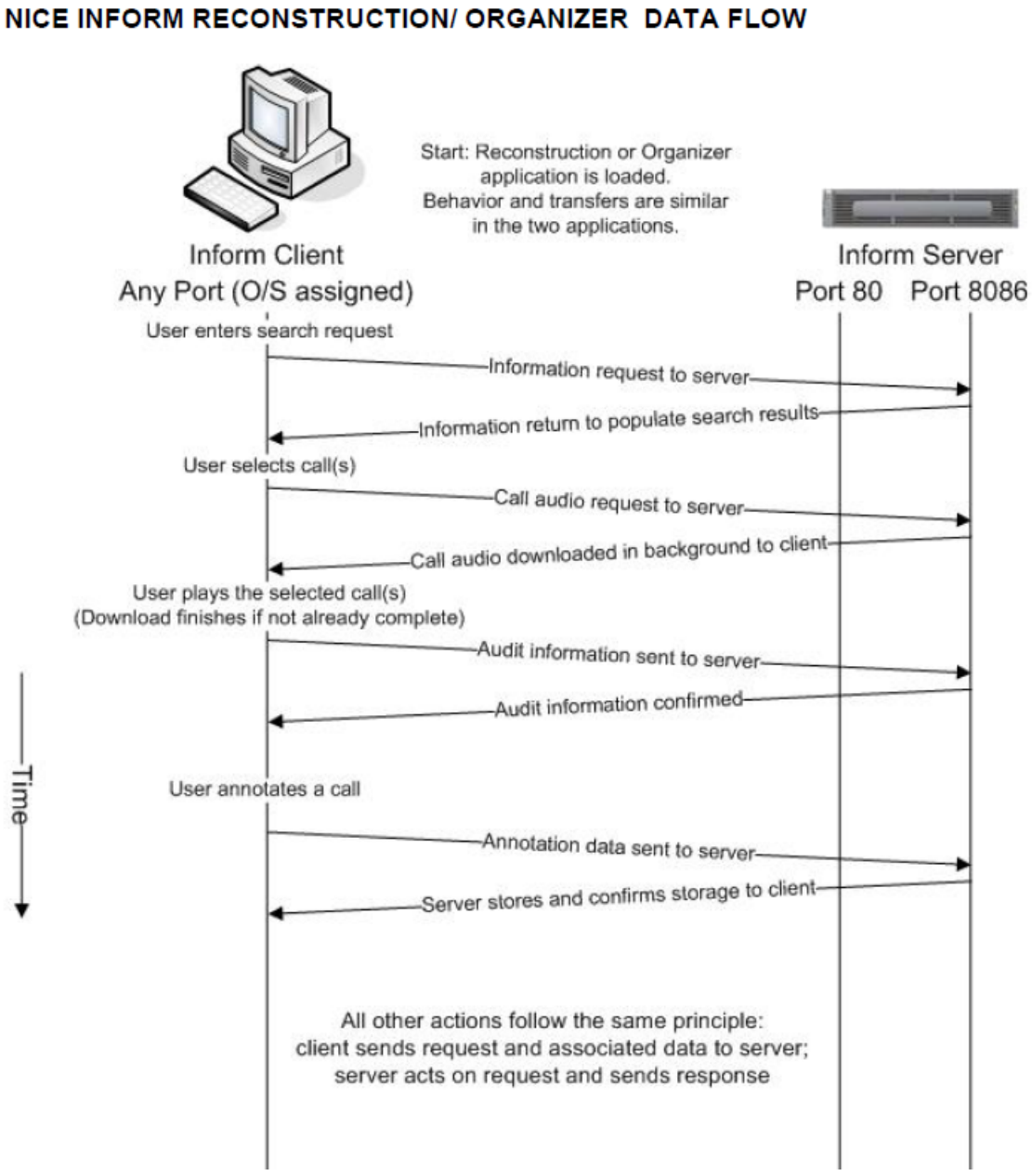
To allow for proper data flow between NICE components, a number of ports need to be open to allow the system to operate. Today, the system has two standalone sites. The proposed plan is to set up cross archiving for geographic redundancy of the audio and call record data.

The diagram below shows what ports need to be open between different NICE applications. The NICE installation team will work with the San Diego Police Department network team to ensure all network connections are configured and working as expected.



NICE Inform Data Flow

The diagram below depicts a typical request for audio from a workstation using NICE Inform Reconstruction and Organizer. As you can see, all audio requests involve the NICE Inform Server.



SECTION 2

EQUIPMENT LISTS

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
Chollas (Radio)							
229	1	TT2669	120 SIMUL CALL MCC 7500 IP RECORDER	$98,259.00	10%	$88,433.10	$88,433.10
229	1	TT05783AA	ADD: 120 SIMULTANEOUS CALL REDUNDANT MCC 7500 IP LOGGING RECORDER	$33,762.00	10%	$30,385.80	$30,385.80
229	1	TT05601AA	ADD: IP LOGGING RECORDER FOR USE ON 7.13 SYSTEMS	$0.00	10%	$0.00	$0.00
229	1	TT2669	120 SIMUL CALL MCC 7500 IP RECORDER	$98,259.00	10%	$88,433.10	$88,433.10
229	1	TT05783AA	ADD: 120 SIMULTANEOUS CALL REDUNDANT MCC 7500 IP LOGGING RECORDER	$33,762.00	10%	$30,385.80	$30,385.80
229	1	TT05601AA	ADD: IP LOGGING RECORDER FOR USE ON 7.13 SYSTEMS	$0.00	10%	$0.00	$0.00
229	1	DDN1689	MCC 7500 IP LOGGING RECORDER DL360 G7 SPARES	$8,500.00	10%	$7,650.00	$7,650.00
229	1	TT2693	NICE STORAGE CENTER SW AND SERVER - RAID 1 , 1.8 TB OF STORAGE	$22,600.00	10%	$20,340.00	$20,340.00
229	2	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10%	$8,730.00	$17,460.00
229	1	DDN8325	17" LCD DRAWER W/ KEYBOARD & MOUSE, KVM 16 PORTS, CABLES	$6,500.00	10%	$5,850.00	$5,850.00
229	1	TT2672	INFORM R6.1 TURNKEY BUNDLE SERVER, 10 CHANNEL LIC, 1 RECON, 1 MONITOR	$29,254.00	10%	$26,328.60	$26,328.60
229	23	TT05786AB	ADD: ADDITIONAL 10 INFORM CHANNEL LICENSES	$1,860.00	10%	$1,674.00	$38,502.00
229	1	DDN1698	ADD NICE INFORM RECONSTRUCTION CONCURRENT USER LICENSE	$2,146.00	10%	$1,931.40	$1,931.40

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
229	1	DDN1699	ADDITIONAL NICE INFORM MONITOR CONCURRENT USER LICENSES, PRICE PER LIC	$1,708.00	10%	$1,537.20	$1,537.20
229	1	DDN1701	NICE INFORM ORGANIZER CONCURRENT USER LICENSES, PRICE PER LICENSE	$4,512.00	10%	$4,060.80	$4,060.80
229	1	DDN1702	NICE INFORM MEDIA PLAYER LICENSE - PRICE PER INFORM SERVER	$5,500.00	10%	$4,950.00	$4,950.00
229	3	DQHDUPGRADE	ADD ADDITIONAL STORAGE: 2 X 900GB 10K 2.5IN HDD	$4,572.00	10%	$4,114.80	$12,344.40
229	1	DDN7532	SNMP MANAGEMENT APPLICATION	$2,400.00	10%	$2,160.00	$2,160.00
229	1	DDN1689	MCC 7500 IP LOGGING RECORDER DL360 G7 SPARES	$8,500.00	10%	$7,650.00	$7,650.00
229	1	TT2693	NICE STORAGE CENTER SW AND SERVER - RAID 1 , 1.8 TB OF STORAGE	$22,600.00	10%	$20,340.00	$20,340.00
229	2	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10%	$8,730.00	$17,460.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
443	1	B1933	MOTOROLA VOICE PROCESSOR MODULE	$11,920.00	20%	$9,536.00	$9,536.00
443	1	CA00288AB	ADD: MCC 7500 ARCHIVING INTERFACE SERVER SOFTWARE LICENSE	$15,060.00	20%	$12,048.00	$12,048.00
443	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION	$3,250.00	20%	$2,600.00	$2,600.00
443	1	CA00143AC	ADD: DES-OFB ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00182AB	ADD: AES ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN	$0.00	20%	$0.00	$0.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
443	1	B1933	MOTOROLA VOICE PROCESSOR MODULE	$11,920.00	20%	$9,536.00	$9,536.00
443	1	CA00288AB	ADD: MCC 7500 ARCHIVING INTERFACE SERVER SOFTWARE LICENSE	$15,060.00	20%	$12,048.00	$12,048.00
443	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION	$3,250.00	20%	$2,600.00	$2,600.00

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
443	1	CA00143AC	ADD: DES-OFB ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00182AB	ADD: AES ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN	$0.00	20%	$0.00	$0.00
509	1	TRN7343	SEVEN AND A HALF FOOT RACK	$495.00	20%	$396.00	$396.00
207	6	DDN9748	19 INCH BLACK SHELF	$249.00	10%	$224.10	$1,344.60
207	1	DSTGT1153742	BLACK CABINET; 19" WIDTH, 78" HEIGHT, 36" DEPTH	$4,280.00	10%	$3,852.00	$3,852.00
147	1	SQM01SUM0205	GGM 8000 GATEWAY	$4,200.00	20%	$3,360.00	$3,360.00
147	1	CA01616AA	ADD: AC POWER	$0.00	20%	$0.00	$0.00
147	1	SQM01SUM0205	GGM 8000 GATEWAY	$4,200.00	20%	$3,360.00	$3,360.00
147	1	CA01616AA	ADD: AC POWER	$0.00	20%	$0.00	$0.00
147	2	CLN1856	2620-24 ETHERNET SWITCH ?	$2,250.00	20%	$1,800.00	$3,600.00
708	2	DDN9590	SSG140 FIREWALL W/ 2 YEARS SUPPORT	$6,500.00	10%	$5,850.00	$11,700.00
147	1	ST6000	S6000 MNR MULTI-PROTOCOL ROUTER	$15,995.00	20%	$12,796.00	$12,796.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
443	1	B1933	MOTOROLA VOICE PROCESSOR MODULE	$11,920.00	20%	$9,536.00	$9,536.00
443	1	CA00288AB	ADD: MCC 7500 ARCHIVING INTERFACE SERVER SOFTWARE LICENSE	$15,060.00	20%	$12,048.00	$12,048.00
443	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION	$3,250.00	20%	$2,600.00	$2,600.00
443	1	CA00143AC	ADD: DES-OFB ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00182AB	ADD: AES ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN	$0.00	20%	$0.00	$0.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
443	1	B1933	MOTOROLA VOICE PROCESSOR MODULE	$11,920.00	20%	$9,536.00	$9,536.00
443	1	CA00288AB	ADD: MCC 7500 ARCHIVING INTERFACE SERVER SOFTWARE LICENSE	$15,060.00	20%	$12,048.00	$12,048.00
443	1	CA00147AF	ADD: MCC 7500 SECURE OPERATION	$3,250.00	20%	$2,600.00	$2,600.00
443	1	CA00143AC	ADD: DES-OFB ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00182AB	ADD: AES ALGORITHM	$750.00	20%	$600.00	$600.00
443	1	CA00140AA	ADD: AC LINE CORD, NORTH AMERICAN	$0.00	20%	$0.00	$0.00

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
509	1	TRN7343	SEVEN AND A HALF FOOT RACK	$495.00	20%	$396.00	$396.00
207	6	DDN9748	19 INCH BLACK SHELF	$249.00	10%	$224.10	$1,344.60
207	2	DSTGT1153742	BLACK CABINET; 19" WIDTH, 78" HEIGHT, 36" DEPTH	$4,280.00	10%	$3,852.00	$7,704.00
147	1	SQM01SUM0205	GGM 8000 GATEWAY	$4,200.00	20%	$3,360.00	$3,360.00
147	1	CA01616AA	ADD: AC POWER	$0.00	20%	$0.00	$0.00
147	1	CLN1856	2620-24 ETHERNET SWITCH	$2,250.00	20%	$1,800.00	$1,800.00
708	2	DDN9590	SSG140 FIREWALL W/ 2 YEARS SUPPORT	$6,500.00	10%	$5,850.00	$11,700.00
147	1	ST6000	S6000 MNR MULTI-PROTOCOL ROUTER	$15,995.00	20%	$12,796.00	$12,796.00
708	1	TT2539	Z420 HIGH TIER WORKSTATION WINDOWS	$5,950.00	10%	$5,355.00	$5,355.00
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10%	$1,368.00	$1,368.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10%	$1,368.00	$1,368.00
						Chollas Total	$626,896.20

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
Fire							
229	1	TT2671	32 CHANNEL NRX BASE BUNDLE	$33,406.00	10%	$30,065.40	$30,065.40
229	8	TT05764AA	ADD: ADDITIONAL 8 RECORDING LICENSES - MAX OF 20	$3,744.00	10%	$3,369.60	$26,956.80
229	144	TT05771AA	ADD: ANALOG CHANNEL FLAG	$0.00	10%	$0.00	$0.00
229	48	TT05774AA	ADD: TELEPHONY VOIP CHANNEL FLAG	$0.00	10%	$0.00	$0.00
229	1	TT05767AA	ADD: 32 CHANNEL PARALLEL RECORDING BUNDLE - BASE SYSTEM	$24,812.00	10%	$22,330.80	$22,330.80
229	8	TT05768AA	ADD: ADDITIONAL 8 PARALLEL RECORDING LICENSES - MAX OF 20	$2,720.00	10%	$2,448.00	$19,584.00
229	3	DDN1693	ANALOG AUDIO BOARD - 24 PORTS	$2,260.00	10%	$2,034.00	$6,102.00
229	1	DDN1690	ANI-ALI DRIVER	$1,100.00	10%	$990.00	$990.00
229	3	DDN1693	ANALOG AUDIO BOARD - 24 PORTS	$2,260.00	10%	$2,034.00	$6,102.00
229	1	DDN1690	ANI-ALI DRIVER	$1,100.00	10%	$990.00	$990.00
229	1	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10%	$8,730.00	$8,730.00
229	1	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10%	$8,730.00	$8,730.00
229	1	TT2672	INFORM R6.1 TURNKEY BUNDLE SERVER, 10 CHANNEL LIC, 1 RECON, 1 MONITOR	$29,254.00	10%	$26,328.60	$26,328.60
229	19	TT05786AB	ADD: ADDITIONAL 10 INFORM CHANNEL LICENSES	$1,860.00	10%	$1,674.00	$31,806.00
229	1	DDN1697	INFORM MATRIX SERVER LICENSE	$6,096.00	10%	$5,486.40	$5,486.40
229	8	DDN1698	ADDITIONAL NICE INFORM RECONSTRUCTION CONCURRENT USER LICENSE	$2,146.00	10%	$1,931.40	$15,451.20
229	2	DDN1699	ADDITIONAL NICE INFORM MONITOR CONCURRENT USER LICENSES, PRICE PER LIC	$1,708.00	10%	$1,537.20	$3,074.40

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
229	24	DDN1700	NICE INFORM VERIFY CONCURRENT USER LICENSE	$574.00	10%	$516.60	$12,398.40
229	4	DDN1701	NICE INFORM ORGANIZER CONCURRENT USER LICENSES, PRICE PER LICENSE	$4,512.00	10%	$4,060.80	$16,243.20
229	1	DDN1702	NICE INFORM MEDIA PLAYER LICENSE - PRICE PER INFORM SERVER	$5,500.00	10%	$4,950.00	$4,950.00
229	1	DDN7532	SNMP MANAGEMENT APPLICATION	$2,400.00	10%	$2,160.00	$2,160.00
229	1	DDN8325	17" LCD DRAWER W/ KEYBOARD & MOUSE, KVM 16 PORTS, CABLES	$6,500.00	10%	$5,850.00	$5,850.00
207	1	DSTGT1153742	BLACK CABINET; 19" WIDTH, 78" HEIGHT, 36" DEPTH	$4,280.00	10%	$3,852.00	$3,852.00
207	2	DDN9748	19 INCH BLACK SHELF	$249.00	10%	$224.10	$448.20
147	1	SQM01SUM0205	GGM 8000 GATEWAY	$4,200.00	20%	$3,360.00	$3,360.00
147	1	CA01616AA	ADD: AC POWER	$0.00	20%	$0.00	$0.00
147	1	CLN1856	2620-24 ETHERNET SWITCH ?	$2,250.00	20%	$1,800.00	$1,800.00
708	1	TT2539	Z420 HIGH TIER WORKSTATION WINDOWS	$5,950.00	10%	$5,355.00	$5,355.00
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10%	$1,368.00	$1,368.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10%	$2,295.00	$2,295.00
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10%	$1,368.00	$1,368.00
						Fire Total	$274,258

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
Police							
229	1	TT2671	32 CHANNEL NRX BASE BUNDLE	$33,406.00	10.00%	$30,065.40	$30,065.40
229	5	TT05764AA	ADD: ADDITIONAL 8 RECORDING LICENSES - MAX OF 20	$3,744.00	10.00%	$3,369.60	$16,848.00
229	64	TT05771AA	ADD: ANALOG CHANNEL FLAG	$0.00	10.00%	$0.00	$0.00
229	80	TT05774AA	ADD: TELEPHONY VOIP CHANNEL FLAG	$0.00	10.00%	$0.00	$0.00
229	2	TT05769AA	ADD: INCREASED INTERNAL STORAGE (2 X 1TB WITH RAID 1)	$2,180.00	10.00%	$1,962.00	$3,924.00
229	1	TT05767AA	ADD: 32 CHANNEL PARALLEL RECORDING BUNDLE - BASE SYSTEM	$24,812.00	10.00%	$22,330.80	$22,330.80
229	5	TT05768AA	ADD: ADDITIONAL 8 PARALLEL RECORDING LICENSES - MAX OF 20	$2,720.00	10.00%	$2,448.00	$12,240.00
229	2	DDN1693	ANALOG AUDIO BOARD - 24 PORTS	$2,260.00	10.00%	$2,034.00	$4,068.00
229	1	DDN1690	ANI-ALI DRIVER	$1,100.00	10.00%	$990.00	$990.00
229	1	DDN1691	ACTIVITY DETECTION BY EXTERNAL TRIGGER (SQUELCH) (24 INPUTS) (MAX 1)	$2,200.00	10.00%	$1,980.00	$1,980.00
229	1	DDN1692	ADDITIONAL 24 PORTS OF ACTIVITY DETECTION BY EXTERNAL TRIGGER	$1,200.00	10.00%	$1,080.00	$1,080.00
229	2	DDN1693	ANALOG AUDIO BOARD - 24 PORTS	$2,260.00	10.00%	$2,034.00	$4,068.00
229	1	DDN1690	ANI-ALI DRIVER	$1,100.00	10.00%	$990.00	$990.00
229	1	DDN1691	ACTIVITY DETECTION BY EXTERNAL TRIGGER (SQUELCH) (24 INPUTS) (MAX 1)	$2,200.00	10.00%	$1,980.00	$1,980.00
229	1	DDN1692	ADDITIONAL 24 PORTS OF ACTIVITY DETECTION BY EXTERNAL TRIGGER	$1,200.00	10.00%	$1,080.00	$1,080.00
229	1	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10.00%	$8,730.00	$8,730.00
229	1	DDN1704	NETGEAR READYNAS 2120 8TB WITH RAID CONTROLLER, SINGLE POWER SUPPLY	$9,700.00	10.00%	$8,730.00	$8,730.00

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
229	1	TT2672	INFORM R6.1 TURNKEY BUNDLE SERVER, 10 CHANNEL LIC, 1 RECON, 1 MONITOR	$29,254.00	10.00%	$26,328.60	$26,328.60
229	38	TT05786AB	ADD: ADDITIONAL 10 INFORM CHANNEL LICENSES	$1,860.00	10.00%	$1,674.00	$63,612.00
229	1	TT2691	NICE TURNKEY INFORM RESILIENCY BUNDLE - SERVER, SW	$35,828.00	10.00%	$32,245.20	$32,245.20
229	1	DDN1698	ADDITIONAL NICE INFORM RECONSTRUCTION CONCURRENT USER LICENSE	$2,146.00	10.00%	$1,931.40	$1,931.40
229	1	DDN1699	ADDITIONAL NICE INFORM MONITOR CONCURRENT USER LICENSES, PRICE PER LIC	$1,708.00	10.00%	$1,537.20	$1,537.20
229	1	DDN1701	NICE INFORM ORGANIZER CONCURRENT USER LICENSES, PRICE PER LICENSE	$4,512.00	10.00%	$4,060.80	$4,060.80
229	1	DDN1702	NICE INFORM MEDIA PLAYER LICENSE - PRICE PER INFORM SERVER	$5,500.00	10.00%	$4,950.00	$4,950.00
229	3	DQHDUPGRADE	ADD ADDITIONAL STORAGE: 2 X 900GB 10K 2.5IN HDD	$4,572.00	10.00%	$4,114.80	$12,344.40
229	1	DDN7532	SNMP MANAGEMENT APPLICATION	$2,400.00	10.00%	$2,160.00	$2,160.00
229	1	DDN8325	17" LCD DRAWER W/ KEYBOARD & MOUSE, KVM 16 PORTS, CABLES	$6,500.00	10.00%	$5,850.00	$5,850.00
147	1	SQM01SUM0205	GGM 8000 GATEWAY	$4,200.00	20.00%	$3,360.00	$3,360.00
147	1	CA01616AA	ADD: AC POWER	$0.00	20.00%	$0.00	$0.00
147	1	CLN1856	2620-24 ETHERNET SWITCH ?	$2,250.00	20.00%	$1,800.00	$1,800.00
708	1	TT2539	Z420 HIGH TIER WORKSTATION WINDOWS	$5,950.00	10.00%	$5,355.00	$5,355.00
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10.00%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10.00%	$1,368.00	$1,368.00
708	1	TT2538	Z420 LOW TIER WORKSTATION WINDOWS 7	$2,550.00	10.00%	$2,295.00	$2,295.00

APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST PRICE	DISCOUNT (%)	UNIT DISCOUNT PRICE	EXT DISCOUNT PRICE
708	1	CDN6673	CREATIVE LABS INSPIRE A60	$46.00	10.00%	$41.40	$41.40
708	1	DS019BLK	19 INCH NON-TOUCH MONITOR, BLACK	$1,520.00	10.00%	$1,368.00	$1,368.00
						Police Total	$289,752.60

SECTION 3

ACCEPTANCE TEST PLAN

3.1 OVERVIEW

There are two Installation Test Plans (ITP) developed by NICE in this proposal. The first plan (NICE MCC 7500 Logging Solution A7.13) addresses the radio side of the proposed logging solution. The second plan (Public Safety NICE Inform 5.1 ITP) addresses the telephony side of the proposed logging solution. The two sets of tests are independent of one another and are proposed to ensure that all aspects of the logging solution are adequately tested.

3.2 NICE MCC 7500 IP LOGGING SOLUTION A7.13

This information can be found on the following pages.

NICE MCC 7500 IP Logging Solution A7.13

Installation Test Procedure

This document details the tests to verify that the NICE MCC 7500 IP Logging Solution (ASTRO 7.13) has been installed and configured correctly.

Document Information

Owner: NICE

Issue Information

Issue: 3

Date: April 2013

Document History

Issue	Date	Details
1	November 2012	Initial revision
2	November 2012	Minor corrections following final review
3	April 2013	Minor corrections in line with practice in the field. Added checks for call retention and MSMQ

Contents

1 Introduction

The purpose of this Installation Test Procedure (ITP) is to verify that the NICE MCC 7500 IP Logging Solution for ASTRO 7.13 has been installed and configured correctly. This document does not contain information on troubleshooting a faulty installation.

The tests are divided into a number of parts:

- Logger computer physical installation checks
- Logger computer Operating System and Logging System software installation checks
- Logging System and AIS configuration
- Record, Replay and Archiving
- SNMP traps
- System security (replay accounts, OS hardening)

1.1 Prerequisites

The NICE MCC 7500 IP Logging Solution has been installed and configured according to the installation guide contained on the installation media.

The Logging solution has been added to the Motorola domain (if applicable).

Audio archiving media **(DAT 72)** has been inserted into the Logger and archiving enabled.

A backup tape **(DAT 160)** for Calls Database Backup has been inserted into the Logger.

Logger computer hardware:

HP ProLiant Gen8 Specification:

- **Server**: HP DL360p Gen8 Server (6 core 2.3GHz CPU) - 1U rack mount
- **Memory**: 4GB Minimum
- **Hard drives**: **Hard drives**: 2 * Raid 1 array of 2 * 300 GB disk and 1 * Raid 1 array of 2 * 600 GB disks

  Or

  2 * Raid 1 array of 2 * 600 GB disks
- **Tape drive**: 1 x DAT 160 (DDS6) drive for Database backup
- **Tape drive**: 2 x DAT 72 (DDS5) drives for audio archiving

HP DL360 G7 Specification:

- **Server**: HP DL360p - 1U rack mount
- **Memory**: 4GB Minimum
- **Hard drives**: **Hard drives**: 2 * Raid 1 array of 2 * 600 GB disk minimum
- **Tape drive**: 1 x DAT 160 (DDS6) drive for Database backup
- **Tape drive**: 2 x DAT 72 (DDS5) drives for audio archiving

HP DL360 G6 Specification:

- **Server**: HP DL360p - 1U rack mount
- **Memory**: 4GB Minimum
- **Hard drives**: **Hard drives**: 1 * Raid 5 array of 3 * 300 GB disk minimum
- **Tape drive**: 1 x DAT 160 (DDS6) drive for Database backup
- **Tape drive**: 2 x DAT 72 (DDS5) drives for audio archiving

1.2 Associated documents

1. NICE MCC 7500 IP Logging Solution Installation Guide (Release 7.13)
2. NICE MCC 7500 IP Logging Solution Commissioning Guide (Release 7.13)
3. Motorola MCC 7500 Software Installation Procedure. (This is a Motorola document)

2 Tests

2.1 Logger Physical Installation

Purpose: Verify that the Loggers have been installed correctly.

Prerequisites: The Loggers are present and powered up.

Do this…	To verify that…	Pass / Fail	Initials
Check the Logger(s) physical installation.	Each Logger is located securely in its rack using the rail mounting kit provided.		
Check the Loggers are online.	Power LED is lit (green) on the front panel of each Logger.		

2.2 Power Supply Redundancy (If Fitted)

Purpose: Verify that the Logger power supply redundancy is functioning correctly.

Prerequisites: Power is applied to both power supply units.

Do this…	To verify that…	Pass / Fail	Initials
Pull the mains cable out of the first power supply.	The Logger continues to operate		
Reconnect the mains cable to the first power supply.	The Logger continues to operate.		
Repeat the above tests for the second power supply.			

2.3 Windows and Logging System Software

Purpose: Verify that Windows Operating System and Logging System software have been installed correctly on the Logger computer.

Prerequisites: None.

Do this…	To verify that…	Pass / Fail	Initials
Operation System Version Select **Start**, in the **Start Search** box, type **`winver`**and then press the **Return** key,	The version number is displayed in the **About Windows** box and is **Version 6.0 (Build 6002: Service Pack 2)**		
System Memory Right click on the **Computer** – start \ computer icon and select **Properties**.	In the **System** group, based on the Server type, the memory is displayed as a **Minimum of 4GB** **Amount of RAM Installed: _____**		
Disks Configuration Right click on the **Computer** – start \ computer icon and select **Manage**. In the Server Manager tree view, select **Storage** > **Disk Management**.	The disk partitions exist and are correct: C: (NTFS, 40 GB capacity) D: (NTFS, 325 GB or 558 GB (Gen 8 only) E: (unformatted (RAW), 193 GB capacity) Note: Capacities are approximate		

Do this…	To verify that…	Pass / Fail	Initials
Date and Time Settings Select **Start > Control Panel > Date and Time**. Click the **Change time zone...** button. *NOTE: Once the **NICE MCC 7500 IP Logger** software has been installed on the Logger, access to the Date and Time control is disabled. Refer to the NICE MCC 7500 IP Logging Solution Installation Guide on how to re-enable it. Be sure to disable it again after this test*	The Time Zone is set to **(GMT) Greenwich Mean Time** and **Automatically adjust clock for Daylight Saving Time** is unchecked (disabled). Remind me 1 week before the change occurs is also unchecked. The current time is set to (GMT) Greenwich Mean Time.		
SQL Server Database Sizes Select **Start > All Programs > Microsoft SQL Server 2008 R2> SQL Server Management Studio**. Login using the default authentication method. In the Object Explorer, navigate to **Databases** > **nice_cls**, right click and select **Properties**. In the Database Properties window, select the **Files** page. Click the **ellipsis** button in the **Autogrowth** column for the **nice_cls_Data** and **nice_cls_Log** files.	The database has been configured correctly. **nice_cls_Data** In accordance with the NICE MCC 7500 IP Logging Solution Commissioning Guide. (Table copied at the end of this document). **nice_cls_Log** In accordance with the NICE MCC 7500 IP Logging Solution Commissioning Guide. (Table copied at the end of this document).		
SQL Server Memory Usage In the Object Explorer, right click on the main instance and select **Properties**. In the Server Properties window, select the **Memory** page.	The **Minimum server memory (0 MB)** and **Maximum server memory (1024 MB)** fields are set.		

Do this…	To verify that…	Pass / Fail	Initials
Right click on the **Computer** desktop icon and select **Manage**. In the Server Manager tree view, select **Diagnostics** > **Event Viewer** > **Windows Logs**. Open and review the **Application** event log. Open and review the **System** event log.	There are no **Error** or **Warning** events from the following Logging System software sources, with exception of the errors listed below: **MSSQLSERVER**. **NiceLog** **NICE MCC 7500 Logi Capture** **Call Inserter Service** **Call Logging Service** **NICE MCC 7500 Logi Channel Manager Service** **NICE MCC 7500 Monitoring Service** **Event Ids 4096, 4098, 10005 and 4439 can be safely ignored as they are products of the Motorola Hardening and do not affect logging.** The Motorola Domain Policy creates Group policy errors about missing files that can be safely ignored. ***Note: Any errors or warning events should be accounted for and not related to the Logging System being off-line.***		

2.4 Call Retention

Purpose: To confirm the customer requirements for call record retention are correctly set.

Prerequisites: None

Do this…	To verify that…	Pass / Fail	Initials
Browse to **D:\Program Files\NICE Systems\NICE MCC 7500 IP Logging Solution\Call Logging Inserter** and open the: "**Nice.PublicSafety.CallLoggingServer.Inserter.exe.config"** file in Notepad. Ensure the **"RetentionPeriodInMonths"** = the required retention period eg. (36 for 3 years retention) and the **"TableNumberUpperLimit"** = the retention period + 2 eg. (38 for 3 years retention). Note down the values.	Check that the call retention period has been correctly configured. **RetentionPeriodInMonths** = _____ **TableNumberUpperLimit** = _____		

2.5 Time synchronisation

Purpose: Verify that each computer in the NICE MCC 7500 IP Logging Solution is accurately time synchronised.

Prerequisites:

If a domain controller is deployed on the Motorola Radio Network Infrastructure (RNI) ensure the IP Logger has been added to the domain and any Replay/Admin workstations deployed on the RNI are also added to the domain. In certain cases a Domain Controller may not be employed and the Logging system computers would by default be members of a workgroup.

Time Synchronisation Overview

The NICE MCC 7500 IP Logging Solution may form part of a larger Logging System that employs subsystems (Storage Centre, NiceCall Focus, Nice Inform Server etc) that are not certified to reside on the Motorola Radio Network Infrastructure (RNI). These computers would usually be deployed outside the RNI on the customer network (CEN).

Logging System computers that are joined to the domain are configured by default to synchronise through the domain hierarchy and locate a time server automatically. Logging system computers not on a domain must be manually configured to synchronise to a time server.

Refer to the *Time Synchronisation* sections in the *NICE MCC 7500 IP Logging Solution Commissioning Guide*.

Do this…	To verify that…	Pass / Fail	Initials
On each computer in the Logging System, open a command prompt. Run **w32tm /query /status** Run **w32tm /stripchart /computer:10.x.233.89 or .90**, where 'x' is the zone number	Each computer is synchronised with a NTP time server. The stratum is a value greater than 0. The source is the known time source for the system. Generally this is 10.x.233.89 or .90, where 'x' is the zone number.		

2.6 NICE MCC 7500 IP Logger Configurator

Purpose: Verify that the Logger has been configured with the correct number of channels.

Prerequisites: None.

Do this…	To verify that…	Pass / Fail	Initials
Using the desktop icon, start the **NICE MCC 7500 Configurator**. May require you to "Run as Administrator" In the tree view, select **IP Logger**. Select the **Channels** tab. Select the **Monitoring Tool**.	The number of configured and available channels is as required. Confirm that the Activity Timeout value is set to a number of seconds for which the customer wishes to be alerted, if there is NO radio traffic to the Logger. (900 = 15 min and 3600 = 1 hour) What is the Timeout period entered in the Activity Timeout area? Period = _____ Note: This Activity timeout value should consider a period longer than a normal "Lull Period" in Radio traffic.		

2.7 AIS Administrator Configuration

Purpose: Verify that the Motorola AIS has been configured correctly, a Logger is assigned to the AIS and resources assigned for recording.

Prerequisites: Confirm the following with the Motorola site representative:

The necessary configuration has been performed at the Motorola Network Manager, via the User Configuration Manager (UCM) and/or Zone Configuration Manager (ZCM), to allow the Zone Controller to affiliate resources assigned for logging at the AIS. This would include creating a *Console User* account that has access to resources that have the *Logging Group* capability enabled. The *Console User* account details are used by AIS Administrator to login to the AIS.

Resources have been assigned for recording using AIS Administrator.

Do this…	To verify that…	Pass / Fail	Initials
Using **AIS Administrator** Navigate to the **Loggers** definition.	The Logger status is **Active**.		
Navigate to the **Archiving Interfaces** definition and select the **General** tab.	The Archiving Interface is **Active**.		
Navigate to the **Archiving Interfaces** definition and select the **Loggers** tab.	The Logger associated with the AIS is shown in the **Member Loggers** column.		
Select the **Resources** tab.	All the resources available for logging are shown. The resources that require recording are shown in the **Assigned (recorded) resource** column and the remaining resources are shown in the **Unassigned resource** column. The assigned resources have been affiliated with the Zone Controller. This can be verified using the AIS Monitor Application, or Motorola Zone Watch. *Note: The resources shown should reflect all the resources defined for logging at the Network Manager that are available to the Console User account, being used by AIS Administrator.*		

Do this…	To verify that…	Pass / Fail	Initials
Using **AIS Monitor** Navigate to the Resources Tab. Note: A particular issue with the order of data reception, at the AIS, could result in resources that are assigned for recording, NOT showing as being affiliated or operational. The Status column; however, will reflect that they are recording by turning from IDLE to NORMAL or EMERGENCY. In this event, Motorola has accepted this “AS DESIGNED” and this is not considered a defect, as the Monitor Tool should only be used by NICE or Motorola, for Troubleshooting.	The resources that require recording are shown in the **Assigned (recorded) resource** column and the remaining resources are shown in the **Unassigned resource** column. The assigned resources have been affiliated with the Zone Controller. This can be verified using the AIS Monitor Application, or Motorola Zone Watch. *Note: The resources shown should reflect all the resources defined for logging at the Network Manager that are available to the Console User account, being used by AIS Administrator.*		

2.8 Recording

Purpose: Verify that the Logging System can record calls and radio events.

Prerequisites: The resources have been assigned for recording using AIS Administrator.

Make a note of the approximate time and number of test calls you make so they can be identified when testing the Logger Archiving.

Do this…	To verify that…	Pass / Fail	Initials
Use the **AIS Monitor > Test Calls > Calls** option to generate all the Radio system events, on a given Talk Group resource. Use Inform Lite to display the Radio system events. Note: This may not be necessary if the LIVE system is already generating Radio Events. Ask Motorola Tech if this is occurring already and then perform search for those events.	The radio system events can be located: The **EventType** field contains a description of the radio system event. The **Start Time** field matches the time the events were generated. Note that there will be no audio associated with the events.		
Use **AIS Monitor** to generate a number of test calls. Use Inform Lite to replay the calls: ***Note: If the radio system is available to make test calls, use that instead of AIS Monitor.***	The test calls can be located and replayed: The **Start Time** field matches the time the call was generated. The **IndividualAlias** field contains the alias of the Console or radio that initiated the call.		
Generate an **unencrypted (clear)** radio call on a resource that has the **Decrypt** attribute ***not*** set in AIS Administrator. Make a console to radio call and a radio to console call. Use Inform Lite to replay the calls *NOTE: If coded calls are made on resources with the **Decrypt** attribute not set, a call record will be created but audio will not be recorded and the **AudioAvailability** field will indicate decryption is disabled.*	The test calls can be located and replayed: The **Start Time** field matches the time the call was generated. The **IndividualAlias** field contains the alias of the Console or radio that initiated the call. The **EncryptionState** field indicates a **Clear** call.		

Do this…	To verify that…	Pass / Fail	Initials
Generate an **encrypted (coded)** radio calls on a resource that has the **Decrypt** attribute set using AIS Administrator. Make a console to radio call and a radio to console call. Use Inform Lite to replay the calls: *NOTE: If coded calls are made on resources with the **Decrypt** attribute not set, a call record will be created but audio will not be recorded and the **AudioAvailability** field will indicate decryption is disabled.*	The test calls can be located and replayed: The **IndividualAlias** field contains the alias of the Console or radio that initiated the call. The **EncryptionState** field indicates a **Coded** call.		
On the Logger: 1. Open the **Server Manager** by clicking **Start > Computer** 2. Right-click **Computer** 3. Click **Manage** 4. In the left-hand pane expand the **Features** node and then the **Message Queuing** node. 5. Select **Private Queues** 6. Right-click the **clsqueue** and select **Properties**. 7. Select the **Security** tab and ensure the **NiceMCC7500Service** account is present. 8. Select the **NiceMCC7500Service** account and ensure that **Full Control** is selected.	The MSMQ calls queue has the correct privileges.		

2.9 Audio Archiving

Purpose: Verify that calls are being archived to removable media.

Note that this section may not be applicable if the customer chooses to only use Storage Center to archive the audio.

Prerequisites:

Automatic archiving has been enabled.

A number of calls have been recorded and archived. You may need to wait up to 30 minutes before calls are archived.

Do this…	To verify that…	Pass / Fail	Initials
Start **NICE Backup** using the desktop icon. From the menu, select **Setup** > **Automatic Archiving** **Note: Not applicable if only Storage Center being used.**	The backup Mode is set to **Continuous** or **Mirroring** depending upon the customer requirement. Automatic archiving is enabled for **Device 1** and/or **Device 2**.		
Start **NICE Backup** using the desktop icon. Select **Device** from the menu and select a device (that is Archiving) and select **Media contents**. A list of channels archived to this media is displayed. Highlight the first channel (Channel Name **#1**) and click **Recordings**. The Recordings window appears. **Note: Not applicable if only Storage Center being used.**	The **Recordings** window contains entries for each call that has been archived. All the test calls made are shown in the Recordings window. If simultaneous test calls were made then they will be distributed across a number of channels.		

2.10 Database (SQL Server) Backup

Purpose: Verify that a full backup can be performed.

You will use SQL Server Management Studio to perform a full backup of the Calls and Audit databases onto tape and view the tape contents to confirm that the backup was successful.

Prerequisites: A write enabled DAT 160 tape is inserted in the DAT 160 backup tape drive and a number of calls have been recorded.

Do this…	To verify that…	Pass / Fail	Initials
Perform a manual backup On the Logger start SQL Server Management Studio. In the Object Explorer, select **SQL Server Agent** > **Jobs**.> **FullDatabaseBackup** Right click and select **Start Job at Step...**. A status window will appear, showing the backup progress and the tape drive green "**tape**" light will flash indicating activity.	The status window will reflect that the backup has completed successfully.		
View the backup tape contents In the Object Explorer, select: S**erver Objects** > **Backup Devices** > **nice_tape**. Note that you may need to create the tape device in 'Server Objects', first, as it is not created during the install. Right click and select **Properties**. In the Backup Device window, select **Media Contents** page.	The backup sets are nice_cls and nice_audit.		

2.11 SNMP Traps

Purpose: Verify that SNMP traps can be generated.

You will force the generation of SNMPv3 traps from the AIS and the Logger and confirm that these traps are seen at the Motorola Unified Event Manager (UEM). The UEM is the Motorola SNMP Manager. AIS traps are sent via the Motorola Common Agent, while Logger traps are sent via the NuDesign SNMP Agent.

Note: This will result in loss of recording and extended downtime. A faster way to confirm that the UEM is receiving traps is to use the **AIS Monitor** utility to force the generation of SNMP traps from the AIS and the Logger. AIS Monitor can be found in **D:\Program Files\NICE Systems\NICE MCC 7500 IP Logging Solution** on the Logger and **C:\Program Files (x86)\NICE Systems\NICE MCC 7500 IP Logging Solution** on the AIS, or on the Desktops.

Prerequisites:

- Seek assistance from the Motorola site representative to view SNMP traps in the UEM.
- Motorola may need to configure the Logger and AIS in the UEM and confirm traps.

Do this…	To verify that…	Pass / Fail	Initials
On the Logger, open Windows Services.	The following services are running: **HP Insight Foundation Agents** **HP Insight NIC Agent** **HP Insight Server Agents** **HP Insight Storage Agents** **NuDesignMultiprotocol(SNMPv3/HTTP)Agent service** The following services are disabled: **SNMP Service** **SNMP Trap Service**		
On the AIS, open Windows Services.	The following services are running: **NET-SNMP Agent** **SNMP Service**		

Do this…	To verify that…	Pass / Fail	Initials
On the logger, open the **Control Panel** and select the **NuDesign SNMPv3/HTTP Agent**. When prompted to stop the service, click the **No** button. Use the Service Configuration Editor to check the setting of the SNMP agent. Once complete, click the **Quit or OK** button	Selecting **mib-2.system** from the tree view shows the values: *sysObjectId* 1.3.6.1.4.1.3167.2. *sysName* z**AAA**s**BBB**lr**CC**.nmd**B**.zone**A**, where 'A' is the zone number, 'B' is the site number and 'C' is the logger number Selecting **SNMP** > **USM** shows that the MotoMaster account has been created. Selecting **SNMP** > **Target Params** shows that entry '**p4**' has been set correctly to '**Clear**' or '**Encrypted**' mode Selecting **SNMP** > **Target Address** shows that there is an entry with an *snmpTargetAddrTAddress* that is the Motorola UEM.		
Generate an AIS SNMP trap for Login Failure Start and login to the AIS Administrator. Navigate to the Archiving Interface definition and select the **General** tab. Enter an invalid password for the Console User account and click **Save**.	Within approximately 30s of saving the invalid password the Login Status will change from **Active** to **Initialising** and then to **Login Failed**. The UEM receives an SNMPv3 trap from the AIS showing *AIS Client authentication failure*.		
Generate AIS SNMP traps On the NICE AIS Server, Start the **AIS Monitor** and press "Connect". Select the **Test Calls** page. Click on the **Generate** button.	Multiple traps are generated and will appear in the UEM.		

Do this…	To verify that…	Pass / Fail	Initials
Generate Logger SNMP traps On the NICE MCC7500 Radio Logger, Start **AIS Monitor** and press "Connect". Select the **Test Calls** page. Click on the **Generate** button.	Multiple traps are generated and will appear in the UEM.		
Generate a Logger (HP Server hardware) SNMP trap Disconnect the power cord of one of the Power Supplies. Wait for 30 seconds and then restore the Power Cord. Enable the secondary NIC on the Logger and wait 30 seconds. Once you receive the error then disable the secondary NIC. Note: to prevent outages you can create all traps from the AIS Monitor on the AIS and Logger.	The UEM receives an SNMPv3 trap from the Logger indicating there is a power supply failure. The UEM receives an SNMPv3 trap from the Logger indicating that power was restored. The UEM should report that there is a NIC failure.		

2.12 Remote Access

Purpose: Verify that the user can remotely access the Logger and the AIS using Windows Remote Desktop Connection (RDC).

Prerequisites:

RDC must be configured to run in *Console* mode, on the computer you are going to run RDC from, as follows:

- Select **Start > All Programs > Accessories** and right mouse click **Remote Desktop Connection**.
- Select **Properties,** the Remote Desktop Connections Properties window is displayed.
- In the Target edit box, add the text **/admin** to the end of the command and click **Apply**. The modified command should look something like: **%SystemRoot%\system32\mstsc.exe /admin**.

Do this…	To verify that…	Pass / Fail	Initials
Perform the following on the Logger and AIS: Right click **Computer** and select **Properties**. Computer Management is displayed. Select **Remote settings**	In the Remote Desktop group, the **Allow connection from computers running any version of Remote Desktop checkbox is** checked.		
On the remote access computer, select **Start > All Programs > Accessories > Remote Desktop Connection** Connect to the Logger and AIS computers.	The computers can be viewed and controlled remotely.		

2.13 Operating System Hardening

Purpose: Verify that the Operating System hardening has been applied to the Logger, AIS, Replay and Administrative workstations. OS hardening of the AIS is the responsibility of Motorola; however verification is carried out to ensure it has been applied.

The Windows hardening procedure is applied through automated scripts using the Motorola *Supplemental CD* followed by manual procedures detailed in the *Hardening the System* section of the *NICE MCC 7500 IP Logging Solution Commissioning Guide*.

Note that an exhaustive verification of all hardening procedures applied is not covered.

Prerequisites:

- Determine from Motorola the current version of the MOTOPATCH CD being used.
- Determine from Motorola the current version of the Anti-virus software being used.
- Determine from Motorola what version of OS Hardening disk was used to harden the OS.

Do this…	To verify that…	Pass / Fail	Initials
Supplemental CD applied hardening Perform the following for each of the Logging system computers (Logger, AIS and Replay/Admin workstations): Open Computer Management and select **Local Users and Groups**.	The local **Administrator** account on each computer has been renamed to **MotoSec**.		

Do this…	To verify that…	Pass / Fail	Initials
OS hardening version Start **regedit** Navigate to **HKEY_Local_Machine\Software\Motorola (**Note that on the AIS and Replay / Administration the version will be found under the key **HKLM\Software\Wow6432Node\Motorola\Supplemental CD Tag\Version.)**	The key contains the value, **OS_Hardened,** which contains data with a numeric value 1. The key contains a subkey, **Supplemental CD Tag\Version**, which contains a string value of the hardening version.		

Do this…	To verify that…	Pass / Fail	Initials
SQL Server services On the Logger, open Windows Services.	The SQL Server services, **SQLSERVER** and **SQLSERVER Agent**, are running under the **NiceMCC7500Service** account.		
Purge Right click on **Computer** and select **Manage**. In the **Server Manager**, select **Configuration** > **Task Scheduler**. In the **Task Status** panel, expand the **Purge MSSQL trace files** task.	The script to maintain the SQL Server audit files has been installed and has run successfully. Note: The Task scheduler will advise you that the task has completed successfully in Windows 2008; unlike, in Windows 2003.		

Anti-virus software Perform the following for each of the Logging system computers (Logger, AIS, Replay and Administrative workstations): Determine the version of the Anti-virus.	The correct version of Anti-virus software had been installed. The latest Anti-virus definitions have been loaded. Note: This can only be tested if Motorola has pushed the AV to the System. If CSMS is down, then note this on the ITP.		
SQL Server services On the Logger, open Windows Services.	The SQL Server services, **SQLSERVER** and **SQLSERVER Agent**, are running under the **NiceMCC7500Service** account.		

2.14 Unsupervised Logger Start-up

Purpose: Verify that the Logger computer enters service (record/replay) after a restart without user intervention. Note that a hardened logger may take up to 15 minutes to reboot.

Prerequisites: None.

Do this…	To verify that…	Pass / Fail	Initials
Reboot the Logger and AIS computers by properly shutting down the Logger and AIS Services and then performing a normal Windows Shutdown -> Restart.	The System will actually Shutdown and return to normal operation, without having to logon to the system, or intervene on the boot up.		
On the Logger: Login to Windows and go to Windows Services.	Verify the following services have been started : NICE MCC 7500 Audio Capture NICE MCC 7500 Call Logging Inserter NICE MCC 7500 Call Logging Server NICE MCC 7500 Channel Manager NICE MCC 7500 Monitoring Service Nice VoIP Logger		
On the AIS: Login to Windows and go to Windows Services.	Verify the following service has been started: NICE MCC 7500 AIS Switch Driver		

Make several test calls using the AIS Monitor, or verify LIVE traffic is recording. Use NICE Inform Lite to search for the calls.	The calls can be found and replayed.		

2.15 Logger - Disaster Recovery Media

Purpose: Verify that an NICE MCC 7500 IP Logger disaster recovery Media image has been created.

Prerequisites: None.

Do this…	To verify that…	Pass / Fail	Initials
Check that the Logger *Disaster Recovery* media has been created**.**	A Recoverable image has been created as per the Instructions in the *NICE MCC 7500 IP Logging Solution Installation Guide*. The Backup Media could be anything from a USB thumb drive to an External HDD, provided by the customer, or NICE. **What was the Logger Imaged to and where is it being kept?** _____		

3 Appendix A: SQL Configuration

The maximum file sizes can be configured in one of two ways:

- Option 1: According to the drive partition size (see Table 1 below)
- Option 2: According to the size of the DAT tape for SQL backup (see Table 2 below)

If Option 1 is chosen then the SQL database will not fit on a single DAT tape and the backup will need to span multiple tapes. If this is not acceptable then Option 2 should be chosen.

Table 1: Database File Sizes – According to Drive Partition Size

D: Partition Size	nice_cls_Data size (MB)	nice_cls_Log size (MB)
300GB	200,000	40,000
600GB	400,000	80,000

Table 2: Database File Sizes – According to DB Backup Tape Size

DB backup tape size	nice_cls_Data size (MB)	nice_cls_Log size (MB)
DAT 72	38,000	7,000
DAT 160	84,000	15,000

By completing and passing all above test procedures, I acknowledge that the NICE MCC 7500 IP Logging Solution installation has been completely installed and is working properly. Please return to NICE Systems Ltd.

Authorized NICE Systems Representative	*Date*	*Authorized Motorola Representative*	*Date*

3.3 PUBLIC SAFETY NICE INFORM 5.1 ITP

This information can be found on the following pages.

Public Safety NICE Inform 5.1 ITP iss2

This ITP does NOT replace ITP's for associated platforms eg NRX, NPX, NICE Perform or NICE Vision systems. Logging platform ITPs MUST be completed first. Some test duplication maybe unavoidable.

Installation Information

Installation date	Day/Month/Year
Site Prep completion date	
NICE Recording (NRX) ITP completion date	
NPX ITP completion date	
NP 3.5 ITP completion date	
NIM 4.1 ITP completion date	

NICE Point of Contact

	Name	Phone Number	Email Address
Nice Project Manager			
NICE Sales Engineer			
NICE Implementation Engineer			
Nice Solution Architect			
Customer Sponsor			
NICE business partner/distributor contact person's details			
NICE Trainer			
NICE Consultant			
Training date	Day/Month/Year		
SPJ #			

PS/Commitment

Commitment number	
Request Number	
Description	

Customer Point of Contact

Company Name	
Site Address	

	Name	Phone Number	Email Address
Customer Project Manager			
System/Network Administrator			
PC and workstations administrator			
Cabling infrastructure			
Telephony (Analog ports)			
Switch engineer			

Blank page.

Voice Logger

#	Description	Expected Results	Result	Comments
1	Logger is in place	A. Logger is located securely on 19" racks B. Logger is screwed to fixed shelves or L-shaped rails		
2	Grounding connection	A. Grounding cable is connected to the rack B. Grounding cable is connected from the rack to the logger		
3	Logger is online	A. 'SYS READY' led light blinks (green) on the front panel B. 'PWR ON' led is lit (green) on the front panel		
4	Check that the logger is running as a service. **Use the 'Logger Software Installation Guide' for modifying the logger software.**	Logger software is runnning as a Service		
5	Event Viewer startup events	In the Events Viewer (Type 'eventvwr' in Run command->Application in console tree) Startup events 1, 2, 3, 4 exist (You can sort the Event column to locate these events easily)		
6	Event Viewer shutdown events	In the Events Viewer (Type 'eventvwr' in Run command->Application in console tree) Startup events 6,7,9,10 exist (You can sort the Event column to locate these events easily)		
7	Dual Power Supply Note: Repeat this step for each power supply	A. Switch off one of the Dual power supplies: Beeping alarm turns on B. The Led on the power supply drawer turns off C. Switch on the Dual power supply: Beeping alarm turns off D. The Led on the power supply drawer turns on		
8	Front panel error leds	E1, E2, E3, E4 Leds do not lit on the front panel		
9	Fatal Errors	No fatal errors found in logfile.dat file in Bug Find utility (Start->Programs->NiceLog Server->Bug Find->Search)		
10	Check time set to GMT with no daylight savings (eg UTC)	Logger is set UTC		
11	Check clock is synchronised to NTP time source	Clock is synchronised		
12	Check Language is set to English	Language is set to English		
13	Windows Update	All MS Security Bulletin certified by NICE are installed		
14	Physical and Virtual Memory	A. Physical memory is at least 1GB RAM (Control Panel->System->General Tab) B. Virtual Memory is set to 1.5 times of RAM Memory: (Advanced Tab->Performance->Setting Button->Advanced Tab->Virtual Memory. If necessary to change the Virtual Memory size: Change->Initial size->Set)		
15	Check for latest Released Service Pack	The latest available released Logger Service Pack has been installed		
16	ETAI II and ETAI III leds light up with no error - only Led 3 lights up **Use the 'NICE Logger HD Hardware Guide' for the leds locations.**	Led 1 should light up only when there is an error with one of the configured lines Led 2 should light up only when there is a critical hardware problem		
17	ALI IV leds lights up with no error - All Leds active **Use the 'NICE Logger HD Hardware Guide' for the leds locations.**	All leds light up meaning board is active, termination is on and the DSP has no errors.		
18	NATI leds are all off **Use the 'NICE Logger HD Hardware Guide' for the leds locations.**	Bracket leds are off - The leds are off when the A3M is synchronized and there are no errors. Internal leds - channel led should be off, PCI device led should be on, H100 matrix led should be on, H100 term led should be on, A3M logic should be on, control		
19	ADIF III leds lights up and blinks to show no errors	FW led - green light blinks every second MS led - green light blinks every four seconds ED led - green light illuminates LE led - red light means an error on one of the lines GE led -red light means an error in the PCOP General DSP leds - red light means an error in the DSP		

Voice Logger

#	Description	Expected Results	Result	Comments
	Use the 'NICE Logger HD Hardware Guide' for the leds locations.			
20	ADIF IV leds lights up and blinks to show no errors **Use the 'NICE Logger HD Hardware Guide' for the leds locations.**	For the VPUs - Led on bracket should be off, internal led 1 should be on , internal led 2 should be off. For the GUY - Internal led 1 should be on , internal led 3 should be off.		
21	Verify Logger specification as per summary.doc **D:\NTLogger\Logger\Config**	Hard Disk Drives are correct		
22	Verify Logger specification as per summary.doc **D:\NTLogger\Logger\Config**	Number of avaialable channels are correct		
23	Verify Logger specification as per summary.doc **D:\NTLogger\Logger\Config**	Type of Backup tape drive and media are correct		
24	Verify Logger specification as per summary.doc **D:\NTLogger\Logger\Config**	Type of recording system is correct		
25	Verify channel configuration **Use the 'System Administrator Guide' page 73 for configuring the audio channels.**	A In the System Administrator verify that all **needed** and **available** audio channels and trunks are configured and verify the audio channels configuration (Compression, Activity mode etc') B All channels that are not required must remain unconfigured. This will ensure they are not counted by NICE Inform licensing and will not alarm on no activity.		
26	Verify the status of the RAID hard disks **Use the 'NICE Logger HD Hardware Guide' for viewing the drive status.**	All hard disks should be 'On Line'.		
27	Trunks are connected and there are no errors on line All extensions are wired and connected	All trunks show OK in the functional tester All extensions are wired and connected		
28	Verify the line status has no errors in the functional tester.	All connected lines should be with an 'OK' status.		
29	Compare the Logger IDs in NICE Inform	The IDs match		

VoIP Logger

#	Description	Expected Results	Results for Logger #123456	Results for Logger #654321	Comments
1	For Passive Sniffing verify the network switch is configured for mirroring	The VoIP Logger is defined as a destination port of a mirroring session, or as an output port/s of a tap device, similar to the connectivity of a network, sniffer,thus receiving sniffed (or mirrored) audio.			
2	Verify Server specification as per the Recommended Servers Guide	The Server has been specified correctly.			
3	Verify partitions configuration as per the Recommended Servers Guide	Server Partitions have been configured correctly.			
4a	Check time set to GMT with no daylight savings (eg UTC)	Logger is set UTC			
4b	Check clock is synchronised to NTP time source	Clock is synchronised			
4c	Check Language is set to English	Language is set to English **Note - VoIP Logger vers 9.12 SP3 and later has a new setting that allows the loggers to use UTC time, irrespective of the Windows time. See TN0830. However it is not set this way in Public Safety environments to be consistent with NICE 9.0.**			
5	Verify the Network Interface Card configuration When your NICE VoIP Logger is software-only, it does not matter which card you choose to designate for system management and playback and which you use for mirroring (as long they are certified by NICE). However, when you configure the network switch, you must decide which is the Control NIC and which is the Mirroring NIC	Control NIC Check the card used for control should be configured as a regular TCP/IP network connection card with the logger's IP address, DNS, WINS etc'. Mirroring NIC Verify all items are enabled, if from some reason you forgot to enable them, the NIC will not be seen in the IP Tool			
6	To enable you to differentiate between the card that has been designated for communication and playback, and the cards that have been designated for mirroring (sniffing), we recommend naming your network cards with meaningful names like LAN, Sniff_1, Sniff_2	NICs have been given meaningful names			
7	Verify that .NET 3.5 SP1 (English) is installed on the logger.	Verify .NET 3.5 SP1 by opening the 'Add/Remove Programs' from the control panel.			
8	The logger should run as a service.	Install the logger as a service. Logger software will be reinstalled in order to run as a service if it is not already configured this way.			
9	Windows Update	All MS Security Bulletin, certified by NICE, are installed			
10	Latest SP installed	Latest released Logger SP is installed			
11	Verify channel configuration **Use the '*System Administrator Guide*' for configuring the audio channels.**	In the System Administrator verify that all audio channels and trunks are configured and verify the audio channels configuration (Compression, Activity mode etc')			
12	Verify the Virtual Memory configuration.	The Virtual Memory has been defined at least 1.5 x Internal Memory.			
13	Verify that the logger ID number matches the serial number in the license key	The ID's match			

NICE Recording

#	Description	Expected Results	Result	Comments
1	Physical - Are all Perform Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the NICE Recording ITP been completed?	Check the NRX ITP is complete		
	Note that this sheet is a placeholder. A NICE Recording ITP must be completed before starting this NICE Inform 5.1 ITP.			

NICE Perform eXpress 3.0 Servers and Loggers

#	Description	Expected Results	Result	Comments
1	Physical - Are all Perform Servers Securely Mounted?	Fixed in Cabinet.		
1	Physical - Are all Perform Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the NPX ITP been completed?	Check the NPX ITP is complete.		

Note that this sheet is a placeholder. An NPX3.0 ITP must be completed before starting a NICE Inform 5.1 ITP.

NIM 4.1 Servers and Loggers

#	Description	Expected Results	Result	Comments
1	Physical - Are all Perform Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Perform Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Perform Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the associated NIM 4.1 System ITP been completed?	The NIM 4.1 ITP has been completed to the customers satisfaction.		

Note that this sheet is a placeholder. NIM 4.1 must be completed before starting this NICE Inform 5.1 ITP.

NICE Perform 3.5 Servers and Loggers

#	Description	Expected Results	Result	Comments
1	Physical - Are all Perform Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Perform Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Perform Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the Integrated Perform 3.5 System ITP been completed? ***Note that this sheet is a placeholder. IA NICE Perform 3.5 ITP must be completed before starting a NICE Inform 5.1 ITP.***	The NICE Perform 3.5 ITP has been completed to the customers satisfaction.		

NICE Vision Servers and Loggers

#	Description	Expected Results	Result	Comments
1	Physical - Are all Vision Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Vision Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Vision Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the Integrated Vision System ITP been completed?	The Vision ITP has been completed to the customers satisfaction.		

Note that this sheet is a placeholder. A NICE Vision ITP must be completed before starting a NICE Inform 5.1 ITP.

NICE Situator 7.0 and 7.1 Servers
NICE Approval only (project)

#	Description	Expected Results	Result	Comments
1	Physical - Are all Situator Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Situator Servers Grounded correctly?	Grounded correctly.		
3	Physical - Is all, Situator Server cabling, tidy and safe?	Cables are safe from being snagged by passers by.		
4	Has the Integrated Situator System ITP been completed?	The Situator ITP has been completed to the customers satisfaction.		

Note that this sheet is a placeholder. A Situator ITP must be completed before starting a NICE Inform 5.1 ITP.

NICE 9.0 Servers

#	Description	Expected Results	Result	Comments
1	Physical - Are all NICE 9.0 Servers Securely Mounted?	Fixed in Cabinet		
2	Physical - Are all NICE 9.0 Servers Grounded correctly?	Grounded correctly		
3	Physical - Is all, NICE 9.0 Server cabling, tidy and safe?	Cables are safe from being snagged by passers by		
4	Check all NICE 9.0 Servers - Operating Systems **Note - Go to Control Panel, System Applet - to look up the Windows Operating system version on the server**	Windows 2003 Server, Standard Edition SP2		
5	Check all NICE 9.0 Servers for all the next Tests	All NICE 9.0 Servers have been checked		
6	Check time set to GMT with no daylight savings (eg UTC)	NICE 9.0 Server is set UTC		
7	Check clock is synchronised to NTP time source	Clock is synchronised		
8	Check Language is set to English	Language is set to English		
9	Date & Time - Confirm that the server has its time synchronised to the same source as the rest of the NICE servers in the system.	Shows UTC and synchronised to the same source as all other NICE Servers		
10	Right click on the time display on the task bar and select Adjust Date/Time. Make sure that the Timezone is set to GMT and Automatically adjust clock for daylight saving is disabled.	GMT No Daylight Savings		
11	From Control Panel choose System, in Advanced Tab, choose Performance Options, check Virtual Memory.	Virtual Memory is set to 1.5 x System RAM		
12	From the Control Panel, choose Regional Options. The Regional Options window appears. Click the Date tab.	The following date style is set: MM/DD/YYYY		
13	From the Control Panel, choose Administrative Tools, Event Viewer. Select a log, right-click and choose Properties. The properties window appears. Repeat this procedure for each log: Security Log, System Log and Application Log.	The logs are set to overwrite events		
14	Check Versions of SQL Server	SQL Server 2005 SP2 or higher		
15	From the Control Panel, choose Administrative Tools, Data Sources (ODBC). Click the Drivers tab.	The SQL Server driver version is 2000.80.380.00 or higher.		
16	From the Control Panel, choose Administrative Tools, Services. In the Services window, stop and then re-start the MS SQL Server service	The running value still exists.		
17a	Verify the NICE CLS Installation - From the Start menu, choose Programs, Microsoft SQL Server, Enterprise Manager, Microsoft SQL Servers, SQL Server Group, CLSxxxx, Management, SQL Server Agent, Jobs.	The following jobs exist: AuditAutoDeletion, FullDatabaseBackup, ReIndexCurrentCallTable, ReleaseLostCalls.		
17b	Insert a new backup media into the NiceCLS Server. Start all jobs: Right-click the jobs and choose Refresh Job.	All the jobs are completed successfully.		
18	Verify the NICE CLS Configuration - Open the NiceCLS Server Controller, From the Switch menu, choose Driver Setup. Run the Switch Driver Setup.	The switch driver is configured as expected and to suit the installed environment..		
19	Open the NICE CLS Manager - From the Start menu, choose Programs, Startup, CLS Manager.	Dispatch is running (as shown in the CLS Manager Window).		
20	Open the NiceCLS Log Manager: From the Start menu, choose NiceCLS Server 8.9, Log Utilities, NiceCLS Log Manager.	Switch Driver component is running and error-free (as shown in the NiceCLS Log Manager window).		
21	Open the Logger Definition Tool: From the Configuration menu, choose Logger Definition Tool.	The Loggers are defined correctly: • For Extension-Side Total Recording verify that the Recording Device Type is set to Station and the extensions are defined in the Station column. • For Trunk-Side or Radio Recording, verify that the Recording Device Type is set to Trunk and the trunk groups are defined in the Trunk Group columns.		
22	From the Controller menu, choose Verify Installation.	In the NiceCLS Verify Installation window, no errors appear.		

NICE 9.0 Storage Center

#	Description	Expected Results	Result	Comments
1	Before beginning the technical tests you must configure the registry so that **Hkey_Local_Machine\software\Nice systems\setup\Nice storage center\site has the parameter DebugCategoryMask set to decimal 255.** This will enable the technical tests to run cirrectly and allow for any errors to be displayed in the SC Log File. This must be set back to decimal 4 after the tests.	Debug Level Changed to decimal 255.		
2	Shutdown and restart the Storage Center Server	The SCLoader service is startedlog.		
3	Since shutdown and restart of the Storage Center Server, check logs.	Tthere are no errors in the log.		
4	Run Storage Center Administrator check that the Storage Destination, Task and Storage Destination Type are as per the customer requirements. If not yet decided then define a storage destination on the local disk of the Storage Center, define a task to archive.	Are they correct? In the comments field to the right briefly record how SC is defined and configured. Or note that the test was setup for the ITP tests.		
5	Check Storage center is archiving (select correct calls table): Use the SQL Query Analyzer to query: **Select * from nice_cls_calls_0001 where iarchiveclass=3 and recorded in ('y','p') and vcscserverid =*storage center computer name***	A list of calls appear, indicating that the Storage Center has started archiving		
6	After 10 minutes (if calls are completed) the Storage Center archives the calls.	In the storage destination, there is an archive directory for each Logger. New audio files are created in the archive storage directories.		
7	After 10 minutes, run the following query through the Query Analyzer: **Select * from nice_cls_calls_0001 where iarchiveclass=1 and recorded in ('y','p') and vcscserverid**	A list of calls appear, indicating that the calls were archived.		
8	In Inform Reconstruction search for calls from say 2 hours ago. Replay the call and note the Icon is that which indicates the call is replayed from Storage Center.	The call is being replayed from Storage Center successfully.		
9	Verify that the retention and group deletion parameters are configured according to the customer preferences. Note that when you define a storage rule, you can define a value for Storage Group deletion, meaning that files archived by a specific rule will be deleted after a certain number of days. *If a conflict occurs between the Group'Retention value and a Rule Storage Group Deletion value,* ***the storage Group Deletion value of the rule takes preference!!*** *eg Group Retention value is set to 100 days AND Rule Storage Group Deletion value is set to 50 days... .* The group Retention value is a more general definition; the archiving rule Storage Group deletion value is specific to a group of archived files.	Retention and group deletion parameters are correct.		
10	After technical tests you must configure the registry so that **Hkey_Local_Machine\software\Nice systems\setup\Nice storage center\site has the parameter DebugCategoryMask set back to decimal 4.**	Debug Level Changed to decimal 4.		

NICE Inform Servers

#	Description	Expected Results	Result	Comments
1	Physical - Are all Inform Servers Securely Mounted?	Fixed in Cabinet.		
2	Physical - Are all Inform Servers Grounded correctly?	Grounded correctly?		
3	Physical - Is all Inform Servers cabling tidy and safe?	Cables are safe from being snagged by passers by.		
4	Software - Check all Inform Servers Operating System	Microsoft Windows Server 2008 Standard / Enterprise Edition R2 SP1 64bit Microsoft Windows Server 2008 Standard / Enterprise Edition R1 SP2 32bit Microsoft Windows Server 2003 Standard / Enterprise Edition R2 SP2 32bit		
5	Check all Inform Servers - Versions of IE	Version 7.0, 8.0, 9.0		
6	Check for Microsoft .NET 4.0 (English) framework	Microsoft .NET 4.0 (English) Framework		
7	Check IIS on all Inform Servers	IIS on all Inform Servers		
8	Check all Inform Servers in the solution have the same Versions of SQL Server. To determine the version of SQL connect to the SQL Server using SQL Server Management Studio and then run the following Transact-SQL statement **SELECT SERVERPROPERTY('productversion'), SERVERPROPERTY ('productlevel'), SERVERPROPERTY ('edition')**	Microsoft SQL Server 2008 Standard/Enterprise R1 / R2 SP2 Microsoft SQL Server 2008 Standard/Enterprise R2 SP2 64 bit Microsoft SQL Server 2005 Standard Edition SP4		
9	Check that the correct Version of NICE Inform is installed.	NICE Inform Build Version: 5.1.0.131		
10	Check latest Update Pack is installed. UP1 was MANDATORY at GA release. Check the SDC for the latest UP. To check installed UP: At your Inform Client, Click Help (? Icon), About NICE Inform, Details. UP1 included the following *** CLIENT .NET Assemblies *** **Nice.Inform.Client.Controls 5.1.0.149** **Nice.Inform.Client.Monitor 5.1.0.149** **Nice.Inform.Client.Organizer 5.1.0.149** **Nice.Inform.Client.Playback 5.1.0.149** If these files are at 5.1.0.131 (GA) then you MUST apply UP1 or later. *NOTE differences would indicate a newer UP OR additional HF has been applied*	Latest NI R5.1 UP is installed.		
11	Optional for non-English Inform Client Apps - check Language Pack 1 is installed by confirming the Language displayed at the Inform Client PCs	The NICE Inform Client is in the expected and supported OS Language.		
12	**Check all Inform Servers - Date & Time;** right click on the time display on the task bar and select Adjust Date/Time			
a	With **NICE 9.0 or CLS 8.9 included Datasources** the Timezone must be set to GMT , with no Day Light Savings (DST) and use GMT / UTC time.	CLS 8.9 or NICE 9.0 **INCLUDED** and Timezone is GMT, Daylight savings off and running at GMT / UTC time.		
b	**For all others (NON NICE9.0 or CLS8.9)** the timezone must be set to current location, Day Light Savings (DST) on and time set to current local time.	CLS 8.9 or NICE 9.0 **NOT** included and Timezone is current location, Daylight savings on and running at current local time.		
c	Confirm that the INFORM server has its time synchronised to the SAME TIME source as the rest of the NICE servers in the system.	Same Source as the other NICE Servers		

NICE Inform Clients

13	Check Client Operating Systems Windows 7 Professional SP1 Windows 7 Professional 64 bit SP1 Windows XP Professional SP2 or SP3 Windows Vista Business Edition Windows Server 2008 Standard Edition SP2 Windows Server 2008 Standard Edition R2 64bit Windows Server 2003 Standard Edition SP2	All anticipated Inform Clients have a supported Operating System		
14	Check Client IE Version are 7.0, 8.0, 9.0	All anticipated Inform Clients have a supported IE version		
15	Optional - If Inform Saved Audio Files or Scenarios are to be compressed as .wma files ensure all Clients have Windows Media Player installed. *Note you may need to download the WMEncoder first.* *Refer to the NICE Inform Installation Guide for Windows XP details.* *For Windows 7 you must reference TN812-024-02.*	Windows Media Player has been installed where .wma saved file compression is required		
16	Check at a typical Client - Inform Client launch *Note - These client tests should only be performed once an acceptable set of results has been obtained from the server tests.* *Open Internet Explorer on the client. Enter the address of the NICE Inform website. Usually this will be of the form http://servername/inform.*	Login dialogue appears		
17	Logon using the Inform Admin account 'inform'	Login Successful		
18	Check Client Log File Creation Select Diagnostics Folder from the Settings menu. Check that a file called InformClientLog.txt has been created and can be copied	File Created		
19	Optional - Inform Server Resilience Check Logon to NICE Inform as an administrator to each Secondary NICE Inform Server and playback a call using Reconstruction	Logon and replay from all Secondary Nice Inform Servers is OK		
20	With Inform Server Resilience, at the Master, disconnect the network cable.	Are the Inform Clients able to re-connect to the Standby Inform Server while the Master is disconnected from the network?		
21	If Concurrent Licensing has been applied, check that you connect the expected number of Clients to each application	To quickly check, the System Adminstrator can view the License Tab and note, following a refresh, the 'Remaining' column is reduced by 1 for each new Client that Logs in.		
22	In Inform System Administartor check License the details are correct as per the order	The licensed features match the customer order		

Inform System Administration

#	Description	Expected Results ****DEPENDENT ON SITE SETUP****	Result	Comments
1	Login to NICE Inform as a System Administrator with the System Administration Application selected	Administration Application is available and selected		
2	Check that all NLS Audio DataSources (CLS 8.9, NICE 9.0 Servers, Loggers Only Admin database servers) are added	All NLS DataSources are added		
3	Check for each NLS Audio System DataSource that the resources tab is populated with the appropriate channels, talk groups, agent IDs etc.	All required Resources are listed and enabled.		
6	Check all Nice Perform DataSources are added	All Nice Perform DataSources are added		
7	Check for each Nice Perform DataSource the resources tab is populated with the appropriate channels, talk groups, agent IDs etc.	All required Resources are listed and enabled.		
8	Check all NICE Vision DataSource are added	All NICE Vision DataSources are added		
9	Check for each NICE Vision DataSource the Resources tab has been populated with the Video Channels.	All required Resources are listed and enabled.		
10	Check all NICE Interaction Management DataSources are added	All NICE Interaction Management Data Sources have been added		
11	Check for each NICE Interactions Management DataSource the Resources tab has been populated with the NIM Channels, Agents etc.	All required Resources are listed and enabled.		
12	NICE Inform Point Servers - Check that the Inform Hub is present in the Data Sources list.	Hub Server Datasource are listed		
13	Check the Inform Hub Data Source is populated with Hub Resources.	All required Resources for the Hub Data Source are present		
14	Check that all Hub Accounts are configured	All Hub Accounts are present and configured		
15	Check the Inform Database Backup has completed successfully	Completed successful Inform Database Backup		

Inform User Administration Application

#	Description	Expected Results	Result	Comments
1	Select the User Administration Application. In the left hand pane, select Organization, check that the Security Settings are as the customer requires and matches their Security Policy.	The Inform Security settings match that of the Customers Company Security Policy.		

Inform Reconstruction Application

#	Description	Expected Results	Result	Comments
1	Make a series of test calls, then login to NICE Inform as an Administrator and select the Reconstruction application. Simple Search the time period to include your test calls and playback a call from each resource. **Note If it is not practical to test each resource then test a sample such that you test at least one resource from each logger.**	All audio resources playback as expected loud and clear.		
2	If Storage Center is installed check that the archived calls playback from Storage Center. *Select calls that should have been archived, see SC Tasks. Archiving to Storage Center is normally achieved within 10 minutes after recording has finished but this may vary from site to site. But check the Results, ensuring the following columns show ArchiveClass = 1 (success) and the Archive Path is correctly populated Check Inform Reconstruction 'i' column' (information) in the Results Table of Reconstruction on replay is a SC Icon and not a Logger icon.*	Archived Calls playback from Storage Center OK.		
3	When synchrionised Screen recording is configured ensure that the correct and expected screens are displayed.	All checked screen recordings are replayed and synchronised with audio replay correctly		
4	If this is a Point Server, check that a configured user with privilege to the Hub Account Resources is able to replay those privileged channels recorded at the other NICE Inform Sites within the system.	All checked Hub Account channels playback correctly.		
5	Select each Video resource, one at a time, and play back via Reconstruction a clip from each resource. Check the correct video is being recorded. If available check that the audio resources are synchronised with their video resources when played back together	All Video resources playback OK		
6	Select a number of channels and Save as an example Scenario.	Check that you can reload the and replay the Saved Scenario.		
7	Select a call, click on the Save button and select the Save Audio option. Ensue that Audio Format is set to Windows Media Audio (*.wma), not (Standard Audio (*.wav) file. **Note you may need to download the WMEncoder first. refer to the NICE Inform Installation Guide for XP details. For Windows 7 you must reference TN812-024-02.**	The saved '.wma compressed' file can be replayed using Windows Media Player.		

Inform Organizer Application

#	Description	Expected Results	Result	Comments
1	Login to NICE Inform as an administrator and select the System Administration application. Locate the Incident Storage tab in the Inform Servers section. Check that the storage location indicated has enough free space for the customer to save the required quantity of incidents. **Note that if EMC Centera or similar is installed to your site, the available disk space should reflect the allocated space that is being provided by the EMC Centera Server to the NICE System**	The path points to a disk with sufficient free space.		
2	Login to NICE Inform as an administrator and select the Reconstruction application. Perform a search that returns some audio. Select the audio and start the Add to Organizer wizard where you should create a new incident, and add the audio. Open the New incident in Organizer containing the selected calls. Check that the audio can be played back from the Reconstruction window in Organizer.	Organizer Incident audio playback is OK		
3	Move to the related material folder and upload a sample file from the client. Check that double clicking on the uploaded file opens it and that it can be read.	File opens in relevant application.		
4	Option where licensed - Check Media Clip Import. In your test incident, Reconstruction Content, Content List tab, click the Media Clip Import button and follow the wizard to import a video clip to the time line. *Note: Only video that can be played using Windows Media Player will be playable.*	The video clip appears on the timeline in the incident and can be played back OK.		
5	Check that your test Incident can be distributed as a Distribution Type 'Web Page'.	The distributed incident web page opens and files can be replayed.		
6	Option where licensed - Check that your test Incident can be distributed as a Distribution Type 'NICE Inform Media Player'. Include the NICE Inform Media Player.	You can open the NICEInformMediaPlayer.EXE, Accept the License Agreement, click the Open button, select your folder and playback the audio OK.		
7	For non-email Clients copy the Distribution file to a Storage device. Move device to another non Inform Client.	Check at the receiving Client PC they can open the Inform Media Player File, enter a valid account and password and view and replay the packaged data OK.		

Inform Monitor and RCR

#	Description	Expected Results	Result	Comments
1	Login to NICE Inform as an administrator and select the Monitor application. Select at least one channel from every Logger up to a maximum of 10 channels at a time. Make test calls and Monitor.	Check that all your Selected Channels can monitor in-progress calls		
2	Switch to the Recent Calls panel. A max of 50 resources can be selected while using Recent Calls. Select a channel by Double Click; this will replay the most Recent Call to be recorded on that channel. *Note - compare by start time column and suggest using controlled test calls.*	Confirm the most Recent Call on tested channels		

Inform Verify

#	Description	Expected Results	Result	Comments
1	Login to NICE Inform Verify, at an assigned Workstation using a known Verify User account.	Verify launched and user logged in		
2	View NICE Inform Verify user preferences	The correct resources are available to that Verify Position		
3	Check the list is populated with recent calls and that the last minute replay button plays the last message	The expected call audio is replayed as expected		
4	Note an 'In progress' call is changing from a 'live' call state to an 'old' call state.	When the icon signifies a change to 'old' call state, check call record data or meta data has been retrieved from the database and is available in the Verify calls list (if not check Verify preferences).		
5	If necessary test all configured Verify Positions	All Verify Positions replay, defined resources as expected		

SNMP

#	Description	Expected Results	Result	Comments
1	Check that Castle Rock SNMPc (Public Safety SNMP V3) has been installed to correct version	Castle Rock SNMPc has been installed to the latest version 8.0.6		
2	Check that Castle Rock has a permanent license key.	Permanent Key installed.		
3	Check that the latest Public Safety nicecren.mib file has been compiled to Castle Rock SNMPc and the Recording System is displayed as expected and alarm free	nicecren.mib version 56 or later has been compiled, ALL NICE Recording System Objects have been discovered and ALL are showing alarm free		
4	Check that the ***Optional*** External Alarms (ADLink Relay board) has been installed and configured for your anticipated test alarms	***Optional*** ADLink Relay Board has been installed and configured to trigger for anticipated test traps		
5	Check that the ***Optional*** SMTP has been configured to generate emails when an alarm is raised from the NICE Recording System	***Optional*** SMTP is configured to send test alarms to a correct list of recipient email addresses.		
6	In a NICE Inform client, open System Administration, select the Inform Servers Node, General Tab, System Diagnostics section and send a test SNMP Trap.	Public Safety SNMP V3 decodes the Inform test trap, an ***optional*** email was received and the ***optional*** External Alarm was raised.		
7	Simulate a Logger failure eg switch off one of the dual PSU's or stop a Logger Service.	Public Safety SNMP V3 decodes the Logger trap, an ***optional*** email was received and the ***optional*** External Alarm was raised.		
8	Simulate a Calls Database or equivalent failure eg stop a Calls Database Service.	Public Safety SNMP V3 decodes the Database Service Stop test trap, an ***optional*** email was received and the ***optional*** External Alarm was raised.		
9	Reset any test alarms and finally check that the Recording System is displayed as alarm free again	NICE Recording System is showing alarm free		

System Certification

Installation Date	Day/Month/Year

Installer Details	
Installer Name	
Installer Company	
Installer Telephone	
Installer Email	
Signature	

Customer Details	
Customer Company	
Site Name	
Customer Representative	
Customer Representative Telephone	
Customer Representative Email	
Signature	

SECTION 4

STATEMENT OF WORK

4.1 OVERVIEW

This project adds an ASTRO 25 IP logging recorder system to the City of San Diego's dispatch centers to record both telephone and radio audio as well as the Master Site equipment to support it per the System Description.

Below are the detailed tasks to accomplish this work.

4.2 CONTRACT

4.2.1 Contract Award (Milestone)

The City of San Diego County ("City") and Motorola execute the contract and both parties receive all the necessary documentation.

4.2.2 Contract Administration

Motorola Responsibilities:

- Assign a Project Manager, as the single point of contact with authority to make project decisions.
- Assign resources necessary for project implementation.
- Set up the project in the Motorola information system.
- Schedule the project kickoff meeting with the City.

City Responsibilities:

- Assign a Project Manager, as the single point of contact responsible for Customer-signed approvals.
- Assign other resources necessary to ensure completion of project tasks for which the City is responsible.

Completion Criteria:

- Motorola internal processes are set up for project management.
- Both Motorola and the City assign all required resources.
- Project kickoff meeting is scheduled.

4.2.3 Project Kickoff

Motorola Responsibilities:

- Conduct a project kickoff meeting prior to the Contract Design Review (CDR) phase of the project.
- Ensure key project team participants attend the meeting.
- Introduce all project participants attending the meeting.
- Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- Review the overall project scope and objectives with the City.
- Review the resource and scheduling requirements with the City.
- Review the Project Schedule with the City to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and the City), meetings, reports, milestone acceptance, and the City's participation in particular phases.
- Record meeting notes.
- Distribute Action Items list.

City Responsibilities:

- The City key project team participants attend the meeting.
- Review Motorola and City responsibilities.

Completion Criteria:

- Project kickoff meeting completed.
- Distribution of meeting notes and Action Items.

4.3 CONTRACT DESIGN REVIEW

4.3.1 Review Contract Design

Motorola Responsibilities:

- Meet with the City project team.
- Review the operational requirements and the impact of those requirements on various equipment configurations.
- Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- Review the System Design, Statement of Work, Project Schedule, and Acceptance Test Plans, and update the contract documents accordingly.
- Discuss the proposed Cutover Plan and methods to document a detailed procedure.
- Prepare equipment layout plans for staging and field.
- Provide minimum acceptable performance specifications for microwave, fiber, or copper links.
- Establish demarcation point (supplied by the Motorola system engineer) to define the connection point between the Motorola-supplied equipment and the City-supplied link(s) and external interfaces.
- Determine each site's ability to accommodate equipment based upon physical capacity.
- Submit design documents to the City for approval. These documents form the basis of the system, which Motorola will stage and install.

City Responsibilities:

- The City key project team participants attend the meeting.
- Make timely decisions, according to the Project Schedule.

Completion Criteria:

- Complete Design Documentation, which may include updated System Description, system drawings, or other documents applicable to the project.
- Incorporate any deviations from the proposed system into the contract documents accordingly.
- The system design is “frozen” in preparation for subsequent project phases such as Order Processing and Manufacturing.
- If required, a Change Order may be executed to document any material changes resulting from the Design Review to the contract.

4.3.2 Design Approval (Milestone)

- The City executes a Design Approval milestone document.

4.4 ORDER PROCESSING

4.4.1 Process Equipment List

Motorola Responsibilities:

- Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- Enter order into Motorola’s Customer Order Fulfillment (COF) system.
- Create Ship Views, to confirm with the Customer the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- Create equipment orders.
- Reconcile the equipment list(s) to the Contract.
- Procure third-party equipment if applicable.

City Responsibilities:

- Approve shipping location(s).
- Complete and provide Tax Certificate information verifying tax status of shipping location.

Completion Criteria:

- Verify that the Equipment List contains the correct model numbers, version, options, and delivery data.
- Trial validation completed.
- Bridge the equipment order to the manufacturing facility.

4.5 MANUFACTURING AND STAGING

4.5.1 Manufacture Motorola Fixed Network Equipment

Motorola Responsibilities:

- Manufacture the Fixed Network Equipment (FNE) necessary for the system based on equipment order.

City Responsibilities:

- None.

Completion Criteria:

- FNE shipped to the field.

4.5.2 Procure Non-Motorola Equipment

Motorola Responsibilities:

- Procure non-Motorola equipment necessary for the system based on equipment order.

City Responsibilities:

- None.

Completion Criteria:

- Ship non-Motorola manufactured equipment to the field.

4.5.3 Ship Equipment to Field

Motorola Responsibilities

- Pack system for shipment to final destination.
- Arrange for shipment to the field.

City Responsibilities

- None.

Completion Criteria

- Equipment ready for shipment to the field.

4.5.4 Ship Acceptance (Milestone)

- All equipment shipped to the field.

4.6 SITE UPGRADES FOR THE CITY-PROVIDED FACILITIES

Motorola Responsibilities:

- Provide electrical requirements for each equipment rack to be installed in the City-provided facilities.
- Provide heat load for each equipment rack to be installed in the City-provided facilities.

City Responsibilities:

- Provide clear and stable access to the sites for transporting electronics and other materials. Sufficient site access must be available for trucks to deliver materials under their own power and for personnel to move materials to the facility without assistance from special equipment.
- Supply adequately sized electrical service, backup power (UPS, generator, batteries, etc.) including the installation of conduit, circuit breakers, outlets, etc., at each equipment location. Provide AC power (dedicated 20A, AC outlets - simplex with ground) for each major piece of equipment within 6 feet of the location of the Motorola-supplied equipment, including the associated electrical service and wiring (conduit, circuit breakers, etc.).
- Provide floor space and desk space for the System equipment at the City-provided facilities. Each rack shall be provided a minimum of 24-inch x 24-inch footprint with 36-inch clearance in the front and back.
- Relocate existing equipment, if needed, to provide required space for the installation of Motorola-supplied equipment.
- Provide obstruction-free area for the cable run between the demarcation point and the communications equipment.
- Supply interior building cable trays, raceways, conduits, and wire supports.
- Complete all customer deliverables in accordance within the approved project schedule.

Completion Criteria:

- All sites are ready for equipment installations in compliance with Motorola's R56 standards.

4.7 SYSTEM INSTALLATION

4.7.1 Install Chollas Equipment

Motorola Responsibilities:

- Install the fixed network equipment, as specified by the Equipment List, System Description, and system drawings.
- Bond the supplied equipment to the site ground system in accordance with Motorola's R56 standards.

Restrictions:

– Motorola is not responsible for issues outside of its immediate control.

City Responsibilities:

- Provide access to the sites, as necessary.

Completion Criteria:

- Chollas equipment installation completed and ready for optimization.

4.7.2 Install PD Headquarters Equipment

Motorola Responsibilities:

- Install thefixed network equipment, as specified by the Equipment List, System Description, and system drawings.
- Bond the supplied equipment to the site ground system in accordance with Motorola's R56 standards.

Restrictions:

– Motorola is not responsible for issues outside of its immediate control.

City Responsibilities:

- Provide access to the sites, as necessary.

Completion Criteria:

- PD Headquarters equipment installation completed and ready for optimization.

4.7.3 Install Fire Headquarters Equipment

Motorola Responsibilities:

- Install the fixed network equipment, as specified by the Equipment List, System Description, and system drawings.
- Bond the supplied equipment to the site ground system in accordance with Motorola's R56 standards.

Restrictions:

– Motorola is not responsible for issues outside of its immediate control.

City Responsibilities:

- Provide access to the sites, as necessary.

Completion Criteria:

- Fire Headquarters equipment installation completed and ready for optimization.

4.7.4 System Installation Acceptance (Milestone)

- All equipment installations are completed and accepted by the Customer.

4.8 SYSTEM OPTIMIZATION

4.8.1 Optimize System

Motorola Responsibilities:

- Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- Verify that all audio and data levels are at factory settings.
- Optimize the equipment.

- Verify communication interfaces between devices for proper operation.
- Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR.

City Responsibilities:

- Provide access to the sites.

Completion Criteria:

- System optimization is complete.

4.8.2 Optimization Complete

- System optimization is completed. Motorola and the Customer agree that the equipment is ready for acceptance testing.

4.9 TRAINING

NICE Inform 2-day instructor led training for up to 6 students held at a San Diego PD site will be provided. This training covers all Inform applications including Organizer and Media Player as well as advanced configurations, e.g. Inform Server Resilience, as required.

4.10 ACCEPTANCE TESTING

4.10.1 Perform Equipment Testing

Motorola Responsibilities:

- Test the new and upgraded components of the system to verify compliance to the equipment specifications.
- Repeat any failed test(s) once Motorola (or the Customer) has completed the corrective action(s).
- Prepare documentation of component tests to be delivered as part of the final documentation package.

City Responsibilities:

- Witness tests if desired.

Completion Criteria:

- Successful completion of equipment testing.

4.10.2 Perform Functional Testing

Motorola Responsibilities:

- Verify the operational functionality and features of the new and upgraded system components, as contracted.
- If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- Document all issues that arise during the acceptance tests.
- Document the results of the acceptance tests and present to the Customer for review.
- Resolve any major task failures before Final System Acceptance.

City Responsibilities:

- Witness the functional testing.

Completion Criteria:

- Successful completion of the functional testing.
- Customer approval of the functional testing.

4.10.3 System Acceptance Test Procedures (Milestone)

- Customer approves the completion of all the required tests.

4.11 FINALIZE

4.11.1 Cutover

Motorola Responsibilities:

- Motorola and the Customer develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- During cutover, follow the written plan and implement the defined contingencies, as required.

City Responsibilities:

- Attend cutover meetings and approve the cutover plan.
- Notify the user group(s) affected by the cutover (date and time).

Completion Criteria:

- Successful migration from the old system to the new system.

4.11.2 Resolve Punchlist

Motorola Responsibilities:

- Work with the Customer to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

City Responsibilities:

- Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

Completion Criteria:

- All punchlist items resolved and approved by the Customer.

4.11.3 Transition to Service/Project Transition Certificate

Motorola Responsibilities:

- Review the items necessary for transitioning the project to warranty support (Box Warranty).
- Discuss adding Phase 4 equipment to the City's ongoing maintenance contract with Motorola.

City Responsibilities:

- Participate in the Transition Service/Project Transition Certificate (PTC) process.

Completion Criteria:

- All service information has been delivered and approved by the Customer.

4.11.4 Finalize Documentation

Motorola Responsibilities:

- Modify the existing System Manual and provide the amended manual on a Compact Disk (CD).

  Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

City Responsibilities:

- Receive and approve all documentation provided by Motorola.

Completion Criteria:

- All required documentation is provided and approved by the Customer.

4.11.5 Final Acceptance (Milestone)

- All deliverables completed, as contractually required.
- Final System Acceptance received from the Customer.

4.12 PROJECT ADMINISTRATION

4.12.1 Project Status Meetings

Motorola Responsibilities:

- Motorola Project Manager, or designee, will attend all project status meetings with the Customer, as determined during the CDR.
- Record the meeting minutes and supply the report.
- The agenda will include the following:
  - Overall project status compared to the Project Schedule.
  - Product or service related issues that may affect the Project Schedule.
  - Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
  - Any miscellaneous concerns of either the Customer or Motorola.

City Responsibilities:

- Attend meetings.
- Respond to issues in a timely manner.

Completion Criteria:

- Completion of the meetings and submission of meeting minutes.

4.12.2 Progress Milestone Submittal

Motorola Responsibilities:

- Submit progress (non-payment) milestone completion certificate/documentation.

City Responsibilities:

- Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

Completion Criteria:

- The Customer approval of the Milestone Completion document(s).

4.12.3 Change Order Process

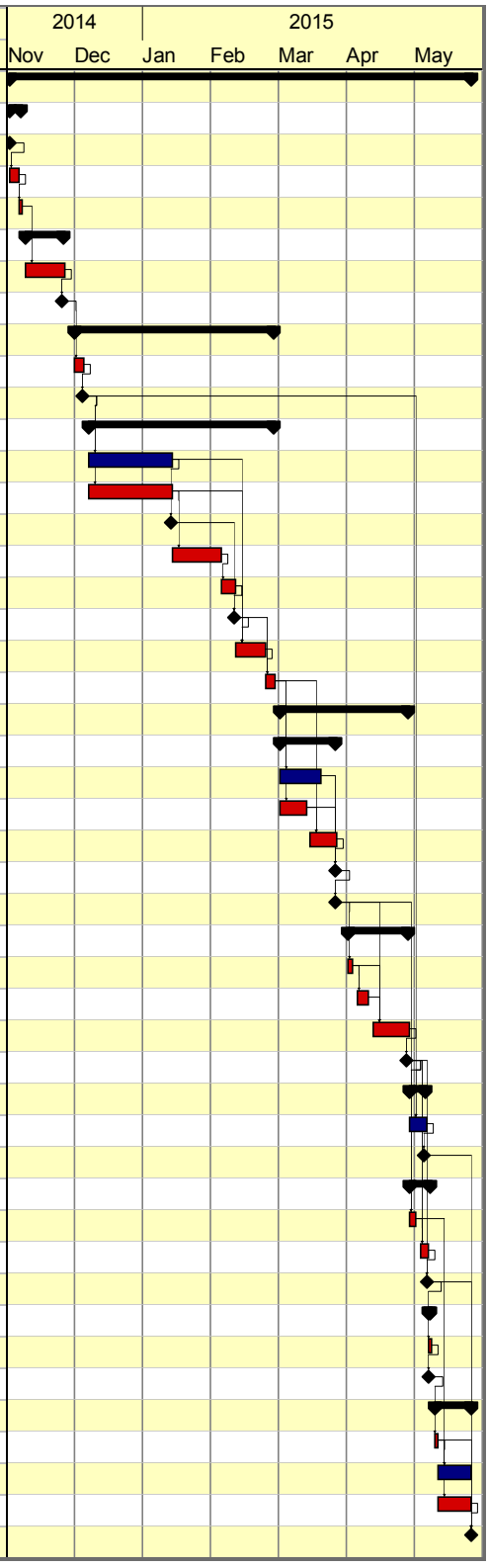
Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

SECTION 5

PRELIMINARY PROJECT SCHEDULE

Project Gantt

SD LOG RCD COMBINED CA-12Q182C	Duration Days	Task Start	Task Finish
Implementation Project	141	11/3/2014	5/27/2015
Contract	5	11/3/2014	11/7/2014
Contract Award	**0**	**11/3/2014**	**11/3/2014**
Contract Administration	4	11/3/2014	11/6/2014
Project Kick-Off	1	11/7/2014	11/7/2014
Contract Design Review	13	11/10/2014	11/26/2014
Review Contract Design	13	11/10/2014	11/26/2014
Design Approval	**0**	**11/26/2014**	**11/26/2014**
Order Processing	61	12/1/2014	2/27/2015
Process Equipment list	5	12/1/2014	12/5/2014
Order Bridged	**0**	**12/5/2014**	**12/5/2014**
Manufacturing and Staging	56	12/8/2014	2/27/2015
Manufacture Motorola FNE	25	12/8/2014	1/14/2015
Manufacture Non-Motorola Equipment	25	12/8/2014	1/14/2015
Ship to Staging	**0**	**1/14/2015**	**1/14/2015**
Stage Equipment at CCSi	15	1/15/2015	2/5/2015
Test Equipment at CCSi	4	2/6/2015	2/11/2015
CCSI Acceptance	**0**	**2/11/2015**	**2/11/2015**
Ship Equipment to Field	8	2/12/2015	2/23/2015
Receive and Inventory Equipment in Field	4	2/24/2015	2/27/2015
INSTALLATION	42	3/2/2015	4/28/2015
Installation	20	3/2/2015	3/27/2015
Install AIS Master Site Chollas	15	3/2/2015	3/20/2015
Install Logging Recorder Chollas	10	3/2/2015	3/13/2015
Install Logging Recorder SDPD	10	3/16/2015	3/27/2015
FNE Installations Complete	0	3/27/2015	3/27/2015
Installation Acceptance	**0**	**3/27/2015**	**3/27/2015**
System Optimization	19	4/2/2015	4/28/2015
Link Verification	2	4/2/2015	4/3/2015
Upgrade Operatrions AIS	5	4/6/2015	4/10/2015
Optimize System	12	4/13/2015	4/28/2015
Optimization Complete	0	4/28/2015	4/28/2015
Training	6	4/29/2015	5/6/2015
Perform Training	6	4/29/2015	5/6/2015
Training Complete	0	5/6/2015	5/6/2015
Audit and Acceptance Testing	8	4/29/2015	5/8/2015
Perform R-56 Audit	3	4/29/2015	5/1/2015
Perform System Testing	4	5/4/2015	5/7/2015
SATP Acceptance	**0**	**5/7/2015**	**5/7/2015**
Cutover	1	5/8/2015	5/8/2015
Cutover	1	5/8/2015	5/8/2015
Cutover Complete	0	5/8/2015	5/8/2015
Finalize	12	5/11/2015	5/27/2015
Final Inspection w/Customer	1	5/11/2015	5/11/2015
Punchlist Resolution	10	5/12/2015	5/26/2015
Finalize Documentation	10	5/12/2015	5/26/2015
Final Acceptance	**0**	**5/27/2015**	**5/27/2015**



SECTION 6

PRICING SUMMARY AND CONTRACT TERMS

6.1 SYSTEM PRICING

Pricing is at contract discounts. Pricing includes shipping/freight.

Description	Price
EQUIPMENT	
Radio Logging Equipment	$ 626,896
Police Department 911 Logging Equipment	$ 289,753
Fire Department 911 Logging Equipment	$ 274,258
Equipment Total	**$1,190,907**
Installation, Configuration, Optimization, Training	**$496,050**
System Subtotal at Contract discount price:	$1,686,957
System Discount for Order placed with Motorola prior to February 13, 2015. Order must be for complete solutions as proposed.	$ (84,348)
System Subtotal after incentive discount:	$1,602,609
8% Tax on Equipment	$95,273
SYSTEM TOTAL	**$1,697,882**

6.1.1 Contract Terms

It is understood that the City of San Diego will be issuing a Purchase Order for the services proposed within this document against the Motorola/City of San Diego Contract 4600000610.The terms and conditions within contract 4600000610, including any amendments and the Price Book, will apply to this procurement, except as noted below:

6.1.2 Acceptance Criteria

Acceptance of the equipment and services described herein will be acknowledged upon the successful performance of the Acceptance Test Plan in Section 3.

6.1.3 Payment Terms

Except for a payment that is due on the Effective Date, The City will make payments to Motorola within thirty (30) days after the date of each invoice. The City will make payments when due in the

form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution and in accordance with the following milestones.

- 15% of the Contract Price upon completion of Contract Design Review;
- 45% of the Contract Price upon receipt of equipment;
- 20% of the Contract Price upon completion of installation;
- 10% of the Contract Price upon successful completion of Acceptance Test Plan;
- 10% of the Contract Price upon Final Acceptance.

Overdue invoices will bear simple interest at the rate of ten percent (10%) per annum, unless such rate exceeds the maximum allowed by law, in which case it will be reduced to the maximum allowable rate. Motorola reserves the right to make partial shipments of equipment and to request payment upon shipment of such equipment. In addition, Motorola reserves the right to invoice for installations or civil work completed on a site-by-site basis, when applicable.

6.1.4 Warranty

- All equipment will come with Motorola's standard one year Commercial Warranty, which will commence upon date of shipment. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. Customer acknowledges that the Deliverables may contain recommendations, suggestions or advice from Motorola to Customer (collectively, "recommendations"). Motorola makes no warranties concerning the recommendations, and Customer alone accepts responsibility for choosing whether and how to implement the recommendations and the results to be realized from implementing them.
- Motorola has not included any additional equipment or system warranty with this proposal. It is anticipated that Motorola and the City will negotiate an adjustment to the overall system maintenance contract that will add this equipment to the system maintenance contract.

SECTION 7

GLOBAL ASSUMPTIONS

Motorola has made the following global assumptions in the development of this estimate:

- Sites to be provided by the City.
- Sites meet Motorola's R56 Site Readiness conditions.
- Grounding meets Motorola's R56 installation standards.
- Sufficient building and tower space exists at all the site locations.
- Adequate power is available to support the new equipment.
- Existing generators have adequate capacity to support the equipment
- The City is responsible for any required site links.
- No civil work or site upgrades are included in Motorola's quotation.
- Installation and optimization of the equipment provided is included.
- System acceptance testing is included.
- All work will be performed during standard working hours.
- Assumes that the existing system is at release 7.13, and new equipment under this contract will ship as release 7.13.

The City of San Diego
COMPTROLLER'S CERTIFICATE

CERTIFICATE OF UNALLOTTED BALANCE

ORIGINATING DEPT. NO.: CC 3000007372 / 2112

I HEREBY CERTIFY that the money required for the allotment of funds for the purpose set forth in the foregoing resolution is available in the Treasury, or is anticipated to come into the Treasury, and is otherwise unallotted.

Amount: $2,928,157.00 6.00001

Purpose: To authorize transfer of $1,788,0001 from fund 100000, General Fund, to fund 4000265, General Fund CIP Fund for the purpose of appropriating CIP S15025 project; and to authorize the $1,140,156.00 increase appropriations of CIP project CIP S15025, Enterprise budget Radio/Phone, 1000046-2013 State COPS 2013 Grant.

Date: October 31, 2014 By: James Long
COMPTROLLER'S DEPARTMENT

ACCOUNTING DATA

Doc. Item	Funded Program	Fund	Grant Number	G/L Account	Functional Area	Business Area	Fund Center or Cost Center	Internal Order or WBS Element	Original Amount
001	Non-program	600001	1000046-2013	513104	OTHR-0000000-PO	1914		AA1000046-13	$1,140,156.00
002	Non-program	100000		512172	OTHR-0000000-PO	1914	1914000014		$1,230,275.00
003	Non-program	100000		512172	OTHR-0000000-FI	1912	1912170012		$557,726.00
								TOTAL AMOUNT	$2,928,157.00

FUND OVERRIDE ☐

CERTIFICATION OF UNENCUMBERED BALANCE

I HEREBY CERTIFY that the indebtedness and obligation to be incurred by the contract or agreement authorized by the hereto attached resolution, can be incurred without the violation of any of the provisions of the Charter of the City of San Diego; and I do hereby further certify, in conformity with the requirements of the Charter of the City of San Diego, that sufficient moneys have been appropriated for the purpose of said contract, that sufficient moneys to meet the obligations of said contract are actually in the Treasury, or are anticipated to come into the Treasury, to the credit of the appropriation from which the same are to be drawn, and that the said money now actually in the Treasury, together with the moneys anticipated to come into the Treasury, to the credit of said appropriation, are otherwise unencumbered.

Not to Exceed: _____

Vendor: _____

Purpose: _____

Date: _____ By: _____
COMPTROLLER'S DEPARTMENT

ACCOUNTING DATA

Doc. Item	Funded Program	Fund	Grant Number	G/L Account	Functional Area	Business Area	Fund Center or Cost Center	Internal Order or WBS Element	Original Amount
001									
002									
								TOTAL AMOUNT	

CC-361 (REV 7-09)

FUND OVERRIDE ☐

CC 3000007372