Basic Meridian 61C Configuration Example

Key Parts Listing for a 9-1-1 Configuration

(1) **Top Cap Module: provides air exhaust and environmental monitoring.**

(2) **Intelligent Peripheral Equipment: contains the trunk, line and MF cards.**

(a) Digital Line Cards (NT8D02EB)- Each card supports 16 Voice and 16 Data ports
(b) Trunk Cards (NT8D14BB)- Each card supports 8 Trunks
(c) Multi-Frequency Cards (NTAG26AA)- This card decodes the MF tones used in 9-1-1 ANI. 1 card per column.
(d) T1 Configured Primary Rate Interface Card – Used to deliver Caller ID to the PSAP.
(d) Peripheral Equipment Power/Ring Generator (NT8D21AB)- One for each IPE shelf.
(e) Controller Card (NT8D01BC)- Provides interfacing between the Superloop Network Card and the IPE Module.
(f) IPE-MAX (NT1R02BA)- (Optional)
(g) CCR-IPE (NT1R02BA)- (Optional)

(3) **Core/Network Module: contains a Motorola 68060 CPU, Memory, Disk/CD ROM, Superloop Network cards...**

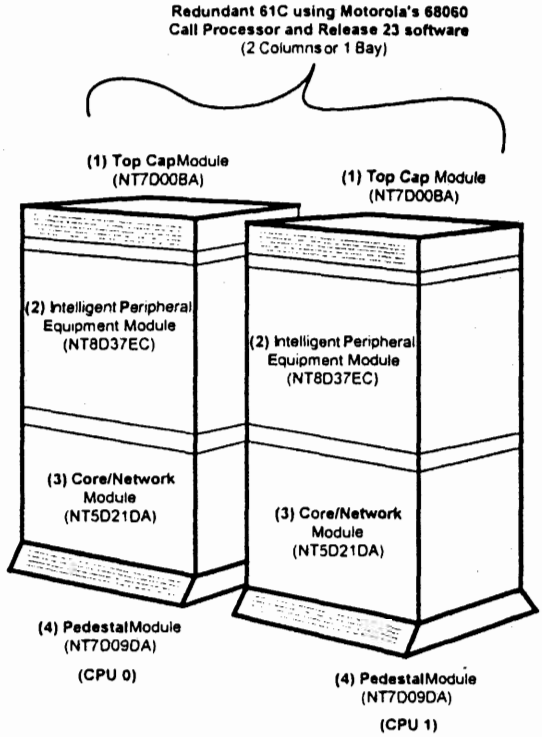
(a) Conf/Tone and Digit Cards (NT8D17)- One for each Core/Network Module. This card provides dialtone and decodes the DTMF tones.
(b) Superloop Network Cards (NT8D04BA)- One for each Core/Net Module. Provides a time slice for each call in process.
(c) Common Equipment Power (NT8D29AB)- Power for the Core/Net Module(s).
(d) Multi-purpose Serial Data Link Card (NT6D80AB)- Has 4 full-duplex serial I/O ports for communication via a maintenance terminal or other.
(e) Core to Network Interface Card (NT6D65AA)- Interface between interprocessor bus and network shelves, and between call processor and IPE card.
(f) Input/Output Disk Unit with CD-ROM (NT5D61AA)- for updating application software or backing system configurations.
(g) Clock Controller Card (QPC471H)- Used to synchronizing internal clocks with T1's and other M1 switches that are connected together.
(h) Peripheral Signaling Card (QPC41JR)
(i) 3 Port Extender Card (QPC441F)
(j) Call Processor Card (NT6D11CA)

(4) **Pedestal Module: contains the power distribution unit, system fault monitor and cooling unit.**

(5) ***Software and other hardware requirements:**

(a) Meridian 9-1-1 Software Package
(b) X11 Base Software Release 23
(c) ACD Software
(d) Multiple Queue Assignment
(e) Call Detail Recording
(f) Meridian Max (Optional) Software / Hardware
(g) Meridian Mail (optional)
(h) Custom Call Routing Software (Optional)
(i) Hold in queue for IVR
(j) Enhanced ACD routing
(k) 2616 w/Display and MCA Adapter
(l) 2216 w/ Display and MCA Adapter
(m) MAT (Optional)

*The above information is for conceptual purposes only! There are numerous other packages (both software and hardware) that are required to make the Meridian switch function in a 9-1-1 PSAP that are simply not listed. Please refer to the 'System Planning and Engineering Guide' in the Northern Telecom Publication books for these additional requirements.



Note: The base 61C is typically configured with 1 Pedestal, 2 Core/Network Modules and at least 1 IPE shelf then the Top Cap. (Optional) for true redundancy, PEI recommends adding a 2nd Pedestal, splitting one of the Core/Network modules out and placing it on the 2nd Pedestal, then adding another IPE shelf, followed by the Top Cap. Should column 1 go down (CPU 0), column 2 (CPU 1) can take over. Trunks and lines should be split between the columns and between the trunk and line cards themselves.

Meridian Switch Configuration

The M1 switch is a very versatile digital telephone system. To configure it properly for 9-1-1 operations and customize it as per customer requirements necessitate a high degree of expertise in M1 architecture and functionality. PEI and the system integrator (i.e. prime contractor) must document a detailed understanding of the customer's operations and expectations in order to successfully implement a VESTA-M1 system. PEI can assist in this effort through the use of the following document examples:

- System diagram
- Call flow diagram
- Key sheets
- Speed-dial/Auto-dial sheets
- Pre-programmed TTY/TDD messages sheets
- Scope of Work for VESTA-M1 installation
- Scope of Work for VESTA-M1 integration

Meridian Switch Packages

The M1 switch must be equipped with many if not all of the following list of packages. Each implementation will be unique, therefore it is important to review each M1 configuration separately to verify the appropriate M1 packages are installed and to assure proper operation of the VESTA system.

Package Number	Package Name	Mnemonic
4	Call Detail Recording	CDR
5	Call Detail Recording, Teletype	CTY
7	Recorded Announcement	RAN
8	Time and Date	TAD
9	Do Not Disturb Individual	DNDI
10	End to End Signaling	EES
11	Intercept Treatment	INTR
12	Automatic Number Identification	ANI
13	Automatic Number Identification Route Selection	ANIR
14	Basic Routing	BRTE
15	1.5-Mbit Remote Peripheral Equip	RPE1.5
16	Do Not Disturb Group	DNDG
17	Make Set Busy	MSB
18	Special Service for 2500 Sets	SS25
19	Digit Display	DDSP
20	Office Data Administration System	ODAS
21	Dial Intercom	DI
23	Charge Account for CDR	CHG
24	Charge Account/Authorization Code	CAB
25	Basic Authorization Code	BAUT
28	Basic Queuing	BQUE
29	Network Traffic must have NWK pkgs	NTRF
32	Network Class of Service	NCOS
33	Call Park	CPRK
34	System Speed Dial	SSC
35	Integrated Message Services. UST and UMG are part of IMS package.	IMS
36	Recorded Overflow Announcement	ROA
40	Basic Automatic Call Distribution	BACD
41	Automatic Call Distribution, Pkg B	ACDB
44	Music	MUS
45	Automatic Call Distribution, Pkg A	ACDA
46	Message Waiting Center	MWC
47	Automatic Answerback	AAB
48	Group Call	GRP
49	New Flexible Code Restriction	NFCR
50	Automatic Call Distribution, Pkg D	ACDD
51	ACDD, Auxiliary Link Processor	LNK
52	Forced Charge Account	FCA
53	Set Relocation	SR
54	Attendant Administration	AA
55	History File	HIST
57	Basic Alternative Route Selection	BARS
58	Network Alternative Route Selection	NARS
60	Network Priority Queuing	PQUE

61	Flexible Call Back Queuing	FCBQ
64	Stored Number Redial	SNR
70	Enhanced Hot Line	HOT
71	Deluxe Hold	DHLD
72	Automatic Line Selection	LSEL
73	500 Set Dial Access to Features	SS5
74	Distinctive Ringing	DRNG
75	1.5 Mbit Digital Trunk Interface	PBXI
76	Departmental Listed Directory Number	DLDN
77	Command Status link	CSL
80	Station Category Information	SCI
81	Controlled Class of Service	CCOS
83	ACD CDR Queue Record	CDRQ
87	Fast Tone Digit Switch	FTDS
88	M2000 Digital Sets	DSET
89	M3000 Digital Sets	TSET
92	Pre-translation	PXLT
93	Supervisory Console	SUPV
95	Calling Party Name Display	CPND
98	Dialed Number Identification System	DNIS
107	Malicious Call Trace	MCT
108	Internal CDR	ICDR
109	Auxiliary Processor Link	APL
110	Trunk Verification from Station	TVS
111	Automatic Call Distribution, Timed Overflow Queuing	TOF
113	Incoming Digit Conversion	IDC
114	Automatic Call Distribution Pkg D, Auxiliary Security	AUXS
115	Directed Call Pickup	DCP
116	Automatic Call Distribution, Priority Agent	PAGT
117	Call by Call Service	CBC
118	Calling Line ID in Call Detail Recording	CCDR
119	Enhanced Music	EMUS
127	Attendant Break-In/Trunk Offer	BKI
132	Trunk Barring	TBAR
133	Enhanced Night Service	ENS
139	Flexible Feature Codes	FFC
140	M2250 Attendant Console	DCON
141	Multi-Party Operations	MPO
145	Integrated Services Digital Network	ISDN
146	International Primary Rate Access (CO)	PRA
147	ISDN Signaling Link	ISL
149	Inter-Exchange Carrier	IEC
153	ISDN AP for 3rd Party Vendors	IAP3P
155	Automatic Call Distribution, Account Code	ACNT
157	Trunk Hook Flash (Centrex)	THF
162	Scheduled Access Restrictions	SAR
164	Limited Access to Overlays	LAPW
174	Attendant Alternative Answering	AAA
178	ACD Enhanced Overflow	EOVF
181	Semi-Automatic Camp-On	SACP
186	Priority Override/Forced Camp-On	POVR
191	Series Call	SECL
203	Meridian 1 XPE	XPE

204	M1 Enhanced Conference, TDS and MFS	XCT0
205	M1 Superloop Administration (LD 97)	XCT1
209	Meridian Link Modular Server	MLM
214	Enhanced ACD Routing	EAR
222	Multi-Purpose Serial Data Link	MSDL
223	FCC Compliance for DID Answer Supervision	FC68
224	Meridian 911	M911
225	Call Waiting Notification (Meridian 911)	CWNT
227	MSDL Serial Data Interface	MSDL SDI
228	Single Terminal Access	MSDL STA
229	Station Specific Authorization Codes	SSAU
234	New Format CDR	FCDR
242	Multi-User Login	MULTI_USER
243	Alarm Filtering	ALRM_FILTER
245	System Errors and Event Lookup (Option 81)	SYS_MSG_LKUP
246	Voice Mailbox Administration	VMBA
247	Call ID (for AML applications)	CALL ID
250	Direct Private Network Access	DPNA
251	Station Activity Records	SCDR
253	Attendant Remote Call Forward	ARFW
254	Phantom TN	PHTN
256	Set Based Administration	ADMINSET
258	Autodial Tandem Transfer	ATX
291	North American National ISDN Class II Equip.	NI2
301b	Calling Party Privacy	CPP

The M1 software release 23 (November 1997) requires the installation of a software patch and special "Lamp Audit" parameter programming in order to alleviate a malfunction that can make a VESTA-M1 workstation inoperative. Since this malfunction has only been witnessed while the answering position was idle, it never affected the processing of a 9-1-1 call, but can cause loss of efficiency and operator productivity. Please make sure to contact Stan Martz at Nortel at (972) 684-7485 for more information.

Recommended M1 Parameter Settings

The following are the class of service settings which must be programmed on the M1 switch or telephone sets.

- **CTD** - Conditionally Toll Denied
- **LNA** - Last Number Redial Allowed
- **DNDA** - Allow Dialed Name Display
- **OLA** - Outgoing Line Preference Allowed
- **HTA** - Hunting Allowed
- **CNDA** - Calling Party Name Display Allowed
- **ARHA** - Allow Audible Reminder of Held Calls
- **IRA** - Allow Incoming Non-ringing Line Preference
- **UNR**-Unrestricted for the ability to access trunks via trunk access codes.

NOTE: CTD and UNR cannot be programmed at the same time. It will be one or the other.

Meridian Features Supported by VESTA-M1

- **IN-CALLS KEY (ACD)** - This key is programmed to be associated with an ACD DN. Calls within ACD are presented on this key at the agent position. This key is always located on the key 0 on the Meridian phone set.
- **DN KEY** - The agent is allowed to receive or place a call from this key regardless of the status of the Not Ready key. When this key is pressed, any other call in progress is automatically released (unless on hold). This must be specified as the Single Call Ringing (SCR) feature or Single Call Non-Ringing (SCN) with Privacy Override Denied. Shared SCR is not supported at this time.
- **HOLD** - This key is used to place the active call on hold.
- **RELEASE** - This key is used to disconnected an active call.
- **NOT READY (NRD)** - When this key is activated, the agent is removed from the queue and no ACD call is presented. This key has no impact to receiving and placing a DN call.
- **LINK (THF)** - Centrex Switchhook Flash. This feature is for customers who utilize Centrex as the backbone of their service network. It provides the user with the ability to access Centrex services (like Call Transfer or three-way calling) while on an established call using Centrex. This parameter should be set at 640 ms.
- **TRANSFER (TRN)** - This option allows an agent to transfer an active call.
- **CONFERENCE (Ao6)** - This option allows an agent to conference in up to six intra-Meridian parties and two outside lines on an active call.
- **CALL PARK (PRK)** - This option allows an agent to park an established call for later retrieval by the same or different agent. Using this button allows an ACD call to parked for period of time. If the call is not Un-parked within the timeframe, the ACD call will get delivered back into the ACD queue. If the call was parked from a DN, after the period of time, the call will be delivered back to the Agents DN. These types of parks are also referred to as station parking.
- **CALL FORWARD (CFW)** - This option commands the telephone to forward all calls except the ACD call to the appropriate destination. This feature is currently available only on the Supervisors Call Control through Supervisor rights and must be programmed on the telephone as well. This feature will be grayed out if assigned to an agent without Supervisor rights.
- **CALL SUPERVISOR (CH D)** - This feature allows an agent on an ACD call to call the supervisor for assistance, and if necessary, conference in the calling party.
- **DISPLAY WAITING CALLS (DWC)** - This option allows the lamp associated with this key to provide summary information on the thresholds reached on the calls waiting status for the ACD queue. It reflects all calls that are in queue but have not been presented to any agents.
- **OBSERVE (OBV)** - This option allows the supervisor to observe any agent in ACD operations. Depending on the Meridian Switch parameter setting, supervisor may have the "Silent Observe" or "Observe Warning Tone". This feature is currently available only on the Supervisors Call Control through Supervisor rights and must be programmed on the telephone as well.
- **RING AGENT/BARGE IN (RAG)** - This option allows the supervisor to participate with the agent in the ACD operations while in the Observe mode. This creates a conference situation, where the supervisor can participate in the conversation with the agent and the calling party.
- **MAKE SET BUSY KEY (MSB)** - This key causes an agent position to appear busy to the Meridian switch, preventing the agent from receiving any calls.

- **MULTIPLE CALL RINGING (MCR) -** This option allows a call to ring on all the designated phones and/or multiple buttons on the same sets until answered. Once answered the programmed MCR key becomes available for other agents to receive calls.

- **SINGLE CALL RINGING (SCR)*** – This option allows a call to ring on all the designated phones and/or multiple buttons on the same sets until answered. Once answered the programmed SCR key is not available for other agents to receive calls.

- **MESSAGE WAITING KEY (MWK)** - When the voice mail light from the Meridian phone is lit up, this button will change to a red background. Once all the voice mail messages are retrieved, this display will return back to gray. We support notification only, though a user can create an autodial entry to access voicemail. This feature is currently available only on the Supervisors Call Control through Supervisor rights and must be programmed on the telephone as well.

- **MULTIPLE QUEUE ASSIGNMENTS (MQA)** – VESTA supports the Meridian MAX feature of Multiple Queue Assignments (MQA).

  * This feature is supported with the VESTA v1.2 hot fix or VESTA 2.0.

- **SHARED LINES -** In some Meridian environments using Shared Lines, if the user wants to place the call on HOLD to answer an ACD call they must turn on a specific parameter in the Switch in Load 23:

  ACAA = YES

  The default parameter is NO. If it is set to NO the user will be allowed to take only one ACD call when a DN is placed on HOLD. This parameter should be set to YES if there is any possibility that DN's will be put on HOLD in order to answer ACD calls.

VESTA-M1 Workstation Modules

VESTA-M1 is a modular application. Each function or group of functions is encapsulated into a module. Users may access any module by using a mouse to click on the top edge of the module or type ALT-M to jump between each module. All of the VESTA/M1 modules are customizable depending upon the user's responsibility and assignment.

- **LOG-ON** - The information that the agent enters into the logon window identifies the agent to VESTA/M1; thereby customizing the workstations for the agent's pre-defined requirements.
- **TITLEBAR** - Provides the user with pull down lists that allows the user to access any function of VESTA/M1 by selecting the appropriate option from the menu. Displays date, time, system messages and on line help. Access to the Message Wizard is accomplished through the VESTA Titlebar.
- **TOOLBAR** - Displays buttons for each application assigned to the agent. The items may vary depending on the user's pre-defined application privileges or set-up. To launch or set focus to any application, the user may simply click the button on this module. Features balloon style description of each function and can be displayed horizontally or vertically.
- **LINE STATUS** - This module represents the phone assignment and the line states of the Meridian phone. 10digit ANI is supported.
- **CALL CONTROL** - This module allows the user to process the call efficiently using common telephony functions like Hold, Park, and Release.
- **ALI WINDOW** - The Automatic Location Identification (ALI) window provides all necessary caller information when the ANI is received. This window provides the geographic location, phone number, local emergency service providers and other associated information about the caller. This window provides storage to save up to 5 ALI records by workstation. The saved information allows the call-taker to go back and process any additional information for previous calls. Includes the ability to retransmit ALI to check or confirm received ALI, create incorrect ALI reports as well as print and save functions.
- **TTY** - This features allows the call-taker to converse in TTY mode. Any incoming TTY call would be automatically detected and a special TTY window launched for the call-taker to use to process the call. Provides two-way keyboard communication and customizable library of automatic responses.
- **AUTO DIAL** - This module consists of an array of buttons and pull-down tabs with unlimited speed dial libraries pre-programmed to perform quick transfers of an answered call or outbound call. Manual dialing and Last Number Redial (LNR) are available. The ANI Callback List displays and stores ANI of received 9-1-1 calls for quick automatic dialing.
- **VOLUME CONTROL** - This feature allows the call-taker to customize and control volume levels in headsets, microphones, receivers, speakers and ringers. Also controls the playback volume when playing IRR files. Once the desired settings are set, the Agent can save the settings which will follow them to each position they log on to.
- **IRR (INSTANT RECALL RECORDER)** - Records phone and radio conversations and provides a variety of play-back options. Each workstation records the most recent 30 minutes of conversation (talk time) and stores each call in a separate file. IRR files can be forwarded to any user logged into the network.
- **PRE-RECORDED GREETING** - Allows each system user to record announcements in their own voice for playback at the outset of each answered call.
- **DTMF** - This feature uses dual tone multi-frequency to enable communication via the phone keypad in lieu of voice. The TTY window automatically appears when a DTMF tone is detected.

VESTA-M1 Server Design

VESTA-M1 is designed under the client/server technology. All of the common files and databases are stored on the VESTA server and get distributed when an agent logs on to a VESTA workstation. If for any reason the server ever becomes non-functional, all the workstations will be able to continue processing calls, however the VESTA ALI, CAD Interface, and Time Synchronization Modules will cease to function. Therefore it is strongly recommended to have two VESTA/M1 servers. The hardware configuration of these two servers should be identical. The functions for each VESTA/M1 server are described below.

- **VESTA-M1 PRIMARY SERVER (Also known as the Primary Domain Controller or PDC)-** The concept of a primary server for the VESTA network is to have a central depository for all the common data such as databases and greeting files. When an agent logs on to a VESTA/M1 workstation, the VESTA work station will establish a network connection to this server and bring a copy of the latest database file over to the VESTA workstation. This is an extremely important housekeeping process because it will make sure a VESTA/M1 workstation remains functional even if it loses network connectivity.

  The primary server is also responsible for sending out the time messages which synchronize all the VESTA/M1 workstations. If an external time source device is available at the PSAP, this server will run the time synchronization interface module.

  If a PSAP has only one pair of ALI links, this will be the server where all the VESTA/M1 workstations register and receive their ALI information. Depending on the PSAP, in conjunction with the ALI server module, this machine can also interface with the CAD host machine by sending the ANI and the associated ALI information with the position ID to the 3rd party CAD Server.

  To ensure all data is redundant, this server will also make sure a copy of all the data files is replicated at another server.

- **VESTA-M1 SECONDARY SERVER (Also known as the Backup Domain Controller or BDC) -** The main purpose for the existence of this system is to be a backup system to the primary server. Once a day or on demand, all the data files are copied to this system from the primary server. If for any reason the primary server ever becomes non-functional, all the workstations may switch to this system and use it as the main data server.

  Additionally, depending on the PSAP, this server may also serve as a secondary ALI and CAD server. If the PSAP has two pairs of ALI links, it can connect one pair to each server, therefore, each server can retrieve and deliver the ALI information to the VESTA/M1 workstations. Having two parallel ALI links running on both servers can speed up the ALI retrieval procedures as well as ensure true automated redundancy. If any pair of the ALI links goes down at either one of the VESTA/M1 servers, the other functional server will automatically take over and continue to serve all the VESTA/M1 workstations.

VESTA-M1 Server Modules

In addition to the workstation modules, there are a few modules constantly running on the VESTA server to supply data to the workstations as well as the CAD system. They are the Automatic Location Identification (ALI) Server, CAD Interface, and Time Synchronization.

- **VESTA ALI SERVER** - The purpose of the ALI server is to retrieve ALI from the telephone company ALI database to the VESTA server. This module is automatically started when VESTA/M1 is launched at the server. Logging onto VESTA/M1 is not necessary.

  This module utilizes two serial links to the ALI Database. ALI requests are sent through both links, while responses are received over only one link. The status of each link is shown separately. Each link will display three types of feedback to the user, the link status, the serial port status, and the serial port information. If for any reason, one of these links is inoperable, all ALI transmissions will be routed to the alternate link until the problem is corrected. A system message is sent to all users logged on to the VESTA system letting them know there is a ALI link problem.

- **CAD INTERFACE SOFTWARE** - The purpose of the CAD Interface is to transmit ANI and ALI to the CAD host computer. The CAD Interface is automatically launched when VESTA is started at the server. The communication to the CAD host computer is done via the serial port. This module will show the user the status of the transmission at all times.

  The Port Information Group displays an LED labeled "**HB**". This LED indicates the heartbeat message that is sent down each CAD database link. Each time a heartbeat is acknowledged by the host computer the heartbeat LED flashes.

  There is a single CAD connection on each of the VESTA Servers for redundancy and therefore requires the CAD Server to be able to handle two serial connections for ALI spill. If the CAD Server cannot accommodate two serial connections then manual intervention is required to switch over the CAD link from the VESTA PDC to the VESTA BDC in the event of a failure.

- **M1 TIME SYNCHRONIZATION** - This module is designed to synchronize the time of the internal clock of the M1 switch. When connected to a NETCLOCK/2™ timetap, it will retrieve the time and distribute it to the M1 via the management console port. This module is designed to be compatible with NETCLOCK/2™ format 0 and format 1. This is done via a serial data interface port to the M1. This port's use must be dedicated for time synchronization, and cannot be used for any other functionality. This will help ensure the correct status *(logged on or off)* when the application is started. To avoid messaging conflicts, any M1 software overlays that output data to this port must be turned off.

  For the M1 Time Synchronization application to function correctly, a valid M1 user name and password are required. This user name must have the administrative rights to set time on the M1 switch. Additionally the
  Multi-User Login must be enabled on the M1 switch. This will allow the M1 Time Synchronization application to set the time on the switch while someone else *(i.e., the switch administrator)* is also logged on a different port.

  Implementation

  Use LD 17 to activate Multi-User Login.

Prompt	Response	Comment
REQ	CHG	Change.
TYPE	OVLY	Overlay gateway.

SID	<cr>	System ID number.
CACH	xx	Number of overlay programs in cache buffers.
PRTY	xx xx xx xx	Priority overlay programs to be stored in cache memory.
MULTI_USER	ON	Activate Muli-User Login.

The M1 Time Synchronization application will set the time on the Meridian 1 switch in one of two modes.

1. Once every hour. You can specify the number of minutes past each hour you wish the time to be set.
2. Once every day. You can specify the time you wish the time to set each day.

City of Portland, Oregon

174543

BUDGET/FINANCIAL COUNCIL ACTION IMPACT STATEMENT

INITIATORS SUMMARY OF COUNCIL ACTION (Deliver original to Financial Planning Division. Retain copy.)

1. Name of Initiator	2. Interoffice Mail Address	3. Telephone No.	4. Bureau/Office/Dept.
Sherrill L. Whittemore	B 9-1-1	823-0911	Emergency Communications

5a. To be filed (date)	5b. Calendar (Check One) Regular ☐ Consent ☐ 4/5ths ☐	5. Date Submitted to OFA Budget Analyst:	6.Fund Name & Number
June 2, 2000	X	June 1, 2000	BOEC Fund 115

Please check appropriate box and list dollar amount.

Category 1 No financial Impact [ ]

Category 2 Routine Budgeted Items [ ]

- ☐ fl Contracts
- ☐ Grants
- ☐ Call for bids on purchasing contracts
- ☐ Reports to Council regarding completion of projects
- ☐ Annual supply contracts
- ☐ Claims payment under $15,000
- ☐ Creation of a Local Improvement
- ☐ Other

Category 3 Non-Routine or Unbudgeted Item [X] Not to exceed $400,000

SUMMARY OF ACTION: In concise terms, describe what is to take place through the enactment of this council action.

A. **What action(s) is proposed?** Contracts with US West Communications, Inc. and the State of Oregon/Oregon State Police/Office of Emergency Management/9-1-1 Program, for the Upgrade of the Enhanced 9-1-1 telephone system at the Bureau of Emergency Communications

B. **Who will be affected by the proposed action?** The speed of call set up, additional information regarding location and integration of the 9-1-1 system with other computer based system will reduce the time it takes to process 9-1-1 calls.

C. **What will the action cost?** The current costs are under review and have been projected at $306,000 to the city of Portland and $1.9 million to the State of Oregon. Depending upon the final configuration these cost could increase to as much as $400,000. **In this fiscal year?** These costs will be encumbered in FY99/00 from fund savings realized at BOEC. The expenditure of the funds for this project will occur throughout the system installation and acceptance testing in FY00/01. **If there are indirect costs or future commitments implied as a necessary accompaniment or result of this action, include an estimate of these costs even if the action does not formally authorize any expenditure.** Costs of ongoing maintenance of the 9-1-1 system will be included in this contract for a period of 5 years from acceptance of the system upgrade.

D. **Is the cost included in the current years budget?** The costs associated with this purchase were not entered into this years budget, however, the Bureau has realized cost savings in the City of Portland share of the FY99/00 budget that can be redirected to the purchase of this equipment.

E. **What alternatives to this action been explored?** The Bureau of Emergency Communications, Bureau of General Services, State of Oregon 9-1- Program, and US West have reviewed three systems offered by US West for 9-1-1 applications within an Automatic Call Distribution environment utilizing a Meridian 1 telephone switch. All three agencies agree that the solution proposed best meets the needs of the City Of Portland Multnomah County 9-1-1 System.

APPROPRIATION UNIT HEAD (Sherrill L. Whittemore)

174543

BUREAU OF EMERGENCY COMMUNICATIONS
PORTLAND, OREGON

INTER-OFFICE MEMORANDUM

June 6, 2000

TO: Commissioner Dan Saltzman

FROM: Director Sherrill Whittemore

SUBJECT: Approval of the Ordinance to Fund the 9-1-1 Center Phone System Replacement

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REQUESTED PLACEMENT DATE: June 7, 2000 City Council Agenda

I. RECOMMENDATION/ACTION REQUESTED:

After reviewing the plan for implementation of the new phone system at the 9-1-1 center, the background information will be forwarded under a cover letter with your signature to the other Commissioners and the Mayor. We recommend that the ordinance be put on the June 7, 2000 city council consent agenda for approval.

II. BACKGROUND/ANALYSIS:

BGS and US West recommend PEI's VESTA solution for the following reasons:

1. Current ANI/ALI system no longer manufactured and difficult maintain
2. Provide Caller ID on 7 digit emergency trunks
3. Integration of multiple components into a single desktop
4. More thorough call detail data analysis and reporting capabilities
5. Improve efficiencies in call handling through technology
6. End-to-End support in design, development, and maintenance

PEI produces phones system exclusively for 9-1-1 applications. PEI's VESTA system has been installed successfully throughout the country and has multiple installations running in the state of Oregon; however, this installation will be the largest to date in the state of Oregon. As part of this project, BOEC, BGS, US WEST and PEI will be joining in a partnership to modify this off the shelf product to meet the specific needs of BOEC. BOEC has purposely waited to replace the phone system to allow technological development and experience by PEI with this product.

III. FINANCIAL IMPACT:

The cost of the systems will not exceed $ 2.5 million. It is anticipated that the State of Oregon Office of Emergency Management will provide $ 1.9 million. BOEC will be responsible for $ 0.4 million, currently targeted for funding out of the City of Portland current unspent balance in the 1999-2000 budget.

IV. LEGAL ISSUES:

We have developed this contract as a sole source contract under the state rules for selection using the Local Exchange Carrier (LEC). US WEST is the LEC for BOEC.

V. CONTROVERSIAL ISSUES:

The sole sourcingof this contract has been an issue between US WEST and its subcontractors but has not been an issue at the state level. We have a letter from US WEST clarifying their position.

VI. LINK TO CURRENT CITY POLICIES:

Due to the nature of the contract and the State of Oregon funding source, we have complied with the State 9-1-1 selection criteria rather than city purchasing as it relates to sole source.

VII. CITIZEN PARTICIPATION

N/A

VIII. OTHER GOVERNMENT PARTICIPATION:

As a provider of service for all of Multnomah County, this system will provide service to all citizens of Multnomah County including Corbett, Fairview, Gresham, Portland, Troutdale, Unincorporated Multnomah County, and Wood Village. Each of the representatives for these agencies were briefed at the April 20, 2000 User Board Meeting.

ORDINANCE No. 174543

* Contract with US West Communications, Inc. and the State of Oregon, Oregon State Police, Office of Emergency Management, 9-1-1 Program for the upgrade of the Enhanced 9-1-1 telephone system at the Bureau of Emergency Communications. (Ordinance)

The City of Portland Ordains:

Section 1: The Council Finds:

1. Portions of the current Enhanced 9-1-1 telephone equipment are out of date and no longer supported by the original vendor.
2. US West Communications, Inc., the City of Portland Bureau of General Services, (COMNET) and the Bureau of Emergency Communications have reviewed the backbone, connectivity, maintenance and support for all end to end communications related to Enhanced 9-1-1 service and have recommended an upgrade to the system using a computer based telephone solution.
3. The final configuration of this upgrade will not be fully defined until US West Communications has installed and integrated the system at the Bureau of Emergency Communications and the Bureau staff have sufficiently reviewed the configurations to accept the design.
4. The State of Oregon/Oregon State Police/Office of Emergency Management/9-1-1- Program, collects funds as part of the access fee on all telephone customers for the purchase, installation and maintenance of Enhanced 9-1-1 telephone equipment.
5. The 9-1-1 Program has established rules governing the selection of equipment that allow local jurisdictions to work with their primary telephone service provider for the acquisition of Enhanced 9-1-1 equipment and that this contract has been developed using the State process for selection of replacement equipment. Therefore, these contracts are exceptions to the requirement of competitive bidding.
6. The proposed upgrade of the telephone system allows the Bureau of Emergency Communications the opportunity to purchase additional functionality that is not be covered under the 9-1-1 Program funding mechanism.
7. The Bureau has adequate City of Portland funds, from anticipated budget savings within its operating fund for FY99/00, to cover the cost of the additional upgrades to the telephone system.
8. The Bureau of Emergency Communications currently has a contract with US West Communications, Inc., for the provisioning of Enhanced 9-1-1 service for all areas serviced by the Bureau that will remain in effect throughout this project.

9. It is in the best interest of citizens served by the Bureau of Emergency Communications / 9-1-1 System that the system be designed, installed, and maintained by the same vendor.

NOW THEREFORE, The Council directs:

a. The Commissioner of Public Affairs and the City Auditor are authorized to execute contracts substantially the same as those attached to the original ordinance only with US West Communications, Inc. and the State of Oregon/Oregon State Police/ Office of Emergency Managerment/9-1-1 Program, for the upgrade and maintenance of the Bureau of Emergency Communications Enhanced 9-1-1 telephone equipment.

b. The Bureau Director and the Commissioner of Public Affairs are authorized to modify and amend the attached contracts so long as those amendments and modifications do not increase the total amount of City liability for payment of the contracts beyond the level of $400,000 as approved by this ordinance.

c. The Bureau of Emergency Communications will collect from the City of Portland that portion of the projected budget savings equal to $400,000, to cover the costs of the additional upgrades not covered by the State of Oregon 9-1-1 Program.

d. The Bureau of Emergency Communications is authorized to purchase support parts of the system under Oregon State contract 8078ST or equivalent, if the Bureau derives cost and/or management benefits.

e. The Commissioner of Public Affairs and the City Auditor are authorized to draw and deliver warrants chargeable to the budget of the Bureau of Emergency Communications when demand is presented and approved by the proper authority for those items not covered by the State of Oregon 9-1-1 Program, in an amount not to exceed $400,000.

f. The Bureau of Emergency Communications, upon completion of this project, will return that portion of the $400,000 appropriated by this ordinance that is not used as part of the Enhanced 9-1-1 upgrade to the City of Portland General Fund, by reducing its subsequent billing to the City of Portland.

Section 2: The Council declares that an emergency exists because delay in proceeding with the project may result in increased costs, loss of state funding, and inability to implement within the scheduled timeframes; therefore, this ordinance shall be in force and effect from and after its passage by Council.

Passed by Council, JUN 14 2000

Commissioner Dan Saltzman
Sherrill L. Whittemore

Gary Blackmer
Auditor of the City of Portland
By Deputy

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Agenda No.

ORDINANCE NO. 174543

* Contract with US West Communications, Inc. and the State of Oregon, Oregon State Police, Office of Emergency Management, 9-1-1 Program for the upgrade of the Enhanced 9-1-1 telephone system at the Bureau of Emergency Communications. (Ordinance)

INTRODUCED BY	DATE FILED: JUN 09 2000
Commissioner Dan Saltzman	Gary Blackmer Auditor of the City of Portland
NOTED BY COMMISSIONER	
Affairs Dan Saltzman	By: Britta Olson Deputy
Finance and Administration	
Safety	For Meeting of:
Utilities	**ACTION TAKEN:**
Works	
BUREAU APPROVAL	
Bureau: Emergency Communications	
Prepared by Date David Rigby June 1, 2000	
Budget Impact Review: _X_ Completed ___ Not Required	
Bureau Head: Sherrill L. Whittemore	

AGENDA		FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
				YEAS	NAYS
Consent X	Regular	Francesconi	Francesconi	✓	
NOTED BY		Hales	Hales	✓	
City Attorney		Saltzman	Saltzman	✓	
City Auditor		Sten	Sten	✓	
City Engineer		Katz	Katz	—	