# Title Page and Distribution List

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## 1 OVERVIEW

The intended audience of this document includes Program Management, Product Information, and those engineering groups involved with the implementation and testing.

### 1.1 Objectives

The mission of this project is to provide a low-cost solution to clients for their customers to retrieve their voice mail and emails quickly and easily through the use of their telephone or computer and to gain new potential market in the computer telephony industry.

### 1.2 Purpose & Scope

The purpose and scope of this project is to provide customers a web-based solution of retrieving voice mail, email through telephone or the WWW. This also includes the use of text-to-speech to listen to emails from the telephone.

#### 1.3 Benefits

The benefits of this project are the first entry into the market place to support 1000+ ports, to remain competitive in the computer telephony industry, generate revenue per port used, along with the initial revenue of each system and to expand the company's product line.

#### 1.4 Structure

The managerial structure used for this project is the functional organizational structure. This abides by the overall organization structure. There will be a project manager, technical lead, system architect assigned as well as the appropriate functional managers involved under which the engineers report.

## 1.5 Project Specifications

The project specifications are

- An NT-based solution
- with off the shelf components
  - A call router,
  - o information manager,
  - and telephony boards
- large enterprise database
- fast performance for time-critical need
- TTS engine
- Scalable.

#### 1.6 Problem Addressed

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Currently, there are no low-cost solutions for clients to choose a unified messaging product that support 1000+ ports. This project will address this problem.

### 1.7 Proposed Method

A partnership has been formed with Dialogic Corporation, An Intel Company to develop a special telephony-based board that supports 250 ports per board. An agreement has been signed with Microsoft Corporation to use their Speech SDK 5.0 at no cost. They have agreed to release it to Unisys Corporation exclusively in return for our assistance in integrating Windows 2000 into the ES7000. A cluster of 5-7 ES7000's will be used. Each ES7000 has 32 processors on board.

### 1.8 Staffing

The Project Manager scheduled staffing for this project. There are four software engineers assigned. A lead software engineer, two junior level software engineers and an associate software engineer have been allocated for the development. A function test engineer and a MCSE will work on many similar tasks related to setting up and configuring the systems with the Dialogic software, development code and testing. The Product Information Technical Writer will be in charge of writing the documentation from the specifications and generating the help files. The support engineer will be learning how the system and overall project works as well as coming up with a test plan. Sales and Marketing representatives will be assigned, but have very little involvement aside from the requirements and selling the product after it is thoroughly tested. The Vice President will oversee the activities through status reports from the project manager and will not get involved except when problems arise such as late schedule and the final schedule approval.

## 1.9 Updates

Any changes or updates to the project plan must be discussed and approved by the assigned Project Manager. If there is a cost of \$1000 or greater for a task or resource after the final plan is approved, it must go through the Vice President of Technology for consideration.

# 2 Contractual Aspects

This section discusses the contractual aspects and agreements between Unisys Corporation and Dialogic Corporation and Microsoft Corporation. No other outside vendors will be used for this project unless noted elsewhere in this project plan.

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# 2.1 Dialogic Corporation, An Intel Company

Dialogic Corporation has agreed to deliver board to support 250 ports per board based on our following specification listed below. This is an extension of their Antares 9000 board. It has been promised for delivery on February 14, 2000 for our in-house testing. An additional set of API's will have been developed and delivered special to this board to take advantage of the additional functionality. Should this deliverable be late, there could be a severe impact to this project. For each week the deliverable is late, a fee of \$66,000 (up to \$1,000,000) is fined to Dialogic Corporation. However, for each week the deliverable is early, a bonus of \$100,000 (up to \$500,000) is given to Dialogic Corporation. The fee/bonus is prorated.

## 2.2 Microsoft Corporation

Microsoft has agreed to provide the use their Speech SDK 5.0 at no cost. The deliverable has been promised on March 15, 2000. There are performance differences between their Speech SDK 4.0 and 5.0. They have agreed that the interface to the upgrade will not change and will remain as published along with improved performance. They have agreed to release it to Unisys Corporation exclusively in return for our assistance in integrating Windows 2000 into the ES7000. A joint partnership has been formed between the two companies to provide this solution. Therefore, each company will be at risk if our entry into the marketplace is delayed. It is the attitude of both companies that this project be successful measured by a timely delivery and customer popularity and satisfaction.

Microsoft has also agreed for us to use one license to SQLServer 7.0 at no cost, but additional licenses are at normal cost.

# 3 Proposed Plan

In the table below, there is the high level preliminary plan of the four stages of this project. Stage Three last about twice as long as the other stages although this should not be weighed as more important than the other stages. All stages are critical to a successful completion and to be properly terminated on time.

Task Name	Duration	Start	Finish
Stage One: Feasibility	36 days	1/3/00	2/21/00
Stage Two: Design	40 days	1/24/00	3/17/00
Stage Three: Development	70 days	3/1/00	6/6/00
Stage Four: Integrate/Qualify	40 days	5/25/00	7/20/00

In the following table are key milestones with the deliverables sited. The proposed start date January 3, 2000 and proposed completion date is July 20, 2000. This is the minimal schedule. There is a critical path defined in the PERT chart where if these tasks are not on time, then the delivery date is impacted accordingly.

Milestone	Delivery Date
Proposed Start Date	1/3/00
Requirements Approved	1/10/00
Project Plan, Approval	2/3/00
Functional Specification	3/3/00
Function Test Plan	2/24/00
System Test Plan	2/3/00
Product Information Plan	3/10/00

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Field Test Plan	1/28/00
Speech SDK from Microsoft	3/17/00
Unisys ES7000 NT Servers	2/11/00
Delivery of Antares board	2/18/00
Implementation	4/26/00
Test & Qualification Report	7/12/00
Field Test Report	7/19/00
Proposed Completion Date	7/20/00

# 4 Schedule

	Task Name	n	Start	Finish	Predecessors
1	Stage One: Feasibility	36 days	1/3/00 8:00	2/21/00 17:00	
2	Requirements Received	1 day	1/3/00 8:00	1/3/00	
3	Requirements Approved	5 days	1/4/00 8:00	1/10/00	2
4	Architecture Design Review	3 days	1/11/00 8:00		l i
5	Proposal Doc	10 days	1/14/00 8:00		4
6	Proposal Approved	3 days	1/28/00 8:00		
7	Project Plan, Draft	20 days	1/11/00 8:00		3
8	Project Plan, Approval	10 days	2/8/00 8:00	2/21/00 17:00	
	Antares Platform Overview Training	5 days	1/3/00 8:00		i i
	Dialogic CT Connect Call Control Server Software Training	5 days	1/10/00 8:00	1/14/00 17:00	9
	Dialogic CT Connect Call Information Manager Training	5 days	1/17/00 8:00	1/21/00 17:00	
12	Dialogic CT Connect Call Routing Manager Training	5 days	1/24/00 8:00	1/28/00 17:00	11
13	Stage Two: Design	40 days	1/24/00 8:00		
14	Functional Specification	21 days	2/4/00 8:00	3/3/00 17:00	6,12
15	Function Test Plan	11 days	2/10/00	2/24/00	7

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		_	· · · · · · · · · · · · · · · · · · ·		
L			8:00	17:00	
16	System Test Plan	4 days	1/31/00	2/3/00	18
			8:00	17:00	
17	Product Information Plan	5 days	3/6/00	3/10/00	14
			8:00	17:00	1
18	Field Test Plan	5 days	1/24/00	1/28/00	4
			8:00	17:00	
19	Design Review	4 days	3/6/00	3/9/00	14
			8:00	17:00	
20	Speech SDK from Microsoft	3 days	3/15/00		
	•		8:00		
21	Unisys ES7000 NT Servers	10 days	1/31/00		
	,		8:00		
22	Delivery of Antares board	5 days	2/14/00		
			8:00		I .
23	Server Configuration	15 days	2/21/00		
	garana.	,	8:00	17:00	l
24	Packaging Plan	1 day	2/25/00		
		,	8:00	17:00	
25	Software Release Criteria	1 day	2/29/00	2/29/00	
	Established	" " "	8:00	17:00	i
26	Project Plan, Updated	12 days	2/28/00	3/14/00	
	Tojoot Flam, Opaatoa	12 days	8:00	17:00	1 *
27	Final Schedule Committed	1 day	3/15/00	3/15/00	
	Timal Conocado Committo	day	8:00	17:00	
28	Sales Channel Identified	1 day	2/29/00	2/29/00	
20	Calco Chamion Idontino	ludy	8:00	17:00	
29	Marketing Channel Identified	1 day	3/1/00	3/1/00	
	Markoting Chamber acritined	day	8:00	17:00	20
3በ	Stage Three: Development	70 days			
3	otago inice. Borciopinone	loudys	8:00	17:00	
31	Detailed Design Specification	10 days	3/16/00	3/29/00	
0 1	Botaliou Boolgii Opcomodiion	10 days	8:00	17:00	
32	VP Update	1 day	3/30/00	3/30/00	
02	VI opadio	lady	8:00	17:00	
33	Implementation	20 days	3/30/00	4/26/00	
	mpomonadon	auys	8:00	17:00	<b>0</b> 1
34	Product Information	10 days	3/20/00	3/31/00	17
UT	i loddot illioilliation	10 days	8:00	17:00	
35	Preliminary Support Plan	20 days	3/1/00	3/28/00	
J	Temmaly Support Flam	20 days	8:00	17:00	
36	Project Plan, Update	5 days	3/27/00	3/31/00	
30	Fioject Fian, Opuate	Juays	8:00	17:00	20
37	VP Update	2 dov/o		4/4/00	36
31	vr Opuale	2 days	4/3/00 8:00	4/4/00 17:00	30
		1.	6.00	17.00	

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38	Systems Integration Test	10 days	4/27/00	5/10/00	33
		lo dayo	8:00		
39	VP Update	1 day	5/1/00		
	VI Opaalo	lady	8:00	l .	1
40	Function Test	10 days	5/11/00		
'		10 days	8:00		1
41	Support & Training Plan	50 days	3/29/00	6/6/00	
"	Complete	oo days	8:00		
42	Marketing Collateral Complete	1 day	4/28/00	4/28/00	
		lady	8:00	17:00	1
43	Code Review	15 days	4/27/00		
10	Codo Neview	10 days	8:00	17:00	ł
44	Stage Four: Integrate/Qualify	40 days			
	Stago 1 Sur. Megrator adamy	To days	8:00		
45	System Test	8 days	5/25/00		33,43,40
		,	8:00	17:00	1 ' '
46	VP Update	1 day	6/1/00		
	•		8:00	17:00	
47	Field Test	7 days	6/6/00	6/14/00	
			8:00	17:00	1
48	Test & Qualification Report	20 days	6/15/00	7/12/00	
	. •		8:00	17:00	
49	VP Update	1 day	7/13/00	7/13/00	48.46
	•		8:00	17:00	,
50	Marketing & Sales to the public	1 day	7/3/00	7/3/00	42
			8:00	17:00	
51	Field Test Report	5 days	7/13/00	7/19/00	48
	·	•	8:00	17:00	
52	Final System Test Report	5 days	6/6/00	6/12/00	45
	•		8:00	17:00	
53	Product Shipment Authorization	0 days	6/9/00	6/9/00	36
		Ţ	8:00	17:00	
54	Post Mortem Prep	11 days	6/6/00	6/20/00	45
<b> </b>	•	•	8:00	17:00	l l
55	Post Mortem Review	1 day	6/21/00	6/21/00	
		•	8:00	17:00	
56	VP takes credit if successful	1 day	7/18/00	7/19/00	51
		-	8:00	17:00	
57	VP fires PM if failure	1 day	7/18/00	7/19/00	51
			8:00	17:00	

# 5 Costs

The costs are broken down into two categories. People resources are the individual members allocated for this project. Equipment resources are the individual pieces of equipment that are required for the project.

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The costs of facilities and individual computers of the assigned resources are covered under general overhead and are not associated with the costs of this project. A summary of cost is listed below. This is the proposed cost. The range of project costs may vary since resources can be allocated elsewhere on the project when not assigned to any particular task. The cost for people resources will start at \$252,096.21 and can range up to an additional \$50,000-75,000 depending on problems encountered during the duration of the project. The cost for equipment resources will start at 362,000 and should not vary except for the bonus of \$100,000 per week (up to \$500,000) for early delivery. The contract between Unisys and Dialogic Corporation is an agreement that it is a fixed cost. The only other cost that may vary is if additional boards need to be ordered. Each board costs \$10,000. The project can range from the low end of \$614, 096.21 to the predicted high-end of \$1,189,096.21.

		1,189,096.21
Total (\$)	\$614,096.21	\$1,164,096.21 -
Equipment	\$362,000.00	\$0-500,000
Resources	\$252,096.21	\$50,000-75,000.00
Summary		Potential Extra Cost

## 5.1 People resources

In the current plan, the total cost for people resources is \$252,096.21. It is broken down into the following categories listed in the table below. The MSCE is provided at no cost in return for our joint venture in technological advances in the computer architecture and speech technology.

Groups	Cost
Management	\$33,846.18
Principal Technology	\$50,153.85
Engineering	\$143,423.11
Support & Training	\$17,692.31
Product Information	\$3,076.92
Marketing & Sales	\$3,903.84
Total (\$)	\$252,096.21

# 5.2 Equipment resources

In the current plan, the total cost for equipment resources is \$362,000.00. It is broken down into the following categories listed in the table below. The Speech SDK 5.0 is provided at no cost in return for our joint venture in technological advances in the computer architecture and speech technology.

(Qty) Equipment	Cost
(16) Dialogic Antares 9000	\$160,000.00
(7) Unisys ES7000 Servers	\$100,000.00
Microsoft Speech SDK 5.0	N/C
Microsoft SQLServer 7.5	N/C
(1) Dialogic CT Connect Call Control Server Software	\$5,500.00
(1) Dialogic CT Connect Call Information Manager	\$4,500.00

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(1) Dialogic CT Connect Call Routing Manager	\$9,000.00
Antares Platform Overview Training	\$33,000.00
Dialogic CT Connect Call Information Manager Training	\$17,500.00
Dialogic CT Connect Call Control Server Software Training	\$17,500.00
Dialogic CT Connect Call Routing Manager Training	\$15,000.00
Total (\$)	\$362,000.00

# 6 Project Team

Role/Responsibility	Name
Management	
VP of Technology	Ratbert
Project Manager	Pointy-Haired Boss
Engineering	
Software Engineer 1	Dilbert
Software Engineer 2	Wally
Software Engineer 3	Alice
Software Engineer 4	Asok
Function Test Engineer	Bob the Dinosaur
MCSE	Liz
Principal Technology	
System Architect	The Garbageman
Technical Lead	Dilmom
Marketing & Sales	
Sales Engineer	Dogbert
Marketing Representative	Catbert
Support & Training	A SECTION OF THE PROPERTY OF T
Support Engineer 1	Phil
Product Information	
Technical Writer	Tina

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# 7 Project Equipment

#### 7.1 Antares 9000

- Thirty-two independent TI TMS320C31 32-bit floating-point DSPs running at 50 MHz, each with high-speed SRAM, enable algorithms developed for the C31 to be easily ported to the Antares<sup>TM</sup> board
- Multiple memory options supply economical and flexible solutions for different applications and densities on different technologies
- 512 KB (128 K words) or 2 MB (512 K words) local SRAM per DSP
- 4 MB (1 M word) or 8 MB (2 M word) global DRAM per board
- SCbus<sup>TM</sup> (or PEB<sup>TM</sup>) connectivity allows standard access to off-the-shelf call processing products and provides the capability to build higher density systems
- Up to 32-channel capability
- Security key (dongle) authorizes each Antares board for a specific firmware download
- Available complementary signal processing products and telephony interfaces reduce time to market
- SPOX® real time operating system and kernel, Drivers for MS-DOS®, UNIX® (SCO®, UnixWare™, Solaris®, and AIX®), OS/2®, and Windows NT®.

### 7.2 CT Connect Call Control Server Software

- Standards-based call control server software
- Support for most popular telephone systems
- Runs under Windows NT® or Sun Solaris® server platforms
- Multiple client platforms
- Industry-standard network environments
- Multiple programming interfaces (APIs)

# 7.3 CT Connect Call Information Manager

To help application developers and integrators implement this function, Dialogic offers the Call Information Manager (CIM). The CIM is a software module that operates in conjunction with CT Connect to manage call data tables which are flexible and easy to integrate with user applications. Application software can place caller data into the tables at any point during a call, and the CIM maintains table entries so that each call and its associated data remain linked as the call is transferred to other extensions. Other application software can retrieve the call data at any time during the life of the call.

Call data tables are implemented as a pair of simple System Query Language-compliant database tables, one linking telephone extensions to CIM-generated call identifiers and the other linking the call identifiers to the associated call data. This scheme makes it possible for nearly any application, including most legacy VRUs, to read or write call data by knowing only the telephone extension at which the call currently appears.

# 7.4 CT Connect Call Routing Manager

To help application developers and integrators implement this function, Dialogic offers the Call Information Manager (CIM). The CIM is a software module that operates in conjunction with CT Connect

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to manage call data tables which are flexible and easy to integrate with user applications. Application software can place caller data into the tables at any point during a call, and the CIM maintains table entries so that each call and its associated data remain linked as the call is transferred to other extensions. Other application software can retrieve the call data at any time during the life of the call. Call data tables are implemented as a pair of simple System Query Language-compliant database tables, one linking telephone extensions to CIM-generated call identifiers and the other linking the call identifiers to the associated call data. This scheme makes it possible for nearly any application, including most legacy VRUs, to read or write call data by knowing only the telephone extension at which the call currently

## 7.5 Microsoft Speech SDK 5.0

#### 7.5.1 What's new in 4.0/5.0

Telephony

appears.

- New objects designed for telephony
- New objects designed for using speech and TAPI
- Telephony controls
- Telephony sample applications
- Telephony tools
- ActiveX components
  - Use in Visual Basic, VB-Script, Visual Basic for Applications, Java, Java-Script
  - Lots of samples
- Continuous dictation support in Voice Dictation
- Other samples and tools
  - Easy-to-use grammar compiler
  - Wave editor
  - Animated mouth
  - Speech recognition and text-to-speech stress tests
- New low-level text-to-speech and speech recognition APIs

#### 7.6 Microsoft SQLServer 7.0

Microsoft® SQL Server<sup>TM</sup> version 7.0 is the most robust database for the Windows Family, the Relational Database Management System (RDBMS) of choice for a broad spectrum of corporate customers and Independent Software Vendors (ISVs) building business applications. Customer needs and requirements have driven significant product innovations in ease of use, reliability and scalability and data warehousing. SQL Server 7.0 runs on Windows NT 4.0 or Windows 2000.SQL Server 7.0 Enterprise Edition builds on the established strengths and broad functionality of SQL Server, extending its already extensive scalability, interoperability, availability, and manageability. Enterprise Edition provides the means for building and deploying large-scale distributed applications, making it the best platform for the largest and most mission-critical database applications. Enterprise Edition provides clustering support and can expand to use up to 3 GB of memory. SQL Server 7.0 Enterprise Edition runs on Windows NT 4.0 Enterprise Edition or Windows 2000 Advanced Server.

### 7.7 Unisys ES7000

- Exceptional Reliability/Availability/Serviceability (RAS)
- Unparalleled scalability, particularly in Symmetrical Multiprocessing operational mode

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- Simplified system manageability
- High performance interoperability
- Leadership price/performance for enterprise applications
- 4 per sub-pod, 32 in total
- 64GB of memory
- Intel® Pentium® III Xeon™ 550 MHz 512K, 1MB, or 2MB cache
- Future IA-32 Xeon speeds and IA-64 CPU sub-pods
- Partitions Up to 8 of 4 CPUs each
- Single partitions of 2 CPUs can be configured using the 2-CPU sub-pods
- Partitions can be configured in increments of 4 CPUs utilizing the 4-CPU sub-pods
- Up to 96 PCI at 33MHz with 64-bit data and addressing
- 4-way non-blocking crossbar interconnect
- SMP-based programming model (applications run without change)
- 20GB/second
- Up to 6 cabinet impellers (N + 1)

# 8 Decisions

It was decided to use outside vendors to expedite the schedule in a timely manner. After contractual agreements with Dialogic Corporation and Microsoft Corporation, Unisys Corporation was guaranteed deliverables at high cost and penalties to recognize that this project has high visibility.

Further decisions will be posted in this section pertaining to decisions that impact this project and the people or equipment.

# 9 Appendix A. Resource Allocation

Project Manager	412h
Requirements Received	8h
Requirements Approved	40h
Proposal Approved	8h
"Project Plan, Draft"	148h
"Project Plan, Approval"	64h
Design Review	16h
"Project Plan, Updated"	68h
Final Schedule Committed	4h
"Project Plan, Update"	40h
VP Update	16h
Technical Lead	528h
Architecture Design Review	24h
Proposal Doc	80h
Functional Specification	168h
Design Review	16h
Detailed Design Specification	80h
Implementation	160h
System Architect	568h
Architecture Design Review	24h
Proposal Doc	80h
Antares Platform Overview Training	40h
Functional Specification	168h
Design Review	16h
Detailed Design Specification	80h
Implementation	160h
SW Engineer 1	800h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
Functional Specification	168h
Field Test Plan	40h
Design Review	16h
Detailed Design Specification	80h
Implementation	160h
Code Review	120h
Field Test	56h
Field Test Report	40h
SW Engineer 2	760h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h

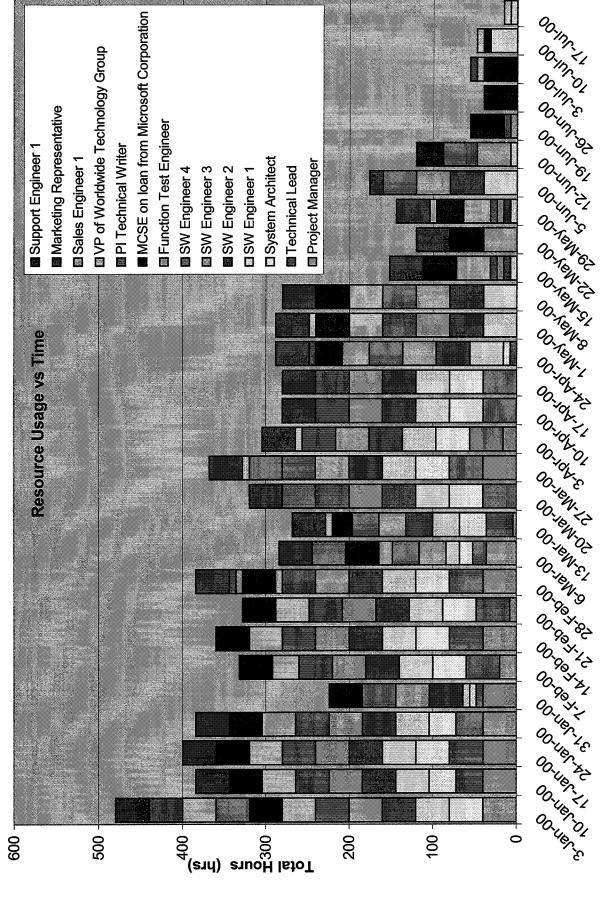
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Dialogic CT Connect Call Routing Manager Training	40h
Functional Specification	168h
System Test Plan	32h
Detailed Design Specification	80h
Implementation	160h
Code Review	120h
	40h
Final System Test Report Product Shipment Authorization	0h
SW Engineer 3	848h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
	40h
Dialogic CT Connect Call Routing Manager Training	168h
Functional Specification	32h
System Test Plan	32h
Design Review	80h
Detailed Design Specification	
Implementation	160h 120h
Code Review	
Post Mortem Prep	88h
Post Mortem Review	8h
SW Engineer 4	848h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
Dialogic CT Connect Call Routing Manager Training	40h
Functional Specification	168h
System Test Plan	32h
Design Review	32h
Detailed Design Specification	80h
Implementation	160h
Code Review	120h
Post Mortem Prep	88h
Post Mortem Review	8h
Function Test Engineer	488h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
Dialogic CT Connect Call Routing Manager Training	40h
Function Test Plan	88h
Design Review	16h
Systems Integration Test	80h
Function Test	80h
System Test	64h
MCSE on loan from Microsoft Corporation	808h

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Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
Dialogic CT Connect Call Routing Manager Training	40h
Speech SDK from Microsoft	24h
Unisys ES7000 NT Servers	80h
Delivery of Antares board	40h
Server Configuration	120h
Systems Integration Test	80h
Function Test	80h
System Test	64h
Test & Qualification Report	160h
PI Technical Writer	160h
Antares Platform Overview Training	40h
Product Information Plan	40h
Product Information	80h
VP of Worldwide Technology Group	56h
Final Schedule Committed	8h
VP Update	8h
VP takes credit if successful	4h
VP fires PM if failure	4h
Sales Engineer 1	56h
Antares Platform Overview Training	40h
Sales Channel Identified	8h
Marketing & Sales to the public	8h
Marketing Representative	64h
Antares Platform Overview Training	40h
Marketing Channel Identified	8h
Marketing Collateral Complete	8h
Marketing & Sales to the public	8h
Support Engineer 1	736h
Antares Platform Overview Training	40h
Dialogic CT Connect Call Control Server Software Training	40h
Dialogic CT Connect Call Information Manager Training	40h
Dialogic CT Connect Call Routing Manager Training	40h
Packaging Plan	8h
Software Release Criteria Established	8h
Preliminary Support Plan	160h
Support & Training Plan Complete	400h

10 Appendix B - Resource Usage Chart



Date (weeks)

	3-Jan-00	10-Jan-00	17-Jan-00	24-Jan-00	31-Jan-00	7-Feb-00	14-Feb-00	21-Feb-00	28-Feb-00
Project Manager	40	40	40	40	40	20	40	8	40
Technical Lead		32	40	32	8	40	40	40	40
System Architect	40	32	40	32	8	40	40	40	40
SW Engineer 1	40	40	40	40	8	40	40	40	40
SW Engineer 2	40	40	40	40	40	40	40	40	40
SW Engineer 3	40	40	40	40	40	40	40	40	40
SW Engineer 4	40	40	40	40	40	40	40	40	40
Function Test Engineer	40	40	40	40		32	40	40	8
MCSE on loan from Microsoft Corporation	40	40	40	40	40	40	40	40	40
PI Technical Writer	40								
VP of Worldwide Technology Group									
Sales Engineer 1	40								8
Marketing Representative	40								8
Support Engineer 1	40	40	40	40					40
Total hours per week	480	384	400	384	224	332	360	328	384

	6-Mar-00	13-Mar-00	20-Mar-00	27-Mar-00	3-Apr-00	10-Apr-00	17-Apr-00	24-Apr-00	1-May-00
Project Manager	36	4		40	16				
Technical Lead	16	32	40	40	40	40	40	8	
System Architect	16	32	40	40	40	40	40	8	
SW Engineer 1	16	32	40	40	40	40	40	40	40
SW Engineer 2		32	40	40	40	40	40	40	40
SW Engineer 3	32	32	40	40	40	40	40	40	40
SW Engineer 4	32	32	40	40	40	40	40	40	40
Function Test Engineer	16							32	40
MCSE on loan from Microsoft Corporation	40	24						32	40
PI Technical Writer	40		40	40					
VP of Worldwide Technology Group		8		8	8				8
Sales Engineer 1									
Marketing Representative							1	8	
Support Engineer 1	40	40	40	40	40	40	40	40	40
Total hours per week	284	268	320	368	304	280	280	288	288

	8-May-00	15-May-00	22-May-00	29-May-00	5-Jun-00	12-Jun-00	19-Jun-00	26-Jun-00	3-Jul-00
Project Manager									
Technical Lead									
System Architect									
SW Engineer 1	40	8		8	40	8			
SW Engineer 2	40	8		8	40				
SW Engineer 3	40	8		8	40	40	8		
SW Engineer 4	40	8		ͺ8	40	40	8		
Function Test Engineer	40	40	40						
MCSE on loan from Microsoft Corporation	40	40	40	32		32	40	40	40
PI Technical Writer	1								
VP of Worldwide Technology Group	1			8					
Sales Engineer 1									8
Marketing Representative	1								8
Support Engineer 1	40	40	40	40	16				
Total hours per week	280	152	120	144	176	120	56	40	56

	10-Jul-00	17-Jul-00
Project Manager		
Technical Lead	1	
System Architect		
SW Engineer 1	32	8
SW Engineer 2		
SW Engineer 3		
SW Engineer 4		
Function Test Engineer		
MCSE on loan from Microsoft Corporation	8	
PI Technical Writer		
VP of Worldwide Technology Group	8	8
Sales Engineer 1		
Marketing Representative		
Support Engineer 1		
Total hours per week	48	16

# 11 Appendix C - Resource Usage Data

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# 12 Appendix D - Project Budget

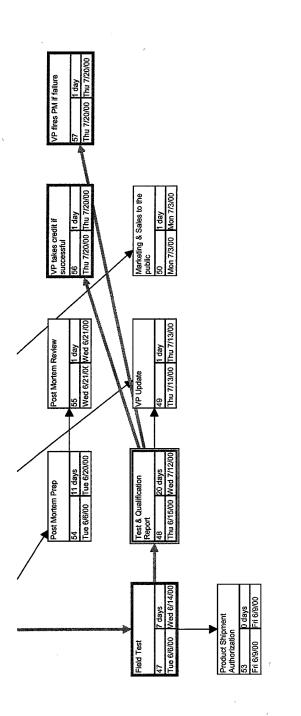
# 12.1 Employee Resource Budget Breakdown

Resource	Standard Rate	Overtime Rate	Cost	Work
Project Manager	\$150,000.00/yr	\$0.00/hr	\$29,134.62	404 hrs
Technical Lead	\$90,000.00/yr	\$0.00/hr	\$22,846.16	528 hrs
System Architect	\$100,000.00/yr	\$0.00/hr	\$27,307.69	568 hrs
SW Engineer 1	\$120,000.00/yr	\$0.00/hr	\$46,153.84	800 hrs
SW Engineer 2	\$75,000.00/yr	\$0.00/hr	\$27,692.32	768 hrs
SW Engineer 3	\$60,000.00/yr	\$0.00/hr	\$24,461.55	848 hrs
SW Engineer 4	\$80,000.00/yr	\$0.00/hr	\$32,615.38	848 hrs
Function Test Engineer	\$50,000.00/yr	\$0.00/hr	\$12,500.02	520 hrs
MCSE on loan from Microsoft Corporation	\$0.00/hr	\$0.00/hr	\$0.00	808 hrs
PI Technical Writer	\$40,000.00/yr	\$0.00/hr	\$3,076.92	160 hrs
VP of Worldwide Technology Group	\$175,000.00/yr	\$0.00/hr	\$4,711.56	56 hrs
Sales Engineer 1	\$65,000.00/yr	\$0.00/hr	\$1,750.00	56 hrs
Marketing Representative	\$70,000.00/yr	\$0.00/hr	\$2,153.84	64 hrs
Support Engineer 1	\$50,000.00/yr	\$0.00/hr	\$17,692.31	736 hrs

# 12.2 Equipment Resource Budget Breakdown

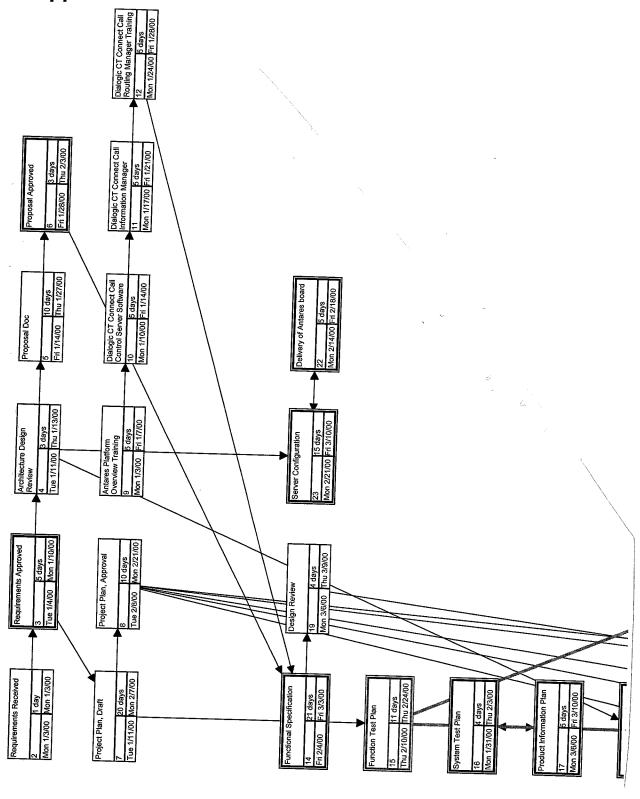
(Qty) Equipment	Cost
(16) Dialogic Antares 9000	\$160,000.00
(7) Unisys ES7000 Servers	\$100,000.00
Microsoft Speech SDK 5.0	N/C
(1) Dialogic CT Connect Call Control Server Software	\$5,500.00
(1) Dialogic CT Connect Call Information Manager	\$4,500.00
(1) Dialogic CT Connect Call Routing Manager	\$9,000.00
Antares Platform Overview Training	\$33,000.00
Dialogic CT Connect Call Information Manager Training	\$17,500.00
Dialogic CT Connect Call Control Server Software Training	\$17,500.00
Dialogic CT Connect Call Routing Manager Training	\$15,000.00
Total (\$)	\$362,000.00

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# 13 Appendix E - Pert Chart



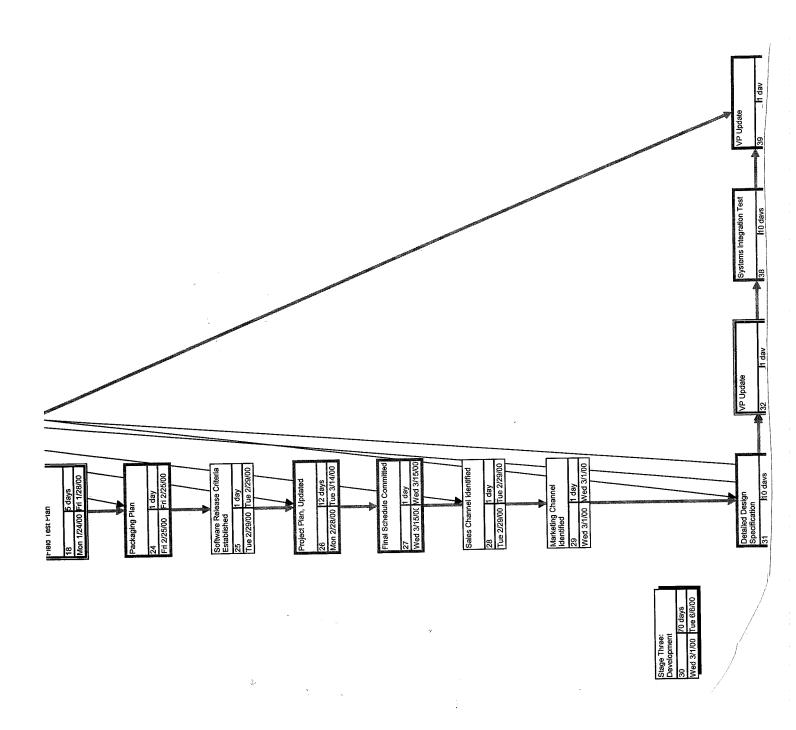
Stage One: Feasibility

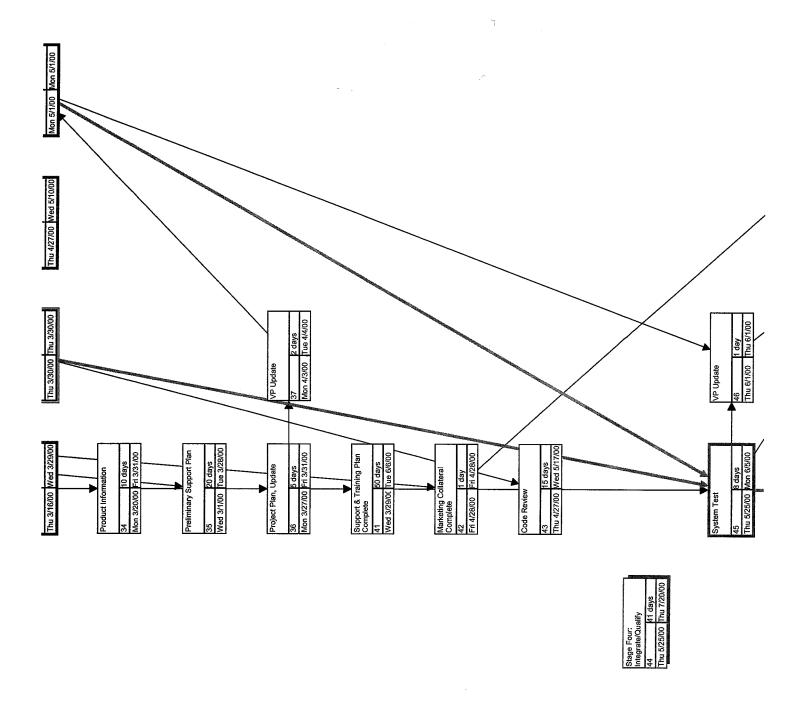
36 days

Aon 1/3/00 Mon 2/2/1/00

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Stage Two: Design





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