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Applied

Computerized

Telephony

(ACT)

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Sales Guide

For Internal Use Only

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New editions are complete revisions of the manual. Update packages, which are issued between editions, contain additional and replacement pages to be merged into the manual by the customer. The dates on the title page change only when a new edition or a new update is published. No information is incorporated into a reprinting unless it appears as a prior update; the edition does not change when an update is incorporated.

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Preface

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The purpose of this document is to provide the HP Field Sales Force with the information required to sell HP solutions that include HP's Applied Computerized Telephony (ACT) products.

It is an internal document to be used by HP personnel and HP's Value Added Business partners.

It contains HP proprietary information and should only be provided to partners under nondisclosure.

The first chapter discusses what ACT is and why you would want to spend the time to understand ACT.

The second and third chapters describe the business problem and the solution.

The last chapter describes the ACT sales cycle.

The appendixes contain all of the backup information you will need.

The illustrations contained in the main body of this document are available in slide format for use in customer presentations.

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ACT Introduction

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Why should you care about ACT?

ACT is a technology and a set of products that will help you sell systems.
ACT will allow you to provide your customers with a new and exciting way of solving their customer service business problems.

ACT can be used to position HP as the strategic vendor in an account..

ACT will opens doors to sales opportunities in new and installed base accounts!

What is ACT?

ACT is a enabling technology and a set of products that allow an organization to closely link their telephone system with their computer systems.

ACT provides a tool set that allows application developers to easily integrate this technology into their application system.

These integrated applications will improve the customer's overall efficiency and customer service levels.

The Business Problem

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What is the customer's business problem?

Just about every one of your customers has customers of their own. They spend a lot of time and money communicating with them; whether it is to sell products/services, support products/services, answer customer inquiries or performing on-going business communications.

Two major trends are taking place today. The first is that more business communication is being performed over the phone. This is being driven by the rising cost of performing face-to-face contact. Two very good examples of this are the increased uses of telemarketing and teleservices like our own telesales centers and response centers.

The second major trend is that "customer service" is being viewed as a major competitive differentiator. Customers want more timely, cost effective and easy to use services from the vendors/service providers. This has become an even more competitive issue in the 90's.

As companies move more toward customer contact via the telephone, a new set of issues begins to emerge. Customers can begin to feel as though they are receiving less personalized service. They can be put on hold too long, transferred from agent to agent, department to department and at each step along the way, have to repeat information over and over again. Unless managed well, this telephone contact can result in a very frustrating experience for the end customer.

The company's image that is being projected via "customer telephone contact" can be a competitive advantage if it is a positive experience or it can be a competitive disadvantage if it is a negative experience.

What is motivating the customer?

The dilemma that companies are facing is, how can they improve their "customer service" image when at the same time they are being pressured to reduce costs and to run a more cost effective operation?

Customer expectations - competitive pressures are forcing companies to improve customer service levels to attract new customers or to keep the customers they already have.

Operating costs - competitive pressures are also forcing companies to reduce operating costs in order to provide cost competitive products / services. The major cost of a call center is composed of personnel costs and telecommunication costs. On the average the personnel cost is about 40% of the call center's budget and telecom cost is another 40%.

Balance - You can offer your customers a way of addressing this dilemma. You can show them how to reduce their telephone bill, improve their productivity and at the same time improve their customer service levels.

They will be very interested in finding out how.

What customers have this problem?

We tend to think that the large telemarketing firms are the only ones with this business problem. Not true; just list the accounts you have or are trying to penetrate. How many of them conduct business over the phone? How many of them have 800 numbers? How many of them provide customer assistance over the phone? More then you may think. Let's take a look at some examples:

Industries

Manufacturing -

Distribution

Financial Services

Banking

Insurance

Trading

Credit

Leasing

Telecom

Government

Utilities

Publishing /
newspapers ...

Service / travel / real
estate

Hospitality

Business Functions

Customer relations

Telesales

Telemarketing

Customer services

Product support

Dealer support

Account transaction

Account inquiries

Collections

Catalog fulfillment

Order processing

Order inquiries

This is by no means a complete list.

As you can see, many organizations have this problem. I'll bet that if you sit down right now and list out your own customers, most of them have at least one and probably more than one operation doing a similar type of function.

The HP / ACT Solution

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The Solution

Your customer may have an inbound call center like a support response center or they may have an outbound function like collections. We will discuss both types of solutions separately, but keep in mind that most organizations are doing both and would like to share the same resources between them.

Inbound Solution

The inbound call center solution needs to provide the most efficient management of customer calls and at the same time have the customers feel as though they are getting better service than they have been getting or can get elsewhere.

There are three ways of accomplishing this.

The first way is to route the customer call to the right person the first time and not require them to repeat the same information to every person they talk to. We can route calls based on data base information, like which agent is best trained to answer a particular question or who is currently handling this customer.

The second way is to automatically provide the agent with the customer's data base information as the call is being answered, thus eliminating unnecessary questions and time consuming data base retrieval steps.

The third way is if the customer needs to be transferred let's not have them quizzed all over again. Let's automatically transfer screen information along with the call, thus eliminating unnecessary questions and even more data base retrieval time.

The basic concept is to have the computer work in conjunction with the telephone system to provide a more efficient and intelligent operation.

In some environments an entire clerical staff is in place only to screen and route calls. This can be eliminated or drastically reduced.

Calls can be handled more efficiently resulting in a significant reduction in call duration.

A reduction in the call duration equates to better productivity. The average call can be reduced by about 30 seconds. This means that you can handle more calls with the same number of people or the same volume of calls with less people.

The reduction in call duration also affects the telephone bill. Because the call is shortened by about 30 seconds the bill is also shortened. Again bottom line cost savings!

Lets look at a call transfer, again the call duration is reduced resulting in bottom line savings!

The ACT Sales Brochure has a very good description of the business benefits and includes benefit analysis work sheets to help you and your customer figure out what the potential savings could be for their environment.

Lets spend a little time explaining how this is accomplished.

As a call comes in from the telephone network, the calling number (ANI - Automatic Number Identification) and the called number (DNIS - Dialed Number Identification Service) are passed from the telephone switch (PBX) to the computer application via ACT. The application can use these numbers to identify who is calling and why they are calling. The application can then help the telephone switch route the call to the correct person/group or simply deliver the data base information to the agent's workstation as the call is being delivered.

Outbound Solution

On the outbound side, the objective is to improve agent productivity and increase revenue. This means being able to have agents contact more customers by automating the laborious and repetitive tasks like dialing the number and listening to the no answers and busy's thus allowing the agents to do more productive work.

ACT allows a computer application to make a call on behalf of a specific telephone.

This can be as simple as placing the call from the computer screen rather than looking up the customer number and manually dialing the phone. This is more convenient and pleasant for the agent but unless the agent is making a lot of calls there is not a lot of productivity gains.

Where we start to see significant productivity gains is when an agent has a list of customers that need to be contacted. An application can use a file or data base to launch the calls and bring up the associated customer information at the same time automatically. This can result in a large gain in productivity and revenue (i.e. more sales, more policies renewed, more call backs completed ...).

The third scenario is when there is a list of customers to contact and a pool of agents. In this case the solution is to keep the agents busy talking to customers. There can be a separate outbound dialing application launching the calls. Once a call is completed the system delivers the call and data base information automatically. There are lots of organizations that can use this solution, like collections or telemarketing.

Components of the solution

So now you're asking "What does this solution consist of?"

Telephone Network - A key component to the overall solution is the telephone network. Now don't tune out, you don't have to be a telephony expert, but you do need to understand some basics. The client will be calling in through the public telephone network and routed to either a PBX (private telephone switch) or a CENTREX service (a telephone company's business phone service). This will probably be an 800 number service and the telephone switch will have a function called ACD (Automatic Call Distribution) to queue the call and deliver it to the next available agent. We have all called a company and heard "All of our agents are busy, please wait and your call will be handled by the next available agent." Well this was an ACD function allowing more calls to be handled by a smaller number of agents.

ACT - The next components are the ACT products. ACT works in conjunction with the telephone switch and the ACD to provide the computer application with the interface tools needed to link the application to the telephone network / switch.

The ACT products consist of an ACT Server and an Application Programming Interface (API).

Refer to Appendix A "ACT Products" for product numbers, options & other product details.

Application Servers - The next component is the application itself. The application can be an existing application, a new application yet to be written or a third party application package. The ACT API provides an easy to use tool kit that is used by the application developer to integrate telephony functions into the application.

Refer to Appendix F "ACT Application Partners" for more details on ACT application providers.

Network Servers - In many, but not all, environments an "OLD" host application / data base needs to be integrated into the overall solution. This can best be accomplished by use of a network server that takes 3270 screen information and displays it in a window on the agents workstation , PC or X-terminal.

Workstations - The workstation can be a terminal, a PC or a UNIX workstation. This will depend on how the application has been written. For customers that have large IBM host data bases the workstation solution provides the best integration solution because the 3270 screens can be integrated into X-windows nicely.

Other Servers - Other servers may be part of the overall solution including image servers that display documents or pictures.

Remember, ACT is not the total solution, it is an enabling technology and set of telephony integration products that allow you to offer a more complete solution to your customers business problems. This in turn will help you sell systems.

Multivendor Team Effort

ACT solutions are by nature a multivendor team effort. They require HP computers, the telecom vendor's telephone switch, the telephone company's network services and the applications provider's software to provide the customer with the total solution.

The ACT Products are developed and tested in tight coordination with the telephone switch manufacturers. We have established joint support programs to ensure timely resolution of support issues. We also work closely with application providers to have them implement ACT technology into their application.

A key differentiator in this type of sale is the ability to provide the overall coordination of this multivendor environment. For this reason we have data sheeted and packaged ACT Consulting products for you to sell along with the ACT products. This will position you as the strategic vendor in the account.

Refer to Appendix C "ACT Consulting Services" for more details and Appendix D "ACT Trained Field Contacts" to identify who can deliver these consulting services.

The ACT Sales Cycle

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Introduction

The ACT sales cycle is not unlike any other sales cycle, however there are a few strategies that we recommend. First the decision maker is the functional manager of the organization responsible for customer service / contact. The MIS and telecom managers are recommendors and typically not the driving force for the sale.

Lead Generation

The best source for a lead is yourself. Sit down and list out your own customers. Now, think of where in those accounts ACT can help. You'll find a good list of leads this way. Then, identify the functional managers responsible for these areas.

If you are in a new business area, list the customers in your area and do the same thing.

Another source of leads will develop with your telecom counterpart. The telecom sales rep is very close to these functional areas because a good deal of the budget is telephone costs. It will be very useful to establish a good working relationship with the local telecom sales rep.

Another source of leads is the application partners that have implemented ACT. In addition to new business, you should make a list of their installed base in your area and go after these customers. This can be a very profitable installed base program.

Qualify / Conceptual Close

In addition to the usual qualification items like budget, business need, decision maker...it is very important to complete a "Conceptual Close" at this step. The conceptual close is to insure that the functional manager truly sees the benefit of the ACT solution and wants to implement it. This is very important because the technical staff will always have more to do than they can ever get done and you will need to have ACT positioned high on the priority list.

The ACT Sales Brochure with the Inbound & Outbound Call Management worksheets can be used here to develop a value analysis.

The next major qualification is to determine what type of telephone switch equipment the organization has.

If they have a Northern Telecom or an AT&T PBX then that's great, proceed.

If they are using CENTREX from their telephone company that is also great, proceed.

If it is another PBX switch, don't give up because the customer may be willing to bring in another PBX to front end their current switch with a smaller PBX or CENTREX from the telephone company.

Refer to Appendix G "Telecom Vendors and Their Products" for more detail on telephone switch products.

So, there are two key qualifiers to look for in addition to your standard ones:

µ § Functional Manager's conceptual close.

µ § Compatible Telephone System

Application Selection

The next step in the sales process is to determine whether the application will be supplied by an "in-house" application development organization or a third party Value Added Business (VAB).

In-House - If it is an in-house application you will need to work with the MIS organization to have them implement ACT. This may be a new application or an extension to an existing application.

The first step is to provide some technical background to the MIS and Telecom organizations. You can use the "ACT Slide Presentation" and ACT Data Sheets identified in Appendix E "ACT Sales Tools". You may want to get the help of an ACT trained SE identified in Appendix D "ACT Trained Field Contacts".

The next step is to have the programmer / analyst attend an ACT Training class which will give them an in-depth understanding of ACT and how to implement it.

If they need more assistance, we have data sheeted "ACT Application Assistance" a consulting service that you can quote and trained HP SE's can deliver (see Appendix D for a list of ACT Trained Field Contacts).

You should recommend that they install the ACT products before the application is developed. This will provide a test facility for prototyping and testing the feature/functionality of their application. This will also lock them into HP's ACT product and close the door on IBM's CallPath or DEC's CIT.

VAB Applications - The customer may wish to purchase their application form a third party or have a third party provide system integration or project management services. We have recruited a number of third parties who have either implemented ACT or are in the process of implementing.

A list of ACT Partners is contained in Appendix F "ACT Application Partners". They include:

Independent Software Vendors (ISV's)
Value Added Resellers (VAR's)
System Integrators (SI's)

If your customer is using or wants to use a third party that is not listed, simply have your customer request that the third party implement ACT. We can teach any third party to implement ACT into their application. We'll then add them to the list.

Proposal

As discussed earlier, the total solution consists of at least three components.

HP Products

The Application

Telephone System

With the exception of a VAR who could quote both the application and HP Products, there will be three separate quotes. It is important that these quotes be synchronized in the customer's eyes. The customer will most likely look to each party for their own component, however a close working relationship between all three can be a competitive advantage for HP.

The HP quote should include:

- HP computer products
- HP LAN products
- HP ACT products
- HP ACT Support products
- HP ACT Consulting products

We have sales worksheets and detailed data sheets on the above consulting products which will make it easier for you to justify them to your customers.

If the VAR quotes HP products make sure they also quote the ACT consulting products or assume full responsibility for their execution in the customers mind.

The telephone system component will be quoted by the Telephone Company or a PBX distributor.

Your first ACT account will require some getting acquainted time with your telephony counterpart, however the follow-on deals will be much easier and they will end up bringing you into accounts after you have developed a working relationship.

Close

The important thing to remember is that although this is a coordinated effort, HP gets its revenue from HP products and services. Your partners will focus on their part of the sale. You should too.

Insure that the customer orders all of the HP products and services at once. This will eliminate the need for you to go back in later and resell the solution.

It is a good idea to have the customer order and implement the ACT to switch infrastructure before the application needs it. This will reduce the complexity and provide a test environment for the application developer.

Insure that the ACT consulting services are ordered. This will insure that you have the technical resources needed to deliver the solution.

Delivery

ACT implementation is a multivendor team effort. HP does not require a customer to purchase ACT consulting with the ACT products. If not purchased from HP, you should insure that the customer's expectations are properly set and that they understand that they are assuming responsibility for these functions. ACT Consulting Services include:

µ § ACT Assessment

µ § ACT Project Management

µ § ACT Application Assistance

Remember that ACT Project Management's last step is a demonstration to the customer that all components (network, telephone switch, ACT, LAN and HP computers) are functioning. This is the customer delivery sign-off. Because the application may take longer to gain sign off, it should be separated from the ACT sign-off.

Refer to Appendix C "ACT Consulting Products" for a detailed explanation of these services and Appendix D "ACT Trained Field Contacts" for a list of field personnel that can deliver them.

Conclusions

ACT can help you sell systems!

Remember to focus on the customer's business needs and not the technology. The functional manager is the decision maker.

Time to market is critical in this area. Our competition will try to use their ACT like products (CallPath/IBM CIT/DEC) to lock the customer into an AS/400 or VMS proprietary solution. Don't let them get a foot hold or you will find it very difficult to break in later. Refer to Appendix H "Competitive Analysis" for a detailed competitive analysis.

Remember that a good working relationship with your telecom partners can be your competitive advantage. Develop those relationships. They will bring you a lot of business. It is a team effort.

Appendix A ACT Products

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ACT Products

An ACT installation requires one ACT Server and one ACT API for each application processor.

The ACT Call Processing Server is a pre-configured server bundle (hardware and software) that is customer installable. It is based on an HP-UX processor although the customer does not need to know HP-UX at all.

The ACT Server communicates with the API's over a LAN connection, therefore you will need to insure that the HP3000 and /or HP9000 has a LAN link connection. Because ACT utilizes standard TCP/IP sockets / NETIPC upper level networking services are not required.

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The ACT Architecture is based on a client / server model. All of the switch specific code and interfaces are localized in the ACT Server. The API's are switch independent. The key value added of the architecture is to make it easy for the customer to implement, support and to protect their investment in the application. When a standard switch to computer interface becomes available the server can be updated and the API / application is buffered from this evolution.

The ACT Products are subject to discounts available on both VEU & VAR Discounts Schedules (Exhibits A1000 and A1001) under column I on both schedules.

Shipment outside North America is currently restricted. Contact factory for more information.

ACT Servers:

Product #	Description	Price
32044B	ACT Server for Northern Telecom PBX	$30,000
32045B*	ACT Server for Northern Telecom CO	$30,000
J2122A	ACT Server for AT&T PBX	$30,000

* Contact Factory before ordering

HP3000 API

HP32077A	ACT CP API for HP3000/iX	N/C
opt. 310	For Tier 1 SPU's	$ 2,200
opt. 315	For Tier 2 SPU's	$ 3,999
opt. 320	For Tier 3 SPU's	$ 5,498
opt. 330	For Tier 4 SPU's	$ 9,997
opt. 335	For Tier 5 SPU's	$12,476
opt. 340	For Tier 6 SPU's	$14,995
opt. 350	For Tier 7 SPU's	$21,492
opt. AA1	1/2" mag tape 1600 bpi	N/C
opt. AAH	DAT cartridge tape	N/C
opt. OCD	Upgrade credit for opt. 310	-$ 2,200
opt. OGJ	Upgrade credit for opt. 315	-$ 3,999
opt. OCE	Upgrade credit for opt. 320	-$ 5,770
opt. OCF	Upgrade credit for opt. 330	-$10,500
opt. OGL	Upgrade credit for opt. 335	-$13,100
opt. OGM	Upgrade credit for opt. 340	-$14,995

HP9000 API

HP32046A	HP9000 ACT Call Processing API	N/C
opt. AHN	Series 700 Processors	$ 1,995
opt. AHO	For Tier 1 SPU's	$ 1,995
opt. AE5	For Tier 2 SPU's	$ 9,995
opt. AEP	For Tier 3 SPU's	$19,995
opt. AA0	1/4" cartridge tape	N/C
opt. AA1	1/2" mag tape 1600 bpi	N/C
opt. AAH	DAT cartridge tape	N/C
opt. OGR	Upgrade credit for opt. AHO	-$ 1,995
opt. OC8	Upgrade credit for opt. AE5	-$ 9,995

Appendix B ACT Support Products

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There are three basic categories of support products related to the ACT products.

The first category is **Initial Purchase Support Products** which are available only at the time of the initial purchase. These are options to the ACT products. In addition to providing a simple way to quote and order support, you also earn commission on them. These should always be quoted and sold with every ACT product.

The second category is **Multivendor Network Support** which is available anytime; however it too should be included with every quote. If the customer does not purchase multivendor support you should clearly set their expectations that they are assuming responsibility for multivendor fault isolation and problem management.

The third category is **Ongoing Support Products** which are used to provide support after the initial year or if support was not ordered with the product.

Initial Purchase Support Products

Add these options to the 32044B and J2122A ACT Server products:

opt 0S0	License / Next Day System Support - 1 year
opt 0S1	License / Same Day System Support - 1 year
opt 0S5	License / 24x7 System Support - 1 year
opt 0S2	Telephone / Next Day System Support - 1 year
opt 0S3	Telephone / Same Day System Support - 1 year
opt 0S6	Telephone / 24x7 System Support - 1 year
opt 0S4	Installation - System and Network

Add these options to the 32046A and 32077A ACT API products:

opt 0S1	License to Use System Support - 1 year
opt 0S3	Telephone Assist System Support - 1 year
opt 0S6	Telephone / 24x7 System Support - 1 year
opt 0S4	Installation - System and Network

Multivendor Network Support

NetStartup:

ACT Servers	32044B+16A	$	76 *
	J2122A+16A	$	76 *
PBX Network Startup	50052P+16A	$3,075	

* These are included in ACT Server purchase with option 0S4.

Note: Be sure to quote NetStartup for each application system LAN link.

NetAssure:

ACT Servers	32044A+16B	$	41
	32044B+16B	$	41
	J2122A+16B	$	41
PBX Network Connection	50052P+16B	$162	
PBX Network Connection(24/7)	50052P+16K	$203	

Note: Be sure an quote NetAssure for each application system LAN Link.

Ongoing Support Products

Hardware:

1 - Installation:

32044B+17A	$250
J2122A+17A	$330

Note: These are included in ACT Server purchase with option 0S4.

2 - ACT Server Hardware (select one):

Priority Plus (24 hours)		32044A+02G	$129
Priority (8AM - 9PM)	32044A+02A	$102	
Next Day (8AM - 5PM)		32044A+02C	$ 54
Scheduled	32044A+02L	T&M	
Priority Plus (24 hours)		32044B+02G	$121
Priority (8AM - 9PM)	32044B+02A	$ 96	
Next Day (8AM - 5PM)		32044B+02C	$ 53
Scheduled	32044B+02L	T&M	
Priority Plus (24 hours)		J2122A+02G	$121
Priority (8AM - 9PM)	J2122A+02A	$ 96	
Next Day (8AM - 5PM)		J2122A+02C	$ 53
Scheduled	J2122A+02L	T&M	

3 - An active HP hardware support contract on the HP3000 or HP9000 application system.

Software Update Service:

1 - ACT **Server** Software Update Service		H2089A+S00
opt 101	NT PBX	$36
opt 102	AT&T PBX	$36
opt AA0	1/4" tape cartridge	$15
opt AAH	DAT cartridge	$15
2 - ACT **API** Software Update Service		H2088A+L00
opt 101		$82

3 - An active HP Software Update Service for the HP3000 or HP9000 application system.

Service Level:

1 - ACT **Server** Response Line Support		H2087A+H00
opt 101	Server for NT PBX	$164
opt 102	Server for AT&T PBX	$164

2 - ACT **API** Response Line Support H2087A+H00

opt 200	MPE-XL API Low-End	$ 46
opt 201	MPE-XL API Mid-Range	$154
opt 202	MPE-XL API High-End	$231
opt 203	MPE V	$231
opt 300	HP-UX API Series 300/400/700	$ 36
opt 301	HP-UX API Low-End 800S	$ 36
opt 302	HP-UX API Mid-Range 800S	$113
opt 303	HP-UX API High-End 800S	$205

Note: The above prices are subject to change. Refer to the CPL for the most up-to-date pricing.

Appendix C ACT Consulting Services

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ACT Consulting Services:

ACT consulting services should be quoted if the customer wants HP to provide these services. If they are not purchased make sure that the customer has contracted with another entity to provide them (VAR, Systems Integrator or Telecom Vendor). If the customer is planning to do these functions themselves make sure that expectations are properly set.

It is highly recommended that these be quoted with every ACT quote. There is an "ACT Implementation - Multivendor Coordination" work sheet that will help you position and sell these services. There are also ACT Consulting data sheets available to help you describe in detail what each service provides. Prices are on a custom quote basis.

ACT Assessment is used to identify all of the details of each component (ACT, computer systems, data networks, switches, voice network and application) and to provide a complete coordinated requirements assessment. Try and sell this with the other products. You may find that you will need to deliver this before the customer will purchase the rest of the products. Use Consultline H2355A Module N.

ACT Project Management is used to provide the overall project coordination between the different parties and provides a final sign off for the ACT installation, not including the application. Use Consultline H2355A module 9.

ACT Application Assistance is used to provide the application developer with application design assistance. There are three general areas where this consulting can be sold. First, to help developers with the high level system design. Second, to help the developer with detailed design for specific programming implementations. Third, to provide on-going application assistance. Use ConsultLine H2405A module N.

ACT Technical Training is a class offered by HP (factory) to train application developers and technical support individuals on the ACT products. A data sheet is available.

There is an ACT data sheet called **ACT Ongoing Support** which can be used to set customer expectations and position product support, multivendor support (NetAssure) and application assistance as the total support requirements.

Appendix D ACT Trained Field Contacts

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Region / Area	**S**ales / **T**echnical	Phone Number
Neely / Golden Gate	S = Phil Aramoonie	(415) 694-2586 CA

	T = Seth Munter	(415) 882-6877 CA
	T = Ed Hillard	(415) 694-2304 CA
	T = Jim Clark	(415) 494-2597 CA
Neely / Southern Calif	S = Mark Richter	(818) 880-3473 CA
	T = Randy Shamansky	(714) 472-3084 CA
Neely / Pacific Northwest	S = John Renshaw	(206) 643-8875 WA
	T = Paul Wolossow	(503) 598-8274 OR
Midwest	S = Pat Demski	(708) 357-2733 IL
	S = Karen Klukiewicz	(708) 357-2268 IL
	S = Lamar Boettner	(612) 641-9788 MN
	S = Steve Brunker	(513) 891-0214 OH
	T = Steve Beasley	(309) 662-9411 IL
	T = Bill Weddington	(502) 426-0100 KY
	T = Jon Poland	(816) 344-5186 MO
	T = Tim Oberle	(816) 737-4653 MO
	T = Bob Greenwald	(414) 792-0241 WI
Southern	T = George Boney	(404) 246-5271 GA
	T = Gary England	(404) 246-5240 GA
Eastern	T = Ton Zwaard	(410) 362-7539 MD
	T = Cos Canciellere	(201) 599-5403 NJ
	T = Merrill Wettasinghe	(908) 562-6120 NJ
	T = Pete Borowski	(908) 562-6216 NJ
	T = Mary LaPorte	(617) 221-5134 MA
Mtn View Response Center	T = Colin Wynd	(415) 691-3026 CA
	T = Joe Reves	(415) 691-3123 CA
Atlanta Response Center	T = Mike Haag	(404) 850-2203 GA
	T = Gary Martin	(404) 850-2617 GA
	T = Dick Rhoads	(404) 850-2310 GA
Australia	T = Brett Hardman	02 809 5140
Canada	T = Steve Shaw	(416) 678-9430
	T = Ralph Knox	(416) 479-1770
France	S = Jean-Jacque Garnier	33 1 698 26168
	T = Frederic Fimes	33 1
	T = Veronique Schoffit	33 1 698 26060
Germany	T = Hans-Peter Dolle	49 2102 441-678
	T = Stephan Winters	49 2102 441-778
Norway	T = Per Eilert Karlsen	47 67 159 700
Japan	T = Hiroshi Hashimoto	81 3 366-3093
UK	T = Thomas Young	44 344 362428
	T = Stephen Mitchell	44 344 361672
	T = Simon Reid	44 344 362168

Appendix E ACT Sales & Support Tools

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ACT Sales Tools	How to get it	
ACT Sales Guide	On Request	PowerTools
ACT Slide Presentation	"ACTSLIDE"	Network HOTLINE (HPDesk)
ACT Demo (Cupertino Visit Center)	On Request	Bob Alley (408) 447-3167
ACT Demo Video Tape	I221	Gladys Ranger (415) 857-6159
ACT Sales Brochure	5091-2073	On Request from ACT group
ACT Inbound Call Mgnt Worksheet	5091-2074	HP FIRST (33700)
ACT Outbound Call Mgnt Worksheet	5091-2075	HP FIRST (33701)
ACT Implementation - Multivendor Worksheet		HP FIRST (Check index 39992 for ID #)
ACT-CP Product Data Sheet AT&T-PBX	5091-5227EUS	Network Spec Guide, HP FIRST (33702)
ACT-CP Product Data Sheet NT-PBX	5952-1913	Network Spec Guide, HP FIRST (31696)
ACT-CP Product Data Sheet NT-CO	5091-1372EUS	Network Spec Guide, HP FIRST (31695)

ACT Support Tools	How to get it
ACT Assessment Data Sheet	Network Spec Guide, HP FIRST (31698)
ACT Project Management Data Sheet	Network Spec Guide, HP FIRST (31699)
ACT On Going Support Data Sheet	Network Spec Guide, HP FIRST (31702)
ACT Application Design Data Sheet	Network Spec Guide, HP FIRST (31700)
ACT Technical Training Data Sheet	Network Spec Guide, HP FIRST (31701)
ACT Technical Training Class	Scheduled May Lee (408) 447-2370
ACT Training Video Tapes (1/91)	Area Learning Ctrs
ACT Training Video Tapes (8/91)	Area Learning Ctrs

HP FIRST is a FAX back information service. Call (800) 333-1917 or (208) 244-4809 and enter the document ID listed above.

Appendix F ACT Application Partners

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Introduction

This appendix identifies the third party partners that have already implemented or are in the process of implementing an ACT solution.

On the following pages are provided details of the partner's products and key contacts.

ACT partners can fall into one or more of the following categories:

Independent Software Vendor (ISV), they provide only application software.

Value Added Reseller (VAR), they sell HP systems along with application software.

Systems Integrator (SI), this type of partner will integrate products from HP as well as other vendors. These partners can also provide development resources to develop or modify existing software.

ACT Partners

Answer Computer Inc. (ISV) *

Brock Control Systems (ISV) **

Cambridge Technology Partners (SI) *

Distribution Resources Company (VAR) *

Information Management Associates Inc. (VAR) *

Metrix Customer Support Systems Inc. (ISV) *

Smith Gardner & Associates (VAR) ******

Technology Solutions Company (SI) *

Wesson, Taylor, Well & Associates (SI) ***

* indicates number of ACT accounts at publication time

Answer Computer Inc.
1263 Oakmead Parkway
Sunnyvale, CA 94086

Contacts

Arlen Beylerian	Marketing	1-800-677-2679

Product

Apriori
A family of problem solving, knowledge sharing applications designed to automate help desk and customer support departments. Apriori tracks and manages problems from an incoming call through complete problem resolution. It captures and shares customer and product knowledge and provides multiple problem solving methods that allow support teams to solve over 80% of problems on the first call.

Industries

Manufacturing, Retail, Banking, Petrochemical and others.

Functional Areas

Customer Service

Help Desk

Features

Heuristic problem solving

Tracks calls, problems, solutions, customer profiles

Search capabilities (keyword, cross-referencing, symptoms, etc.)

Communication & escalation (auto-notify, call followup, w/e-mail or fax)

Accountability (call, problem, solution history, user activity, etc.)

System Administration (backup, data export/import, archive, etc.)

Management reports

Customization

GUI user interface

Integrates with HP OpenView Node Manager

HP Platforms

HP9000	X-windows user interface

Brock Control Systems
2859 Paces Ferry Road; Suite 1000
Atlanta, GA 30339

Contacts

Stephanie Zehna	Brock Interface	800-221-0775
Dawn Haeberle	HP Vab Rep	404-246-5231

Product

Brock Activity Manager Series Software (BAM)
Software solution designed to automate sales, marketing and customer support processes.

Industries

Manufacturing, Financial, Insurance, Travel, Hospitality , Publishing and others.

Functional Areas

Telemarketing

Sales & Marketing Information Management

Order Processing

Account Management

Customer Support

Features

Central relational database (using Informix, Oracle, Ingres, Sybase or Progress)

Full complement of lead generation, tracking, forecasting, report writing, & analysis functions

File transfer to-and-from remote locations

Customizable menus, screen layouts, reports & file formats

Can service 1-100+ concurrent users

Also runs on MS-DOS

HP Platforms

HP9000	Terminal user interface

Cambridge Technology Partners Inc.
304 Vassar Street
Cambridge, MA 02139

Contacts

Craig Lunde	HP Account Manager	617-374-8301
Roger Hoeberichts	ACT Consultant	617-374-9800
John Spindler	HP Vab Rep	617-221-5003

Product

Systems Integration
Specializing in open systems information technology.

Industries

Telecom, Financial Services and others.

Functional Areas

Customer Service

Account Management

Features:

Specializes in strategic applications

Information integration (leveraging existing systems)

Comprehensive migration services

Unprecedented time frames (can deliver solution in 1/4 the time of conventional time frames)

Consensus driven systems (what everyone wants--Execs, IS, Users, etc.)

Solutions built on three-tiered client / server architecture, open systems and standards.

HP Platforms:

HP9000	terminal/windows/X-windows user interface

Distribution Resources Company (DRC)
6061 South Willow Drive; Suite 100
Englewood, CO 80111

Contacts

John Palley		303-889-4552
Melinda Hawkins	HP Vab Rep	303-649-5736

Product

Systems for Distributors (SFD/3000)
A fully-integrated distribution management software system for HP 3000. Designed to improve company performance by offering total operational control of all aspects of your business.

Industries

Wholesale & Retail Distribution

- Office Products
- Paper Products
- Electrical Products
- Industrial Products
- Medical Products ...

Functional Areas

Complete turnkey system

Features

Client / Server Applications

Point of Sale applications

Inventory Management

Powerful management & marketing tool to improve productivity, enhance cash flow, incorporate branch or warehouse operations

Available on TurboIMAGE & ALLBASE/SQL

HP Platform

HP3000	terminal/windows user interface

Information Management Associates Inc. (IMA)
17550 Newhope Street, Suite A
Fountain Valley, CA 92708

Contacts

Andrei Poludnewycz	Executive VP	714-549-3068
Ted Luchsinger	HP Vab Rep	203-325-5624

Product

EDGE TeleBusiness Software System
Application generator to meet inbound & outbound telemarketing, telesales and customer service needs for any organization using the telephone to conduct business.

Industries

Financial Services, Telecommunications, Manufacturing, Insurance, Distribution (wholesales), Non-profit Organizations (Fund Raising) and others.

Functional Areas

Customer Service	Lead Management
Direct Marketing	Telemarketing / Sales
Account Management	Database Segmentation
Field Sales Automation	Market Research

Features

Allows users to design customized solutions for sales, marketing, customer service and other business functions

Graphical user interface for easy database, screen and report creation, sophisticated scripting, call list processing, literature fulfillment and management reporting

Integration w/ACD's, VRU's, ISDN, FAX, preview & predictive dialing

File transfer to-and-from other systems

HP Platforms

HP9000 terminal / windows / Mac user interface

Metrix Customer Support Systems Inc. (MCSS)
20975 Swenson Drive
Waukesha, WI 53186

Contacts

Harvey Shovers	VP Sales	414-798-8560
Ted Tagasaki	HP Vab Rep	708-255-2472

Product

OpenUPTIME
Completely integrated customer service management system. Modules included are Call-Taking, Service Orders, Maintenance Agreements and Logistics, Help Desk and Depot Repair.

Industries

Manufacturing and other Service/Repair Organizations.

Functional Areas

Account / Contract Management

Customer technical support

Repair Center

Help Desk

Features

Log customer requests for service

Check to see if warranty/service contract applies

Dispatch technicians on-line

Download call information to field technician's laptop

Capture details of work performed

Replenish parts inventory

Establish & maintain service contracts

Schedule preventative maintenance visits

HP Platform

HP3000	terminal/windows/x-windows user interface
HP9000	terminal/windows/x-windows user interface

Smith Gardner & Associates
5455 North Federal Highway; #M
Boca Raton, FL 33487

Contacts

Lee LeFaivre	Dir of Mktg	407-241-9505
Ron Kessinger	HP Vab Rep	305-938-2209

Product

Mail-order and Catalog System (MACS)
Complete turnkey software product to automate a mail order business. Modules include Advertising & Sales, Merchandising & Purchasing, Accounting, Telemarketing & Ordering, Warehousing & Shipping, Production, & Operations.

Industries

Catalog Fulfillment and Wholesale/Retail Distribution.

Functional Areas

Complete turnkey system

Features

User defined screens & reports

Allows transfer of customer record with a phone call transfer

Reports can be customized for customers

User Controlled Color Screens--colors to enhance logic flow

User Controlled Systems Actions & Reactions

User Defined Barometers--bar graphs to depict vital factors

HP Platform

HP3000	Terminal user interface

Technology Solutions Company (TSC)
205 N. Michigan Avenue
Chicago, Illinois 60601
800-735-2250

Contacts

Tom Whitney	Sr VP Sales & Mktg	312-819-7103
Doug Brown	Principal	800-735-2250 x 4915
Steve Chacho	HP Vab Rep	708-255-9845 x 2152

Product

Systems Integrator
Top client / server integrator competes with Arthur Anderson & EDS. They were in Inc's "Top 5 Fastest Growing Companies" in 1992.

Industries

Service Industries, Financial Services and others.

Functional Areas

Consumer Service

Order Entry

Fulfillment/distribution

Direct Marketing

Field Service

Features

Client/server call agent systems

Two-way voice data gateways

Mobile data

HP Platform

All HP Platforms	Windows/X--windows user interface

Wesson, Taylor, Wells & Assoc. (WTW)
P.O. Box 23587
Columbia, SC 29224

Contacts

Harv Wells	Sr VP Mktg HP Vab Rep	803-699-5781

Product

Systems Integration
Major consulting / software development firm with a proven track record and a wide range of services.

Industries

Manufacturing (process/discrete), Distribution, Warehousing,Financial Services and others.

Functional Areas

Customer Service

Help Desk

Service/Repair Organizations

Support (Customer/Technical)

Outbound telemarketing features

Features

Pre-sale support to field sales through qualifying and sizing opportunities

Re-engineering enterprise-wide data sharing

Project management implementation (prime or sub)

Custom application development

I.T. Strategic Planning

Migration/Re-hosting through re-engineering, automated migration tools, package replacement

Computer-Telephone Integration

HP Platform

All HP platforms terminal/windows/X-windows user interface

Appendix G Telecom Vendors & Their Products

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Introduction

The ACT products work in conjunction with telephone switches; therefore it is important to understand these vendors and their products. The interworking is composed of two pieces, the computer side and the switch side. Each vendor has a different name for their product so it is important to understand this nomenclature.

Telecom switch vendors provide three different types of telephone switches: Central office switches, PBX's and ACD's. There are switch to host interfaces available on all three, although the bulk of the business today is being provided by the PBX vendors.

Central Office Switches

If a customer does not want to own and operate the telephone system, they can "rent" the telephone service from their local telephone company. The telephone company uses a telephone switch located in their office called a Central Office switch (CO switch).

Central Office switch vendors:

AT&T with 47% Market Share

NT with 36% Market Share

These switches are sold to Local Operating Companies and are located at the telephone companies' location. The telephone company then sells services to their customers. These services are commonly referred to as CENTREX services and they provide their customers with the same type of enhanced functionality that is available on PBX's. They also provide CENTREX ACD services.

The Northern Telecom CO switch is called a DMS100.

The AT&T CO switch is called a 5ESS.

In the Central Office market, NT is the only vendor with an ACT-like product today called CompuCall. It is estimated that AT&T will not have a product until at least 1994.

Although the interface is available today, it is not generally available in all locations; you should check to see if the local operating company can provide the service to your customer.

PBX Telephone Switches

If the customer wants to own and operate their own telephone system, they purchase a PBX (Private Branch Exchange). A customer will purchase a PBX because it is more cost effective or because they want features that are not available from their local telephone company.

The leading PBX vendors in the US market are:

AT&T with 29% Market Share

NT with 22% Market Share

ROLM / SIEMENS with 14% Market Share

AT&T is the market leader. They sell their PBX's through a direct sales force and have strong ties to their customer base. This same sales force is responsible for selling their computer products. For new computer installations, AT&T may compete with us for that business. For our installed base and where the customer has selected HP as their computer vendor, AT&T will partner with us to provide our joint customers with the total solution.

Northern Telecom is number two in the market. They sell their products through distributors. Most RBOC's sell NT PBX's except PACBell & NYNEX which have joint ventures with NT to distribute them. Because NT uses distributors, they are not as close to their customer base. In fact, they may not even know who the end customer is. Service and support are also provided by their distributors. For major accounts, NT has established a Major Accounts Program with assigned account representatives that work with the customer and the distributors.

ROLM / SIEMENS is the next in line. When IBM purchased ROLM they created a switch to host interface called CallPath which allowed IBM to sell the entire solution. When IBM sold ROLM to SIEMENS, the old ROLM was split into two companies.

"ROLM Company" was 50% owned by SIEMENS and 50% owned by IBM. It is the sales and marketing side of the old ROLM. It can sell both ROLM and IBM products. In 1992, SIEMENS purchased the remaining 50%.

"ROLM Systems" is 100% owned by SIEMENS and is the PBX product side of the old ROLM. It is starting to merge its products with the existing SIEMENS PBX product lines.

ROLM Systems has quickly shifted from only working with IBM, when it was owned by IBM, to a multi computer strategy. We currently do not have an ACT interface with ROLM / SIEMENS although both companies continue to work on the cost justification.

ACD Switches

The next type of telephone switch is called an ACD (Automatic Call Distributor). It is a specialized telephone switch that is used in call centers. Its primary mission is to queue incoming calls and evenly distribute them to available agents. These are very specialized switches and are only used in call center environments. PBX and CO switches also provide ACD functionality.

The leading ACD vendors include:

Rockwell -- the leader in very large call center ACD's

Aspect -- the leader in the small / medium ACD market

We currently do not have interfaces to these ACD switches.

Note - An interesting aspect of this market is that all of the switch vendors would like to be both in the switch business and the computer business (i.e. AT&T / NCR, SIEMENS). Because of this, our switch vendor partners may sometimes also be our competitors. Some are easier to work with than others and a lot depends on how well their local sales channel / office works with ours / you. A good working relationship can actually bring in new business for you. Remember, their main business is selling switches and they understand that business well. They also understand that their customers prefer working with mainstream computer vendors.

On the following pages we will discuss each key telecom vendor's switch to computer product and any related products.

Northern Telecom - Meridian Link Module

Product Description:

Meridian Link Module is the call processing link product for the Northern Telecom PBX. It is a hardware / software product that is added to the Meridian 1 PBX . It is available for all NT PBX's except the SL-100 PBX (which uses the CompuCall product - see next product). Older SL1 PBX's can be upgraded to the Meridian 1.

The Median Link Module requires NT's Automatic Call Distribution (ACD) software on the PBX.

Price Structure:

The pricing for the Meridian Link Module is not straightforward. The PBX must be Meridian ready which means that the PBX must be upgraded to the latest release of operating software. This may require a hardware upgrade as well.

The cost to add the Meridian Link Module to the NT PBX will run between $31K and $82K depending on the number of agents and size of the PBX.

Computer Partners:

HP (ACT)

DEC (CIT)

IBM (CallPath)

Tandem (CAM)

Northern Telecom - CompuCall

Product Description:

CompuCall is the Northern Telecom call processing link product for the NT DMS-100 Central Office switch and the NT SL-100 PBX.

CompuCall only works in an Automatic Call Distribution (ACD) environment.

The SL-100 PBX is a very large PBX and in fact utilizes the same hardware and much of the same software as the DMS-100 Central Office switch.

The DMS-100 central office switch is located at a telephone company office and CENTREX services are sold to end customers by that telephone company. In these cases a CENTREX ACD service is also sold to the end customer.

Northern has also packaged the DMS-100/CENTREX-ACD into the Meridian ACD Server product that can front-end any existing central office switch. CompuCall is also available on this product.

The CompuCall Link is a leased service between the DMS-100 and an ACT server located at the customer site.

The services available from the CompuCall link will be marketed by the local telephone company, probably under a different name than CompuCall.

Price Structure:

The price for these services will be determined by the local telephone company. They may provide it to the first customers on a special assembly quote. They will also file a tariff with the local regulatory agency which will provide a standard price for all customers of that telephone company.

One major benefit is that there is a very low initial investment to start receiving these services when compared to purchasing or updating a PBX. The major issue with this product is availability, so check to make sure it is available in your customer's location.

Computer Partners:

HP (ACT)

IBM (CallPath)

DEC (CIT)

Northern Telecom - Related Products:

Meridian Telecenter - an office automation product that simplifies personal telephone use via Apple Mac or MS-DOS windows access. Special digital phone sets from NT are required.

Meridian Access - an Interactive Voice Response (IVR) product that utilizes the voice mail product on the Meridian PBX.

Meridian Mail - NT's voice mail product. It is integrated into the PBX.

Meridian Applications Module (MAM) - a 68000 based module which is integrated into the Meridian PBX hardware that provides for application development under UNIX. NT is attempting to promote this as a general purpose applications processor inside the PBX. They are recruiting VABs to write applications for it. The MAM can introduce confusion into the sales process. However, except for a few examples where the VAB wants to drive the cost down by not requiring a separate computer, it is not a threat.

AT&T - Call Visor ASAI

Product Description:

AT&T's call processing link product is called Call Visor and it utilizes AT&T's Adjunct Switch Application Interface (ASAI) interface protocol specification. It is AT&T's strategic program for PBX-Computer products. ASAI is an interface specification that AT&T positions as an "open" interface but it is an AT&T proprietary interface .

Call Visor is available on AT&T's Generic 3 PBX line only.

Historically, AT&T's PBX product line was based on two models, the System 75 and the System 85. The 75 was geared toward the medium line size and the 85 was targeted at the large installations.

Several years ago AT&T announced the evolution of these two product lines to a new "Definity" line. The 75 became the Definity Generic 1 (G1) and the 85 became the Definity Generic 2 (G2) with common Universal Modules but different CPU's and software. In 1992, AT&T announced their new PBX system--the Generic 3 (G3) which also uses these same modules. The G3 is what is being sold today.

Price Structure:

Call Visor cost is $50K.

For G3, this is the only additional cost. For the 75 / G1 and the 85 / G2 there will be a cost to upgrade to the G3. This can run from $7K to $100K+ depending on how old the PBX system is.

The AT&T PBX does NOT require ACD software to use the ASAI Gateway.

Computer Partners:

HP (ACT)

IBM (CallPath)

DEC (CIT)

Tandem (CAM)

NCR

Novell

AT&T - Related Products:

ISDN Gateway (IG)- this was AT&T's first product in the PBX-Computer interface area. It is application software for a 3B2 computer and handles ANI / DNIS delivery for inbound calls only. It is a pre-ASAI product and has a very uncertain future. AT&T positions the "IG "as a stepping stone to the Call Visor ASAI product. It is available on the 75 / G1 and the 85 / G2 but not on the G3.

ASAI Gateway (AG)- this is a product based on a 3B2 / 600 minicomputer today, handling inbound and outbound calling applications and supporting a subset of the ASAI message protocol. AT&T positions the "AG" as a stepping stone to the Call Visor ASAI product. It is available on the 85 / G2 but not on the G3. It costs $100K.

Conversant - AT&T's interactive voice response product (IVR).

Audix - AT&T's voice mail product.

ROLM / SIEMENS - CallBridge

Product Description:

CallBridge is the new ROLM / SIEMENS call processing link interface product. It will support the newer ROLM and SIEMENS HICOM PBX's. It is based on the European Computer Manufactures Association (ECMA) interface specifications.

It is only available on the new ROLM PBX's.

Price Structure:

Not yet available.

Computer Partners:

IBM (CallPath)

DEC (CIT)

SIEMENS computers

ROLM / SIEMENS - Related Products

CallPath/9751 is a ROLM product. This is software that runs on the ROLM 9751 PBX. It is used with old IBM CallPath / Host software on the S/370 and costs $25K.

IBM's 9270, DirectTalk/2 and DirectTalk/6000 are IBM's interactive voice response products. They can be marketed by IBM or the "ROLM Company."

Appendix H Competitive Analysis

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This appendix contains an analysis of our key computer competitors:

- IBM
- DEC
- Tandem

Sun is not included because they do not have a product offering in this area.

Each competitor is discussed in general followed by a detailed description of their products.

Remember that this technology requires both the computer side and the telecom side. Each vendor has a different name for their product.

IBM - Competitive Summary

Overview:

IBM's product strategy has evolved dramatically over the last few years. As a result of the ROLM acquisition by IBM in the early 1980's, IBM was totally focused on integration with the ROLM PBX. When IBM sold ROLM to SIEMENS in 1989 their strategy changed. IBM quickly assumed a multivendor product strategy and now have connectivity to all leading switches vendors.

As a result of this shift, they had a collection of inconsistent products that they needed to evolve (First TAS/400, a ROLM based PC/ROLM phone solution, then CallPath / Host, and the 9270 Interactive Voice Response product).

In 1990, IBM identified this area to be of strategic importance and introduced a new overall product strategy called the "CallPath Services Architecture" (CSA). CSA is now available on the 370, AS/400, OS/2 & RS/6000 series of processors.

IBM has also announced "CallPath Services" which are consulting products that deliver system integration services to bring together the total solution (computer & switch).

IBM - CallPath Services Architecture

Product Description:

CallPath Services Architecture is IBM's flagship program for the PBX-Computer applications market. CallPath SA is an umbrella architecture under which IBM has introduced:

CallPath/CICS/MVS	for the S/370, S/390
CallPath/400	for the AS/400
CallPath/PS/2	for the PS/2
CallPath/6000	for the RS/6000

The CallPath SwitchServer/2 is a gateway software product that runs on a PS/2 under OS/2 that provides the interface between the PBX and the Host. The Host has the CallPath API.

Price Structure:

CallPath/CICS/MVS	$7,110 to $146,650
CallPath/CICS/VSE	$4,210 to $146,650
CallPath/400	$3,900 and $27,300
CallPath/PS/2 f	$350 to $5,600
CallPath/6000	$350 to $5,600
CallPath SwitchServer/2	$10,000 software cost only add PS/2 cost

Supported Switches:

ROLM / SIEMENS PBX

Northern Telecom Meridian 1 PBX

Northern Telecom CO

AT&T Definity PBX

NEC PBX

Ericsson PBX

IBM - Other Related Products

DirectRoute/2 began as a special project that IBM did for a major customer--Northeast Utilities. It is a PS/2 based application. It is NOT part of CallPath Services Architecture which makes it a non-strategic product.

DR/2 is relatively easy to implement. ANI and DNIS are delivered to the agent's desktop from the DR/2 gateway. Each agent PS/2 must have the complete customer / phone number database because the match-up between the customer's phone number and customer file is done at the PS/2. The PS/2 has a 3270 emulation script which emulates, keystroke by keystroke, what the agent would type in to pull up the customer file. By using this approach, very few modifications need to occur on the mainframe side. The host processor "believes" it is communicating with an agent at a 3270 terminal. DirectRoute/2 Gateway: $2,145 for software plus a PS/2 with Token Ring LAN.

Each agent: DR/2 Agent software, $2,145, plus a PS/2 with 3270 terminal emulation and Token Ring LAN.

CallCoordinator - is IBM's next generation of DirectRoute/2. It is their simple / easy to implement call center solution that uses CallPath. Inbound is priced from $58K to $220K. Outbound is priced from $44K to $166K.

DirectTalk/2 and DirectTalk/6000 - IBM's most recent interactive voice response products, the DirectTalk/2 and DirectTalk/6000 are based on the PS/2 and RS/6000 platforms. Both models provide access via terminal emulation to the AS/400, S/390 and RS/6000 line of processors. While these products are "part of the CallPath family" according to IBM, they are not totally integrated with CallPath Services Architecture.

Depending on configuration, DirectTalk/2 is priced from $23,450 to $49,200. DirectTalk/6000 prices range from $41,000 to $149,360.

DEC - Competitive Summary

Overview:

DEC has had the longest presence of any computer vendor in this area. They were the first to market with their product Computer Integrated Telephony (CIT) in 1988. They were ahead of the market, the telephone network infrastructure and the telephone switch vendors ability to provide the required services to fully use CIT.

They are also using CIT as a "lock-in" strategy for VMS and DECNET although they did introduce CIT for their UNIX OS.

They are now saying "don't wait for standards, DEC has it now."

DEC - Computer Integrated Telephony (CIT)

Product Description:

There are two components of CIT;

CIT Server is the software that interfaces with the telephone switch. It runs on a VAX under VMS.

CIT Applications Interface is the client software that runs on the applications processor. The server and applications interface can run on the same VAX machine if it is running VMS.

CIT Application Interface is also available on their UNIX OS called Ultrix, however the server must run on a separate VMS processor.

Price Structure:

CIT Server Software(3.0); $6,900 for the software only.

CIT Applications Interface Software is available for VMS & Ultrix and priced from $1,035 to $43,332 depending on the size of processor.

Supported Switches:

Northern Telecom Meridian 1 PBX's

Northern Telecom CO

Mitel PBX

ROLM / SIEMENS PBX

AT&T Definity PBX

Ericsson PBX

Aspect ACD

DEC - Related Products:

DECigs - software to interface with AT&T's ISDN Gateway. Inbound calling only. DECigs - $50,000

DECagw - software to interface with AT&T's ASAI gateway. DECagw - $50,000

DECvoice - an interactive voice response unit that can be integrated at the application level with CIT. Very expensive, requires a microVAX, and the product is priced from $32,000 to $130,766.

DECtalk - a speech synthesizer, accepts ASCII words and attempts to speak them. Speech sounds very computerized. It is a separate box that connects to the VAX via RS232 and a telephone line on the other end. $10,000.

TANDEM - Competitive Summary

Overview:

Tandem was the latest computer vendor to introduce a product. They already have a presence in their call center market with their fault tolerant computers. This is a natural extension to their business.

TANDEM - Call Applications Manager (CAM)

Product Description:

CAM - hardware and software for the NonStop family of processors using the Guardian operating system.

Price Structure:

CAM pricing ranges from $11,310 to $59,570.

Supported Switches:

NT Meridian 1 PBX

AT&T PBX