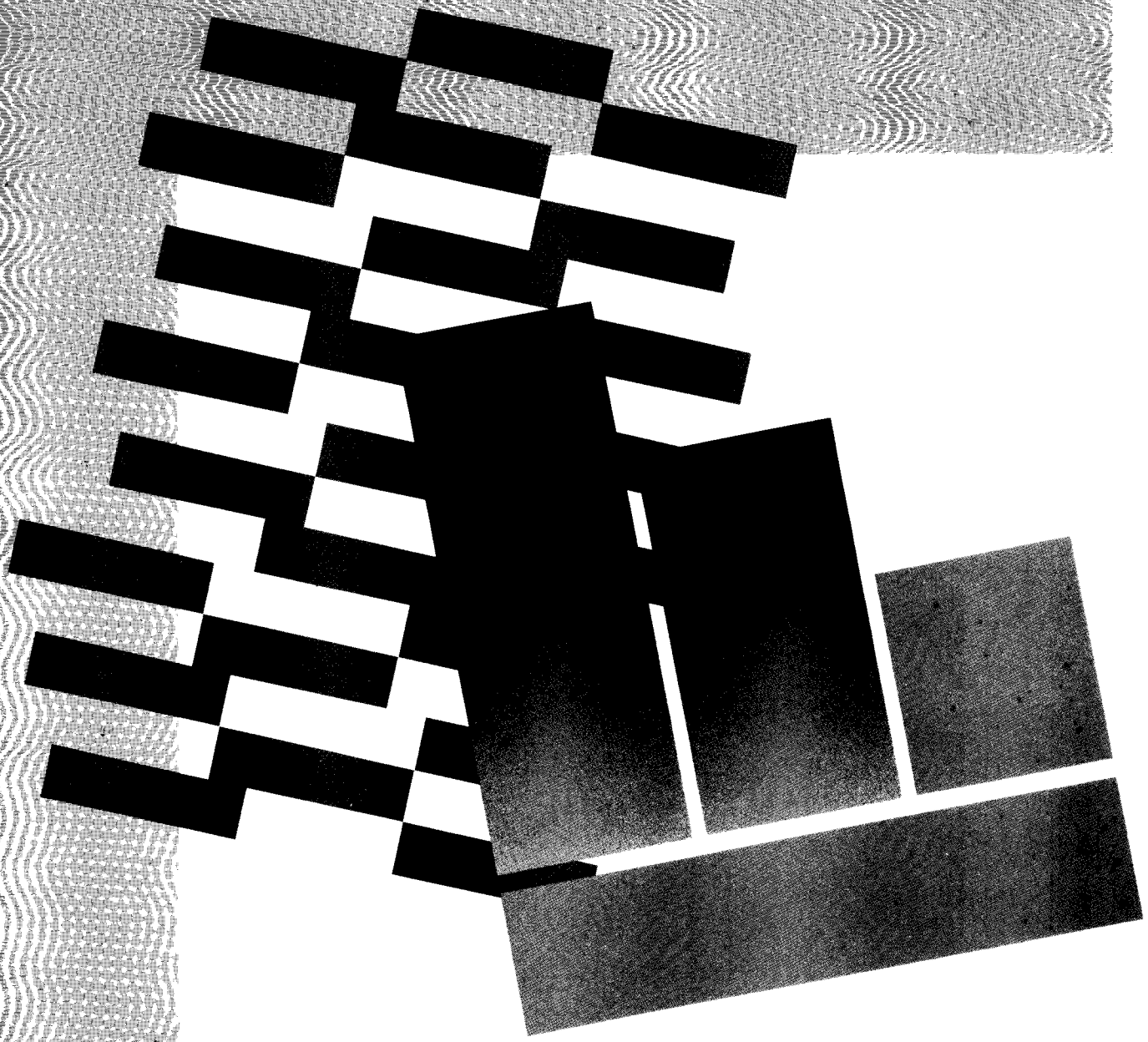
HEWLETT PACKARD

HP 9000 and HP 1000 Computer Systems



HP TeamLine Best Practices

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HP TeamLine
Best Practices
for
HP 9000 and HP 1000
Computer Systems

HEWLETT
PACKARD

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Foreward

This brief note discusses how *HP TeamLine: Best Practices for HP 9000 and 1000 Computer Systems* was developed and acknowledges the contributors to the design and development of "Technical TeamLine."

Who Contributed

Worldwide HP SEs and SE management contributed their ideas and suggestions on how to improve the HP TeamLine product. No individual (field or division) has all of the skills, knowledge, and expertise required to document the HP TeamLine delivery methodologies. As a result, the Application Support Division organized an interdisciplinary product development team of the following contributors:

- Bill Bennett, HP-UX SE, Burlington, MA
- Steve de Simon, EE SE, Foster City, CA
- Joe Hasenohr, HP-UX SE, Piscataway, NJ
- Judee Humburg, ASD, Human Factors.
- Anita Jensen, HP-UX SE, Fullerton, CA
- Pat Koch, ASD, TeamLine Project Manager.
- Heena Lee, HP-UX and RTE SE, Orlando, FL
- Dawson Mabey, ASD, TeamLine Product Manager.
- Bob Niekamp, HP-UX and RTE SE, Kansas City, MO
- Bob Sauers, HP-UX SE, Baltimore, MD
- Tom Teitgen, HP-UX and EE SE, Indianapolis, IN
- Tom Turney, Semi Conductor SE, Santa Clara, CA
- Suzie Wong, ASD, Project Manager.

The Design Process

- Customer needs and the HP AMS situation were determined by a worldwide survey of the field.
- Field development team provided their best practices and delivery tools.
- Five SEs tested the usability of the preliminary documentation.
- Development team reviewed and updated the documentation.
- Comments and suggestions from Europe and ICON were integrated into document.
- NPT introduced "Technical TeamLine."

Contents

1

How to Use These Best Practices

Overview

HP TeamLine is HP's most comprehensive software support service. *HP TeamLine: Best Practices for HP 9000 and HP 1000 Computer Systems* focuses on the deliverables of HP TeamLine for HP-UX and RTE users. As such, the *Best Practices* are intended to supplement your account management training and to guide you in understanding and successfully delivering account visits and technical reviews to your customer.

The Best Practices are organized by chapters and account activities:

Chapter 2: What Is HP TeamLine?

Chapter 3: Planning Customer Deliverables.

Chapter 4: Software Support Guide.

Chapter 5: Software Release Planning.

Chapter 6: Software Update Installation.

Chapter 7: Technical Reviews.

Chapters 8 – 13: Technical Review Modules.

- Application Assistance.
- HP DesignCenter Assistance.
- System Administration.
- System Customization.
- System Performance.
- System Support Planning.

Appendix A – C: Additional Forms.

- A. Annual Support Plan and Annual Support Record.
- B. Technical Review Meeting Preparation.
- C. Reader Comment Sheet.

Chapter 2: What Is HP TeamLine?

This chapter outlines the HP TeamLine deliverables for HP-UX and RTE systems.

Chapter 3: Planning Customer Deliverables

Chapter 3 documents the Annual Support Plan and the Annual Support Record forms. The Annual Support Plan is your tool to plan technical reviews with your customer. The purpose of the plan is to help you and your customer document when reviews will occur and what topics will be discussed. The Annual Support Record is a review tool and recording mechanism. At the end of a contract period, you and your customer have a summary of the TeamLine support deliverables and accomplishments. This documentation will help you to sell and plan for the next year's support.

Chapter 4: Software Support Guide

Chapter 4 describes the purpose and content of the *HP TeamLine: Software Support Guide for HP 9000 and HP 1000 Computer Systems.* This guide provides your customer a central storage location of all HP related information as well as a history of the HP system.

Chapter 5: Software Release Planning

Chapter 5 is an overview on how to conduct Software Release Planning (SRP) meetings in the HP office for several customers at a time.

Chapter 6: Software Update Installation

Chapter 6 describes the tasks and activities that you should perform for the customer who has ordered the optional Software Update Installation service.

Chapter 7: Technical Reviews

Chapter 7 provides an overview of the format and content of technical reviews as well as guidelines on how to deliver and plan technical reviews.

Chapters 8 - 13: Technical Review Modules

Chapters 8 – 13 are details of best practices on how to deliver the six defined technical review modules.

A Quick Look at Technical Reviews

Each technical review chapter will outline the following overview information:

- **Objectives:** Expected results of the meeting.
- **Participants:** List of the prospective attendees from HP and the customer.
- **Length of Meeting:** Time guidelines for planning the meeting.
- **Estimated Preparation Time:** Time estimates to set the customer and SE expectations.
- **Topics:** List of the possible topics that can be covered during the meeting. You should select from the suggested list those

topics that meet the customer's needs, level of experience and expertise, and the amount of time allocated for the technical review.

Topic Details
Following the overview, each of the topic options are described in detail. The general format of the detailed information is in *3 T's* as follows:

- **Tasks:** List of suggested tasks that can be performed as part of the technical review.
- **Tips:** Reminders and best practice hints from those with valuable experience.
- **Tools:** List for locating additional topic information, utilities, and manuals that will help you in delivering this technical review.

Appendix A - C

The appendixes provide the following additional blank forms for your use:

- Annual Support Plan and Annual Support Record.
- Technical Review Meeting Preparation.
- Reader Comment Sheet.

Please copy the forms as needed.

How to Update these Best Practices

This is your document. Help us to keep this document viable. Send your comments, suggestions and especially your **tips** and **best practices** to us via:

1. HP Desk node: Technical AMS/HP5000/40
2. Application Support Divsion
   100 Mayfield Avenue
   Mountain View, CA 94043 U.S.A.
   Attention: HP TeamLine Product Development, Bldg. 36LD

See the Reader Comment sheet in Appendix C of this document. Remember, only with your help will this document continue to reflect the field support activities. *Thanks.*

Additional HP TeamLine Information

- *Account Management Handbook,* P/N 5959-0902.
- *Account Management ... A Pathway to Partnership Guidebook,* P/N 5959-0975.
- *DM Seminar: Pathways to Partnership* by Sue Day, video tape, P/N 870027.

2

What Is HP TeamLine?

Overview

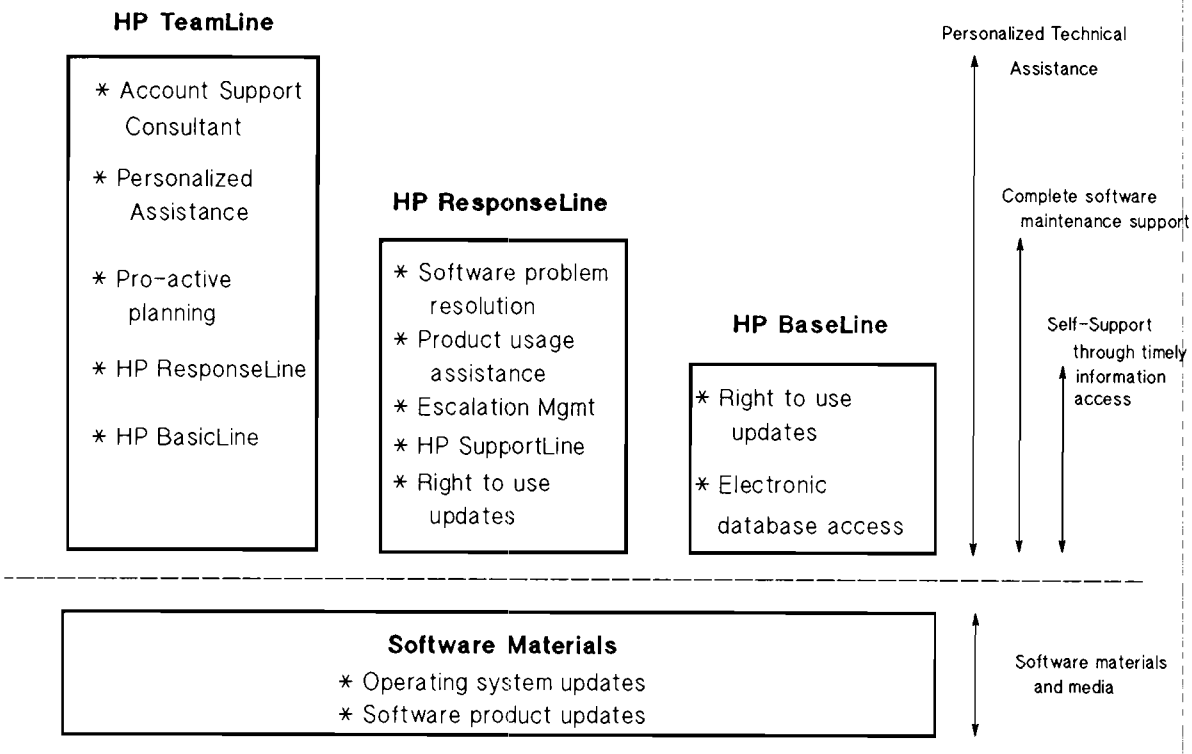

Figure 2-1. HP Software Support Services

HP TeamLine

HP TeamLine is HP's most comprehensive software support service. With HP TeamLine, the customer receives the personalized assistance of an HP support consultant who is familiar with the customer's specific operation and personnel. Along with detailed knowledge of HP products and wide exposure to various applications, the HP support consultant provides guidance and assistance tailored to the customer's specific tasks. The HP support consultant also acts as a personal manager of HP support resources to ensure that the customer receives the appropriate assistance.

HP TeamLine Deliverables

The following summarizes the major deliverables included in HP TeamLine support. Refer to published technical literature and your customer's support contract for specific details.

- Account Support Consultant.
- Software Release Planning.
- Technical Reviews.
- Additional services for HP Applications Software.
- All features of HP ResponseLine.
- All features of HP SupportLine.
- All features of HP BasicLine.
- Right to use software updates.

Account Support Consultant

The HP support consultant will be responsible for ensuring that all of the specified software support services are provided to the customer.

Software Release Planning

HP will schedule Software Release Planning sessions to review features, enhancements and changes made in the new release. This meeting typically is held for several customers at one time and occurs prior to the installation of the updated software.

Technical Reviews

Your customer's base number of technical review sessions is determined by the computer processor series and the number of users. (Refer to the HP TeamLine technical data sheet for the actual number of technical reviews available to your customer.)

Additional technical reviews can be added to an HP TeamLine contract. Therefore, you should work with your customer to determine the needed support activities and estimate the time required to meet the customer needs. These activities can be included in the contractual software support service by specifying additional technical reviews. The number of reviews planned for your customer is dependent upon the customer needs. Specifying the number of technical reviews for each customer's system will help you plan your support activities to meet customer needs and to set customer expectations in advance. The specific number of technical reviews sets limits on the amount of HP time the customer should expect as part of their TeamLine contract. Remember, the SE and the customer should review the number of technical reviews prior to placing an order to ensure that there are sufficient reviews to satisfy customer needs. Where appropriate, the SE should recommend additional reviews.

Note

Once all contractually specified reviews have been delivered, additional customer assistance will be delivered as T&M consulting at an added charge.

HP TeamLine allows technical reviews to be added to the TeamLine contract to meet specific customer needs. This option to TeamLine should be used to meet customer needs that are appropriate to TeamLine. Please refer to the *Overview of Technical Reviews* section in this document for additional guidelines on planning and delivering technical reviews.

Note

Technical review activities should not replace the purchase of existing standard support products at additional charge.

HP Application Software Options

If a customer has EE, ME, 64000, or factory automation software, the application software option must be ordered. This application software option to HP TeamLine provides additional technical reviews and Response Center callers. The HP DesignCenter technical review module was developed for customers with EE and ME software products.

Technical review modules do not currently exist for the HP 64000 MDE or Factory/Process Automation options (9000 or 1000 versions).

HP ResponseLine

HP ResponseLine Software Support Service provides unlimited telephone assistance to resolve software problems and clarify documentation. HP ResponseLine also includes HP's problem escalation management and access to HP SupportLine.

HP SupportLine provides electronic call submittal and electronic data base access.

- Electronic call submittal: activates 2 hour phone response or next day electronic written response
- Electronic data base access: access to electronic engineering notes, new product announcements, and software problem fixes

HP BasicLine

HP BasicLine Software Support Service provides the right to use and electronic database access. (See above item for information included in electronic database access.)

Right to Use Software Updates

As software is updated, the latest revision of the software and manuals are sent to the customer.

Software Materials

Software Materials are ordered separately from HP TeamLine. Software Materials provide the actual software and manual updates for the software on your system.

3

Planning Customer Deliverables

Overview

As an account support consultant, you are responsible for ensuring that all specified software support services are provided to the customer. These services include the following deliverables:

- Software Release Planning.
- Software Update Installation (optional).
- Technical Reviews.

This chapter describes the HP TeamLine support deliverables and tools for planning and documenting the deliverables. The tools include the following forms:

- Annual Support Plan
- Technical Review Meeting Preparation
- Annual Support Record

Blank forms are available in Appendixes A and B.

Deliverables

Software Release Planning

As HP software is updated and released, schedule a Software Release Planning (SRP) meeting to discuss the new features, enhancements and bug fixes in the new release. Typically, there is one major software release per year. For each major release, a Software Release Planning meeting should be scheduled at the HP office.

In order to make this service visible to your HP TeamLine customers, indicate a time frame for this meeting on the Annual Support Plan. After the Software Release Planning meeting, be sure to indicate on the Annual Support Record the exact date of the SRP meeting and any customer specific follow-up to be done.

For details on the content of the SRP meeting, please see the *Software Release Planning* chapter of this document.

Software Update Installation (optional)

As an additional charge option to an HP TeamLine contract, this service provides installation of one software update at the customer's site. If this service is ordered, indicate on the Annual Support Plan a time estimate of when this update will take place.

After you or the appropriate HP representative has installed the update, complete the Annual Support Record to indicate when the

software was updated, how long the update took and any additional comments.

For details on the specific deliverables of the Software Update Installation Service, refer to the *Software Update Installation* chapter of this document.

Technical Reviews

As an account support consultant, schedule technical reviews at regular intervals to provide the following services:

- Discuss technical issues involving the customer's HP products.
- Review progress on current support issues.
- Provide guidance in planning for future needs.

To help you plan and schedule these technical reviews, you must understand your customer's environment and support needs. Here is a list of questions that will help you to determine your customer's support needs:

- What area of assistance and guidance does the customer need to be successful and productive?
    - This will determine the topics for a technical review, such as System Administration, System Performance, or HP DesignCenter Assistance.
- How much help does the customer need? Is the customer already familiar with the system and simply need strategic guidance? Does the customer need some brief supplementary hands-on training to learn detailed technical information?
    - This will help you to identify the tasks with which you can assist the customer. Once the scope of the task is determined, you can recommend the appropriate number of technical reviews to be delivered.

By understanding the customer's environment and support needs, you can recommend the type and amount of assistance that HP will deliver in the coming year.

Tools

One of the objectives of *Best Practices* is to make HP TeamLine tangible. Therefore, tools were created to help both the SE and the customer to document the deliverables of the HP TeamLine service. Therefore, the following forms were created:

- Annual Support Plan: plan for yearly support activities.
- Technical Review Meeting Preparation: plan for specific technical review meeting.
- Annual Support Record: documentation of customer support activities.

These forms are documented here. Blank forms are in the Appendixes A and B.

Annual Support Plan

The Annual Support Plan is a tool to help you determine the number of technical reviews to be included in the HP TeamLine Software Support contract. This planning tool documents the following information:

- The type and number of technical reviews that you will deliver.
- Approximately when the reviews will occur.
- The specific topics that you plan to cover during the meetings.

Complete a preliminary technical review schedule prior to initiating your customer's HP TeamLine contract. Work with your customer to understand the support needs and to determine the year's support plan. Be sure to tell the customer how many reviews are built into the yearly HP TeamLine contract and that additional reviews can be added to the contract *when the initial order is placed.*

Note

If the customer needs additional assistance during the year and all of the technical review time has been used, the customer must then order T&M consulting to receive HP assistance.

When you and your customer agree on the types and topics of the technical reviews, complete the Annual Support Plan and initiate the HP TeamLine contract. Then perform the following:

- Store the Annual Support Plan in your customer file and refer to the it throughout the year for upcoming reviews.
- If appropriate, send a copy to the customer and suggest that the Annaul Support Plan be stored in the *Software Support Guide.*
- Send the Annual Support Plan to the HP account team (SR, CE, DMs as appropriate) to promote account support visibility.

Technical Review Meeting Preparation

The Technical Review Meeting Preparation form is provided to help you and your customer prepare for a specific technical review meeting. This form is a reminder of tasks to complete prior to the meeting and to finalize the meeting topics. Contact our customer at least one week prior to your meeting to discuss and document the following information:

- Who will attend the meeting.
- Preparation tasks that need to be completed and by whom.

- Meeting topics.
- Additional documentation and materials to have available during the meeting.

Once the Technical Review Meeting Preparation form is complete, perform the following:

- Store a copy in your customer file.
- If appropriate, send a copy to the customer and suggest that each of the customer participants receive a copy.
- Send a copy to the HP account team, as appropriate.

By preparing for the meeting, your meeting time will be more productive and efficient.

Annual Support Record

The Annual Support Record summarizes your meeting activities by documenting the following information:

- When the technical review meeting occurred.
- Length of the meeting.
- Meeting accomplishments.
- Action items.

After the delivery of each technical review, use the Annual Support Record to document what took place and what you and the customer need to do to follow up.

When the Annual Support Record is updated, perform the following:

- Put a copy in your customer file.
- If appropriate, send a copy to your customer and recommend that the form be stored in the *Software Support Guide.*
- If appropriate, send a copy to the HP account team.

The Annual Support Record complements the On-Site Activity Reports (OSARs). An OSAR should be used every time you spend time with your customer (on site or in the office). It should document in detail the meeting activities and accomplishments. The Annual Support Record is a summary of your technical review activities. The advantage of the Annual Support Record is that you have a single document with all of the year's activities as opposed to several pages of OSARs. The Annual Support Record is a useful summary and reminder of the services received during the contract renewal.

Sample Forms and Instructions

Steps to Complete the Annual Support Plan

Throughout this section please refer to the sample Annual Support Plan form.

1. **Company name and System Handle**
   Fill in the customer's company name and system handle. The system handle can be found either on the implementation plan or by calling your administrative support person. Your customer will also have the system handle noted on the letter sent by the Response Center when the support contract starts.

2. **Contract Period**
   Fill in the *Contract Period* dates. The Annual Support Plan is ideally completed in the month preceding support contract commencement or renewal.

3. **Support Activity**
   Fill in tentative dates under the appropriate month for each type of support activity. If it is too early to specify a date, simply indicate a month. Later when a date is determined, update the form with the specific date information.

   The standard technical review modules described in the *HP TeamLine: Best Practices for HP 9000 and HP 1000 Computer Systems* already appear at the bottom of the form. The blank lines below *Technical Reviews* are provided for the following reasons:

   a. to indicate the type of technical review requested by the customer. If one technical review module will be delivered over several meetings then indicate the tentative dates in the date columns.

   b. To allow you to place each occurrence of a technical review visit on a separate line. This will allow you to make individual comments in the *Planned Topics* column for each planned visit.

   c. To fill in additional modules covering other topics as decided by you and your customer.

   In the example, the README, INC. company elected to have

   a. System Administration Technical Review meetings. No specific topics were decided upon in advance, and only the first meeting has a specific date planned (February 7).

   b. Two meetings for Application Assistance are planned. In this example, the technical reviews appear on separate lines so that individual topics could be logged.

c. One account visit was also planned on February 12 . The README Steering Committee for Networks would like the HP SE to attend. This meeting is an example of a nonstandard technical review visit.

d. One meeting is planned at the end of the contract period for System Support Planning. At this time, you will review the past year and plan for the comming year by completing an Annual Support Plan.

4. **Activity Summary**

a. Refer to the HP TeamLine data sheet to determine the proper number of base HP TeamLine visits. Place this number next to *Base Contract Technical Reviews* in the *Quantity Planned* box. In the example, README has 3 base visits because they have an HP 825 computer system with a 32-user license.

b. Add up the total number of visits on the plan, subtract the number of base HP TeamLine visits noted in the last step, and write this number in the box next to *optional* under the number of visits planned. In the example, README wanted 2 Application Assistance visits, 3 System Administration visits, 1 nonstandard visit, and 1 System Support Planning visit for a total of 7 visits. Since README gets 3 visits in base HP TeamLine, they will purchase 4 additional technical reviews.

Note

Software Release Planning is normally done at HP for several customers, so this meeting is not counted as a technical review visit unless the Software Release Planning is done at the customer site.

c. If the customer has purchased the optional Software Update Installation Service, fill in appropriate dates on the chart and note the number of visits in the box at the bottom. In the example, README did not wish to purchase this service; they will be performing their own updates.

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Annual Support Plan

Contract Period: 12/88 (mm/yy) to 11/89 (mm/yy)

Customer Name: README, INC.

System Handle: README 9000

Support Activity	Date				Planned Topics
Software Release Planning	Q3				
Software Update Installation (optional)	—				
*Technical Reviews SYSTEM ADMIN	2/7	8/8	10/31		backups, networking general assistance
Application Assistance	3/30				porting VAX code to HP-UX
Application Assistance	5/19				graphics and windows
Steering Committee for Networks	6/13				
System Support Planning	10/31				

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	3
Additional Technical Reviews	4
Software Release Planning	1
Software Update Installation	—

Steps to Complete the Technical Review Meeting Preparation

Please refer to the sample form.

- Indicate the type of technical review.
- Finalize the date and time of the meeting.
- Determine who should attend.
- Assign preparation tasks and responsibilities.
- Determine agenda topics and materials to have available.

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Annual Support Record

Contract Period: 12/88 (mm/yy) to 11/89 (mm/yy)

Customer Name: README, INC.

System Handle: README 9000

Support Activity	Date	Hours	Accomplishments	Action Items	Date target	Date actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews SYSTEM ADMIN	2/7	3	· reviewed backup · answered questions from training	· send plotter pricing	2/8	2/9

Steps to Complete the Annual Support Record

Please refer to the sample Annual Support Record.

- After each technical review is delivered, use the *Annual Support Record* to record the following information:
  - Log the actual date of each technical review.
  - Record how much time was spent delivering the review.
  - Summarize what was accomplished.
  - Document any action items.

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Technical Review Meeting Preparation

Customer Name: Bill Johnson README, INC

Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☒ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Scheduled Date: 2/7

Participants	Preparation Task
Customer: Bill Johnson	Printed copy of backup script
	List of questions from training
HP: Joe Essee	Copy of office backup script

TOPICS FOR MEETING:

Topics	Reference Material and Documentation
Backup script & strategy	HP TeamLine: Software Support Guide for HP-UX and RTE
Moving files on network	HP-UX admin manuals
account status	LAN manuals
	System Admin class materials

Summary

The Annual Support Plan is a working document. It is to be used as a planning tool to document the topics that you will discuss and the approximate time frame for meetings. In addition, this form is an aid to determine how many technical reviews are appropriate for your customer's TeamLine support.

The Technical Review Meeting Preparation form is a tool to help both HP and the customer preprare for technical reviews. This will make your meeting more efficient and productive.

At the end of the contract period, use the Annual Support Record to summarize the support services that were provided during the preceding year. Based on the success of the preceding year's plan and the customer's progress, you can plan next year's technical review schedule using the Annual Support Plan.

4

HP TeamLine Software Support Guide for HP 9000 and HP 1000 Computer Systems

Overview

The *HP TeamLine Software Support Guide for HP 9000 and HP 1000 Computer Systems* (P/N 5959-9231) is a customer deliverable tool for you to personally deliver to your HP TeamLine customers.

Objectives

- Serve as a central repository for the important documents your HP TeamLine customers will want to keep available at all times.
- Provide a tangible deliverable to your HP technical customer.
- Encourage your customers to maintain an on-going historical perspective of their HP systems.
- Help to organize HP literature and data sheets by providing a cover and spine for *HP Product Literature and Supplies Catalog.*

It is designed to be a very flexible document. The *Software Support Guide* consists of a shrink-wrapped binder containing a set of labeled tabs with a few general checklists. Complete with a cover and spine, the guide is designed to fit easily into your customer's environment.

As an added feature, included with the guide are another binder cover and spine labeled *HP Product Literature and Supplies Catalog* designed with the sole purpose of helping your customers organize key HP product information.

Topics

The *Software Support Guide* is divided into ten sections and it includes two additional blank tabs for customer specific documentation.

- HP Contacts.
  - Provides easy and quick access to key personnel within HP.
  - Provides a place to insert the business cards of the HP Account Team.
  - Includes a "System Information At-A-Glance" to facilitate communication with the HP Response Center.
  - Features an "inverted organizational chart from the customer's viewpoint" that you will want to complete for your particular customer.

- What is HP TeamLine?
  - Contains an overview of the HP software support program.
- How to Use the HP Response Center.
  - Provides an easy and quick reference for calling the HP Response Center.
  - Describes how and when to call the HP Response Center.
  - Includes labels that can be filled in with the customer's
    - HP Response Center phone number.
    - System handle.

    This label should be placed on or near the telephone for quick reference.
  - Contains three key documents to facilitate communication with HP support and service personnel:
    - HP Response Center Inquiry Sheet.
    - HP Service Request Form.
    - HP Enhancement Request Form.
  - Provides a complete list of the worldwide HP Response Centers.
- System Configuration.
  - Encourages the customer to document key system configuration specifications. For example:
    - I/O configuration including specific device identifiers.
    - Disk configuration details.
    - Network node names and numbers.

- Training.
  - Centralizes customer information on HP Customer Education opportunities.
  - Features a short 5-step *How to Enroll for Training* checklist.
  - Suggests documents to add to this section including the current HP training schedule and the HP Education Catalog.
  - Provides central storage for class diplomas.
- Technical Reviews.
  - Provides a central "holding area" for the Onsite Activity Reports (OSARs), and related documentation, such as Annual Support Plans, Technical Review Meeting Preparation worksheets, and Annual Support Records as provided by the account-assigned SE.
- Backup/Recovery Strategy.
  - Includes a disaster recovery planning checklist.
  - Provides a central storage location for a documented backup plan created by the customer or the customer and HP.
  - Provides a place to file the customer's documentation on how to retrieve data.
- Correspondence.
  - Provides an area for letters that the customer has sent or received, including meeting confirmation letters and software release planning meeting notifications.
- Licenses and code words.
  - Provides a central location for your customer to document receipt of system-related licenses and code words.
- Miscellaneous.
  - Facilitates the retention of key documents such as packing lists, purchase orders, and software pre-update letters.
- Two blank tabs.
  - Provides a place for additional documentation to accommodate the customer's unique environment.

Tasks

Before handing this document to your customer, consider the following:

- Take time to review the purpose and objectives of the guide. Remember, it is designed to be a central repository for key documents that will facilitate long-term on-going support of your customer.
- Personalize the guide for your customer's needs. For example:
  - In the *HP Contacts* section:
    - Place the appropriate business cards on the page titled *Key Hewlett-Packard Contacts.*
    - Fill in the appropriate HP Response Center telephone number and the HP hardware support telephone number.
    - Complete the "inverted organization chart", titled *Your Local Hewlett-Packard Support Team.*
  - In the *Training* section, insert the local training schedule.
  - In the *System Configuration* section, insert the customer's System Implementation and Support Plan (SISP) and the Network Implementation and Support Plan (NISP), if applicable.
- Familiarize yourself with the guide. Know what it is before you give it to the customer.
- Place the *HP Product Literature and Supplies Catalog* spine and insert into a separate binder, if appropriate.

Tips

- You are responsible for the success of the Software Support Guide. If you never reference the guide then your customer will not see the value and it will simply collect dust!
- This guide is designed for you to personally deliver to your HP TeamLine customers. It is not directly orderable by the customers. You may order additional copies from SRDO or SRDE (P/N 5959-9231).
- Encourage your customer to make the guide usable and useful.
- Remind your customer to have the *Software Support Guide* at all technical review meetings. Refer to the guide during your technical reviews and contractual renewal meetings.
- When you send documentation (for example, letters, Annual Support Plans, Annual Support Records) to your customer, suggest that this information be stored in the *Software Support Guide.*

5

Software Release Planning

Overview

Software Release Planning (SRP) meetings are specified deliverables to HP TeamLine customers.

The Software Release Planning (SRP) meeting allows you the opportunity to provide your customers with a preview of the next software release update and how the changes may affect the customer's environment. The release planning sessions are typically held at HP facilities for several customers at the same time. To the extent possible in a multicustomer setting, some attention should be given to each customer's specific environment. This can often be facilitated by selecting customers with similar environments for each SRP.

Additional detailed discussion of considerations for a specific customer's environment may be conducted as part of a technical review session, if needed.

One SRP session is scheduled for each *major* new release (typically 1 – 2 per year).

Note

In some cases, an SRP may be done at the customer site for larger customers with multiple HP TeamLine contracts. This meeting does not count as a technical review.

Objectives

- Provide the customer with a preview of the next software release:
  - bug fixes.
  - enhancements.
- Discuss the impact of the update on the customer environment.
- Prepare the customer to implement the update.

Participants

- Customer.
  - System Administrator.
  - Application Administrator.
- HP.
  - SE/AE .
  - DAEM (as appropriate).

Length of Meeting

Approximately 4 hours (dependent upon the impact of the update or release).

Estimated Preparation Time

- SE: 2 – 8 hours.
  - Schedule room.
  - Coordinate necessary HP personnel.
  - Send invitations to your support customers.
  - Review SRP materials.
  - Copy SRP materials for meeting.
  - If possible, perform a system update.
- Customer: none.

Topics

- Discuss new and enhanced products.
  - Preview the upcoming release relative to the customer's installed systems and applications.
  - Discuss any new subsystems or major enhancements related to the customer's long-term plans as well as the current situation.
- Discuss major bugs fixed by the update.
- Discuss user interface changes.
  - Point out any new features or changes that might have an impact on the customer's operation or applications.
- Discuss impact on system configuration.
  - Outline changes in disk space and memory requirements. Review changes in tunable parameters.
- Discuss any potential problem areas.
  - There are typically some known issues and problems on each release. If appropriate, point them out.
- Provide current information on manuals.
  - Inform the customer of any new or updated manuals.

- Review the schedule of distribution and update methods.
  - Inform the customer of the approximate availability of the update and its method of delivery and installation (for example, customer install, SE assistance, or Software Update Installation option).
- Discuss references to any other material.
  - At this meeting have any material that will contribute to the customer's understanding and implementing any new or enhanced products in the release. This includes potential products as well as those already installed.

Tasks

- If possible, implement the new release on an office system by following the update procedures. This will provide firsthand knowledge of any obstacles encountered during the update.
- Demonstrate the system to show the new features.

Tips

- If this update corrects any major deficiencies that may have prevented a purchase, be sure to discuss this change.
- If possible, have newly supported peripherals available for demonstration.

Tools

- Software Release Planning material (from HP product division).
- Software release documentation (packaged with media).
- *Software Status Bulletin* and *Software Release Bulletin.*
- *Communicator.*
- Articles from *Computer News* or *Support News.*
- Response Center application notes.
- Division newsletters (for example, *PA NEWS, TCG Weekly, Rocky Mountain Topics*).

6

Software Update Installation (optional)

Overview

Software Update Installation is not included in the base HP TeamLine contract. It is available as an optional service.

This option is available at the time of contract initiation or renewal for the convenience of the customer. On the other hand, Software Update Installation is a separate orderable product that can be purchased standalone as needed.

Due to irregular software release schedules, it is often difficult to plan dates or even timeframes for the Software Update Installation Service. If your customer wants this service, use your judgment to determine if you can adequately plan in advance for this service and include it in the TeamLine contract. If the release timeframe is uncertain and you are concerned that the release will not occur during the contract period, do not include this service in the TeamLine contract. Then encourage your customer to order the standalone Software Update Installation service at the time that the software is release.

Note

As you know, our strategy is to transfer most of the responsibility for installations to the CEO and to the customer. Your area may be in the process of transferring this responsibility. No mixed messages are intended here. The software installation tasks are documented here for completeness. Regardless of who delivers this service, the following is a summary of the customer deliverables for the Software Update Installation Service.

Objectives

- Minimize the system downtime required to do an update.
- Maximize the System Administrator's productivity in performing an update.
- Increase the quality of the update process for the customer.

Note

Software Update Installation does not provide first-time installation of the operating system and application software. Time and Materials (T&M) consulting or product specific installation services are *required* for first time installations.

Participants

- Customer.
  - System Administrator.
  - Backup System Administrator.
- HP: SE/AE.

Length of Visit

At least 8 hours at the customer site.

Estimated Preparation Time

- HP: 1 – 2 hours.
  - Ensure that the customer's current operating system revision is compatible with the update.
  - Prepare for the update by reading appropriate **README** files and Release Notes.
  - Contact the customer by phone to ensure that appropriate media and manuals are available.
  - Schedule the visit.
- Customer: 1 hour.
  - Perform a system backup.

Tasks

- Ensure that the customer's system has been backed up.
- Review the impact of the update on the customer's system.
- Retrieve the new update tools from the update tape.
- Analyze disk space and remove extraneous files.
- Determine whether symbolic links and different disk sections are needed to place software subsystems (Series 800 only).
- Assist customer with installation of software updates of the operating system, and subsystems.
- Describe the software update installation process to customer while the update is in progress.
- Inspect updated HP-UX files in `/etc/newconfig` to determine if changes need to be made in the customer's customized files.
- Update the Operating System Revision on the Response Center Inquiry Sheet found in the *Software Support Guide* (P/N 5959-9231).
- Review and record the update installation in the appropriate log book or the *Software Support Guide.*
- Ensure that the customer makes a backup of the updated system.

- If there is time, assist with other update tasks requested by the customer.

Tips

- Ensure that correct media and updated documentation is at the customer site.
- Bring a hard disk to speed up the install process (Series 300 only).
- Series 800: Have the customer name their customized **gen** file something other than "S800". Then allow the **update** program to build a standard S800 file. After the update, perform an **uxgen** on the customized file.
- As the tape spins, talk to the customer and learn more about the customer's environment and needs.
- Build a bootable memory based recovery system on tape (1000 and 300s only; 800 has a support tape).
- Determine if you can delay the customer update. In particular, postpone complex updates until bugs have been uncovered and workarounds are available.

Tools

- **README** documents and Release Notes that come with the update.
- System Administration manuals.
- SRP materials.

7

Technical Reviews

Overview

Technical reviews are specified deliverables of HP TeamLine. The intent of technical reviews is to provide guidance and assistance to help the customer accomplish tasks, without the SE actually implementing the solution. Technical reviews can involve the following:

- Discussion of various technical topics.
- Brief demonstration of product features.
- Sample programs.
- Brief hands-on training sessions to supplement formal training courses that the customer has attended.
- Consultative guidance to help the customer get the most productivity from his or her HP system.

Caution

The assistance provided during technical reviews is not intended to replace structured consulting, formal training classes, or any other standard support product. If the customer's needs extend significantly into the deliverables of these products you should recommend that the standard products be purchased. *In no case should a standard product be delivered in the form of technical reviews!*

Technical Review Modules Defined

- Application Assistance.
- HP DesignCenter Assistance.
- System Administration.
- System Customization.
- System Performance.
- System Support Planning.

Format of Technical Review Documentation

The format of the technical review modules has been designed to make it easy for you to reference. Each technical review is divided into sections as follows:

- **Overview:** List of the general technical review information.
  - **Objectives:** Expected results of the meeting.
  - **Participants:** List of the prospective meeting attendees from HP and the customer.
  - **Length of Meeting:** Guidelines for the length of the meeting. The length of time is based on SE best practices. The time indicates the complexity of the topics and the typical amount of time discussing the documented topics. The time estimates are provided to help you plan, yet there is flexibility to allow you to adjust the length of the meeting to meet your customer needs.
  - **Estimated Preparation Time:** Time estimates for pre-meeting activities for both the customer and SE.
  - **Topics:** List of the possible topics that can be covered during the meeting. You should select from the suggested list those topics which meet the customer's needs, level of experience and expertise, and the amount of time allocated for the technical review.
- **Topic:** A specific topic followed by the topic details.
  - **Tasks:** Definitive activities to be accomplished during the technical review.
  - **Tips:** Reminders and best practice hints from those with valuable experience.
  - **Tools:** List for locating additional topic information, utilities, and manuals that will help you in delivering this technical review topic.

It is not intended for you to discuss all topics or perform all tasks during a single technical review. The topics and tasks are listed to give you suggestions and reminders of things to discuss with your customer. Use your judgment to choose topics appropriate for your customer and to determine the amount of time needed to meet the needs.

Give us your inputs

Please share any new technical review topics, tasks, tips, or tools that you develop by sending them to the address shown on the Reader Comment Sheet in Appendix C of this document.

Delivery of Technical Reviews

You have the following options on how to deliver technical reviews to your customers.

- On-site with the customer, typically the System Administrator.
- On-site with a group of the customer's personnel.
- At HP in cases where HP facilities (demo equipment, meeting rooms, and so on) make it appropriate .
- By phone, where urgency and subject matter make it appropriate.

The actual content of technical reviews is determined on the basis of specific customer needs. The technical review modules have been developed to provide a list of standard topics for the most common areas of need. The intention of the technical review topics is to provide a list of general discussion areas and a list of detailed tasks related to those areas. As the account assigned SE, choose appropriate topics and tasks to meet your customer's needs. It is not intended for you to deliver all of the topics listed in one technical review module during one meeting. You should choose the appropriate topics and even mix and match, if appropriate. For example, during one meeting you may discuss backup strategies as well as porting code from a VAX system.

The agenda for a particular technical review many be customized by the following:

- Selecting appropriate topics from one of the standard technical reviews.
- Combining topics from several of the standard technical reviews.
- Developing new technical reviews or topics or both based upon specific customer needs.

How to Plan Technical Reviews

The number of technical reviews for your customer varies by the processor series and the number of users. Refer to the TeamLine data sheet for the number of reviews that are included in your customer's base contract. If your customer feels that he or she would like additional assistance, additional technical reviews should be ordered as part of the original contract. Once all contractually specified reviews have been delivered, additional customer assistance will be delivered as T&M consulting, at an added charge.

At the time of contract renewal or contract initiation, you and your customer determine the number of technical reviews to be delivered during the contract year. You also outline the topics to be covered and indicate a tentative timeframe for the reviews. All of this information is documented on the *Annual Support Plan.*

As the review date approaches, you and your customer need to finalize the topics for the upcoming technical review. Discuss with your customer the current environment, the customer needs and requirements. Based on this information determine the topics to be covered during each review. The topics chosen can be those mentioned in the guide or you may create topics of your own. Document the meeting attendees, preparation responsibilities and meeting topics on the *Technical Review Meeting Preparation* form.

Note

Multiple topics can be covered in one technical review meeting. For example, you may choose to combine System Administration topics and System Customization topics into a three hour technical review meeting. You have the flexibility to choose sections of the suggested topics in this guide.

You must estimate the amount of time each technical review will require based upon your customer's level of experience and the complexity of the system.

For more detailed information on how to plan Technical Reviews, please refer to chapter 3: Planning Customer Deliverables.

System Support Planning

The System Support Planning Technical Review is recommended for delivery to every customer at least once a year (preferably 30 – 60 days prior to contract renewal). This is especially important for large customers or customers with many systems. Customers with smaller systems may elect to include some sections of the System Support Planning as part of another technical review meeting. This ensures that the customer gets some support planning consulting during the year.

For details on topics and tasks, see chapter 13: System Support Planning.

Length of Technical Reviews

Technical reviews are specified in the data sheet as typically 2 — 3 hours in length. The delivery time model allows for 6 hours maximum including all preparation, travel and follow-up activities.

If significant preparation (>1 – 2 hours) is needed or longer time with the customer is needed (>4 hours), then multiple reviews should be delivered at one time.

Technical Reviews versus Consulting

Now that technical review activities have been defined, here are guidelines to help you differentiate between technical reviews and consulting:

Table 7-1.

Technical Reviews	Consulting
on going relationship oriented	task oriented
answer quickly	research required
guidance	coding
show how to do it	do it
typically 2 – 3 hours	> 3 – 4 hours

Remember, HP TeamLine Software Support is intended to provide support activities throughout the yearly support contract. *Periodic* technical reviews ensure a continuing HP presence in the customer account.

8

Application Assistance

Overview

The Application Assistance Technical Review provides assistance guidelines to aid those customers doing program development.

Objectives

- Review application goals.
- Describe existing productivity tools.
- Formulate a design strategy.

Participants

- Customer:
  - Project manager.
  - Application programmers.
  - System Administrator.
- HP: SE/AE.

Length of Meeting

- 2 – 3 hours.

Estimated Preparation Time

- Customer: 2 hours.
  - Prepare programming and HP implementation questions.
  - Coordinate programmers inputs prior to meeting.
- SE: 1 hour.
  - Contact customer to determine who will attend.
  - Prepare an agenda.
  - Outline the discussion.

Topics

The following will give you, as the account SE, some topics that might be covered during an Application Assistance Technical Review. Consider these topics as guidelines to help you and the customer have a productive and effective meeting.

Select discussion topics from the following list:

- Reading foreign 9-track tapes.
- Porting FORTRAN programs.
- Prototyping with the shells.

- Advanced HP-UX tools: **awk** and **sed**.
- Software maintenance tools: **make** and SCCS.
- Graphics libraries: Starbase and GKS.
- Windowing systems: X10 and X11.
- Relational database: Allbase.
- Inter-Process communication (IPC) techniques.
- Planning for portability.
- RTE to HP-UX migrations.

Reading Foreign 9-Track Tapes

Importing data or source code from a non-HP-UX machine is often accomplished via 9-track tape. Here is how to do it:

Tasks

- Determine tape format. If possible, ask the original creator.
- If ANSI tapes are to be read, provide customer with `ansitar` and `ansitape` contributed programs.
- If tapes are written in card image or fixed record length format, illustrate use of `dd` program.
- Other formats may require writing "throwaway" C code to extract the data.

Tips

Generally, for the above tools to work, each file must have been saved as a single "tape file." Otherwise, further processing will be needed to "unpack" this file.

Tools

- `dd` for fixed-format data.
- `ansitar/ansitape` contributed programs for ANSI-format tapes available from `hpfcse`.
- `vmsbackup` tool included with Port/VX for VMS FORTRAN ports.
- `xd` for examining the raw tape data.
- Script to take `dd` file and break it up into separate files.

Porting FORTRAN Programs

Porting FORTRAN programs is a common task for many customers. The rich set of tools available under HP-UX can ease this effort.

Tasks

- Identify original environment, for example, VMS FORTRAN.
- Use `grep` to search for system-specific calls and modify as necessary.
- Iterate through compile and link process until there are no errors.
- Run program and compare results with known *good* results.

Tips

- For VMS code, system and library calls usually contain a dollar sign ($) making it easy to flag them.
- VMS FORTRAN has slightly different semantics for octal constants, for example,

```
VMS -> DATA MASK /0377/
HP  -> DATA MASK /O'377'/
```

- Unformatted file I/O may produce different results.
- Many programs assume variables are initialized to zero and retain their value from one subroutine call to the next. Work around this by compiling with the `-K` option.
- `EQUIVALENCE` statements may result in data alignment problems.
- An example routine for searching libraries is as follows:

```
cd /lib
echo in /lib
for i in 'ls *.a'
do
 echo $i
 nm $i | grep $1
done
cd /usr/lib
echo in /usr/lib
for i in 'ls *.a'
do
 echo $i
 nm $i | grep $1
done
```

Tools

- The Port/VX product can be purchased. It includes a source code analyzer, a translator, and an emulation library.
- Use **grep** to search for system and library calls.
- The **asa** filter is needed when sending reports containing carriage control characters to the line printer.
- The *HP-UX Portability Guide* contains an entire chapter on porting VMS code as well as Series 300, 500, and 800 differences.

Prototyping with the Shells

Many applications may be rapidly prototyped using the shell's programming capability coupled with existing HP-UX tools.

Tasks

- Identify the base functionality requirements.
- Suggest appropriate HP-UX tools to address the base functionality requirements.
- Outline the logic and control constructs.
- Construct a first-pass version.

Tips

- Bourne and Korn shells offer easier I/O redirection, especially `stderr`.
- Bourne and Korn shells provide better signal handling support than the C shell.
- The Korn shell offers array variables, variable typing, and easy menu creation via the `select` statement.

Advanced HP-UX Tools: awk and sed

Some applications can be developed with the **awk** programming language. It has pattern matching capabilities, a C-like programming syntax, and is well suited to processing columnar data found in simple databases. **sed** is a stream editor and provides the ability to edit data quickly and easily.

Tasks

- Illustrate sample uses of **awk** by performing simple administrative tasks.
- Demonstrate the use of **sed**, including obscure features such as the hold and pattern spaces.

Software Maintenance Tools: make and SCCS

Regardless of size, any software development effort can be managed more easily by using the **make** and SCCS tools. **make** is a program and documentation build tool. SCCS is a collection of tools used to track multiple revisions of source documents.

Tasks

- Demonstrate the use of **make**, including a sample **makefile**.
- With the same program used to demonstrate **make**, demonstrate the use of the **admin**, **get**, and **delta** commands.

Tips

- Now that the program is administered by SCCS and the **makefile** is already written, demonstrate how **make** and SCCS work together.
- In HP-UX, the **mkmf** utility builds a skeleton makefile based upon the source files in the current working directory.

Graphics Libraries: Starbase and GKS

Writing graphics programs is not very difficult especially after a few basics are covered. Many customers require only simple tools enabling them to plot the data that they have collected and analyzed. These tools are easily developed using Starbase routines.

Tasks

- Provide an overview of the many Starbase capabilities.
- Build one of the supplied demonstration programs or an SE-supplied program.
- Review an area of interest to the customer, for example, B-splines, rendering, 2-D data plots.
- Discuss Starbase and X-Windows integration.

Tips

- *Starbase Concepts & Tutorials* provides an excellent source of material for this review topic.
- Recommend attending customer versions of Starbase training when it is made available.

Tools

- Systems Engineers providing this review should have attended SE325, *Introduction to Starbase.*
- If you support SRX customers, SE340, an Advanced Starbase class, is also recommended.
- Demonstration programs are provided with the product and additional programs may be found on `hpfcse`.

Windowing Systems: X10 and X11

Window-based applications are desirable in a distributed computing environment (DCE). Window-based software can make users more productive, and adherence to standards allows for application portability.

Tasks

- Install software, if necessary.
- Show how to customize the window environment.
- Build the provided demonstration program or an SE-provided program.
- Demonstrate the use of remote servers and clients, if possible.
- Review X10 to X11 conversion issues.

Tips

Using the `X` toolkit instead of `Xlib` functions can provide more functionality while writing significantly less code.

Tools

Attending SE342 is recommended.

Relational Database: Allbase

Database applications are easy to develop with HP's Allbase product. Database access does not require complicated library calls. Instead, SQL statements may be embedded in the program source, and the preprocessor will perform the necessary conversions.

Tasks

- Build the sample database that is provided.
- Demonstrate the `ISQL` tool by querying and updating the database.
- Write a simple program that performs the same or similar `SQL` statements, or use the provided programs in all supported languages.

Tips

- Use the provided demonstration database. Creating your own database requires more time. The application writing techniques are the same in either case.
- If application is mainly report generation, you might suggest Allbase/Query.

Inter-Process Communication (IPC) Techniques

Many applications require multiple processes to perform their task. Some sort of communication and synchronization between these processes is usually necessary.

Tasks

- Explain the various IPC mechanisms: ordinary files, pipes, FIFOs (named pipes), signals, shared memory, semaphores, and message queues.
- Discuss portability and performance trade-offs of each.
- Supply or prototype some examples.

Tips

- Semaphores are very fast but have limited message content.
- Shared memory is both large and fast; semaphore synchronization is usually required.
- Message queues are reasonably fast, provide an ordering and priority scheme, but are somewhat limited in size.
- Signals are more complicated and have limited message content; however, they are inherently asynchronous.

Tools

- Attend SE321, *System Calls for Real-Time Programming.*
- The *Real-Time Programmer's Manual* provides an excellent source of material for this review topic.

Planning for Portability

Application portability is one of the strengths of HP-UX. There are some pitfalls to avoid and techniques to insulate your application from architectural differences.

Tasks

- Review data type size and alignment differences.
- Review differences between S300 and S800 compiler options.
- Discuss use of the **stdio** library versus HP-UX I/O.
- Describe the **varargs** package for parameter passage rather than direct stack manipulation.
- Illustrate the use of **#ifdef** statements for system-dependent compilation.

Tips

- System-dependent code should be isolated in a single module.
- Where possible, avoid use of operating system-dependent features.
- Adhere to a programming style guide.

Tools

- The C beautifier program `cb(1)` is useful for consistently formatting C source code.
- The **make** program may be used for system-dependent program builds.
- The *HP-UX Portability Guide* contains much information regarding portability between both HP-UX and non-HP-UX systems.

RTE to HP-UX Migrations

Migrating applications from the RTE environment to HP-UX is simplified through the use of the Port/RX tools, optional with Series 800 HP-UX.

Tasks

- Describe the Port/RX tool kit.
- Define what Port/RX can and cannot do.
- Use the Migration Analysis Utility (MAU) on a sample customer program.
- Review FORTRAN compiler differences.

Tips

Many RTE programs assume a 16-bit world. Use an `IMPLICIT INTEGER*2 (A-Z)` statement to accommodate this. Also, watch for 16-bit specific numbers like 32767 and – 32768.

Tools

- The Port/RX documentation and the *Real-Time Programmer's Reference* are both useful tools when migrating RTE applications.
- SExxx: *RTE to HP-UX Migration* training.

9

HP DesignCenter Assistance

Overview

This HP DesignCenter Assistance Technical Review module is intended for HP DesignCenter customers who have EE or ME software. These customers must order the HP Application Software options to HP TeamLine.

Objectives

- Develop and maintain a close relationship between HP DesignCenter operation and the customer's unique, evolving needs.
- Identify and resolve bottlenecks in the customer's use of HP DesignCenter products.
- Enhance the customer's overall satisfaction and productivity.

Participants

- Customer.
  - Primarily end users.
  - Occasionally, the System Administrator.
- HP.
  - HP DesignCenter SE.
  - Occasionally HP-UX or network SE.

Length of Meeting

- 3 – 8 hours.

  If the meeting extends beyond 2 – 3 hours, combine several reviews into one visit.

Estimated Preparation Time

- SE: 1 – 2 hours.
  - Gather application notes and white papers, as appropriate.
  - Gather articles and samples as noted in **Tools**.
- Customer: 1 – 2 hours.
  - Print out configuration files, macros, and scripts that will be discussed at meeting.
  - Documentation of the corporate design rules.
  - Hardcopies of problem library parts, if appropriate.

- ☐ Make lists and print out files as noted in **Tasks**.

Topics

HP DesignCenter customers have some unique needs. They often know little about HP-UX and need more guidance on technical issues. Given the complexity of most HP DesignCenter software, the learning curve is a continuing process extending several years.

Select from the following list the topics to meet your customer's needs and level of experience based on the amount of time scheduled for the customer meeting.

- Review application customizations.
- Develop library strategy.
- Resolve bottlenecks in customer's design process.
- Plan upgrades.
- Review customer macros and scripts.
- Discuss best practices.
- Discuss data output.
- Explore advanced commands.

Review Application Customizations

All HP DesignCenter applications have configuration information stored in various files and HP-UX kernel parameters. These are typically and ideally set up at installation time; however the customer may not know the system needs sufficiently at first to fully establish all customizations. As more experience is gained with the system or as the result of changing the hardware configuration, the customer often needs to refine system configuration files and parameters. The intent of this module is not to edit files for the customer but rather to review custom files and parameters and point out needed changes.

Tasks

- Review configuration files such as the following:
  - HP PCDS technology files, colormap tables, `PCDS_TIME_OUT` parameter.
  - HP EDS `plotter.config`, libsearchpath files, `DCS_ALLOWED_PERCENT` parameter.
  - HP EGS volume search, startup, and control files.
  - HP ME10/30 environment and customize files, `MELOCATOR` parameter.
  - HP 64000: Command files.
- Observe customer usage of system and output as currently configured.
- Mark a printed copy of the configuration file with changes.
- Discuss the purpose of each file and when it is used.
- Make sure the customer knows where the files or parameters are located on the disk.
- Point out documentation on parameters and files to System Administrator.

Tips

- Do not change the files or parameters for the customer. T&M can be purchased if the customer wishes you to edit the files or parameters.
- Prepare photocopies of configuration file listings prior to the meeting, so that you can mark it up without tying up the customer's workstation.
- Write down the full HP-UX pathname of the file on the listing so the customer will know exactly where the file resides on the disk.
- Have the customer get any relevant data, such as their corporate design rules prior to the meeting.
- If there is a System Administrator, make sure that person attends with the system's users.

Tools

- Copies of files.
- Up-to-date customer manuals.
- Sample modified files from other installations.

Develop Library Strategy

Most HP DesignCenter applications, particularly EE, involve the development of a library of parts created by the customer. A strategy needs to be developed to ensure that parts are accessible to the proper individual users, that parts are organized in a way suited to the customer's particular needs, and that customer-developed parts and HP-developed parts will not clash in a destructive way. This strategy should be developed as soon after installation as possible to minimize potential rework; however as the customer uses the system initially developed for organizing parts, some problems will invariably arise due to unforeseen needs. Perhaps the number of custom parts is far greater than anticipated, causing performance issues to arise. Perhaps additional users are now building parts, whereas there was only one such person at installation time. The purpose of this module is to guide the customer in developing and improving its initial library strategy or creating a strategy if one does not exist.

Tasks

- Review data organization (hierarchies of part files, for example).
- Review data access (what permissions do users have for accessing parts).
- Review data synchronization (between HP DCS, HILO, and HP PCDS, for example).
- Review naming conventions, pointing out restrictions that may exist.
- Discuss relevant industry standards.
- Discuss procedures for updating existing parts and keeping track of part versions.
- Discuss tools available to make library management easier.
- Discuss error checking techniques.
- Discuss difficulties that the customer has had in building parts.

Tips

- Do not build parts for the customer—the customer needs to do this!
- Have the customer create a diagram showing how part numbers are currently organized.
- Before the meeting have the customer make hardcopies of any problem library part.
- Make sure the customer has fully integrated its libraries into the system by modifying appropriate configuration files with the library's file name aliases and pathnames.

- There can be several ways to accomplish the same task—make sure the customer is developing the right habits!

Tools

- Up-to-date customer documentation.
- Customer internal parts numbering system documents.
- Listing of customer-developed parts.
- HP white papers on parts management.
- Documentation on ANSI/EIA standards, if applicable.
- Copies of the Response Center calls from this customer on library problems.

Resolve Bottlenecks in Customer's Design Process

The flexibility and large feature set of HP DesignCenter software often creates many ways to accomplish the same thing. A very experienced user can usually select the fastest technique, yet many customers, even experienced ones, will find themselves stuck in one or more areas. By sharing your experiences from other customers, from your own demonstration experience, or from application notes, you can enhance the customer's productivity and satisfaction level. Perhaps there is a limitation in one of the features of the HP DesignCenter product that has an undocumented workaround. Perhaps the customer has just developed bad habits over time. This module is not intended to replace any standard training but rather supplements training with more technique-oriented information for users with some experience using the product.

Tasks

- Have the customer demonstrate how they presently perform the slowest or most problem-ridden tasks.
- Make recommendations on shortcuts and workarounds, drawing on your experience, application notes, or white papers from the division.
- Contact the division for advice, if necessary.
- Point out specific areas in the manuals where these topics are discussed.
- Advise customer on submitting enhancement requests through the Response Center, if needed. (Enhancement request forms are available in the *Software Support Guide.*)

Tips

- Bring all available application notes with you, but use them sparingly. It is easy to overwhelm a customer with too much information.
- Ask the customer to make a list of the top five bottlenecks prior to the meeting.
- Research the customer's Response Center calls in advance so that you understand the types of problems that the customer has had.

Tools

- Factory application notes and white papers.
- Customer Response Center call sheets.
- Up-to-date customer manuals.

Plan Upgrades

Upgrades in both hardware and software will have a unique impact on each customer. The standard Software Release Planning (SRP) meetings cover the bulk of the impact of software revisions on HP DesignCenter users, but individual issues may still exist for a particular customer. Also, adding new software such as ME30 to an existing ME10 site or HILO to an existing HP DCS site will raise further issues. Hardware upgrades and the addition of more workstations must be integrated into the customer's existing environment smoothly. This module therefore supplements the standard SRP process with a customized planning meeting focusing on the total HP DesignCenter environment.

Tasks

- Discuss issues affecting current installation with regards to disk usage.
- Discuss the effect of a hardware upgrade on HP DesignCenter operation and performance, if applicable.
- Approximate the downtime for performing the upgrades and have customer make arrangements to prevent disturbing progress on critical projects.
- Discuss the effect of the upgrades on current users' login procedures and data access.
- Review training needs, especially those created by the upgrade.
- Review customer's backup procedures to ensure that they are adequate.
- Discuss the customer's expectations concerning performance after the upgrade to make sure they are realistic.
- Review the software support contract to make sure that new software, if any, is covered properly.

Tips

Make sure the System Administrator is available to attend.

Tools

- Customer's purchase order for the new software or hardware, if applicable.
- Performance data, if available.
- Standard disk usage data, if applicable.
- Current software support agreement listing.
- Current map of customer's network, if applicable.
- All SRP documentation, if applicable.

Review Customer Macros and Scripts

Most HP DesignCenter applications can be customized and extended in their functionality by the use of customer-written macros or scripts. It is not the intention of this module to either provide a macro and script writing class or to write them for the customer. Instead, we want to enhance customer satisfaction and productivity by encouraging the proper use of macros and scripts. It is expected that the customer has already written or attempted to write one or more macros or scripts or that you have listings of contributed macros and scripts (from other customers or HP) to review with the customer. It is also assumed that the customer has already taken all relevant training classes and has read the documentation prior to this meeting.

Tasks

- Review the customer's macros and scripts for proper functionality and syntax.
- Discuss sample macros and scripts contributed by other users or HP.

Caution

Ensure that you have properly set the customer's expectations regarding contributed software.

- Discuss shortcuts and advanced macro- and script-writing techniques.
- Point out advanced commands that exist primarily for writing macros and scripts and may therefore be unfamiliar to the customer (such as branching, looping, or math function constructs).
- Make sure customer knows where to find information in the manuals.
- Suggest a custom training class, if appropriate.
- Discuss techniques for keeping customer macros and scripts from interfering with macros and scripts that come with the HP DesignCenter product.
- Discuss strategies for maintaining customer macros and scripts so that future revisions to the HP DesignCenter software will not affect the customer's work.
- Review changes in macro and script syntax due to software revisions.

Tips

- Start a collection of macro and script listings from various sources that you can bring with you on short notice.
- Make extra copies of these macro and script listings prior to the meeting so that they can be marked up with comments and left with the customer.
- Have the customer print out their own macros prior to the technical review.

Tools

- Contributed macro and script collection.
- Up-to-date customer documentation.
- Listings of customer's macros and scripts.

Discuss Best Practices

Even a customer who is already quite productive with HP DesignCenter tools can benefit from your experience with other customers' problems or discoveries. Solving specific bottlenecks is covered in another topic. The intent of this topic is to add to the customer's classroom training with primarily technique-oriented information, speeding up the customer's learning curve, and further enhancing productivity.

Tasks

- Discuss shortcuts and best practices based on your own or your other customers' experience.
- Leave copies of application notes, white papers, and so on for the customer to read later.
- Suggest publications in industry literature that pertain to better utilization of CAD/CAE.

Tips

- Maintain a printed collection of articles from HP and users groups, suitably edited for distribution.
- Maintain a list of books, publications, and articles of relevance.
- Practice on your demonstration system at every available opportunity to sharpen your skills.

Tools

- Application notes collection.
- Bibliography.
- Users groups.

Discuss Data Output

Output in the form of drawings, photoplot files, parts lists, code files and so on are the ultimate product of HP DesignCenter tools. While it is expected that the customer training covers the general commands to produce such output, some topics need further refinement and custom counseling. This is particularly useful after the customer has had some experience with the system and is past the initial learning phase. The intent is to help the customer get a better understanding of how to improve the content and quality of the output from the HP DesignCenter tools.

Tasks

- Review output currently being generated by the customer.
- Suggest ways to enhance the quality or appearance of the output.
- Suggest more effective use of system resources by establishing network printer and plotter servers and setting up spooling if not currently used.
- Show examples of outputs contributed by other customers (with the original customer's permission).

Caution

Ensure that you properly set the customer's expectations regarding contributed software.

- Discuss proper plotter operation and the use of different media and pens.
- Give the customer application notes on plotter media found in sales literature.
- Discuss ways to create standard forms for the customer's drawings.
- Discuss various ways of putting files onto magnetic tape for sending to service bureaus, if applicable.
- Discuss ways to customize output from parts lists through the use of macros and scripts or configuration files.
- Discuss data exchange utilities and formats for interfacing to non-HP DesignCenter systems.
- Explain the photoplotting process to improve the efficiency of the customer's output (for example, flashed versus constructed pads) if applicable.
- Discuss raster-dump output as an alternative for quick checkplots.
- Discuss industry-standard output requirements (ANSI, Military, and so on).
- Review techniques for creating a company logo for plotted output.

- Discuss new hardware for making faster or better quality output.

Tips

- If a customer shows you a very well-made drawing, ask if you may use it as an example for other customers with any confidential information deleted.
- Bring the current issue of the *Computer Supplies Catalog.*
- Collect macros and scripts for formatting parts lists and other outputs.

Tools

- Sample outputs.
- *Computer Supplies Catalog.*
- Sample formatting macros and scripts.
- Photocopies of configuration files.
- Copies of ANSI, military, and other standards.
- Data sheets on new printers and plotters.
- Plotter application notes.

Explore Advanced Commands

Standard customer training for HP DesignCenter products will always be limited to the topics that can reasonably be absorbed by customers in the time allotted for the class. The more advanced usage of the HP DesignCenter software may not constitute sufficient material for a complete customer training class but needs to be communicated to the customer over a period of time. This module is a vehicle for raising the customer's awareness of more advanced commands available in the software as a standard, documented feature. We are not concerned either with bottleneck resolution or undocumented workarounds in this review. It is assumed that the customer has not only taken all relevant training, but has had some time to work with the system so that its basic operation is fairly well understood. While many customers eventually find these commands through their own curiosity and reading, many are just too busy to go hunting for additional features. This type of technical review accelerates their learning curve.

Tasks

- Discuss the customer's questions.
- Observe how the customer currently performs design tasks.
- Explain advanced command use appropriate to the customer's needs.
- Point out further information in the manuals.

Tips

- Notes written on stick-on paper are handy for marking important pages in the manuals for the customer to read regarding advanced commands.
- Make sure that the customer has the most current revision of manuals before your meeting.

Tools

- Up-to-date customer manuals.
- Stick-on paper notepad.

10

System Administration

Overview

The System Administration Technical Review is designed to help the system administrator be more efficient in managing the HP system.

Objectives

- Help differentiate between the customer's responsibilities and HP's by setting expectations.
- Ensure smooth system operation.
- Increase customer productivity.

Participants

- Customer.
  - System Administrator.
  - Application Administrator (if applicable).
  - Other personnel, as appropriate (for example, System Administrator's backup person).
- HP: SE.

Length of Meeting

- First meeting: 3 – 4 hours.

  If the system administration topics take longer than 2 – 3 hours to discuss, combine two technical reviews into one meeting.
- Subsequent meetings: 1 – 3 hours.

Estimated Preparation Time

When you establish a meeting time, discuss the particular topics on which the customer may want to concentrate. This will help you focus on what to prepare for when meeting with the customer.

- SE: 1 – 2 hours.
  - Review the list of topics that was prepared by the customer.
  - Discuss who should attend.
- Customer: 1 – 2 hours.
  - Prepare a list of topics and concerns to be covered.

Topics

The following will give you, as the account SE, some topics that might be covered during a System Administration Technical Review. Consider these topics as guidelines to help you and the customer have a productive and effective meeting.

- Familiarize the user with system administration tools.
- Review adding and removing users.
- Discuss disk and peripheral configuration.
- Plan system customization.
- Review spooler setup.
- Discuss backup strategy and procedures.
- Review file system management.
- Outline system startup and shutdown.
- Discuss network configuration.
- Review HP subsystem integration.
- Provide brief hands-on training.

Familiarize the User with System Administration Tools

Discuss the tools that can be used for system administration.

Tasks

- Identify those tools that may be of help to the customer and discuss how to improve the System Administrator's productivity.
- Review operation of the tools, explaining the different options for each tool and how and when it might be used.

Tips

Give the customer additional software from the HP internal tapes. This not only gives the customer additional tools but also exemplifies the customer-SE relationship as part of HP TeamLine.

Caution

Set expectations properly when giving the customer unsupported software.

Tools

- HP-UX: Contrib tape. Contact division online support.
- RTE-A: SSK tape. Contact division online support.
- HP-UX tools include the following:
  - `uxgen`
  - `sam/reconfig`.
  - `ps`
- HP 1000 tools include the following:
  - `RTAGN/RT6GN`
  - `GRUMP`
  - `SAM`
  - `WHZAT`

Review Adding and Removing Users

Tasks

- Explain concepts of users and groups, and show related files.
- Demonstrate adding both superusers and regular users.
- Point out login and logout scripts for different user interfaces.
- Show how to remove a user and the user's files.
- Discuss monitoring user disk space.
- Check accounting log files for possible truncation.
- Discuss password aging.

Tips

- Explain the importance of removing old user accounts from the system for security reasons.
- Explain the benefit of backing up old files and removing them from the disk.

Tools

- HP-UX: *HP-UX System Administrator Manual.*
- RTE-A: *RTE-A System Managers Manual.*
- Printouts of sample login and logout command files.
- HP-UX utilities: `sam` and `reconfig`
- HP 1000 utility: `grump`.

Discuss Disk and Peripheral Configurations

Tasks

- Make a block diagram of system showing all available ports.
- Point out the steps in the manual for the disk: connection, initialization, creation of the file system (including swap space if appropriate).
- For adding terminals, show both automatic and manual methods.
- Show the customer how to configure a modem.

- Give the customer an overview of performance tradeoffs for different configurations. (For details see *Performance Technical Review.*)
- Demonstrate ways to check for proper operation, such as dumping a file to a terminal or verifying the file system.
- Explain the relationship between HP-IB addresses and the way the system accesses the device (how to tell if the address is correct).
- Cover how to *re-gen* the operating system, if necessary, to add a device.

Tips

- Have available a sample `inittab` or `welcom` showing several muxes and a modem.
- Use `stty` to verify RS-232 connections on HP-UX.
- If applicable, recommend consulting by an SE with a line analyzer.
- Advise HP-UX customers *not* to add `gettys` for multiplexers that are not installed.

Note

HP-IB address settings are sensed only at power-up of the device.

Tools

- On HP 9000/300 systems, use `READMEM` (unsupported) to see current configuration.
- On HP 9000/800 systems, use the `sam` utility or look at `/etc/devices`.
- On HP 1000, printout of the current *answer* file.
- For HP 9000/800 systems, give the customer a copy of the application note on adding a support modem.

Plan System Customization

Tasks

- Discuss setting up spooling for any plotters and printers the customer might have.
- Explain and configure any utilities that might expand the data communication capabilities of the system (for example on HP-UX: uucp and cu).
- Show methods for adding peripherals both hardware and software configuration.
- Customize some operating system prompts (for example, login prompt, message of the day, and so on).
- Explain how to customize system start-up files (for example, `/system/welcome1.cmd`, `/etc/rc`, and so on).

Tips

- This discussion is an excellent time for the SE to be in the sales role. By discussing the customer's system configuration and plans, you can find out what additional peripherals or system memory the customer may need.
- In HP-UX the `sam` utility will aid in customizing uucp, spooling, users, and peripherals. Until Revision 7.0 on the Series 300, only `reconfig` is available.

Tools

- HP-UX: *HP-UX System Administrators Manual.*
- RTE-A: *RTE-A System Generation and Installation Manual.*
- Current data sheets.
- HP-UX: *Concepts and Tutorials: UUCP.*
- HP-UX: *uucp Cookbook* from *Technical Exchange.*

Review Spooler Setup

Tasks

- Review setting up a spooled device.
- Explain how to check status of requests and cancel requests.
- Review how to bring a spooler up after a failure such as running out of paper.
- Include plotter setup if appropriate.
- If the customer uses networking, review the remote spooling configuration.

Tips

- The default HP 9000 RS-232 port is 300 baud. If you use a model script (other than **dumb**) it will automatically change the baud rate temporarily to 9600 or 19200. If you use the printer outside of the spooler or use the **dumb** script you will need to put a sleep on the port and do a stty 9600. See example in manual.
- The customer can modify or add his or her script. See **/usr/spool/lp/model** .

Tools

- The **fixlp** script for certain customers will fix most HP-UX spooler problems (call North American Response Center for a copy).
- HP-UX: *HP-UX System Administration Manual.*
- RTE-A: *Utilities Manual.*

Discuss Backup Strategy and Procedures

Tasks

- Discuss the types of media used for backup (for example, cartridge tape versus magnetic tape).
- Review management of backup media, that is, storage, labeling, accessibility, archiving, and media cycling.
- Discuss frequency of backups.
  - Discuss how often backups should be performed to meet the customer's requirements.
  - Discuss whether individual users should be responsible for backing up their data.
- Review types of backup.
  - Document how to perform file, directory, partial, and complete backups.
  - Compare and contrast utilities (`tar`, `tcio`, `cpio`, `fbackup/frecover`, and `dump/restore`).
- Discuss the scope of the backup (for example, standalone versus multiple systems).
- Direct the customer to build a bootable recovery system to use in event of a system crash (not applicable for the Series 800).
- Provide the customer with commands to backup and restore across the network if appropriate.
- Discuss media replication, if applicable (for example, application suppliers).

Tips

Remember

Frequency of backups should be determined by the maximum amount of data that the customer can afford to lose.

- HP-UX systems:
  - `tar` and `cpio` are useful for media interchange among different vendors' systems. If using `cpio`, use the `-B` option for a larger blocking factor on 9-track mag tape.
  - `Dump` and `restore` are useful for interchange among Berkeley-based systems.

- **fbackup** and **frecover** are the most efficient, flexible, and fastest backup utilities on the HP-UX Series 800 systems.

- HP 1000 systems:
  - Use **TF** with the **x** option for interchange with HP-UX systems.

Tools

- Sample backup examples on hardcopy.
- Refer to the ISP if the strategy was defined in it.
- Share other customers' stories. For example, a very old backup that was no longer good or the customer who thought he could afford to lose a whole week's worth of work until it actually happened.
- HP-UX: *HP-UX System Administrators Manual.*
- RTE-A: *RTE-A Utilities Manual.*
- *TC Interface* — the HP 1000 and HP 9000 Users Group magazine (*INTEREX*).

Review File System Management

Tasks

- Discuss the initialization process for setting up new file systems.
- Investigate ways to increase system performance by manipulating the file system.
- Check system log files.
  - Check disk space being used by large log files.
  - Create a procedure to periodically truncate these files.
- Consider old user files that may be consuming large amounts of disk space.

Tips

For a database type of application, it is sometimes helpful to have at least two disks: one configured as the system disk (that is, boot disk, system software, logfiles, and so on), the second containing the database.

Tools

- HP-UX.
  - *HP-UX System Administrators Manual.*
  - HP-UX commands such as `df` and `bdf` to measure disk space.
  - HP-UX `find` command to search for large or old files.
- RTE-A.
  - *RTE-A Utilities Manual.*
  - *RTE-A System Generation and Installation Manual.*
  - RTE-A command `frees` to check disk space usage.

Outline System Startup and Shutdown

Tasks

- Review boot-up files with customer. Explain how to enhance the files with custom shell scripts.
- Discuss boot-up process.
- Emphasize orderly shutdown of the system.
- Point out the usage of "single-user mode."
- If the customer uses networking, show how to disconnect a system without affecting network.
- Show customer how to use "message of the day" or other procedures to inform users of scheduled downtime, new features, and so on.
- Recommend order of powering up devices.
- Describe any front panel display information or other places to check for proper operation such as I/F card LEDs.
- If the system needs to be moved, recommend that an HP CE move the system to retain the warranty.

Tips

- RTE-A: If a customer wishes to force the user to enter the system time on boot-up, the following commands could be inserted in the `welcome` file. These commands are one of many possibilities:

```
RP,TIME
ECHO 'Enter the system time as: TIME> tm jan 12 1988
14:28;ex'
RU,TIME
OF,TIME,ID
```

- In RTE-A discuss options with VCP (for example, %R, %T, %B).
- In RTE-6, discuss the slow-boot process.
- With HP-UX, discuss the boot options from ISL and booting from different boot devices.
- In HP-UX, utilize the shutdown script to halt or reboot the system.

Tools

- `whzat,al` (HP 1000) or `ps -ef` (HP-UX) to see if anyone is on the system before bringing the system down.
- Power line monitor to verify power.
- HP-UX: *HP-UX System Administrators Manual.*
- RTE-A:
  - *RTE-A System Generation and Installation Manual.*
  - *RTE-A Users Manual.*

Discuss Network Configuration

Tasks

- Make a network diagram identifying nodes and network addresses.
- Discuss LAN card strapping, if applicable.
- Build new operating system with LAN driver.
- Configure network startup file `netlinkrc` or `*dinit`.
- Set up diskless server and boot diskless node.
- Discuss different networking features such as remote login and remote file handling.
- Explain networking products that the customer might use to better utilize his or her network.
- Make plans for the network. Discuss the benefits of memory-based nodes (diskless) if expanding the network.
- Send a file to a remote node and use virtual terminal.
- Review start-up configuration files for the network (that is, `/etc/netrc`).

Tips

- Send a file to a remote node and log on to a remote system using virtual terminal.

Caution

Diskless servers are difficult to undo once you set them up. Also, diskless servers act very strange when disconnected from the network. Do not attempt to "clone" a diskless node with `dd` or `cpio`; you will probably end up with something different from what you expected.

Tools

- ISP to see layout of systems.
- `dsinf` and `landiag` for troubleshooting.
- LAN terminators and T-connectors.

Review HP Subsystem Integration

This section deals with discussing the integration of HP subsystem software (for example, Allbase, Image, NS, and so on). Note that we are assisting the customer here. If the customer wants HP to provide the installation and configuration of the software, HP will charge T&M consulting. Point out to the customer that it is beneficial for the customer to be directly involved with the installation and configuration of these subsystems. The customer will have a better understanding of the workings of the product.

Tasks

- Discuss application installation, if this is a new installation. Discuss tools used in the installation process (for example in HP-UX, `/etc/update`).
- Discuss system resources required by the application.
- Verify system requirements needed such as additional disk space, memory, peripherals, and so on.

Tips

- Look at using symbolic links in HP-UX to provide room for subsystems software on another disk section as in the following example:
  - `mkdir /extra/subsystem`
  - `ln -s /extra/subsystem /usr/subsystem`

Tools

Refer to the subsystems manual associated with each product.

Provide Brief Hands-On Training

Tasks

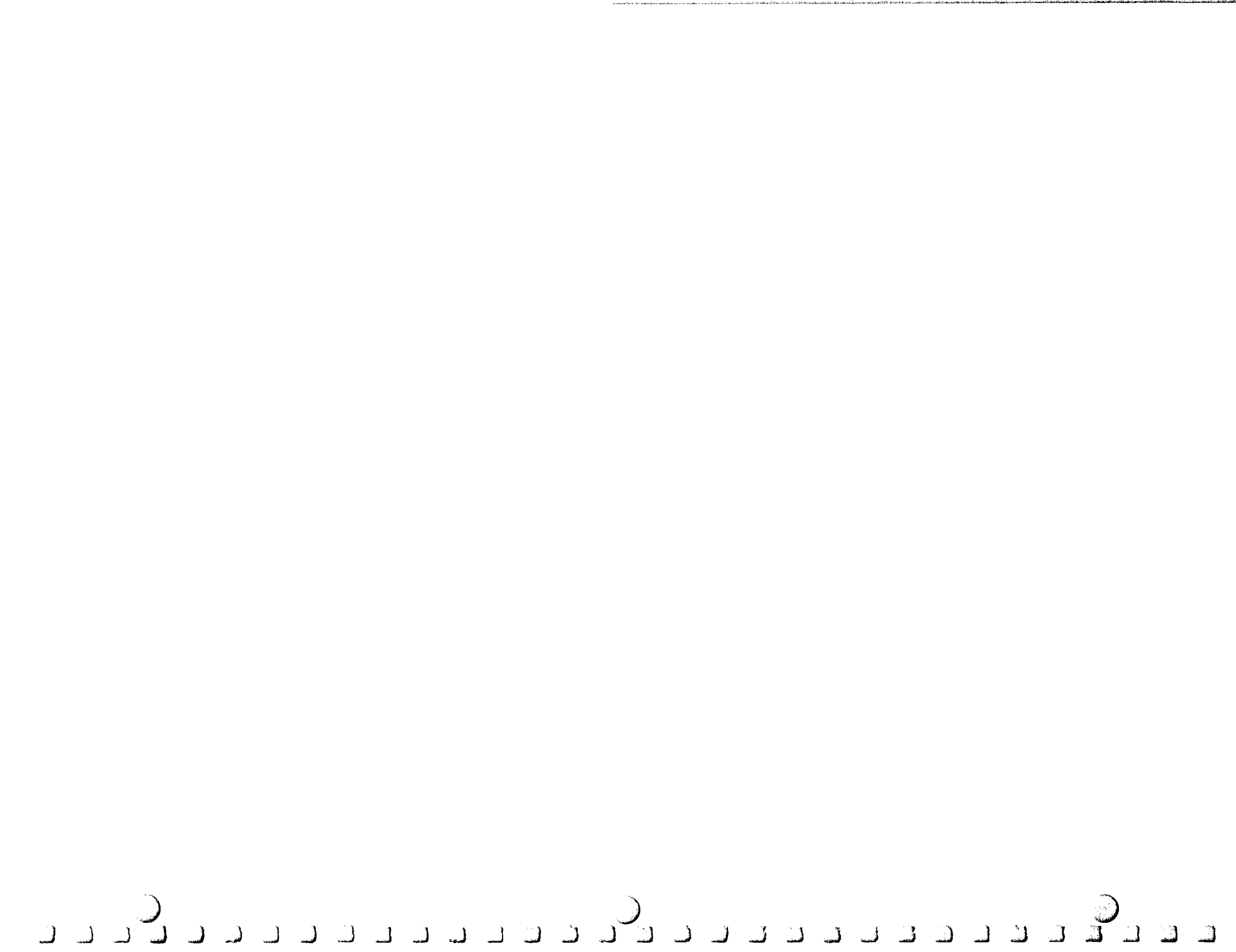
- Demonstrate command stack capabilities; convert Bourne shell users to `csh` or `ksh`.
- Show editing shortcuts.
- Review passing files across the network and logging on remotely.
- Discuss setting up an RS-232 link to another system.

Tips

- In HP-UX, you might give mini-training on the following:
  - `cu`
  - `uucp`
  - `sam/reconfig`
  - `vi` (for example, the period (.) repeats the previous command, yank, and put commands)
- Recommend appropriate customer training classes.

Tools

- Appropriate pages from SE training materials.
- The *Concepts and Tutorials* volumes.
- Training Schedule.



11

System Customization

Overview

The System Customization Technical Review is provide assistance in creating a customized system. It is intended to provide guidance to the customer so that the customer can do the customization. It is not intended that the SE actually performs the customization for the customer.

Objectives

- To help customer produce a system tailored to the customer's specific needs.
- To help the customer have less downtime. The HP Systems Engineer's expertise will help speed up the customization process.

Participants

- Customer:
  - System Administrator.
  - Application Administrator (if applicable).
- HP: SE.

Length of Meeting

- Each time: 2 – 3 hours.

Estimated Preparation Time

- SE: 1 hour.
- Customer: 2 hours.

Topics

The following will give you, as the account SE, some topics that might be covered during a System Customization Technical Review. Consider these topics as guidelines to help you and the customer have a productive and effective meeting.

Select from the following list the topics needed to meet your customer's needs and level of experience or expertise based on the amount of time scheduled for the technical review.

- Customizing the Operating System (that is, kernel customization to include additional drivers).
- Using new features of software update.
- Tailoring startup procedures.

Customizing the Operating System

Tasks

- Review system customization procedures (that is, steps involved in doing an HP 1000 system generation or doing an HP 9000 kernel customization).
- Discuss how to tailor system parameters.
- Discuss software modules required to tailor customer's system.
- Discuss how to configure peripherals into the system.
- Review new system files (for example, **/etc/newconfig**).

Tips

Keep a file documenting procedures on how to customize system configurations from various customers or your own demonstration or AEO systems (for example, keep sample HP 1000 **answer** files showing how to gen X.25 or HP 9000 scripts on how modify the kernel parameters to include LAN or ME-10).

Tools

- *Communicator.*
- *Technical Exchange.*
- System Administrator manual.
- *RTE-A System Generation and Installation Manual.*
- Software Release Planning materials.
- Response Center application notes.
- *PA-NEWS.*
- TCG weekly reports.

Using New Features of Software Update

Tasks

- Give a demonstration showing use of the new features.
- Show customer how to implement the new application features.
- Discuss performance and productivity impact of the new features.
- Discuss the details of the software update as it relates to the customer's environment, in particular, those areas not covered in the Software Release Planning (SRP) meeting.

Tips

- Tell customer how to obtain tutorial information on the use of the new features. This could include self-training programs available from a contributed library tape. For example, there are some tutorial programs available on the HP-UX CONTRIB tape that can be purchased for a nominal charge.
- Write a short program that demonstrates how the customer might incorporate the new feature into his or her application.

Tools

- *Communicator.*
- System Administrator manual.
- Software Release Planning materials.
- Response Center application notes.

Tailoring Startup Procedures

Tasks

- Discuss with the customer the procedures that are executed upon system boot.
- Show customer how to modify startup procedures to include the commands necessary to initialize the appropriate subsystems and applications unique to the customer's system.

Tips

Keep a file documenting some common startup procedures. For example, you might have a listing of an HP-UX `/etc/rc` file that initializes LAN and sets the correct timezone for your area. You might also keep a standard `.profile` that sets the global variables to most used values (for example, `TERM=2392`).

Tools

- *Communicator.*
- HP-UX System Administrator manual.
- *RTE-A: System Generation and Installation Manual.*
- Response Center application notes.
- *PA-NEWS.*
- TCG weekly reports.

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System Performance

Overview

The System Performance Technical Review is intended to provide guidelines for performance discussions. It does not provide tools or utilities to measure system performance, nor does it provide documented results to the customer. This performance module does not require a performance specialist. Every account assigned SE should feel comfortable discussing performance issues at some level. By delivering the System Performance Technical Review, you will find opportunities to sell performance consulting. When the discussions become too detailed and very system specific, then sell performance consulting to meet the customer's needs.

Objectives

- Familiarize the customer with general operating system concepts in order for the customer to understand performance considerations.
- Familiarize the customer with the performance tools that are available for the operating system and HP applications.
- Familiarize the Account Systems Engineer with the customer's application from a performance standpoint.
- Familiarize the customer with the various performance issues that might impact the system or application environment.
- Develop a growth plan based on the anticipated future needs of the customer's application.
- Develop recommendations for future performance-related activities.

Note

This technical review is intended to familiarize the customers with performance issues, and is not intended to result in actual performance measures or reports. Several performance products for technical platforms are expected to become available in the near future. Be sure to properly set your customer's expectations, and do not perform activities that may overlap the deliverables of future products.

Participants

- HP:
  - Account Systems Engineer or Account Applications Engineer or both.
  - Performance-knowledgeable SE (if not the Account SE or AE).
- Customer:
  - System Administrator.
  - Software engineers.
  - Designers.
  - Programmers, as appropriate.
  - End users, as appropriate.
  - Network Administrator, as appropriate.
  - Technical management, as appropriate.

Length of Meeting

- 1 – 4 hours on-site:
  - The minimum (1 hour) oriented to overview, probably in conjunction with another technical review.
  - The maximum (4 hours) oriented to a technical review devoted primarily or solely to performance issues.
  - If the meeting extends beyond 2 – 3 hours, combine several technical reviews into one visit.

Estimated Preparation Time

- SE: 1 – 2 hours.
  - Discuss by phone with customer the agenda, the attendees, and the results of the customer's preliminary meeting on performance.
  - Gather appropriate software tools, documentation, performance briefs, data sheets of additional SE services, and perhaps a system price guide and specifications if a recommendation for additional hardware or software is anticipated.
  - Line up other SE resources, if appropriate.
- Customer: 1 – 2 hours.
  - Discuss perceived performance problems with users, application programmers and designers before the agenda is developed with the SE.
  - Document how the system is being used including plans for future growth.

- ☐ Discuss the agenda developed with the SE with the other attendees before the meeting.

Topics

The following will give you, as the account SE, some topics that might be covered during a System Performance Technical Review. Consider these topics as guidelines to help you and the customer have a productive and effective meeting.

- General operating system concepts.
- Performance tool familiarization.
- Discussion of customer design and performance issues.
- Discussion of customer's plans for future system growth.
- Discussion of specific system performance issues.
- Recommendations and action plan.

Note

It is not expected that you would be able to cover all of these topics during one technical review. You might schedule two technical reviews in the same day, or preferably, schedule several System Performance Technical Reviews several months apart to cover the various topics.

General Operating System Concepts

Tasks Present to the customer an overview of the various operating system functions that can impact overall system performance. This is not meant to be an in-depth operating system internals discussion, but rather a high-level overview of how the operating system manages resources. The goal is to prepare the customer to discuss in-depth specific performance issues either later in this meeting or in a future meeting.

Tips This section might even be given as part of another technical review with the full Performance Technical Review given at a later date; however, this section may not be necessary depending on the customer's level of knowledge.

- Use the outline below as a guide in preparing your discussion. This outline is basically generic; however, some items are specific to HP-UX. The concepts should apply to RTE as well as HP-UX.

    1. Cpu Utilization.

        a. Time-share processes.

            i. Priority is given to processes that are I/O or wait bound.

            ii. Processes that are cpu bound receive lower priority.

            iii. Terminal users receive quick response.

            iv. Every process receives an equal time slice.

        b. Real-time processes.

            i. Process has absolute priority over all time-share processes (that is, run-to-completion if cpu bound).

            ii. Processes at the same real-time priority are time sliced among themselves.

            iii. Ramifications of using real-time priorities (for example, compute-bound infinite loop).

            iv. Provides more control over cpu and I/O utilization than possible with time-share processes.

c. Kernel Preemption (Series 800 only).

i. Goal is to have a predictable process dispatch latency that is as short as possible.

ii. Preemption points and regions in system call code.

iii. Feature of the kernel and is not dependent on user-written code.

2. Utilization.

a. Memory allocation overview.

i. Base kernel code (for example, switching, scheduling, system calls, and so on).

ii. Buffer cache space allocation.

iii. Kernel tables.

iv. Optional drivers and system calls (for example, networking).

v. User available memory.

b. Virtual memory.

i. Demand paging for code and data.

ii. Shared code.

iii. Memory locking.

iv. Shared memory.

v. Swap space utilization.

vi. Impact of physical memory size.

3. File System.

a. HFS overview (redundant superblocks, cylinder groups, and so on).

b. Raw disk I/O.

i. Unbuffered.

ii. No file system overhead.

iii. Used by `fsck`.

c. Block disk I/O.

i. Buffer cache usage.

ii. Block size and fragment size configurability.

iii. Delayed writes to the disk (that is, syncer).

d. Disk sectioning.

i. Swap area(s).

ii. File area(s).

iii. Boot area.

iv. Ability to customize a file area for optimal file access.

v. Greater integrity by separating file areas.

vi. Ability to segregate users of the file system and limit their disk utilization.

vii. Symbolic links.

4. I/O System.

a. Terminals.

i. Raw, unbuffered mode.

ii. Canonical, buffered mode.

iii. Mux card polling environment.

b. Disks.

i. Comparison of various disk controllers and links (for example, hpib versus hpfl).

ii. Multi-controller environment.

iii. Comparison of various disk families (for example, 7937 versus 7963).

c. Customized drivers.

i. Specialized hardware.

ii. Pseudo-drivers for specialized operating system functions.

- Various *HP Journal* articles can help in understanding many of the above concepts.
- All of the above operating system concepts can impact system performance. Understanding these concepts can help address later performance discussions (this is knowledge building).

Tools

- SE 315: *Theory of Operation.*
- SE 3xx: *CIO Driver Writing.*
- *Design of the UNIX* Operating System* by Maurice Bach.
- *UNIX* Internals* (Shaw and Shaw, TAB Books).
- Various *HP Journal* articles.
- Appropriate training courses for the HP 1000.

Performance Tool Familiarization

Note

This section is applicable only to HP-UX.

Tasks

- Describe the various supported performance measurement tools which are available with HP-UX, including what they measure and what the data means.

Note

From the following list the first four utilities are currently available only on the Series 800.

  - `sar` (system activity report) measures various system-wide resources such as cpu utilization, system buffer activity, block device activity, swapping, and so on.
  - `iostat` measures disk and terminal I/O activity.
  - `vmstat` measures virtual memory activity.
  - `sam` (system administration manager) determines swap space configuration and activation.
  - `newfs` and `tunefs` set and modify various file system parameters.
  - system accounting provides a trace of time used by various users and processes.
  - `ipcs` determines interprocess communication utilization.

Caution

Ensure that you properly set the customer's expectations regarding unsupported software.

- Describe the various unsupported performance measurement tools that are available as SE tools.
  - `monitor` is the only tool that measures both systemwide and per process user activity. It consolidates on one screen much of the same information that can be gotten with `sar`, `iostat`, `vmstat`, and `sam`. It does not have the capability of writing the data to a file but can print a screen. It is a real-time monitoring program.
  - `top` lists the top "n" processes in terms of cpu utilization.

- Describe the various compiler options that can be used to measure the performance of an individual process.
  - **Profile/Monitor (3C).** Use the `-p` option to have the compiler insert profiling code; use `prof(1)` to interpret the resulting `profile` file.
  - **Optimization.** Use the `-O` option to obtain the best possible performance on a precision architecture computer; `-K` and various compiler pragmas may be necessary to limit optimization assumptions, as well as options like `+C` to do range checking.
  - **Procedure Tracing.** Use the `+T` compiler option in FORTRAN to determine which routines are being called the most, so that efforts can be made to make that code as efficient as possible.
- Perform a superficial first-pass data collection and analysis.

Tips

- Practice using the tools on an office system before going to the customer's site unless you are already familiar with them.
- Stress the importance of taking baseline measurements while system performance is satisfactory.
- Ensure that you have the version of the unsupported tools that work with the customer's operating system revision.
- On the HP 1000, the `DEBUG` utility can provide you with a histogram of time spent in each subroutine of your program.

Tools

- "Using sar to Zero in on Performance Bottlenecks," *UnixWorld,* July, 1988.
- Various manual entries for the supported tools.
- Invoke `monitor` with `monitor help`.

Discussion of Customer Design and Performance Issues

Tasks

- Have the customer describe the application design in detail, noting what system and HP application features are utilized most heavily.
- Have the customer describe any perceived performance issues including any analysis of the problems that may have been done or any steps that have been taken to address them. At this point especially, other customer personnel should be involved as necessary.
- Have the customer describe how the application and system have changed since the performance problems, if any, have occurred.

Tips

- It is important that the customer prepare for this section in advance of the technical review.
- It is important to hear what steps the customer has already taken so that you do not recommend what they have already tried, and so that you can make suggestions for improving what they have already tried.

Discussion of Customer's Plans for Future System Growth

Tasks

- Have the customer describe future plans for the following:
  - Hardware acquisition (disks, memory, black boxes, and so on).
  - Changes in number of users.
  - Application design changes.
  - System workload changes.
  - Additional software packages.
  - Additional systems.
  - Future networking plans.
- Evaluate these plans in terms of demand on cpu and memory utilization, the file system, and the I/O system.

Tips

Here is where you can address adding hardware or software in advance of encountering a performance bottleneck.

Tools

- Configuration and price guides.
- Performance briefs.
- *PortFolio* (written by the former SEMC/TAC).
- The performance group in HP-UX `notes`.
- *Performance News Notes* (PN2) from the Capacity Planning Center.

Discussion of Specific System Performance Issues

Tasks

- Select from the following list, those issues that are pertinent to the customer's environment, combining the conceptual discussion with the customer's application specific needs.
    - Process:
        - Maximum sizes of text, data, stack, shared memory.
        - Impact on swap space utilization.
        - Time slice.
        - Maximum number of processes and user processes.
    - InterProcess Communication: table and data sizes.
    - File System: buffer cache size, number of in-core inodes, number of file locks, and so on.
    - System Accounting including benefits versus effect on cpu performance.
    - Memory: lockable memory.
    - Swap: number of swap areas configured and enabled.
    - HP application: swapping needs, server configuration, diskless node configuration, network configuration, HP application customization (for example, macro writing), peripheral needs, and so on.
    - Database: data set sizes and location, types of data retrieval.
- Discuss the impact of changing the various operating system tunable parameters.
- Discuss the impact of changing the disk sectioning scheme and individual file system parameters, such as block size, fragment size, rotational delay, ratio of inodes to data blocks, size of cylinder groups, and so on.
- Discuss the impact of splitting disk I/O across multiple spindles and controllers.
- Discuss the impact of allocating multiple swap areas across multiple spindles and controllers. Mention the interleaving of the swap areas.

- Discuss how to improve file system efficiency by saving and reloading the file system; discuss the impact of data compression (for example, `compress(1)`) on disk utilization.
- Discuss the impact of processes locking themselves into memory.
- Discuss the impact of assigning real-time priorities to processes.
- Discuss the impact of using the various IPC mechanisms, including pros and cons of each type.
- Discuss the impact of various process creation methods, such as `fork` versus `vfork`, shared text, sticky bit, demand load versus load-on-exec, and so on.
- Discuss methods of identifying and analyzing processes that consume large amounts of various system resources (for example, `ipcs` to look at IPC usage, `monitor` to look at virtual memory and I/O usage, and so on).
- Discuss the impact of various network parameters and features, such as diskless nodes, virtual users, NetIPC configurable parameters, RFA versus NFT, and so on; discuss distributing the application load across systems in the network.
- Discuss the impact of various I/O methods, such as FORTRAN I/O, C I/O library (`stdio`), system call I/O, asynchronous I/O, synchronous I/O, and so on.
- Discuss the need for contacting third-party application suppliers to discuss the tuning of their application and changing configuration parameters.
- Discuss the impact of using emulation environments such as Port/RX and Port/VX versus porting the code to the native HP-UX environment.
- Discuss database design, including such issues as location of log files, distributing the data sets across disk drives, efficiency of various methods of data retrieval (for example, select versus bulk select), sizes of data sets, and so on).

Tips

- Consider reducing as well as increasing table sizes depending on the customer's application.
- Strike a balance between providing a service as part of HP TeamLine that addresses system productivity versus selling additional consulting services to address the in-depth performance needs.
- Remember that this technical review is intended to be accomplished in 1 – 4 hours.

Tools Possibly refer to or use the various performance programs and tools to analyze or reinforce a particular concept.

Recommendations and Action Plan

Tasks

Develop with the customer a plan to address the performance issues. This plan may include some or all of the following:

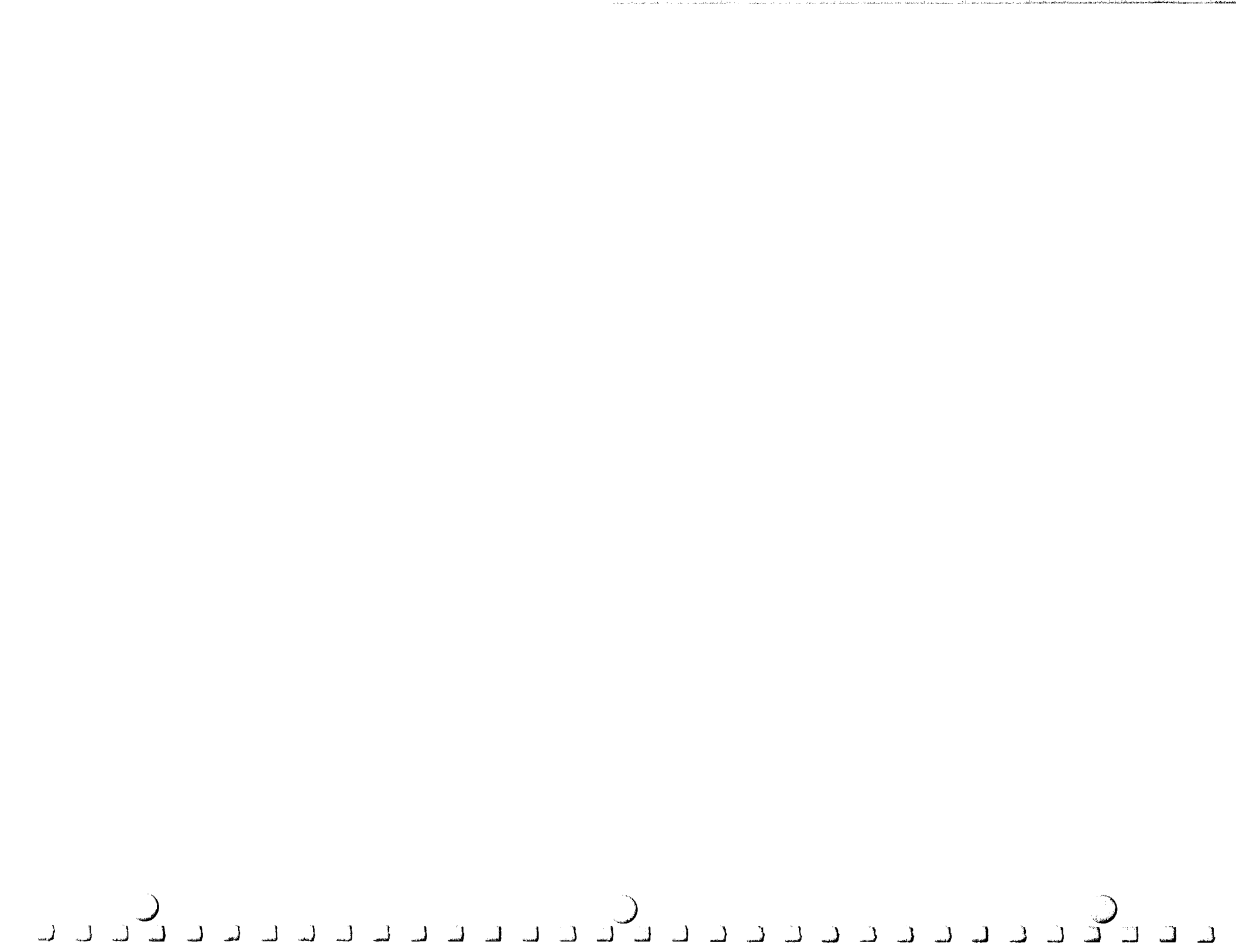
- Recommend changes in the application design or operation of the system.
- Recommend further analysis of the situation by the customer.
- Recommend development of an action plan to implement the recommendations.
- Recommend purchase of performance consulting packages, if available.
- Recommend purchase of T&M Consulting to further assist in the analysis of the performance problem.
- Recommend purchase of additional memory, or disks, cpu upgrades, new systems, application software, and so on.

Tips

- Take a phased approach with the recommendations, and try them in the order given above so that the customer perceives your efforts as truly consultative.
- Take a conservative stance by issuing recommendations based upon actual data rather than conjectures.
- Put yourself in your customer's shoes.

Tools

- Data sheets on performance consulting packages, as appropriate.
- Performance briefs.
- Configuration and price guides.



13

System Support Planning

Overview

The System Support Planning Technical Review describes what was traditionally delivered under HP AMS as a Support Management Review (SMR). Every customer needs System Support Planning so that HP and the customer can review business and system growth plans. Customers want and expect the HP SE to provide recommendations. Therefore, it is important to provide system support planning to our customers as part of HP TeamLine. You may conduct a dedicated System Support Planning meeting or you may simply use 15 – 20 minutes during another technical review to discuss system support planning issues.

Objectives

- Review with the customer all the business aspects of the account.
- Ensure overall satisfaction with HP's support services.
- Renew support contracts accurately and in a timely manner.
- Increase customer awareness of HP hardware and software platforms and solutions.

Note

Schedule this meeting 30 – 60 days prior to contract renewal.

Participants

- Customer:
  - System Administrator.
  - First-level manager.
  - Second-level manager (if applicable).
  - Programmers or end users who want to voice concerns or ask questions.
- HP: Customer surveys have shown that this meeting is more effective if done with the full HP Account team. It provides an opportunity to review HP's assistance over the year with the customer's management.
  - SE/AE.
  - SR.
  - CE.
  - DAEM.

- CEDM.
- SDM.

Length of Meeting

- 2 – 3 hours.

Estimated Preparation Time

- SE: 2 hours.
  - Call the customer to determine the agenda and the list of attendees.
  - Schedule the meeting with the HP attendees.
- Customer: 1 hour.

Topics

The following will give you, the account SE, some topics that should be covered during a System Support Planning meeting.

- Review Response Center calls.
- Review any hardware problems and their resolutions.
- Check support contract and open consulting days.
- Discuss training needs.
- Discuss system growth planning.
- Introduce new product information.
- Probe the customer's business status.
- Write a follow-up letter with a summary of the meeting.

Note

You can discuss any of the above topics during any of your technical reviews. It is important to always be aware of your customer's current situation and future plans.

Review Response Center Calls

Discuss with the customer his or her perception of the Response Center service.

Tasks

- Discuss whether the customer received a timely response to their calls.
- Ask whether the solutions were workable.
- Ask whether any patches were needed and if they were provided and installed satisfactorily.
- Review the Response Center calls. Verify that they have been resolved to the customer's satisfaction. If there has been a problem with a recent call, try to discuss the Response Center process and proper usage of this service.
- Review the escalation and field referral policies. It is important to explain the increased role of the CEO in the problem resolution process.

Warning

Be aware that the contents of the calls documented in TRAK II (the Response Center database) may contain customer-sensitive information (such as comments) that should not be shared. This is for your information only.

Tools

- Escalation Center guidelines.
- *Response Center User's Guide.*
- ODIN is the best source for information on the calls placed by your customer. Dial into the system and log in as `hello history.center`. After entering the appropriate passwords, you will be prompted for your customer system handle, start and stop dates, and long or short report. Choose the long report to get the complete documentation on the calls. Print out the short version for your customer after reviewing it carefully.

Review Any Hardware Problems and Their Resolutions

The CE should take the lead in discussing this topic if he or she is in attendance. If the CE is unable to attend, meet with the CE before this meeting and be aware of any major issues that may have arisen lately.

Tasks

Review any hardware problems that may have occurred recently.

- Review the impact of the hardware problems on the system downtime.
- Determine if problem resolution was to the customer's satisfaction.

Tips

- Check if the customer is on next-day response. If the downtime he or she suffered is unacceptable, use the opportunity to sell 4-hour response on the critical pieces of hardware.
- This is also an opportunity to bring up any appropriate trade-ins that may be available on disk drives, plotters, printers, terminals, and so on. Generally the newer products are more reliable and will result in savings on hardware support costs.

Tools

There is a utility available to the CEO that can provide you with a list of all hardware calls placed by the customer. It gives a one-line description of the reason for the call.

Check Support Contract and Open Consulting Days

This topic will result in an accurate IBS (Installed Base System) entry and aid in the delivery of orders placed for consulting.

Tasks

- Get the latest copy of the IBS listing for your customer, and check it for accuracy. Pay particular attention to subsystem products that may have been bought as part of a package deal but are not being used. Make sure you incorporate any new software products that may have been purchased.

Warning

Adding new software products usually requires a modification to the Support Purchase Order.

- Verify that the customer is receiving manual updates, software updates on the correct media, *Communicators, Software Status Bulletins,* and so on.
- Check with the AE administrator to determine if the customer has any open consulting days on order that may not yet have been delivered.
- Devise a plan for the delivery of these consulting days.
- Discuss the customer's satisfaction with this level of support, and plan any changes for the following year.

Tips

- Look for opportunities throughout the review that may show a need for help in a particular area. Schedule delivery of open consulting to address these needs.
- It is best if this meeting is scheduled from 30 – 60 days prior to contract renewal. This allows HP's administration and the customer's purchasing department to begin the renewal process.

Tools

- Many offices have review access to the IBS database. Work with the software support contracts administrator in your administration group to obtain the most recent copy of the contract.
- Use the Annual Support Plan (ASP), discussed in Chapter 3, to develop next year's support.

Discuss Training Needs

Review the customer's training plan and be aware of the level of training for each person on the customer's staff.

Tasks

- Prepare a list of courses that would be appropriate for the customer. If the customer is new to HP systems, plan a training path of classes needed for various levels of capability, for example, system administrator, programmer, and general user.
- Find out if the customer or any other employees are enrolled in any upcoming classes. Show your awareness by telling the customer that you hope he or she enjoys the class.
- If the customer has been to a class recently, ask for his or her feedback on the course.
- Inquire about programming staff changes or additions. This provides a good lead into recommending courses for new people.

Tips

If the customer has recently purchased any new subsystems, recommend standard or on-site training. Stress that utilizing HP services can increase customer productivity. The "time is money" concept never fails to increase management awareness. Sell consulting services if there are no classes offered to meet the customer's particular need.

Tools

- *Education Planning Guide.*
- Training Schedules. Mark the courses and the cities in which they are being offered during the next three months.
- *Curriculum Paths for Technical Computing.*
- *Curriculum Paths for HP-UX.*
- *Curriculum Paths for Engineering Systems.*

Discuss System Growth Planning

Familiarize yourself with the customer's current hardware configuration and revision of operating system. Review other AEO services that are available and might be applicable to the customer as the customer's company grows.

Tasks

- Discuss additional hardware needs. Check disk capacity and memory utilization.
- Discuss system performance, and determine if a Performance Technical Review should be scheduled.
- If the department has grown, it may have additional peripheral or mux requirements.
- Discuss any new projects. Recommend additional HP subsystems to meet these needs, for example, Allbase, Starbase, X-Windows, and so on.
- Discuss plans to connect to other HP or non-HP hardware. They may need additional networking capabilities, for example, ARPA/Berkeley, NS, NS/VAX, and so on.
- Check if the customer is planning to move the computer and recommend a site prep.
- Review HP's Project Center and network support services.

Tips

- If time allows and local management approves, load and demonstrate a subsystem (Allbase 4GL, Allbase Query, X-windows, and so on). Remember to remove software at end of the demonstration or evaluation period.
- Take a new model of a plotter, laser printer, or paintjet from consignment and hook it up to the customer's system. Leave it for about a week if possible. Once the customer uses it, the customer may not wish to part with it and may buy the peripheral. This may seem like the Sales Rep's responsibility, but remember that you are the one who has the greatest presence in an installed base account. Another advantage is that you are not perceived as a Sales Rep and therefore are in a better position to make recommendations on new equipment.
- If loaner equipment is not available, recommend a visit to the local HP demo center.

Tools

- Appropriate pricing information.
- Appropriate configuration information.
- System administration manual for details on the **df** utility to check disk capacity on the HP 9000.
- The **monitor** utility to check memory and cpu usage (HP-UX only).
- HP 1000 system utilities manual for details on **frees** to check disk capacity; **wh,pa** to check memory usage; **meter** to check cpu usage.
- Project services data sheet.
- HP network support data sheet.

Introduce New Product Information

The sales rep should take the lead in discussing this topic if he or she is present at the meeting.

Tasks

- Before going to the customer site, review the customer's hardware configuration. If any disks or other peripherals have recently been offered on a trade-in or upgrade program, then collect literature and prices to give to the customer.
- Take data sheets on new hardware systems, peripherals, software product offerings and any new AEO services

Note

Although the intent of this topic is not necessarily to sell HP products, you may hear of potential needs that you should feed back to your SR.

Tips

- On customer satisfaction surveys, lack of new product information is a concern. Customers do not feel that they are being kept current.
- Give the customer information on application areas besides their own, for example, EE, instrumentation, and so on. Choose what areas make sense for the customer's company. The customer may pass the information along to a counterpart in another group and generate a sales opportunity for HP.

Tools

- Data sheets on products (reference the catalog in your literature room).
- Peripherals configuration guide (to check supportability).
- Appropriate pricing information.
- Appropriate configuration information.
- Contact the technical computer sales center for latest information on trade-in and upgrade programs being offered: for multiuser systems (800 and 1000), call (408)257-8811. For workstations (300 and 800), call (303)229-2600.

Probe Customer's Business Status

Become very familiar with the customer's software applications and future plans. Get a thorough knowledge of the customer's operations.

Tasks

- Discuss plans to expand the customer's department.
- Discuss new application being developed.
- If the customer is a government contractor, discuss whether it has been awarded any new government contracts.
- Review major changes in management or company philosophies (for example, emphasis on quality in a manufacturing company, or a move towards automation.)
- Ask your customer about any major programs in other departments.

Tips

- This is an important part of the job. Be aware of the customer's business and his or her industry. By reviewing these items, you are in a better position to recommend the right solution and provide a proactive approach to help meet the customer's needs.
- Your customer is a window into the whole company.

Tools

- Good business sense.
- Industry-specific trade magazines.

Follow-Up Letter with Summary of Meeting

Complete a formal write-up of the technical review. Distribute this to the HP account team and the team members' managers. Also send the letter to the customer and his or her management.

Tasks

- Document the review. Be sure to include a list of attendees, the main topics covered, and any action items.
- Communicate any IBS changes to the AE administrator.
- Update the account folder.
- Follow-up on any action items that were your responsibility.

Tips

The write-up should be a professional recap of the meeting and should be sent to the customer no later than a week after the review.

Tools

A sample follow-up letter to be used as a guide follows. Be sure to tailor it to your needs and add to it as needed.

November 7, 1988

Fred Smith
Widget Company
1234 Memory Lane
Anytown, CA 99999

Fred,

The following is a summary of our account review on Wednesday, November 2, 1988:

In attendance were Fred Smith and Cynthia Jones from Widget Company, and Joe Essee from HP.

Topics covered:

Fred Smith reviewed the current status of their disk problem. The CEO has decided to replace the entire drive, and the problem now appears to be corrected.

Fred then indicated that general system performance seems fine, and that he has no outstanding problems. He did suggest that they may be running out of computing power, as they have had billing periods showing almost 90% CPU utilization. We then discussed the possible upgrade options, as well as the purchase of demonstration equipment.

We then reviewed the current support contracts and found that the software contract is in order, but some changes are needed in the hardware contract. In particular, the 7935 disk should be on the "B" system contract. Also, it appears that some memory cards have not been accounted for. Fred asked that I send him a complete printout of their hardware support contracts.

Cynthia inquired about obtaining additional manual update sets. I will contact the Software Contracts people concerning how this may best be accomplished.

After reviewing the Response Center call summaries, Cynthia indicated that she still had a question concerning the use of make(1) and the creation of target files on a second disk. I investigated the problem and found that it was caused by the linker program, ld(1), and not make(1). I then suggested that Cynthia include an explicit mv(1) command in her makefiles, enabling her to work around the problem.

Action Items:

Problem/Question	Action Plan	Person Responsible
Additional manual sets	Contact AE admin for cost/ordering info	Joe Essee
Purchase of demo equipment	Contact Fred with details	Joe Manager

Please call me if you have any other questions or problems.

Sincerely,

Joe Essee
Software Support Rep
Hewlett Packard Company

Copy to:
Fred Consignment/HP
Joe Manager/HP
Joe Manager II/HP

A

Annual Support Plan and Annual Support Record

Blank copies of the Annual Support Plan and Annual Support Record are contained in this section of the *Best Practices.* Use the Annual Support Plan forms to develop a yearly support plan for your custome r. This form is working document that can be used by you, the account SE, as well as the Sales Rep and your management team so that you have a "Year at a Glance" view of the planned support activities for your customers.

The Annual Support Record is a tool used to record your support activities. At the end of the year, you can use this form to review what you have done and how to plan for the coming year.

Note 

Please refer to the sample Annual Support Plan and Annual Support Record contained in chapter 3 of *HP TeamLine Best Practices for HP 9000 and HP 1000 Computer Systems.*

HEWLETT PACKARD

Annual Support Plan

Contract Period: _____ (mm/yy) to _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date				Planned Topics
Software Release Planning					
Software Update Installation (optional)					
*Technical Reviews					

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	
Additional Technical Reviews	
Software Release Planning	
Software Update Installation	

HEWLETT PACKARD

Annual Support Record

Contract Period: _____ (mm/yy) to _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date	Hours	Accomplishments	Action Items	Date	
					target	actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews						

HEWLETT PACKARD

Annual Support Plan

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date				Planned Topics
Software Release Planning					
Software Update Installation (optional)					
*Technical Reviews					

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	
Additional Technical Reviews	
Software Release Planning	
Software Update Installation	

HEWLETT PACKARD

Annual Support Record

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date	Hours	Accomplishments	Action Items	Date	
					target	actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews						

HEWLETT PACKARD

Annual Support Plan

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date				Planned Topics
Software Release Planning					
Software Update Installation (optional)					
*Technical Reviews					

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	
Additional Technical Reviews	
Software Release Planning	
Software Update Installation	

HEWLETT PACKARD

Annual Support Record

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date	Hours	Accomplishments	Action Items	Date	
					target	actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews						

HEWLETT PACKARD

Annual Support Plan

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date				Planned Topics
Software Release Planning					
Software Update Installation (optional)					
*Technical Reviews					

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	
Additional Technical Reviews	
Software Release Planning	
Software Update Installation	

HEWLETT PACKARD

Annual Support Record

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date	Hours	Accomplishments	Action Items	Date	
					target	actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews						

HEWLETT PACKARD

Annual Support Plan

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date				Planned Topics
Software Release Planning					
Software Update Installation (optional)					
*Technical Reviews					

*Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Type of Activity	Quantity Planned
Base Contract Technical Reviews	
Additional Technical Reviews	
Software Release Planning	
Software Update Installation	

HEWLETT PACKARD

Annual Support Record

Contract Period: _____ (mm/yy) **to** _____ (mm/yy)

Customer Name: _____

System Handle: _____

Support Activity	Date	Hours	Accomplishments	Action Items	Date	
					target	actual
Software Release Planning						
Software Update Installation (optional)						
Technical Reviews						

B

Technical Review Meeting Preparation

The *Meeting Preparation* form is a tool to help you prepare for your technical review meeting.

Note

Please refer to the sample Meeting Preparation form in chapter 3 of *HP TeamLine Best Practices for HP 9000 and 1000 Computer Systems.*

HEWLETT PACKARD

Technical Review Meeting Preparation

Customer Name: _____

Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Scheduled Date: _____

Participants	Preparation Task
Customer: _____	
HP: _____	

TOPICS FOR MEETING:

Topics	Reference Material and Documentation
	HP TeamLine: Software Support Guide for HP-UX and RTE

HEWLETT PACKARD

Technical Review Meeting Preparation

Customer Name: _____

Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
- ☐ System Administration
- ☐ Other: _____
- ☐ System Customization
- ☐ System Performance
- ☐ System Support Planning

Scheduled Date: _____

Participants	Preparation Task
Customer: _____	
HP: _____	

TOPICS FOR MEETING:

Topics	Reference Material and Documentation
	HP TeamLine: Software Support Guide for HP-UX and RTE

HEWLETT PACKARD

Technical Review Meeting Preparation

Customer Name: _____

Type of Technical Review:

- ☐ Application Assistance
- ☐ HP DesignCenter Assistance
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Reader Input Sheet

To help us provide you with more useful information, please take a moment to give us your comments. These *Best Practices* should reflect what you do best — develop a relationship with the customer. So help us to help others to be as effective and efficient as you. Share your best practices.

Office/Country: _____

(Optional) SE name: _____

1. I find the information in this document to be:

   very valuable _____ somewhat valuable _____ not very valuable _____

   Comments _____

   _____

2. Do the *Best Practices* provide an adequate amount of information?

   yes _____ sometimes _____ no _____

   Comments _____

   _____

3. Please list your suggestions for additional technical review topics. When applicable, use the task, tip, and tool format.

   Technical Review Topics: _____

   Task: _____

   _____

   Tips: _____

   _____

   Tools: _____

   _____

   Additional Suggestions: _____

   _____

Send your comments in one of the following ways:

- HP Desk node: Technical AMS/HP5000/40
  or
- Application Support Division
  100 Mayfield Ave.
  Mountain View, CA 94043 U.S.A.
  Attention: HP AMS Product Development Bldg. 36LD