

Working Effectively with Support

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Introduction

This document will explain how to work effectively with Oracle Applications Support and maximize the return on investment for your support contract. The techniques presented here can be employed with other service providers and support organizations. The material will cover best practices learned from our customers on how to obtain optimal service from a support organization including:

Area	Description
Infrastructure	Enable effective support and communication
Communication	Quality and quantity of communication drives results
Framing	Research, preparation and problem qualification
Tools	Leveraging electronic tools to maximize results
Processes	Defining processes to improve effectiveness ongoing

Oracle Applications Support is committed to success of each of our customers and the productive use of Oracle Applications in addressing their business objectives. In the United States alone, Oracle Applications Support has 700 support analysts. Consider this group of professionals an extension of your internal project team providing hundreds technical analysts with in-depth product skills. As Ken Blanchard observed, "None of us is as smart as all of us."

Oracle Support Services

Oracle Support Services (OSS) provides 24x7 solution support to our customers around the world. OSS has four global support centers and over 70 local support centers totaling thousands of analysts to provide optimal service. Services include telephone support, electronic support, on-site support and customized support solutions tailored to the needs of individual customers.

In addition to providing technical assistance you receive updates to the application software. The hundreds of Development professionals creating the application software are an extension of your team, as well. Market demand, customer input and user group prioritization guide Development on new software design. Many users view Development as the people who provide bug fixes. Development also provides updates to the applications by adding new functionality, new products, and new technology. This includes changes due to legislative requirements. These product updates are included as part of with your support contract. Oracle's dedicated Development team and Support organization makes each customer more successful managing and maintaining their enterprise resource planning (ERP) and customer relationship management (CRM) systems.

There are various service offerings to best match your organization's business needs including Silver and Premium support. Oracle will work with you to define an offering that meets your company's particular requirements. You may want Oracle to assist you in setting up an internal help desk, or you may require on-site support for a crucial project phase, or just want an assessment made on your project's support readiness. Make sure your company obtains the level of service appropriate to the scope of your project. Please refer to the web site <http://www.oracle.com/support/> and click on "Support Service Offerings" for additional information.

Tools and Terminology

To better understand how to work effectively with Support it is important to know the terminology and the tools used. The most important action you can take to improve your service level is to begin using Oracle MetaLink, Oracle Support's web site. For customers with "metal" levels of service this tool will allow them to view white papers, FAQs, product certification matrices, TARs, bugs and much more. Accessing MetaLink will also allow you to do full-text searches for solutions in the knowledge repository and ask "how to" questions in the technical forum section.

Tool	Description
MetaLink	<ul style="list-style-type: none"> • Oracle Support Service web site • Allows for knowledge base search for solutions, user forum to ask questions, log or view TARs, product certification, white papers, obtain templates, download patches, access Self-Service Tool-Kits and much more • The URL is http://www.oracle.com/support then click on "Electronic Support". You can also access http://metalink.us.oracle.com. Registration is required. • Global
ITS	<ul style="list-style-type: none"> • Incident Tracking System (ITS) • Used by analysts in global centers to log TARs • TARs logged by analysts are workable via MetaLink
Bug Database	<ul style="list-style-type: none"> • Bugged issues are logged into the bug database • Primary tool used by Development

MetaLink has a wealth of capability and content that every customer should make use of. It is strongly recommended that all customers use the MetaLink web site to look up information on the knowledge base and log your issues electronically.

Key web sites every Oracle Applications customer should be familiar with include:

Web Site	URL
Oracle - Oracle's Corporate Web Site with product, services, news, customer success stories, partners, and other information.	http://www.oracle.com
Oracle Support Services - Support's	

web site with contact information, services, news, product descriptions and the like.	http://www.oracle.com/support/
MetaLink - web based support services. Providing access to product information, technical libraries and interactive support.	http://www.oracle.com/support/ Click on "Electronic Support"
Support Web Center - Concise easy to understand information about your Support options.	http://www.oracle.com/support/ Click on "Support Orientation"
Oracle Applications User Group	http://www.oaug.org

Each customer is given a Customer Support Identification number (CSI number) that is a unique identifier for working with Oracle Support Services. A CSI number is assigned to each support contract purchased. For keeping track of all Applications issues you are encouraged to use a single CSI number. This way you can view all of your open issues in a single report. If Oracle consultants are augmenting your team you should encourage them to use your CSI number to log issues so that their TARs also appear on your summary reports. The CSI number is sent to you on the packing slip. If you missed it then you can call the Client Relations group on the Support help line for assistance. If you have multiple CSI numbers you can request Client Relations to consolidate them into a single number.

The unit of work for Oracle Support Services is called a Technical Assistance Request, or a "TAR." Each TAR is assigned a unique identifier called the TAR number. When you log a Technical Assistance Request MetaLink will provide the TAR number or the analyst will advise you of what the TAR number if you used the phone. You should write this number down and save it so that you can call back on that specific problem.

Understanding Support

The Doctor Will See You Now

Working with a Support organization is analogous to seeing your family doctor. Something is wrong. You don't feel well. You are not performing as you should. You call your doctor and explain the symptoms over the phone. Sometimes the doctor will advise you immediately on the phone what you need to do. Other times she will ask you to come into the office for an examination.

When being examined the doctor will ask you a lot of questions. She will determine your weight, temperature, blood pressure, and listen to your heart. The doctor will examine in greater detail areas that are the subject of the complaint. The doctor will perform additional tests to isolate the problem if the initial tests are inconclusive. You may have to have a blood test, an x-ray or other tests to determine the root cause of the ailment.

The doctor makes a diagnosis of the cause of your ailment and recommends a treatment. You are prescribed medication and given precise instructions on how to take the medication. The doctor will advise you to rest, avoid certain foods, or drink plenty of fluids. Most of the time we get better. Sometimes the treatment does not work and we have to go back to the doctor for further tests, analysis and medications. Sometimes the initial diagnosis was wrong and different treatments are prescribed. Doctors first treat the most likely cause of the problem.

Support is much the same. Your system is not behaving as it should. You call support and they ask you many questions to try to diagnose the problem. Luckily, you do not have to come to the office. We do our work remotely. Support will ask you a lot of questions and try to isolate the root cause of the problem. We ask many of the same questions over and over again just as the doctor always weighs you and takes your blood pressure. Sometimes Support will not be able to determine exactly what is wrong and will ask the customer different questions or to try different tests. Support will make a diagnosis and try solutions for that problem. Just as a doctor is not always correct, Support will determine the root cause of some complex problems by the process of elimination. Be patient and work with Support in trying to isolate the issue. If the problem was easy to solve you would not have needed to call support in the first place. Sometimes the doctor tells us things we may not want to hear like, eat less and exercise more. Support also tells us things we may not want to hear like, customize less or add more hardware.

On some occasions the customer refuses to take Support's advice on how to solve a problem. The medication can have side effects. Just as with your doctor's advice, you have the option to refuse to take the medication. You may not want to apply a patch. However, if you do not take the medication you may not get better. It is necessary to treat the root cause of the ailment.

The next time you are unsure about how to work with Support try using this analogy to help put things into perspective.

What Does a Support Analyst Do?

Depending on the skill level of the analyst, the product they support and recent incoming volumes the amount of issues each analyst works is different. For example, an analyst may be working 25 TARs in his queue. Not all TARs are active at once. Some TARs are actively being worked. Some TARs will be in Development's court and only require monitoring. Some TARs are waiting for the customer to provide additional information and others are waiting for the customer to confirm that the issue is resolved.

To manage the work load the analyst will review all TARs that they currently own. They can view these TARs using "filters" that will sort the work. A simplified example of an MRP analyst's queue is as follows:

Sev	Status	Customer	Plat	Product	Abstract
1	NEW	Do-All Inc.	AIX	ENGIN	Workflow failing when...
2	WIP	Puddie Plant	SUN	MRP	MRPFDSRA APP-1206
2	CUS	Contrary Corp	SUN	MRP	Duplicate issues occur...
2	DEV	Acme	HP	BOM	FRM-41045 FRM- 40738...
2	CUS	Brick Schtick	HP	MRP	Hash keys are not work..
2	CUS	Wobbly Chair	SUN	MRP	MPS/MRP Job taking..
2	CUS	Swim System	AIX	MRP	High water mark reached
3	DEV	Odor.com	HP	MRP	1002578: Using ABC the..
3	LMS	Higgins Paint	SUN	MRP	Jobs run without correct...

The example above sorts by the highest priority first and then those TARs which have a status for the analyst to take action on. By filtering the work the analyst determines what action they need to take next to move issues forward. Analysts will use various filters to slice and dice the queue to identify issues requiring attention.

The TARs in an analyst's queue could have originated from either an iTAR or a phone TAR. Phone TARs tend to be worked by whoever answers the phone whereas iTARs are assigned to analysts with expertise in the subject matter of the iTAR. This matching of skills to problem statement help resolve issues more effectively. Another advantage of using iTARs is the update cycle. If you use MetaLink to update your TARs the status code will change signifying to the analyst your feedback on the issue. This change will be reflected in the above queue management screen. The analysts can then take the next action based upon your entry in the TAR without the need for phone tag.

Support analysts have a single responsibility: provide quality customer service. They are focused on providing solutions to our customer's problems. Analysts also have two mutually exclusive tasks. One task is to answer the phone and take new calls from customers requesting assistance. The second task is to resolve technical issues already logged. If you take calls you cannot be working technical issues. If you work to solve technical issues you cannot constantly take calls. The analyst must juggle these two conflicting responsibilities.

Some support organizations solve this problem by placing a front line support group of inexperienced analysts to answer the phones and document issues customers call in. The experienced analysts don't take direct calls but instead work technical issues. After the front line logs the problem a skilled analyst will call back the customer for the "real"

issues. Our customers have stated very clearly that they do not want an untrained front line staff answering the phones. Our customers have told us that they want to explain these technical issues to trained and qualified staff that understand the products and that is how we have structured our operations.

Therefore, analysts will work several hours per day doing “real time” where they take new incoming calls from our customers. When an analyst is in “real time” the call backs on their existing TARs go to voice mail. This is why it is difficult to reach an analyst at times. In addition to real time the analyst may be calling development, calling back another customer or another customer may have called them to discuss their TAR and your call goes to voice mail. Analysts spend the majority of the day on the phone. As phone systems are single threaded this is one of the causes of phone tag. Likewise, the customer may have other things to do than sit beside their phone waiting for a call back from Support. Valuable time is lost playing phone tag. The most effective method to provide additional details to the analyst is to use the MetaLink iTAR feature and directly input the information into the TAR. That way you can progress your TAR and document the issue without the phone tag. Always end each entry in the TAR with the latest update of information to progress the resolution and what the next action should be to continue the forward momentum.

Analysts hired by Oracle Support Services are professionals. They go through weeks of boot camp training after being hired to prepare them for handling your issues on the phone. After boot camp they work in a mentored environment for several more weeks until they get up to speed on the product. They receive ongoing training the entire time they work at Oracle. As good as they are, they will never know everything. No one person is going to know Oracle’s entire technology stack in addition to mastering more than 80 applications. When a support analyst does not know the answer they know where to go to find it. This is analogous to a doctor encountering a problem and engaging a specialist for more detailed assistance. No single individual will be able to answer all possible questions so we use the team approach and thousands of Oracle employees to provide solutions.

Solving a software problem is a remote location without close cooperation from the customer is extremely difficult. Each customer must contribute to root cause analysis, jointly define the resolution plan and then assist in documenting the progress. The more quality information the customer provides the faster the analyst can isolate and resolve the issue. You need to partner with the support analyst to drive the issue to resolution. Occasionally, a frustrated customer thinks it is necessary to abuse people and make threats to get things done. This seldom produces the results desired. Analysts are eager to work issues with customers that work as a partner. Support is sincerely interested in helping your team solve their issues. Work as a partner with the analyst in a professional manner and you will get optimal results.

It is important to understand that TARs have a status code associated with them. Analysts use this status code to manage their work load. The TAR is usually in one of three states: Customer status, Support status or Development status. When the TAR is in customer status Support is waiting for information from the customer — the customer has the next action. When the TAR is in Support status the analyst has the next action. When the TAR is in Development status Support is waiting for Development to take the next action. Use MetaLink to view the current status of all of your TARs. If the TAR is in

Customer status and you believe the next action belongs to Support update the TAR using MetaLink and let your analyst know.

Compensation for support analysts is not based upon TAR closures. The training of support analysts is based upon providing quality customer service. Our job is to deliver solutions to our customers and help them be successful using our products and services. Compensation plans for all Support employees include customer satisfaction as a component.

What Does Support Do?

The following chart is a breakdown of issues logged with Oracle Applications Support. An analysis of one year worth of TARs reveals the types of requests Support is receiving.

Percent	Description
1%	Enhancement Requests
7%	Non-Oracle Issues: 3 rd party software, OS Issue, etc.
17%	Recorded as "Other." TARs closed by the customer using the phone system default to this status as well as TARs not categorized by the analyst.
26%	Technical Issue: Work technical issue, bug fix, request for patch, data corruption, performance issues, system error or upgrade problem.
20%	Customer caused issue: Application installed improperly, system incorrectly configured, application set-up incorrectly, software installed on wrong platform, obsolete product or platform, customization, or user has lack of training or understanding of issue.
29%	Additional information requested: Asking for more clarification on documentation, system/error message explanations, what software works with what other software, certification request/clarification, and other requests for more information.

As critical issues require immediate action support analysts could provide a higher level of service if the "additional requested information" was directed to the MetaLink forum. By asking general questions using the MetaLink Forum it is possible to avoid the time required providing version numbers of operating systems and contact information required for TARs. The forum is an ideal medium for asking general questions that require straightforward answers. Additionally, customers can place information that they have learned on the forum to assist other customers in being more effective. TARs are more suited to documenting complex technical problems.

If Support were focused solely on technical issues they would be far more effective, thereby making our customers more effective. If you define the word "support", you are going to use words like assist, aid and help. If we could rely on each other's skills to maximize results everyone would be more productive and effective. The goal of Oracle Support is to make our customers more successful using Oracle products. When a customer contacts us to ask basic questions that are included in the documentation we will take the time to assist and if necessary read the documentation to them. Understand, however, that this adversely impacts all of the other customers requesting

assistance. If these types of questions persist, we contact the company management and advise them they have a training requirement to address.

Roles and Responsibilities

Support resolves the majority of issues without any code fixes as the above breakdown indicates. Oracle Support Services assists our customers in successfully using our products. This may be to answer a question or to provide a code fix for a technical problem. Within Oracle, Support's role is to define all problems clearly and log a quality bug for Development to resolve. Support acts as the medium between the customer and Development. The following table defines the roles and responsibilities of the various partners in implementing Oracle Applications successfully at each customer site.

Owner	Roles and Responsibilities
Support	<ul style="list-style-type: none"> • Interpret error messages and conditions while installing or running Oracle Applications Products. • Isolate and verify problems within Oracle released code and provide solutions for valid problems. • Provide on-site support when purchased as an additional service. • Bridge between customer and Development when there is a bug involved.
Development	<ul style="list-style-type: none"> • Solves bugged issues. • Uses the information documented by the Support analyst in the bug database to determine the problem and to devise a solution.
Customer	<ul style="list-style-type: none"> • Collects and communicates all problem information. • Communicates and defines urgency of issue. • Provides reproducible test case. • Knows how and when to escalate. • Is available for obtaining additional information. • Knows all customizations installed. • Has a current test environment. • Has employees or consultants with correct skill sets.
Consulting	<ul style="list-style-type: none"> • Site assessment and recommendations on product and process implementation. • Code customizations, including forms and reports, for use by a single customer, and support of these customizations. • Specific, on-site training of customer personnel.

Steps to Improve Your Support Service

The following suggestions are five areas where you can take actions to improve the service you receive from any support organization. The most important thing is to take ownership of your resource and ensure that you receive a solid return on your support investment. Defining processes, training your staff on those processes, measuring performance, and continually improving the processes is key to your success.

Every organization has strengths and weaknesses. Some of the following suggestions you may have already implemented. Some may not be applicable to your company. Implementing some or all of the following steps will assist your company to leverage the skills and resources of Oracle Support. Pick which steps are best for your company and implement them to enhance your service and lower your costs.

Partnership

The secret to optimizing your support services is to work as an active and focused partner with the support organization. No support organization can assist you with complicated software environments without the effective involvement from your on-site project team. Some customers think that they are paying for a service and therefore believe that they do not need to actively participate in the root cause analysis and solution determination. At face value this is technically correct. Support organizations are obligated to find the problem and solution. The difference to the customer is the length to resolution and higher costs if it is a one sided effort. If the support organization cannot determine symptoms, must reproduce test cases to match your environment and set-up, cannot easily question your staff on configurations and parameters then it will obviously take longer to resolve. The information gathering is still required with or without assistance. The difference is instead of doing it as partners jointly working the problem the support organization will have to get it one piece at a time. The iterative questioning that support will need to do will negatively impact the productivity of your team. Finally, the longer solution times will result in lost productivity of your users and possible lost opportunities in the market place. Consequently, to reduce your costs and improve your company's effectiveness you should work as a partner with support and try to drive issues to closure as quickly as possible.

The hallmark of a true partnership has the following three characteristics:

- Shared ownership in resolving the issue
- Quality and quantity of communication
- Joint planning on problem resolution

The customers that gain the most from a support organization tend to follow these guidelines.

Review the following five sections and determine if there are opportunities to improve your problem resolution process with all of the support organizations you interface to. Although this paper is written specifically for Oracle Applications support many principles are applicable to other support organizations. Remember, these lessons were learned from other customers and are being shared so all customers may benefit.

Using Support Effectively

1.0 Infrastructure

Enterprise resource planning systems are complex environments that require a certain level of infrastructure to be in place for successful execution. Most companies have the appropriate infrastructure. Some may have gaps in certain areas. Review your environment and ensure that all of the basic tools, skills, and processes are in place and managed effectively.

1.1 Dial-In Access

Dial-in capabilities should be in place and documented when you first set up your system. It is necessary to allow service providers access to the systems they may be required to support. Triage without dial-in will not be feasible in some situations. Access should be available to both live and test systems. Any system you call in for assistance on should have dial-in capabilities. If you are unable to allow direct access to your system and you are unable to create a reproducible test case Support may not be able to assist you.

Some customers do not allow direct access from vendors. It should be clearly understood what risk this entails. Creating an exact replica of your production environment for remote access can mitigate the risk. If you have an idle machine with the exact hardware configuration, software configuration, recent data load and identical patching levels then you could allow access to the test system instead of direct access to the live system. If your environment uses multiple servers then you may need to replicate them as well. If you cannot afford to maintain a mirror system then you should begin planning on how you can create a secure logon for Support and Development to use in an emergency situation.

If your company has security concerns dial-in can be made by manually connecting a modem and enabling a read only logon when Support requests access. Disable the logon and disconnect the modem after Oracle is finished accessing your machine. If you use modems and have a large installation you may need multiple modems to allow triage to occur concurrently on different products. Multiple modems also save users from going into the office at night to re-set a modem - instead they can refer OSS to use the secondary modem. Large patches can be difficult to send over a modem. Modems tend to have "noise" on the line that make transmission difficult. An Internet connection is preferable.

For urgent and critical situations every customer should have some capability to allow remote access. This capability needs to be defined in advance of the critical situation. System administrators should seriously consider what they would do when they have run out of options for resolving a problem on their own. Support may not be able to help unless they can access your system to root cause the problem.

Document in detail the exact dial-in procedure for your system. Make this document available to everyone in your organization that interfaces with Support. Any one contacting Support should be able to enter all dial-in steps directly into the TAR using MetaLink. At a minimum they should be able to fax this information to a Support analyst. By preparing this information in advance you will avoid problems and phone tag at critical times.

Remote access should also exist for client nodes if the customer uses SmartClient. Recommended products for client-side "dial-in" are PCAnywhere or Carbon Copy. In

cases where Development or Support cannot recreate a problem that a customer is experiencing they will request you display your screens using these products. Make sure your firewall does not impede this communication. Make sure you have remote access functionality in place prior to a severity one situation.

1.2 Test Systems

Having the appropriate infrastructure is crucial for the success of all projects. At a minimum each customer should have both a test and production system. If possible, install the test and production systems on separate servers so testing does not impact production. Keep the test system up-to-date and in alignment with the production system. Up-to-date means that the operating system and application versions are the same, data is recent, and patching is in sync with production. It should be as close to your production system as possible if not identical. Some customers back their production system onto their test system at regular intervals. If at all possible the test environment should be on a separate server in case the problem requires re-booting, performance issues, or other actions that can impact your production environment. Test all fixes in the test environment prior to introducing them into your production environment. Test changes to set up parameters your users are asking about on the test system prior to trying them on the production system. You should never put your business at risk by testing in the production environment.

Depending on the size of the project you may need more than one test system. If you are developing software you may need a development environment, a test system for quality assurance and maybe a user acceptance test environment. If you are unable to test patches in a timely manner you may consider creating several test environments so that you can implement critical fixes without interrupting your current testing cycles. A careful review on how you manage testing and the effectiveness of your testing schedule may create some opportunities for improvement. If you regularly have testing bottlenecks, over ride one test to do another instead, or loss track of what state the test system is in then you should reevaluate your testing process and seek opportunities to improve it.

Always test solutions before introducing them into your production environment. What makes managing an ERP system more challenging than system software is that the ERP software is data driven. In other words, the software behaves differently depending on what data has been entered. For every customer the data that has been entered, the initial set-up, the combination of products used, software configurations, hardware configurations, integration points and the patch combinations applied are different! Your system is totally unique and you need to carefully manage it by testing all changes prior to introducing them into your production environment.

1.3 Appropriate Skill Sets

Each installation should have knowledgeable staff to work functional issues, technical issues, or both. During an implementation, ensure consultants provide a knowledge transfer to your organization's staff. Train internal staff on how to use and maintain the Applications and servers prior to the departure of the consultants. New customers usually have difficulty with concurrent managers, printing, FSG and ADI. Make sure you get adequate training in these areas prior to the consultants leaving. Obtain the documentation set including the Technical Reference Manuals. All staff logging TARs

should have access to the documentation set and MetaLink. Oracle University offers applications training courses for those project teams that are new to Oracle Applications.

It's important to have a technical resource assigned to manage your environment. All computer systems require some form of ongoing system administration. Find a person knowledgeable about the particular platform installed. You will need someone knowledgeable about managing Oracle Applications. They should be familiar with System Administration and Concurrent Managers. Ensure the availability of a person with database administration skills, capable of applying patches, running regular backups, and performing general maintenance. If you cannot retain such skills talk to your Oracle Support Service representative to explore remote services that Oracle can provide to augment your staff. Oracle can do some of the installation, upgrade and system management functions for you as an additional service offering.

Do not overlook these key requirements because you do not have the skills in-house. If you do not maintain your system you will eventually have system down time. This will cost you in lost business opportunity as well as having to hire a reactive technical resource to repair damage. Usually, these costs will exceed the preventative maintenance costs you would have originally spent.

Training your staff on the products and the technology is crucial. Within the information technology industry newly hired people are the norm. Untrained or new staff should not be placed into critical situations without trained staff assisting them. To obtain optimal service you need to make sure you have the correct skill sets available. Don't place users on calls that require technicians and don't place technicians on calls that require a user's explanation. If a problem is both technical and functional get both parties on the phone with Support at the same time to minimize phone tag. Remember, Support will also hire new people. Please work with them as they have experienced people behind them to help them with the issue. If you are working with a new analyst and your issue is urgent ask the Duty Manager to have it reassigned to an experienced analyst.

Trying to cut corners by using Support in place of hiring consultants will usually end up costing more. The skills sets are different between Support and Consulting. Consulting will help map the customer's business processes to the functionality of the Applications; setting up the Applications to meet the customers needs. Consulting looks at the big picture, designing how the Applications will work together and interact with other systems. Support resolves technical issues and answers questions about the products. Support understands the "under the hood" details of the Applications and assists with finding solutions to technical problems.

Use the TAR Review process detailed in Section 5.2 to gauge the skill level of your staff and the consultants you have hired. If they are opening TARs with simple questions that reflect a lack of product knowledge or expertise then you should evaluate their contribution to achieving the project goals. For those asking basic questions using TARs additional training should be provided. At a minimum, inexperienced staff should not be working issues on the project's critical path.

1.4 System Log Book

A check of the system administrators log book should be able to detail what changes have been implemented recently to each of your systems. If your site does not currently

use a log book to track all changes made to the software environment you should begin this process immediately.

Use a system log book to keep track of *everything* installed on the systems and the installation date. This is especially important when root causing a problem. Examples of things that should be managed and documented include:

- Operating system upgrades, parameter changes, patches
- Hardware upgrades or changes
- Network upgrades, changes or parameter updates
- Database upgrades, parameter changes, patches
- Application upgrades, installs, changes, patches
- Customization install, upgrades, changes or patches
- Profile option changes

Making changes causes most problems. Carefully tracking all changes on your system will allow faster resolution of issues. Maintaining a log book is a fundamental process for system administration yet many times it is not used.

There are automated tools that can track much of this information. Oracle Applications tracks all patches applied using adpatch in a text file located in \$APPL_TOP. The file name is applptch.txt and should be used to verify all patches applied to the various instances you are managing. If you manually apply a patch without using adpatch it will not be reflected in this file and may cause serious problems when trying to root cause a problem. Always use adpatch to apply all of your patches.

1.5 Patch Management

All software requires patches. It is extremely important that each customer devise a patch management system. Whether the patch management system is automated or manually tracked, it is imperative to environmental and system integrity that all patch sets and individual patches are identified as to their product group, the point or interim release update value within that product group, the functional or technical nature of the fix, and origin of the physical patch. The beginning to end process of applying a patch to a test, development or a production Oracle Applications installation should be thoroughly documented from time it is downloaded from MetaLink to production deployment. The Applications DBA must have documented at all times what patches have been applied to which products and when they were applied. Apply patches to a test system and apply rigid regression testing techniques prior to applying the patch in production.

There is no utility that is available to reverse the installation of a patch. Therefore, we recommend that you perform a full system backup prior to the installation of any patch on both your test and production system. A sample process for patch management follows:

- Record the origin of the patch in detail (date, analyst, source)
- Ensure through local patch management system that the patch hasn't been applied. There are two files that are created in APPL_TOP directory which list all the patches applied to the application: applptch.txt and applpatch.tmp
- Document the problem that generated the request for the patch

- Shut down the Concurrent Managers before applying the patch
- Back up the test system and apply the patch to the test system
- Scan all patch logs for errors
- Regression test the patch against all related products groups
- Back up the production system and schedule downtime for patch application
- Shut down the Concurrent Managers before applying the patch
- Scan all patch logs for errors
- Document entire procedure. Preferably within the existing database or using another management tool.

Adpatch is the Oracle Applications patching mechanism. This is used by maintenance packs - megapatches (Release 10.7), mini packs (Release 11) and one-off patches. Patches generally consist of a patch driver, copy driver, database driver, and generate driver. It is important to track all changes to your system. If you apply all patches using the adpatch and the standard application tools you will have a log file of everything you have applied.

Customers can download patches directly from MetaLink. With such availability to all project members you may need to implement a patch management system within your project to ensure people are not applying patches without review. With unrestricted access to obtaining patches it may be advantageous to use a single person to manage this important process.

Not all patches apply to all customers. You should carefully review each patch and ensure it is appropriate to your environment. For example, encumbrance accounting patches would be useful to public sector customers but may not apply to most others. Introducing changes to your system that are unnecessary should be avoided and carefully managed.

Make sure you download the patch for the correct platform. Review the readme and make sure the patch addresses the problem you are trying to rectify. Apply all necessary prerequisite patches.

When root causing a problem you may want to apply a patch to get your software to latest revision level. If you still have a problem with the application after making sure you have the latest version of a form then it will be easier for Development to resolve your issue. Oracle may request that you apply a patch to get your code to the latest revision level if the version of the code you are running is old.

Some companies identify a single person to manage all patches for their environment. This enables better code management, closer control, and priority planning. Testing instances are usually used for multiple tests and application of patches needs to be very carefully managed to ensure priority patches are tested first and tested completely. Do not introduce any change to your production system without first testing the change. Application software is data driven so the software behaves differently depending on the data you have entered. Your data, system, hardware, operating system set up, network, mixture of application products installed, interfaces to the applications and the combination of patches that you have applied to your environment is totally unique. There is no other system in the world exactly like yours. You must test everything. You must manage your environment carefully and constantly.

2.0 Communication

The quality and quantity of communication is one of the hallmarks of a true partnership. One of the keys to obtaining optimal support is to ensure effective communication. Most problems customers have with support organizations can be root caused to ineffective communication. Support analysts can have dozens of TARs in their queue. Each issue is on a remote system with different configurations and different data. Every issue will have fluctuations in urgency and direction during the life of the TAR. If the customer communicates all of the pertinent information and continually provides feedback on symptoms, test results and changes in business impact the analyst will be far more effective at driving the issue to resolution in an appropriate time span. Leaving the support analyst to determine how the customer configured their system without any assistance will result in a longer time to resolution. Templates provide an excellent tool to gather all required information. Gathering all data at the beginning minimizes phone tag and reduces time to resolution.

There are some misguided users of support that believe they have paid for the service and that it is the responsibility of the support organization to fix the problem with little or no help from the customer. Needless to say this approach does not work, makes no sense and will only cause delay and frustration. Work closely with your support team, communicate effectively and leverage your support investment.

Communication is the key to success. Communicating effectively will ensure that you tap into all of the resources Support has to offer. Schedule a quarterly conference call with the manager of the team you are working with most. Let your support organization know in advance about key project milestones and live dates. Take a training course near one of the support centers and schedule a meeting with a support manager. Provide feedback to support on what is working well and what could be improved upon. Support is a “people” business. Establishing a positive relationship is important. Approaching the relationship with Support in a proactive and positive manner will allow you to leverage the skills and resources within Oracle to your advantage.

2.1 Phone Tag or iTAR Tag

A major impact to resolving issues more quickly is phone tag or iTAR tag. This happens when messages are left between the customer and Support. No progress is made – only that we are trying to contact each other. Days and weeks are lost in this productivity sapping ritual. This frequently happens on the phone and can occur with electronic TARs. To prevent this from happening the best approach is to document your message within the TAR for both parties to see. Avoid using the phone. Document the latest results or additional information that will move the issue toward to resolution within the TAR using MetaLink. Document the next action required and who owns it. In this manner continuous progress can occur without direct contact. Communication is continuous. Results of previous actions are documented. Next actions are identified.

Log all TARs using MetaLink. Electronic tools for logging and updating issues will make your team more productive. After you have documented the TAR sufficiently call in to establish a dialogue with the analyst if necessary. This way you control the accuracy of the problem description, the business justification for the priority, and the depth of the material included. One root cause for phone tag is the lack of gathering the correct information at the outset. By logging a detailed TAR with all of the required information at the outset there will be fewer subsequent requests for more information. Appendix A has a sample TAR template used by Support to log bugs with Development. This template is an excellent tool to gather all of the basic information required to log a quality TAR.

If you must talk on the phone try scheduling call backs to analysts. By the nature of their work, phone support analysts stay on the phone much of the day, so they may not be available to answer the phone when a customer calls back on their TAR. Try to schedule a time for call backs with the analyst, or at least ask the analysts the best time to call. Always let the analyst know the best hours to contact you. If you work unusual hours or have scheduled days off you may want to include this in the TAR to help facilitate communication.

Voice mail left with Support should be avoided. Place the message directly in the TAR using iTAR. This way if the analyst is out someone else can see your request or feedback. If you do need to leave voice mail include the TAR number and key information to move the issue forward. Always leave a message — if it was important enough for you to call, it is important enough to leave a message that will help progress the resolution of the issue. Remember, it is preferable to update the TAR directly using MetaLink so that the communication is captured within TAR and the TAR status changes to Support. This ensures that the analyst sees that they have the next action.

To make your consultants as effective as possible, supply them with a phone and voice mail. Some customers will only provide consultants the use of a phone in a common area like a conference room. As no one owns the conference room phone there is rarely voice mail on it. This is a poor use of costly consultant resources. When Support calls the consultant back on an issue they usually are not sitting in the conference room and Support is unable to leave a message. This increases the phone tag and adds length to resolution. If it is not possible to provide a phone to each consultant you should at least provide a single voice mail enabled phone for the team to share. A better option would be to require all of your consultants to communicate through the electronic support tools thereby minimizing phone calls and call backs. All Oracle consultants are required to use MetaLink iTARs.

If you are going to use the phone to log the TAR or talk with analyst about an existing TAR then be aware that the peak call volumes happen between 10:30 AM and 6:00 PM EST. Plan your call to avoid these hours if possible. Use the speed dial codes (Appendix C) so you do not have to traverse the entire phone menu to get to the product you want. If you do not know the speed dial code or need a map of the phone menu visit the Support web page.

If you use e-mail to augment your communication with your support analyst make sure the e-mails are pasted into the text of your TAR for future reference. All communication between you and support regarding a TAR should be documented within the body of the TAR. The best way to ensure this is to make entries directly into the TAR using MetaLink. If your analyst is sick and you wrote an email detailing critical information no progress will occur because no one will have visibility to that email.

Whenever possible relevant information should be cut and pasted directly into the TAR. If the information is brief enough you can paste the key portion of the report or log file into the TAR. Size will be a factor and large inserts may make the TAR difficult to read. If it is a large file then the file can be uploaded in MetaLink in conjunction with the TAR. Placing the information directly into the TAR improves communication if transferring the TAR is later required. Do not place information that is too large within the TAR.

Always work with your analyst and make sure you both know who owns the next action and what that next action is. It is possible that both parties have a next action. Whatever needs to be accomplished as the next action should be clearly documented in the text of the TAR by the analyst or by the customer, using the electronic tools.

2.2 Contact Points

Provide more than one contact if employees are difficult to reach. Oracle strongly recommends multiple contacts for escalated situations. Severity one issues should have two contacts defined to ensure we are able to reach someone to progress the issue. For each contact, provide multiple contact points. Useful contact point information includes telephone numbers, cell phone numbers, beeper numbers, fax numbers, e-mail addresses, home phone numbers, administrative assistant's numbers, or switchboard numbers. Severity one issues require 24 x 7 contact information. Consider purchasing a pager or cellular phone to be given to the person working an escalated issue at your site. This will allow Support to contact the key person quickly if they are not always at their desk.

If the progress on issues is continually slowed because project members are extremely difficult to contact or are not always in the office corrective actions should be taken to improve the communication.

2.3 Action Traction

Always end each transaction with the Support analyst by agreeing on what the next action is and who owns it. Make sure it is documented within the TAR. One of the hallmarks of a true partnership is the joint planning on the problem resolution. By defining what is the next step to resolving the problem you will need to have at least a basic game plan to driving towards a solution.

There are many benefits to documenting in the TAR what the next step is. There will never be misunderstandings of who was supposed to do what. There is a shared ownership in resolving the issue. Status updates are made easily by simply reading the end of the TAR. Expectations are set correctly. If a time estimate wasn't agreed upon a fair assessment can be made. With an understanding of the next task, the owner of the next task and the assumed time frame follow up can be done in a reasonable fashion. Reviewing previously agreed upon actions can help the partnership decide if they have a sound plan for the problem resolution or if they are just trying random things to determine a solution.

If you are working a TAR and there is no action defined place an action in the TAR to begin the forward momentum. Even if the action is to talk with the other partner to agree on a joint action. The most productive actions are those that both parties agree are the best way forward to solving the problem.

2.4 TAR Status Codes

Oracle's internal TAR tracking system assigns a status code to each TAR. This status signifies what the current action is and who owns it. There are various TAR status codes but they all fall into one of three categories signifying who the owner of the next action is. TARs status codes are grouped into three buckets: Support, Customer and Development.

Analysts determine which is the next priority to work by looking at the TAR severity and the TAR status. The higher severities are worked first. The status tells the analyst which TARs are waiting on their action and which TAR is the court of another party.

Owner	Code	Description
Support	NEW	New Tar
	XFR	TAR Transfer
	ASG	Assigned
	WIP	Work In Progress
	RVW	Review
	1CB	1st Callback
	2CB	2nd Callback
	IRR	Immediate Response Required
	INT	Awaiting Internal Response
Customer	WCP	Waiting for Customer to apply Patch
	CUS	Waiting on Customer
	SLP	Sleep until Customer Available
	LMS	Left Message
	SCL	Soft Close
	HCL	Hard Close
Development	DEV	Assigned to Development

Analysts will take actions on TARs in Support status. Once they have worked all of their TARs that are in Support status they may follow up with TARs in customer status or Development status. Your team should review daily the status of all open TARs to determine which require customer action. Each partner working TARs in their court will move the issue to resolution more quickly. If you disagree that the next action is yours

review the approach being taken to resolve the problem with the Support analyst and devise a mutually agreeable plan to drive the TAR to resolution.

By running a daily report on open TARs your project team will be able to manage the work load effectively to resolution. Review all TARs in customer status to determine what action you need to take. Update the TAR with the results of your action and suggest the next action to move the issue forward. Document all of this within the TAR.

If the solution provided appears to be correct but you are unable to verify it in a timely manner then soft close the TAR with a duration you feel is appropriate. Soft closing a TAR takes the TAR off the analyst's radar screen. To maximize your service and use the analyst's time most wisely TARs that have a good chance of being resolved should be soft closed. Analysts must review and follow up on all TARs - even those waiting for a customer action if they have had no activity recently. This follow up takes time away from working current and possibly more urgent customer issues. If you do not have time to verify a solution or you just want to wait longer before hard closing the issue soft close the TAR for a duration you are comfortable with. If you need a month to test a solution then soft close the TAR for two months. The default time for a soft closed TAR to change automatically to hard close is 14 days. You can change this time frame to anything you wish. If you call back on a soft closed TAR it will automatically reopen and become visible to the analyst.

Analysts are not trying to dodge work by soft closing. They are not compensated on the number of TARs they close. Analysts work hard to effectively manage their queue of open TARs. If they believe there is a good chance the issue is resolved they will recommend soft closing the TAR. There is no risk to the customer by soft closing. The customer can determine the length of the soft close and they can reopen the TAR by updating it in MetaLink or calling back on the TAR if necessary.

2.5 Duty Manager

Customers who believe their issue requires additional attention should escalate. The word "escalate" signifies that something has not been addressed and we are taking the problem to a higher level of attention. It might be advantageous for customers to "escalate" issues that are not currently a problem but may be a problem in the near term. As Support works thousands of issues, many of them severity two, it is helpful if our customers let us know of impending deadlines or changes in urgency. This will allow the analyst to prioritize their work load accordingly as well as bring it to management's attention. Use Oracle's escalation process to communicate important business issues in a proactive and timely manner.

Today escalations usually occur once things have already gone terribly wrong: deadlines are upon us, proposed solutions are difficult to implement, or the criticality has dramatically increased. If you don't agree with the doctor's diagnosis get a second opinion. If your condition is getting worse go to the emergency room — escalate. Oracle Support's escalation process is called the "Duty Manager" process. A customer will "Duty Manager" the TAR if they believe it needs increased visibility. Call in on the TAR and ask to speak to a Duty Manager. Explain the escalation to the Duty Manager, and provide the reason for the escalation in business terms.

The Duty Manager is a front line manager responsible for the direct management of the analysts and the TARs they are working on. These are the people that are in the best position to help you address any bottlenecks or problems you are having. Each manager is responsible for between ten and twenty analysts.

The Duty Manager will document within the TAR the business issue and will work with the customer to define an action plan to rectify the situation. Ninety-nine percent of all escalations are resolved at this level. If the action plan fails to deliver expected results, escalate to the next level: a Senior Manager. A Senior Manager is responsible for a competency such as Manufacturing or Financials. They are responsible for multiple products and can have anywhere from 50 to 100 analysts in their group. Repeat the same process with the Senior Manager of documenting the reason for the escalation and the agreed upon action plan to resolve it. Make sure everything is documented in the TAR.

If the Senior Manager fails to deliver results, request to speak to a Director. If the Director fails to deliver results, request to speak to a Vice President. 99.99% of all escalations are resolved at the first two levels. Documenting each escalation within the TAR ensures a clear history of the issue and what actions have failed to address it. Insist that the Duty Manager document the business issue and the action plan within the TAR. Better still, document the issue and impact in your own words using iTAR and then ask to speak to the duty manager. This documented history will assist in bringing the appropriate resources to bear to rectify the situation if the incident is prolonged in getting resolved.

If you believe you need to escalate to a Support Regional Manager or other senior Oracle management please make sure you first tried to resolve issues using the normal escalation process. Request a conference call with a support manager to review your concerns. If the issue is dissatisfaction with the level of service you are receiving the support managers will ultimately be the ones that must resolve the problem. If you escalate to senior management without first involving the front line managers valuable time will be lost. If it becomes necessary to escalate to higher levels of management make sure that your other attempts to escalate are documented within your TARs to clearly portray the extent of the problem you are having.

Make sure you escalate issues in a timely manner. Don't escalate at the last minute when there is insufficient time to research, root cause the problem and develop a solution. Large, complex problems take time to resolve. Advise Support of the target dates and deadlines you are dealing with on critical issues. Have it documented in the TAR with a solid business justification.

Do not over escalate or your credibility will be diminished. If you abuse the escalation process the time you really need to get an escalated issue resolved may have less impact in prioritization because people may assume the priority has been overstated.

Let Support know of issues that require attention. You are paying for this service - manage it. Criticality, urgency, performance and quality should be brought to the attention of the proper level of management. Let them know what you feel but try and keep it in business terms without unnecessary emotions. You should never be frustrated if you properly manage your work load and escalate issues professionally and in a timely manner.

2.6 TAR Reassignment

At times TARs get reassigned, both within Support and at the customer site. There are many valid reasons for reassigning a TAR. A person may have gone on vacation, is in training, became ill or left the company. Priorities change with time and the skill set does not match the problem at hand. For these reasons it may be advantageous to reassign TARs. However, sometimes it is not productive to reassign TARs in driving the issue to resolution.

If a TAR is repeatedly reassigned its chances of getting resolved are diminished. The continuity of root causing the problem and devising a solution is lost. If we are jointly owning the resolution of the issue and planning together how we plan to solve the problem we cannot be reassigning it repeatedly.

It is a judgment call on when it is appropriate to reassign or transfer a TAR. One reassignment is usually not a problem, especially if it happens right after creating the TAR. TARs are assigned to the most qualified analyst on a subject matter. After logging a well framed TAR and determining where the root cause of the problem is the TAR may be reassigned to an analyst that is a subject matter expert in that area.

If a TAR is logged in one product and later the problem is found to be in another product then it is advantageous to transfer the TAR to a person knowledgeable in the other product. However, if a TAR pings between two product areas without substantive progress then you should request the analyst for a rational approach to solving the problem. If you cannot agree on an approach engage the Duty Manager. Any TAR that has been transferred more than three times is suspect. Any TAR that has transfer of ownership on both Oracle's side and within the customer's organization should be carefully examined and a joint action plan determined to drive it to resolution.

Customers sometimes transfer ownership of TARs within their project team for a variety of reasons. The priority of the issue changes and requires the TAR to be assigned to a more senior person. Consultants work part time for a client and open TARs on the day they visit the customer's site only to have to reassign to someone else for follow up. Consultants leave a project or there is a mismatch in skill sets. Again, it is a judgment call on when the reassignments are appropriate and when they are not. The yardstick should be that if the frequent transfers are impeding progress then they are counter productive.

2.7 Severity Changes

Changes to severity should not be the norm. There is a difference between severity and urgency. The severity of the problem reflects the business impact. Urgency reflects the time frame in resolving that business issue. A severity two issue that needs to be resolved within two days does not equate to a severity one. Discuss the problem, the impact and the time line with the analyst and make sure they understand. If you wish discuss with a Duty Manager and agree on an action plan that meets your needs.

Changing severity is appropriate if the actual business impact has changed. If you see TARs with frequent severity changes there may be an opportunity for coaching and training. It is important for your organization, for Oracle Support and for all of the other

users of Support that severity levels reflect the actual business impact. They should not be changed because time has elapsed and you are anxious for a solution. It is best to root cause why time passed without significant progress or resolution and then take corrective action on that problem.

It is not appropriate to work a severity one all day, change it to a severity two to go home and escalate it to a severity one again the next morning. This behavior does not reflect the true spirit of what a severity one signifies.

3.0 Framing

The best advice to resolving an issue quickly is to prepare in advance of logging the TAR with Support. A problem well defined is a problem half solved. The root cause of the phone tag and iTAR tag is the continuous requests for more information to qualify the problem. Phone tag delays resolution. Qualifying the problem completely at the outset will get quicker responses and solutions.

3.1 Problem Definition

Always research each issue prior to calling Support. In initial research, refer to the manuals and your internal documentation. Use the knowledge base contained in MetaLink to do searches on your problem. Ask basic research questions on the MetaLink Forum.

The minimum informational requirements to log a TAR are:

- CSI Number
- Contact Name
- Contact Phone Number
- Database Platform & Operating System Version
- Middle Tier Platform & Operating System Version
- Product
- Component
- Application Release Version
- RDBMS Release Version
- Severity Level
- Version of form, report, executable, etc. - if available

If you do not know the right versions, find out what they are — and keep the information handy. You should have the profile of your installation available for all the people that call into Support. Do not guess on the version of the database, applications or operating system. If the wrong software is later loaded on your system it can cause other errors more complicated than the one you were originally trying to solve. Support asks for this information every time a customer calls because some customers use multiple platforms and versions. It is impossible for OSS to keep track when each of our thousands of customers upgrades their operating system or Applications. Support will

always take the extra precaution to ask version numbers to be sure we do not cause damage to your environment.

One of the most important pieces of information is the problem definition. If you define the problem incorrectly the investigation is immediately going to take the wrong path. Each TAR has an abstract that should clearly define the problem being investigated. The problem definition abstract should contain two simple pieces of information: the *Object* and the *Defect*. The *Object* is what is not working and the *Defect* is what behavior is incorrect with that *Object*. The ideal Object definition would be an exact piece of code but that is not always possible to determine. The more precise the problem statement is the faster the problem will be resolved.

Each TAR should contain a single issue. The TAR abstract defining the object and defect should reflect the contents of the TAR. If there are multiple issues open multiple TARs. Senior analysts review TARs reading abstracts. If they read an abstract they may have an answer to they will insert suggestions or solutions into TARs to assist the owning analyst. If the problem in the body of the TAR is different from the problem in the TAR abstract this additional assistance will be lost. Limiting the TAR to a single issue ensures the correct focus and that the correct skills are available to resolve the issue.

Development addresses bugged issues based upon business priorities. Support will also focus on issues with the highest business imperative. Therefore, you should include a solid business case for any escalated issues you may have. If the issue is not urgent it will not be necessary to provide a business case. If the issue is important and may become urgent later it may be helpful to define the business case at the outset to save time, maximize communication and help set priorities.

Be fair and reasonable in your assessment of the business impact. Most people can objectively assess the relative urgency. Oracle has a finite set of resources to work all of our customer issues. There are sufficient resources as long as the system is not abused. To ensure the customers with the most urgent issues are addressed first we all need to work together as reasonable and objective partners.

Try various tests and scenarios to ascertain why there is a problem. Determine if the problem occurs on both the test and production system. Root cause analysis of many issues can be accomplished by identifying something that has changed within the system. Review your system log book or change management software for recent changes introduced into your environment. Determining that the software behaves differently in different environments can lead you to notice what has changed and how it impacted your system.

Document the full and exact text of all errors. Make sure you detail all error messages and not just the last one. Verify whether the problem can be consistently re-created every time or if it only happens intermittently. Gather log files, trace files and screen snaps and provide them to Support if they help qualify the problem. Sometimes multiple trace files are needed to isolate an issue in a dynamic environment.

Do not try to hide the fact that you have customized your system. Many of our customers customize and we still support our product. To investigate a problem correctly and quickly we need to know what your site has done with the code. Cooperate with Support and explain fully the scope of the problem we are jointly trying to resolve. If it

is your customization that is causing the problem take ownership of the issue rather than using Support to root cause your problem.

Document all of the steps required to re-create the problem. Develop an exact “test case” to re-create the problem. The surest way to qualify and document a problem is to create a reproducible test case. A reproducible test case defines a rock solid problem statement with clear results. Both Support and Development can take immediate action when a reproducible test case exists and turnaround on a TAR will be faster. Otherwise, additional research and time may be required. It is understood that not all problems allow for a reproducible test case. A clear and concise test case is best. In other words, if you can demonstrate an error in processing three rows rather than 300,000 rows you should. If you can, always provide a reproducible test case to expedite the resolution of the issue.

Use templates to gather complete information and consistent information. See Section 4.2 Templates for more information. These are some of the most effective tools for qualifying a problem completely. Make sure all employees use templates to gather problem information. Define templates that meet your requirements and drive results.

3.2 Problem Solving

When you encounter a problem with your system you need to methodically determine what went wrong and what you can do to make it go right. If the functionality was working previously the first thing to investigate is what has changed since the last time it worked correctly. Check to see if higher volumes of transactions have occurred, if patches were applied, or the system administrator changed parameters or profile options.

When facing any problem you should assess it by asking yourself some basic questions. Do you need to take prompt action? Can you spend more time researching? Do you need to involve other people or skills? Do you need more information about the issue? What is the root cause or causes? What are possible solutions? Do I need permanent solution right now? What workarounds are available? By asking these types of questions you will be better positioned to determine the severity you should assign and how you plan to approach the resolution.

When we encounter a computer problem we often feel overwhelmed because we don't know what could have possibly caused it or where to start looking for a solution. We assume the system is so complex with so many variables that we will never be able to solve a problem ourselves. In reality all TARs are solved in one of four ways:

- Apply a patch to fix some code
- Explain correct functionality of software
- Fix the actual data within the system
- Fix the computer environment running the Application

Knowing that there are only four possible solutions makes root cause analysis easier. The answer to your problem will be solved in one of four ways, the majority without the use of a patch. Most solutions we provide are explanations of how the product works or using the Application to amend some data within the system to enable the product to function correctly. Fixing data within the system it is usually accomplished by using the Applications to amend data items. Occasionally, we run scripts directly against the data if there is a data corruption or if the data element cannot be modified using the

Applications. Sometimes it is not the Application that is the problem but instead the computer environment the Applications are running on. If not set up properly system problems can manifest themselves within the Application as an error message. Narrowing the problem domain makes finding the solution easier.

3.3 Problem Documentation

The most effective tool to gather information is the template. Everyone should use a predefined template to gather all of the pertinent information and document it in a MetaLink iTAR. Provide all of the information you have gathered in your research. Detail what actions you have taken to isolate the problem. List all of the error messages, not just the last error message. Provide log files or trace files, if appropriate. Isolate what data or records are causing the problem. Determine if the problem happens on both test and production systems. Communicate the navigation path to the form you are having trouble with. Determine what parameters are being used. Identify which version of the code you are running. You can use the template provided in MetaLink or the bug template that is included in Appendix A. Some customer's use the templates provided and expand on them so that their staff document issues completely reducing the need for support to call back looking for more information.

Use the reference manuals to verify functions and behavior. Include specific references to the documentation if it helps clarify the point. Testing as described in the reference manual can resolve or better define the problem. It is also very helpful to have a problem reviewed by one of your team members before logging a TAR. Sometimes the answer to the problem is more obvious to another person. Some customers use an internal peer review to determine if the problem is clearly defined.

The more information you provide at the outset the fewer times Support will have to call back and ask additional questions. This is where some customers make mistakes and it is the root cause of why length to resolution becomes extended. They think that they can call in a problem and just let Support figure out the rest. TARs that are not clearly defined at the beginning always take longer to resolve. Many customers have figured out that providing solid research and information to Support is to their advantage in getting results.

3.4 Severity Definitions

The severity of an issue should be a reflection of the business impact to the company. Another possible dimension of an issue is the urgency, or the time the solution is needed. It may be urgent to solve an issue within a finite time span. This does not change the severity. Please define issues with the correct severity. A severity two issue that is also urgent does not equate to a severity one.

When logging a TAR make sure you clearly define the severity level. If it is also urgent then make sure you also communicate the time frames. Do not assume that the person on the other end of the phone is aware of what your company is currently facing unless you explain it to them. The same technical problem can equate to a different severity level for different customers. When the support analyst advises you of the TAR number confirm with them the severity level of the TAR to make sure it is assigned the priority you require.

- Severity 1 = Critical Business Impact
- Severity 2 = Important Business Issue
- Severity 3 = Problem of Lesser Importance
- Severity 4 = Enhancement Request

Analysts will manage their work load focusing on the higher priority issues first. The doctor does the same thing: schedules appointments and work loads but makes exceptions to handle emergency patients when they walk in. This reality is why it is almost impossible for Support to guarantee a date for a fix. We can schedule our work but we cannot schedule the critical issues that come in the door. Be professional and only define a TAR as severity one if your business has come to a halt. If we work as partners and objectively define severities the system will work for all of us.

If you are going to escalate an issue as business critical it would make sense not to leave it at a severity three. Analysts manage their work load based on severity and TAR status. Severity three TARs are usually not considered business critical. If you are calling in a TAR you should confirm with the analyst at the end of the call that the severity is set correctly. Do not let a key business issue be logged at severity three because you assumed the analyst understood what is transpiring at your location. Use MetaLink to verify the severity level and status of all your TARs. If the urgency of an issue increases you may want to increase the severity level of the TAR. Likewise, if the urgency decreases please decrease the severity of the TAR.

3.5 Performance Issues

Performance issues are usually caused by multiple problems. The root cause can be product related, hardware constraints, network problems, set up issues or other factors. The first step is to investigate each area and determine if there is a major problem in any one facet. Correct the large problems first. If you do not have expertise in tuning operating system software, databases, networks and applications you should engage consultants or hire the skills required as quickly as possible.

It is necessary to take a holistic approach to resolving performance problems. This means that a single person or team should manage the entire effort across all areas. You should not try and resolve a tuning issue by randomly changing parameters in an uncoordinated fashion. Opening individual TARs as a method to address tuning problems is a poor approach to arrive at a solution. Changing tuning parameters on the operating system will most likely impact the database environment. Likewise, changing database tuning parameters will impact application tuning issues. As all system components are interrelated and dependent on each other tuning efforts must encompass all areas and be coordinated. This infers that an on-site resource would be the ideal way to manage such an effort.

Applications support should be engaged once it is determined that the root cause of the problem is directly related to the application software. Until this has been determined you should focus on making sure that the hardware is sufficient, the operating system is configured correctly, there are no bottlenecks on the network and that the database has been optimized. Once it has been determined that the Application software is the bottleneck causing the performance degradation then a TAR should be opened. Most Application performance issues logged with Applications Support are the result of

insufficient hardware, customizations or poor tuning in the operating system, database and network area.

Oracle Development assists in performance issues that are directly related to the Applications product. All other performance issues are within the domain of Consulting. If you are going to log a TAR on a performance issue you need to demonstrate clearly why you believe it to be product related.

Understand that some levels of desired performance are not possible. We would all like everything to run faster. There are limits. People who fly across the United States may not like the fact that the flights take over five hours. They can demand from the airlines that they want to get to their destination in 30 minutes but this may not be a reasonable request nor technologically feasible. When logging TARs on performance you should state what you expect the performance to be based upon the data you are processing.

Trace files will be requested as the root cause analysis is carried out. After each change to the system another trace file may be requested. Please provide the trace files as these are one of the primary tools used to determine progress and problems. Improving performance is usually an iterative process. Incremental improvements are made by tweaking parameters and code. As each change is made verification of improvements and clues for other problems must be evaluated. Some customers refuse to send trace files after the first few thinking that it is not adding value in root cause analysis. Please work with support and development in providing the data about your system to assist in resolving the problem.

3.6 Enhancement Requests

The process to request an enhancement to the product is to log an enhancement request. Enhancement requests are logged into the bug database and reviewed when for inclusion in a future release. Any TARs opened that turn out to be an enhancement request are closed when the request is logged. Enhancement requests are voted upon by the Oracle Applications User Group (OAUG) to determine which are the top priority issues our users are looking to be included in a future release.

Enhancement requests that are specific to your organization will not have a strong chance of appearing in a future release. If your enhancement request is beneficial to many or most users of the Applications the chance of inclusion is greater. The greater level of effort you make in logging the request also increases the chances of it being included within the product. If you give clear business benefit, specify exactly what the request is and how it could be beneficial to many customers it will greatly improve the possibility of being adopted.

If you are unsure if the problem you are having with a TAR is an enhancement request or a bug the rule of thumb is to refer to the documentation. If the documentation states that the product will behave in a certain fashion and it does not then it is most likely a bug. If there is no reference to your issue in the documentation then the problem you have is most likely an enhancement request.



4.0 Tools

An excellent way to leverage your service from a support organization is to make use of the electronic tools that are available. These tools in essence help facilitate communication. As we already stated, key to optimal support is the quality and quantity of communication that takes place. Oracle Support has various tools that your team members should be trained on.

4.1 Electronic Support Tools

The electronic tools provided to our customers are one of the best opportunities to improve your support effectiveness. Your team should leverage these tools if they are not already doing so. Logging TARs with MetaLink will allow faster processing if all of the proper information is provided at the outset. TARs logged using MetaLink are matched with analysts having the appropriate skills and knowledge. TARs logged on the phone are assigned to the analyst that took the call. The calls are answered by the next available analyst and the skills may not be as well matched. MetaLink allows reports to be run so that you can manage the work load effectively. Forums on MetaLink allow you to ask general “how to” questions rather than log a full TAR with platform, operating system, versions, etc.

In addition to logging TARs using MetaLink you can update the TAR. Using MetaLink to update your TARs will eliminate the need to call in and leave messages. You can place your update directly in the TAR and define the next action to move the issue forward. The TAR status will be updated and the analyst will respond. This method of working will greatly improve the productivity and effectiveness of your team.

MetaLink 2.0 Base Features

Oracle MetaLink is Oracle Support Services' premier web support service available to Oracle metals (Gold, Silver, Bronze) customers, 24 hours a day, seven days a week. This tool is a “must have” for all users of Oracle Support. The MetaLink information and functionality will enable your team to find solutions faster and resolve problems sooner. Key functionality that is available to you is described in the following table.

MetaLink Section	Description
My Headlines	Proactive notification. Customize profile to receive specific information you desire. Can also receive information by email.
User Administration	Manage access of MetaLink users at the support identifier and CSI level
User Profile	Update your contact information, add and remove support identifiers, customize MetaLink, change password, and view license information
TAR Access	Labor saving tool to query, create, and update and close TARs online
TAR Reports	Ability to view TAR reports thereby enabling more effective management of open TARs
Technical Libraries	Organized by product these libraries contain excellent information about installation, patches,

	white papers and top product articles
Forums	Interactive ability to ask “how to” questions
File Access	Tool to allow downloading of patches
Knowledge Base	Search capability against the internal knowledge repositories within Oracle Support
Bug Search	Query access to published information in the Oracle Bug Database

Every customer should utilize this tool to improve their access to information, streamline their interactions with Support and manage their workload. Register for access to MetaLink today on our registration and login page.

Self-Service Tool-Kits

On MetaLink there are many pages under Technical Libraries. As you drill down to the product you want to access within Applications you will eventually come to the Top product Article page. This page exists for each product. There is a tremendous amount of useful information contained there. It is called the Self-Service Tool-Kit.

The Self-Service Tool-Kit is a web page – one for each Applications product. Each Self-Service Tool-Kit web page is segmented into different areas to make it easier to find the information you are seeking. For example, in Accounts Payable you may be seeking information about payment processing. You don’t want to dig through all of the Accounts Payable material you just want information about how to do payment processing. At the top of the page each product is divided into user-friendly subject areas that are product specific so you can go directly to the topic you want.

The Self-Service Tool-Kit has five pieces of content for each area:

- Current Issues
- Patches
- Set-Up and Usage
- FAQ
- Troubleshooting

This information is updated regularly. Each month closed TARs are reviewed and analyzed so that proactive content can be placed in the Self-Service Tool-Kit on MetaLink. The Self-Service Tool-Kit enables customers to find answers to their questions without having to open a TAR. If what you are looking for is not on this page let your analyst know so that they can create the content for the next customer. All customers should make use of these pages as they have extremely valuable information contained within them and they are easy to use.

To navigate to the Self-Service Tool-Kit you click on Technical Libraries, click the Applications button on top, click on the product area (e.g. Financials), click on the product (e.g. Accounts Payable), and then click on Top Product Articles.

4.2 TAR Templates

A very effective approach used by some customers is to log the TARs electronically with MetaLink and using the template provided in Appendix A. This has three advantages.

- You can document the information in your own words to ensure clarity
- You can ensure all of the information is collected and included
- You do not have to sit on the phone and dictate it — you can collect all of this information at your own convenience.

Some customers log all severity 2 and severity 3 issues electronically. Some use the template provided. Others have extended this template to include additional information they believe provides even more clarity to the problem. These customers train all of their employees on how to fill out the template. The only issues they call into Support for are severity 1 issues to ensure prompt action. Even though they call in the severity 1 issue they still provide all of the information within the template.

MetaLink has a high level template already in it. A template is an effective tool to consistently gather the correct information at the beginning of the investigation. Templates are also a good method to train staff on root cause analysis. Support uses templates as a tool to improve effectiveness in documenting issues. Development requires Support to log bugs using a “bug template”. Each product is divided into sub-components and templates have been created to address more detailed questions dealing with specific areas.

Use of the template to gather all of the information and log an electronic TAR. This is the most powerful tool available to your team. This can minimize resolution time and eliminate phone time. Logging electronic TARs can facilitate faster resolution to problems provided there has been adequate research and clear problem definition. Make sure you train your staff on how to log a quality TAR, fill out templates completely and use the electronic support tools.

If little effort is put into the initial TAR documentation, the requirement for call backs from Support for additional information will only lengthen the time to resolution. Ultimately, the problem definition and research must be accomplished before Support can provide a solution.

The template provided in Appendix A is the bug template that Development requires Support to fill out when logging a bug. All bugs that are logged require all of the information contained in these templates. Gathering all of the information when first logging the TAR will save time later if it becomes necessary to log a bug. This template will help you clearly document a problem. Collecting the information requested in the template may even help you solve the problem yourself. Remember, in a partnership solving the problem your self is not a reflection of poor service. Oracle is trying to provide tools such as MetaLink and templates to allow our customers to solve problems themselves. Solving the problem your self is not a bad thing. It is akin to feeling ill, making an appointment to see the doctor for the next day and then feeling better in the morning.

4.3 Patch Failure Templates

As part of our effort to continuously improve our service and products Oracle has created a Patch Failure Template. A copy of the Patch Failure Template can be found in

Appendix D. If you install a patch that causes any problems please fill out the template and provide it to your analyst. The analyst will qualify the issue and log a Patch Failure Template with Development if appropriate. This feedback loop is intended to improve the patching mechanism for our customers.

Feedback can include total failure to install, problem persistence, new problem creation, incorrect documentation, unclear documentation, ambiguous documentation, prerequisites missing, or any other problem encountered. Oracle is committed to improving the quality of patches and are requesting from our customers and partners feedback on patch problems so we can improve them going forward.

4.4 Solutions

Many customers encounter problems using Oracle Applications and log TARs. Subsequently they may find the solution themselves or realize that it may have been an internal problem. The TAR is closed without feedback from the customer on what the solution was. To improve our solution database and improve our products we would like to request that you provide the solution so we may share it with other Oracle Application users. If each user contributed to the solution database everyone would benefit. Even if it was a mistake please let us know. It may be that we can improve the documentation so future misunderstandings do not occur.

Each user of Oracle Applications is encouraged to provide feedback and share your discoveries, solutions and ideas on the MetaLink Forum. As more customers share their ideas we all benefit from our collective knowledge.

4.5 User Groups

The Oracle Applications User Group (OAUG) is an independent organization of experienced users that share information and knowledge. This is a very professional and productive organization. There are many special interest groups based upon industries and products where you can learn best practices directly from your peers. Development participates in some of the special interest groups and this may be a good opportunity to meet with them. We encourage all users of Oracle Applications to join the OAUG. They meet twice a year for an international session and have other regional meetings. Additional information can be obtained at their web site: www.oaug.org.

Many people make use of listservers such as the Oracle Applications User forum on the Internet. To subscribe you can send an e-mail with the following format.

Instructions	Actual Text
Send e-mail to:	listproc@cpa.qc.ca
Leave subject line blank	
Type of the following in the body:	HELP
Delete any signature files	

This is a user managed forum, has excellent information and has good participation from fellow Oracle Applications users.

5.0 Process

Some customers consider their interactions with Support critical to their project's success. They define processes on how to best manage the communication and work and then train all of their staff on those processes. This includes any consultants that are working on their project. By defining how the information flow will be managed and how issues will be worked their critical path problems are addressed in a timely manner. Does your team have defined processes on how to interact with support? Does each employee that works with support know what the processes are and how to manage them effectively?

5.1 Internal Processes

Every company should clearly define an internal process to manage the service they are receiving from any support organization. Effective customers have clearly defined processes on how they work with support. They have processes defined to log TARs, track TARs, and escalate TARs. They train the staff and their consultants on the processes they have defined. They train on how to use the tools, log quality issues, and effectively work the issues to closure. They identify persons to manage the issues and ensure that they are being worked at both ends of the transaction. They measure the performance of the service and feedback to the service provider opportunities for improvement. It is difficult to gauge the level of service you are receiving if you do not have a process defined to manage it.

It is strongly urged that each customer manage and track their service from OSS. You will never be able to improve a process if you are not measuring it. MetaLink has the capability to run reports on current issues. Reports allow you to manage the overall relationship by regularly assessing the performance on both sides of the transaction. Some customers create their own TAR tracking system. This is a lot of work and difficult to maintain as the data changes rapidly. Time is wasted reconciling your system to the information on Support's database. Periodic reports from OSS will give you enough information to manage your metrics and provide the best solution. With that said, there will always be some customers that have requirements to create their own incident tracking system.

Manage and measure how both Oracle Support and your organization are resolving the issues. By auditing TARs, running reports and carefully tracking each incident you can measure some of the following information to better manage your project:

- Number of TARs created
- Number of TARs with bugs identified with them
- TARs opened per product
- TARs opened per team member
- TARs opened asking informational questions
- Number of TARs opened that were not issues

- TARs logged using electronic tools versus phone
- TARs logged with incomplete template information
- Number of patches applied
- Average time to close bugged TARs
- Average time to close non-bugged TARs

Expect what you inspect. Choose some metrics that you believe are crucial for the success of your project, define some processes to measure them and then report against them. You will not be able to manage your interaction with Support if you are unable to measure it. Using the reports from MetaLink will help you measure some of this information.

On a regular basis you should review all outstanding issues and prioritize what you want addressed first so that your project milestones are met. Do not let issues continue until it is too late to address by the target date. Many issues are complicated and take time to resolve. Reviewing your issues in context of your project time line is sound advice.

Make sure that each TAR on your critical path is actively being worked with next steps clearly defined and responsibility clearly assigned. If the TAR is in “customer” status it means that Support is waiting on you to provide information or test results. If you are waiting to hear from Support and the TAR is in “CUS” status you need to review the TAR and find out what the last request for information was in the TAR text. If the next step is unclear contact the analyst and agree upon an action plan to move the issue to closure. Ensure your organization is moving all open issues forward and providing the required information back to Support.

If the response to your bugged issue is that it is an enhancement request then accept the response. You may be correct in your assertion that the functionality should be incorporated in the product. The fact is, it has not been designed into the product yet. The software was not designed for a single customer and each customer must be reasonable. If a change is made to the product for a single customer it may impact all other customer negatively, especially those that may have customized the software.

Please respond to Support when you know that the solution you were provided closes the TAR. Leaving TARs open causes Support extra cycles in following up on the status. This extra follow up work detracts from the time an analyst could be working your other outstanding issues. Use the electronic tools to explain what the solution to your problem was and advise the analyst to close the TAR. If you cannot test the solution you were provided for some weeks let the analyst know and place the TAR in “soft close” for the time you need. If you are unsure how long it will take then triple the time estimate you think it will require. This will remove the TAR from the analyst's radar screen and allow them to focus on other pressing issues. If you have a problem with your solution you can call back on it and the TAR will be re-opened.

5.2 TAR Reviews

Internal audits should be done to ensure the correct people are contacting Oracle Support and that the correct processes are being used. Audits of TARs can be done to see if either your staff or Oracle Staff are not maximizing their effectiveness and fulfilling their role within the partnership. Things to look when doing internal audits of TARs include:

- Poor problem definition, documentation or research.
- Frequency of messages being left on both sides — indicates phone tag.
- Lapses in actions or progress.
- Repeated requests for the same thing.
- Repeated problems with dial-in.
- Lack of knowledge, understanding or training.
- Escalated issues not being addressed in a timely manner.

Reviewing the text in the TARs can provide excellent insight into process breakdowns between your organization and Oracle Support. All customers should periodically audit their TARs and make sure they are receiving the best service possible. If the documentation in the TAR reveals that Support is not delivering satisfactory results request to review your findings with a support manager. If the documentation in the TAR reveals breakdowns on your side then improve the training or re-assess the support processes you have in place.

There are many customers that do nothing to manage their investment in the service they have purchased. Without processes and procedures in place they will not be effective in leveraging the skills and resources of their support organization.

New customers tend to have consulting log and track all the TARs. Some customers allow anyone to log issues without any tracking within the organization. Some customers have a single person log and manage all TARs. There is no single correct answer. Each customer is unique and each project will have its own requirements.

The key is to define a process that best matches the needs of the project or organization.

SMALL IMPLEMENTATION: Small project team implementing a small number of the Applications products for a single instance may not need rigid process controls to manage their TARs. Since most team members will be in close contact with each other there is less chance for miscommunication.

MID-SIZED IMPLEMENTATION: The implementation team is larger and has divided into sub-projects. For example, there is one team implementing the financials and another for manufacturing. Teams may not be communicating regularly, they may be on different timelines, and with different priorities. Larger teams may need one person as focal point to avoid having multiple people logging the same issue and duplicating effort.

LARGE IMPLEMENTATIONS: A large project broken into many teams and focusing on different areas. Departmental or divisional teams may not be at the same location. Communication and coordination between teams is less frequent. Large implementations may be setting up an environment that they plan to roll out to sites around the world. They should be aware of all of the fixes being applied so that they can be managed in future implementations. Fixes need to be applied in a controlled environment. Record keeping of all activities is crucial. Large organizations may create an internal help desk to log all internal issues. Then the internal help desk opens issues with Support as the need occurs. This group then tracks all issues, prioritizes the issues, monitors performance and provides feedback. Good advice:

make sure that the Support analyst is able to directly communicate with the person knowledgeable about the problem.

Many times the project will require a hybrid of characteristics for managing support processes. There are no set rules — one size does not fit all. There is, however, a requirement for planning and management for all implementations. Have you noticed that every time you visit your doctor that your medical record is reviewed? The doctor updates your record with the latest observations and prescribed medication. What processes does your organization have to manage the changes to your systems?

If you are doing an implementation and have a large number of TARs open at once you should prioritize your TARS so that your team can focus on the key issues. Many times customers exclaim that they want all of their issues escalated at once. As Oracle has hundreds of analysts and project teams have finite capacity this usually causes a bottleneck on the customer side and wastes valuable time. Best results are achieved when key issues are focused on, resolved and then attention moves on to the next issue. If the number of TARs exceeds the ability of your team to address them you may have inadequate staffing or the wrong skill levels for the project. Remember, the majority of TARs are opened to ask how to do something and to understand how to properly set up the environment. If the volume of work is exceeding your capacity consider hiring interim relief or ask Oracle Support what additional services they may have to offer to assist your team.

5.3 Managing Customizations

Many customers extend or customize the Oracle Applications. All customizations are the sole responsibility of the customer to support. Carefully consider customizations, as there is a recurring cost in maintaining them. Customizations make sense if they address a particular business requirement. Discourage customizations if they are of little business value or only cosmetic. These types of customizations complicate future upgrades, application of patches, and testing. Weigh the value of all customizations against recurring costs to maintain them. It may be cheaper to consider modifying business processes rather than customizing code. Evaluate the process and determine if it is really required or something that the company has “always done.” Always follow Oracle recommended standard practices for implementing customizations. This will make future upgrades easier and preserve most customizations.

Know existing customizations that exist within your system and document them for future employees. In the IT industry the longevity of employees is constantly being measured in smaller increments. Every employee that makes changes to your system should document that change so that peers, future employees and service providers can understand what has been changed. Many customers fail to do this and incur additional costs for re-discovery.

Learn exactly what triggers exist on what tables. Ensure a problem reported to Support is not caused by a customization. Organizations with extensive customizations may need to create a “vanilla” test system — a clean install of the Oracle Applications without any customizations. If the problem exists in the “vanilla” system, it’s a valid issue to bring to the attention of Support. Don’t waste valuable cycles logging problems with Support when the answer may be in your own Development group. Likewise, just because there is a customization in some code don’t assume it has to be your problem. Do proper root

cause analysis and get the problem in the hands of the proper group to resolve as quickly as possible.

Oracle Applications is designed to be extensible so users can add any functionality they require. A customer may follow all of the available documentation on MetaLink white papers, use the ERP Coding Standard Guide and the Oracle Applications Developer's Guide and still not be successful. Many at this point turn to Support for assistance. Oracle Support is not the appropriate place for this type of assistance. The correct approach is to engage consulting resources or a special on-site support person to advise and mentor. Most problems are caused because the customer does not have the necessary skills or experience in working in this complex environment. If you are having trouble it is mostly likely due to a lack of knowledge and experience in this environment. Many customers are very successful making extensions to their applications. As Support is unaware of what you may be trying to accomplish or how you are approaching the solution overall we may end up assisting in implementing a poor solution. That is why it is critical to get qualified people to ensure a reasonable solution that will not cost you more in future maintenance and support.

5.4 Project Planning

Make sure you have addressed all of the necessary issues in your implementation or upgrade project plan. There are many issues that need attention and every project fails to provide enough attention to at least one facet. When a project overlooks multiple considerations it usually results in cost overruns and time delays.

Staffing	Appropriate number of people to do the work
Training	Correct skills available to do the work
Hardware sizing	All devices are sized correctly to do the work
Network topology	Network takes into account old and new traffic, if new technology is being implemented does infrastructure accommodate it, skills available for troubleshooting
Vendor relationships	Consulting, 3 rd party vendors, partners are working together in a coordinated team and have appropriate resources to do the job, project is directed or managed by an employee of the company
Contingency planning	What preparations are made for alternate scenarios
Data migrations	Mapping, testing, time needed to do migrations
Risk avoidance	Plans defined to address project areas at risk
Interfaces to legacy systems	Interfaces planned, bi-directional updates defined, skills available for both sides of interface, testing, fail over, recovery, documentation
Timelines for project plan	Are allocated times reasonable, is contingency time planned (no project meets all milestones), has testing been given enough time, testing for patches and point releases planned for, training of users
Acceptance testing	User testing, defined acceptance criteria
Code management	Are processes in place to manage changes

Customizations	Is scope for customizations firm, are waterfall impacts understood, are Oracle standards and recommendations being followed, is method to document changes defined in advance, are upgrades and patching taken into consideration when designing customizations
Integrating third party software	Are system requirements understood for 3 rd party and Oracle Applications running simultaneously, will there be contention between table access, testing
User involvement	Are the users involved in every step of the project
Performance tuning/planning	Are the systems adequate to handle the planned and additional functionality of the project, is there room for growth, are the number of concurrent users estimated correctly, are interfaces included, what else will be running on the system

The above is only a sample of issues each project should consider. Each project is unique. Define your project plan and revisit it regularly to ensure changes in one area do not impact another area adversely.

Allow ample time for testing. Whether you are testing a module or a patch make sure you do not skimp on this critical step. The products are complex and each user configures the product differently. Every user should take responsibility to test all code. This is crucial for a stable environment. Implementations can have cost overruns and the first thing that is sacrificed is testing. This is a classic mistake. Going live without adequate testing can cost far more in lost business than the initial testing would have cost.

Allow for time within your project plan for software upgrades to keep your software up-to-date. If you are trying to implement in an accelerated time frame make sure you hire the right caliber of people to make the implementation a success. To minimize costs some customers try to do an accelerated implementation. This is possible if you bring in very experienced consultants and dedicate the necessary resources to make it happen. If an accelerated implementation is not properly managed then the overall costs can be significantly greater. Please allow enough time in your project plan to do all of the tasks necessary for a successful project.

5.5 Project Management

Make sure you have an experienced project manager. The project manager should be an employee of the company and not a consultant. If no one in the company has experience in ERP or CRM implementations then place an employee in charge with a consultant managing the technical portion.

Review progress weekly if not daily. Ensure all consultants brought on board have the proper qualifications and experience. Review their TARs and see if they are opening TARs on general questions about the product or have opened technical issues that show an in-depth understanding. Review of the number of TARs opened and the type of questions asked will reflect ability. Remember, a large number of TARs may not reflect the quality of the software but rather the quality of the individual.

Make sure the end user is involved throughout the project. They should be involved in all decision making on how to set up and configure the system. They should be trained on how to use the system in advance of the go-live date. Crisis will always occur in the course of a project. A good manager evaluates the issues, assesses the options and makes difficult decisions in a timely manner. Do not avoid problems – attack them head on. The sooner you overcome the issue the sooner you will finish the project. If you believe Oracle is causing your project a problem bring it to Oracle's attention immediately.

5.6 Upgrades and Installations

Many problems are caused because of an improper installation or upgrade. If the products are installed wrong at the beginning the customer is going to have ongoing problems with the software. Set up is crucial for the success of your project.

Always research your upgrade or installation before you begin doing it. Call Support and ask for recommendations and advice. Research issues using the electronic tools. Look up bugs and bulletins in case there is something you should be aware of. Do a test upgrade several times before trying to do it for real. Read the release notes. Do all pre and post install steps. Do not skip the required steps! If you are unsure if the step is required find out before any damage is done. Use all available methods for your research, including:

- Reviewing the material in MetaLink
- Query “Certify” in MetaLink for known issues
- Calling into Support and asking for recommendations and proactive patches
- Talking to others at the major OAUG and regional meetings
- Posting questions on the MetaLink forum
- Posting questions on the Oracle Applications List Server

Support now offers remote install and remote upgrade services. If you would rather let Support do this work for you contact your Support representative for more information. Using an experienced and trained person for an upgrade or install can prevent project delays and other problems. To obtain more information on these remote services please see the Support home page at <http://www.oracle.com/support/> and click “Support Service Offerings” then go to the Oracle Expertise section.

5.7 Back-ups

It can never be emphasized enough: make sure you take regular back-ups of your software and data. Everyone knows this. Everyone does this. Oddly, we still encounter companies that find themselves in situations where a regular backup was skipped and then something went terribly wrong. Make sure your back-up is at an interval that your business can accommodate if it becomes necessary to recover lost data without a back-up. Make sure your back-ups can be restored by periodically testing a restore. Make sure you back-up your software. If you have a large development project in progress back up your development software daily. Store back-ups off site if possible.

Conclusion

The advice given in this chapter is “best practices” learned from our customers. Addressing these five areas will enable the partnership between your organization and Support to exist and thrive. They will also make your project team more effective in leveraging the tremendous resources Oracle has to offer. Please use these suggestions and tools as other customers successfully have. Adopting the following recommendations will assist in the success of your project:

Infrastructure

- Dial in access defined and documented
- Manage your code and your test environments
- Don't cut corners on training - it will cost more later if not done properly
- Obtain the necessary skills to do the job
- Document all changes to your system
- Manage the testing and application of all patches

Communications

- Focus on communicating effectively with Support
- Eliminate phone tag by updating TARs using MetaLink
- Identify multiple contact points for escalated issues
- End each support interaction with an action and an owner
- Manage the TARs and work those in your court
- Escalate issues using the Duty Manager process in a timely manner
- Document escalations – place action plans in the TARs
- Try to minimize TAR reassignments

Framing

- Define a clear problem statement
- Train on staff on problem solving techniques
- Document TAR completely at the outset
- Make sure severity is properly and clearly defined
- Manage performance issues
- Obtain correct skill sets for performance issues quickly

Tools

- Log and update TARs using MetaLink
- Use the template to log a quality TAR at the outset
- Use MetaLink Technical Forums to ask general or “how to” questions
- Complete the patch failure template for any patch problems
- Feed back solutions you discover so all may benefit

Process

- Define internal processes for working with Support

- Conduct regular TAR reviews and improve your processes
- Allow ample time for testing
- Keep customizations to a minimum and document them
- The “set-up” is crucial for success
- Plan carefully all installs and upgrades
- Review your project plan regularly and assume revisions will occur
- Expect what you inspect - manage the effectiveness of your processes
- Regular backups greatly improve job security
- Work as a partner with Support

Many people dread going to the doctor. They avoid it at all costs. You pay for medical insurance — take advantage of the resources this insurance provides you. Likewise, some people dread working with support desks. Use the support organization’s experience and knowledge to your advantage. To effectively leverage the skills of hundreds of analysts each customer needs to work as partner with Support and actively participate in resolving the issue. Support cannot solve issues at remote sites without close cooperation from the user.

Remember, the hallmark of a true partnership has the following three characteristics:

- Shared ownership in resolving the issue
- Quality and quantity of communication
- Joint planning on problem resolution

Jointly working issues results in faster solutions and higher quality results. Communication between the teams is absolutely critical for success.

Frustration is a common emotion when dealing with support organizations. Frustration can be minimized or avoided. If your team gets frustrated when dealing with support you should review this document and determine which areas will help alleviate the problems you are currently experiencing. There are thousands of customers that use support on a daily basis. Some customers use support extremely effectively and maximize their service investment. Others struggle and have major problems with support. For both types of customers the support organization is the same – the difference is the customer. Can your team make better use of this service?

Get the maximum return on investment from your support contract. Management is demanding a return on investment for information technology projects. Information technology managers are asked to clearly quantify this ROI. Shouldn’t these managers also maximize their return on investment for support expenditures? Many managers never give support a second thought - they use support only when they have to. A seasoned manager will use support as a resource - to make their project successful, reduce their costs and improve the effectiveness of the company.

Oracle continues to invest in staff, tools, infrastructure and training. We strive to improve our processes to make it easier and more cost effective for our customers to use our services. Working with any support organization is a collaborative process. The customer must be an active participant at every stage. Consider the hundreds of Oracle Applications Support analysts as part of your team and work closely with them to achieve your goals. Teamwork divides the task and doubles the success.

Appendix A

Sample TAR Template

TAR Template		
TAR Number	Date Opened	Severity
Oracle Contact	Product	
CSI Number	Component	
Contact Name	Apps Version	
Phone Number	RDBMS Version	
Database Platform/OS	Middle Tier Platform/OS	

1. PROBLEM DESCRIPTION
<p>1. DESCRIPTION OF ISSUE. DEFINE BOTH THE "OBJECT" AND THE "DEFECT."</p> <p>2. HOW IS THIS ISSUE IMPACTING YOUR BUSINESS PROCESS?</p>

2. ADDITIONAL DETAILS ABOUT THE PROBLEM
<p>1. DESCRIBE ANY WORKAROUND(S) AVAILABLE.</p> <p>2. LIST ALL ERROR MESSAGES COMPLETELY.</p> <p>3. LIST NAME & VERSION OF ALL MODULES INVOLVED: FORM, REPORT, PACKAGE, ETC. (EXAMPLE: APXPAYAD.rdf V80.11, poxrqerq.fmx V916.38, RAXMATRX.inp V70.230)</p> <p>4. IS THE ISSUE OCCURRING IN NCA, GUI OR CHARACTER?</p>

5. IF GUI, DOES IT HAPPEN IN CHARACTER? (THIS IS NOT MEANT TO BE A WORKAROUND. THIS INFORMATION HELPS DIAGNOSE IN WHICH PIECE OF CODE THE ISSUE MAY BE OCCURRING.)
6. DOES THE ISSUE OCCUR EVERY TIME? (EXAMPLES. USING DIFFERENT PARAMETERS? DIFFERENT BATCH SIZE?, ETC.)
7. IF NOT, SPECIFY THE CONDITIONS THAT CAUSE THE ISSUE.
8. IS THE ISSUE OCCURRING IN TEST OR PRODUCTION?
9. DOES THE ISSUE OCCUR IN ALL YOUR INSTALLATIONS?
10. IF NOT, INCLUDE DETAILS ABOUT THE DIFFERENCE BETWEEN THE INSTALLATIONS.
11. LIST ADDITIONAL SUPPORTING DOCUMENTATION AVAILABLE (LOG FILE, REPORT, SCREEN PRINTS, ETC.).
12. DO YOU HAVE ANY CUSTOMIZATIONS OR 3RD PARTY PRODUCTS?
13. DETAIL ANY CUSTOMIZATIONS OR 3RD PARTY PRODUCTS WHICH MIGHT CAUSE OR AFFECT THIS ISSUES.

3. PERFORMANCE PROBLEMS

(Use this section only if your problem is performance related.)

1. HOW LONG DOES IT TAKE FOR THE PROCESS TO COMPLETE OR FAIL?

2. WHAT WOULD BE AN ACCEPTABLE LEVEL OF PERFORMANCE FOR THIS PROCESS?

3. PLEASE PROVIDE SUPPORT WITH A TKPROF'D TRACE FILE OF THE PROCESS. (TRACE FILE SHOULD BE TRKPROF'D, WITH EXPLAIN AND TIME_STATS OPTIONS ON. BULLETINS THAT EXPLAIN HOW TO RUN TRACE AND TKPROF THE FILE ARE AVAILABLE FROM SUPPORT.)

4. LIST THE NUMBER OF RECORDS IN EACH TABLE ACCESSED BY THE SLOW SELECT STATEMENTS IDENTIFIED IN THE TRACE FILE: (FIND THE SELECT STATEMENTS THAT TAKE UP MOST OF THE TOTAL PROCESSING TIME. THEN DO A 'SELECT COUNT(*), FROM EACH OF THE TABLES IN THE FROM STATEMENT)

5. LIST THE INDEXES ON EACH TABLE ACCESSED BY THE SLOW SELECT STATEMENTS. (THE FOLLOWING SELECT CAN BE USED TO IDENTIFY THE INDEXES. INSERT THE TABLE NAMES FROM THE IDENTIFIED SELECT STATEMENTS.)

```
select index_name, column_name, column_position
from all_ind_columns
where table_name in ('TABLE1', 'TABLE2', 'TABLE3')
order by index_name, column_position
```

4. PROBLEM HISTORY

1. WERE YOU ABLE TO COMPLETE THE SAME PROCESS PREVIOUSLY?

2. IF SO, WHAT HAS CHANGED?

3. LIST PATCHES APPLIED RECENTLY WHICH COULD AFFECT THIS ISSUE.

4. WHAT WAS THE LAST PATCH SET APPLIED ON THIS SYSTEM? (THIS QUESTION APPLIES ONLY TO 10SC INSTALLS, AND FOR PRODUCTS THAT CREATE PATCH SETS. EXAMPLE: 16.1.AR.G, P16H)

5. PROBLEM DUPLICATION DETAILS

DOCUMENT STEP BY STEP INSTRUCTIONS ON HOW TO REPRODUCE THE PROBLEM. (PLEASE PROVIDE DETAILED STEPS. SOMETIMES THE ABILITY TO REPRODUCE AN ISSUE DEPENDS ON ONE MINOR STEP, FIELD VALUE, OR PARAMETER.)

- 1.

- 2.

- 3.

- 4.

etc.

6. LOCATION OF TEST INFORMATION

1. MODEM NUMBER(S) FOR REMOTE ACCESS.
2. CLEARLY DEFINED LOGIN INSTRUCTIONS.
3. IF GUI, ARE YOU USING CARBON COPY OR PC ANYWHERE?
4. ALL APPLICABLE SQLPLUS PASSWORDS (INCLUDE PRODUCT AND APPS).
6. IS DIAL-IN ACCESS TO A PRODUCTION OR TO A TEST SYSTEM?
7. IS DATA VIEW ONLY, OR CAN DEVELOPMENT CREATE OR UPDATE ENTRIES?
8. CONTACT'S NAME FOR DIAL-IN PROBLEMS. CONTACT PHONE NUMBER, BEEPER NUMBER, CELL PHONE NUMBER, E-MAIL ADDRESS, ETC.) MAY WANT TO PROVIDE CONTACT INFORMATION FOR A SECONDARY PERSON AS BACKUP.

Appendix B

TAR Status Codes

TAR Status Codes

Owner	Code	Description
Support	NEW	New Tar
	XFR	TAR Transfer
	ASG	Assigned
	WIP	Work In Progress
	RVW	Review
	1CB	1st Callback
	2CB	2nd Callback
	IRR	Immediate Response Required
	INT	Awaiting Internal Response
Customer	WCP	Waiting for Customer to apply Patch
	CUS	Waiting on Customer
	SLP	Sleep until Customer Available
	LMS	Left Message
	SCL	Soft Close
	HCL	Hard Close
Development	DEV	Assigned to Development

Appendix C

Speed Dial Codes

Silver/Bronze Applications Speed Dial Codes

The list of Speed Dial codes on the following page are in alphabetical order. After Validating your CSI number, dial the product speed dial code to traverse the menu tree rapidly. Place this list near the phone used to call Oracle Support to more quickly reach an analyst.

This snapshot of speed dial codes was taken from the Support web site on September 1999. To get the latest version go to <http://www.oracle.com/support/>

- Click on - Support Orientation
- Click on - I am new to Oracle Support Services
- Click on - Calling Support
- Click on - Phone Numbers and Tips
- Click on - Applications Speed Dial

Oracle Support Services
Applications Speed Dial Codes

September 1999

Products	Speed Dial
Accounts Payable	1113
Accounts Receivable	1114
Activa	1151
Advanced Planning and Scheduling	1552
AOL, Business Manager, Alert	132
Automotive	1551
Auto Install	131
Balanced Scorecard	1152
Call Center	1642
Clinical	156
CRL (Financials and Supply Chain)	1541
SDP (FNumber Portability & Provisioning)	1542
CPG - Consumer Packaged Goods	1512
Core Manufacturing (MRP,WIP,BOM,ENG,etc.)	122
E-Commerce	1631
EDI Gateway (install/config)	144
EDI Gateway (other)	145
Energy	153
E-Travel	1115
Financial Services	158
Fixed Assets	1112
Oracle Process Manufacturing (OPM)	1511
General Ledger	1111
Grants Management	1572
Human Resource Mgmt System	112
Internet Commerce Server	1632
Inventory	1211
Labor Distribution	1572
MRO - Maintenance Repair Overhaul	1553
Order Entry	1212
Public Sector Budgeting	1571
Public Sector and Federal GL	1521
Public Sector Federal PO	1522
Public Sector Federal AP	1523
Public Sector Federal AR	1524
Project Accounting	113
Purchasing	1213
Retail	1513
Revenue Accounting	1543
Sales & Marketing	161
Self Service Web Apps	141
Selling Point Configurator	307
Service	162
Versatility	1641
Web Customer	163
Web Employee/Suppliers	143

Appendix D

Patch Failure Template

Oracle Applications Patch Failure Template

Bug Number		TAR Number	
Release		Product	
Platform		Customer	
Language		Date	

Description	
-------------	--

Detailed Description:

Oracle Applications Patch Failure Template

Bug Number	906170	TAR Number	12345736.6
Release	10.7NCA	Product	January 12, 2000
Platform	HP-UX 11.0/32 bit	Customer	XYZ Corporation
Product	Order Entry	Contact	Geekov Nerdosky
Language	USA English - American	Contact Tel	407-555-1212

Description	Error frm-41011 on OEXOEMOE after applying OE.H
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Detailed Description: With OEXOEMOE v54.42 you get a frm-41011: undefined attribute error with an ato item on the configurator screen immediately after applying patch set OE.H. Application of patch 105479 had resolved the problem and thus closed the corresponding TAR. Patch failed because it was necessary to apply an additional interdependent patch to fix error.
EXAMPLE