



itSM Solutions® DITY™ Newsletter Reprint

This is a reprint of an itSM Solutions® DITY™ Newsletter. Our members receive our weekly DITY Newsletter, and have access to practical and often entertaining articles in our archives. DITY is the newsletter for IT professionals who want a workable, practical guide to implementing ITIL best practices -- without the hype.

become a member

(It's Free. Visit <http://www.itmsolutions.com/newsletters/DITY.htm>)

Publisher

itSM Solutions™ LLC
31 South Talbert Blvd #295
Lexington, NC 27292
Phone (336) 510-2885
Fax (336) 798-6296

Find us on the web at: <http://www.itmsolutions.com>.

To report errors please send a note to the editor, Hank Marquis at hank.marquis@itmsolutions.com

For information on obtaining copies of this guide contact: sales@itmsolutions.com

Copyright © 2006 Nichols-Kuhn Group. ITIL Glossaries © Crown Copyright Office of Government Commerce. Reproduced with the permission of the Controller of HMSO and the Office of Government Commerce.

Notice of Rights / Restricted Rights Legend

All rights reserved. Reproduction or transmittal of this guide or any portion thereof by any means whatsoever without prior written permission of the Publisher is prohibited. All itSM Solutions products are licensed in accordance with the terms and conditions of the itSM Solutions Partner License. No title or ownership of this guide, any portion thereof, or its contents is transferred, and any use of the guide or any portion thereof beyond the terms of the previously mentioned license, without written authorization of the Publisher, is prohibited.

Notice of Liability

This guide is distributed "As Is," without warranty of any kind, either express or implied, respecting the content of this guide, including but not limited to implied warranties for the guide's quality, performance, merchantability, or fitness for any particular purpose. Neither the authors, nor itSM Solutions LLC, its dealers or distributors shall be liable with respect to any liability, loss or damage caused or alleged to have been caused directly or indirectly by the contents of this guide.

Trademarks

itSM Solutions is a trademark of itSM Solutions LLC. Do IT Yourself™ and DITY™ are trademarks of Nichols-Kuhn Group. ITIL® is a Registered Trade Mark, and a Registered Community Trade Mark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office, and is used here by itSM Solutions LLC under license from and with the permission of OGC (Trade Mark License No. 0002). IT Infrastructure Library® is a Registered Trade Mark of the Office of Government Commerce and is used here by itSM Solutions LLC under license from and with the permission of OGC (Trade Mark License No. 0002). Other product names mentioned in this guide may be trademarks or registered trademarks of their respective companies.



[Subscribe](#)

[PDF Download](#)

[Back Issues](#)

Vol. 2.35

SEPTEMBER 6, 2006



"The Problem with Problems"

DITY Weekly Reader

The workable, practical guide to Do IT Yourself

One of the first choices to make when adopting best practices is to define what will be Problems. This simple sounding decision is much more complicated that it would seem, and is often the cause of confusion. It does not have to be.



hank
MARQUIS

[Articles](#)

[E-mail](#)

[Bio](#)

By [Hank Marquis](#)

Anyone who has taken IT Infrastructure Library® (ITIL®) Foundation certification is familiar with the terms Incident and Problem.

Still, many practitioners implementing ITIL get confused about the relationship between Incidents and Problems. One of the most common questions I encounter is “when does an Incident become a Problem?” When I say “never”, people get more confused.

An Incident is an “unplanned interruption or potential interruption to service.” A Problem is the “underlying root-cause of one or more Incidents or potential Incidents.” Thus, Incidents never become Problems.

The two conditions are distinct, and represent separate situations and activities. Often the next question is “ok, what is a Problem and where do they come from?”

There are three broad answers to this question. First is to declare a Problem whenever an Incident has no workaround; the second is to declare a Problem if the Incident is a “Major Incident”; and the third is to declare a Problem after resolving one or more Incidents.

When a Problem comes as a result of Incidents, and not other causes, it is important to delineate where an Incident “ends” and a Problem “begins.”

Following I describe what a Problem is, how to determine if you have one, their relationship with other often related conditions, and finally when to close them.

Incidents, Problems, Known Errors, and Workarounds

Before I get going with Problems, we need to clear up some commonly confused terms. These terms define conditions along a life cycle – Incidents (and Major Incidents), Problems, and Known Errors. Understanding how these conditions occur and relate to each other helps make understanding and defining Problems much easier.

- An *Incident* condition is “any event that is not part of the standard operation of a service and that causes, or may cause, an interruption to, or a reduction in, the quality of that service.” While an Incident is usually a disruption to an IT service, there are three broad categories of Incidents: faults, service requests, and application queries.
- A *Major Incident* is any Incident condition with severe negative consequences. Major Incidents require a solution be found as soon as possible. As with many areas of the ITIL, you have to decide what a Major Incident is. For example, you might define a Major Incident as “any issue that causes a disruption of service to three or more internal or external customers.”
- A *Problem* condition exists is when there is an “undiagnosed underlying root-cause of one or more Incidents or potential Incidents.”
- A *Known Error* condition exists after discovering the root cause of a Problem. Best practice desires a Workaround as part of the Known Error; however, not all Known Errors have Workarounds. Not all Known Errors get resolved. If cost effective, a Known Error condition persists until resolved by a Change.

- A *Workaround* is a way of preventing or resolving an Incident or Problem. Workarounds can be used to temporarily resolve an issue, or steer the user toward another solution.

Each of these conditions is distinct and these conditions are not always sequential. For example, you can have a Known Error without any associated Incidents or Problems -- Microsoft, Cisco, and other vendors send our Known Errors daily or weekly. You can have Incidents without Problems, and vice versa as well.

Where Problems Come From

It is common mistake to confuse Incidents and Problems. According to the ITIL, Problem identification is task of detecting a Problem. The ITIL offers several examples. You know you have a Problem when:

- Matching an Incident against existing Problems and Known Errors is not successful
- Study of Incidents shows many recurrent Incidents
- Technical analysis of the infrastructure shows something that could lead to Incidents
- A Major Incident occurs and requires an immediate solution

Problems come from the above activities. As always, ITIL is very flexible, and leaves many key decisions to the practitioner. A couple of examples help make their relationships more clear. I took these examples from real-world ITIL implementations, and they are by no means all inclusive or definitive, but rather serve to illustrate the underlying logic.

These examples show three scenarios:

- Incidents remain open while the related Problem is also open
- Incidents open and close while the related Problem is also open
- Incidents close, and then the Problem opens

Example #1 -- Problem with Open Incident

Imagine that an IT service slows down, breaks, or otherwise does not perform as required. Specifically, a user cannot print a document she needs right away, so she calls the Service Desk. An Incident condition now exists.

The Service Desk tries to locate a workaround to restore her service, but there is no workaround and no mention of this issue in the knowledge base. Since there is no Workaround, past Problems, or Known Errors, a Problem condition now exists.

The agent raises a Problem record and Problem Management takes over. The Incident remains open since the user is not able to function, even in a degraded state (there is no workaround.)

Problem Management coordinates the activities of technical groups to identify the root-cause. In so doing, they discover a workaround and communicate it to the Service Desk as quickly as possible to get the user operational again, even if degraded. At this point, the Service Desk closes the Incident, since the she (the user) can now continue to work.

The Problem remains open, and Problem Management continues on until they discover the root-cause. With a workaround and the root-cause established, a Known Error condition now exists. Problem Management verifies all the information in the diagnoses, and updates the knowledge base with the Known Error information.

After documenting the Known Error, the root-cause and actions required to resolve the Problem are known, the Problem can close. The Known Error remains open until resolving the root-cause.

Example #2 -- Problem From Major Incident

An application server has a severely fragmented hard drive, resulting in increasing response times. As the system slows, its customers and users begin to experience delays, and perhaps time outs.

Many customers and users are affected. They call the Service Desk, and agents locate and pass on workarounds, but more and more users call. Agents realize that more than enough customers have issues to declare a Major Incident. The agent raises a Problem record and Problem Management takes over.

Incidents continue to open and close as the Service Desk responds to the Major Incident condition. The Problem remains open until Problem Management determines the root-cause, and creates a Known Error. Since a workaround already exists, the Problem can now close.

The Known error remains open until a change occurs that resolves the underlying fault responsible for the Major Incident, Problem, and the Known Error. Should management decide that it is not cost effective to implement the change, then the Known error will remain open indefinitely.

Example #3 -- Problem After Closing Incident

A user cannot print a document she needs right away, so she calls the Service Desk. An Incident condition now exists. The Service Desk locates a workaround to restore her service, and closes the Incident.

Upon review of the Incident at or after closing, the Service Desk agent realizes that this Incident pertained to printing invoices, a Vital Business Function defined in the Service Level Agreement (SLA). Since at this company all Incidents affecting VBF requires analysis and reporting by Problem Management, the agent raises a Problem record and Problem Management investigates.

The Problem remains open until Problem Management determines the root-cause, creates a Known Error, and management evaluates the Known error and decides to implement the Change or not.

Summary

As you can see, there are a number of decisions you must make regarding problems. For example, what is a Major Incident? Which Incidents with workarounds also get Problems? Which do not? Which Incidents require analysis (e.g., Problem) after closure?

Hopefully it is also clear that Service Level Management, and business alignment through Vital Business Function identification also come into play.

Understanding what a Problem is, where they come from, and how they relate to Incidents, Major Incidents, Known Errors, and Workarounds goes a long way to helping you establish the criteria for identifying Problems.

Now you know why Incidents do not “become” Problems, and whenever someone asks you “when does an Incident become a Problem?” you can answer “never!”

--

Where to go from here:

- Subscribe to our newsletter and get new skills delivered right to your Inbox, [click here](#).
- Download this article in PDF format for use at your own convenience, [click here](#).
- Browse back-issues of the DITY Newsletter, [click here](#).

Related articles:

For more about Vital Business Functions please see:

- [Vital Business Function Truths](#)

For more about Incident handling please see:

- [9 Steps to Better Incident Classification](#)
- [Scripted Success](#)

For more about resolving Problems please see:

- [Thinking About Problems: Kepner-Tregoe](#)
- [Major Problem Review in 6 Easy Pieces](#)
- [7 Steps to the TOP](#)
- [Fishing for Solutions: Ishikawa](#)
- [5 Whys to Solve Problems](#)

Entire Contents © 2006 itSM Solutions LLC. All Rights Reserved.