

## White Paper

# ITIL Reporting Pitfalls (pt 1): Elapsed Time Troubles

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He consults for multiple leading businesses across various industries – from marketing to counter-terrorism.

Jason specialises in Business Intelligence related disciplines, with a strong emphasis on ITIL systems - a commonly overlooked opportunity for organisations to get the most from their IT investment.

With over 15 years of experience in the industry, Jason has leveraged his knowledge into that of author, blogger and is a contributor to print and online publications.

**Virtually all ITIL based literature tends to make a passing reference to reporting. This usually happens in the context of performance metrics, without ever going deeper into what this actually means, what the best approaches are, and what gotcha's to avoid.**

It takes a myriad of Service related activities to enable the efficient running of a company's infrastructure, but without comprehensive and accurate reporting, the ITIL library becomes an unknowable structure with no windows or doors.

I would argue that reporting is the second most important single part of the ITIL solution (after the Service Catalogue) – if ITIL is a living/evolving being (the continuous improvement of ITIL 3), then reporting is the nervous system that monitors everything and provides the intelligence needed to survive.

## ITIL Isn't Easy

Before settling into ITIL reporting, I worked across all the usual reporting sectors: from Finance to Stock Control, and ITIL is, by far, the most complex and logically challenging with numerous pitfalls for the unwary.

This often results in the development of flawed reports that mislead on a variety of levels with even the technically brilliant being tripped up by convoluted logic.

Many of my assignments started because the client knew their reporting suite was wrong, but could not pinpoint where. These clients were the astute ones that had spotted something wrong, many do not.

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This is the reason for this series of white papers: to highlight the three most common and disruptive ITIL Reporting mistakes. There are many (MANY) more, but these are the big three.

Note: these pitfalls are common across all ITIL and not specific to any particular application or reporting software and are a testament to the unique challenges that are faced by an ITIL Report expert.

These problems can be applied to all areas of ITIL reporting, but I will use Incident Management as an example. Similarly, whenever I refer to 'reports', it applies equally to Data Warehouses (if not more so).

## **Blind Date Disasters**

When two different date values are in the same report and cause conflicting date logic that excludes record.

This is number one on my list because it is the prevalent and misleading pitfall, for two main reasons:

1. Impact on SLA/OLA/UC, as it excludes the worst performing records.
2. It is a very easy mistake to make and Service Owners can ask for this logic without knowing it.

When a report contains data based around two different date fields the required logic is not obvious. From an ITIL point of view, this often occurs when Creation or Assignment events are reported in the same report as Resolved/Closed events.

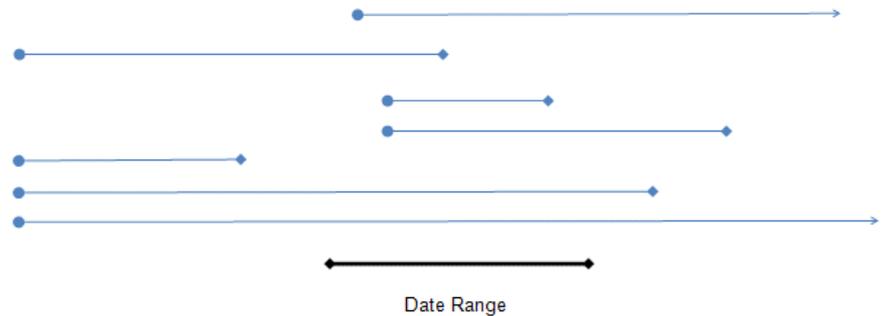
A quirk of this pitfall is that the shorter the date range being reported on, the greater the error. If a report is based on a one day date range, it is quite obvious but for a week it is easily missed and if the report is based on calendar month (as too many reports are) it is almost impossible to spot unless specifically looked for.

I have seen a situation where weekly reports showed the majority of SLAs being passed, but when the report was run for the year, nearly every SLA failed.

# Specifically?

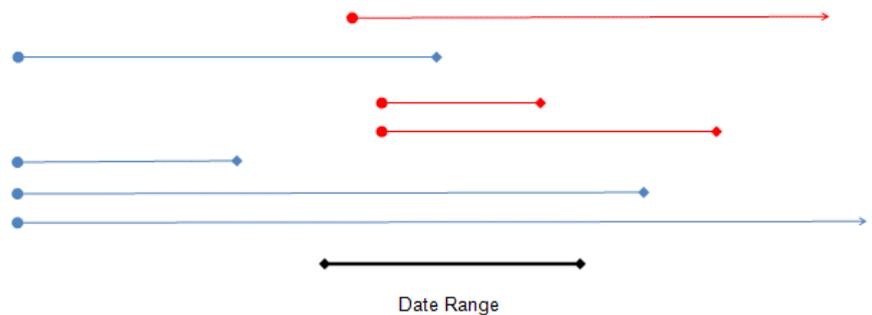
Imagine a selection of Incidents, all with a wide range of Created and Resolved dates, like the illustration below:

(The circles denote the Creation Date, the Diamonds represent the Resolved Date and the Arrows indicate an Incident that is still live.)



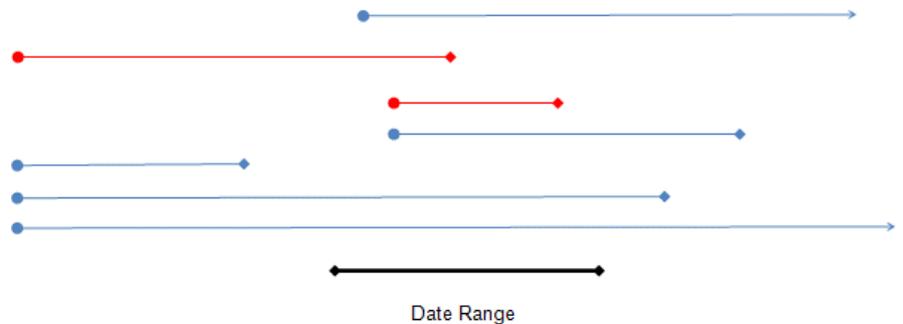
The above Date Range could be a day, a month, or a year, it does not really matter.

A report that displays all the Incidents created during the nominated date range, would catch the following red lines:



Which is just what we would expect.

Now, in a separate report, we want Incidents Resolved during the same date range, which is a basic enough query that produces:



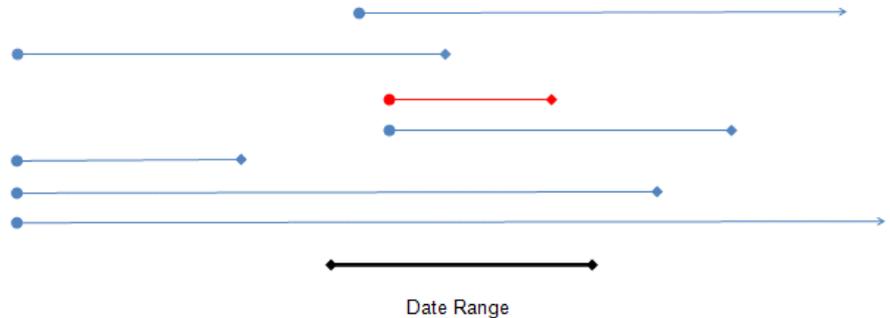
Again, the red lines are the Incidents that will be captured in the report.

So far, so good!

The problem arises when the two measurements are used in the same report with logic of:

“All the Incidents Created and Resolved last week.”

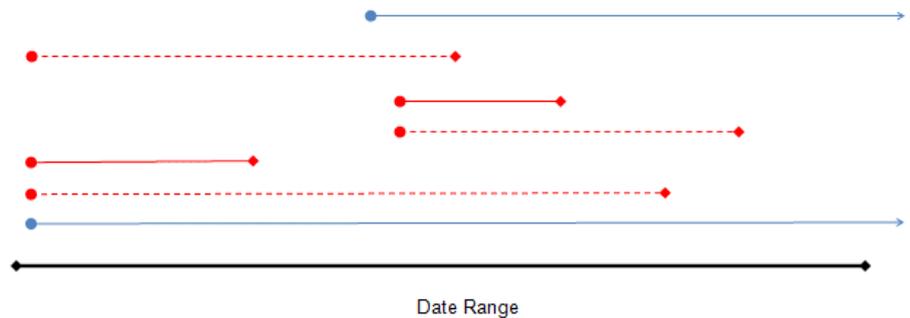
The main problem is the ‘and’ in the above sentence (with a lesser problem that I will get to in a minute\*) which produces these results (the red line):



Only the Incidents that were created and resolved in the same date range are shown in the report.

And what is worse, is that the Incidents which do not appear in the report for the date range in the illustration, will never appear in any report using this logic.

Then....someone asks for a report based on a greater date range and this happens:



The three dotted lines have been open much longer than the usual time range and would normally be lost, but here they are, in all their SLA breaching glory.

\*The secondary problem that often goes hand in hand with this mistake is not allowing for Incidents that are still open after the end of the reported date range.

The impact on reporting integrity can be minimal if a report for the previous week is refreshed at one second after midnight on a Monday morning. But, if the report is refreshed again on the Thursday, it will show different results for the same week due to Incidents with no (null) Resolved Date not being catered for.

While this is a standalone pitfall in its own right, it usually goes hand in hand with the conflicting date error under discussion.

# The Solution

These are all the Incidents that should be included in the report, due to being either Opened OR Resolved in the date range:

The solution is twofold, but simple enough...:

1. Use OR, not AND in the selection criteria when using different date fields.
2. Then, the report needs to identify which Incident should be counted in which summary, i.e.: Created or Resolved....or both!

And the 'both' option is the initial logical problem we faced and can often sneak back in at this point, even when the report filtering is correct.

## And Finally...

For the sake of completeness, I am going to add the third of this metrics trinity, namely the 'Current Incidents' (or 'Open', 'Carried Forward', 'Brought Forward' or 'Outstanding' ....I've seen this metric called all of these).

These are the Incidents that are not resolved at the end of one reporting period and will be active within the next period and often form part of LOR reports (Logged, Open and Resolved).

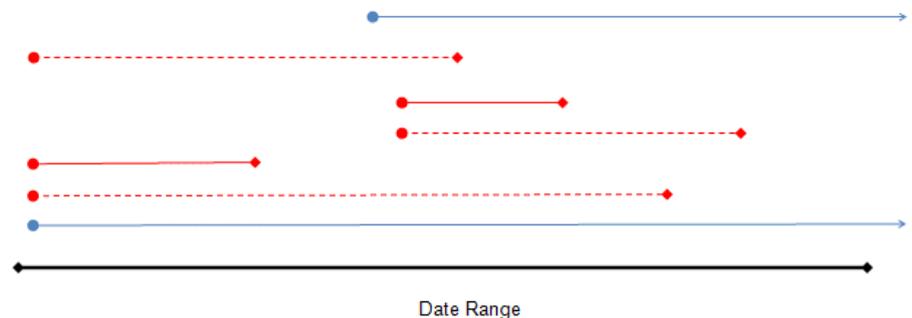
Two flavours of Open Incidents exist, those coming into the reporting date range and those leaving. Of course, some Incidents can be both, i.e.: open throughout the entire reporting date range.

In the illustration below, these are marked accordingly:

**Green:** Open at the start of the reporting period.

**Amber:** Open at the end of the reporting period.

**Red:** should be counted in both measures if required.



## LOR Logic

In order to bring the correct records into the report for each of the L, O and R summaries to pick out the data they need, the following logic is required:

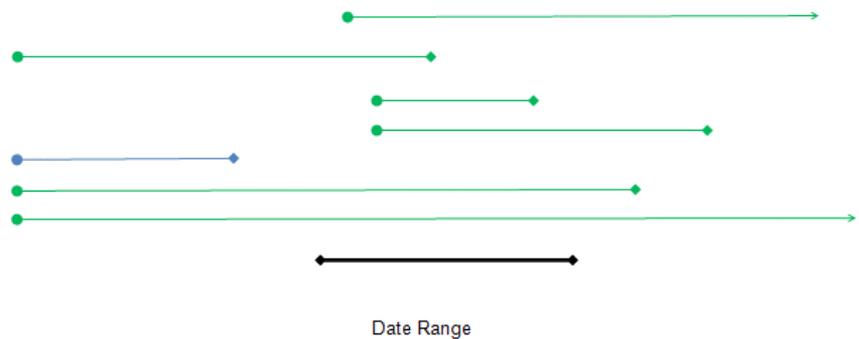
Created before the end of the reporting period

AND

Still Live OR Resolved after the beginning of the reporting period

That is it!

And it filters out the blue line below, leaving all the green ones for various summaries:



## A Bonus Benefit

A subtle benefit of reporting elapsed time measurements in this way is that OLAs and SLAs become more aligned.

By their nature, OLAs are shorter than the SLAs with a series of OLAs measuring the individual tasks required for the SLA to be met. This means that OLAs are less susceptible to bridging two reporting periods and so less likely to be omitted from reports than SLAs reported in the same manner.

And while SLAs and OLAs should never be displayed in the same report, any cross referencing will show the Resolver Group is working on Incidents that do not exist in the SLA reports...thus making ratification between the two impossible.

This contravenes the 'one version of the truth' that should be at the heart of all report suites, makes identifying trends or weaknesses in the process impossible and worst of all: causes a lack of faith in the whole ITIL solution if Stakeholders notice this discrepancy.

## Summary

Getting reporting right is always important, but the complexity in accurately reporting on ITIL Service Support makes this a greater challenge than usual and the nature of ITIL (being company wide and generally a large investment financially) means an organizational level of impact, disruption and mistrust of a solution that is supposed to unify and standardize.

The additional kicker here is that the entire ITIL infrastructure could be working perfectly and genuinely adding value: it is just the reporting that is skewing that view.

And like many of the ITIL pitfalls, once it is subject to scrutiny as a whole it appears quite simple, but I think this is part of the problem and it is often the incorrect logic that is overly complex and built up in pieces rather than with totality in mind.

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