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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.

The first paper in this series focused on an issue that purely resided in the reporting area. The second paper looked at a problem that is as much a process issue as it is reporting.

In this, the third and final part of the series, we are back to looking at a purely reporting based issue, and an odd one at that.

And the issue is: misuse of Snapshot Reporting.

Snapshot Reporting: a Short Definition

A Snapshot Report is a type/style of report that is used to capture data as it is at the single point in time when the report was refreshed and tends to rely on the values in status fields as opposed to defined date ranges.

Reading that description may make Snapshots sound harmless enough, but misusing them can lead to a range of pitfalls as the reporting suite grows and evolves.

This often means that organizations do not realize there is a very real risk until the flawed solution is already entrenched. By this time a suite of Snapshot Reports can have expanded, building one pitfall on top of another…

…three and a half pitfalls to be exact:

The Pitfall Part 1

Snapshot Reports have a valid use, but it is a lot narrower than their proliferation would suggest.

When used to measure live, ever changing data, in real time, within an operational environment, a Snapshot Report is not only ideal, but it is the only practical solution.
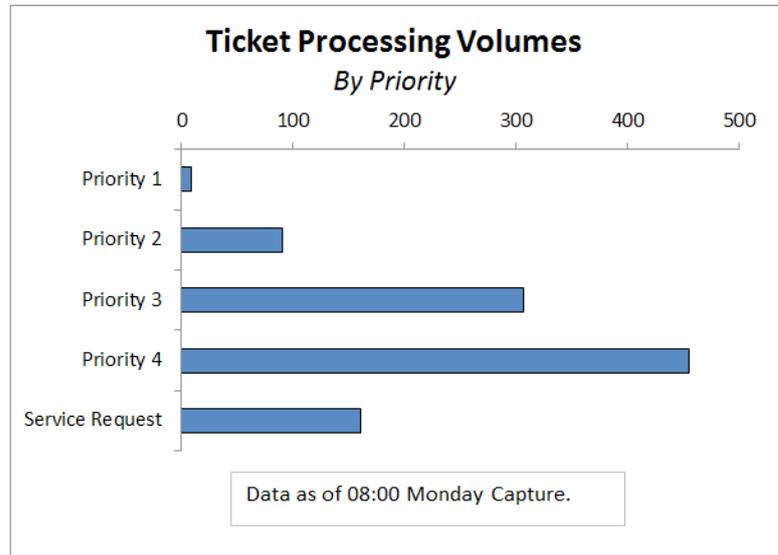
Snapshot Reports are usually created with the best of intentions, in challenging situations to provide SLM reporting that tend to be one or more of the following:

- No reporting framework or software in place.

- Report development by inexperienced staff.

- Tight timescales cutting development time short to a point that full analysis is not possible.

- Report Stakeholders being unaware of the ramifications of their request.

That is a very specific list, but the whole thing can be summarized as:

Not giving ITIL Reporting the priority and emphasis it deserves, but rather relegating it to an afterthought.

This mis-prioritization is common for Reporting/MI/BI across all business sectors, though things do seem to be improving over recent years. But it causes a far greater impact for ITIL, as without accurate measurement of Services, ITIL becomes valueless as an enterprise.

How it Goes Wrong

The problem with using Snapshots for SLM Reporting is that the moment something changes in the base data, the report becomes out of date and cannot be amended.

Even without changes, this approach often leads to regular reports having to be run at a similar time each period in order to provide a consistent view of the data.

Because this type of solution is normally introduced as a temporary fix, it tends to be quite laborious and involves exporting raw data and tweaking /formatting it in Excel.

This can easily become a full time job for someone to 'turn the handle' to keep it going. Then the Handle Turner is late for work, on sick leave or holiday, and the reports are refreshed late and therefore inaccurate for that reporting period and the one following it.

Even if a Snapshot report is automated, it is still impossible to make retrospective corrections so any existing mistakes, changes in report requirements or if the server producing the report goes down, the reports cannot be recreated later.

The (Potential) Pitfall Part 1.5

An additional issue with this style of reporting is that the manual process used to produce the reports breeds other bad behaviours, though (once again) usually done with the best of intentions.

Of course, this applies to any manual reporting, but due to the nature of Snapshot reports. The Handle Turner can find themselves integrating more and more manual activities that not only extend the time taken to produce the reports but cover a myriad of issues:

- Process changes

- Unofficial change to work practices

- Bad data

- Exception removal

With the exception of the second example which should be ignored in favour of accurate process reporting, the rest of the above could and should be addressed. But addressed by improved automated reporting, not by extending manual intervention.

The Pitfall Part 2

Producing a collection of Snapshot reports is a laborious task fraught with risk. But this is just the beginning!

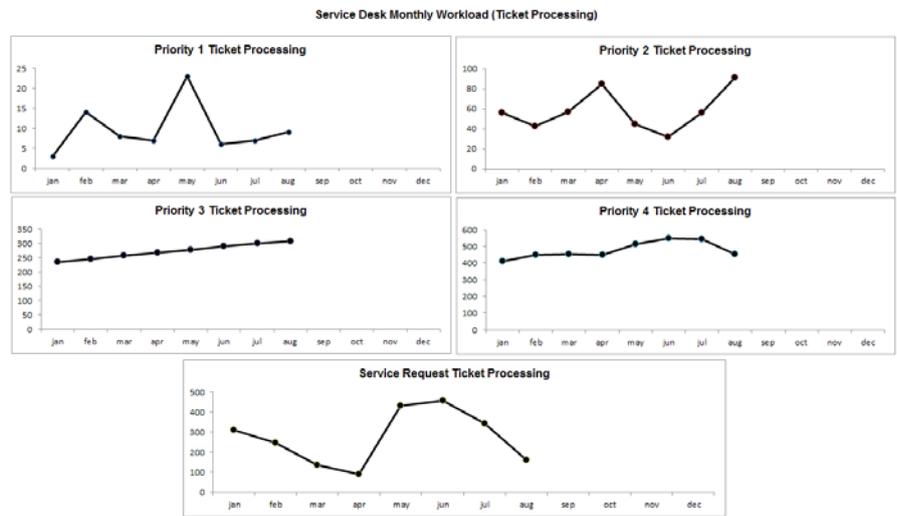The next step is trending/historic reporting like this:

Figure 2: A Trending Report Requiring a Repository of Snapshot Data.

Unfortunately, due to the nature of Snapshot reporting, each reporting period must be saved, collated and summarized to build the historic data. This also means that when a Stakeholder requires a 'six month rolling trend report' they have to wait six months for a full set of data to populate the report.

The Handle Turner at this point is probably spending all of Monday (every Monday) producing reports, as well as the first working day of every month.

Then there's the once or twice a year when the first working day of the month is a Monday. And let us not forget public holidays, or even weekends where the services maybe running but the Handle Turner is not.

That is not all Folks!

What happens next is that the report audience want the reports put together in a dashboard or reporting pack, usually for senior level management with a pretty cover sheet, table of contents, all followed by a collection of reports.

Something a lot like this:

Figure 3: The First Three Pages of a Report Pack

With professional reporting software used correctly, this is usually just a case of drag and dropping existing reporting into a larger, holding report. The whole thing then becoming automated. But Snapshot reporting still has to be saved and manually collated, even when the original report was automated.

If the Snapshot is not automated our long suffering Handle Turner has another stage of manual intervention.

At this point it is likely beyond the capabilities of one person and can easily grow to enough work for a small team (3-4 people) of Handle Turners.

The Pitfall Part 3

Once a repository of Snapshot reports grows big enough for the historic reporting, it becomes natural for this block of data to get cut and sliced in various ways for different reports.

While this filtering would normally be done via date fields, Snapshot reports do not tend to have many dates due to being based on status fields: making it very difficult to view data from different aspects.

Then, while all of the above was happening, somewhere else in the organization someone develops a report using date ranges and correct logic and of course, the numbers in the new report don't match the Snapshots.

This is often the first time an organization realizes something has gone wrong. And if that 'someone' with the new report is an auditor, it is already too late.

Even if the new report is from another part of the organization, once the Report Suite stakeholders lose faith in what is being presented it is damaging for all future reporting developments and potentially lead to third party vendors questioning any criticism of their services.

The bottom line is that Snapshot Reports, whether automated or manually produced are:

- Not auditable

- Not recreateable

- Not capable of accurate historic reporting

- Incapable of retrospective amendment

- Has to be collated manually

- Capable of undermining the entire ITIL framework

The Solution

This is going to be a short section, the solution is… don't!

Don't use Snapshot Reports. Take the extra time and develop reports that are based on date/time fields and be able to create repeatable reporting results for a specific time at any point in the future.

It is extra work, but it is the only way to have auditable and scalable reporting solution. Any organization relying on Snapshot style reports is sitting on a disaster waiting to happen.

The good news here is that the Snapshot reports can be used as prototypes for a more professional and robust solutions, saving a lot of analysis time for the core of the ITIL Reporting library.

So even if Snapshot reports are being used organization wide, it does not mean that it is too late or beyond saving. It does mean that some additional considerations are needed on top of the usual requirements.

Rescuing a Snapshot Solution

Snapshot solutions can run for years before their inaccuracies are discovered, all the while building a repository of incorrect data and a regular audience. This can make overhauling the Report Suite a political nightmare, but most issues can be avoided with some forethought.

No Phased Implementation

Replacing Snapshot Reports with their date driven counterparts has to be done in one go to avoid comparisons with between the two.

If the audience has saved/exported versions of Snapshot trend reports, this may still happen, but for ongoing weekly/monthly reporting use Snapshot Reports until the whole Suite is replaced.

How much of an issue this will be for an organization depends on the variation in results displayed in the reports.

Managing the Data Change

If stakeholders and/or third parties suddenly realize they're missing the KPIs they used to hit, or worse: have faced criticism previously for poor performance, only to have the new reports show them that historically they were meeting targets.

The solution for this is a fresh start with the new Report Suite only displaying historic trending from the implementation of the new reports.

Logical/Technical Differences

The good thing about spreadsheet driven Snapshot reports is that virtually anything is possible. The bad thing about spreadsheet driven Snapshot reports is that virtually anything is possible!

As outlined in Pitfall 1.5, the manual nature of Snapshot reporting tends to bring out the worst in spreadsheet development with manual tweaks drip feeding into the requirements.

When moving to specialized reporting software, these manual interventions have to be rule based to be automated and this is often not the case in Snapshots.

The good news is that this is an indicator that there are wider issues with data and/or processes and this can be fixed.

Side note: Provisioning a full ITIL Reporting Suite through spreadsheets is certainly possible, but strict rules and approaches are required to ensure realistic reporting.

Fuzzy Scope

Because Snapshot Reports tend to evolve over time and are impossible to extend in history or breadth of data, their scope tends to be "Best Endeavours".

So while individual reports are a great head start on the analysis for specific requirements, they are limiting in overall scope.

The ideal approach to this is portioned requirements analysis across all areas of interest, then identifying where the existing Snapshot reports fit into it.

By developing these Snapshot Reports first, they can be used as a basis for the logic across the entire Reporting Suite where appropriate.

Series Summary

ITIL Reporting is very easy to get wrong, very difficult to get right and equally difficult to just spot when something is wrong.

The pitfalls in this series are the top three based on the frequency in which I have encountered them and the damage they can potentially cause. There are many more pitfalls with varying degrees of risk.

It is more common for an organization to have at least two of the three pitfalls in this series than just one. And more likely to have all three than no pitfalls at all!

For all these pitfalls there is one broad solution:

Treat the ITIL Reporting as the Service it is and give it the attention it deserves with the expertise required to get the job done right.

This is opposed to acting like reporting is an afterthought which is dumped on whoever is available at the time. It's not fair on the dumpee and compromises the entire ITIL Solution on an organizational level.

Without accurate and universal reporting the ITIL Solution can grind to a near halt before any issue is even realized, let alone actually identifying when/where/why things are going wrong.

Keeping Services running is the core of ITIL Service Management, this being achieved by analyzing and addressing Root Causes.

Yet, if the Resolver Groups are struggling to maintain acceptable service availability, there is no way to identify the Root Cause without solid ITIL Reporting.

Even simple Resolver Group resources can't be effectively judged. Without knowing who is doing what and for how long, it is impossible to know whether more staff are needed, or less, or if working processes need review.

All of which makes a mockery ITIL v3's Continuous Improvement.

ITIL Reporting Still Ain't Easy

I have worked as both developer and analyst across a myriad of business sectors, from developing individual reports to enterprise wide reporting to setting up Business Intelligence Teams within an ITIL framework.

And ITIL Reporting is the most intricate (and convoluted) job to get right and is constantly underestimated until something goes wrong.

Sometimes it is a Third Party Supplier arguing that their work as reported is not the work they do. But as illustrated in this series, the common Pitfalls are more just as likely to 'hide' poor quality work as expose it, making it a lot less likely to be highlighted!

Of course, the flip side is also true and Third Party Supplier's reporting is likely to as bad as the organization's, but unless it can be compared to something 100% trustworthy there is no way to know.

Trusting a Supplier to report on themselves without any checks and balances in place is asking for trouble.

At some point ITIL Reporting switches from "too expensive to implement" to "too expensive to not implement".

Unfortunately, without accurate reporting implemented in the first place, that 'point' can be easily missed.