

# White Paper

# Business Intelligence as an ITIL Tool

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Jason Dove is an ISEB accredited Business Analyst, Developer and Professional Writer.

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 organizations 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.

**I have consulted within the arena of data extraction and interpretation for over fifteen years, from all the way back when it was just called 'Reporting'. 'Reporting' is a wonderfully generic term that can be applied to any requirement that is based on data.**

Then came 'Management Information', which implied a purpose for reporting, namely to extract, collate and measure data to enable management level decisions.

Currently, 'Reporting' is now called Business Intelligence and has a very real expectation to only provide performance level metrics. This becomes doubly true when Business Intelligence is applied to ITIL with its hordes of SLAs and OLAs.

And if Business Intelligence is realized via a Data Warehouse, the logic is clearly geared towards metric measure and is locked into the design. Business Intelligence does not turn a wheel, it measures how well the wheel is being turned.

None of the above is a bad thing and the Business Intelligence aspect of reporting is the basis all my ITIL writing to date...until this whitepaper! This demarcation between Business Intelligence and transactional activities is normally a sensible stance to take, particularly with ITIL.

However, there are occasions when the Business Intelligence definition blinkers our view of very powerful reporting software that can fill a range of transactional requirements with relative ease.

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# ITIL Transactional Requirements

ITIL software has been around for some time now with each vendor releasing improvements and enhancements over the years, with most of it being very good at meeting ITIL specific requirements.

Traditionally, this ITIL transactional software turned the 'process cogs' while the Business Intelligence software extracted data, measured the efficiency of the processes against KPIs.

For the most part, this is true, and how it should be.

But there will always be that quirky thing a particular organization requires that has not been covered by the ITIL software and leaves a gap in process coverage.

Whether this gap is caused by erroneous ITIL software, or the organization requiring more than the ITIL Framework provides, there is often a very real need to provide additional functionality that does not exist in the ITIL software.

Business Intelligence cannot solve every problem, but anything that is data driven is potentially viable, assuming there is no requirement to update recorded data.

*Note: The following examples assume that the ITIL software configuration is as configured as it can be and whatever requirement or process that has created the gap cannot be amended (or ignored!).*

The following examples will not be relevant to every ITIL solution, in fact they are unlikely to appear in most organizations. The intention of this whitepaper is to introduce the concept of using Business Intelligence to solve ITIL based issues in a way that would usually not even be considered.

## Example Benefit 1: Setting SLAs (OLAs, UCs & KPIs)

Creating meaningful and realistic targets for Processes is a skill in its own right and can be a very time consuming activity.

By employing the use of a report to measure the average elapsed time a lot of time can be saved and more accurate measures to be put in place. Measuring effort by monitoring real life activities can skew the results in various directions just by being observed.

And although expertise is still required, by using Business Intelligence functionality the effort can be greatly reduced, leaving the Analyst free to work on fine tuning the results, rather than manually collating elapsed times for a myriad of processes.

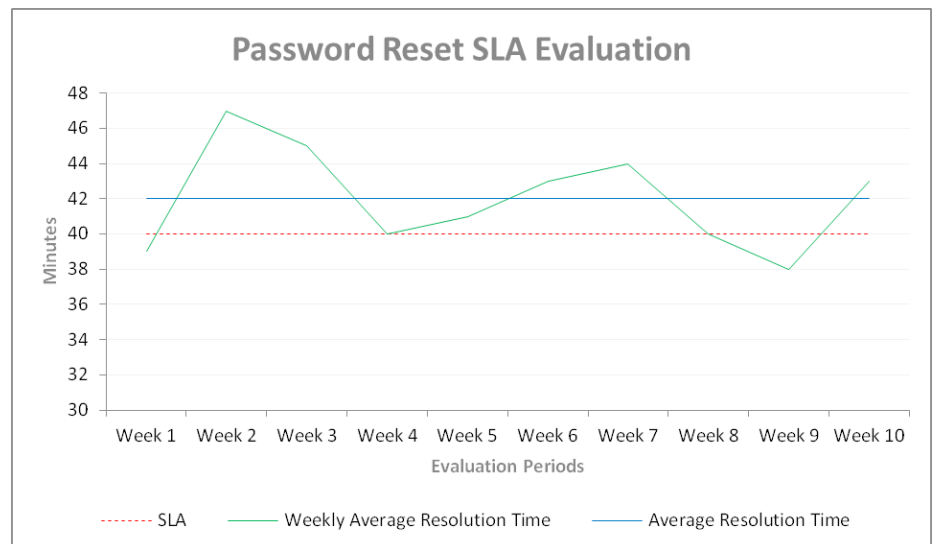
Each flavour of target has its own unique requirements in isolation and, with the exception of UCs, how they interact with each other and balance is crucial.

## SLAs

SLAs are a promise to the Stakeholder to complete work (whether Incident, Problem or Change) within an agreed timescale. That SLAs are fair and achievable is paramount to both the Stakeholder and those doing the work.

By looking at the average and ranges of SLA measured activities any flaws in existing SLAs can be easily identified. This allows more realistic completion estimates to be provided to the Stakeholder and expectations to be managed.

Consider the example in the below illustration: if a Password Reset has a forty minute SLA for resolution, but the average is forty two minutes, Stakeholders will be disappointed more often than not. By identifying this average, along with the ranged distribution an SLA can be amended to give realistic expectations to the Stakeholder.



**Figure 1 SLA Review Report**

*Note: Additional information may be required in the form of work volume undertaken during the same time periods as this can directly affect SLA results.*

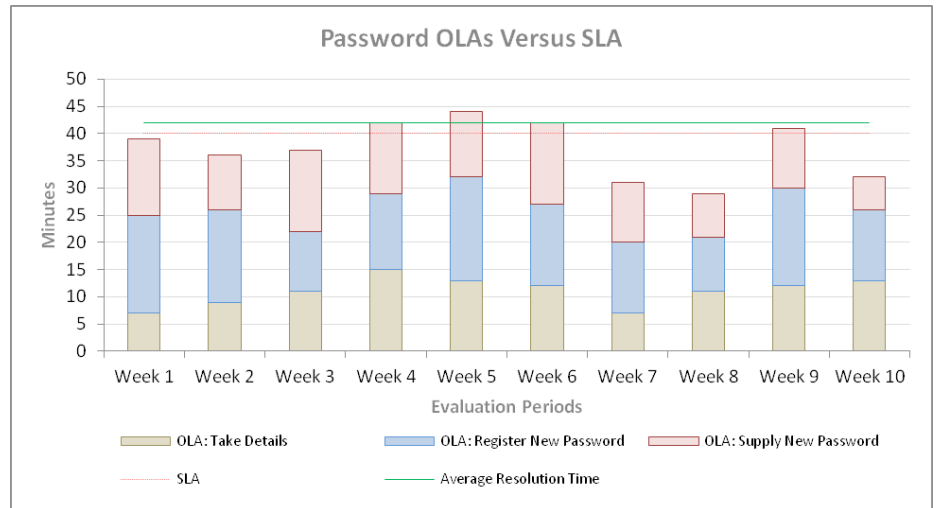
## OLAs

OLAs can benefit from this report in the same way as SLAs and be tweaked to realistic targets in a similar manner using the average and ranged results.

There is an additional aspect for OLAs that requires consideration: the collection of OLAs that make up a process must total equal or less elapsed time than the SLA which encompasses them.

Without this check in place it is possible for SLA targets to be missed while OLAs are all met, making it difficult/impossible to identify weaknesses in the process. And because SLAs and OLAs should never be in the same report, they are seldom rationalized against each other.

By comparing the set of the OLAs that make up an SLA and ensuring they are aligned, any confusion or perceived unfairness can be addressed and more solid support provided to the organization.



**Figure 2 Password OLAs compared to the SLA.**

## KPIs

KPIs should never be evaluated in isolation as they are greatly impacted by the SLAs they represent.

For example, a Priority One Incident may have a Response Time SLA of 25 minutes, and a KPI of 95%. So, if forty Priority One Incidents occur, thirty eight must be responded to within 25 minutes.

However, if the SLA is amended to 35 minutes, there is a good chance that 100% of Response times will be achieved every time, rendering the KPI redundant.

The flip side is just as disruptive. If the SLA is cut to fifteen minutes, it is likely the success rate will drop to 50-60% and the KPI will be equally useless.

KPIs should inspire and be attainable with effort. Which is the beauty of this report: how SLAs and their KPIs react as a unit can be easily fine tuned to a perfect balance.

## UCs

And then there are Underpinning Contracts!

These are the SLAs that a third party agree to and are set out in a legal document and can often specify penalties for failure. This makes getting UCs correct, and correct first time, of the utmost of importance.

Any in-house SLAs can be tweaked and amended endlessly until correct, whereas a UC cannot be altered once set until the contract itself is renegotiated.

By carrying out the same BI driven analysis as outlined above for SLAs

and KPIs, it is easy to just reasonable timings for UCs before they are written into contracts.

Once developed, this report can be used when approaching the contract renewal date, so even if an organization already has UC contracts in place it is worth evaluating them against known averages.

## **Example Benefit 2: Prioritization and Queue Management**

Prioritization of tasks is a major aspect of ITIL, but it can, on occasion, be more subtle than merely assigning a single number to it.

Okay, that may be a little harsh. Correctly configured/mature ITIL solutions tend to provide Severity and Major Incidents for Incident Management to enable more meaningful prioritization beyond a single Priority value.

So this second benefit is focused on fine tuning priorities for specific and exceptional instances: it is not to replace the prioritization system built into the ITIL Software, which is fit for purpose in most cases.

In all honesty, if one of these prioritising anomalies is discovered the first step should always be to identify whether or not the driving force behind the exception can be removed or amended before embarking upon any workaround or bespoke prioritization is developed.

### **1. Deadlines Versus Elapsed Time**

This is a common issue for Change Management with Change freezes, but for Incident and Problem Management the onus is put on actual Elapsed Time measurement rather than set deadlines.

However, it does happen on occasion that deadlines naturally occur as part of the wider requirements, but unlike Change Management, it is seldom handled in a controlled manner.

In regard to Incident Management, this can take the form of having a Work Request to pass data to a third party by a certain time each working day, such as banking transactions or insurance applications, essentially anything that will be submitted to an automated batch process.

This means that a Work Request of this type may have eight hours before it will breach its SLA, or five minutes, or anything in between. The real effort and time needed to carry out the work will not change, only the available time to do the work based on the deadline is fluid.

Representing this increasing urgency can be achieved by automated/

timed escalations to push the Priority up as the deadline looms. The issue with this approach is that Priority escalation is a valuable SLA in its own right and will be heavily skewed if this approach is taken.

## **2. Very VIP (VVIP)!**

Due to the nature of their work, some Stakeholders may require a higher level of prioritization based on their function within the organization rather than the compromised Service.

This requirement is often realised by the introduction of VIPs to complement the standard Priority structure.

Unfortunately this 'common exception' is often misused and applied based on a Stakeholders level in the organizational hierarchy rather than the impact their inability to work will have on the wider organization.

*Note: for this specific example it is doubly important to be sure there is not a method within the ITIL Management Software.*

This type of processing gap is rare and not every organization has them, which is why they tend not to be addressed within the software. And why they are a challenge to address as each one tends to be a unique exception which requires fresh thoughts and ideas on how to address them.

How Business Intelligence can address priority based issues is straightforward enough; it is simply a case of assigning relative values to each level of Priority across the standard Priorities, any VIP, VVIP, Deadlines and/or anything unique to the Organization in a Report.

Once done, it is a simple matter to order the Report by the new value and create a prioritised list that spans all types of Priority and parameterise it so individual Resolver Groups (or relevant Teams) can be selected to focus the Report.

So while rare, it is important to address these gaps as much as any other (more common or popular) gaps. Any time any software cannot fulfil the requirements asked of it, however spurious or rare; the Stakeholders will lose faith in it as a whole.

Preventing loss of faith in ITIL Reporting is the underlying motive for most whitepapers and articles I write, and I expect the main reason why someone would read them. Using reporting functionality to improve the range (and therefore reputation) of the ITIL management software can instil confidence as a whole.

# Example Benefit 3: Process Efficiency Improvements

Measuring how well Processes are running is nothing new for ITIL reporting, in fact, it is the basis for over ninety five percent of ITIL Reporting Suites (though I would personally argue it should be more around eighty percent).

But in the spirit of ITIL v3 and Continuous Improvement, reviewing processes as a whole is a valuable exercise.

Developing a report that looks at how often each Process is employed provides a solid foundation from which start a prioritised review based on usage:

## 1. Heavy Use

These are the Processes that form the top five percentile and generally account for forty to fifty percent of all Process usage, though may only consist of a few individual processes. Any improvements or tweaks to this group will have the greatest impact on improving Process related work practices.

## 2. Moderate Use

These are the typical day to day Processes which are used regularly throughout the organization and, as such, should be routinely monitored for relevance.

## 3. Minimal Use

If a Process has only been used a few times over an extended time period, it may be worth appraising its relevance. Though any amendments made to an existing low use Process will have a limited impact, if time or priorities allow, any improvement is worth pursuing.

## 4. Not Used

These are the Processes we are really looking for!

Any Process that has never been used or, on more mature ITIL implementations, not used for a set time period that can reasonably be assumed to no longer be required.

Obviously, this is not a license to start deleting Processes with wild abandon, and written verification should be acquired from the Process Owner before any drastic steps are taken! Just because a Process has not been used, does not necessarily mean it is useless! It could be related to disaster recovery and a legitimate process that may never run.

What constitutes Heavy, Moderate or Minimal usage will obviously vary from organization to organization. With this in mind, I recommend this report to be developed and populated so the spread of Process usage can be considered before assigning percentiles to each level of use.

Of course, once created, this report can be used at regular intervals to ensure Process alignment to the organization. So while developing this report and dealing with Process deviations can be time consuming the first time, but if used as a regular check there should not be a backlog and any remediation work will be minimal.

## Summary

The three examples above are just that, examples of which some, all or none may be applicable to any individual ITIL solution.

The intention with this whitepaper is to highlight the power and versatility of using Business Intelligence software to solve transactional gaps in the ITIL software or extend off-the-shelf ITIL software to handle challenges unique to your organization.

However, caution should always be used when adopting this approach and should only be used as a last resort, when configuring the ITIL software is either impossible or very impracticable. For both scalability and ease of maintenance, this splintered approach that sees transactional processes being carried out across multiple locations and software is to be avoided. This being especially true when it comes to bending Business Intelligence software for transactional work.

This 'misuse' of Business Intelligence has its place, and that place is as a last resort when it comes to transactional gap filling! But to ignore it completely in this aspect is to miss an opportunity to get the most from the ITIL investment.

In the case of the first example benefit, using Business Intelligence as an analysis tool is not such a stretch of the 'rules' and is a missed opportunity for top quality SLAs et al that are the basis of ITIL based Service Management.



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