



***Service Desk/Helpdesk Metrics and Reporting : Getting Started***

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## **Intended Audience**

This White Paper is for IT Service Desk and Helpdesk Managers who are trying to turn raw data gathered from IT Service Management into information on which informed management decisions can be based.

## **About this White Paper**

It is hoped this White Paper will be useful for those attempting to produce a management report for the first time – by offering ideas and practical suggestions.

At the end of this White Paper you'll find an example template you can use.

***New:** We've created a companion 'Serio Metrics Spreadsheet' for Microsoft Excel that contains a number of examples you can add your own data to. Simply go to [www.seriosoft.com](http://www.seriosoft.com) and search for downloads – you'll find the spreadsheet there.*

## **Why Produce Management Reports from your Service Desk/Helpdesk data?**

Above all else, remember why we produce management reports and identify key performance metrics. It should be something like

*"To enable managers involved in IT service management to make informed, rational decisions about the IT services and infrastructure offered to customers"*

Alternatively, you might be producing reports for customers, in which case

*"To show to the business that pays for IT service (or other interest groups) the level of service given by, and performance of, the IT Service Desk. To enable conformance to agreed standards of performance to be examined"*

Starting from this premise, it's clear that looking at all the data we have available, some of this data is going to be more important to us than the rest. I will refer to the data which is important to us as *Key Performance Data*.

Your own choice of what is Key Performance Data should be influenced by

- The challenges you face in delivering IT services to customers,
- The demands made of the IT Service Management function by the business
- The intended use of the reports, and audience of the reports.

For instance, you may provide a CRM system and your organisation requires very high uptime (say 99.8%). In this case, it would make sense to include uptime and availability data as part of the Key Performance Data.

At first glance, it might seem that identifying your Key Performance Data is a very difficult task, particularly as most tools available (including Serio) offer many different types of data for you to choose from. However, if you approach things in a step-by-step way, you'll find that it is usually quite straightforward.

One approach is to classify performance data into different groups, and then think about which of the groups is more important to you. In each case, you need to have a clear idea of what the data might tell you about the services you are providing to customers.

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## Classifying Performance Data

Most ITSM tools provide different types of reports that deliver performance data. These reports can often be classified into different groups. What follows is not a totally comprehensive list, but will hopefully give you an insight into how to group data, and types of data typically available.

### Input data

By Input data, I am referring to data such as *Incidents logged* or *Changes requested*. Of course there are many ways of looking at this.

Examples:

- Incidents logged week-by-week
- Incidents logged month-by-month
- Incidents logged by department
- Incidents logged by priority, and so on.

However, it is all what I classify as *inputs* and quantifies, to an extent, work coming into the Service Desk.

One of the things I've noticed in dealing with customers who are just *getting started* with IT service management is that, in terms of reporting, there is a tendency to focus on input data almost to the total exclusion of other performance data.

In some ways this is not surprising – for organisations that have a reactive helpdesk, logging Incidents and resolving Incidents is what they do. As we shall see, a Service Desk does somewhat more and will look more broadly at performance data.

Where to find this in Serio:

- Within SerioReports, grouped under *Logged, Logged (of which Resolved)* and *Logged vs Resolved*
- Within SerioClient, by examining the Performance graphs (*Incidents Logged and Resolved (26 weeks)*)

### Output data

By Output data, I am referring to data such as Incidents resolved, or Changes completed, within a given reporting period. Again this data is sometimes used (along with Input data) to the exclusion of other data as the Service Desk/Helpdesk see their job as the resolution of inputs.

Examples of output data might include:

- Incidents logged and resolved week-by-week
- Incidents resolved by priority or company, and so on.

Where to find this in Serio:

- Within SerioReports, you can use the reports grouped under *SLA Analysis* (these reports all work from resolved Incidents, Problems and Changes), *Logged (of which resolved now)*, and many of the reports under *Agent Performance*
- Within SerioClient, by examining the Performance graphs (*Incidents Logged and Resolved (26 weeks)*)

## Telephone Statistical data

Even though we live in a multimedia age of IT support by email, web access, voice by internet and a whole raft of other emerging technologies, the telephone is still very important indeed. It is always surprising to me therefore, that many Service Desks disregard telephone statistics altogether. However this is something that often really matters to customers – if they can't get an answer when they call they are not going to feel well served by the Service Desk.

Telephone statistics are usually provided by your telephone system, or through your ITSM system which interfaces with the telephone system.

Examples:

- Average time taken to answer the telephone, broken down by time of day
- Call abandonment rate, again broken down by time of day
- Calls answered by Agent
- Outbound calls made, by time of day

## Status data

Status data is a 'snapshot' of the dynamic data being handled by the Service Desk at a point in time.

Examples:

- The number of Active Incidents, Problems and Changes
- The status of Active Incidents (for instance, 'Awaiting customer feedback', 'Awaiting parts', 'On hold'). Quite often this is expressed as a pie chart
- The number of Incidents currently assigned to external suppliers
- The current number of active Major Incidents
- How active Incidents, Problems and Changes are currently assigned between Agents and Teams

Where to find this in Serio:

- There is considerable status information available within the Performance Chapter you will find in SerioClient. As an

example, *Agent Status A & B Distribution, SLA Performance Dashboard, Incident Assignment Status, Incident Ownership Status, Days Logged for Active Incidents.*

- Within SerioReports, see the reports grouped under *Assignment Status.*

## **Timeliness of Response and Resolution data**

This type of data is sometimes referred to as Service Level Agreement (SLA) data. It typically compares our agreed (with the business) response and resolution times and percentages with those *actually* achieved.

Examples:

- Percentages of responses on time (and up to an hour late, up to four hours late, etc) compared against target
- Percentages of resolutions on time (possibly broken down by priority) compared against target
- Spread of resolution times broken down by company, priority or impact

Where to find this in Serio:

- Within SerioReports, you'll find reports focusing on this grouped under *SLA Performance.*
- Within SerioClient, have a look at the *Average Resolution Times by Issue Type/Priority* and *Average Resolution Times by Priority* graphs under Performance.

## **Customer Satisfaction Survey data**

Many tools (including Serio) allow customer satisfaction survey data to be gathered – for instance, as part of the Incident resolution processes.

This is quite an important information resource if used and interpreted correctly in that it tells us about how the people we are serving view and appreciate the service we are offering.

It's sometimes tempting to assume that meeting our SLA targets will automatically lead to customer appreciation, but experience has shown that this is not always true. Using Customer Satisfaction Survey data (in conjunction with other data) is a useful indicator to the performance of your Service Desk/Helpdesk.

Where to find this in Serio:

- Within SerioReports, grouped under *Customer Surveys*

- Within SerioClient, under Performance, the *Customer Satisfaction Survey Results* graphs provide a useful and convenient picture of how customer satisfaction has changed over the previous 3 month period.

## Cause data

One of the goals of IT Service Management is to stop (or at least reduce the number of) Incidents happening in the first place, thereby reducing the business impact and costs associated with Incidents. Cause data offers us a simple, easily understood and effective way of achieving this along with other ITIL® disciplines such as Problem and Change Management.

Cause data is derived from the Incidents we resolve by placing a 'Cause code' at the time of resolution, which represents the 'best description or classification' of why the Incident occurred in the first place. We can then use this to help reduce the number of Incidents that occur.

Examples:

- Causes expressed as a pie-chart for resolved Incidents
- Cause shown broken down by company
- Reports that link Incidents category to cause to help identify trends

Where to find this in Serio:

- Within SerioReports, grouped under *Cause Analysis*.

## Agent and Team Performance data

This type of data is somewhat inward looking, but very useful. It covers Operational Level Agreements and Underpinning Contracts – performance agreements you might have with specialist teams that are part of overall IT service delivery. This kind of data is useful in identifying under-performing Teams and Agents.

This type of data can yield some simple yet powerful Key Performance Data.

Examples:

- Incidents resolved by Team and Agent
- Incidents resolved 'on time' by Team and Agent
- First time fix percentage (this is discussed in more depth later in this paper)
- Incidents resolved by first, second and third line support groups

Where to find this in Serio:

- Within SerioReports, grouped under *Agent Performance*.
- From within SerioClient, see *Incident Resolution by Agent*.

## **Supplier Performance data**

Most Service Desks use external suppliers for the provision of specialist services – for instance, to repair faulty hardware or provide support services for specialist software systems. In some cases the contracts that exist for the provision of these services can cost hundreds of thousands of dollars per year and ensuring that value for money is obtained is an important consideration.

Tools such as Serio allow you to manage your relationships with these suppliers, and to gather statistical information about the services they provide.

Examples:

- Incidents resolved by Supplier
- Timeliness of the Supplier response
- Supplier resolutions achieved on time
- Customer satisfaction with the supplier's actions

Where to find this in Serio:

- Within SerioReports, grouped under *Supplier Reports*.

## **Major Incident Data**

A Major Incident is simply one with a very significant business impact, and of course a goal of IT Service Management is the elimination of Major Incidents. Major Incident data might include the numbers of such Incidents, parts of the business affected, and a discussion of the cause, remedy and future actions arising from each Incident.

## **Availability and Downtime Data**

For many organisations, there are certain systems and services which are essential (we'll call these Critical Systems). Your reporting may include reporting on downtime and availability for Critical Systems - both of these are expressed in terms of Service Level Agreement time, by which I mean we report within the terms of the agreed hours of operation of the Critical Systems.

Downtime data expresses the amount of hours that each Critical System was unavailable, either expressed as a straight hours and minutes figure, or as a figure which shows lost production hours.

Availability takes the same data, but expresses it differently. What might be expressed as 4 hours Downtime in a given month might equate to 99.8% availability.

Note: another White Paper by the same author entitled 'Introducing ITIL® Availability Management' is also available from Serio.

Where to find this data in Serio:

- Availability and Downtime reports are mainly found within SerioClient in the Performance Chapter – see the *Downtime...* and *Availability...* reports. You can read more about these reports in the SerioClient help.

## Important Key Performance Indicators

The following are some standard Key Performance Indicators widely used in IT Service Management. This is included as a definition and as a further source of ideas for your reporting repertoire.

### First Time Fix

If one of the goals of IT Service Management is to stop Incidents happening in the first place, First Time Fix is the speed with which Incidents are resolved when they do occur.

The idea is simple. A customer has a problem and calls to raise an Incident. The Helpdesk or Service Desk Agent takes the details and resolves the problem immediately *before the call ends*.

The difficulty comes in how you measure this with accuracy and certainty, and will be, to an extent, determined by the ITSM tool you have, and how it's configured. Some ITSM software tools require Agents to flag a First Time Fix. Serio, for example, allows this kind of flagging but can also produce First Time Fix statistics from inference – by counting Incidents that meet this criteria:

*Logged and resolved by the same Agent, without being assigned to anyone else, and resolved within 30 minutes.*

### Mean Time Between Failure

This is most usefully applied to classes of Configuration Items – a particular type of network switch or server computer. It is a measure of reliability of a particular product, although I have seen it applied to individual Items in my career.

Mean Time Between Failure (MTBF) is not a term restricted to IT Service Management – it is used in industries such as automobiles and aviation to arrive at a figure for the average time between a failure for a given component. The assumption underpinning the calculation is that a component is immediately fixed and then returned to service.

The calculation of MTBF is simple. Take a class of Configuration Item, and with a target unit of MTBF (for example, hours, days or weeks) calculate the *average* time between failure in that unit. Needless to say, you must have a clear understanding of what failure means – for MTBF it is usually a critical fault.

My advice on this is *use with caution*. You need a significant number of failures before you can come to a reasonable MTBF figure – remember

it is an average and without sufficient samples the figure could be seriously skewed by one or two members of your sample. The aviation industry, for example, is currently exploring other ways to measure the reliability of components.

### **Mean Time To Repair**

This is simply the average time for a Configuration Item to be repaired from a failure and be repaired, not necessarily returned to service.

There is another measure called Mean Down Time. For this figure, all repair, deployment and configuration time taken to return the Item to service is included.

Again my advice is use with caution, as a significant number of samples is required to arrive at a meaningful figure.

## **Performance Data and your IT Service Management Processes are Linked**

It's worth stating at this juncture what may be obvious – the Key Performance Data you obtain from your IT Service Management tool is dependent upon your IT Service Management processes.

As an example, if you don't log any Incidents, you won't be able to produce reports that use Incident data – such as the Input and Output data reports I've mentioned above. If you don't have a process for managing Suppliers through your ITSM tool, then Supplier Management information might be hard to come by.

The hard fact is that all of the reports you pull from your ITSM tool are based on the data that's contained therein, and depend upon the integrity of that data.

Because Performance data and IT Service Management processes are linked, you should periodically review your reports as your ITSM processes evolve and mature – it's almost certain that your ability to extract & use meaningful Performance data is enhanced. This is one of many reasons why you should be continually examining, improving and refining your IT Service Management processes.

## **Creating Your First IT Service Management Report**

If you are creating a management report for the first time (and particularly if this report will be circulated within your organisation, for instance to your supervisors/managers) let me state what your report should *not* be: it should *not* be a collection of graphs and print-outs from your ITSM tool stapled together and sent in the inter-office mail.

By all means include this material, but include it as appendices and refer to it when you need it from the body of your report.

Your report should be an interpretation, analysis and action plan (if required) based upon the graphs and print-outs from your ITSM tool.

Start by considering who your intended audience is – who are you writing the report for? Make sure you state this in your report, and keep it mind when you are writing the report.

What is the report for? Are there specific needs or hot issues that the report must address?

Define the reporting interval. Are you creating a report that will be produced on a weekly or monthly basis? Is the report a one-off? It's quite common to have to produce a (shorter) weekly ITSM report, and a (longer) monthly report.

Follow this by considering which of the available Performance Data you wish to use. Make a list – this will be what you use to write your report.

If you are writing your *very first Management report*, consider including the following Key Performance Data:

Performance Data	Comment
Input data	Data on the number of Incidents logged. Consider expressing this in some kind of graph form, possibly with the number of Incident resolutions (see below). Possibly comment on the trend – is the figure increasing (bad) or decreasing (good)?
Output data	It is sometimes useful to compare this with Input data, and consider if a backlog of unresolved Incidents is forming. Serio offers reports which compare weekly totals of Incidents logged against Incidents resolved, these can be effective ways of displaying this data.
Status data	Include at least the number of Incidents Active at the time of writing the report.
Timeliness of Response and Resolution data	If you are going to use this type of data, you should really be actively engaged in Service Level Management. What you would want to show here is performance against target for each SLA that you have. Serio has both graphics and text reports broken down in a number of ways that show exactly this.
Customer Satisfaction Survey Data	In particular, comment on the trend of the data – are customer perceptions improving?
Major Incidents	If you have a Major Incident procedure, include a summary of relevant Major Incidents.

Of course as your IT Service Management processes mature you can expand your Key Performance Data significantly into areas such as availability and downtime reporting.

## Structuring your IT Service Management Report - Example

So far we've

- Looked at why we write IT Service Management reports
- Attempted to classify and suggest different types of data which can be used as a basis for producing your report
- Examined the link between your IT Service Management processes and procedures, and the data you have available for management reporting

- Discussed what you need to consider when writing your report.

We can now look at a possible structure for your report. The example that follows is based on the following scenario:

- The report is a monthly report
- It's an IT Service Management summary for senior business executives

As has been said previously, your report should be something that you write, with data and graphs extracted from your ITSM tool included as appendices and referred to in the report.

**Report Title:**

IT Service Desk Monthly Review

**Prepared for:**

Vice President of Technology, Vice President of Operations

**Highlights:**

*{ Highlights include a 3 or 4 line summary of the most important information from the report. For instance, if a very serious Incident had occurred, or that no production hours were lost on Critical Systems at all }*

**IT Service Review:**

*{ Your review is where you use and reference the Key Performance Data included in the appendices, helping the reader to understand the detail contained therein.  
For example, you might say 'that 256 Incidents were logged during the month, out of which 230 were resolved'. 'Performance against Service Level Agreements was below expectations, with resolution timeliness in particular a cause for concern as shown in Appendix B.' }*

**Issues:**

*{ Here you expand on your Review, highlighting causes for concern or items requiring further investigation }*

**Future Action:**

*{ This is where you outline any corrective action arising from the Issues section above.  
For example: Analysis of Cause identifies a significant number of useability problems accessing a business accounts application. A corrective action might be to hold additional training for users of this application. }*

**Appendix A:**

*{ This and the other Appendices are where data, graphs and reports extracted from your ITSM tool can be used. Because you are referencing them from your narrative, they will be easier to understand by the target audience. }*

## Frequently Asked Questions

**Q:** Who is the best person to produce reports?

**A:** The thrust of this White Paper has been that you should take data from your ITSM tool, consider what it tells you about the services and infrastructure you're providing, and make adjustments accordingly. Therefore, the best person(s) to produce reports are those with the ability to perform these tasks – which means the IT service delivery managers.

It might be that your reporting is collaborative, with sections produced by different managers – for instance, your Service Level Manager, Incident Manager, Change Manager and Service Delivery Manager.

**Q:** My teams are far too busy to log every 60 second Incident they have to deal with. Do I need to be concerned about the affect this might have on reports?

**A:** Yes, you do need to be concerned – your reports won't reflect reality, particularly if there is a significant number of such Incidents being handled but not logged. You should log all such quick Incidents – most ITSM tools have speed logging features. In Serio for example, you can use Alerts for logging Incidents quickly.

**Q:** My staff are not used to having their performance reported on. How can I make this less controversial?

**A:** My advice would be to make it clear to staff what is being measured – for instance, create sample reports (with fictional names) and let your staff see what you will see. Consider making some or all of the reports available to staff, so that they can keep checks on their own performance. In SerioClient, they can check on a lot of information by looking under Performance. Most importantly, reassure your staff that you have the intelligence to take other factors into account when looking at 'raw' data from the ITSM tool.

**Q:** My senior managers, who don't work directly in IT, have specified the data they wish to see in reports, however I don't think they are asking for appropriate information. Can you advise?

**A:** Negotiate with them, without getting into a confrontation or being patronising. Importantly, give them an example of what you wish to provide, explaining why it enhances the information they can use for decision making.

**Q:** How can I best use my reports to convince my managers that I, as a manager involved in IT Service Management, need more people? We are just 'fire-fighting' all the time.

**A:** I'm tempted to say 'where do I start!'.

A detailed answer is well beyond the scope and intent of this document, but my best advice is as follows. I think you should start by examining the data that you have, and really decide if you *do* need more people.

In other words, are you using the resources you have effectively? Are there problems with the IT infrastructure that, if fixed, will at a stroke reduce the number of Incidents and Changes your staff have to cope with?

Examine your Cause & Problem data, and see if there are any pointers as to things that you can do which will reduce the number of Incidents you are having to deal with - this might include investment in technology rather than personnel. Often it's quite easy to work out a return on investment when looking at solutions from this perspective.

If you can't see any way to reduce the number of Incidents, consider if you are using the people you have effectively. Have a look at Incident resolution by Agent and by Team – does it seem like some staff are under-utilised? Are you lacking in some specialist skills that cause bottlenecks in Incident throughput, and if so could a skills gap be bridged by additional training?

Most importantly, are your ITIL® processes mature? Do you use Problem Management to pro-actively reduce Incidents? Do you have a Change Management procedure, based on an accurate CMDB?

The bottom line is this: be sure you need additional staff before asking for them.