



## EENA Operations Document

# Workforce Management in PSAP operations

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## 1 Executive Summary

The pressures of cost and budget constraints are increasing for Public Safety Answering Points (PSAP) operations, with staff costs being the #1 contributor by far towards operational expenditure. For this reason, commercial operations have long focused their attention on the effective and efficient use of staffing resources using Workforce Management (WFM) tools and techniques. On the other hand, most PSAPs have yet to develop this aspect of contact centre optimisation due to a legacy of focusing on service delivery, with significant contingency in the staffing models, which in turn leads to simplistic resourcing processes and, as a further consequence, low levels of staff utilisation are common place. This focus on service delivery (i.e. answering and responding to emergency calls) is perfectly understandable and it is the balance between service delivery and resource efficiency that many PSAPs and Ministries are switching their attention towards. It is also true to say that most PSAPs do not know the cost of handling an emergency call; principally because the costs are borne by the Member State.

There is scope for greater focus on WFM within PSAPs and emergency control rooms, which does not need to compromise the required high service standards. However, increased efficiency may demand a cultural shift towards greater flexibility in the hours staff are needed to work and in how an operation is able to respond to changes in its workload.

If PSAP operations are prepared to adopt relevant aspects of WFM then there is scope for improving staff utilisation and job satisfaction and for ultimately bringing down the cost per emergency call without adversely affecting service levels.

## 2 Introduction

In all emergency service operations, the call handling component is the front line interface with the public. These PSAPs provide that critical first step in the provision of an effective emergency service. Across Europe the size and type of these operations vary dramatically but the principles of providing a robust call answering service are common, as they are for all in the commercial contact centre industry. Where PSAPs differ is in the unique pressures and the set of measures (based on their mission/mandate) on which they are judged. Whereas, there has always been a focus on access and accuracy of the service, these metrics are becoming increasingly complemented by more commercial pressures such as efficiency and cost.

Given that in any commercial contact centre (and PSAP) the biggest contributor to cost is the personnel, the effective deployment and utilisation of this resource is a big factor in the ability of the PSAP to control costs. In addition, resource planning is a critical factor in the provision of an effective service, by having the right number of staff, with the right skills available at the right time i.e. Workforce Planning (WFP) which is also known as Workforce Management (WFM).

A further factor that increases the importance of resource planning and control is a trend in recent times to consolidate PSAP operations. Where there is only a small number of call takers the variables and complexities involved in their planning are low. But where there are larger populations of call takers, which may even be spread across virtual centres (multiple sites treated as a single operation), the requirement for robust workforce management processes and toolsets is far more compelling. Added to this is a shift in expectations towards flexible working, with a greater focus on work-life-balance. Again this can only strengthen the case for a focus on effective WFM.

This document explores the WFM concepts in relation to PSAP operations and provides some guiding principles and recommendations that can be used to improve the ability to provide an effective service, while understanding and controlling staffing cost. This document should also be read in conjunction with the "Managing Human Resources in a PSAP" document<sup>1</sup>, which was published in July 2015.

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<sup>1</sup> <http://www.eena.org/pages/operations-documents#.Va4l4Ld56bo>

### 3 Workforce Management explained

Pure Workforce Management is described as “The art of having the right number of skilled people and supporting resources in place at the right times to handle an accurately forecasted workload, at service level and with quality” (Call Centre Management Fast Forward – Brad Cleveland). In reality, this can often be difficult to achieve due to the number of factors and parameters that apply across the full WFM life cycle. There are often no hard and fast rules to succeed in all the different processes involved, but given its importance to both service quality and cost management, it has now become a critical area for PSAPs and has seen much development both in the thinking and technology.

WFM is a cyclical process and can be broken into a number of stages (with sub-stages within each), though these are not discrete processes an effective WFM has integration, feedback and revision between them all.

Figure 1. WFM cycle



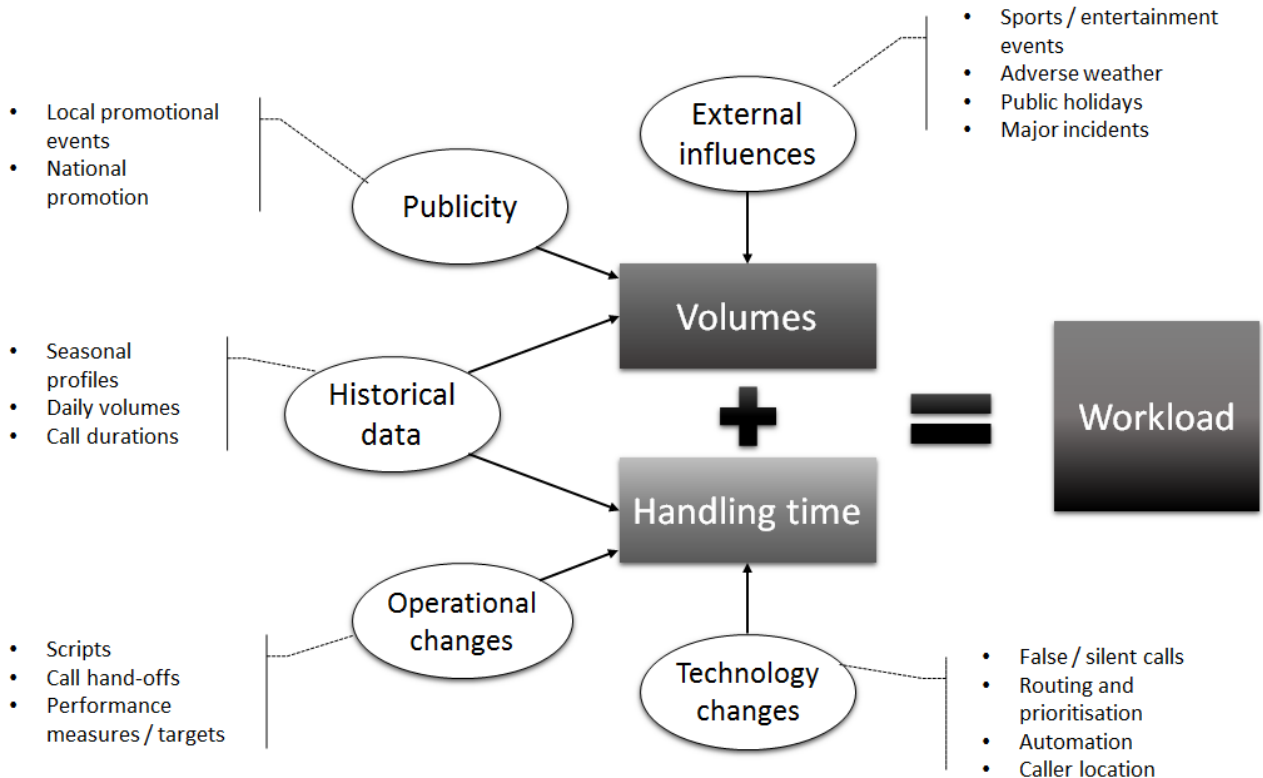
Underpinning each stage is a requirement for information, data and analysis. Effective WFM is a data intensive process, with direct feeds from key systems such as the telephony and HR being the ideal sources. Because of this reliance on data a specialist set of skills is needed to be a successful WFM analyst and most operations will have a dedicated resource to run the activity. It is also imperative that there are links into the other operational areas, e.g. training, HR and IT, to communicate the latest staffing plans, available timeslots for training, system licence requirements, etc.

We now explore the different elements in greater detail.

### 3.1 Forecasting and capacity planning

Forecasting is the cornerstone of the WFM cycle, it is the basis on which all the other elements depend. The objective is to predict the level of workload that will be delivered to the PSAP; this is achieved from a variety of sources and methods as illustrated in Figure 2.

Figure 2. Influences on workload

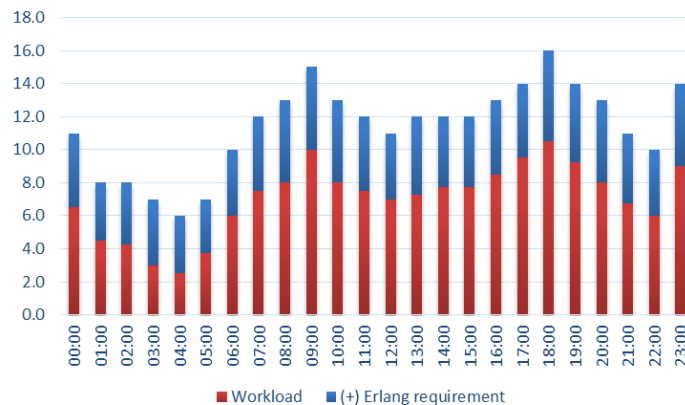


Historical data is the key input to forecasting, and in its most basic form a forecast is constructed from the corresponding periods in the previous year. This can then be adjusted and refined based on the other influencing factors. The extent of the impact these will have depends on the characteristics of the specific operations and their environment. The skill of the forecaster is employed to combine these data inputs and influences to create an accurate view of the future workload. The most complete and accurate forecasts will have good interfaces with other operational areas in the organisation and if possible with external influences. This ensures that any emerging changes can be anticipated and incorporated; examples include IT upgrades or promotional activities that create extra demand.

The next stage in the modelling process is to convert the workload into the capacity requirements. These requirements should not only encompass the staffing capacity but also other considerations such as the technology (telephony, software, etc.) and infrastructure. Nonetheless, the key calculation is the staffing, as the other capacity needs is derived from this staffing number.

Initially the workload is converted into an 'on phone' staffing requirement, which is the actual number of people needed to answer the phone to a prescribed service level target, e.g. 90% of calls to be answered in 10 seconds. There are a number of methods to accomplish this via various algorithms or linear increases, but the most commonly used is Erlang C which was developed by a Danish mathematician (Agner Erlang). Erlang C uses probability theory to calculate the number of call handling staff needed on the phone for a given period of time for a given call volume, call handling time and service level. In simplistic terms this means that the higher the service level the greater the uplift from a pure workload requirement to the 'on phone' staff needed, as demonstrated in Figure 3.

Figure 3. Workload & Erlang requirement profile



This shows an hourly workload (call volume multiplied by handling time in hours) profile for a 24 hour period and the additional staff as calculated by Erlang if the call answering target was 95% in 10s. As you can see there is an additional overhead of staff to ensure some availability, as calls will not arrive evenly during the hour. Therefore, to achieve an acceptable service level there will be a natural amount of 'idle time' for staff and their utilisation on call taking cannot be 100%.

Once the 'on phone' staff level is calculated, the final uplifts can be assigned to work out the level of staff needed to be employed. These factors are commonly known as 'shrinkage' in the contact centre industry. Shrinkage includes all the various reasons and activities that reduce a call handler's ability to be on the phone taking calls. Each organisation is likely to have its own nuances and variations, but a common set of factors to consider should include;

- Away from work:
  - Holiday / vacation
  - Sickness
  - Medical appointments
  - Other leave
- In work, but off the phone:
  - Training
  - Team meetings
  - 1:1s and coaching
  - Breaks
  - Admin work

Once these are accounted for, a full-time employee requirement will be available to use for planning and recruitment purposes. The other capacity considerations such as contact centre seats, IT licences and other infrastructure services can also use this employee requirement as their basis.

The timeframes involved in forecasting will vary depending on the individual requirements and expectations, though they can generally be characterised into long, medium and short term.

- Long term – 1-5 year outlook. Providing strategic planning and high-level budgetary information.
- Medium term – 12-18 month outlook. Providing operational and recruitment planning, plus more detailed budgetary information
- Short term – 4-6 weeks outlook. Granular level detail for day-to-day planning and staff schedules.

A well-constructed forecast will provide all three of the outlooks in a single model, so that all are seamlessly integrated. Though the level of detail and type of information will vary between them, for example, the long and medium term forecasts are constructed at a daily level with weekly, monthly, quarterly or even annual summaries. Whereas the short term forecast will be based on intra-day data, i.e. 15 or 30min periods, it is this level of information that can then be used to match resourcing requirements and build the most effective staffing framework and schedule.

The accepted practise for the long and medium term views is to refresh / re-run the forecasts on a monthly basis, with additional checks occurring when new information is received that is expected to alter the situation. For the short term outlook the process needs to be more dynamic, and depending on the volatility of the workload, these forecasts should be updated on a weekly, daily or even intra-day basis. Updates would be triggered by observed difference between the predictions and the actual workload. Predefined tolerances for the variation will initiate a rerun of forecasts with the latest available input data (especially historical information) to give the new workload expectations.

### 3.2 Scheduling

The short term forecast and planning process will produce a profile of resource that is required throughout the day, known as intraday periods (these will be between 15 and 30min depending on preference and need). The scheduling stage now takes this requirement profile and designs an appropriate set of shifts and rotas.

Three main factors drive the scheduling process;

- Staffing resource requirement profile (to meet service level commitments);
- The staffing employment framework:
  - Contracted hours
    - Part-time / full time
    - Flexibility of working hours
  - Working time directives from regional national governments
  - Staffing preferences and requests
- Budgets and cost

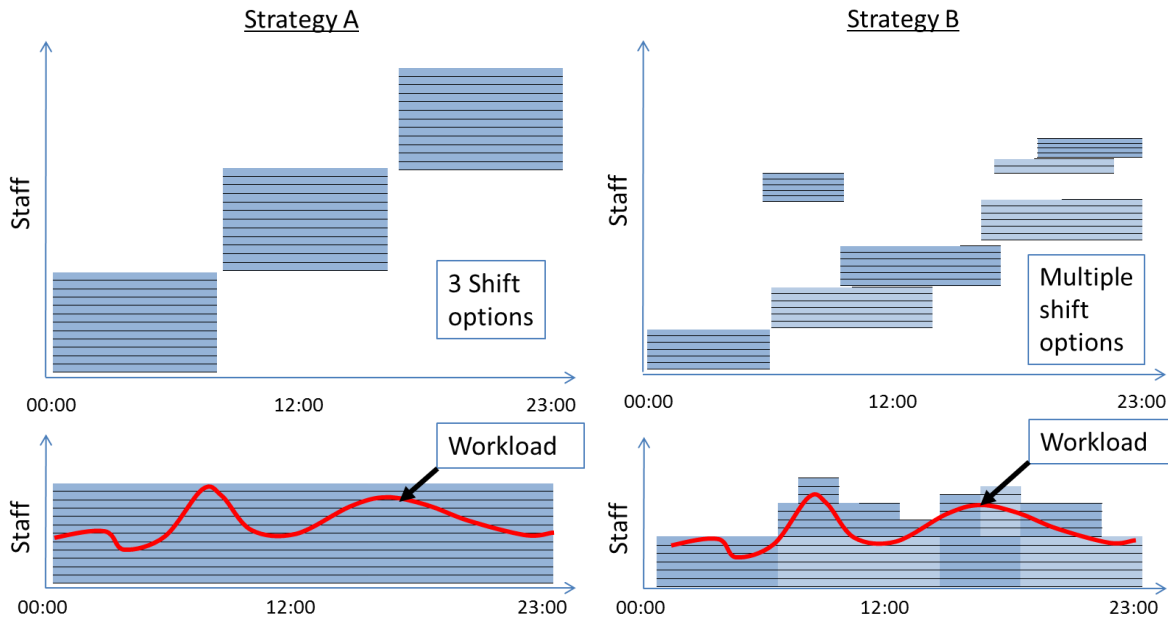
Figure 4. Influences on schedule optimisation.



The scheduling element can be the most challenging of the WFM cycle as it is a balancing act between meeting the demands of the service, restrictions of the working hours / contracts and cost. The result of these demands and restrictions can be a very complex set of constraints. Often when faced with these complexities in the PSAP environment, the criticality of service delivery takes precedence, so basic shifts and rotas are devised, with an outcome of over-resourcing during most, if not all periods of the day / week. As consequence of this most PSAPs exhibit very low staff utilisation (time on calls as a percentage of paid hours or hours at work) and the cost per call is well above that of more commercially driven contact centre operations. However, it must be stressed that given the nature of the service provided by PSAPs and the need to deliver extremely high availability to citizens, levels of staff utilisation are expected to be lower than that of a commercial operation.



Figure 5. Cost reduction with more complex shift options.



In the diagrams above we see the differences in efficiency when trying to cover a varying requirement over a 24hr period with difference shift strategies;

- The first option (A) is simple with 3 shift options running sequentially, this allows for a straightforward allocation of shifts to staff and enables a rotational pattern of working. But this means that the staffing level is always set to meet the peak requirement and hence there are periods of low utilisation. Whilst the shift patterns are sequential, there would of course be an overlapping hand over period between the teams.
- The second option (B) is for multiple shifts with varied lengths and start times, this provides a much closer match to the workload profile, but would be more complex to setup and manage, it requires staff with different working hours and flexibility. The task of team management is also a more challenging process in this scenario, though it is not impossible.

In this theoretical example, there is a reduction in staff hours needed to resource the day of over 20% from strategy A to strategy B.

The reality is that whatever shifts and schedules are in place, when staffing to attain a certain standard of service there will be periods of over resourcing. As long as these periods can be identified, it is then possible to use them for non-phone based activities such as admin work, team meetings or coaching.

### 3.2.1 Schedule production

As with the overall WFM cycle the scheduling is cyclical – i.e. there is an ongoing process of building, release, management, monitoring and so forth. The timeframes for this cycle will very much depend on the shift plans being deployed and the levels of flexibility of the staff population. At one extreme, shift plans may be fixed for staff, the other can mean weekly changes, a fixed shift plan would only require the scheduling process to be run when staffing levels change (perhaps quarterly or even annually). The latter would mean a 2-6 week cycle. Most commercial operations will look to run with a 4-6 week cycle to ensure fluctuations in workload, operational activities (e.g. training, meetings, etc.) and staff shrinkage (holidays / sickness / other absence) can be accommodated and resourcing optimised in line with meeting the workload and any changes in its profile.



In general, the level of flexibility in the shift patterns and rotations offered to staff will be governed by the contracts they work, and these are influenced by;

- Operating policies of the employing company or authority
- Governmental or working standard directives
- Length of service of staff. Invariably those who have been in post for a long time will be on legacy contracts that have little flexibility. Modern contracts will place more emphasis on flexible working hours so newer staff will have these in place.
- Level of unionisation in the staff population

In addition, there are a number of staff characteristics that will influence the ability to recruit them onto flexible contracts, which includes;

- Age - younger people are more willing to accept flexible working
- Competition – if adequately skilled staff are in short supply then it will be harder to recruit onto less favourable contracts
- Transport links – staff need to be able to travel easily to the workplace to enable flexibility

A further factor in the construction of schedules is to build in the staffing shrinkages. As detailed in the Forecasting and Planning section, this includes holidays, lunch breaks, training or meetings. Other examples are extended admin tasks or time spent in a none-call taking role. Including these in the schedule means the fixed shrinkage elements (e.g. holiday allowances) can be planned and accounted for, ensuring adequate cover. For the flexible requirements, such as training, meetings, etc. these can be planned into quieter periods when their impact on service delivery is minimal. As with the forecasting and planning, it is crucial that there is a close link with training and human resources departments to ensure that there is co-operation and consideration from both sides when arranging these activities.

Given the nature and number of inputs to the process, creating an optimal shift structure and potentially rotations across shifts can be a very complex algorithm. The best solution will ultimately depend on this complexity, but this is the area that manual or spreadsheet modelling can be less effective than dedicated WFM systems. An organisation with 50 plus employees and any degree of flexibility in their shift options will invariably require a WFM system in order to avoid a labour intensive manual schedule process. Historically these systems required significant investment of both time and money to implement and maintain, but ongoing developments and the offer of hosted services by suppliers has reduced this significantly in recent times.

Once released, the next element of the WFP cycle is the maintenance of the schedule. There is plenty of scope for an optimised set of shifts to become corrupted and altered significantly before they are actually worked. Late holiday bookings, swapping shifts, swapping breaks, additional training, last minute meetings are all examples of changes that can occur and we will deal with them in the next section.

### **3.2.2 Schedule Maintenance**

The key to maintaining a workable schedule that is as close to the optimised release version as possible is the formal controls and measures that govern what changes can be allowed and more importantly who is responsible for agreeing and making them. Operations will suffer where there are multiple points of authority to make changes and/or no formal limits and process to control them. As resource deployment can then quickly vary from the optimised profile and, depending on the level of tolerance built into the staffing numbers, it can easily result in service levels being missed for extended periods. In a typical example a commercial operation will follow a hierarchical structure based on the potential impact of the change;



Table 1. Example schedule maintenance hierarchy.

Type	Examples	Process
Zero impact	<ul style="list-style-type: none"> <li>Like for like shift swaps</li> <li>Like for like break swaps</li> </ul>	Staff can agree change. Team Leader/Supervisor to implement. Scheduling function to be informed. With most WFP systems this can be a self-service function for the staff member/s.
Low impact	<ul style="list-style-type: none"> <li>Changes to a break time</li> <li>Changes to a shift start / end time</li> </ul>	Team Leader/Supervisor to agree and implement. Scheduling function informed.
Medium impact	<ul style="list-style-type: none"> <li>Multiple changes to break times</li> <li>Multiple changes to shift start / end times</li> <li>Additional training session</li> <li>Late holiday request</li> </ul>	Team Leader/Supervisor to request. Scheduling function to assess the impact. Scheduling function to agree change. Scheduling function to implement.
High impact	<ul style="list-style-type: none"> <li>Changes to timing of a team meeting</li> <li>Multiple additional training sessions</li> </ul>	Manager to request. Scheduling function to assess the impact. Manager / scheduling function to agree. Scheduling function to implement.

These types of control are essential so that there is no degradation in the effectiveness of the schedules.

### 3.3 Service and Performance management (real-time analysis)

The final two stages in the cycle concern the monitoring and management of some of the key inputs to the forecasting, capacity planning and scheduling processes, with much of it being done on a real-time basis. The two areas are the Service (call answering) and the Staff (performance), each has its own key metrics and measures.

#### 3.3.1 Service management

From a workforce planning perspective Service management is the monitoring of the key service indicators on a real time basis and making staffing or call-routing changes should there be any unacceptable deviations or predicted deviations from targets. Like schedule maintenance, the key is to have a clearly defined process that details the levels of tolerance before action is required and then what these subsequent mitigation plans are. So in practice, the following metrics are to be monitored constantly throughout the day, comparing them against those used in the forecast;

- Call volumes and arrival patterns
- Call queue length
- Call answering service levels
- Level of staffing resource deployed

Ideally, there should be the ability to perform immediate re-forecasting of the day's workload to provide the new staffing requirements so that changes required maybe fully understood. This will only be practical if the operation is using a WFM application that has a direct feed from the telephony system and can perform this functionality. Typical scenarios for Service management are shown below.

Table 2. Example Service Management scenarios

Observed	Mitigating actions
Consistently above forecast volumes and an ongoing drop in the call answering service level	<ul style="list-style-type: none"> <li>Planned off-phone activities are postponed, such as training, meetings, 1:1 coaching</li> <li>Call overflows to backup teams are invoked</li> <li>Targets for after-call work for staff are reduced. E.g. follow up admin tasks are postponed</li> <li>Prioritisation of key service types or lines (if applicable)</li> </ul>
An unexpected spike in call volumes, with an immediate increase in calls queuing	<ul style="list-style-type: none"> <li>Additional resource deployed, such as Team Leaders or Senior Agents who are not normally call answering are temporarily used to answer calls</li> </ul>
Call volumes are typical, but no longer following the expected arrival pattern for the day / week	<ul style="list-style-type: none"> <li>Rescheduling of lunch and other break times to re-optimize the staffing deployment to the new profile</li> <li>Rescheduling of any fully flexible staff for subsequent days. This might be home-workers who would have more flexible working contracts that enable short notice redeployment</li> </ul>
A prolonged period of extremely high call volumes, e.g. from a significant service disruption or in the case of the emergency services a major incident.	<ul style="list-style-type: none"> <li>Onsite additional resource deployed, such as Team Leaders or Senior Agents</li> <li>Call overflows to backup teams are invoked</li> <li>Emergency deployment of 'on call' staff to come in on short notice</li> </ul>
Unexpectedly high levels of absence / sickness of staff	<ul style="list-style-type: none"> <li>Planned off-phone activities are postponed, such as training, meetings, 1:1 coaching</li> <li>Call overflows to backup teams are invoked</li> <li>Targets for after-call work for staff are reduced. E.g. follow up admin tasks are postponed</li> </ul>

What is critical when these type of scenarios are encountered is retrospective analysis of the affected periods, to understand the causes of the variation from forecast and learning about the impact any changes that were made. This way, future forecasts may be better placed to predict variations and if that is not possible, then the organisation knows how to be more responsive and mitigation plans will be improved to deal with unplanned events.

In addition to the real-time analysis of the service metrics, there should also be continual historical analysis of these measures and the accuracy of the forecasts. The WFM cycle is characterised by constantly learning, and the deployment of staffing resource should evolve with any changes to the workload and its profile.

### 3.3.2 Performance Management

Performance management is a very similar activity to the service management, it operates in tandem, but the focus is on staffing metrics rather than service. It is to ensure that call handling staff are performing to expected levels and should be monitored using both real-time and historical data. Like Service management, there are key variables to be reported on;

- Real-time
  - Schedule adherence – are staff in work as expected and starting / ending breaks when scheduled
  - Call handling time – exceptional calls are components of the call are looked for such as long periods or hold or after call work
  - Unexplained or unplanned activities – unscheduled breaks or periods of admin
- Historical
  - Schedule adherence – long term adherence to shift and break start / end times
  - Call handling time – long term average call duration, hold time and after call work
  - Time spent on off-phone activities – admin, breaks, etc.

Again, it is important to be clear on who is responsible for monitoring these metrics, and historical analysis will generally be done by the Team Leader who can then provide the feedback on performance to the staff directly. The real-time observation may be done by a Team Leader or a Service Delivery Manager depending



on the organisational structure. They would highlight any exceptions to the line manager or the staff member for investigation.

The intention of Performance Management from the workforce planning perspective is to ensure that the variables and parameters used on staff performance to generate the forecast and resource plans are reflected in the day to day running of the operation. A consistent mismatch between those being planned for and those being observed will result in habitual under performance of one or more staff members or incorrect / unrealistic setting of these variables in the planning model.

#### **4 How it can be applied to PSAP environments**

The principles and processes described for the WFM cycle are generic. In a PSAP environment, the operational drivers and hence the key metrics for performance are unique and are not typical of a commercial operation. The latter will have a far greater emphasis on providing an acceptable call handling service balanced against cost pressures and budgets, whereas for a PSAP the availability of the operation to handle all potential calls is far greater.

For example, if you cannot get through to your utility provider or bank within 30, 40 or even 120 seconds it is an inconvenience, but if you cannot access an emergency service it may be a matter of life and death. This is evidenced by the 2015 COCOM Implementation Report, where 20 of the 30 member countries recorded more than 90% of calls being answered within 10 seconds. To put this in context, a standard commercial target for grade of service would be to answer 80% of calls in 20 seconds. Which means that the WFM process for PSAPs must consider service access as its prime objective, though there is still plenty of scope to utilise the staffing resource as efficiently as these priorities allow with an effective WFM cycle.

##### **4.1 Forecasting and planning**

Understanding the workload and resulting staffing capacity requirements is still key to providing a robust service. Appropriate call handling service levels and contingency levels can be built into the models so as to preserve the accessibility of the service to the public. Key considerations would be;

- Seasonal workload profiles – what are the resource requirements throughout the year? Can staffing levels mirror any peaks / troughs such as:
  - Natural attrition and subsequent recruitment periods
  - Re-deployment to other operational areas during quiet months
  - Consolidation of PSAP operations
- Day of week and time of day workload profiles – when are the quiet / busy periods and what are the corresponding staffing requirements
  - Can staff be utilised for other operational roles during quiet periods
  - When can training and coaching take place
  - What sort of employment contracts should be offered to staff especially new starters
- Predictable and unexpected events – what are the resource demands during known or potential events that cause exceptional demand? Can these can be planned for or in the case of the unexpected events? Can you have mitigation plans in place for events such as:
  - Sporting or entertainment events such as festivals
  - Major incidents
  - Extreme weather

Knowing how, and if possible, when these will impact on the workload and staff requirement will enable the PSAP to modulate its staffing to accommodate them, either by tactical planning or more long term recruitment and employment strategies.

##### **4.2 Scheduling**

The 24hour 7 days a week operating hours of PSAPs means that there is maximum potential for permutations and options in the shifts and rotas. By contrast, the types of employment contracts in place are often quite constricting. This is either due to long standing tenure or by virtue of being a Governmental department and subject to 'standard' terms and conditions or it may be a combination of the two. This generally results in very static rotas that give uniform coverage at all hours by virtue of a day, evening and night shift. As a result levels of utilisation for staff will be very low during periods of low call activity, which in turn can lead to dissatisfaction with the role, higher attrition and ultimately high costs per call.



Whilst this situation will certainly not be as extreme in all cases, there is usually some scope for improving the flexibility of employment contracts and therefore being able to increase utilisation. The justification to make contract changes will come if there is a large degree of confidence in the forecasts and capacity planning to accurately predict workload and determine the necessary schedules whilst still maintaining the levels of coverage needed to guarantee service performance.

Key considerations are;

- Review employment contracts, assessing flexibility of working hours
- New starters to the organisation to be offered flexible working hour contracts
- Build flexibility progressively, moving stage by stage away from fixed rotas. Often a small degree of variation and flexibility can result in significant utilisation gains

### **4.3 Service and Performance Management**

Most if not all PSAPs will already be engaged in Service and Performance Management, and tactical initiatives for major incidents or other spikes in demand will no doubt exist. Similarly, staff will be subject to call duration targets as well as call quality controls. Where there is scope for improvement is the level of dynamic monitoring and change during periods of 'normal' demand. The more time that is invested in monitoring and reacting to smaller levels of workload variation, the more confidence there is to reduce the contingency built into the resource system for unexpected fluctuations.

Piloting a more rigorous Service and Performance Management regime to understand its potential effectiveness is a good way to gauge the levels of contingency that may be possible before making changes to resource levels.

## **5 Tools and WFM systems**

As discussed in this document, WFM requires a significant investment in data collection and analysis to be effective. There are two main options for achieving this, either spreadsheet models or a WFM application. Spreadsheet models will require more investment in terms of resource to run and update the models, whereas WFM applications can automate much of this, though they need relatively significant capital investment.

Since the significant growth in the contact centre industry over recent decades, the number of bespoke WFM tools applications has grown. As with all technology solutions, these have also evolved significantly over the years to provide more and more functionality and capability, though the core abilities have stayed much the same.

A WFM application will ideally be integrated to the telephony system, from this they are able to receive regular data on call volumes, call durations and staff activity which it can use to construct forecasts and capacity models. There will be limitations, the forecasting analysis is generally focused on historical observations; exception periods and other variations will require manual inputs as an adjustment. WFM applications can be quite complex to setup and the focus is on a short-term staffing plan for the schedule. More medium to long term forecasting is more straightforward and easier to manipulate and re-run when done in spreadsheet form.

The WFM system really becomes invaluable for the complex schedule building and maintenance. Once configured with the work hours, shift options, etc. the WFM application is able to construct, deploy and maintain very sophisticated schedules and shift patterns that would not be possible via manual means. Much of the maintenance will be self-service with staff being able to book holidays and swap shifts themselves, plus management is able to book in meetings and training directly into periods where resource levels allow. However they are not a panacea and if there are complex and individual working rules and restrictions, multiple contact channels and idiosyncrasies then significant manual overrides will be needed.

Whether your operation will benefit from a WFM application will depend on a multitude of factors so it is impossible to predetermine this without a detailed review, but the basic guide is one of size. Once the operation exceeds 50 PSAP call-taking staff then the case for implementing some form of solution will grow exponentially.



## 6 EENA recommendations

Stakeholders	Actions
European Authorities	European Authorities should ensure that Member States are able to monitor the performance of their public safety authorities emergency services and that the reporting carried out by European Authorities is accurate, comparable and auditable.
National Government	Member State Governments should ensure that their public safety authorities and emergency services are adequately resourced and to be able to meet the highest standards of quality possible.
National / Regional Authorities	If the responsibility for managing the emergency services is given to Regional or National Authorities, they should ensure that their Emergency Services are adequately resourced and to be able to meet the highest standards of quality possible. This includes having the right tools to be as effective and efficient as possible. National or Regional Authorities should also be able to manage and report the key metrics of their PSAPs.
Emergency services	Emergency Services should understand the concept of Work Force Management and ensure that they utilise their resources to the maximum. They should be aware of the Work Force Management tools available to them, understand the requirements and benefits of a bespoke industry tool and be able to manage and report their metrics accordingly.