



**INTERNAL AUDIT  
FINAL REPORT**

STAFFPLAN SYSTEM REVIEW

ORKNEY HEALTH AND CARE

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## **1. INTRODUCTION**

This audit reviewed the StaffPlan software system used to manage Home Care Service rosters and visits by Orkney Islands Council [OIC] carers for Home Care clients. The system has been used by OIC since 2006 and was upgraded to version 5.2 in June 2016. OIC has over 200 Home Care clients, and StaffPlan is used to manage an average of 450 visits daily.

StaffPlan is made up of two components, the StaffPlan database and the teleconfirmation system. These components are held on separate virtual servers which communicate with each other. Carers' visiting times are logged as real-time business intelligence<sup>1</sup> in StaffPlan through phone teleconfirmation processes.

As the system includes clients' personal information, it falls within scope of the Data Protection Act and the incoming General Data Protection Regulation 2016. The Act and new Regulation carry large potential penalties for non-compliance by organisations. Effective management of StaffPlan data can also deliver significant benefits; for example, demonstrating proper treatment of personal information and maintaining confidence between OIC and its clients.

The audit was carried out during March 2017 as part of the audit plan for 2016 – 17.

## **2. REVIEW OBJECTIVE**

The main objective of the review is to ensure that adequate application controls are in place for the StaffPlan system for managing the Home Care Service.

## **3. SCOPE, METHOD & COVERAGE**

The audit reviewed the following areas:

- Service support agreements in place, including service availability, back-up and recovery and business continuity arrangements
- Access controls and user access management
- Data input controls, including secure management of personal and confidential data
- Processing and interfaces to StaffPlan
- Management reporting and output
- Retention of audit log detail and monitoring processes

Excluded from the scope are non-system processes and documents such as support plans for clients. Also quality controls of Home Care Service; this is reviewed and reported on regularly through other Orkney Health and Care [OHAC] processes and by the Care Inspectorate's regular reviews of the Home Care Service.

The Council's guidance on Computing Resources and the Protection of Information, Security Policy, Data Protection Policy and Code of Practice, and Retention and Disposal Schedule are referred to as well as the information security standard ISO 27002:2013 for best practice.

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<sup>1</sup> Operational business intelligence or real-time business intelligence enables decisions based on the real-time data generated on a day-to-day basis.

Evidence tested in the review was requested from system users. Processes and real time reports were observed as required; direct access to the system was not requested.

Interviews with relevant staff were carried out, including the Operational Manager, the Registered Manager, Social Care Co-ordinators, Organisers and System Administrator as well as staff responsible for the system in the IT Service.

Thanks are extended to all of these officers for their courtesy, co-operation and assistance in this assignment.

#### **4. MAIN FINDINGS**

The main findings of the review, referenced to the above review objective areas, are as follows. The objective was substantially achieved with areas of good practice found including:

##### **Service Support arrangements:**

OIC has years' experience of dealing with the system supplier going back to 2006. During the financial year 2016-17 in general, several improvements to service arrangements were reported. For example, the IT Service reported improvements they have made to hardware with server upgrades in 2016 and RAM storage increased for the system from 4GB to 8GB in March 2017. The OHAC Home Care Team move to the School Place Council offices site in 2016 has resulted in improved network performance time. The Registered Manager (Homecare) has a copy of the contract agreed with the supplier and forwarded a copy to ICT Services for their information.

Following the latest system upgrade, improved response times were reported and system reporting functions have also improved. The supplier contact on-site during the upgrade provided useful information and training.

Backup and recovery processes were evidenced with information provided by the IT Service to confirm this is carried out for the two virtual servers for StaffPlan nightly.

##### **Access Controls:**

The system is not widely shared, which reduces the need for data sharing protocols and agreements. Council staff sign up to confirm their understanding of rights and responsibilities for information security as part of the Council's user acceptance procedures and require authorisation in advance of access by the Manager.

##### **User Access Management:**

A form requesting access to StaffPlan is completed with details and sent to the IT Service; a network account is also required in advance of access to StaffPlan.

##### **Input:**

The system includes defined areas of input with 'picklists' and also areas for input of free text notes such as Complaints; Service User Concerns and Client Compliments. Identification of any error in data input is reported as this is found, for example within data of visits. To manage data integrity, regular statistical analyses are carried out for Government returns which will identify any data input errors.

##### **Processing:**

StaffPlan real-time information allows organisers and co-ordinators to view and actively manage Home Care visits to meet clients' agreed service plans. The system can alert OHAC operational staff of any delays of visit login times which haven't occurred within 15 minutes of the planned schedule. When a home visit is delayed, the reason can be identified and acted on quickly, with a call to a trusted contact of the client if necessary to update them indirectly.

Output:

StaffPlan reporting output is used for quarterly performance indicators. For example, StaffPlan can produce statistics to identify the number of missed visits; 'near misses' are also logged, where a later visiting time is offered. The system also logs length of visits against planned start and end times. Improved efficiency and reduced carers' overtime hours worked weekly is another performance indicator report available.

StaffPlan data reporting is also used to compile an annual Social Care Survey on seven different client groups and the number of care hours provided for clients. Output on continuity of care statistics - that is, how many carers are going to each client over a given period is available also.

For retention of audit detail, there is substantial detail in the system's audit logs dating back to 2006.

Areas found where improvements are recommended are as follows:

#### 4.1 **Service availability and business continuity**

OHAC Home Care Service is available to clients between 07.00 – 22.30 hours daily x 365 days a year.

IT Service availability times are 9.00 -17.00 Mon-Friday for dealing with any incidents raised, as well as managing the servers and infrastructure for StaffPlan.

It was reported that the potential for additional weekend emergency cover by the IT Service had been considered for systems and services, including StaffPlan. However, this is not currently in place. There have been changes within the IT Service during 2016-17.

Users reported that when the system was not available for any reason, manual paper processes to track visits can and have been used as an alternative. This business continuity process is very time consuming through the number of Home Care visits involved. The StaffPlan System Administrator was aware of the system having been unavailable for as long as several days in the past.

#### 4.2 **Mobile handsets and mobile signal**

Carers' mobile handsets were refreshed in 2016, with 85 new android phones to login and confirm care visits on near field contact tags on site. These are fully utilised; staff reported them as being very useful for managing information and for ease of tracking visits. All contracted carers on the mainland have android phones. However, there is not adequate mobile signal in all of their visit locations. Other relief staff on the islands do not have these new mobiles; they use landlines and paper documents as an alternative solution.

Carers in areas with poor mobile reception, for example Birsay, St Margaret's Hope and the northern isles use alternative solutions for teleconfirmation. The carer phones from a landline to a free-phone number when arriving and leaving a client. This logs visits on the teleconfirmation system that supports the StaffPlan database with visiting data. Carers in these areas also receive their planned visits schedule by post every two weeks. A trusted named contact of the client may also be contacted if required, for example to notify in advance of any change to the planned visit through exceptional circumstances.

Within the Scottish Government's Mobile Action Plan – Staying Connected published in June 2016 are actions towards achieving the ambition for improved digital connectivity across Scotland, including improved mobile connectivity. Key areas of immediate action include innovative mobile solutions and mobile infill. The Scottish Government's Empowering Scotland's Island Communities: A Progress Update in March 2016 recognised that 3G rollout left many parts of Scotland, including many island communities without coverage.

#### 4.3 **Access Settings**

Access controls reported for StaffPlan system were found including the following:

The system does not interface with the PARIS social work system and is not shared with other non-OIC staff. The current contract was reported to include a license for up to 13 concurrent users. All StaffPlan Teams staff can view the Exchange dashboard information for real-time visits planned and completed for clients. This data-sharing allows for consistent services and transparency of work between the StaffPlan Organisers, Co-ordinators and System Administrator managing the 12 hour Home Care service.

Following a day's onsite training from the supplier during the latest upgrade, the access settings are planned to be re-assessed by the Registered Manager.

No documented access control policy for StaffPlan was found however, formalising the access settings provided.

#### 4.4 **User access management**

In advance of users accessing StaffPlan, it was reported that the request form had to be authorised in advance by the Line Manager who then sent on the forms to the IT Service who provided access to users. The Administrator provided a sample form requesting access; this form did not have a section confirming this authorisation; this was evidenced by the email from the System Manager.

No documented records of these forms were found of users' access to StaffPlan in OHAC. These were sent to the IT Service.

The System Administrator could amend user access, for example, de-activate and activating users; they could also amend settings for some user group functions.

#### 4.5 **Password authentication controls:**

There is no regular forced change of password required of StaffPlan users. However, they can change their passwords whenever they wish. An additional control in place is the regular forced change of network passwords which must be entered before accessing the StaffPlan login.

#### 4.6 **Retention of data within StaffPlan**

Data remains within StaffPlan from the start date of 2006 which provides useful audit trail detail.

However, the OIC Retention and Disposal Schedule version 1.7, listing how long Council records are kept and what will be done with them includes under Community Care – Service Files – Home Care Service - 'Visitor Books' - a retention period of Current Year plus 6 years.

Therefore, StaffPlan system may be holding records for longer than the Retention and Disposal Schedule recommends.

## 5. CONCLUSION

Users reported that the system is integral to flexible and consistent provision of the Home Care Service and are experienced in using StaffPlan and taking measures to manage variations in mobile connectivity for the telecommunications component. The national action plan to improve mobile connectivity may also assist in providing more areas where mobiles can be deployed in the future.

The good ratings that the OIC Home Care Service has received for quality of care and support, staffing and management and leadership from the latest inspection by the Care Inspectorate in 2016 – 17 supports this view in that officers have a reasonable level of confidence in StaffPlan to have achieved this good level of service.

The latest system upgrade was reported to have shown potential areas for improved use of StaffPlan, such as reporting output and access. The manual resource to manage visits when the system is unavailable is time-consuming; therefore it would be useful if emergency cover was available for managing system incidents out of office hours.

## 6. AUDIT OPINION

The opinion is based upon, and limited to, the work performed in respect of the subject under review. Internal Audit cannot provide total assurance that control weaknesses or irregularities do not exist. It is the opinion that **substantial assurance** can be given in that while there is a generally a sound system, there are areas of weakness which put some of the system objectives at risk, and/ or there is evidence that the level of non-compliance with some of the controls may put some of the system objectives at risk. The levels of assurance and their definitions can be found at Appendix 1.

## 7. ACTION PLAN

The Action Plan contains 6 recommendations as follows:

Description	Priority	Number
Major issues that managers need to address as a matter of urgency.	High	0
Important issues that managers should address and will benefit the Organisation if implemented.	Medium	6
Minor issues that are not critical but managers should address.	Low	0
<b>Total recommendations</b>		<b>6</b>

REPORT REF.	GRADE	FINDING	RECOMMENDATION	MANAGEMENT AGREED ACTION	IMPLEMENTATION	
					RESPONSIBLE OFFICER	TARGET DATE
4.1	Medium	<p><b>Service availability and business continuity:</b> The Home Care Service is available to clients for longer hours than the IT Service provide helpdesk availability during the week. At the weekends, the Home Care Service provision has no assistance available from the IT helpdesk.</p> <p>When the system has been unavailable, alternative manual paper-based processes are used for service until the system becomes available again.</p>	<p>a) As resource permits, an emergency contact for IT Service assistance over the weekend for StaffPlan would be useful and should be considered again for managing any service interruptions when the IT Service is normally closed. Any additional IT assistance would be helpful to reduce labour intensive processes when the system is unavailable during Home Care Service hours.</p> <p>b) StaffPlan Administrator to continue to log any performance incidents; this may identify trends which can be used to improve performance.</p>	<p>The ICT service is undergoing a period of review at present and will actively consider potential ways in which emergency out of hours cover can be provided for StaffPlan and other 24/7 services, subject to the necessary funding for out of hours provision being identified and consultation on changes to staff terms and conditions of service (eg establishing out of hours rota cover as a requirement in JDs for new recruits).</p> <p>A log of performance incidents will continue to be maintained.</p>	<p>Head of IT and Facilities</p> <p>Registered Manager Homecare</p>	<p>December 2017</p> <p>December 2017</p>

REPORT REF.	GRADE	FINDING	RECOMMENDATION	MANAGEMENT AGREED ACTION	IMPLEMENTATION	
					RESPONSIBLE OFFICER	TARGET DATE
4.2	Medium	<p><b>Mobile handsets and mobile signal:</b> Carers' mobile handsets were refreshed in 2016 with 85 new android phones to login and confirm care visits on near field contact tags on site. These have been reported as successful where there is adequate mobile signal for managing information and tracking visits. In areas with poor mobile reception, e.g. Birsay, St Margaret's Hope and the northern isles alternative solutions are used.</p> <p>The Scottish Government's Mobile Action Plan in June 2016 stated an intention to use its powers to assist in development of high quality digital connectivity for people across Scotland with improved mobile connectivity.</p>	<p>Consider carrying out an informal review of mobile signal say once a year to confirm if mobile coverage has changed/improved in Orkney sites. This may identify any new signal coverage available and allow for potential increased use of android phones in the future.</p> <p>In turn this would reduce the manual processes used for carers in these areas and improve consistency in general.</p>	<p>Mobile signal was reviewed as part of the purchase of new handsets in 2016.</p> <p>The signal will be reviewed with monthly update on areas of poor signal to monitor any improvements/deterioration on Spreadsheet in place recording commences 27th May 2017.</p>	Registered Manager HomeCare	Sept 2017
4.3	Medium	<p><b>Access Settings:</b> No documented access control policy was found for StaffPlan.</p> <p>All StaffPlan Team staff can view the Exchange dashboard information in real-time on planned and completed visits to clients. This allows for continuity and consistency in service provision.</p> <p>Following supplier training on-site in January 2017, access options are planned to be reviewed by the Manager.</p>	<p>Once access options to StaffPlan are re-assessed, it is recommended these are written down for reference as an access control policy document.</p>	<p>Access to StaffPlan will be re-assessed and a control document developed.</p>	Registered Manager HomeCare/ Operational Manager All Age Disability Services	Sept 2017
4.4	Medium	<p><b>Procedures for managing User Access:</b> It was reported that access had to be authorised in advance by the Line</p>	<p>a) If historic documentation is not available to confirm current users' access, this could be created</p>	<p>A retrospective reference document will be prepared identifying all</p>	Registered Manager HomeCare/	June 2017

REPORT REF.	GRADE	FINDING	RECOMMENDATION	MANAGEMENT AGREED ACTION	IMPLEMENTATION	
					RESPONSIBLE OFFICER	TARGET DATE
		<p>Manager. The StaffPlan Administrator provided a form requesting access for a new member of staff. Once this was authorised by the system Manager, it was then sent to the IT Service who actioned the request.</p> <p>No documented records were retained of users being formally authorised in advance of accessing StaffPlan by the OHAC Teams.</p> <p>The System Administrator could amend user access including –</p> <ul style="list-style-type: none"> <li>- applying 'enable' or 'disable' access for users;</li> <li>- change the User Group to certain functions</li> </ul>	<p>retrospectively for reference. For example, in a single spreadsheet document listing all current users with access and permissions for the system which the Manager could sign off as approved.</p> <p>If resource permits, the system Administrator could maintain this record of access information within OHAC.</p> <p>b) It would be useful for the Administrator to carry out a review at least annually, to confirm that all StaffPlan users still require the access and permissions they have been given to the system. This information can then be used to ensure all users still require access to the functions last agreed.</p>	<p>those with user access.</p> <p>A copy will be kept in future for new individuals requiring access. New individuals will also be added to the reference document described above thus maintaining a master copy of access privileges.</p> <p>An annual review will be carried out to confirm user access and permission is still required.</p>	StaffPlan System Administrator	
4.5	Medium	<p><b>Password authentication controls:</b> StaffPlan does not force change of password authentication by StaffPlan users on a regular basis. However, an additional control in place is the regular forced change of network passwords prior to logging into StaffPlan.</p>	<p>Review the 'forced change' password control to confirm this is sufficient. If additional controls are considered useful, users with highest level access could be asked to update their passwords manually on a regular basis.</p>	<p>The "forced change" will be reviewed to determine whether that is sufficient. If insufficient a plan will be developed for a regular manual password update.</p>	Registered Manager HomeCare	June 2017
4.6	Medium	<p><b>Retention of data:</b> Data retained in StaffPlan dates back to 2006. There is no separate archive area for old data.</p> <p>The OIC Retention and Disposal Schedule version 1.7 advises on</p>	<p>a) Retention of data within StaffPlan should be considered and discussed with the relevant Information Liaison Officer, as per the OIC Retention and Disposal Schedule guidance.</p>	<p>A programme will be agreed for retention/destruction of data in line with the OIC Retention and Disposal Schedule Guidance and taking</p>	Operational Manager All Age Disability Services	Nov 2017

REPORT REF.	GRADE	FINDING	RECOMMENDATION	MANAGEMENT AGREED ACTION	IMPLEMENTATION	
					RESPONSIBLE OFFICER	TARGET DATE
		retention of documents for Community Care – Service Files – Home Care Service – Visitor Books as having a retention period of Current Year plus 6 years. Therefore, it may be that 'visits' data is being retained in StaffPlan for longer than recommended in the schedule. This was not tested in the review.	b) Consideration of retention requirements should be included in any planning for archiving StaffPlan data.	cognisance of advice from the relevant information Liaison Officer.		

**Internal Audit Opinion**

<b>Level</b>	<b>Definition</b>
<b>Full Assurance</b>	There is a sound system of control designed to achieve the system objectives and the controls are being consistently applied.
<b>Substantial Assurance</b>	While there is a generally a sound system, there are areas of weakness which put some of the system objectives at risk, and/ or there is evidence that the level of non-compliance with some of the controls may put some of the system objectives at risk.
<b>Reasonable Assurance</b>	Whilst the system is broadly reliable, areas of weakness have been identified which put some of the system objectives at risk, and/ or there is evidence that the level of non-compliance with some of the controls may put some of the system objectives at risk.
<b>Limited Assurance</b>	Weaknesses in the system of controls are such as to put the system objectives at risk, and/ or the level of non-compliance puts the system objectives at risk.
<b>No Assurance</b>	Control is generally weak, leaving the system open to significant error or abuse, and/ or significant non-compliance with basic controls leaves the system open to error or abuse.