

Summary of Discovery: Improving fault reporting in hospitals with PFI contracts through technology

August 2021

This document provides a summary of the Discovery report completed by DHSC as part of a project to develop an app to assist NHS Trust staff report faults in their PFI hospital estates.

This summary is intended for prospective suppliers and aims to provide context and background to the project and health PFI more generally. A full version of our Discovery report (and any documentation from our first Alpha phase) will be shared with the successful supplier.

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Summary

<p>Why the work is being done</p>	<p>The PFI Centre of Best Practice (PFI CBP) has been tasked with carrying out a review of all 100+ Private Finance Initiative contracts in the NHS. This is to assess contract management resources, capability, systems, and processes. The aim is to improve the value Trusts achieve from their PFI contracts and ensure they receive the level of service due to them under the contract – essentially, to ensure they “get what they pay for”.</p>
<p>Problem to be solved</p>	<p>The PFI CBP has already identified situations where PFI Companies are not performing the services or maintaining hospitals to the contractually required standard.</p> <p>Trusts’ main contractual lever to improve performance in this area is through reporting faults. This ensures issues are factored into the contract’s performance management and reporting processes which are intended to drive improved performance.</p> <p>Currently, faults are not reported as often as they should, and only by a minority of users.</p> <p>Our aim is to improve the processes staff use to report faults. The long-term goal is to increase the number of faults being reported and contribute to improved supplier performance.</p>
<p>Who the users are and what they need to do</p>	<p>The users are divided in to three broad categories:</p> <ul style="list-style-type: none"> - Office-based staff who work in the team responsible for the PFI (usually The Estates Department) - Other office-based staff (HR, Finance, etc.) - Patient-facing staff who use the clinical areas of the hospital (e.g. nurses, pharmacists, technicians, etc.) <p>All users are able to report faults with the hospital estate when they identify them. However, engagement is not currently at the level it should be to drive improvements to private sector performance.</p>
<p>Existing team</p>	<p>The PFI Centre of Best Practice is based in the Department of Health and Social Care. It is a small team of finance and commercial officials. The team will oversee this project.</p> <p>During Alpha reassessment and Beta phases, we will be supported by a team from NHS BSA who are the intended host when the service is Live.</p>

Private Finance Initiative schemes in the NHS

What is PFI?

PFI is a procurement method used in the public sector where the private sector finances, builds and operates infrastructure and provides long term services over a contract period. These contracts transfer substantial risks to the private sector in return for payments over the contract life which is usually at least 25 years. In the NHS, PFI has most often been used to build new hospitals between the late 1990s and mid-2010s.

The public sector (Trusts in the case of the NHS) make payments (called Unitary Payments) to the PFI Company based on performance. Deductions to payments should be made if performance of services does not meet the standard in the contract. This standard (and the mechanism for making deductions) varies between contracts.

How does service provision work in PFIs?

As part of the contract, the Trust outsources the maintenance of the facility (“Hard FM”) to the PFI Company. Health PFI facilities are meant to be maintained to “Condition B” – which is defined as “sound, operationally safe and exhibits only minor deterioration”.

PFI Companies are also contracted to provide ongoing services such as catering, cleaning, portering, security, laundry, etc. These services are known as “Soft FM”.

Both Hard FM and Soft FM are sub-contracted out by the PFI Company to a specialist facilities management (FM) company. However, the Trust’s contract remains with the PFI Company – it is for the PFI Company to ensure the FM company is meeting the agreed duties and standards.

The PFI Company should produce a programme of planned maintenance (“PPM”) and also carry out reactive maintenance when there is a fault (e.g. a leak, a faulty light, an out of service lift).

FM companies provide a helpdesk function as part of their services. This is intended to act as a single point of contact for users (mostly staff) to report faults or issues with the estate or the services provided. Issues should be logged as jobs to rectify, with a full electronic record of each job.

What is the PFI Centre of Best Practice?

The PFI Centre of Best Practice (CBP) was established following the 2018 Budget, where the then Chancellor of the Exchequer tasked the team with:

- Supporting Trusts in ensuring their PFI contracts achieve the best possible value for money and best possible outcomes, in turn supporting the delivery of frontline public services.
- Supporting PFI contract management in the NHS, in line with wider public-sector work on training and improving commercial capability being led out of the Cabinet Office.

The CBP’s primary aim is to assist NHS Trusts “get what they pay for” from their PFI contracts. This most often manifests in challenging PFI Companies where services and site maintenance are not being delivered to the standard agreed in the contract, despite Trusts making full contractual payments.

What issues do the NHS face?

Prevalence of estates issues in PFI hospitals

The PFI CBP have already identified situations where PFI facilities in the NHS are not being maintained or services not being performed to the standards as required by the contract (and as Trusts are paying for).

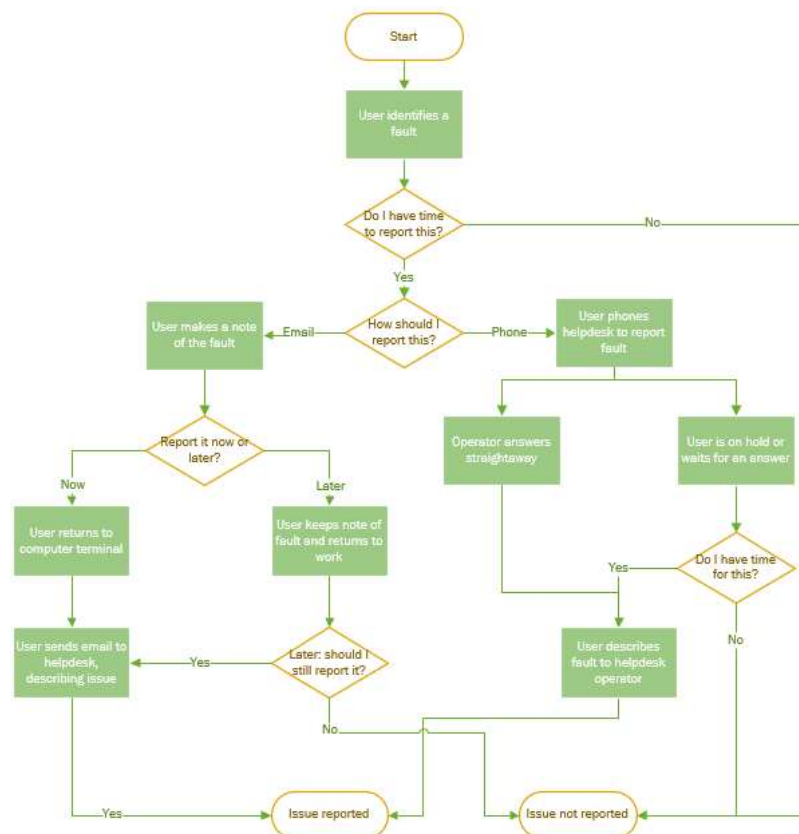
Resourcing in NHS Trusts

PFI contracts are complex and can often run to 25,000 pages. The services provided in the contract are varied, complex, and central to the Trust's operations. It requires a certain level of resourcing by Trusts to manage their PFI contracts and ensure they receive the service they are entitled to.

Trust resources are often stretched and are limited in how much they can do to report and manage estates issues. Engaging wider Trust staff would help with this – although it needs to be done in a way which is simple and not time-consuming, given their roles and workload.

Existing systems

If users choose to report a fault to the helpdesk, there are delays associated with either email (returning to a computer) or phone (the time to talk to an operator). In both cases users may decide not to report the fault after all. The length and inconvenience of this process reduces the number of faults that are reported, but also adds a delay to those that are reported. This can make it less likely users will report a fault again in future, unless it is severe.



Why is this issue important?

Usage: Hospitals heavy demand and usage. Many PFI hospitals are now over 15 years old and as with any building require more maintenance to keep services running. The nature of those services has changed in the last 15-20 years due to advances in treatments and technology, so the demands on the building have become more intense.

Performance monitoring: All reactive tasks need to be logged and tracked not only to resolve them, but because the FM company's response to these jobs are reported on for performance purposes. This drives the contract's payment mechanism and determines whether the Trust should deduct payments because of poor performance (e.g. slow response times or non-response).

Contract expiry: A large number of the NHS' PFI contracts will come to an end in the next 10-15 years. Many Trusts currently face the risk that planned and reactive maintenance will not take place the facility will not handed back to the Trust in the agreed condition at contract expiry. This will present the public sector with a cost. It will also mean that the Trust has paid for maintenance that has not actually taken place. Carrying out proper maintenance during the lifetime of the contract will help prevent this risk from crystallising.

Benefits: How does this project contribute to the Government's policy on PFI?

Improving patient experience and safety: A central part of the Government's policy on the NHS is improving the experience of its users – including staff and patients. The Government's manifesto also included commitment on improving patient experience through technology. Improving the condition of PFI hospital estates will help Trusts better deliver their patient services.

"Getting what we pay for": The then Chancellor of the Exchequer made a commitment in 2018 to ensure that Trusts "get what they pay for" from their PFI contracts. Subsequent statements by the Secretary of State for Health and Social Care confirmed that this commitment would focus on delivering better value for Trusts with PFI contracts. An important element of this ensuring that hospital sites are maintained to the standard agreed in the PFI contract. If sites are not maintained, Trusts are not receiving the service they pay for. However, if faults are not reported, the data does not reflect the reality on the ground.

Long-term risk mitigation: If sites are not maintained to the agreed standard in the contract, it could be returned to them in a poor condition when the contract comes to an end. To mitigate this, Trusts and PFI Companies must put more emphasis on maintaining estates to Condition B now.

Solutions

What is the requirement?

The end objective is for Trusts to have a more effective process for reporting faults in their estate to their PFI's FM provider. This would increase the volume of faults reported as a percentage of overall faults. Combined with effective contract management and supplier relationship management, this would drive improvements in the FM provider's service (i.e. more faults would be resolved) by better highlighting the problem and making use of contractual levers if the response is not effective. This would help improve the general condition of the estate.

At a high level, there is a requirement to change the process and systems Trusts use for reporting estate faults in their hospital buildings. At the moment, staff often rely on emails or phonecalls to a central helpdesk team. This has proven to be slow and inconvenient for most staff who work on-site, so engagement by those outside of a central Estates team has been minimal. The solution to this problem therefore needs to provide a system which improves engagement.

The technology and processes involved in reporting an estate fault need to improve so that Trust staff find it easier and faster to report faults. Current systems usually rely on technologies which meet the minimum requirement (i.e. staff can physically report faults) but are time-consuming, inconvenient, and not particularly accessible to those not using a desk all day.

Solutions we have considered

We have considered several options and assessed: how they help users, whether they are deliverable, and if they are likely to have a significant impact in solving the issues.

	Old system	New system
Old behaviours/processes	Do nothing: accept the existing systems, processes, and limited staff engagement.	Change the system: a computer-based fault reporting software (at Trust's cost)
New behaviours/processes	Do the minimum: encourage wider use of existing email/phone systems	Change the system and the processes: a web-based/mobile app

It is our view that a mobile app would be the best solution to the issues raised earlier in this document. Specifically, developing a new mobile app which the Department would own and would provide access to Trusts. This is based on the following factors:

- Convenience/accessibility: An app would be accessible to all, whether desk-based or not, via a mobile phone. Ward staff would also be able to use their phone or a ward-based tablet. This is essential to widen the number of staff who regularly report faults.
- Speed: Being able to instantly submit a fault to the helpdesk (rather than finding a phone) improves the rate at which faults are reported, prevents staff "saving up" several faults and reporting them at the end of the day (which causes issues for helpdesk staff), and also increases the likelihood staff will report the fault at all.
- Additional features/benefits: An app presents an opportunity to add value to the process through features such as attaching a photo and location data.
- A simpler process: The introduction of an app simplifies a user's experience in reporting faults in two ways: first, by reducing the number of decisions needed; and second, by providing a much more straightforward process to follow once they have decided to submit a report.

Our full analysis of these options and how we reached our conclusion is included in our full Discovery report.

Solution requirements

Based on research we have identified the following high-level requirements for the solution. Our full justification behind each of these requirements is included in our full Discovery report.

- Free for users to use
- User authentication – a log in with an approved NHS email address
- Allows users to take and attach a photo
- Allows users to add location data
- Provides set fields for users to complete, including mandatory fields
- Sends jobs by email to a designated email address
- Keeps a record of jobs submitted by each Trust
- Downloadable data file of all faults in CSV format
- Secure server for information posted through app/web-based platform

Native app vs. web-based app

There are some key differences between native apps and web apps. These and any advantages/disadvantages need to be taken into consideration when developing this.

Differences different between the two types relevant to this project are summarised below.

	Native app	Web-based app
Advantages	<ul style="list-style-type: none"> - Ability to add issues when not connected to the internet - Ability to send push notifications about fault report updates - App can leverage device capabilities such as GPS and phone camera more easily than a web-based app - Easier to display performance dashboards - Better performance due to phone optimisation 	<ul style="list-style-type: none"> - More cost-effective to develop and maintain - No need for users to download software on to their mobile devices - No need for users to download and install app updates - No real difference in user interface and operation - Can be deployed through different mobile web browsers
Disadvantages	<ul style="list-style-type: none"> - More expensive to develop and maintain - App store approval process to navigate - Requires storage space on phone/tablet - Must be compatible with users' phone/tablet - Requires user to download on to phone/tablet (which they may not consent to) 	<ul style="list-style-type: none"> - Generally slower performance than a native app - Requires internet connection to function - Cannot send push notifications - Limitations with offline storage and security

Our initial assessment is to proceed with a web-based app. The simplicity of the tasks involved means that the potential for slower response times, lack of push notifications, and limitations with offline storage are secondary to the advantages described above. However, the latter stages of Discovery and start of Alpha will help finalise this decision.

Constraints

We identified several constraints during our research. Our full analysis is included in our full Discovery report, but a summary is provided below:

Compatibility with existing helpdesk systems: Each FM company's helpdesk function uses a system to allow them to log, track, and report on jobs. The exact software used will vary between Trusts and contracts. This presents a compatibility challenge. To mitigate this, the solution would need to join the fault reporting process at the point at which helpdesk operators log the job. A new solution – including a mobile app – would therefore need to report jobs via email.

Trust's lack of contractual rights to report by email: Not all Trusts have the contractual right to report faults by email, so the Trust would have to work with the PFI and FM company to agree that an email solution is in the best interests of all parties.

PFI/FM Co engagement: Engagement with private sector partners is important to this project. We will need to build on existing relationships between the Trust and their PFI and FM companies, and explain how the solution benefits all parties in helping them deliver their contractual obligations.

Soft market research

We carried out soft market research into apps which range in complexity around reporting faults or interacting with a FM company's helpdesk service. We finalised a shortlist of apps which, while they may not deliver the exact functionality we are seeking, demonstrate technologies and outputs which are in keeping with the solution we are seeking.

All four have the capability to report issues to a central database via a mobile app with real time updates on task completion and the ability to attach a photo to the fault reported. An overview of key features is provided below.

User research

Understanding our users

Our users will be NHS staff who work in Trusts and Foundation Trusts with PFI contracts. This will be a mixture of:

- office-based staff who work in the Estates Management or Contract Management team (i.e. those responsible for managing the PFI contract)
- office-based staff who work in other roles in the Trusts and are based on-site (e.g. Finance, HR, and Communications staff, etc.)
- staff who work in patient facing roles and who use the clinical areas of the hospital (e.g. nurses, pharmacists, technicians, etc.)

Our analysis of each user group is included in the full Discovery report, with the following headings:

- What are they trying to do/achieve?
- How are they trying to do this now?
- How does their work influence what they do and how?
- How do they use and experience existing services?
- What do users need from our service to achieve their goal?

User/process risks and mitigations

We have identified a number of potential risks around user response or acceptance of the new solution, along with potential mitigations or solutions. These cover a range of issues which will determine the effectiveness and success of the investment in both the initial app development and value provided to improve fault reporting.

Identifying and mitigating these risks will improve the design and success of the final app created. Trusts all currently have different ways of reporting information to their FM company, some users will not be comfortable installing an app on their phone and the app needs to integrate with any systems currently in place.

Full details of these risks are included in the full Discovery report.

User research interviews with Trust staff

During 2020, DHSC'S PFI Centre of Best Practice spoke to a number of NHS Trusts who hold PFI contracts. During this user research exercise, we spoke to staff about the current system they have for reporting faults, the issues or challenges they face, and what works well for them. We also sought their views and observations on staff behaviour and how staff would likely respond to a new system which made changes to their fault reporting process.

We ensured we spoke to a broad range of Trusts:

- PFI contracts of different ages and content/structure
- Different geographical locations

- Different systems in place for reporting faults (including those with or without a contractual right to email the helpdesk)
- Trusts whose PFI/FM Co uses different software for managing assets and the helpdesk function
- Some who only received hard FM services through their PFI and others who received both hard and soft FM
- Trusts with different FM providers and differing FM provider performance
- Trusts with different equity ownership behind their PFI companies

The conversations have contributed to our Discovery work and informed the nature and structure of the solution we will seek to introduce.

Our findings centred around:

- The different stakeholders involved in the fault reporting process.
- Any overarching challenges the Trusts face with regards to reporting or managing faults with their PFI estate or services.
- The current processes Trusts follow to report faults, including their views on:
 - o what works well
 - o what does not work well or at all
 - o what elements of the process or systems could be improved
- Any consideration given or efforts made in the past to improve or change the fault reporting process.
- Current systems or software in place and how (and how well) these function.
- Roles and responsibilities with regards to reporting faults (both current and possible future).
- Any opportunities for improvements the Trusts have identified or feel could be explored in future.
- Any challenges the Trusts think we could face (or any concerns they have) with this project.