
Healthy Body Wellness Center

Business Requirements Document

Healthy Body Wellness Center/Initiative

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Company Information

1 Document Revisions *(Not required for performance assessment)*

Date	Version Number	Document Changes
07/01/2023	0.1	Initial Draft

2 Approvals *(Not required for performance assessment)*

Role	Name	Title	Signature	Date
Project Sponsor				
Business Owner				
Project Manager				
System Architect				
Development Lead				
User Experience Lead				
Quality Lead				
Content Lead				



3 Introduction

3.1 Project Summary

3.1.1 Objectives

HBWC is planning to modernize its employee payroll and benefits management business process across the company through the use of an outsourced provider. The Office of Grants Giveaway (OGG) currently utilizes the Small Hospital Grant Tracking System (SHGTS) which is an application that is used to collect necessary data about the hospitals it funds and to distribute funds via ACH processing payments directly to the hospital's financial institutions. HBWC is also planning to upgrade its research database and develop a cloud-based grant tracking system. The company wants to know the feasibility and planning for this conversion so that it meets federal security regulations and provides robust and efficient services to partners. To provide a security analysis of the current environment they've hired Endothon Security Consulting to complete a security assessment report (SAR) to assess the security of HBWC's network, OGG processes, SHGTS, and cryptographic controls. The assessment was conducted to identify any security vulnerabilities that could be exploited by attackers.

3.1.2 Background

With the retirement of the current LAN administrator and Security Manager at HBWC it is required that a new one takes his/her place. The new LAN administrator and Security Manager are in charge of conducting a thorough analysis of the security assessment report (SAR) by Endothon Security Consulting. The report and new admin are meant to do the following:

- Modernizing hardware and software usage at HBWC and retiring outdated systems and software.
- Reviewing current business, technical, security, and regulatory processes for adherence to industry standards.
- To ensure the current business, technical, security, and regulatory requirements are in compliance with industry standards (Privacy & HIPAA) and adhere to HBWC policies and protocols.
- To conduct a threat analysis on the infrastructure and applications to better understand security needs to understand and determine specific security requirements for network and application protection.
- Help design and recommend an established network that facilitates secure employee remote access, secure ACH data transmissions, secure NPI and patient data protection, as well as third-party extranet connections to cloud-based SaaS providers serving OGG.

The security assessment report (SAR) has helped identify multiple areas in which there are outdated systems/software, unencrypted web servers/services, absence of a disaster recovery environment, and grant process requirements not being federal security requirements. All this together on top of the usage of The Small Hospital Grant Tracking System (SHGTS) the main application that the OGG will need to be upgraded. The current SHGTS runs on a Windows 2008 R2 application server that has already reached the end of support so it will be the job of the new LAN administrator and Security Manager to suggest new hardware and software to be used. This is to ensure HBWC is able to serve its partners and customers efficiently through a scalable cloud solution and migrate off of obsolete operating systems and software(s).



3.1.2.1 Business Drivers

There are a multitude of business drivers that HBWC has mentioned including the reference to a third-party security report. The expansion and upgrading of systems will involve a shift to a [SaaS](#)-based model using Microsoft Azure and SQL Server systems. To provide the best service possible to medic facilities HBWC needs a robust system that scales on demand. The business drivers of HBWC are as follows:

- **Data Security:** To this HBWC will need to focus on various HBWC is aware of the upcoming increase in grants and expects there to be a need to expand to a more robust granting system. This includes a secure encrypted web-based system that is easy to scale using MS Azure. Security will be of utmost importance since **patient-sensitive data and nonpublic information (NPI)** will be stored in the web portal. HBWC could face severe financial implications if data security does not meet federally set standards (**Privacy Act/HIPAA**).
- **Efficiency:** HBWC needs to be able to serve up grants quickly with the current systems having already reached end of life (EOL), HBWC can expect systems to become slow and unresponsive in the future. This could ruin new and existing relationships with hospitals and tank HBWC's reputation as a leading health and wellbeing institute. Ensuring that services are fast and easy to connect to and use is monumentally important for HBWC to maintain.
- **Financial:** Payroll currently does not allow for direct deposit. HBWC currently uses QuickBooks with paper checks. Grant money is also provided via paper checks. To get payment HBWC provides payment either through the office manager or via mail. To streamline payroll and grant processes it is recommended that HBWC moves to a digital form of payment that has direct deposit and automatically takes care of taxes, and provides accurate calculations for payments such as **Workday**
- **Executives/Stakeholders:** HBWC funding could be drastically cut short if technological upgrades are not made to move toward the future. To ensure that HBWC is a leading health and wellness provider to healthcare facilities it is important that HBWC is up to date with the latest technologies, policies, and procedures. This will ensure HBWC retains its members and employees by showcasing HBWC as a world-leading company. This will also help bring new talent to the company. If not upgrades cannot take place HBWC will fall behind and new opportunities will look elsewhere.

The upgrade to cloud-based services such as **Microsoft Azure, SQL Server, and Workday** will be the focus as this will allow for up-to-date security, quick and speedy access, and usage, allow for modern features in payment processing such as direct deposit, and help executives and stakeholder to grow the company and ensure that HBWC mission statement is accomplished.

3.2 Project Scope

The project scope consists of the modernization of HBWC. This includes the upgrading and streamlining of web services, having data that is secure and easily accessible by authorized personnel, and ensuring that HBWC can scale towards future goals without the limitations of current technologies. The new system(s) will be focused in the cloud moving off of Microsoft Access 2010 to Microsoft SQL and moving off of Windows 2008 Server and to a cloud-based Microsoft Azure server for computing.

3.2.1 In-Scope Functionality

The project's in-scope functionality will focus on what the new software that HBWC will invest in will do for the company. We will be focusing on 1 key feature for each new technology that HBWC will be purchasing.



1. The first technology to upgrade off of the Microsoft Windows Server 2008 will be the move to cloud computing using Microsoft Azure. This will involve the creation of a Microsoft Windows Server 2022 that will be hosted in Microsoft Azure's data center where the server will receive routine patching and maintenance. HBWC IT department will be working alongside Microsoft's Azure team for the first time setup afterward the server will be managed by HBWC's IT department.
2. The second technology will be the migration from Microsoft Access 2010 to a modern database management system using Microsoft SQL Server. The data from Access 2010 will be migrated to SQL Server and then verified by the IT department at HBWC. Once data migration is complete HBWC IT will be able to sunset Microsoft Access 2010 from use at the company.
3. The third technology will modernize employee payment processing by using Workday. Workday will be replacing QuickBooks which is the current system set in place to write checks for grants as well as pay employees for payroll. It is important a direct deposit is set up so payments can be streamlined. Workday will be used to set up direct deposit, provide tax deductions for W2s, and automatically grow or shrink wages based on company funds available.
4. Along with the use of Microsoft Windows Server 2022 in use after decommissioning Windows Server 2008 at HBWC, there will be a need for a [disaster recovery site](#) in the event one site is not available. Using a cloud-based tool like Microsoft Azure will allow for a hot site to be available at all times.

3.2.2 Out-of-Scope Functionality

The project's out-of-scope functionality will disregard items listed in the SAR report from Endothon Security Consulting. The synthesizing of business, technical, security, and regulatory requirements will not be covered in this project. Also conducting a threat analysis of the applications and infrastructure moving the cloud will not be covered as moving to the cloud will allow HBWC to be on the latest version(s) of software and hardware. The changes to the network for support for employee remote access, ACH data transmissions, and Third-party extranet connections to cloud-based SaaS providers of services to the OGG. The project will focus on moving to cloud-based infrastructure using Microsoft Windows Server 2022 in Microsoft Azure data centers, the migration of Microsoft Access 2010 to Microsoft SQL Server in Microsoft Azure, the shift to Workday to allow direct deposit and fulfill electronic payment to have secure [ACH](#) data transmission, and setup a disaster recovery (DR) cluster to ensure in the event the primary site where production applications are ran are able to stay up in the event production is not available.

3.3 System Perspective

The change to cloud-based technologies such as Microsoft Azure will be challenging to get set up initially as the IT department has yet to fully implement cloud-based technologies at HBWC. However, it is in HBWC's best interest to move towards scalable solutions to ensure a bright future for HBWC. The possible factors preventing the successful implementation/acceleration of the project are listed below.

1. **Staff Knowledge:** The staff members needed to conduct the conversion from on-prem to the cloud requires that there be contractors working alongside HBWC's IT department to ensure full implementation is successful. That being said, even before and after implementation HBWC will need cloud computing-specific knowledge to create accurate policies, procedures, and documentation. This will result in the project being delayed until knowledge transfer from the contractors at Microsoft has been adequately given to the HBWC's IT department. Along with the delay from the IT department, the administrative staff will need to have proper knowledge of how Workday works so that it can be effectively used at the company to solve current payment processing problems such as direct deposit.



2. **Financial:** While HBWC has funding to pull from to make this change it is known to the HBWC's IT department that in general cloud computing is expensive and if machines that are not needed are left online for a long duration of time this could spill a hefty bill for executive staff at HBWC. Depending on the level of support needed from Microsoft there could be additional cost added onto the total price even after the implementation is complete. This goes along with agreeing to any new licenses from vendors that are going to be needed to support HBWC's business requirements. HBWC executive staff should ensure that emergency funding is available.
3. **Possibility of Data Loss/Corrupted Data:** During the transfer of data from Microsoft Access 2010 to Microsoft SQL Server since there will be a need to ensure accurate data is moved from an old system to a new system. It is indicative that a large amount of time and resources are spent on validating that critical/sensitive data has been successfully transferred and accessible. It is also imperative that in the event that data cannot be transferred because it has become corrupt or inaccessible that there are backups of the Access 2010 data stored in cold storage.

3.3.1 Assumptions

The assumptions of the project are the following:

1. The project will ensure HBWC is using a secure environment by using Microsoft Azure data center servers.
2. The project will set up a secure payment processing method using secure ACH data transmissions by moving from QuickBooks to Workday.
3. The project will increase efficiency in HBWC tasks of serving grants to small hospitals as well as payments to employees.
4. The project will ensure that HBWC has a disaster recovery site available. This site will be easy to switch over to as it would be a hot site
5. HBWC's SHGTS system will be moved to a modern database system using Microsoft SQL server.

3.3.2 Constraints

HBWC does not see there to be any constraints as long as proper knowledge transfer is complete from Microsoft contractor to HBWC employees, Workday knowledge transfer is complete to administrative staff, and HBWC's executive board has funding for the project in the event additional costs are required.

3.3.3 Risks

The risks HBWC could run into by conducting this project would not be large however, the following would need to be noted.

1. HBWC's executive board cannot guarantee financial coverage of the entire project. This means that the project could be delayed or halted until proper funding is available. While this is not to be expected it is important to take this into consideration.
2. Employee knowledge at HBWC using a SaaS-based model is minimal at the moment for the IT department. This could be potentially severe as supporting the system after the contractor's contracts have ended could mean that there isn't enough knowledge to support and maintain the new production system. If disaster spills where production goes down then HBWC would not have any resources available to resolve the problem in a quick and timely manner. This means production systems could be



down and unavailable for a duration that is beyond the service level agreements (SLA) agreed upon ruining HBWC's reputation in the healthcare and wellbeing market.

3. Data retention and availability policies would need to be updated as HBWC is now storing data on systems they do not physically own. An agreed-upon contract would be signed so that Microsoft does not have direct access to sensitive data (PII, PHI).
4. Workday, while an enterprise tool for handling finances and benefits in businesses, would need to be set up in accordance with a payment model that HBWC administrative staff would need to set up and design so that payments can be distributed in an accurate and timely fashion. If not done so, payments could be missed and HBWC's reputation could be ruined.

3.3.4 Issues

The current issues that HBWC faces are highlighted in the security assessment report (SAR) by Endothon Security Consulting. Highlighted in the SAR in table 3.2 we can see several threats highlighted. The project will be fixing the following:

1. PWC-02: Will be resolved by the migration of old server infrastructure. The current SHGTS runs on Microsoft Windows 2008 Server R2. The new server will be on a Microsoft Windows 2022 Server in Microsoft Azure.
2. PICA-01: Will be resolved by the move to the cloud this will mean patch management on the systems will be handled by Microsoft. The only patch management HBWC will be in charge of is the applications running on the server that were installed by HBWC.
3. PWC-01: Firewall protection will be available at all times via Microsoft Azure's data center network.
4. P-DR-01 & P-DR-02: A disaster recovery site will be put in place once the production site is built up to specifications by HBWC and Microsoft.
5. P-DR-03: A hot site will be in place having all data and services readily available in the event of production systems being down.
6. P-Crypt-01: With the use of a SaaS-based model Microsoft will be providing fully encrypted tunnels for HBWC services to communicate between.
7. U-IPS-01: Tracking security events through Azure will ensure that information security requirements are met.
8. EDC-01 & EDC-02: With the usage of Microsoft Azure's data center physical security and protection from the weather will be ensured.



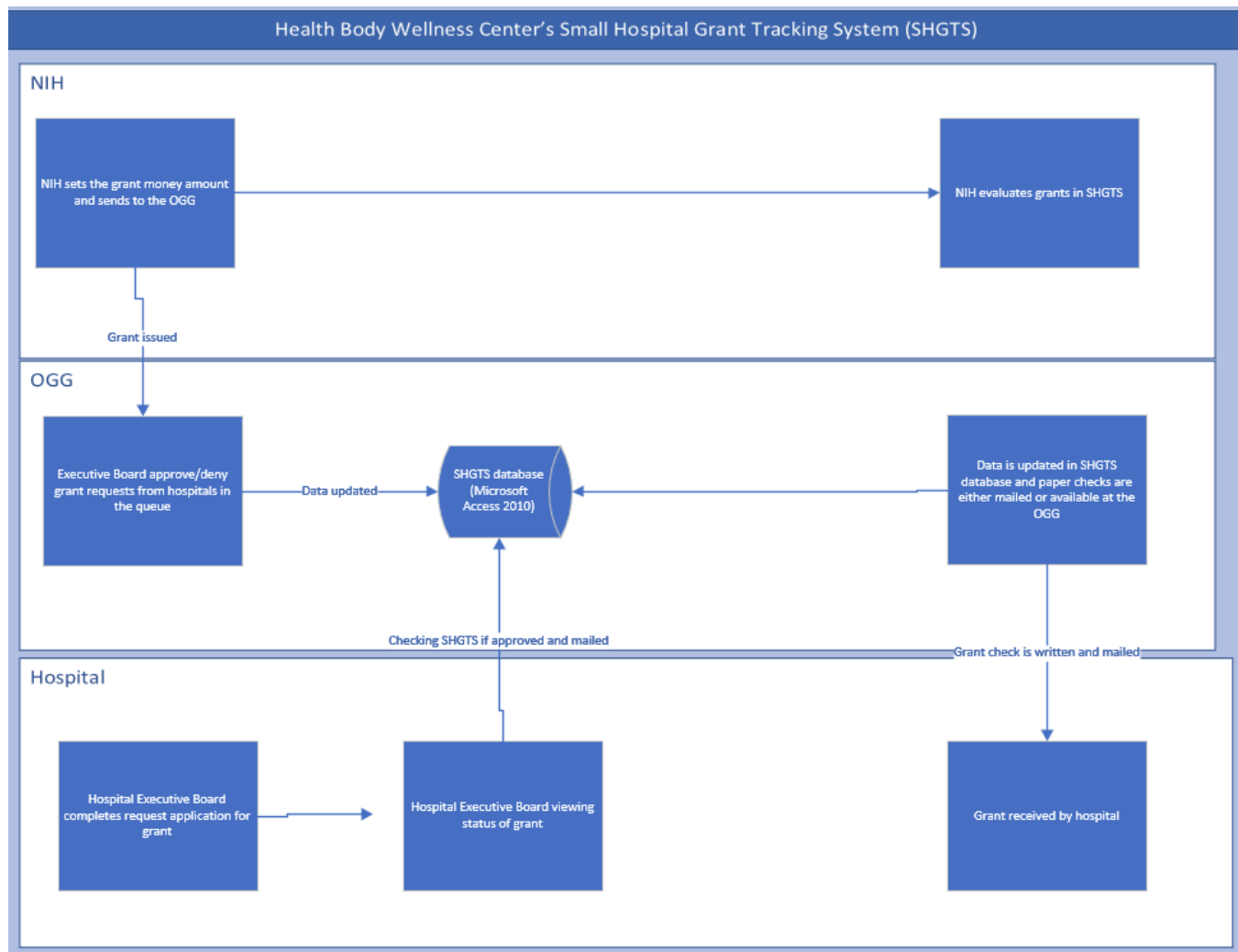
4 Business Process Overview

The small hospital grant tracking system (SHGTS) helps in the assignment and tracking of grants which is used in the Office of Grants Giveaway (OGG). The Executive Board makes decisions on who does and does not get grants and all grants that have been approved are given a time limit on whether the grant is used. If the grant money is not used for the duration of 90 days then the grant is returned to HBWC. The returned amount will be used towards the next hospital to which HBWC is serving a grant to.

4.1 Current Business Processes (As-Is) (At least 2)

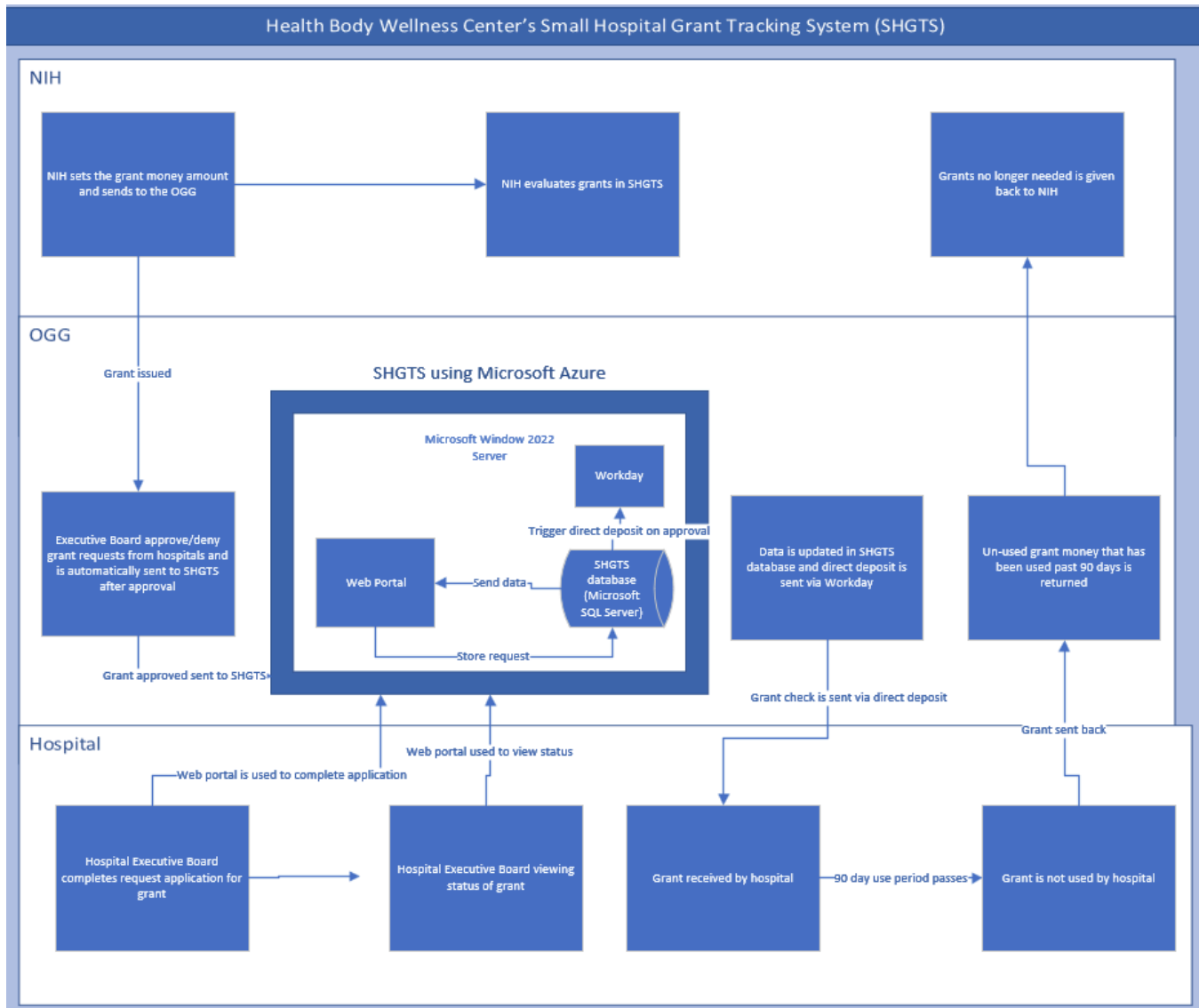
Currently, the SHGTS is using Microsoft Access 2010 as its primary database. Access 2010 is not suitable to be used by multiple users at once. This causes the rate at which HBWC can serve up new grants to be delayed meaning that grants may be available in a timely manner. Depending on the amount of grants ready to be distributed HBWC could face not being able to provide grants to small hospitals that desperately need them and instead forcing the HBWC Executive Board to create a queue in which each small hospital has to wait. Depending on the queue size this can become too long of a wait where the hospital's deadlines have expired and they no longer can make use of the grants. The current business process is diagrammed below.





4.2 Proposed Business Processes (To-Be) (At least 2)

The upgraded environment will allow for multiple users to use the SHGTS having moved to Microsoft SQL Server in the cloud (Microsoft Azure). This will allow for multiple sessions in the SHGTS this way HBWC Executive Board can review and approve applications without a queue allowing for more grants to be served to hospitals. Once a grant is approved a direct deposit is sent to the hospital using information provided by the hospital's initial application. With the use of Microsoft Azure using Microsoft Windows 2022 Server and Microsoft SQL Server, we can ensure that the environment is secure and encrypted. To do this to access the system an encrypted VPN is recommended as it will allow for traffic to be encrypted using [TLS 1.3](#) a faster more secure form of traffic encryption. The new environment will also offer a web portal so that grant statuses can be monitored by hospitals and be updated by HBWC. If grants are unused past 90 days the system will flag these grants and automatically send them back to the OGG. Once the OGG has verified that the grant money is no longer needed then it can go back to the NIH. The upgraded process diagram can be found below.



5 Business Requirements

The requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value, but the project can proceed without it.
4	Low	This is a low priority requirement, or a “nice to have” feature, if time and cost allow it.
5	Future	This requirement is out of scope for this project and has been included here for a possible future release.

5.1 Functional Requirements

Req#	Priority	Description	Rationale	Use Case Reference	Impacted Stakeholders
General / Base Functionality					



FR-G-001	1	Obtain license/contract with Microsoft Azure	This will provide computing, database, web resources needed to provide improved services to hospitals	HBWC will be upgrading it's systems to meet the growing requirements of small hospitals for grants. A SaaS-based model will work best for this requirement.	Development teams Infrastructure engineers Executive Board Data engineers
FR-G-002	1	Obtain license/contract with Workday	This will provide features such as direct deposit and employee payroll that will replace outdated paper checks provided by QuickBooks.	The company will be moving towards a payroll management system that modernizes the current payment processing that HBWC has to conduct such as grants and employee pay. Using Workday will allow direct deposit to become available so payments can be sent out digitally.	Executive Board Human Resources



FR-G-003	1	Setup production and dr MS Windows 2022 Server and migrate data to MS SQL Server	With the end of life of MS Windows 2008 Server running the SHGTS system and the data is stored in a MS Access 2010 database. The need for support for multiple concurrent sessions and fast data transmission will require an upgrade of the current outdated systems. Along with this, a hot site will be setup that will match the settings of the production environment in the event production goes down.	The company will need channels of communication to be fully secured along with the ability to have multiple sessions with the SHGTS database.	Executive Board Infrastructure engineers
FR-G-004	1	Setup Workday for payroll processing to allow for direct deposit	The use of paper checks is outdated and causes delays to employee and grant payments and should be upgraded.	The company will need an enterprise-level payroll system and using Workday direct deposit can be set up to allow for automatic direct deposit when payroll is approved by HR and Executive Board.	Executive Board Human Resources Infrastructure engineers
Security Requirements					



FR-S-001	1	The payroll processing system using Workday should access via a secure tunnel (VPN) that is fully encrypted (TLS 1.3)	Payroll contains PII that includes information of the employees and hospitals	https://www.justice.gov/archive/s/opcl/conditions-disclosure-third-parties	Executive Board Human Resources Infrastructure engineers
FR-S-002	1	Secure MS Windows 2022 Server and MS SQL Server	Data should be encrypted and only accessible to approved administrators. This includes backups of data to cold storage with audit support.	https://learn.microsoft.com/en-us/sql/relational-databases/security/sql-server-security-best-practices?view=sql-server-ver16	Infrastructure engineers Executive Board Infrastructure engineers
FR-S-003	1	Backup and archive data from MS Access 2010 and MS Windows 2008 Server	The data that will be migrated also needs to be backed up from old systems as a copy will be needed post-upgrade in case data migration does not pull all data.	https://support.microsoft.com/en-gb/office/introduction-to-access-2010-security-cae6d764-0318-4622-955f-68d9f186d6ca	Executive Board Infrastructure engineers
Reporting Requirements					
FR-R-001	2	Allow for access to the web portal so that hospitals can view the status of applications and other record information in the system that is relevant to the hospital.	Information will be updated as the status of the application in the web portal goes from pending to approved/denied. This will provide hospitals the ability to check if their application has been received and	This will help increase the CSAT (customer satisfaction score) which is a metric used to measure custom's overall	Executive Board



			whether it's been approved or pending.	satisfaction with the service.	
FR-R-002	1	Allow approved administrators by the Executive Board to manage the SHGTS system so that they can approve or deny requests.	This will allow the Executive Board to view the requests that have yet to be looked over for approval. This will also contain information on grant money being requested.	The approval process will be streamlined allowing for more grants to be processed.	Executive Board
Usability Requirements					
FR-U-001	1	Allow for multiple concurrent sessions using MS Azure	Multiple hospitals can make updates to their application as well as Executive Board members for approvals. This would increase the rate of grants being sent out by HBWC boosting overall customer satisfaction by using MS Azure.	HBWC will benefit in customer satisfaction, increasing the overall CSAT score for HBWC as the system won't be limited during peak hours.	Executive Board Infrastructure engineers
Audit Requirements					
FR-A-001	1	Audit reports of access to MS Windows 2022 Server and MS SQL Server are generated to be viewed by Executive staff and administrators. If unauthorized access is granted the report should be flagged and alert administrators.	If a malicious intruder gains access to the database and there are no reports to show that an unauthorized user has accessed the system then PII and PHI can be leaked causing HBWC to face federal charges under HIPPA or Privacy Act	https://www.gsa.gov/reference/gsa-privacy-program/rules-and-policies-protecting-pii-privacy-act https://www.hhs.gov/hipaa/for-professionals/pr	Executive Board Infrastructure engineers



				ivacy/laws-regulations/index.html	
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5.2 Nonfunctional Requirements

ID	Requirement
NFR-001	IT at HBWC will need to learn about cloud technologies using Microsoft Azure. So that experts exist at the company.
NFR-002	HR and the Executive Board will need training on how to use Workday prior to using the application live.
NFR-003	The portal setup will need to be reviewed by the Executive Board to ensure it meets the company's mission statement.
NFR-004	Security training will be needed for the entire company. Includes basic security awareness training, technical security training, security management training, and compliance training.
NFR-005	Payroll processing times should be setup to make payments or process grants automatically in Workday



6 Appendices (*Not required for performance assessment*)

6.1 List of Acronyms

1. HBWC - Health Body and Wellness Center
2. SAR - Security Assessment Report
3. VPN - Virtual Private Network
4. TLS - Transport Layer Socket
5. SHGTS - The Small Hospital Grant Tracking System
6. MS - Microsoft
7. DR - Disaster Recovery
8. NPI - Nonpublic Information
9. SLA - Service Level Agreement

6.2 Glossary of Terms

[If needed, identify and define any terms that may be unfamiliar to readers, including terms that are unique to the organization, the technology to be employed, or the standards in use.]

6.3 Related Documents

What is SaaS? Software as a Service | Microsoft Azure. (n.d.).

<https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-saas>

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<https://www.qualtrics.com/experience-management/customer/what-is-csat>

Rules and Policies - Protecting PII - Privacy Act. (n.d.). GSA.

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