



# **The Compensation Claims Management System (CCMS)**

## **Medical Service Provider System Requirements**

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## 1. INFORMATION SECURITY

The TSHIAMISO TRUST recognizes its dependence on applications, systems and information for the effective operation of its function for claims management. It is essential that information and any supporting infrastructure and systems be secured against all measurable threats such as unplanned destruction, unauthorized access, fraud, inadvertent error, and breach of confidentiality, lack of integrity and unavailability of systems. To this effect the Trust has put in place an ICT policy framework whose objective is to

- provide a secure and effective Information and Communications Technology (ICT) based Information Security environment
- ensure all information assets when in electronic form are continuously available and protected to a level commensurate with the assessed risk and value/classification of the asset.
- define standards for the defense against unauthorised access, use, modification, disclosure, damage or destruction of information assets.
- mandate processes to minimise risks associated with disruption or failure of ICT systems.

The Information Technology Policy framework provides a consistent approach that reflects the TSHIAMISO TRUST 's culture, and is implemented to provide management direction and support for information security, applications and systems.

This policy framework provides an Information security regulatory framework to ensure the Tshiamiso Trust meets its obligations to protect and safeguard official information assets as set out in, but not limited to, the following legislation and authorities including but not limited to **The South African National Cybersecurity Framework, SOX, ISO/IEC 27001** – Information Security Management, **ISO/IEC 27002** – Code of Practice for Information Security Practice , **ISO/IEC 31000** - Risk Management, **POPIA** and **GDPR**

This policy framework must be observed by all Tshiamiso Trust employees, contractors, consultants, service providers and agents of the Tshiamiso Trust, and incorporated bodies.

It applies to all ICT assets including but not limited to:

- physical or logical computing devices either owned, leased, or used by the Tshiamiso Trust to hold or process Tshiamiso Trust electronic information.
- cloud services and outsourced ICT solutions, and
- ICT hardware, software and operating systems
- any electronic information held on those assets.

The applicable policy documents are available on request and by acting for and or processing the Trust's IT you agree to observing and complying with these policies and thus failure to comply with these policies will result in disciplinary action under the terms and conditions of the contract of engagement or prosecution under the appropriate Act.

## 2. INTRODUCTION

Lodgement of Mine workers/Claimants currently happen at decentralized lodgement sites. The lodgement process requires/allows that living Mine workers be medically examined on or nearby lodgement site.

The Mine Workers are administratively lodged and managed by the CCMS system on site and the medical examination reports and outcome needs to be captured and up- or downloaded onto CCMS from the medical provider systems.

## 3. SCOPE

This document addresses the high-level IT infrastructure requirements for medical service providers.

## 4. MEDICAL DOMAINS

Medical examinations are done at 4 stations (Nurse, Spiro, X-Ray and Doctor).

The assumption is that all or at least 3 will be managed within the same facility (example truck, container, or clinic).

### 3.1 Nursing Station

The nursing station need only to be connected to CCMS and be equipped with a signature pad, fingerprint reader and internet access to CCMS.

Workstation minimum recommended spec:

Type	Product	Comment
Workstation	<p>The following hardware serves as example and reference devices and are not prescribed! Provider can procure similar in specification (PC or Notebook)</p> <ul style="list-style-type: none"> <li>Lenovo Idea center 520 All-In-One</li> <li>HP All-in-One 200 G3</li> </ul> <p>Standalone Workstation</p> <ul style="list-style-type: none"> <li>CPU: INTEL i5 or higher;</li> <li>Ram: 8GIG;</li> </ul>	<p>Stations: 1 x Per Nurse station</p>

Type	Product	Comment
	<ul style="list-style-type: none"> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> <li>• Build in Camera to read QR codes.</li> </ul> <p>Notebook</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> <li>• Build in Camera to read QR codes.</li> </ul>	
Fingerprint scanner/reader	Morpho Biometric Reader Model: MSO 300 NB! E-Verify software must be installed on device	1 x Per Nurse station
Signature pad, USB	Wacom LCD Signature Pad Model: STU-430	1 x Per Nurse station
Camera, USB or build in	Any windows compatible camera to scan QR code if miner do not have fingerprints	1 x Per Nurse station
Services	IT maintenance & support (hard and software/anti-virus) Internet access Email (If applicable)	These are services required from service provider

### 3.2 Spiro Station

The Spiro station need only to be connected to:

- CCMS,
- Spiro equipment and
- Equipped with a fingerprint reader and
- Internet access to CCMS

If this station has proprietary workstation requirements and CCMS cannot also run-on same workstation, the service provider must provide for Spiro report upload capability to CCMS workstation.

Workstation minimum recommended spec:

Type	sProduct	Comment
Workstation	<p>The following hardware serves as example and reference devices and are not prescribed! Provider can procure similar in specification (PC or Notebook)</p> <ul style="list-style-type: none"> <li>• Lenovo Idea center 520 All-In-One</li> <li>• HP All-in-One 200 G3</li> </ul> <p>Standalone Workstation</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> <li>• Build in Camera to read QR codes.</li> </ul> <p>Notebook</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> </ul> <p>Build in Camera to read QR codes.</p>	Stations: 1 x Per Spiro station
Fingerprint scanner/reader	<p>Morpho Biometric Reader Model: MSO 300 NB! E-Verify software must be installed on device</p>	1 x Per Spiro station
Camera, USB or build in	Any windows compatible camera to scan QR code if miner do not have fingerprints	1 x Per Spiro station

Type	sProduct	Comment
Services	IT maintenance & support (hard and software/anti-virus) Internet access Email (If applicable)	These are services required from service provider
Printer Scanner	Any reliable low end printer scanner or access to a Shared network printer	If Spiro report cannot be signed electronically, the service provider must allocate Spiro technician with a suitable printer scanner, which will allow Technician to print Spiro report for Technician & Patient signatures and thereafter to scan as x.pbf and upload to CCMS via M2

### 3.3 X-Ray Station

The X-Ray station need only be connected to:

- CCMS,
- X-Ray equipment,
- Equipped with a fingerprint reader and
- Internet access to CCMS.

If this station has a proprietary workstation configuration and CCMS cannot also run-on same workstation, the service provider must cater for X-Ray DICOM upload capability to CCMS workstation. There is currently an API functionality to download Studies from PACS central system. If this functionality is for what ever reason not functional, the service provider should have a backup option available to transfer study from X-Ray station to CCMS workstation.

Workstation minimum recommended spec:

Type	Product	Comment
Workstation	The following hardware serves as example and reference devices and are not prescribed! Provider can procure similar in specification (PC or Notebook) <ul style="list-style-type: none"> <li>• Lenovo Idea center 520 All-In-One</li> <li>• HP All-in-One 200 G3</li> </ul> Standalone Workstation <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> </ul>	Stations: 1 x Per X-Ray Station

Type	Product	Comment
	<ul style="list-style-type: none"> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> <li>• Build in Camera to read QR codes.</li> </ul> <p>Notebook</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> </ul> <p>Build in Camera to read QR codes.</p>	
Fingerprint scanner/reader	Morpho Biometric Reader Model: MSO 300 NB! E-Verify software must be installed on device	1 x Per X-Ray Station
Camera, USB or build in	Any windows compatible camera to scan QR code if miner do not have fingerprints	1 x Per X-Ray Station
Services	IT maintenance & support (hard and software/anti-virus) Internet access Email (If applicable)	These are services required from service provider

### 3.4 Doctor Station

The doctor station need only to be connected to:

- CCMS and
- Equipped with a signature pad,
- Internet access to CCMS.

This workstation specification assumes the doctor station NOT to be on the same premises as the medical facility.



Workstation minimum recommended spec:

Type	Product	Comment
Workstation	<p>The following hardware serves as example and reference devices and are not prescribed! Provider can procure similar in specification (PC or Notebook)</p> <ul style="list-style-type: none"> <li>• Lenovo Idea center 520 All-In-One</li> <li>• HP All-in-One 200 G3</li> </ul> <p>Standalone Workstation</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> <li>• Build in Camera to read QR codes.</li> </ul> <p>Notebook</p> <ul style="list-style-type: none"> <li>• CPU: INTEL i5 or higher;</li> <li>• Ram: 8GIG;</li> <li>• HDD: 1T 720rpm;</li> <li>• OS: WIN10 (Home/Pro);</li> <li>• 21" screen;</li> </ul> <p>Build in Camera to read QR codes.</p>	Stations: 1 x Per Doctor station
Signature pad, USB	Wacom LCD Signature Pad Model: STU-430	1 x Per Doctor station
PC X-Ray Approved Screen	<p>2MP or beter, for Doctor examinations</p> <p>Graphics card included Support Color 1.07Billion Resolution 2048x1536 Pixel Pitch 0.2115x0.2115mm Brightness 800cd/m2 Typ Contrast 1400:1 Typ</p>	The imaging plate should be a minimum of 35x43 centimeter (cm) or 1505 cm <sup>2</sup> , with maximum pixel pitch of 200 micrometers (µm), and a minimum matrix size of 3.75 megapixels (MP), with a minimum bit depth of 10. Spatial resolution should be at least 2.5 line pairs per mm in

Type	Product	Comment
	Angle of view 176Deg Typ Resp Time 20ms Typ	<p>both vertical and horizontal directions.</p> <p>Detector signals should undergo routine amplification as well as standard image post-processing. Image signal-to-noise and detective quantum efficiency should meet or exceed current professional recommendations for chest radiography.</p> <p>For facilities with digital systems that do not allow horizontal positioning of the image detector, two side by side images can be used if they include all lung fields, as well as both apices and costophrenic angles</p>
Services	IT maintenance & support (hard and software) Internet access Email (If applicable)	These are services required from service provider

## 4 System and Facility requirements

### 4.1 Facility

The facility should cater for the following:

- Power:
  - Ability to feed single phase power from main building
  - Backup power if main building cannot provide
- Internet connectivity, if GSM: LTE (External aerial recommended)
  - To CCMS, <https://ccms.co.za>
  - To service provider's own systems
  - Minimum bandwidth of 5 Mbps (recommended 10 Mbps)
- Printing and scanning (Not mandatory, but recommended to have one per medical facility)

### 4.2 System interfacing

#### 4.2.1 Spiro Reports

It would be advantageous if a digital signature ability is made available between Spiro report output and CCMS. This will minimize the opportunity for mistaken report uploads into CCMS and possible fraudulent report manipulation.

#### 4.2.2 X-Ray Studies

Current PACS to PACS upload API in CCMS is available but need to be developed and be tested.

Up and download to cloud maybe wasting bandwidth, but for functional purposes, it is usable till more efficient designs, are tabled.

### 4.3 Medical station Sign off

This page serves as readiness sign off sheet. The medical station made available to Tshiamiso Trust lodgement efforts, which include all infrastructure under the medical service provider’s responsibility.

#### 4.3.1 Facility Identification

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#### 4.3.2 Equipment and functionality sign off

Item	Tested component	Confirmed working Yes/No
1	<b>Facility infrastructure</b>	
	Power stable	
	Internet connectivity	
2	<b>CCMS X-Ray workstation allocation</b>	
2.1	OS = WIN 10	
2.2	Fingerprint reader allocated and functional	
2.3	Workstation camera build in or external available	
2.4	CCMS connectivity	
2.5	Transactions M3 tested	
2.6	X-Ray equipment and associated workstation	
3	<b>Nursing CCMS Workstation allocation</b>	
3.1	OS = WIN 10	
3.2	Fingerprint reader allocated and functional	
3.3	Signature pad installed and functional	
3.4	Workstation camera build in or external available and functional	
3.5	CCMS connectivity	
3.6	Transactions M1 tested	

Item	Tested component	Confirmed working Yes/No
4	<b>Spiro CCMS Workstation allocation</b>	
4.1	OS = WIN 10	
4.2	Fingerprint reader allocated and functional	
4.3	Workstation Camera build in or external available and functional	
4.4	CCMS connectivity	
4.5	Transactions M2 tested	
4.6	Spiro peripherals	
5	<b>Doctor CCMS Workstation allocation</b>	
5.1	OS = WIN 10	
5.2	Fingerprint reader allocated and functional	
5.3	Signature pad installed and functional	
5.4	Workstation Camera build in or external available and functional	
5.5	CCMS connectivity	
5.6	Transactions M4 tested	

### 4.3.3 Readiness sign off

<b>Medical Service Provider Technical</b>	Name of Engineer:	Signature:	Date:
<b>Medical Service Provider Management</b>	Name of Manager:	Signature:	Date:
<b>Tshiamiso Trust Management</b>	Name of Manager:	Signature:	Date: