Software Requirements Specification

For

Transmission Security

And

Client Side Certificates

(Security Module Enhancement)

Version 1.0

By ViCarePlus Team

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Revision History

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1. Introduction

1.1 Purpose

The purpose of this document is to describe the requirements of Transmission Security policies and client side certificates in OpenEMR.

2. Transmission Security

Implement technical security measures to guard against unauthorized access to electronic protected health information that is being transmitted over an electronic communications network.

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Configuring the OpenEMR server with SSL certificates enable the communication between the server and client in the encrypted form, this secures all the patient healthcare information transmitted over network.

How

1. In apache, enable mod_ssl module and create the self-signed server certificate using openssl.
2. Perform the following additions in the Apache Configuration File

   SSLEngine on

   SSLCertificateFile /path/to/server.crt
   SSLCertificateKeyFile /path/to/server.key.

3. Client-Side Certificates

Provide the capability to verify that a person or entity seeking access to electronic protected health information is the one claimed.

This improves the client authentication by two level of authentication. This will ensure the client accessing the OpenEMR server has valid credentials.

By

Configuring Client-Side Certificates

How

1. Configuring a Certificate Authority
2. Enabling client side authentication in apache

   SSLCACertificateFile /etc/apache2/ssl/ca.crt
   SSLVerifyClient require
   SSLVerifyDepth 10

3. For each user creation, a new Client certificate is created and the same is signed by the Certificate Authority and the certificates are passed to each user via e-mail.

4. Users need to import their client certificates in the browser and the OpenEMR server validates the certificate.
5. Only the users with the valid certificate and username and password will be able to login to OpenEMR.