



*Accelerating  
the digital transformation  
of the Health sector in the Américas*

# ALL-IN-ONE

Fact Sheet

**PAHO**



Pan American  
Health  
Organization



World Health  
Organization

Americas Region



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# 1. Description

All In One Platform is a Telehealth and Clinical Record solution based on free and open-source software (FOOS) to be shared by PAHO as a Digital Public Good.

This solution is a combination of adaptation of the electronic clinical record system OpenEMR ([www.open-emr.org](http://www.open-emr.org)) and the creation of a video-encounter module based on the open-source videoconferencing technology of Jitsi ([www.jitsi.org](http://www.jitsi.org)) with interoperability interfaces between them for the communication and saving of the video-encounter clinical information.

The solution was designed as a platform with two independent modules that can be implemented separately and integrated into the country's existing system.

One module is an electronic clinical record with schedules management, patient index and structured clinical documents like SOAP and vital signs register. And the other module is the telehealth component that allows remote connection between health providers and patients with a clinical notes register and the capacity to exchange attached documents.





## 2. Architecture

All in One Platform have two independent modules:

- Clinical Record Module based on OpenEMR that allows the administration of user profiles, patient management, appointment management, clinical notes and other structured clinical forms, and problem management with CIE-11 coding.
- Telehealth Module based on Laravel and Jitsi that allows teleconsultations, file sharing between providers and patients, and registration of clinical notes. The data recorded in the virtual encounter can be shared with the Clinical Record Module or any other system through an API.

When a “telemedicine” type appointment is booked, the Clinical Record Module communicates with the Telehealth Module through a Laravel-based API, which records

the virtual encounter data and generates a set of secret URLs for the admission of the provider and the patient.

Laravel offers security to the module preventing malicious users from connecting to a teleconsultation. It also limits the times of use of the Jitsi service to avoid indiscriminate use of the platform. When certain events occur, such as the connection of the professional, the patient, or the end of the virtual encounter; the medical history module is informed through notifications via HTTP. When the medical history module receives the notification of the end of the virtual encounter, it recovers the data and integrates them with the rest of the clinical notes. The data to recover are the connection times, the medical notes, chats and the sharing files.



## 3. Technical characteristics

The following features are required:

- 100% FOSS software.
- Software compatible with PHP 8.1 and higher.
- Medical history platform based on OpenEMR 7.0.
- Telehealth platform based on Laravel 9.19 and Jitsi stable-7648-4.
- Standalone docker-compose compatible modules for quick and easy deployment.





## 4. Installation Requirements

At least a 2-core server or 4-core VPS with 2 GB of RAM and 10 GB of disk space is required.

Variable requirements according to the number of concurrent users and the provider's terms of service.

If a single server is used, it is recommended to use docker to isolate the modules.

It is also recommended to have a manageable domain to be able to assign a subdomain to each component of the software.





## 5. Reference documentation

Official Laravel Documentation

<https://laravel.com/docs/9.x>

Official Jitsi Documentation

<https://jitsi.github.io/handbook/docs/intro/>

Electronic Clinical Record Module Repository

<https://github.com/ciips-code/openemr-telesalud>

Telehealth Module Repository

<https://github.com/ciips-code/ciips-telesalud>

Official OpenEMR Documentation

[https://www.open-emr.org/wiki/index.php/OpenEMR\\_Wiki\\_Home\\_Page](https://www.open-emr.org/wiki/index.php/OpenEMR_Wiki_Home_Page)



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