

RELACSYS 4.0

LACPASS Conectathon Report



Brazil

Collaborators



Document purpose

This document is confidential and is the property of the Brazilian Ministry of Health. Any unauthorized publication is strictly prohibited.

The first section of this report presents the final results of the Connectathon, encompassing all tests conducted by the 16 participating countries.

The second section of the report focuses on the tests conducted by Brazil during the event. This includes the collection of information about other countries, as well as tests aimed at evaluating their interoperability. Additionally, this section lists the partners who conducted tests using Brazil's FHIR server and utilized Brazil's IPS documents and COVID certificates.

Test Laboratory

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Tested Organization

Organization Name	Brazilian Ministry of Health
System Name	OTHER_BRA MoH_IPS BRASIL
Contacts	Macedo do Amaral Costa Italo - italomacedo@gmail.com Leao Beatriz - beatriz.leao@hsl.org.br

Conectathon details :

Testing session : LACPass - Conectathon 2023 - Sao Paulo

Dates : 12-14 November 2023

Sponsored by:  

Aligned with: 

Executed by: 

Supported by :  

In collaboration with:  

Connectathon participating countries

- Argentina
- Barbados
- Belize
- Brazil
- Chile
- Colombia
- Costa Rica
- Ecuador
- El Salvador
- Guatemala
- Honduras
- Panamá
- Paraguay
- Perú
- Surinam
- Uruguay



LACPASS Conectathon Report 2023 summary

IDB, PAHO, CENS and RACSEL, in collaboration with IHE Catalyst, coordinated the event. It started on Sunday, November 12th, at 10 am CET and concluded on Tuesday, November 14th, at noon. Sixteen health ministries took part in the testing event.

The scope comprised four profiles categorized into three tracks.

IHE Profiles		WHO - Digital Adaptation Kit	Block Chain Technology
IPS International Patient Summary	MHD Mobile Health Document	DDVC Digital Documentation Vaccination Certificate	LACCHAIN Innovation
Argentina	Argentina	Argentina	Belize
Barbados	Barbados	Barbados	Chile
Belize	Belize	Belize	Guatemala
Brazil	Brazil	Brazil	El Salvador
Chile	Chile	Chile	Honduras
Colombia	Colombia	Colombia	Panama
Costa Rica	Costa Rica	Costa Rica	Paraguay
Ecuador	Ecuador	Ecuador	Peru
El Salvador	El Salvador	El Salvador	Suriname
Guatemala	Guatemala	Guatemala	
Honduras	Honduras	Honduras	
Panama	Panama	Panama	
Paraguay	Paraguay	Paraguay	
Peru	Peru	Peru	
Suriname	Suriname	Suriname	
Uruguay	Uruguay	Uruguay	

Tabla 1- final participants list per track

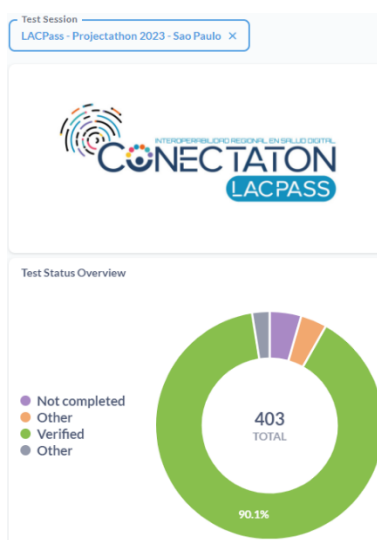


Tabla 2-LACPASS Conectathon 2023 Final Results from 16 countries

Throughout the event, 403 test instances have been processed by the 16 countries. Among these, 17 were incomplete, 8 showed partial verification, and 14 resulted in failure. However, 363 tests were successfully executed.

Brazil's detailed report

Brazil took part in these tests; the section below presents the detailed report of tests where Brazil is involved.

Report details by Track

Track 1 - IPS profile

In Track 1, Brazil submitted three different IPS documents.

Countries	Test instance Id	Monitored by	Test result
Brazil – IPS Document 1	399	Alejandro Medina	Successfully verified
Brazil – IPS Document 2	400	Alejandro Medina	Successfully verified
Brazil – IPS Document 3	401	Alejandro Medina	Successfully verified

All IPS documents were successfully validated using the Gazelle IPS Validator.

Those documents were successfully tested by El Salvador and Chile. See following tab.

Countries	Test instance Id	Monitor by	Test result
El Salvador	473	Alejandro Medina	Successfully verified
Chile	503	Alejandro Medina	Successfully verified

Both countries demonstrated access to the data from documents produced by Brazil.

On the IPS profile, Brazil carried out 3 test instances to gain access to data from IPS documents from the following countries :

1. Costa Rica
2. Chile
3. Uruguay

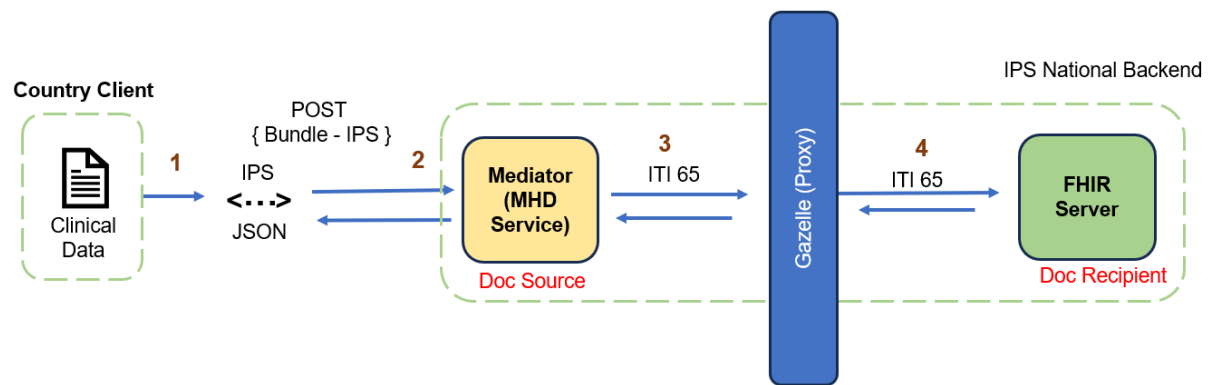
Brazil's test partner	Test instance Id	Monitor by	Test result
Costa Rica	500	Nicolas Bravo	Successfully verified
Chile	713	Alejandro Medina	Successfully verified
Uruguay	812	Alejandro Medina	Successfully verified

All 3 tests instances were successfully validated by the monitors

MHD profile

ITI-65 transaction

The following process has been validated by the Brazil Health Ministry to validate the transaction ITI-65 for submitting an IPS document to their FHIR Server.

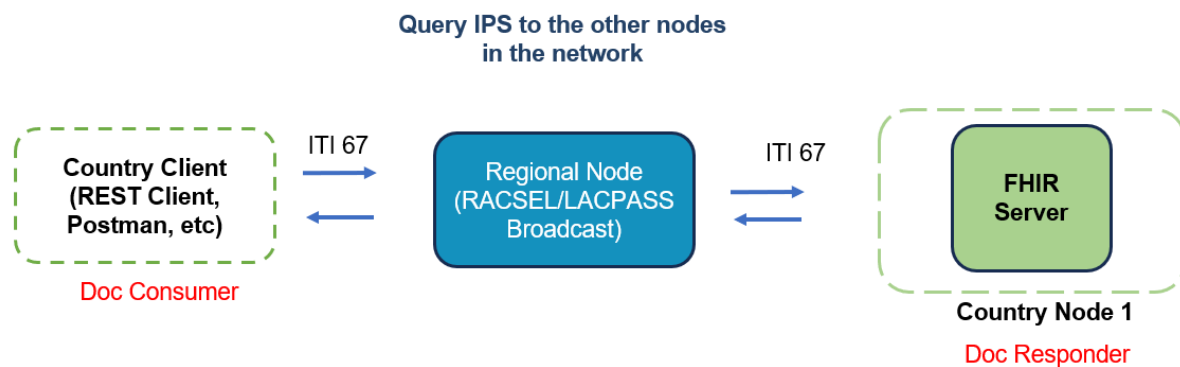


Countries	Test instance Id	Monitored by	Test result
Brazil – Transaction ITI-65	563	Oliver Egger	Successfully verified
Brazil – Transaction ITI-65	566	Oliver Egger	Successfully verified
Brazil – Transaction ITI-65	569	Oliver Egger	Successfully verified

All 3 tests instances have been successfully validated during the conectathon.

ITI-67 transaction

The following process has been validated by the Brazil Health Ministry to validate the transaction ITI-67. They sent a request from their Client system to obtain DocumentReference Resources from the Document Responder representing the FHIR server from their testing partner.



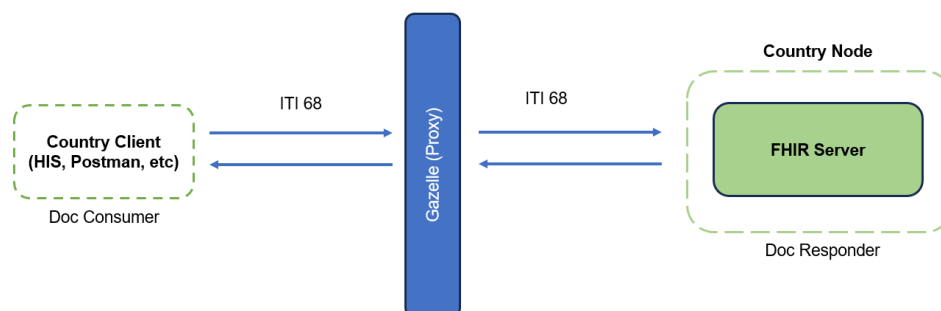
Brazil's test partner	Test instance Id	Monitored by	Test result
Argentina	599	Oliver Egger	Successfully verified
El Salvador	587	Oliver Egger	Successfully verified
Costa Rica	581	Oliver Egger	Successfully verified
Chile	578	Oliver Egger	Successfully verified

In the previous tab, Brazil initiated the request, but in the subsequent tests, two countries initiated the same request (ITI-67) to obtain DocumentReference Resources from the Brazilian FHIR server.

Request initiated by	Test instance Id	Monitored by	Test result
El Salvador	638	Oliver Egger	Successfully verified
El Salvador	585	Oliver Egger	Successfully verified
Chile	557	Nicolas Bravo	Successfully verified

ITI-68 transaction

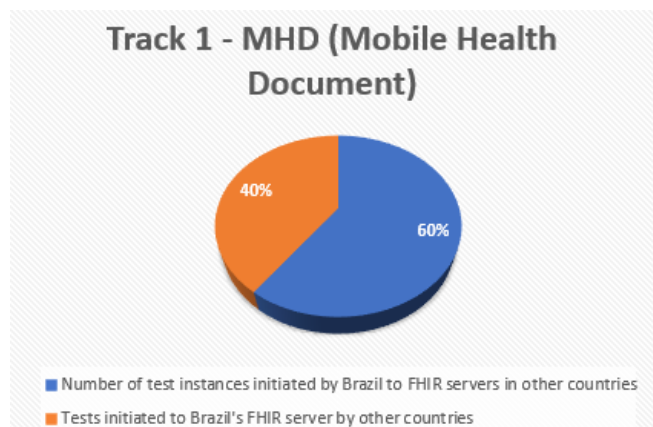
The following process has been validated by the Brazil Health Ministry to validate the transaction ITI-68. They sent a request from their Client system to obtain a health document from the Document Responder representing the FHIR server from their testing partner.



ITI-68 Request initiated by Brazil to the FHIR server from	Test instance Id	Monitored by	Test result
Chile	506	Alejandro Medina	Successfully verified
Costa Rica	598	Alejandro Medina	Successfully verified

In the previous tab, Brazil initiated the request, but in the subsequent tests, two countries initiated the same request (ITI-68) to obtain a health document from the Brazilian FHIR server.

ITI-68 Request initiated by	Test instance Id	Monitored by	Test result
Chile	615	Nicolas Bravo	Successfully verified
Chile	579	Oliver Egger	Successfully verified
El Salvador	649	Alejandro Medina	Successfully verified



Under the profile MHD (Mobile Health Document), a total of 15 tests instances have been executed by Brazil and its test partner. All tests have been successfully validated by monitors.

Track 2a

This track focused on the creation and exchange of COVID certificates following the WHO-DDCC standard. The objective is also to experiment with the use of the structure for non-COVID vaccines (specifically Yellow Fever, Polio, and Measles).

Brazil provided one COVID Certificate

Countries	Test instance Id	Monitored by	Test result
Brazil – COVID Certificate	656	Alejandro Medina	Successfully verified

The COVID certificate has been validated by Chile.

Country	Test instance Id	Monitored by	Test result
Chile	720	Alejandro Medina	Successfully verified

Conclusion

In total, Brazil is involved in 25 test instances.

Track 1 - IPS	Track 1 - MHD	Track 2a - DDCC
8	15	2

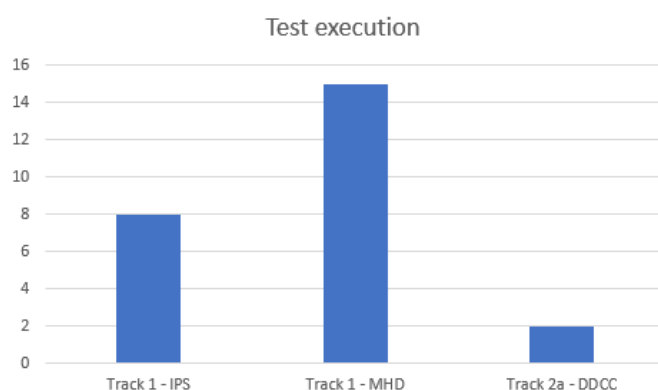


Figure 1: Number of tests performed by Brazil for each profile

Tracks	Number of tests required by LACPASS	Number of tests initiated by Brazil MoH	Number of tests initiated by Brazil's partners
Track 1 (IPS and MHD)	11	15	8
Track 2a (DDVC)	1	1	1



Figure 2 : The overall test results for Brazil

Based on the results in Gazelle, Brazil has successfully demonstrated the implementation of both Tracks. Track 1 involves IPS and MHD, while Track 2a involves DDCC. The exchange of IPS documents with other countries was successfully demonstrated using the IHE standards (IPS and MHD).

Additionally, Brazil shared a COVID certificate recognized by the universal validator of WHO and tested by Chile MoH. With its test partners, Brazil has showcased interoperability with other countries such as Chile, El Salvador, Argentina, and Costa Rica.