

 MUST READ: [Fastly's global outage: Here's what went wrong](#)

Linux Foundation readies Global COVID Certificate Network

The Linux Foundation Public Health is releasing the infrastructure for the first international COVID-19 passport. It's being considered for use by both the United Nations and the European Union.



By [Steven J. Vaughan-Nichols](#) for [Linux and Open Source](#) | June 8, 2021 -- 16:37 GMT (09:37 PDT) | Topic: [Digital Health and Wellness](#)

When the coronavirus vaccines first started arriving many assumed that most people would get a vaccine. But thanks to a shortage of supply in many countries, misinformation, and paranoia, even in the [United States, only just over half of the population has been vaccinated](#) (<https://www.whitehouse.gov/briefing-room/press-briefings/2021/06/03/press-briefing-by-white-house-covid-19-response-team-and-public-health-officials-40/>). Easily imitated paper vaccinated certificates are almost useless for proving vaccination status. So, there's been [lots of talk, but not much action, on a reliable, easily accessible vaccination record](#) (<https://www.washingtonpost.com/health/2021/03/28/vaccine-passports-for-work/>), aka a vaccination passport. Until now. The [Linux Foundation Public Health](#) (<https://www.lfph.io/>) (LFPN) is getting the Global COVID Certificate Network (GCCN) ready for deployment.

LATEST DEVELOPMENTS



Coronavirus: Business and technology in a pandemic (/topic/coronavirus-business-and-technology-in-a-pandemic/)

From cancelled conferences to disrupted supply chains, not a corner of the global economy is immune to the spread of COVID-19.

Read More (/topic/coronavirus-business-and-technology-in-a-pandemic/)

There are many needs for a secure vaccination record. For example, some states, such as Texas, want to forbid employers from firing potentially unvaccinated employees. However, [employers usually have the right to discharge employees](#)

(<https://www.computerworld.com/article/3616596/can-you-require-your-employees-to-have-a-covid-19-vaccine.html>) who deliberately put the lives of their coworkers and customers in jeopardy.

The GCCN isn't designed for that purpose. Instead, it really is a coronavirus vaccine passport. It will do this by establishing a global trust registry network. This will enable interoperable and trustworthy exchanges of COVID certificates among countries for safe reopening and provide related technology and guidance for implementation.

It's being built by the Linux Foundation Public Health and its allies, Affinidi, AOKPass, Blockchain Labs, Evernym, IBM, Indicio.Tech, LACChain, Lumedic, Proof Market, and ThoughtWorks. These companies have already implemented COVID certificate or pass systems for governments and industries.

Together they will define and implement GCCN. This, it's hoped, will be the model for a true international vaccine registry. The United Nations and the European Union are considering deploying for this very purpose. Eva Kaili, Member of the European Parliament and Chair of its Science and Technology Options Assessment (STOA) Panel said:

We are interested to learn about how LFPH is taking bold steps in creating the Global COVID Certificate Network in order to facilitate trust-building and interoperability for safe borders reopening. ... I look forward to the next steps of the LFPH that could provide us with more ideas and insights on strategies that enhance the use of a certificate in a safe way, and also to provide further technical options for the EU that could be adopted and could help and enable our system to work in a harmonized way. As soon as we achieve that, then we could immediately share the methodology to connect with the rest of the world and move to the new normal of our post-COVID digital era.

Indeed the LFPH is being built in part to be compatible with the [EU Digital COVID Certificate](https://c212.net/c/link/?t=0&l=en&o=3188894-1&h=4251781916&u=https%3A%2F%2Fec.europa.eu%2Finfo%2Ffive-work-travel-eu%2Fcoronavirus-response%2Fsafe-covid-19-vaccines-europeans%2Feu-digital-covid-certificate_en&a=EU+Digital+COVID+Certificate) (formerly the Digital Green Certificate). The lack of a global trust architecture and ready-to-deploy tools to build compatible systems in other countries is a real barrier for safely reopening borders between EU and non-EU countries.

The LFPH is also following the [Good Health Pass Collaborative \(GHPC\)](https://www.goodhealthpass.org/)'s [Interoperability Blueprint](https://www.goodhealthpass.org/). This is an industry coalition that has defined COVID certificates principles and standards. The LFPH helped draft the Interoperability Blueprint.



https://adclick.g.doubleclick.net/pcs/click%253F%253DAKAOjssZMFN3ukD8laPqCLem94YVSM8o4OdcV5bNwouZ-7-dbrYkmo7QzcJ_Rio8j42jjLIC1ulv3vPmluks4cuxpnNBa-AqllkTAFIToe6ktGq58fYJARznoKWNcaUuzf5UUs0vmMfQTo7X3Yqo0-6zCnc7QmoVK9fw755A-IoZ-9ykozS2p1JY3s8axi8wMaM3e8mFjMEBI1rULZ33WtawQANK_BJLwCUCe_M-N9OhwymPVI0t4HXT7szRXnWG-4vq9qBfWfvdNzbdAydrrn2mAiajCi6oA27MJ6tGcFRA%2526sig%253DCg0ArKJSzMETM6DyosYSEAE%2526fbs_aeid%253D9-edition=en&ursuid=&devicetype=desktop&pagetype=&assettitle=&assettype=&topicguid=&viewguid=198527d9-5dc9-4b40-836a-69eb1f80f7db&docid=33171834&promo=1065&ftag_cd=TRE-00-10aaa4f&spotname=dfp-in-article&destUrl=https%253A%252F%252Fwww.techrepublic.com%252Fresource-library%252Fwhitepapers%252Fparagon-automation-using-closed-loop-automation-in-service-performance-asean%252F%253Fpromo%253D1065%2526ftag%253DTRE-00-10aaa4f%2526cval%253Ddfp-in-article%2526source%253Dzdnet%2526tid%253D1006210808235734959&ctag=medc-proxy&siteid=&rsid=cnetzdnetglobalsite&sl=&sc=us&assetguid=&q=&cval=33171834;1065&ttag=&bhid=&poolid=&tid=100621
[Paragon Automation: Using Closed-Loop Automation in Service Performance - ASEAN](https://adclick.g.doubleclick.net/pcs/click%253F%253DAKAOjssZMFN3ukD8laP) ...
Juniper's Paragon Automation is cloud-ready, providing flexible deployment op ...
[Resource Center](https://www.techrepublic.com/resource-library/content-type/resourcecenter/) provided by Juniper Networks
<https://www.techrepublic.com/resource-library/company/juniper-networks/>

This will use, along with other open technologies, the [COVID-19 Credentials Initiative \(CCI\)](https://www.covidcreds.org/) and the [Trust over IP Foundation \(ToIP\)](https://trustoverip.org/). These are foundation projects. CCI has been working with public health departments

globally to understand their specific needs for verifiable vaccine credentials. ToIP is defining a complete architecture for internet-scale digital trust. This combines cryptographic trust at the machine layer and human trust at the business, legal and social layers.

Once completed, the GCCN's trust registry network will enable each country to publish a list of the authorized issuers of COVID certificates that can be digitally verified by authorities in other countries. This will bridge the gap between technical specifications (e.g. W3C Verifiable Credentials or SMART Health Card) and a complete trust architecture required for safe reopening.

This is vital because as Brian Behlendorf, the Linux Foundation's General Manager for Blockchain, Healthcare, and Identity explained, "The first wave of apps for proving one's COVID status did not allow that proof to be shown beyond a single state or nation, did not avoid vendor lock-in and did not distinguish between rich health data and simple passes. The Blueprint gives this industry a way to solve those issues while meeting a high bar for privacy and integrity, and GCCN turns those plans into action."

ZDNET RECOMMENDS



(<https://www.zdnet.com/article/best-linux-foundation-classes-and-online-linux-courses/>)

The best Linux Foundation classes (<https://www.zdnet.com/article/best-linux-foundation-classes-and-online-linux-courses/>)

Want a good tech job? Then you need to know Linux and open-source software. One of the best ways to pick them up is via a Linux Foundation course.

Read More (<https://www.zdnet.com/article/best-linux-foundation-classes-and-online-linux-courses/>)

Once in place, the GCCN will support Global COVID Certificates (GCC). These certificates will have three use cases: Vaccination, recovery from infection, and test results. They will be available in both paper and digital formats. Participating governments and industry alliances will decide what COVID certificates they issue and accept. The GCC schema and minimal datasets will follow the recommendations of the Blueprint, as well as technical and governance documents, implementation guide, and open-source

reference implementations, which will be developed in collaboration with supporting organizations and the broader LFPH community.

Besides setting the specs and designs, the GCCN community will also offer peer-based implementation and governance guidance to governments and industries to help them implement COVID certificate systems. This will include how to build national and state trust registries and infrastructure. They'll also provide guidance on how to leverage GCC into their existing coronavirus vaccine systems.

Why go to so much trouble? That's easy. As Eric Piscini, [IBM Watson Health](https://www.ibm.com/watson-health) (<https://www.ibm.com/watson-health>)'s VP of Emerging Business Networks said "For health passes to work globally, helping countries to restart economies and reopen borders, they need to be trusted globally. Through the Global COVID Certificate Network, Linux Foundation Public Health is working to address this challenge by bringing together a network of trusted and interoperable Trust Registries, so that the holder of a certificate can use it whenever they need and wherever they are. IBM is excited to collaborate with Linux Foundation Public Health on this important initiative at this critical time in our history."

If you want to help with the GCCN, you'll be more than welcome. You can [get in touch with the LFPH via e-mail](mailto:info@lfph.io) (<mailto:info@lfph.io>).

Related Stories:

- [Should employers mandate COVID-19 vaccinations?](https://www.zdnet.com/article/should-employers-mandate-covid-19-vaccinations/) (<https://www.zdnet.com/article/should-employers-mandate-covid-19-vaccinations/>)
- [UK readies 'vaccine passport' feature in NHS app](https://www.zdnet.com/article/uk-readies-vaccine-passport-feature-in-nhs-app/) (<https://www.zdnet.com/article/uk-readies-vaccine-passport-feature-in-nhs-app/>)
- [Justice Department seizes fake COVID-19 vaccine website stealing info from visitors](https://www.zdnet.com/article/justice-department-seizes-fake-covid-19-vaccine-website-stealing-info-from-visitors/) (<https://www.zdnet.com/article/justice-department-seizes-fake-covid-19-vaccine-website-stealing-info-from-visitors/>)

RELATED TOPICS:

GOVERNMENT

