OK, we'll get started.

And then if more people join, then they can catch up using the recording.

And so thank you very much everybody for joining us today.

This is the afternoon version of the latest Open Gateway community.

Call this one is going to be focused on exploring innovation in the digital landscape and this is our third in a series of events and and if we could just flick onto the agenda.

So yes, first of all, I must remind you that this is a GSMA led call and therefore must abide by the following antitrust policy.

You should clearly identify the positive purpose of each project and follow it, and should consult with legal in areas where you are and sure.

And please do not enter into agreements that restrict other parties actions or creates barriers to market to entry.

Don't discuss or exchange information on pricing, business plans or commercial information.

And please also don’t discuss or recommend any reference prices or pricing policy and if you require For more information on that then you can find the antitrust policy on the GSMA website.

And also today, uh, there’s quite a lot of people on the course.

I would encourage you to make use of the chat function and our team are all over that like a rash and will endeavour to either answer your questions in the chat or will follow up with people either on the
So if you would like to raise your hand, then please do so when we open up for questions.

Now we can go to the agenda.

Yes.

Brilliant.

Uh, so I’m going to hand over to my colleague.

Uh Mark, who is going to talk to us about API certification to begin with?

I’m going to pop back up to talk about the Open Gateway challenge and then I’m going to start handing over to some of our market champion and members of the Open Gateway initiative.

So first of all, we’re going to have some reflections from our two most recent emblem, WC events, Las Vegas, with Nokia and Kigali with Chenosis.

And then we’re going to hear from three of our market champions in Argentina, Germany and Indonesia.

So Mark, if I could hand over to you, first of all to talk about API certification.

Thank you.
Thank you, Lucy.

Hello everybody and thank you for your time this afternoon.

So opening up with certification, this is exactly this.

This slide says so.

It’s having that North star around, the developer should only need to change their credentials for global mobility.

That’s exactly where we want to go.

That’s exactly where we failed in the past, and this is exactly why we need to have the certification in place for open Gateway going for you going forwards.

So everything we do and all the decisions we made around that make around that specification should all be aiming towards that North Star to be able to give the developers and give you guys, umm, that’s a single solution, not something you need to amend every time you engage with a new operator.

So I know if you like to go on to the next slide, please.

So the certification is then the way we’re going to approach it is, is really in this way and and no matter which way operators have gone to market and which way that developers engage, whether they’re engaging as a standalone deployment with a single operator, they’re going through a channel partner such as a hyperscaler or an aggregator or even as an operator working as aggregator though it’s Federation deployment, maybe it’s a mixture of all of them.
Independently of that the certification, what that will bring is we'll bring and principally consistent API deployments, but also brings these other important things as well.

0:4:31.790 --> 0:4:34.700
Mark Cornall
It brings that reduction in your integration testing.

0:4:35.90 --> 0:4:36.560
Mark Cornall
You've done it with one market.

0:4:36.570 --> 0:4:44.50
Mark Cornall
That means the rest of the market are going to be the same and the same when the markets are looking at the operators are looking or the aggregators are looking or developers are looking.

0:4:44.60 --> 0:4:47.60
Mark Cornall
It doesn't matter that integration testing becomes shorter.

0:4:47.190 --> 0:4:52.80
Mark Cornall
We should reduce costs through from prove our time to market, and also enables global catalog as well.

0:4:52.90 --> 0:4:52.860
Mark Cornall
For the first time.

0:4:53.110 --> 0:4:59.670
Mark Cornall
So the idea that you know and you can go to a certain place and say right, where can I use SIM swap and I can see that globally.

0:5:0.400 --> 0:5:3.680
Mark Cornall
Now, the way we're approaching certification is a balanced way of looking at it.

0:5:4.890 --> 0:5:19.180
Mark Cornall
There's a few things we've based the principles on, so the first one of those is that pure adoption that Camara API, so a pure Camara API, no and if S but additional fields, extra parameters, nothing like that.

0:5:19.190 --> 0:5:21.460
Mark Cornall
But it's just a pure Camara API.

0:5:22.190 --> 0:5:25.640
Mark Cornall
Initially, we'll have flexibility of the authorization flows.
We know we’re all heading for the next six months and getting things out to market, but that gives us a lot of, I guess, old baggage in terms of our old authorization flows that we used to.

We’re used to having two legged authorization flows.

We haven't got too much experience of three legged flows, but that's the way we need to move in.

So initially to make sure we can all push in the same direction, we can be flexible on the authorization flows as long as you have the adoption of a standard Command API and the last part of this is that definitive migration.

So the move, if you go out over six months in the future, we need to be looking at those three leg flows on news data.

So there’s quite simple and I guess guidance within Camara, which is as soon as an API touches user data it should use a three leg flow and that’s the flow and the choice that we’re making and we need to have that definitive migration to those three leg flows for all the APIs that that applies to.

So that’s it.

So it’s a way of taking where we are now, making sure we have standard comma APIs, flexibility and adoption.

If we’re trying to hit roll out targets, but then going forward to make sure we’ve got that, that direction, that move, that travel towards three leg flows and having the the flows are the ones which are in Camara as well that authorization flows and we go to the next slide, it's got a nice picture.

If you break down open Gateway, you can break it down into into this.
This diagram, essentially on the left hand side, we've got the application.

There haven't been specific.

It could be a back end application.

It could be a handset application, but you got an application on the left hand side that connects through to an aggregator and it's either a pure aggregator or it could be an operator in their as an aggregator and that's in that blue box.

And then the next one is the operator.

So the operator that's actually gonna answer the API.

That's that red box is the next one, and there's there's six flows essentially.

You could say there's four.

So first of all, the purple flow and that's the authorization flow.

The thing we talked about being variable and that's slightly different.

So you can have that authorization flow and then the next one is the API flow itself.

So that's the blue flow.
The third one is the operate API.

These are more the in the remit of the aggregator or the interest of the aggregate or the operator and these around on boarding around making umm making catalogs available and things like that.

So it’s between the operator and whoever’s acting as an aggregator and the last one is the tile Co Finder and it’s an internal API and an internal flow about how do I know where to route this API call?

It’s not for me.

Who’s it for?

I know where it’s for and I can reach it the right person, so our initial focus is on flows 2 and four rather than any further.

I’m just two seconds 2 seconds.

Sorry.

Can you come back to me in a minute?

I need to go and do something.

No problem at all.

I shall, uh if we skip over to my section.
And then we can come back to Mark.

Lucy Thatcher

Thank you.

Lucy Thatcher

So I’m moving swiftly on to briefly talk about the Open Gateway challenge.

Lucy Thatcher

So some of you may have come across this already, and if you haven’t, be delighted to share with you what is live and open at the moment.

Lucy Thatcher

If you go on to the next slide only.

Lucy Thatcher

So the Open Gateway Challenge is part of the GSMA’s GLOMO Awards, which are the Global mobile awards.

Lucy Thatcher

There’s something that we’ve been running every year as part of Barcelona and MWC event that we hold every year in February and this year.

Lucy Thatcher

We’re delighted that we have in brand new category called the Open Gateway Challenge.

Lucy Thatcher

Next slide please.

Lucy Thatcher

Thank you.

Lucy Thatcher

And so here’s a brief overview of the challenge and the description that you can find on the GLOMO website, which I will provide a QR code for shortly.

Lucy Thatcher

But, umm, this is effectively looking uh for developers who can use public comara API is to create a commercial cloud based service which uses multiple APIs.
Lucy Thatcher
Is a solution for either your local or international markets and demonstrate some business value in a specific vertical industry.

Lucy Thatcher
Now we do have a test bed which is available and you can request that via the link that is on your screen, but also we're happy to accept web pages, presentations, videos, you name it, but we're really looking for people to really start using these APIs and to create things of value.

Lucy Thatcher
And what's the point, you may ask?

Lucy Thatcher
It is if you go on to the next slide, the prize that we have as part of this is for you to be, uh, receiving your winners trophy on stage at our Open Gateway Dev Con event as part of MWC Barcelona.

Lucy Thatcher
And that's a developer focused event, specifically around Open Gateway which I would be encouraging you all to be looking to attend in February.

Lucy Thatcher
You also obviously get a whole load of other things in terms of social posts being up on the website, part of media announcements, so it should be really good opportunity for those of you who may be part of early adopter programs who are kind of doing testing part of labs to really start having a go and to kind of get this going.

Lucy Thatcher
Most important line is that line at the bottom.

Lucy Thatcher
Umm this is a challenge which is free to enter, so it is something that you can can kind of sign up for via the GLOMO website free of charge did have a question earlier from someone who thought that they had paid for this and it actually there are other categories which you have to pay for but not this one.

Lucy Thatcher
You'd be relieved to hear and the next slide.

Lucy Thatcher
If you're not sure where to start, our colleagues at Nokia have very kindly provided some starters for 10 for you and they can be found via our website as well, and I'd recommend having a look at those if you're yes or stuck for ideas of of things that you could create APIs for and the final side.
Lucy Thatcher
Here's that magic you R code.

Lucy Thatcher
Who'd have thought that QR codes would have been quite as successful as they have been?

Lucy Thatcher
But anyway, here's the QR code for you, which will send you straight to the GLOMO website.

Lucy Thatcher
So you can find out more about the Open Gateway challenge and you can also find out some of the kind of judging criteria and all of the specifics that you need for for that event.

Lucy Thatcher
For that challenge, the closing date is November the 16th.

Lucy Thatcher
So you've got a week, although I will give you a nod and a wink and say that there is a high chance that that will be extended very slightly.

Lucy Thatcher
So don't pay like if you have only just started clicking onto the the link, but I would recommend that you go and have a little lick and get those submissions in so you're not trying to do it at the last minute like everybody else.

Lucy Thatcher
But yeah, have a look and it would be great if you can enter that.

Lucy Thatcher
And with this, we're going back to back to talk briefly about certification, mark.

Mark Cornall
Additional focus on flows 2 and four.

Mark Cornall
So it's the authorization and then with flexibility in that and encouraging adoption of the three legged flows where possible where where we get to them when they're defined and then the 100% adoption of the Camara API test, that's this one.
And this is really what open Gateway looks like if you go to the next one, it simplifies this down a bit further.

Mark Cornall
This time we've got next slide Olu.

Mark Cornall
So this one we've got the application on the left hand side and then I haven't put the aggregator in there and on the bottom of this on the blue line, we've said that if you want to be fully compliant, you need to have that 100% Camara API adopted your API.

If so, butts on the authorization flow, we can be a bit more lenient I guess, or balanced and we can authorization flow according to Camara, and that's either fully compliant or partially compliant.

A lot of people are coming from where they're using client credentials and and we need those of the and it's touching personal information to move that to A3 legged flow.

So for the moment you can be partially compliant and moved fully compliant and that partially compliant will drop off when we go past.

So this Q2 next year, so that's the way we're approaching it.

That's where we're trying to move everyone to this North Star.

Of the only thing that the developer needs to do is to change their login detail.

If you go on to the next one.

And this is the same message.

So on the left hand side you've got the testing matrix, so we've got the different APIs that we've got at the moment.
Within those APIs, there are different functions.

If I look at SIM sort for example, which is about 3 courses the way down, there’s a retrieve date and there’s a check so I can retrieve the date that’s in what swapped or I can check to find out in the last 24 hours if it was swapped.

Those are both using SQL.

That’s the three legged token.

Uh E those, that’s the testing matrix and these the API that we will test we will test per API per developer and we'll to test every version of it as well as Kamara and the release particles mature.

Then that will become less and less, but there will be definitive pieces.

You see that going from we're very point release at the moment and it will be much more structured as that develops.

The TIP certification is per API as is and on the right hand side is the same message again.

We need to have 100% adoption of the Camara definition.

We accept any authorization flow until Q 224 and that would be partially compliant and then once you have adopted the I guess the nominated Kumar authorization flow, the one that’s recommended in Camara, then that would become then fully compliant and that's really where we're heading to and that's the North Star and everything we do will be around that.

It's going to be very balanced, it's going to take a balanced approach to it, limitations with people's umm, development environment.
So we need to be mindful of that, but we need to get to the point where we have exquire delivering exactly what it needs to do, which we've never managed before, which is that North Star or anything you gotta change is your credentials and then it's the same piece of code testing special software.

The specification will be within Camara, so there's a question in the in the chat.

The specification is the one defined in Camara, so within Camara every API is going to have a series of tests.

Those are written in.

Gerkin format, which is human readable.

Best format if this, then that?

Then we will take those tests.

We will turn them into back end tests or front end tests using things like postman and we will provide those tests to operators so that they can do their self test to make sure it's there in some sort of self testing way.

But then we will run those tests ourselves.

So that spec and the software standard software, the spec and the scripts we will provide as part of what we do and that same towards the operators to make sure that the Camara implementations are using Camara APIs, Camara UMLS.

And there were replying in both success and failure.
And the same way and then also using the same flows as well.

Umm for my all the aprons use 3 lactose or just the ones that you can send to the user consent. Interesting.

The rule that's in Camara is that it, whether it's concerned with customer data, you end up with a situation, something like SIM swap.

Simswap in the past has been legitimate interest.

When you say legitimate interest, we don't necessarily need consent.

However, there is the chance that a user can opt out and it is user data.

So the way we've chosen is to say that where user data is involved, A3 legged tokens should be used.

Now you don't necessarily use go in and explicitly ask for that three.

Let that consent.

Certainly on SIM swap in your local market, it may make it may not.

So you have the chance in that three legged token to then shortcut that final leg and not actually ask for explicit consent.

You can know by the way that the API is called that it's for something which is legitimate interest and you don't need to call for that consent.
Mark Cornall
So that's probably the wider answer to that one.

Mark Cornall
Another question that's from George.

Mark Cornall
Hopefully that answered it.

Mark Cornall
Any other questions?

Lucy Thatcher
Not that I can say at the moment, Mark.

Lucy Thatcher
Thank you for that.

Lucy Thatcher
Cool.

Lucy Thatcher
Thank you.

Lucy Thatcher
So yes, if there are, are there any questions for either Mark or myself?

Lucy Thatcher
And then please do continue to pop those in the chat and and we will answer those.

Lucy Thatcher
I won only if we can test your.

Lucy Thatcher
Clicking again I'm afraid.

Lucy Thatcher
And we'll hand over and well, I will introduce Mikko who will give us a bit of a view of Nokia as Co as a code network as a code and talk to us a little bit about what they were talking about in Vegas.
Lucy Thatcher
So, Mikko, over to you.

Lucy Thatcher
Thank you.

Mikko Jarva (Nokia)
Yeah.

Mikko Jarva (Nokia)
Thank you everybody.

Mikko Jarva (Nokia)
Good, good evening, afternoon and good morning to me.

Mikko Jarva (Nokia)
I’m Mikko Yava Fen Fen, but based in Sunnyvale, CA in Silicon Valley have been Nokia with five five
last five years before that in sort of a software software industry and and then I in Nokia I had the
portfolio in ARCHITECTURE for our new network monetization platform business unit and in that
business unit we are building also and this is my responsibility, it’s building a aggregated platform we
call network as code platform.

Mikko Jarva (Nokia)
I will not only talk about product or product today or our platform that we’re building, but what I’m
going to talk about, what we’re doing and how it’s reflecting the industry momentum and that
momentum we saw culminating in in Mobile World Congress in Las Vegas, we actually launched our
platform in there and we discussed a lot about the use cases and applications for network
programmability, APIs and of course, we see the momentum now service providers like we discussing
here opening the API for programmability, aggregated platforms coming aboard like us and then then
most importantly the application is having a new type of demand and require network
programmability.

Mikko Jarva (Nokia)
So.

Mikko Jarva (Nokia)
So thanks Lucy for the introduction.

Mikko Jarva (Nokia)
Let’s go to the next slide, Olu.
And so why do we need programmable networks?

We want to change the relationship between the applications and the networks and that is to change the applications that run only on the device and run over the top, which means that they are largely unaware of the network and largely unable to control the network.

The moving to the application to which have this meshed relationship between the application and the network, meaning that the network can exchange information towards the application and application can request capabilities from the network and exchange information with that as well.

And the applications, we will change the OR expand the concept of the application, not only those running on devices, but those running on edge clouds, connected cars managing drones or or industrial and enterprise or consumer metaverse applications.

Why we would change this relationship between the application and the network?

Well, there are limitation for application which run over the top.

So this model enables first of all better new application and experiences also in the this way of consuming the network from the application point of view leads into more optimized use and then monetization of the network by by the use of the applications in new ways.

But then there is also the unknown unknowns, which the new innovations and agility of the developer ecosystem.

When we make the network capabilities easily consumable for them, then we will then see what kind of new innovations and use cases.

So we’ll be spun up and mushroom in the industry and what we've been doing is a start looking in this new U tab.
Mikko Jarva (Nokia)
If you use cases, building them within ecosystems and exploring the promise and the potential of programmable networks so we can go to the next slide, please, alum.

Mikko Jarva (Nokia)
So one of the such use cases is the remote operations of drones over programmable network.

Mikko Jarva (Nokia)
This is a collaboration we did with Deutsche Telecom sometimes as the drone operator and chronic who provided the integration into Germany space.

Mikko Jarva (Nokia)
This is the best to be seen through a video.

Mikko Jarva (Nokia)
So.

Mikko Jarva (Nokia)
So let's go to the next slide.

Olu Omobitan
My name is Noel Wirzius.

Olu Omobitan
I'm product manager for network APIs.

Olu Omobitan
Today we are here at Lancome big Bond at one of the telecom buildings and we testing network APIs together with Nokia.

Olu Omobitan
The stone what we have seen in this videos is not operated by people near hereby it's operated from Belgium.

Olu Omobitan
We are operating the first BVLOS flight cross country in Europe over the public 5G network of Deutsche Telecom.

Olu Omobitan
Operating vivos drone means that you're going for the full with doesn't see what you often see is that the network is.
Olu Omobitan
If I really crowded so it's very crucial, then that's the safety drone can be programmed that they can have the bandwidth they need.

Olu Omobitan
This is the world is moving into and I knew type of applications and these applications also they will have a very high dependency on the network performance and network specialization.

Olu Omobitan
So the key to make this kind of applications work is the ability for the application developers to program the network.

Olu Omobitan
It's that one company that can make all this work.

Olu Omobitan
And what happened here today?

Olu Omobitan
We had an ecosystem of companies working together.

Olu Omobitan
It's a kind of European partnership we do here.

Olu Omobitan
Nokia has prepared this excellent drone using or making use of the complete 5G capabilities of the network, so that also we are able to see the drone in the unmanned traffic management systems so that we're really able to properly integrate this drone into the air space.

Olu Omobitan
So in this use case, our two network APIs quality on Amanda location verification are used by Nokia platform network as a code which is more or less an aggregator for network APIs.

Olu Omobitan
So they integrating O APIs into their platform, offering them wire different services like SDK's to developers.

Olu Omobitan
So in this use case here what we're seeing today at Lincolnville is a drawing which is flying using our both APIs.
Olu Omobitan
The first one verifying that the one is really in displays here and the second one is quality on demand for the flight level.

Olu Omobitan
So even in congestive area, it’s then possible for a defined time to getting more polarization over the network so that you use cases even working if there are thousand people around you, your life will depend on these QID.

Olu Omobitan
So you want to test it up front, and that’s what we actually did today.

Olu Omobitan
We made sure that these program will quality demands are possible.

Olu Omobitan
There are so many use cases which can be perfectly done with a drone over longer distances with the ability of the network of Deutsche Telecom with the true European player like Nokia.

Olu Omobitan
So I really think the market is seeking for a solution like that.

Mikko Jarva (Nokia)
So hope you enjoyed that and I like to highlight in here that this is not only a futuristic use case, but the drone operator here said the mesh is actually going live with the service that provide remote operations and remote feed of from drones.

Mikko Jarva (Nokia)
In the case of fires, so whenever there is a fire, drone will be always dispatched in there provide also a real situational awareness of the flight.

Mikko Jarva (Nokia)
So of the fire.

Mikko Jarva (Nokia)
So this is actually already become reality.

Mikko Jarva (Nokia)
The other type of use cases that we see becoming reality is the remote Rd legal driving of cars.
Of course we know.

So the connected and self driving cars have become reality, but working function use case is the ability to drive a car to a renter and doing that driving remotely.

So that means that the car can be driven to any place where the car rent is.

This is a example of such a service is being provided.

This El Moro, who provides a startup in Estonia, put bro estate services in in Italian and and Helsinki and then in mobile Congress Last Vegas.

We also heard about company called Halo that car which is enabling providing similar kind of service in in Las Vegas.

Now when a remote Rd legal driving is being done then it's to be specific redundancy on the connectivity part.

So typically this rote remodel wrote remote Dr driven Rd legal cars have at least three to four Sims they which those SIM cards then balance the connectivity between different kind of networks and also provide some of the connectivity for low latency control of it.

And now there is a definitely need for quality of service on Demand API as well as then upcoming camera API on the network insights which is needed as well this drivers when they try remotely they rather go around the congestion than drive through congested area of the network because there is a likelihood they might lose the control of the car and then have to park a side.

So these are the kind of use cases and examples that we are seeing and since we are seeing and building also helping ecosystem to build these use cases, we also see saw business case to to build an aggregated platform and that is also helped by the fact that the networks are being providing open and standardized APIs for consumption of the aggregated platforms and the application.
Mikko Jarva (Nokia)
So.

Mikko Jarva (Nokia)
So let's go to the next slide in mobile or Congress, Las Vegas, we launched our Net Vegas scope platform and we announced the availability of that by this year, December for application developers connecting then their application into capabilities and selecting networks.

Mikko Jarva (Nokia)
And then let's have a quick look on the platform.

Mikko Jarva (Nokia)
So next slide please home.

Mikko Jarva (Nokia)
So this is just the introduction we tried to minimize.

Mikko Jarva (Nokia)
Uh, maximize the experience is the experience of the developers and enterprises and then minimize the friction.

Mikko Jarva (Nokia)
How they can get network capabilities in their application?

Mikko Jarva (Nokia)
Let's go to the next slide.

Mikko Jarva (Nokia)
The proud platform provides easy developer experience, so it will be quick for the developers to build their application and integrate network capabilities into their application.

Mikko Jarva (Nokia)
Will see very soon a little bit about that and then in the runtime, when the applications required network capabilities, they communicate through the platform and the platform does the things that Mark was doing.

Mikko Jarva (Nokia)
For example, telco routing teleco finding authorization of the capabilities.

Mikko Jarva (Nokia)
So all these components are available in here the platform provides.
A network capabilities as APIs, but there is also SDK which enabled to to integrate those APIs quickly into the applications and we support QoD device reachability, device location, specialized network and other capabilities into.

It's very much an aggregated platform, so it aggregates over public networks, but eventually also private networks.

And the reason for that is we see the applications enterprise application will be roaming or channel.

Experience for the application development across all of the networks.

We are very much believers into the same kind of principle that Mark mentioned earlier in this presentation that developers should only need to change the credentials.

So if a developer uses network as code platform and SDK's integrate their application into network capabilities with this platform, we support northbound camera apps as well as sound bound, which means that then the application developer can change their credentials and use their application also with the other platform or even networks.

So.

So we're very much into the portability, openness and compatibility and standardization of open gateway and Camara initiate this.

Let's have a quick look on the platform.

How easy it is to develop application as mats and we want to minimize the friction in the depth, so we'll go to the next slide and then see how the application developer kids, the first application connected to the network in here.
Mikko Jarva (Nokia)

So here what is being used is the network is called STK.

Mikko Jarva (Nokia)
The benefit of the SDK approach is that the developers don't even have to remember how to quote specific kind of an APIs, but they can use functions in the SDK to.

Mikko Jarva (Nokia)
Go to, connect to the network and that's what actually happening here in this application, so it will offer quickly, builds an application.

Mikko Jarva (Nokia)
Then make sure that the application is connected to the underlying network and that just takes a couple of minutes to build that application using autocomplete, which is supported by the SDK.

Mikko Jarva (Nokia)
And then here we are running the application.

Mikko Jarva (Nokia)
That testing that there is a network connectivity available.

Mikko Jarva (Nokia)
All right.

Mikko Jarva (Nokia)
So that was a little bit of a news from Nokia and also on the momentum that we are seeing and building up or mobile phone dress last week as and then of course, we're gonna see much more impartial and looking forward that.

Mikko Jarva (Nokia)
Thank you.

Mikko Jarva (Nokia)
Back to you.

Lucy Thatcher
Thank you.
Lucy Thatcher: Yeah.

Lucy Thatcher: No, that's fine.

Lucy Thatcher: Hand back to me.

Lucy Thatcher: Uh, there is a question in the chat.

Lucy Thatcher: Actually, I'm not sure Mark whether it is for you or for Mikko, but how does programming the network using Camara API differ from programming the network using the 5G application function through the NS interface?

Mark Cornall: That's a good question.

Mark Cornall: Umm so the Camara APIs are all northbound from out of the network.

Mark Cornall: I think that's probably the answer that you probably are looking for knitting.

Mark Cornall: Umm so the Camara APIs are all northbound from out of the network.

Mark Cornall: I think that's probably the answer that you probably are looking for knitting.

Mark Cornall: So the Camara API is are all developer focused.

Mark Cornall: I haven't got my camera.

Mark Cornall: They're all developer focused APIs and they come from untrusted people from outside the network rather than something in trusted between application functions within a network.
Mark Cornall
If that answers your question.

Lucy Thatcher
Thank you.

Lucy Thatcher
Thank you very much, Mark.

Mikko Jarva (Nokia)
Yeah, and yeah, and of course the the difference is that the the N 5 is just between the application and the PCF policy controller function.

Mikko Jarva (Nokia)
While then Camera API provide much more simplified experience over other different kind of capabilities, not only chasing policies which results into the key code changes but the other capabilities.

Mikko Jarva (Nokia)
That's this location.

Mikko Jarva (Nokia)
Check uh.

Mikko Jarva (Nokia)
Seems to have carrier billing.

Mikko Jarva (Nokia)
Check out reachability status and all that kind of thing.

Mikko Jarva (Nokia)
So easy access to much more capabilities.

Mikko Jarva (Nokia)
I think that's the difference between camera apps and then the ohh and five interface for application functions.

Lucy Thatcher
Thank you very much.
Lucy Thatcher
But he you are if I could hand over to you and the Chenosis team to hear about MWC, Kigali and what you have been up to.

Lucy Thatcher
I heard amazing things about your presentation, so I'm looking forward to this.

Waseem Amra [ MTN Group - South Africa ]
Umm, thank you very much.

Waseem Amra [ MTN Group - South Africa ]
Hello everyone my name is Waseem Amra.

Waseem Amra [ MTN Group - South Africa ]
I am the head of product and platforms for CHENOSIS.

Waseem Amra [ MTN Group - South Africa ]
For those of you that don't know, chenosis is a captive startup.

Waseem Amra [ MTN Group - South Africa ]
But at the MTN Group family, we are responsible for making code accessible.

Waseem Amra [ MTN Group - South Africa ]
Umm.

Waseem Amra [ MTN Group - South Africa ]
Within Africa, and we do that in two forms, either through API's and these are this is building the MTN API portfolio for monetization.

Waseem Amra [ MTN Group - South Africa ]
Or or partner apps.

Waseem Amra [ MTN Group - South Africa ]
And these are APIs outside of just telco APIs where we partner with certain startups and enterprises and offer them within our platforms.

Waseem Amra [ MTN Group - South Africa ]
The second point that we have is a platform capability where in the mandate of making code accessible, we're also playing around and offering low code, no code tools to to the to the ecosystem.
Today, what I’m going to share with you guys, the Lucy, I don’t think I have. You know the presentation that that our CEO took the team through, but more reflections and effect that that our presence and our participation Act, MWC Ali had on our business and take you through some of the topics that we discussed in the pattern in the panel discussions.

So all of you can go to the next slide please.

From our perspective within the South African market, we are involved with the GSMA in in two working streams. The first is an open gateway stream and the second is a fantex stream and.

For U.S. Open Gateway and I’m the GSMA is a great mechanism within the local market to steer the industry in a positive direction.

And that’s because it gives us 2 capabilities #1 it helps us to do good for society through solving real customer problems.

And if I use the Fintech workstream as an example, it allows us to enter into customer discussions without umm, you know, breaching any competition policies.

With the GSMA being present so it allows all the MNO to meet with with banks and banking
associations and solving real customer problems that financial services is facing, we use the Fintech stream as a demand generation stream to gather, umm, gather demand and to solve problems in the market.

And the principle discussion for us in the open Gateway stream is then to see the open gateway stream with, umm, the demand that we've seen in the market to align a standardized the APIs and the standardization is great for our customers because it's one, it's one integration point for them.

It's important to us because there's, we know our different connectivity streams are facing incumbents and losing losing revenue, which seems to be normal nowadays.

But Open Gateway allows us to establish new revenue streams and it's helping us.

It's helping us build a Better Business within chenosis or you can move to the next slide.

OK.

I guess I guess I didn't lender lend it too well, but that's fine.

So all participation at at MWC Kigali was through was through 44 elements.

Number one, we will present within M obviously really with the stat with a stand and and and that's important to us because it allowed us to do 2 things.

Number one, we could engage with the customers that were that were part of that were part of the channels is ecosystem.

We brought one of our partners with us and they could expand their reach and this is a young startup in Africa that found opportunities outside of South Africa.

OK.
And secondly, we were able to use the platform within MWC Kiraly as a way to acquire new partners and get into new conversations.

And if I can add another point to that is we, we also believe in giving exposure to the young talent within our team and it allowed us to, you know bring in some younger talent to Kigali to really flex a different muscle and be part of the ecosystem and try different discussions and learn from different industry events that's happening at at Kigali.

The second piece was our CEO was presentation of what Chenosis and the vision of Chenosis, which is making the code accessible and how we as Chenosis are monetizing different elements on the network through data monetization focusing on financial inclusivity within Africa starting in South Africa and fraud prevention and that that then that leads me into the Third Point which I was part of a panel discussion on the fraud threat landscape under the Fintech group where we could discuss would like minded individuals.

What are the key trends we’re seeing in our market in South Africa, we still have 22 million USD worth of fraud.

That student, through some swap challenges some sort of problems in the mobile banking ecosystem.

And and and umm to put that into perspective.

Umm in South Africa, a SIM swap.

Uh, some top loss amounts to 17,000 land, where the average salary is actually 15,000 grand.

So you have the potential to really clean out a customers entire bank account and and give them quite dry for for that month.

Uh, another great topic that Samuel Tenga took from.
Umm from TransUnion was on the key industry for prevention of fraud trends that's happening within Africa as a whole and there was great learnings for us from that from that discussion.

What was key for us in this discussion and why I think the GSMA and MWC is so important, especially for a nascent business like ourselves, that's a captive startup within a large enterprise, is that it gives us great reach and exposure by way of example, out of this session off the four panelists was on stage where where in discovery discussions right now and opening opportunities with the with two of them at this point in time, UMM and the reach that we've we've gotten outside of the people that are on the panel but within the audience it has been phenomenal and we could we saw that many people reaching us out from our social media accounts and and it's opened many different discussions and you have an use open opportunities.

The last piece for us was a closed group working session with all your you can go to the next slide please.

Yeah.

Was a closed group working group session with number one?

Uh banks across Africa and trade association such as banking associations, where we could get into the nitty gritty of what challenges does the banks and the banking associations are facing use South Africa as one of the use cases and key challenges that we are solving for here you can see in slide two, we went into in depth detail on how identity protection can assist four through some swap API KYC API such as KYC verification and KYC detail.

The scam call API that we're we're still positioning in our market and then number verification, but one of the topics that we spent a lot of time on is the data sharing and the consent framework.

And I think it's important as as Mark previously explained, the two legged and three legged framework and because Africa does not have the GDPR, it does complicate, it does complicate things for us because we're presenting 16 different jurisdictions and each has their own data privacy laws and that that has created you know a lot of operational work for us.

But we want you to use that forum to discuss with different Mnos in the room with the banks, how we approach this and how we can actually aid in their market from a constant approach with
both explicit and implicit consent as as Mark mentioned, implicit consent falls under legitimate interest and how we work with legitimate interest.

But we’re personally identifiable information is actually exchanged through the API.

What was that?

Are the type of three leg flows that we have for gaming consent.

We also explored some of the discussion points on how we de identify information and in some markets a deidentification of information and the transmission of information that’s being deidentified is not considered processing of personal information.

The key point for us in this discussion was just having a discussion with the again with the different players in the room and working through these.

I think for me, what was important was I’m looking at the nuances that the different markets have and getting great, learning a lot of the nuances and and building some of those opportunity and then leveraging some of the opportunity to build newer products and think differently.

So it’s it’s been, it’s been a great journey for us and and we we we totally enjoyed that session, we wouldn’t have happened if we weren’t part of the Fintech stream and it’s given us some a good platform to to bounce ideas off through different participants.

Well, you can go to the next to the next slide please.

Love me.

Me, we used MWC quickly as as a great way to announce some key partnerships for CHENOSIS.

As I mentioned where one sizing.
Data on the network and monetizing the network and two key partnerships that we formed at Igi, we had the CEO of experience with our experience with us for the whole event at us at our stand and also joining the different.

The different talks that were that were that were set up, we launched a partnership with experience and TransUnion because we’re solving for that for financial inclusivity.

To put this into perspective, within South Africa, 27 million adults, I’m do not have access to credit.

We believe from our analysis and from our partnership that using the different data that we get from the network and the way a person tops out the air time and the way the person has changes the device if they have a mobile money account, we can actually fill in a gap that and that helped that 27 million adults be seen in the in the environment of of South Africa and then extending into into Africa afterwards as an example, 470,000,000 by our calculation 470 million people, adults within Africa don’t have access to credit and we’re trying to solve this as one of the problems that we’re that that we think is is large in Africa.

One of the benefits that we we’ve seen through the Fintech group and would Brian Gorman having the CEO of experience with us in the session.

Bringing a Bureau to MWC, they saw the benefit of being part of an ecosystem and and how they can leverage the ecosystem and value into the ecosystem.

So I think it’s another, it’s another good opportunity to to actually bring your customers with and the last partnership that I announced was that we announced was with a natural language processing partner of ours called PETRALIA I and they are offering special tag and text to speech APIs for Africa.

And what was key in this discussion was bringing them to WTT Kali and then being present meant that they got to meet a different set of of potential clients for them.

The biggest the biggest take from that was because they’re in the NLP domain and they focus on South Africa and looking into expanding to Africa.
They got to meet with two different NLP communities and they're now actively in central and West Africa, leveraging off the communities that they've they have created.

So umm MWC calling for us was a quite a leap frog.

And it's given us quite good platform it's and I think it's an Olympics of of networking opportunities and it gives you a good place to really understand different industry insights and leverage that within your business.

So yeah, I think that's it for my end.

Fantastic.

Thank you.

And slightly worried, if you describe Kigali as the Olympic one, what I'm going to experience at Barcelona, because it be the first time that I've been, so it'd be a Olympics plus.

But thank you for that.

I haven't seen any questions pop in specifically for you.

There are a few sort of general ones and ones for me Co and and looking at the demo that he showed.

So I think if it's OK with you, we'll move on.
And if there are any questions, it was aimed them, please do pop them into the chat.

So thank you.

So we're going to change tax slightly now to look at and talk, hear from some of our market champions.

So these are operators who are working closely with other operators in a specific market and to look at at APIs across that market.

So first of all, Damian, I believe you're up first with what's happening in Argentina, so.

There you are. Wonderful.

Thank you, Lim.

Well, and here I'm going to take a look at the Open Gateway progress in our country.

Next slide, please. Hello.

Well, I have to tell you that we had our kickoff in September.

From that moment, we are having meetings every two weeks with the representative from all the operators and the GSMA, and in that business discussion we were working in our uh objectives and the first goal we have to take in account was to identify the first API we will launch in and we all agree that that was, it seems, swap SIM top as you know is an easy and clear valuable position API and it's a great start for monetization for us.
So in telecom, we already launched this SIM this API in September, uh, nowadays we are running some POC with an aggregator uh on the other operators.

0:51:26.600 --> 0:51:38.530
Damian Sanchez
Claire is working as well in the same API and they are reaching this quarter to launch it to be launch and last Telefonica.

0:51:38.540 --> 0:51:50.950
Damian Sanchez
They already had a sync version API in a non Camara version and they are working to upgrade to the Camara versions in sub.

0:51:51.400 --> 0:52:4.530
Damian Sanchez
So as you can see, the full market will be ready this quarter to give the developers and the B2B customer, the possibility to use seems up for the full coverage.

0:52:5.750 --> 0:52:6.850
Damian Sanchez
Next slide please.

0:52:9.100 --> 0:52:12.50
Damian Sanchez
The second point to discuss was integration model.

0:52:12.60 --> 0:52:15.570
Damian Sanchez
We all agreed to work with the aggregators.

0:52:16.410 --> 0:52:30.540
Damian Sanchez
Uh to reach the market and developers and B2B customer we are having in the meetings a A participation from different uh and the mants aggregators and platforms.

0:52:31.460 --> 0:52:45.490
Damian Sanchez
And we are already using the GSMA template to agreed with each one to use for the full coverage next point, uh.

0:52:45.540 --> 0:52:50.630
Damian Sanchez
On the second point, we are now discussing is the API road map.

0:52:50.740 --> 0:53:2.430
Damian Sanchez
As you know, for get a great adoption and to increase the usage of the API we have to cover to cover the the maturity or the whole market.

0:53:2.440 --> 0:53:5.990
Damian Sanchez
So it's important to agree in the same API.
Damian Sanchez
So and to be aligned in that point.

So, thanks God beyond any difference in in the plannings we are all talking about number verification, device status and device location.

Next slide please.

So the next step for the industry we have to continue being involved in the technical business and and product works in with the GSMA in the local meetings, we have to include in to the our technical and legal teams.

We have to keep working in the process alignments and via pay attention to things like data protection and consent management according to our regulations and legal recommendations, unless we have to work in our earlier doctor program to assist the digital ecosystems in the aminos dimension, we have to we have to work in accomplish our API releases and we have to go work with the on boarding for the platforms and agregators as well.

Then we have to work in the open gate with platforms or and capabilities to bring this product successful to the market.

And last but not least, we have to work in the Open gateway CSA certification for the next year.

That’s it.

All next slide.

Thank you, Damian.

Thanks to you.
Lucy Thatcher
Any questions for Damian at this stage?

Lucy Thatcher
I don't think so.

Damian Sanchez
Thank you.

Lucy Thatcher
We will carry on our little tour of the world and and say if we could go to Germany next and Marcus at DT, Deutsche Telekom.

Kümmerle, Markus
Yeah.

Kümmerle, Markus
Good morning, good afternoon from Germany.

Kümmerle, Markus
Those points from Germany today, I'm not in my Camara role so I have dropped off my camera shot immediately from the all hands call which is in parallel running and now I'm wearing my DT hat so you can see the magenta shirt and happy to present the current status of our open gateway.

Kümmerle, Markus
Local champion Germany activity.

Kümmerle, Markus
Umm, we're trying to activity a little bit late.

Kümmerle, Markus
So it was in July.

Kümmerle, Markus
So if you can go to the next page, please Olu.

Kümmerle, Markus
We were a little bit delayed.
Kümmerle, Markus
We have the whole thing, but our ambitious target is and was that we have a first commercial customer on an aggregated API by Mobile World Congress 24 and to have a presentation in the Open gateway, it's not a summit anymore.

Kümmerle, Markus
I think it's now named DEFCON.

Kümmerle, Markus
Defcon, yes.

Kümmerle, Markus
Umm, I know it's a very tough target and for that we decided to have a safe path and and more challenging extended path.

Kümmerle, Markus
And on the next slide, you can see what we have included in the safe path.

Kümmerle, Markus
So we tried to avoid all this three legged concert management topics in the first step and only focus on the APIs and so we thought it's a good idea to use the mobile connect APIs and create a Camara version out of it.

Kümmerle, Markus
So it's SIM swap, it's number verification and it's know your customer match.

Kümmerle, Markus
You can see the timeline below.

Kümmerle, Markus
So our intent was to have a first API definition beginning of September.

Kümmerle, Markus
We have the API live around the time now, then work on the aggregation until end of the year and then finally have a customer in next year and preparing something Nice for Mobile Congress.

Kümmerle, Markus
In parallel, we are driving the extended path which is on the next slide.

Kümmerle, Markus
Here you can see all again 3 APIs, so it's quality on demand to improve the mobile connection.
Kümmerle, Markus
It's a location verification and it's device status and we think we need consent management for this.

Kümmerle, Markus
So we are working on A3 legged flow here and that's quite more challenging.

Kümmerle, Markus
So you can see we try to make the same timeline with it, but with a strange target.

Kümmerle, Markus
And yes, what what do we have learned?

Kümmerle, Markus
You can see in the next slide.

Kümmerle, Markus
Productizing an API is much bigger than providing simpler technical service, because you you nevertheless run in discussions about negative interest adopt delegated consent versus user consent.

Kümmerle, Markus
UH-2 legged authentication for three legged authentication which use cases require what and we also get into this discussion in our safe path, so it's good to have this discussion.

Kümmerle, Markus
It's important we have to talk.

Kümmerle, Markus
We have to solve it, but it takes more time than expected.

Kümmerle, Markus
Also said the second area is uh, having up very interesting.

Kümmerle, Markus
So it's about naming?

Kümmerle, Markus
Umm naming is very important that we also have learned it's one from a commercial point, so finding the right names.
Are there any reserved names?

Are there any trademarks up to things that some terms are already regulated?

So for example, the term know your customer, it's a regulated term.

For example, in the UK market, so we should consider that and try not to use such a term for API so that we can use it globally.

It's also very interesting and new for us and we learned it and we have also a lot of discussions around that in both halves.

But as I said, it's important to align here to discuss it and to learn this.

It's necessary to have commercial products, but it takes time and the last thing is also about decision making.

So it's not in every case possible to get a clear alignment and so we need clear decision structures to move forward also.

That is a learning process in local champion in open gateway at all.

In Camara in all parts of the organizations, so we are trying to work on processes to be very fast and efficient.

Yeah, but in the end it's a good thing we are on the right way.

It takes a little bit more time, but we try to keep our targets and make something wonderful for Mobile World Congress.
Kümmerle, Markus
Thanks a lot.

Kümmerle, Markus
That's, umm, the part of Germany.

Lucy Thatcher
Thank you very much.

Lucy Thatcher
Thank you.

Lucy Thatcher
And then let's go to Indonesia finally.

IGusti_N_Panca
Finally, we had the last one.

Lucy Thatcher
Last but not least.

IGusti_N_Panca
It's already.

IGusti_N_Panca
It's already 11:11 PM now in Jakarta.

Lucy Thatcher
Thank you.

Lucy Thatcher
Thank you.

IGusti_N_Panca
Could evening.

IGusti_N_Panca
Good afternoon.
Good morning for all of you gentlemen.

My name is Panca.

I'm from Indonesia, actually right now I'm in telecom sell as one of the biggest operator in the Southeast Asia.

So in terms of our progress, because the Council has been assigned as a market champion, Indonesia.

For your information, actually in Indonesia there are four operators running right, right now.

Capcom sell Excel Axiata in the South or in doing also smart friend by uh, early September.

I think we have like a discussion and gagement together with all parties and then what united by GSMA to have like a one open FBI national gateway that we call it as something like that.

So then, Telkomsel being assigned as a market champion and then uh, after stick on meeting and then we decide, there will be like A3 use cases that we are going to the flop.

But the first ultimate goal is gonna be for the MWC Barcelona in next year, February 2024, so it's about the same swap right now.

They're counsel because we just pointed as a market champion then with the flow.

Uh, uh, I will come back and gateway if you can go to the next slide please.

Yeah, this is our initiative, but previously allow me also to explain that the Council since 2020, we already a how far our commercial for the Open API a business, yeah that we call as a mobile inside and using our platform that we call as a digital platform.
So right now there are around 55 API that are already being commercialized and just by the developer in this year.

Well, some API use cases that are proposed by Camara, like a simswap and also device status number, verification, device location and also identity including content manager.

Mantis is part that actually already being the flow as a non-Camara Pi in our digihub. So we just only put something like a translation into our gateway.

That's why in this development Miss 4 aspect that with the flop right now it's about the telcoFinder and quitting also for you're not born interface including also for the translator service in terms of the telco Finder itself because like Mark said already in the morning that it is not been standardized yet.

So they'll come sell and also with other operators.

And Alysia, we just define based on the prefix number, including also the white list of the IP address from each operator.

But I think if I can suggest to the GSMA.

Maybe Mark, we can discuss later about the opportunity to have like a one single uh, their goal Finder discovery that built may be by GSMA, just like what GSMA has done before in the preference for this communication service.
Yeah.

Or operator that they are going to launch the RCS, then they have to connect first into the domain that built by the GSMA.

So maybe this is something that maybe we can discuss later about the the Co Finder concept.

Next slide please.

In terms of the business case scenario, which is is something that already explained that we have that we have right now running in Ivan already create revenue around 10 million US after being launch commercially in the 2020.

So only three years from now, uh, then we already grew 2 digits, around 10 millions already, purposely only around.

Yeah, a couple of 1000 US in the beginning, it's very tough actually in the beginning to convince the developer everything.

But because, uh, we have the belief that their com cell as the biggest one with the the biggest customer, then maybe they will require our our capability.

So that’s why we have very lot intention for this camera.

So with this, uh, development was led by uh actually for the pre production for the four function is already there already being developed but not in in only in the in the testing right now trial together with the one of the operators and also with the phone which we we have a plan also with the phone edge to have like a a discussion and then they they have planned to use our same swap Camara at the next slide please.
IGusti_N_Panca
So the last one is about the business.

IGusti_N_Panca
Can that already being discussed?

IGusti_N_Panca
It is not being decided yet, so there are three kind of model actually here.

IGusti_N_Panca
First, he is a it's a let me call.

IGusti_N_Panca
It's a single.

IGusti_N_Panca
I'm gonna get the model.

IGusti_N_Panca
They save them from selling work, as I'm gonna get there, which is this one.

IGusti_N_Panca
Or they being discussed.

IGusti_N_Panca
The second one is a Federated model, but unfortunately no.

IGusti_N_Panca
The other operators right now, they don't develop their own command, they just only like a profile.

IGusti_N_Panca
Their southbound API to one of the uh Camara aggregator uh from a CATA headquarter atronic.

IGusti_N_Panca
So maybe later, if we are going to use this model for directed this gonna be like how come sell to exonic and maybe also talk on cell to our subset our uh, Singtel set holding a bridge mobile from most probably and then the third one is a join venture model but this is not like uh become a like a our our our ultimate maybe the the the second option is gonna be our potential model yeah to have like a Federated model of each other but the concern is gonna be in the customer concern is this something that we are going to discuss with the regulatory in terms of the customer that have protection yeah.
IGusti_N_Panca
Hopefully umm.

IGusti_N_Panca
By then off.

IGusti_N_Panca
Uh, early.

IGusti_N_Panca
I mean, early of early December, we have a one final simswap that we can launch together maybe by next week we will have like a the first person list about our commitment together with the GSMA that we are going to publish like a telco Open API together in a mission.

IGusti_N_Panca
That’s all from Indonesia.

IGusti_N_Panca
Thank you so much.

IGusti_N_Panca
Yeah.

IGusti_N_Panca
For all of our audience here, thank you.

Lucy Thatcher
Thank you.

Lucy Thatcher
There's a question for you there.

Lucy Thatcher
We'll talk himself.

Lucy Thatcher
Provide a single API access point for all operators in Indonesia for data attributes.

IGusti_N_Panca
Yeah, best, very interesting.
Actually, that's already explained and there will be like a issue in terms of the customer consent if let's say the concern being signed as a single aggregator because it is not being a low right now.

If they say we open the encryption of the data, actually both and then then after that we wrote into the the the specific operator.

So there is a a customer conscience issue.

I think Germany also the they have the same concern.

So this is something that.

Become like a our concern with the regulatory right now.

Yeah, how actually we can have the, the, the, the resource for this one.

That's not my answer.

Thank you.

E thank you.

OK.

With that, that concludes the content that we had to share with you today.

And I think most of the questions that I've seen in the chat have been answered.
Lucy Thatcher
So thank you particularly to Mark and Nico, who have been doing a lot of question answering.

Lucy Thatcher
Whilst we’ve all been talking, so thank you.

Lucy Thatcher
And with that, uh, we do have a couple of minutes left for questions.

Lucy Thatcher
If there’s anything else that people wanted to ask, have a momentary pause rather than a tumbleweed moment.

Lucy Thatcher
Especially as it’s late for some of you.

Lucy Thatcher
Doesn’t look like there are, so if we could go to the final slide only.

Lucy Thatcher
It just reminds uh.

Lucy Thatcher
It’s sort of, uh, just for me to thank you for all for joining this call and for those of you who also joined our call earlier on today and we will be having an open gateway Dev con as a couple of them, the speakers and presentations mentioned at MWC Barcelona and I would urge you all to keep an eye out over the next couple of weeks when we used aren’t launching and and truly promoting that.

Lucy Thatcher
Thank you very much.

Lucy Thatcher
There may be another community called before MWC, but if not, there will certainly be one just afterwards to share with you all of the updates.

Lucy Thatcher
All of the news and and all of the amazing things that I know are going to be launched there.

Lucy Thatcher
So with that, thank you very much.
Lucy Thatcher
Have a good afternoon.

Lucy Thatcher
Evening or morning, wherever you are, and thank you.