



SoftSIM

Connectivity for IoT devices



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Quick, Simple & Reliable Connectivity



IoT device vendors are facing more and more complex cellular connectivity issues these days. Manufacturing is often outsourced to 3rd party factories and finished devices are being distributed to many locations throughout the world. Connectivity is becoming challenging. Once connected, issues such as weak signal coverage, SIM-to-hardware compatibility and prolonged technical support are often typical. Cellular connectivity has become more and more complicated due to the large variety of applications and wireless networks.

Links Field Networks, a global leading SoftSIM provider, cooperates with mainstream carriers to offer global connectivity, RSP (SM/SR) platform and DCP device connectivity platform) in one solution. SoftSIM with IMSI is embedded into the device during manufacturing.

This one-stop SIM solution can enable connectivity for device vendors to deploy devices regardless of location or application. Selection for the most appropriate network is optimized based on usage and availability.

Links Field's RSP platform enables change of profiles when necessary. While DCP platform provides graphical dashboard and API's. Device vendors can manage, monitor and control their SIM's plus related data usage in real time.

Links Field Networks offer rich firmware development experience in different IoT hardware platforms besides SoftSIM and DCP platform. We have integrated SoftSIM into mainstream 2G/3G/4G cellular chipset and modules. It is a turnkey solution and we can offer partners short deployment time for global connectivity.



With SoftSIM in the application, device vendors can:

Manage

- Adding, changing, removing new/current projects or partners' information by different roles.
- Adding, changing, removing account and password by different roles.
- Allocating, suspending or cancelling connectivity for any device.

Control

- SIM identity activation and de-activation.
- Set rules to control SIM' usage.
- Data plan subscription.

Monitor

- **Status of an entire SIM estate** across multiple networks, local and global SIM.
- **Active or non-active** traffic data usage information for each device.

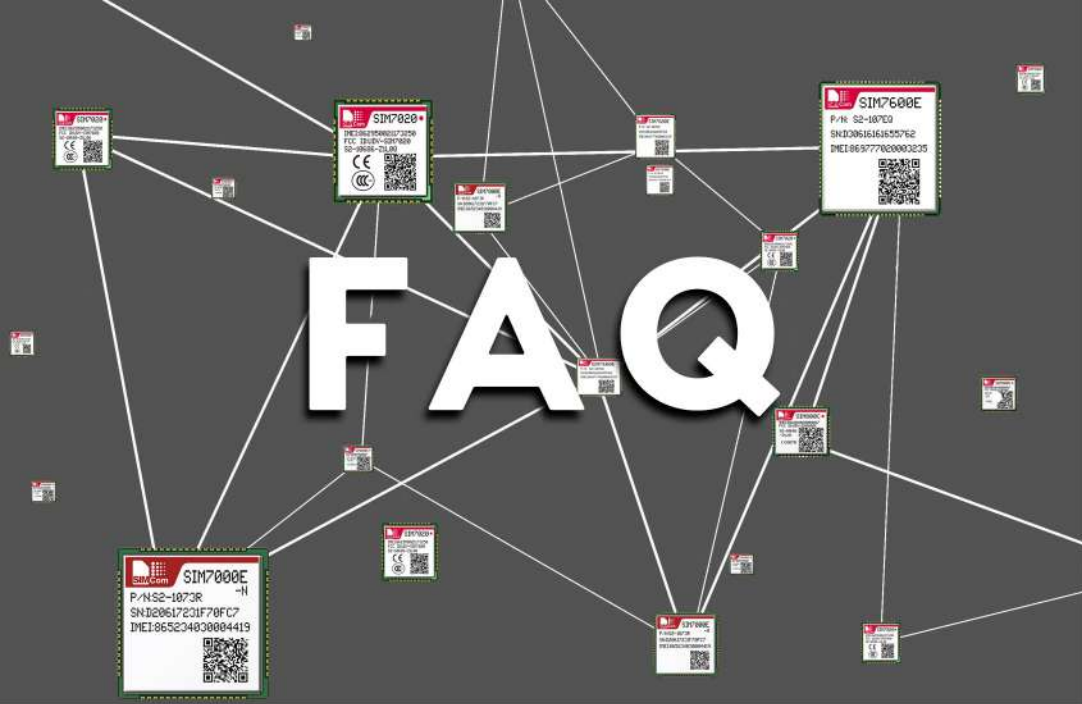
Protect

- Highly strict device authentication security.
- GSMA standard cryptographic to secure mobile profile.
- Multi-layers of data communications are encrypted.

Products

SoftSIM is available for chipsets and modules

MEDIATEK	QUALCOMM	SIMCom	QUECTEL Build a Smarter World	MobileTek Mobile Technology & Solutions
MTK 6261 and 2503	Qualcomm 9X15, 9X07, 8909, 8976	Simcom 800, 868, 7600	Quectel MC60, SC20, EC21/25	MobileTek L206, L218, L506



FAQ

How do I purchase a SoftSIM?

This can be done through the distribution channel where Otto Wireless Solutions can monitor and supply Soft Sim. Specific firmware will need to be loaded on the module either at the factory, or for smaller requirements Otto can load it locally for you.

Must I have a special GSM module to use a SoftSIM?

Yes, please speak to us regarding supported devices. Once a module has been established, a firmware version that would need to be loaded into the GSM device can be supplied. Current modules include the SIM7000 family; SIM7600 family; SIM7020 and SIM800 family.

What network do they use?

This would depend on if the IMSI is roaming or local, your devices connect to MTN currently, but, you may require roaming sims such as Vodafone which is also available.

Must I pay for the SoftSIM?

If you don't use our data resources, yes, a licence fee would be charged. If you use our data resources then the licence fee is waived.

When and how does the SoftSIM get activated, by whom?

Once the firmware for the appropriate module is loaded, SoftSIM is switched on via AT Command and activation, and can be done in two ways:

1. Using a SIM Production tool where a PD Code is required
2. OTA on certain modules with the OTA capability the IMSI would be loaded over the Air and the SIM will be remotely provisioned via Links Field's Server.

Once a SoftSIM is activated there are two stages: "IDLE" which means the Soft Sim is active and hasn't used 100kb of data - it can be kept idle for a period of time. Once the SIM either uses the 100kb of data, or passes the allotted time it becomes "ACTIVE" and billing will start.

What are the charges once activated and how and to whom do we pay these charges?

Most Links Field data services are pre-paid direct to Links Field. The customer decides on what data consumption they would like to use and quotations are based on this usage. If there is a contract term e.g. the cost on data is billed monthly a month in advance.

Does a SoftSIM have a "phone" number?

Yes, it does have a number linked to the ICCID and IMSI.

Please note: SoftSIM is data and sms only. No voice is available.

What is the SMS cost:

\$0.02 per SMS which will be billed per SIM, over and above the data costs.

What if I need more data than I have purchased?

There are a few options:

- If you have multiple Softsims, and one reaches it's limit, data can be drawn off other Softsims in your portfolio, which have not reached their limit.
- The data will not be terminated, usage can continue and ad-hoc billing will then take place once the shared total data (above) is exhausted.
- You can load more data per SIM either from the supplier provided portal, or via the API

Can existing devices in the field be activated over the air?

You need to have the correct firmware installed, so existing devices in the field cannot be activated as they do not have the correct firmware. New devices which are deployed with SoftSIM enabled can be activated OTA.

Are custom / other APN's allowed?

Yes

Is this only available on LTE? What about download capability when LTE is not available?

SoftSIM is available on 2G devices, it supports LTE with fallback to 2G.

If a customer has an existing portal for managing their SIMs, will they still be able to use those tools?

Links Field provides tools to do this, and also an API for customers who wish to integrate the functionality into their own environment.

Are there commercial, for example, Huawei compatible routers?

The compatibility list is provided, and the SoftSIM offering is at chipset level. Theoretically, there may be routers which are therefore compatible, depending on their chipset, however, practically one would need the manufacturer to load special firmware, which will be a near impossibility. Also, this offering is for low data usage, and will not be competitively priced for commercial traffic volumes.

Is there access to the platform via API tools?

Yes

Is there a "pooled data" option, or can the data available on multiple SIMs be used across all SIMS in the field.

Pooled data normally implies that the data is purchased upfront and available until exhausted, whether that be over 1, 2 3months etc. The SoftSIM data can be used between SIMs, but is purchased per SIM on a monthly basis, and unused data is not carried over into the following month. So it is a form of pooling, but the data does not remain available indefinitely, it is available on a monthly basis between the active SIMS.

Will Otto have access to the customer SIM cards.

This is up to the customer to decide.

How secure / safe is the interfacing with the Chinese site?

Links Field is a privately owned company, and plans to be a listed corporate. They have set up a lot of security, so the answer is "as safe as interfacing with any serious, privately owned professional company."

Can 2 SIMS be loaded in firmware and activated according to APN.

Yes, multi-imsi softsim solution can be implemented, and they can have different APN. The customer will need to inform us about the profile switching mechanism. E.g. Auto switching when signal is low for X minutes. Or MCU decides via AT commands.

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What is the support channel, does one deal directly with Links field, or does one go via Otto?

Whichever the customer prefers. Links Field have set up a local office in South Africa for support purposes.

Is roaming allowed?

Depending which Softsim one chooses, roaming is supported automatically in the countries and via the networks listed. The data cost remains the same.

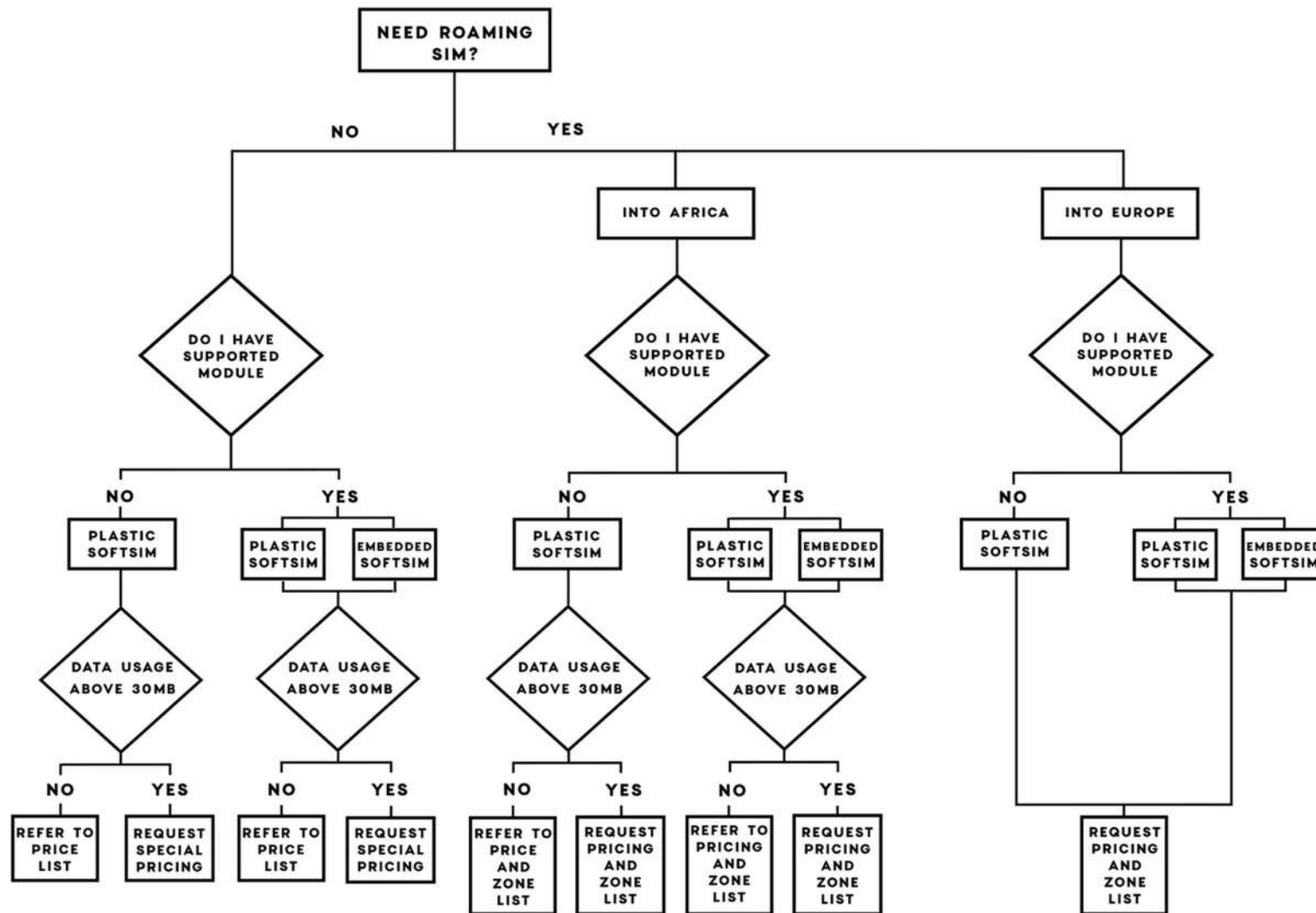
SOFTSIM

AVAILABLE CHIPSETS & MODULES

MODULES		
Module Brand	Model	Network
SIMCom	SIM800C	2G
	SIM868	2G+GNSS
	SIM7600	4G
	SIM7000	2G/CATM/NBIOT
	SIM7020E	NBIOT
Quectel	M26/66, MC60	2G
	M08-R	2G
	BG96/95/77	2G/CATM/NBIOT
	MC20CA	2G+GNSS
	EC20-CE	4G
	EC25-J	4G
	EC25-A	4G
	EC25-AU	4G
	EC25-E	4G
	BC26/66	NBIOT
MobileTek	L306E	3G

CHIPSET		
ChipSet	Brand	Network
MTK	MT6261	2G
	MT2503	2G
	MT2625	NB
	MT6280	2/3G
	MT6572	2/3G
	MT6737/6739	2/3/4G
Qualcomm	MSM 8909	2/3/4G
	MSM 9x15	2/3/4G
	MSM 9x07	2/3/4G
	MDM 9206/9205	2G/CATM/NBIOT

SOFTSIM SELECTOR



- OTC (ONE TIME CHARGE) WAIVED IF ORDER IS 1000 PIECES
- OTC (ONE TIME CHARGE) APPLIES IF ORDER IS BELOW 1000 PIECES
- MTN AND VODACOM ARE SUPPORTED

PRICING

LOCAL SOUTH AFRICA: VODACOM AND MTN COVERED

Monthly Data Bundles	Cost (USD)	Validity Bundle	Overage/MB
5MB	\$0.33	1 Calendar Month / 1 Bill-Cycle	\$0.11
10MB	\$0.44	1 Calendar Month / 1 Bill-Cycle	
20MB	\$0.61	1 Calendar Month / 1 Bill-Cycle	
30MB	\$0.72	1 Calendar Month / 1 Bill-Cycle	

1. Sim OTC: USD\$1/card (softsim or plastic). Waived if MOQ1K
2. Softsim and Traditional simcards available
3. One Calendar month per cycle
4. Above 30MB by request only.
5. Each sim has 100KB test allowance and 10 months of grace period before activation
6. This is the current plan and can be used until notified. When notified, all production and important customers at the time can still keep the same plan

ROAMING INTO AFRICA

Data Plan	Zone 1	Zone 2	Zone 3
10MB	\$0.5	\$0.583	\$1.22
30MB	\$1.22	\$1.38	\$3.03
Overage/MB	\$0.044	\$0.055	\$0.11

1. Traditional simcards ONLY
2. Sim OTC: USD\$1/card.
3. Other countries are available upon request such as USA and EU countries.
4. One Calendar month per cycle
5. Above 30MB by request only.
6. Each sim has 100KB test allowance and 10 months of grace period before activation

Zone	Country	Network	2G	3G	4G
1	Algeria	Mobilis Algeria	YES	YES	NO
1	Algeria	Nedjma Algeria	YES	YES	YES
1	Botswana	Mascom, Botswana	YES	YES	NO
1	Botswana	Orange Botswana	YES	YES	NO
1	Cape Verde	CVMovel Cape Verde	YES	YES	NO
1	Central African Republic	Moov Central African Republic	YES	YES	NO
1	Ceuta and Melilla	Vodafone Spain	YES	YES	YES
1	Ceuta and Melilla	Movistar	YES	YES	NO
1	Ceuta and Melilla	Amena Spain	YES	YES	NO
1	Congo DRC	Vodacom, Congo	YES	YES	NO
1	Egypt	Vodafone Egypt	YES	YES	YES
1	Egypt	MobiNil Egypt	YES	NO	YES
1	Gabon	Libertis Gabon	YES	YES	YES
1	Ghana	Vodafone Ghana	YES	YES	YES
1	Ghana	Airtel Ghana	NO	NO	NO
1	Ghana	MTN Ghana	YES	YES	NO
1	Guinea	MTN Guinea Conakry	YES	YES	NO
1	Guinea-Bissau	MTN Areeba, Guinea-Bissau	YES	YES	NO
1	Ivory Coast	MTN	YES	YES	NO
1	Kenya	Safaricom Kenya	YES	YES	YES
1	Lesotho	Vodacom Lesotho	YES	YES	NO
1	Mauritius	MTML	YES	YES	YES
1	Mauritius	Orange Mauritius	YES	YES	YES
1	Mauritius	Emtel	YES	YES	YES
1	Monaco	Telecom Monaco	YES	YES	YES
1	Morocco	Maroc Telecom Morocco	YES	YES	NO
1	Mozambique	Vodacom Mozambique	YES	YES	YES
1	Namibia	TN Mobile, Namibia	YES	YES	NO
1	Niger	Zain Niger	YES	YES	NO
1	Niger	Moov	YES	YES	NO
1	Nigeria	Etisalat	YES	YES	NO
1	Nigeria	MTN Nigeria	YES	YES	YES
1	Nigeria	Zain Nigeria	YES	YES	NO
1	Reunion	SRR Reunion	YES	YES	NO
1	Reunion	Orange	YES	YES	NO
1	Reunion	Outremer	YES	YES	NO
1	Rwanda	Airtel Rwanda	YES	YES	NO
1	Rwanda	Tigo Rwanda	YES	YES	NO
1	Senegal	Orange Senegal	YES	YES	NO
1	Seychelles	Airtel Seychelles	YES	YES	NO
1	South Africa	Vodacom South Africa	YES	YES	YES
1	South Africa	MTN South Africa	YES	YES	NO
1	South Sudan	Zain South Sudan	YES	YES	NO
1	Swaziland	MTN Swaziland	YES	YES	NO
1	Tanzania	Vodacom Tanzania	YES	YES	YES
1	Tanzania	Airtel Tanzania	YES	YES	NO
1	Togo	Moov Togo	YES	YES	NO
1	Tunisia	Tuntel Tunisia	YES	YES	YES

1	Turkey	Vodafone Turkey	YES	YES	YES
1	Turkey	Avea Turkey	YES	YES	NO
1	Uganda	Airtel Uganda	YES	YES	YES
1	Uganda	Warid Uganda	YES	YES	NO
1	Zambia	Airtel Zambia	YES	YES	NO
1	Zambia	Zambia,MTN Group	YES	YES	NO
1	Zimbabwe	PENDING (AUGUST)			
2	Cameroon	Orange, Cameroon	YES	YES	NO
2	Central African Republic	Orange_CAR	YES	YES	NO
2	Ethiopia	Ethio Telecom	YES	YES	NO
2	Ivory Coast	Moov Ivory Coast	YES	YES	YES
2	Kenya	Orange_Kenya	YES	YES	NO
2	Kenya	Airtel Kenya	YES	YES	YES
2	Madagascar	Orange	YES	YES	NO
2	Mauritania	Mauritel Mauritania	YES	YES	NO
2	Morocco	WANA Morocco	YES	YES	YES
2	Morocco	Medi Telecom Morocco	YES	YES	YES
2	Uganda	Smart	YES	YES	NO
2	Uganda	MTN Uganda	YES	YES	NO
3	Burkina Faso	Airtel Burkina Faso	YES	YES	NO
3	Cape Verde	T+ Cape Verde	YES	YES	NO
3	Chad	Airtel Chad	YES	YES	YES
3	Congo	CelTel Congo	YES	YES	NO
3	Congo DRC	Vodacom, Congo	YES	YES	NO
3	Congo DRC	Orange_CongoDRC	YES	NO	NO
3	Congo DRC	Zain Congo DR	YES	YES	NO
3	Gambia	Africacell Gambia	YES	YES	NO
3	Madagascar	Airtel Madagascar	YES	YES	NO
3	Malawi	Zain Malawi	YES	YES	YES
3	Sierra Leone	Airtel Sierra Leone	YES	YES	NO
3	Tunisia	TUNISIANA Tunisia	YES	YES	YES