5G indépendante et interopérable





Rapid.Space

Open Source

Open Hardware

Open Process

Fondateurs de Rapid.Space

nexedi

INFRA	Re6st	Resilient, scalable IPv6 network
	SlapOS	Cloud Deployment and Orchestration
	ShaCache	Self-Certifying File Cache and Signed Index
	Caucase	Certificate Authority Server for Users/Services
BACKEND	ERP5	Unified Enterprise ERP
	Wendelin	Big Data Application Platform
	NEO	Distributed, Transactional NoSQL Database
	ManPy	Discrete Event Simulation objects in Python
	Cloudooo	Multimedia Conversion Server
FRONTEND	NayuOS	Private Web OS
	Webrunner	Web-based SlapOS IDE
	OfficeJS	HTML5 Productivity Appstore
	JIO	Virtual Document Database (online/offline)
	RenderJS	HTML5 Web Component Framework
	CribJS	HTML5 Working-Copy Manager

Inventor of Edge Computing (2008)

- Sovereign cloud - 85% AWS
- OSS / BSS / Billing
- Big Data Hub
- 3rd open source software publisher in Europe



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amarisoft



Inventor of 5G vRAN

- 4G - eNB, EPC, UE
- 5G - SA, NSA, UE
- PCI CPRI adapters
- source code licensing

Fully Open Edge Cloud







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Plate-formes de référence pré-intégrées

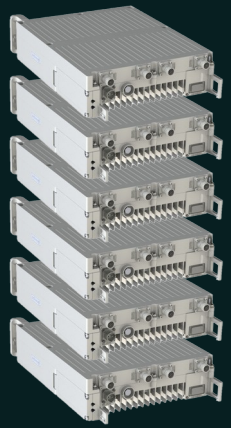
EdgePOD licensed source

D-RAN • C-RAN



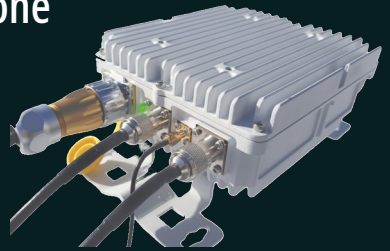
multi-band • multi-vendor • multi-sector

+



ORS open source

All-in-one



multi-vendor • single-sector

Radio CA/SA/NSA/DSS/LTE/NR/2G

- 20–320 Watt
- 2T2R to 8T8R (72T72R)
- Single or dual band
- CPRI or eCPRI
- 151+ SKUs
- 8–16 kg

Fabrication

- MiTAC
- Amarisoft
- Prose
- NTS
- Comleap
- Comba
- Others

Radio CA/SA/NSA/DSS/LTE/NR/2G

- 2–40 Watt
- 2T2R to 4T4R
- Single or dual band
- PCIe fronthaul
- 2.4–16 kg

Fabrication

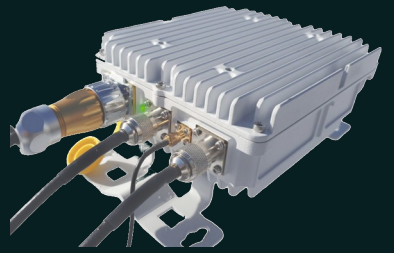
- Nexedi
- Accton
- Geeflex
- Broadradio
- Others



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La 4G/5G privée simplifiée





Station « 3C » autonome

- 2 x 1 W – 50 à 100 MHz
- eNB/gNB
- epc/5gc et IMS
- CDN et SDN IPv6
- PaaS *edge*

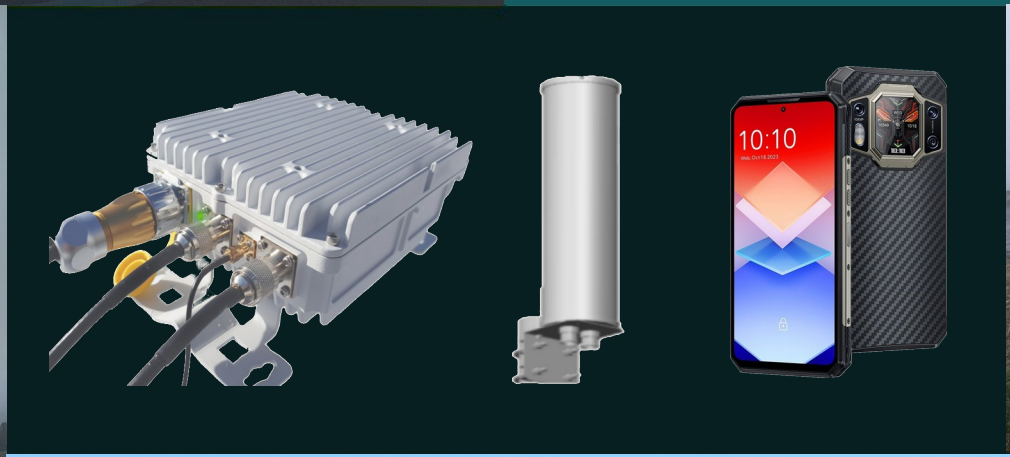


Smartphone

- messagerie instantanée
- navigateur web
- push-to-talk
- video streaming
- etc.

Test de portée 10 km en B40 (2,300 MHz)









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Logiciel + Matériel + Process

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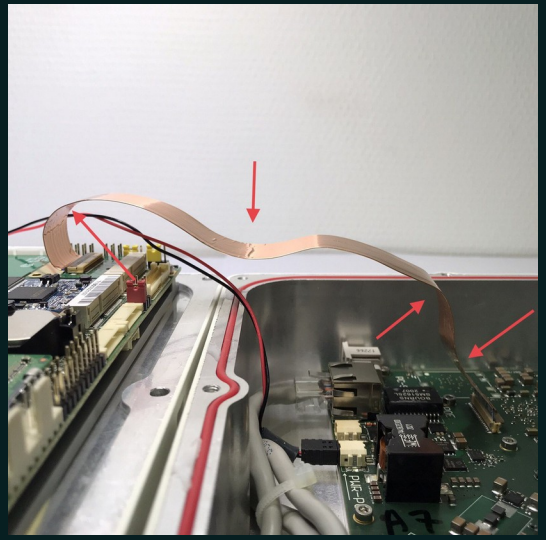
Souveraineté

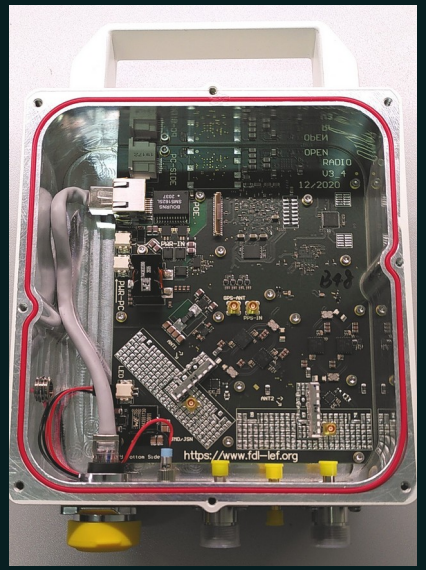
Les composants logiciels souverains

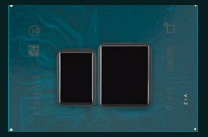
RU m-plane/DMA/DPD/GaN	Firmware et bitstream des têtes radio
RAN eNb/gNb	Pile radio LTE/NR niveau opérateur 100 % logicielle et indépendante du matériel utilisé
Core Network epc/5gc/ims	Coeur de réseau compact
SDN IPv4/IPv6	Réseau d'amenée à minimisation de latence et contournement automatique de congestion
NMS OSS/BSS/Edge/AI	Moteur d'exploitation de *edge* et gestion de réseau

Les composants matériels souverains



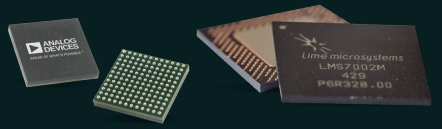








Fronthaul PCIe



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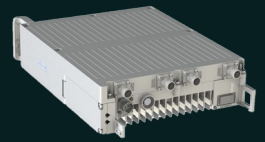
Ne pas oublier un process souverain...

- RU
  m-plane/DMA/DPD/GaN
- RAN
  eNb/gNb
- Core Network
  epc/5gc/ims
- SDN
  IPv4/IPv6
- NMS
  OSS/BSS/Edge

Logiciel

+







Matériel

+

Automatisation

- Construction
- Allocation
- Instantiation
- Configuration
- Orchestration
- Surveillance
- Auto-réparation
- Reprise technique
- Comptabilisation
- Facturation
- Suivi incidents
- Test

Process

=

Reproductibilité

- Plug-and-play
- Testé de bout en bout
- Documenté

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...et la convergence edge, cloud et IA

RU
m-plane/DMA/DPD/GaN

RAN
eNb/gNb

Core Network
epc/5gc/ims

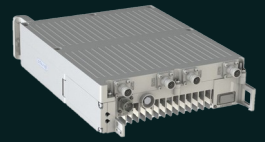
SDN
IPv4/IPv6

NMS
OSS/BSS/Edge

Logiciel

+







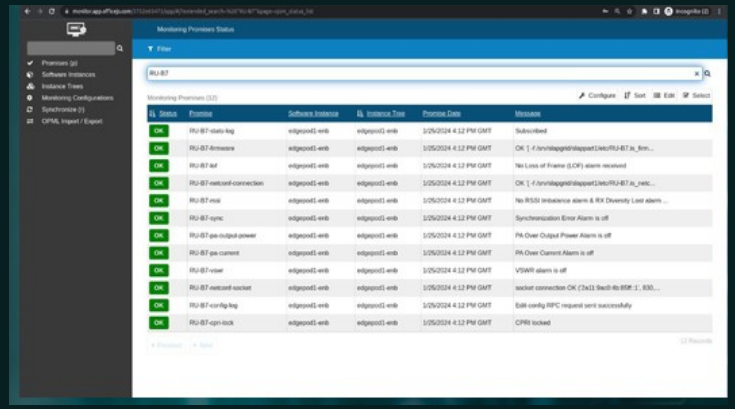
Matériel

+

Automatisation

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- Test

Process



open source

vRAN • edge • cloud • AI

Rapid.Space

Open Source

Open Hardware

Open Process

Ne gardez que ce que vous aimez

~~RU~~
~~m-plane/DMA/DPB/CoN~~

RAN
eNb/gNb

Autre coeur

~~SDN~~
~~IPv4/IPv6~~

NMS
OSS/BSS/Edge

Logiciel

+

Autre BBU

Autre RU



Matériel

+

Automatisation

- Construction
- Allocation
- Instantiation
- Votre configuration
- Orchestration
- Votre surveillance
- Auto-réparation
- Reprise technique
- Comptabilisation
- Facturation
- ~~Suivi incidents~~
- Test

Process

Créez votre solution

- T0 + 3 mois: démarrer une équipe
- T0 + 6 mois: adapter le logiciel
- T0 + 9 mois: adapter le matériel
- T0 + 12 mois: adapter le process

Déploiement pilote en 3 mois
avec ORS



Merci !