

Key Benefits

- Operation/Business
 Support
- Integrated platform
- Compact code base
- Proven scalability
- Zero data migration
- High availability
- Live upgrade
- Big Data Al
- Edge native
- Open Source

Scenario:

vRAN automation

- Configure 1000s BBUs
- Provision edge services
- Collect operation data
- Detect faults
- Monitor performance
- Enforce anti-tampering
- Optimise radio (planned)
- End-to-end testing

Rapid.Space OSS/BSS

vRAN lifecycle automation

Rapid.Space OSS/BSS automates the management and test of large fleets of Rapid.Space BBUs and Open Radio Station (ORS) deployed in public or private 4G/5G networks. It is an integrated solution for both operation management and business support. Its architecture combines the advantages of a compact, open source code base with advanced technologies for high availability, scalability and live upgrade. All features can be controlled through REST API or through built-in HTML5 progressive web application (PWA).



BBU lifecycle automation

Proven scalability and security

Rapid.Space OSS/BSS has been adopted by tier-1 vRAN operators. It derives from ERP5, an open source ERP used at SANEF highways to handle the billing of 2 million subscribers. ERP5 is also used by Airbus Defence to manage complex, role-based access rules in the TSXX mission commercial segment operated in partnership with the German space agency (DLR). Rapid.Space OSS/BSS is used to operate Teralab, a sovereign big data cloud platform operated by the French government.

Operation Management

Rapid.Space OSS/BSS automates the lifecycle of BBUs: system setup and upgrade, backhaul network, routing, software setup and upgrade, configuration of vRAN and edge services, resource clustering, resource sharing, accounting, service orchestration, monitoring, self-healing, disaster recovery, big data processing of BBU logs, end-to-end testing, 3GPP KPIs, etc.

Scenario:

Billing

- Web portal
- Online subscription
- SIM card provisioning
- Issue tracking
- Billing
- Accounting
- Payment

Building block for costefficient SimpleRAN infrastructure.

Rapid.Space

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customer is responsible for The ensuring compliance with legal requirements. It is the responsibility of the customer to seek the advice of competent legal counsel as to the identification and interpretation of relevant laws and regulatory requirements that may affect the customer's business and any actions the customer may have to take to comply with these laws.



Business Support

Rapid.Space OSS/BSS automates daily business operation of a mobile radio network: e-commerce web site, online user subscription, SIM card provisioning, billing, payment, customer support, customer relationship management, etc. Its built-in big data hub can correlate customer behaviour with operation data collected from BBUs and generate AI models for automated network management.

Active Monitoring

Rapid.Space OSS/BSS provides a modular approach to monitoring based on Mark Burgess' promise theory. Telecom operators can translate their service level requirements into so-called "promises" which extend Amarisoft eNodeB/gNodeB software with additional monitoring agents. This helps detecting non conformance and trigger self-healing processes which eventually adjust radio parameters dynamically.

Instance Tree: ors5-gnb-1: x 2 Monitoring Promises Stal x > Instance Tree: ors13nr x +							×
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	Monitoring						
٩							
Pomese (p) Software Instances Instance Trees Monitoring Configurations Synchronize (r) OPML Import / Export						٩	
	Monitoring Pr	omises (6)					
	11 Status	Promise	Software Instance	11 Instance Tree	Promise Date	Message	
	ок	check-sdr-busy	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	eNB is using /dev/sdr0	
	ок	check-free-disk-space	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	Disk usage: OK	
	ок	buildout-slappart9-status	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	buildout is OK	
	ок	monitor-httpd-listening-on-tcp	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	non-authenticated request to https://[2001:67c:12	
	ок	monitor-bootstrap-status	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	Bootstrap OK	
	ок	monitor-http-frontend	ors5-gnb-test	ors5-gnb-test	1/23/2022 4:04 PM GMT	non-authenticated request to 'https://softinst1622	
	Previous					6 Records	
						Synchronisation finished.	



Success Cases & Services

The components at the core of Rapid.Space OSS/BSS platform, ERP5, NEO, Wendelin and SlapOS are successfully used in cloud (Teralab, Rapid.Space), automotive (PSA, Toyota, SANEF), aerospace (Airbus Defence and Space) and wind energy in Germany (Nordex, RWE). Integration services for the Rapid.Space OSS/BSS cover custom configuration of monitoring "promises", operation management rules, billing rules, networking and support of third-party servers, radio units or network elements.