

WorldGSM™ VBTSi-NIB (for Mobile Operators)

A compact, small capacity, Integrated MSC, BSC and Radio in a Box for Village coverage for Mobile Operators

OVERVIEW

The WorldGSM™ VBTSi-NIB is a small capacity, 3GPP compliant, integrated switch and radio solution available in all standard GSM frequency bands -850/900/1800/1900 for Mobile operators, who can rapidly expand mobile services in rural and/or remote areas.

This box enables Mobile operators rapidly extend their services – voice, data and messaging- in various market segments, where **local services needs to be maintained** irrespective of backhaul availability like

- **Remote Enterprises** like mines, offshore oil fields , usually deprived of mobile services due to accessibility challenge
- **Enterprises** with big campus areas
- **Rural and/or Remote Communities** where stable backhaul link is an issue
- **Public Safety Agencies** like for emergency response, where time to provide services with minimum infrastructure dependencies is the key

The box is packaged with accessories necessary for required for simple Outdoor site deployment, making it a truly DIY (Do-It-Yourself) Site deployment.

NIB has a simplified web based GUI for O&M. For deployments involving multiple NIB units, VNL Cloud OMC is deployed for O&M.

BENEFITS

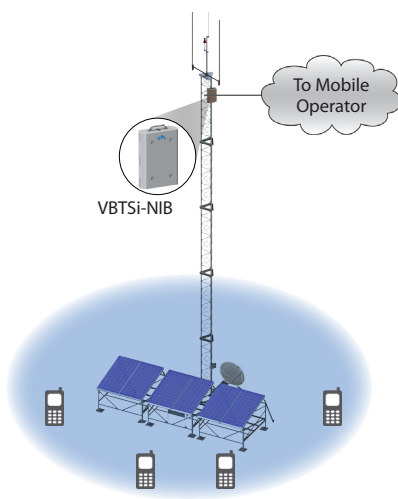
- **Local voice & sms services for registered users can continue even in case of backhaul disconnect**
- **Overcome challenges in remote deployments and help to provide mobile coverage to remote areas quickly**
- **Expand rapidly and scale due to simple infrastructure requirements for complete site deployment**
- **Near zero opex (as site can operate on 100% solar power and near zero maintenance cost), makes telecom services profitable even at low ARPU levels**
- **Coverage and capacity on demand, for both indoor and outdoor deployments**



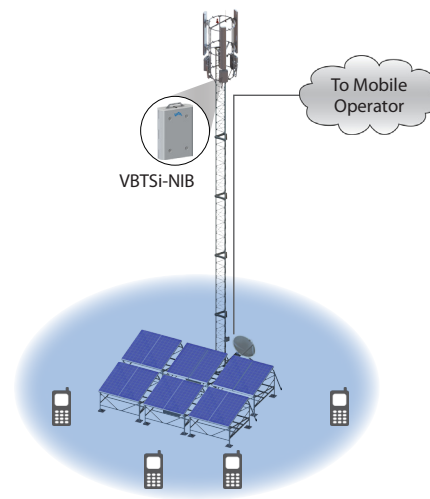
VBTSi-NIB

HIGHLIGHTS

- **Supports AMR, EGPRS, Handovers with Best in Class Power Consumption – Reduced Opex**
- **Compact Form Factor – Easy to Transport and Install**
- **3GPP Standards Compliant – Better Performance and Interoperability**
- **High Service Availability - Local Services can Continue in Case of Backhaul Disconnect**
- **SON (Self Organizing Networks) Support, DIY (Do-It-Yourself) Installation, Operation and Maintenance**



Typical VBTSi-NIB Outdoor Omni Site with IP radio or VSAT backhaul towards Mobile operator



Typical Outdoor 2+2+2 Sector Site (3 VBTSi-NIB) with IP radio or VSAT backhaul towards Mobile operator

Related Products: Deployed with Cloud OMC; Other variants: Micro1-NIB, Micro2-NIB

WorldGSM™ VBTSi-NIB (for Mobile Operators)

SPECIFICATIONS

SWaP (Size, Weight and Power)	
Dimensions (HxWxD)	583 x 393 x 145 mm
Weight / Volume	18 Kg Approx / 33.2 L
Power Supply	48V DC
Power Consumption	85W
SYSTEM	
Type	Outdoor
Mounting	Pole, Wall
Frequency Band	GSM 850 / 900 / 1800/ 1900
Functionality	Integrated GSM 3GPP Network Elements – 2 TRX BTS, BSC, PCU, MSC, and SIP/RTP
RF Power Output at Antenna Port	+33dbm (2W)
Receiver Sensitivity	-111dbm
Receive Diversity / Frequency Hopping	Yes
CAPACITY	
Subscriber (2% GOS, 25mE Traffic per Subscriber, 28 AMR HR)	806
BHCA	1000
Concurrent Voice Calls	15 with FR, 30 with AMR-HR
EGPRS Timeslots	Configurable (upto 15)
FEATURES	
User Services	GSM Voice, SMS, GPRS, EGPRS, Cell Broadcast
Supplementary Services	Call Hold/Waiting/Forwarding/Multi-Party Call/DTMF/USSD
Handover	Yes
3GPP Compliance	Release 5
CAMEL Phase	Phase 2,3
Voice Codec	GSM: AMR, EFR, FR, Towards MSC/VoIP Switch: G.711, G.729, iLBC
GPRS, EGPRS	CS 1-4, MCS1-9
Lawful Interception	Yes
Clock	GPS, IEEE 1588v2
SON	Yes*
PHYSICAL INTERFACES	
Ethernet Port	1 (RJ45, Fast Ethernet)
Power Input	48V DC
Network Scan Antenna Port	SMA-Female
RF Antenna Port	2 Ports, N-Female
INTERFACES	
HLR/SMSC	MAP over SIGTRAN
SCF	CAP over SIGTRAN
SGSN	Gb over IP
MSC/GMSC	MAP over SIGTRAN,SIP,RTP
Billing	FTP (CDRs transferred to VNL OMC)
O&M (VNL OMC)	IP
ENVIRONMENT	
Water and Dust Protection	IP 65
Storage	ETS 300 019-1-1, Class 1.2
Transportation	ETS 300 019-1-2, Class 2.3
Operating Conditions	ETS 300 019-1-4, Class 4.2 ETS 300 019-1-4, Class 4.1
Operating Temperature Range	-20° C to +55 °C / -30° C to +55 °C (For Specific Requirement)

* Roadmap

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CORPORATE HEADQUARTERS

Vihaan Networks Limited

VNL, 21-B, Sector 18, Udyog Vihar
Gurgaon 122 015, Haryana, INDIA
Tel +91 124 265 7600

www.vnl.in

