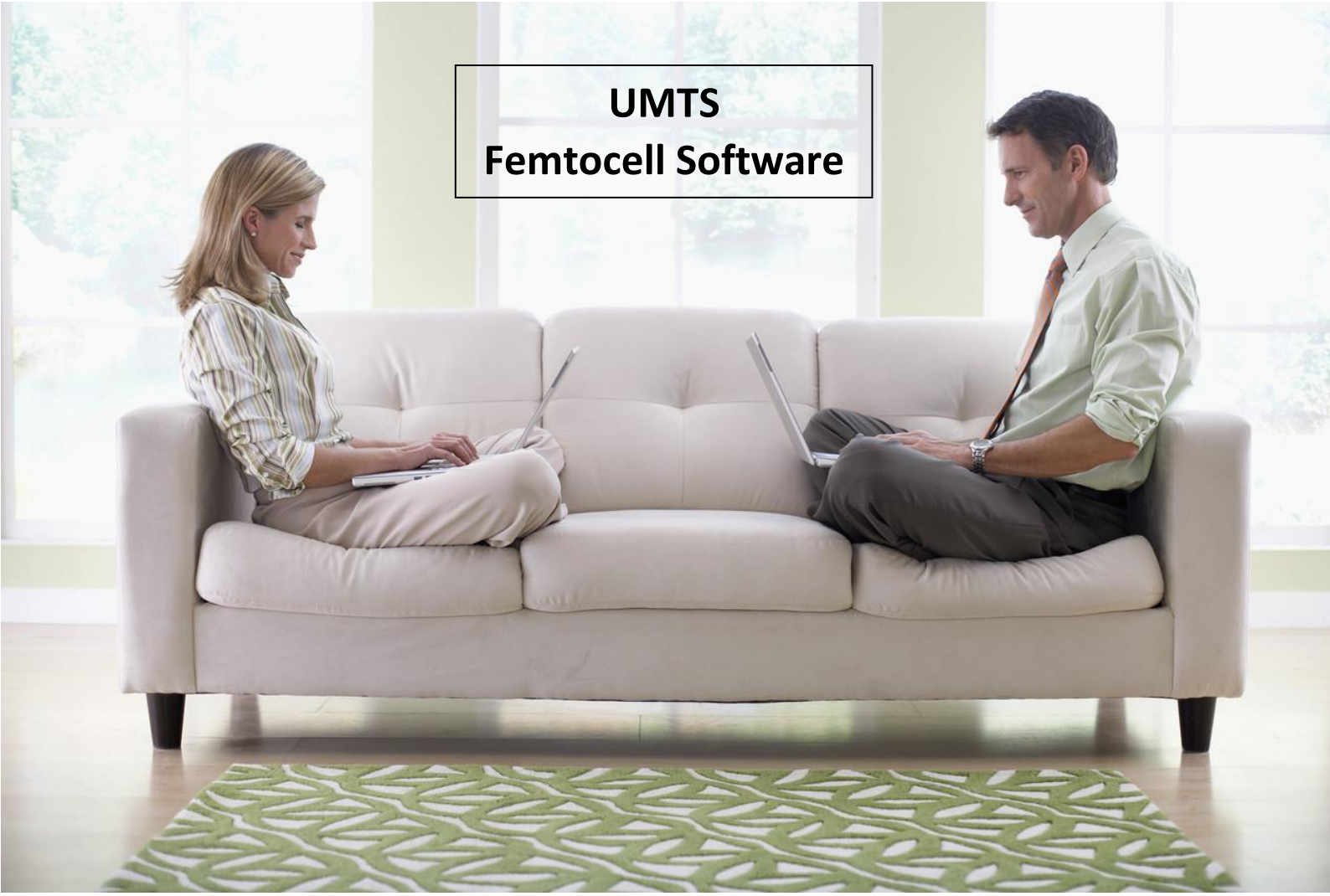
UMTS
Femtocell Software



A Femtocell brings perfect 3G network coverage into your home. It provides excellent voice and data performance over your broadband connection, for up to 32 devices.

node H

Product Brief

A Femtocell is zero-touch configured, fully secure and remotely managed. It adapts dynamically to the environment to tune performance to be the best it can be.

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Node-H software offers the best cost-performance for UMTS femtocells. Small cells have a big future – with Node-H software you can enter the market with confidence.

CALLS

Circuit switched	Normal calls – AMR, WB-AMR
	Emergency calls
Short Messages	Mobile Terminated
	Mobile Originated
Packet Data	Release 99 to 384 kbps
	HSDPA to 21Mbps
	HSUPA to 5.7 Mbps

USERS

Fully scalable in software, existing hardware platform support:

Voice calls	32
Video calls	32
Data calls	32 combinations of R99 384/384 kbps and HSPA calls
Multi-RAB	32
	Voice call plus 2 PDP contexts each
Access Control	Open, Closed or Prioritized (Proprietary)

MOBILITY

Femto to Macro	Idle and connected mode – 3G intra-frequency handover, 3G inter- frequency handover, 2G inter-RAT handover
Femto to Femto	Idle and connected mode
Macro to Femto	Idle and connected mode

FEATURE SUPPORT

NITZ	Homezone information with Unicode support
LIPA	Breakout at femtocell
DLNA	Streaming to UEs from DLNA server
Synchronization	3G, 2G and NTP/PTP
Location locking	Radio Environment Measurement of 3G and 2G cells and IP address allows FGW to location lock.
Manufacturing	Assistance to enter volume production

HARDWARE

Chipset	Qualcomm FSM9955
Cell radius	Free space radius >300m with 21dBm Tx

OPERATIONS AND MAINTENANCE

TR-069/TR-196	Full data model support with :
	Automatic parameter selection
	Performance metrics, Error reporting
	Complete dual-bank software update

QOS

Uplink	DSCP marking, traffic shaping
Downlink	HSDPA scheduling by traffic priority, Dynamic CAC and RAB management

PROTOCOL COMPLIANCE

W-CDMA	3GPP Uu interface for FDD physical layer	
UEs	Signalling messages are R11 compliant; Tested against range of Release 99, R5, R6, R7, R8 and R9 handsets	
Uu interface	RRC	– 3GPP TS 25.331
	RLC	– 3GPP TS 25.322
	MAC	– 3GPP TS 25.321
	PDCP	– 3GPP TS 25.323
	HSDPA	– 3GPP TS 25.308
RAN over Iu-h	Ethernet	– IEEE 802.3
	IPv4	– IETF RFC 791
	UDP	– IETF RFC 768
	SCTP	– IETF RFC 4960
	RTP	– IETF RFC 3550
	IuUP	– 3GPP TS 25.415
	RUA	– 3GPP TS 25.468
	HNBAP	– 3GPP TS 25.469
	RANAP	– 3GPP TS 25.413
	GTP-U	– 3GPP TS 29.060

RADIO RESOURCE MANAGEMENT

Admission control with service pre-emption

Uplink and downlink interference mitigation

Power control

Congestion control and recovery, directed re-try

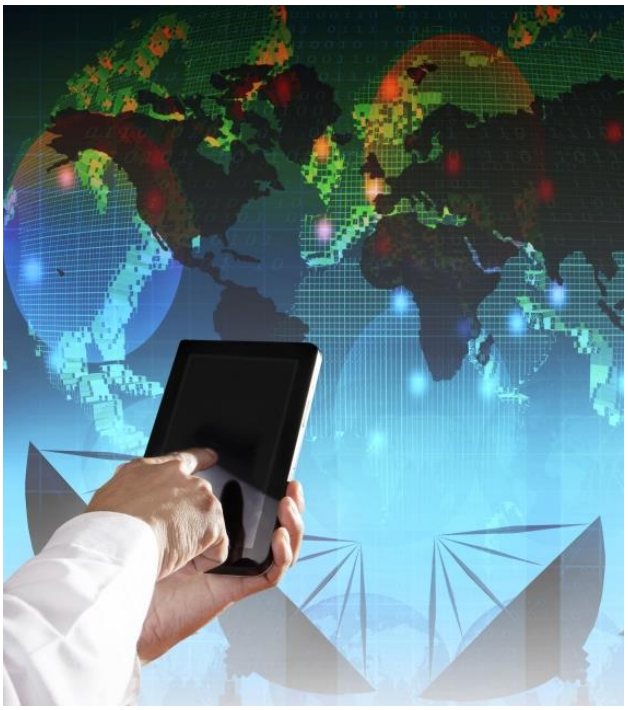
Dynamic RAB management and code-management

Channel-type switching to FACH and PCH

Radio parameter auto-configuration

SECURITY

IPSEC security	Hardware acceleration, IKE v2 key management, AES, 3DES encryption, certificate-based security, SIM-card optional
Uu interface	Ciphering with hardware acceleration, Signalling integrity checking
Secure boot	Trusted platform fully secure start-up



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