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Transform Your Network



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Business communications solutions
with real vision.



Style and Functionality go hand in hand with the latest range of IP phones
from Samsung - the ideal partner for the Ubigate iBG Series



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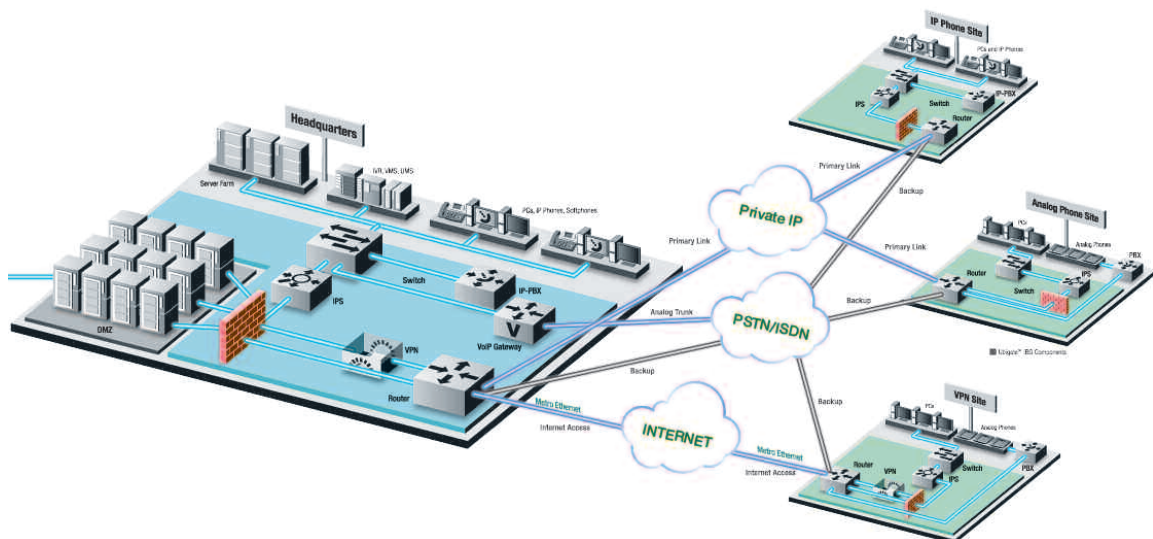
The right choice for Unified Networking



With full routing capabilities, enterprise-class switching capacity, VoIP and best-in-class integrated security, the Samsung Ubigate™ iBG Series Convergence Platform replaces a multitude of special-purpose network devices and delivers an agile and efficient network infrastructure. The Ubigate™ iBG Series enables true enterprise voice and data convergence through a wide range of QoS features and supports both analog and IP phones.

With a wide range of features and network interfaces supported in the Ubigate™ iBG Series, enterprise customers can meet today's business needs and be confident that they can meet tomorrow's without 'forklift' replacement of existing equipment.

The platform's integrated security provides industry's best perimeter and end-point protection for all types of traffic - including voice - by inspecting all incoming and outbound traffic and blocking intruders. Whether your organisation requires support for VoIP, new mission-critical applications, or just additional bandwidth, Ubigate™ iBG Series can meet the challenge and give you a competitive advantage with higher productivity, increased control and a seamless path to convergence.



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iBG Series

Voice, Data, Security – Convergence in a single platform

- **WAN**

The Ubigate™ iBG Series offers a wide range of WAN interfaces such as Serial, Ethernet, Fibre, xDSL etc. and one of the industry's highest WAN port densities and data throughput rates.



- **LAN**

With the Ubigate™ iBG Series flexibility means that enterprise customers can replace separate workgroup switches at branch offices or distribution switches at large offices. The Ubigate™ iBG Series offers a 44-port triple-speed L2/L3 Ethernet module as well as a 10-port triple-speed L2/L3 option module. Samsung's architecture simplifies network implementation without sacrificing flexibility.

- **Security**

The Ubigate™ iBG Series Integrated Security Module (ISM) delivers maximum security for enterprises. Providing High-performance Firewall and VPN functions and offers best-in-class comprehensive security protection.



- **VoIP Gateway**

A wide range of QoS functions and voice interfaces for FXS, FXO, ISDN2 and ISDN30 deliver the optimal configuration for VoIP deployment. For customers transitioning from traditional analog voice to IP telephony, Ubigate™ iBG Series provides a solution that eases the transition by using its advanced Voice Gateway features.

- **Integrated Communications Manager (ICM)**

The Ubigate™ iBG Series offers full PBX functionality to include VM, Auto Attendant ACD and Conferencing services for up to 300 users from a single chassis. Running ICM along side the integrated Voice Gateway and Firewall service means Ubigate can provide secure and advanced communication services.



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A Solution to suit any business

Delivering more than one way to offer high performance, capacity and resilience at a competitive price.

Ubigate™ iBG Series Convergence Platform will change the way you do business and deliver significant value with higher customer satisfaction, simple collaboration and increased productivity.



Ubigate™ iBG3026 - Large Offices, Regional Offices and Headquarters

The highest performance member of the Ubigate™ iBG Series, the Ubigate™ iBG3026 meets the needs of a large branch and regional offices or headquarter operations. It can support WAN connections of up to two T3 and six T1/E1 links, or up to fourteen T1/E1 links at line rate. To ensure highest availability, the Ubigate™ iBG3026 has an optional slot for a second, redundant internal power supply. When coupled with the Samsung Integrated Security Module (ISM), Ubigate™ iBG3026 provides the most comprehensive security features in its class.



Ubigate™ iBG2016- Medium Branch Offices and Mid-Range Enterprises

The Ubigate™ iBG2016 is designed for medium-to-large branch offices and mid-sized companies. With an available Network Module slot, it offers the most comprehensive security in its class through the Integrated Security Module (ISM). The Ubigate™ iBG2016 features WAN port capacity of up to ten T1/E1 links at line rate.



Ubigate™ iBG2006 - Small Branch Offices and Small Enterprises

The Ubigate™ iBG2006 is designed to easily accommodate the networking needs of branch and business offices. An entry-level, low-cost convergence platform with powerful performance and a comprehensive feature set, the Ubigate™ iBG2006 addresses the WAN, VoIP and security needs of small offices or branch offices of large enterprises. Ubigate™ iBG2006 supports line-rate performance for WAN port capacity of up to four T1/E1 WAN Ports.



Ubigate™ iBG1004 - Small Branch Offices and Small Enterprises

The Ubigate™ iBG1004 is designed for cost-effective WAN access and Voice Services. With greater modularity and expansion capabilities than its partner model, the iBG1003, the Ubigate™ iBG1004 can meet the challenges of organisations requiring flexibility and scope for growth.



Ubigate™ iBG1003 - Small Branch Offices and Small Enterprises

The Ubigate™ iBG1003 is designed for cost-effective WAN access and Voice Services. Whether your organisation requires support for VoIP or mission-critical applications or just additional bandwidth, the Ubigate™ iBG1003 can meet the challenge.

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Key Features



Integration of L2/L3 switching, advanced routing, including IPv6, voice and security in one platform

Modular design and highest performance in its class

Complete security functions for protection from both internal and external threats

- Firewall, VPN, IPS

Full support for voice

- Switching Modules with Optional PoE for IP Phones or WLAN Access Points
- Voice Interfaces (FXS, FXO, PRI, BRI)
- SIP ALG
- VQM – Voice Quality Management
- Media Proxy

High-availability features

- Hot-swappable Modules, Fan and Power Supply
- Internal Redundant Power Supply
- VRRP
- Integrated Security Module Bypass
- Dial-on-demand Routing
- VQM
- DVCA

Simplified and Cost-Effective Installation, Operation and Maintenance

Integration of switching, routing, VoIP, and security into one platform simplifies network maintenance and management by minimising the number of hardware units from different vendors in the network. What brings it all together is Samsung's intuitive Web-based Device Manager for the Ubigate™ iBG Series. By providing central management for all Ubigate™ iBG Series services - including routing, switching, VoIP, and security - it lowers administrative burden and effectively reduces total network cost of ownership. And it does all this while increasing your ROI.

Best-in-class, Comprehensive Security

Through the Integrated Security Module (ISM), the Ubigate™ iBG Series delivers comprehensive security that protects users and local area networks from both external and internal threats. The ISM inspects all incoming and outbound traffic at the router level - which is the gate to an enterprise network. Moreover, unlike other network products, the ISM harnesses separate processing power and memory so that you do not have to trade security for network performance.

IP Telephony Made Easy

With interfaces for analog phones, and Ethernet modules with PoE for IP phones, the Ubigate™ iBG Series delivers flexible, business-class voice services. In addition, the Ubigate™ iBG Series ensures the priority of voice traffic with a wide range of QoS functionality.

High Availability

Best-in-class high availability hardware and software features mean that the Ubigate™ iBG Series accelerates business productivity. The Ubigate™ iBG Series secures network availability and reduces downtime with hot-swappable modules, power supplies and fans - the only product in its class to do so.

Price and Performance

The Ubigate™ iBG Series sets industry-leading price/performance benchmarks for enterprise networking. The platform's switching, routing, VoIP and security functions deliver a significant price/performance advantage over competitive products.

Investment Protection





Featuring an architecture with performance to spare, modular design, and support for advanced features like IPv6 and Metro Ethernet, the Ubigate™ iBG Series protects your investment from obsolescence and the need for short-term upgrades.

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Ubigate™ iBG Series Feature Matrix

Hardware Specification					
Model		iBG1003/1004	iBG2006	iBG2016	iBG3026
Platform	DRAM (Default/Max)	512M/1G	512M/1G	512M/1G	512M/1G
	Flash (Default/Max)	1GB/2GB	256M/512M	256M/512M	256M/512M
	Number of Console Ports	1	1	1	1
	Number of Aux Ports	x/x	1	1	1
	Number of USB (v1.1) Ports	2	1	1	1
	Number of Ethernet Management Ports	x/x	x	x	1
	Number of Fixed 10/100/1000Mbps UTP/GE SFP Ports	x/x	x	x	2/2
	Number of Fixed 10/100Mbps UTP/FE SFP Ports	2/2	4/1	4/1	x
	Number of Mini Module Slots	1/2	4	4	3
	Number of Network Module Slots	x/x	x	1	2
	Number of Compact Flash Slots (Internal)	1/1	x	x	x
	Number of Compact Flash Slots (External)	x/x	1	1	1
	Number of Internal Slots	1/1	2	2	2
	Form Factor	Desktop	1 RU	1RU	2RU
	Number of Power Supply Slots	Integrated PSU	1	1	2
Physical	Weight	0.77Kg	5.46kg (MPU+PSU)	6.42kg (MPU+PSU) 7.76kg (MPU+PSU+ LMG-20+Mini Module4)	10.72kg (MPU+PSU) 12.72kg (MPU+PSU+ [LMG-20x2]+Mini Module4)
	Height	1.77inch (4.5cm)	1.75inch (4.45cm)	1.75inch (4.45cm)	3.5inch (8.89cm)
	Width	10.24inch (26.0cm)	17.38inch [Rack Mounting Brackets included: 17.561 inch (44.6cm)]	17.38inch [Rack Mounting Brackets included: 17.561 inch (44.6cm)]	17.38inch [Rack Mounting Brackets included: 17.561 inch (44.6cm)]
	Depth	7.48 inch (19.0cm)	13.8inch (35.05cm)	16.5inch (41.91cm)	16.5inch (41.91cm)
	Rack-Mounting	Optional	Yes: 19- and 23-inch options	Yes: 19- and 23-inch options	Yes: 19- and 23-inch options



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Ubigate™ iBG Series Convergence Platform

Voice Gateway Features		iBG1003/1004	iBG2006	iBG2016	iBG3026
System Interface and Signaling	Analog FXS, E&M, FXO	•	•	•	•
	Analog DID (Direct Inward Dial)	•	•	•	•
	BRI Q.931	x/•	•	•	•
	T1-CAS E&M, FXO, FXS	•	•	•	•
	E1-CAS R2 MFC/DTMF	•	•	•	•
	T1/E1 ISDN PRI Q.931, T1/E1	•	•	•	•
	Q.SIG	•	•	•	•
	T1 R1	•	•	•	•
Systems Features	CAMA Trunk	•	•	•	•
	PSTN Fallback, Survivable Telephony	•	•	•	•
	Call Admission Control (CAC)	•	•	•	•
	FAX over IP	•	•	•	•
	Distinctive dial tone, Distinctive ring	•	•	•	•
	Number Analysis and Routing	•	•	•	•
	Local Voice Busy Out (LVBO)	•	•	•	•
	DTMF Signaling over IP	•	•	•	•
	Early Media Handling	•	•	•	•
	Private Line Automated Ringdown (PLAR)	•	•	•	•
Audible / Visible MWI for Analog Phone	•	•	•	•	
Supplementary Services	Caller ID/Name	•	•	•	•
	Call Forwarding	•	•	•	•
	Call Hold / Retrieve	•	•	•	•
	Call Pickup	•	•	•	•
	Call Transfer	•	•	•	•
	Call Waiting	•	•	•	•
	Incoming Call Blocking	•	•	•	•
Protocols	SIP, RTP/RTCP, cRTP, S/MIME, TLS, sRTP	•	•	•	•
	VoIP over IPv6 (SIP, H.323, RTP)	•	•	•	•
	HTTP Digest Authentication	•	•	•	•
DSP Features	Codec : G.711, G723.1, G.726, G.729 A/B	•	•	•	•
	Echo Cancellation (G.168-2002)	•	•	•	•
	Comfort Noise Generation (CNG)	•	•	•	•
	Voice Activity Detection (VAD)	•	•	•	•
	Tone - MF/DTMF	•	•	•	•
	Tone - Dial, Ringback, Busy, Congestion, Wait, Hold, Progressing, Howling, Programmable, etc.	•	•	•	•
ICM	Integrated Communications Manager	x/•	•	•	•



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Ubigate™ iBG Series Convergence Platform

Security Features		iBG1003/1004	iBG2006	iBG2016	iBG3026
Firewall	Stateful Packet Inspection	•	•	•	•
	SIP ALG	•	•	•	•
	NAT (Static, Dynamic, PAT)	•	•	•	•
	Application Content filtering	•	•	•	•
	- Block Java based on extension	•	•	•	•
	- Block URLs based on file extensions	•	•	•	•
	- Block ActiveX based on file extensions	•	•	•	•
	- FTP's protocol command Filtering	•	•	•	•
	- SMTP's protocol command Filtering	•	•	•	•
	- RPC program number Filtering	•	•	•	•
	Attack Defense (Protection for 60+ attacks)	•	•	•	•
	- DoS/DDoS Protection	•	•	•	•
	- Fragment Attack	•	•	•	•
	- IP Spoofing	•	•	•	•
	Multiple Security Zhone (DMZ)	•	•	•	•
	Traffic Scheduling	•	•	•	•
	Rate Limiting	•	•	•	•
	- Maximum connections per policy basis	•	•	•	•
- Connection creation rate per policy basis	•	•	•	•	
- Bandwidth per policy basis	•	•	•	•	
VPN	H/W Acceleration	•	•	•	•
	IPSec for Site to Site	•	•	•	•
	IPSec for Remote Access	•	•	•	•
	IPSec	•	•	•	•
	- Protocols : ESP, AH, AH over ESP	•	•	•	•
	- Encryption : DES-CBC, 3DES-CBC, AES-CBC (128, 192, 256)	•	•	•	•
	- Hashing : HMAC-SHA1, HMAC-MD5	•	•	•	•
	- Modes : Tunnel, Transport, Config Mode	•	•	•	•
	IKE	•	•	•	•
	- Authentication : Preshared, RSA/DSA Signatures, Xauth	•	•	•	•
	- Modes : Main, Aggressive, Quick	•	•	•	•
	- Diffie-Hellman Group : Group 1 (MODP 768), 2 (MODP 1024),	•	•	•	•
	- 5 (MODP 1536)	•	•	•	•
	- Encryption : DES, 3DES, AES (128, 192, 256)	•	•	•	•
	- Hash: SHA1, MD5	•	•	•	•
L2TP, GRE	•	•	•	•	
PKI Support (SCEP, Manual, CRL, OCSP)	•	•	•	•	
IPSec NAT Traversal	•	•	•	•	
Internal Security	AAA, 802.1x, ACL	•	•	•	•
	MAC Address Filtering	•	•	•	•
ISM	IDS/IPS	X	X	•	•
	- Signature based Detection & Prevention	X	X	•	•
	- Behavior based Detection & Prevention	X	X	•	•
	- Number of signatures : 2,000+	X	X	•	•
	- DoS/DDoS Attack Defense	X	X	•	•
	- Online Signature Update	X	X	•	•
	- Traffic & number of connections limitation	X	X	•	•
	Real Time Monitoring	X	X	•	•
	Various Traffic & Intrusion Logs and Reports	X	X	•	•
High Availability - Module Bypass (Health Check)	X	X	•	•	

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Ubigate™ iBG Series Convergence Platform

Switch/Router Features		iBG1003/1004	iBG2006	iBG2016	iBG3026
LAN Switching	L2 Switching	X	•	•	•
	L3 Switching	X	•	•	•
	IPv4 Switching	X	•	•	•
	IPv6 Switching	X	•	•	•
Layer 2 Protocols	VLAN (802.1q, Port, Subnet)	•	•	•	•
	Multiple STP (Support Backward Compatibility with STP & RSTP)	•	•	•	•
	Port Mirroring	•	•	•	•
	802.1x Authentication	•	•	•	•
	IGMP Snooping	X	•	•	•
	LACP	X	•	•	•
WAN Protocols	ISDN BRI/PRI	•	•	•	•
	HDLC FR/MLFR, PPP/MLPPP, PPP/MLPPP over ISDN	•	•	•	•
	FR Congestion Management and Traffic Policing	•	•	•	•
	DDR (Dial-on Demand Routing)	•	•	•	•
	PPP over Ethernet	•	•	•	•
	PPP over FR	•	•	•	•
	MLPPP over FR	•	•	•	•
Routing Protocols	Static, OSPF v1/v2, RIP v1/v2, BGP4	•	•	•	•
	IGMP v1/v2/v3	•	•	•	•
	PIM-SM, PIM-SSM	•	•	•	•
	VRRP	•	•	•	•
	Policy-Based Forwarding / Routing	•	•	•	•
Quality of Service	DiffServ	•	•	•	•
	- Classification (MF, Flow Label)	•	•	•	•
	- Marker / Meter (srTCM / trTCM)	•	•	•	•
	- Policing / Shaping	•	•	•	•
	- Queuing (CBQ, PQ)	•	•	•	•
	- Scheduling (Deficit RR)	•	•	•	•
	- Congestion Avoidance (WRED)	•	•	•	•
	Bandwidth Guarantee, Auto QoS	•	•	•	•
	LF&I	•	•	•	•
	Mapping of IPQoS to Frame Relay	•	•	•	•
QoS for FR PVC	•	•	•	•	
Queueing for IPSec Encryption Engine	•	•	•	•	
Load Balancing	Per Flow (ECMP, LACP)	•	•	•	•
	Per Packet	•	•	•	•
IPv6	H/W Forwarding in LAN Switching	X	X	•	•
	Dual Stack	X	•	•	•
	Configured Tunnel	X	•	•	•
	6to4, NAT-PT(ALG)	X	•	•	•
	Routing (RIPng, OSPFv3, BGP4+)	X	•	•	•
	PIMv6-SM, PIMv6-SSM	X	•	•	•
	MLD (Multicast Listener Discovery Protocol)	X	•	•	•
Management	SNMP v1/v2/v3, RMON (1, 2, 3, 9), CLI, Telnet	•	•	•	•
	SNTP, TFTP, Bootp, DHCP, SCP	•	•	•	•
	SSHv2, SSH over IPv6	•	•	•	•
	Web-based Device Manager, MIBs	•	•	•	•
	Logging, Diagnostic	•	•	•	•
	System Image Rollback	•	•	•	•
AAA	Hot-swap Handling	X	•	•	•
	802.1x / RADIUS / TACACS+	•	•	•	•

For communications solutions that
keep a business in touch.



**The Integrated Communications Manager -
Bringing you Convergence in a single platform**

The new Integrated Communications Manager brings you functionality like no other, incorporating Voice Mail, Auto Attendant ACD and Conferencing features within a single chassis.

Compatible with the Ubigate iBG1004, 2006, 2016, 3026.

The Perfect Solution for your advanced communication needs.



Think Smart. Think Samsung.

Smart thinking. For smart businesses.

For information on how these products could form converged communications solutions unique to any business, contact us today.

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