



Enterprise IP Solutions



About Samsung

Samsung is a global leader in the manufacture and supply of innovative electronics solutions one of the world's largest companies with global turnover exceeding \$100 billion and more than 170,000 employees.

With a proven pedigree in the manufacture of electronics for commercial and domestic applications, an annual R&D budget of over \$2 billion, and 63,000 staff committed to the development of fixed and wireless communications, Samsung is at the forefront of delivering converged voice and data technologies including Voice over IP, WAN integration and SIP.

Samsung's core strategy continues to be to maintain leadership in the digital convergence revolution with the mission to bring innovation and digital technology to all products in ways that will make life easier, richer, and more enjoyable for all generations and all customers.

With this backing, Samsung Communications is perfectly placed to exploit the convergence of telephony and IT services, and provide organisations with cutting-edge communications solutions.

Across South Africa and around the world, the Samsung name is associated with innovation, quality, reliability and value. Our commitment to research and product development ensures Samsung's reputation as a provider of the world's most intelligent telecommunications products will continue.

If you would like more information about the best telephone system for you please contact your local Samsung Specialist or visit our website at www.samsungpabx.co.za

OfficeServ 7200

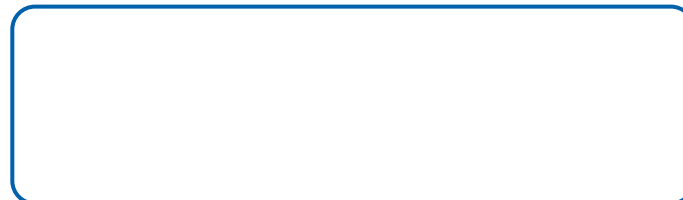


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Authorised Samsung Communication Centre





Welcome to Samsung's world of convergence

In a global marketplace where competition is intense, speed of information exchange is critical in determining who holds the competitive advantage. The integration of telecommunications, computers and internet technology is redefining the principles of communication – a new playing field is evolving.

As one of the worlds largest companies, Samsung has the vision, resources and technological capabilities to develop world class products that innovate, embody quality and provide innovative communication solutions for business.

And Samsung's successful business communication system range has continued to evolve by converging the latest developments in IP (Internet Protocol) technology with the intelligence and stability of traditional telecommunications technology.

Samsung is at the forefront of convergent communications with the introduction of its first IP communication system range, the Samsung OfficeServ, that delivers both voice and data applications over the one convergent platform. The Samsung OfficeServ realises the full potential of IP communications, by capitalising on the benefits that convergent voice and data communications can deliver.

The OfficeServ 7200 - The next generation "all-in-one" IP Platform

The OfficeServ 7200 Converged Communications Server has been designed to deliver advanced voice, data and wireless communications in a single platform. Businesses can deploy OfficeServ 7200 to build sophisticated telephony applications, secure data-communications infrastructure and policy-driven networks.

OfficeServ 7200 with its comprehensive range of features and functionality offers an effective, affordable solution for any organisation. So, whether you are a small office, a head office or a branch of a larger organisation with a need to take advantage of cutting-edge solutions, the OfficeServ 7200 becomes the heart of your communications network.

What It Means For Your Business - The OfficeServ Advantage

- Location Independence**
 Mobile and home-working solutions let you attract the best people without losing control and employees are more productive and better connected - Improved productivity for your business.
- Multi-site Applications**
 Your business applications work across all sites - informal call centres work as a single cohesive unit, operators and supervisors can monitor and assist a dispersed virtual team - Teams are more productive.
- Control Costs**
 Install and manage remote sites without leaving your office, implement centralised cost tracking, security alerts and departmental billing - Reduce the Total Cost of Ownership.
- High-end Features**
 OfficeServ makes deployment simple, without sacrificing features and functionality for your mission-critical business applications: Security systems, policy management and advanced telephony - Change without compromise.
- A system you can grow with**
 Samsung's building block approach to converged communications allows you to start with a single site and grow the system in line with your business.

OfficeServ 7200 All-in-One Concept Convergence of Voice, Data and IP Telephony

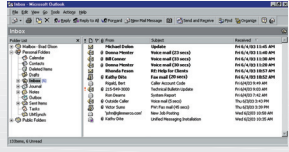


Voice



- OfficeServ digital handsets
- Analogue extensions
- ISDN/PSTN
- Caller ID / Direct Indial
- Call Divert, transfer and conferencing
- Voicemail/Automated Attendant
- Automatic Call Distribution (ACD)
- Least Cost Routing
- Call Management
- System administration/diagnostics

Data



- Interface modules
 - LAN - Layer 2/3 Ethernet switches (LIM)
 - WAN - Resilient multi-port router (WIM)
- Enhanced data applications
 - VPN Tunneling
 - Firewall and intrusion detection
 - Policy management and QOS
- Computer Telephony
 - OfficeServ CTI applications
 - Open TSP for 3rd party CTI
 - Email gateway
 - Unified messaging
 - ACD Call Centre

IP



- OfficeServ IP handsets
- IP Softphones
- IP networking (SPNet)
- Wireless IP (802.11b/g)
- Voice over IP (H323, SIP)





OfficeServ – advanced voice functionality

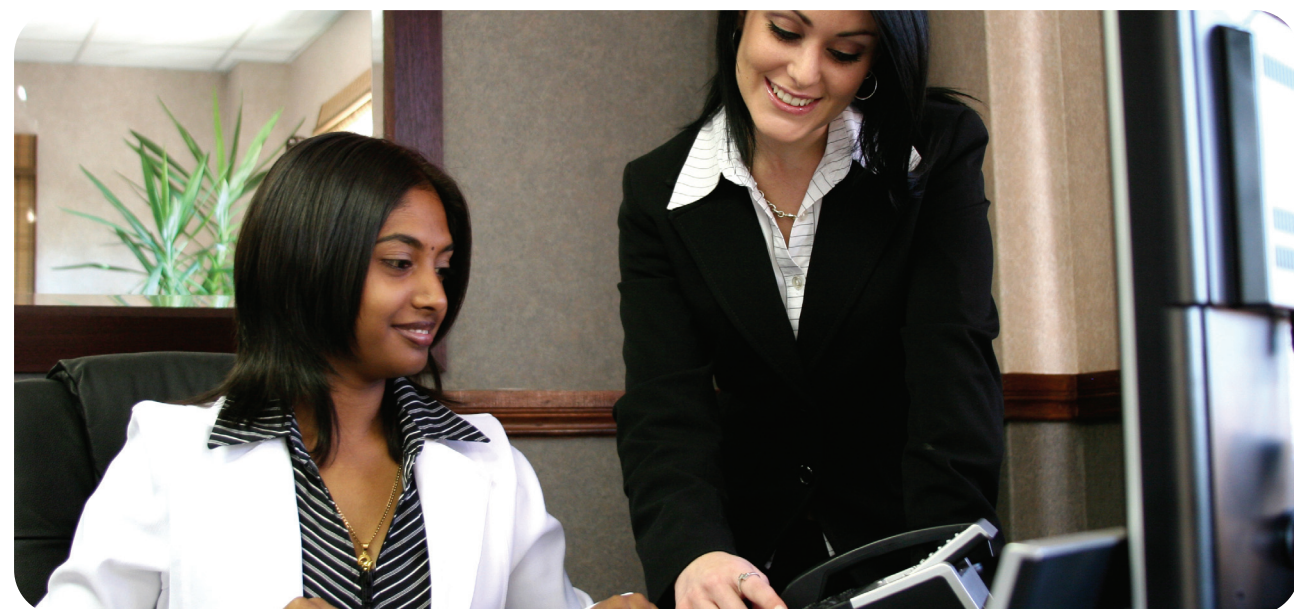
A host of sophisticated standard and optional features are available on the OfficeServ 7200, ensuring that you maximise the potential of your communications solution. All features are simple to use – many at the touch of a button – allowing you to make the most of the systems comprehensive functionality.

Call divert, transfer and conferencing

With trunk to trunk functionality, calls can be seamlessly and invisibly diverted from your office to a mobile phone or your home number ensuring that you are always in touch - wherever you are. Calls can also be transferred between different offices as easily as to the next desk, overcoming the problem of different departments in different locations. Conference calls between multiple locations can minimise the time and resource wasted traveling to and from meetings, maximising your efficiency.

Caller identification and direct indial

As well as displaying the number of incoming callers, (Calling Line Identification – CLI), CLI can also associate incoming telephone numbers with names from your system’s internal database so that the caller’s name is displayed on the handset, enabling you always to know when your key contacts are calling. You can also review calls to your extension, allowing you to simply return those calls that you have missed. Applying Direct Indial – (DDI) functionality also allows individual indial numbers to be name tagged identifying the number the caller has dialled, for instance “Yellow Pages”.



Samsung Voicemail – the ultimate call messaging solution

The Samsung range of voice mail solutions provides advanced call processing features such as voicemail, auto attendant and faxmail to make your business more efficient. Samsung Voicemail is simple to use and puts the user in control. At the touch of a button each user can, for example, record their own personal greeting; screen calls before choosing to answer them; record and send messages to a group; and record personal reminders or even conversations.

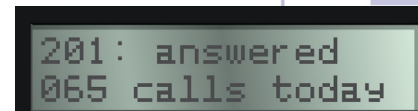
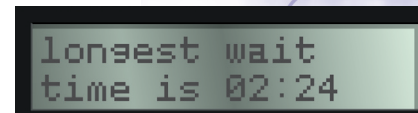
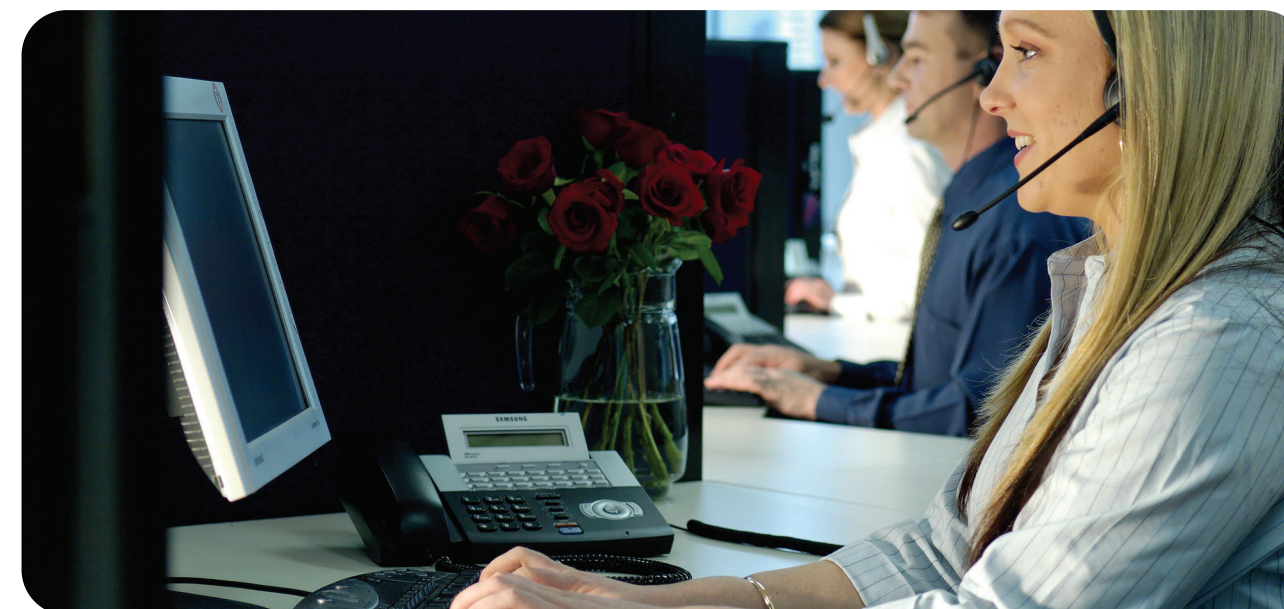
Auto Attendant – a 24 hour receptionist

The auto attendant can answer multiple calls simultaneously, providing different greetings for different departments. External callers are prompted by the automated attendant to enter their choice of destination for direct connection to the correct person, without the need for a receptionist to handle the call. If no extension number is dialled within a specified time, the call is automatically connected to a receptionist, or another specified extension. Samsung auto attendant is an ideal solution for busy or out-of-hours periods.

Automatic Call Distribution (ACD) - sophisticated call handling

The unique integral ACD package, provided as a standard feature with the Samsung OfficeServ, offers any working environment the opportunity to optimise the service incoming callers receive and maximise the efficiency of staff. Calls can be distributed intelligently to the first available agent within the group. This can minimize the length of time before a call is answered and ensure you keep an even flow of call traffic to all members of a group.

If no extensions are free, the call can be held in a queue, while automated messages reassure them of prompt attention as soon as the next call handler becomes available. The OfficeServ system can also provide incoming call statistics for a group or extension via the LCD of a display handset, giving supervisors a simple snap-shot of call traffic and activity to evaluate the performance of groups and agents.





The Virtual Enterprise Becomes Reality

IP solutions delivered by Samsung will enable users to work seamlessly from home, office, hotels, or on the move. "Location Independence" is the vital part of making the "Virtual Enterprise" a reality. Using OfficeServ 7200, we can deliver the user's desktop anywhere in the world, so long as there is access to a high-speed IP infrastructure such as broadband. The Samsung OfficeServ supports the full range of standards-based premises wireless solutions, including the latest generation of converged Wi-Fi Access Points and terminals. This enables users to take their extensions with them whilst away from their desk, so that no calls are missed. Additionally, they can work from anywhere in the office whilst retaining their data connection to the corporate network.

Hot-desking allows users that regularly work from different locations to move their extension to any desk within the network, whilst retaining their direct indial (DDI) numbers, voicemail access, and class of service. By providing a Windows-Based Softphone, 'Road-Warriors' that regularly work away from the office in Hotels, Airports, etc. can enjoy the full functionality of their normal desk phone whilst on the move. By using IP services from hotel rooms, airport lounges and Wi-Fi hot-spots, users can be contacted by their colleagues, have access to their voicemail, be in touch with their customers via their normal direct indial (DDI) numbers, and can make calls via their OfficeServ at a fraction of the normal call charges.

Multi-site Networking - Seamless integration

For Multi site environments, the OfficeServ uses Samsung Proprietary IP Networking (SPNet) which enables up to 50 OfficeServ systems to be networked across multiple locations over data connections (WAN) to create a high level of feature transparency. Using multi-site networking, incoming calls can be routed between sites, for example a branch network across a region or territory. This enhances the customer service provided to incoming callers, with their calls being forwarded seamlessly to the nearest office and managed appropriately based on the caller ID (CLI) and direct indial (DDI) information. Samsung networking also allows all users to benefit from the cost effective sharing of selected features across the network. They can access centralised functionality - from simple call forwarding and transfers to advanced features such as centralised operator services, voice mail, automated attendant and call distribution across connected sites.



OfficeServ digital and IP handsets

Samsung OfficeServ also supports a range of stylish, easy to use ergonomic digital and IP handsets to provide for each user's precise needs - from making and receiving calls, forwarding and paging, to simple navigation through the system's extensive list of features. A key differentiator for the OfficeServ is the common intuitive "user interface" for both the digital and IP handsets.

The OfficeServ IP revolution provides opportunities beyond the traditional barriers of internal business communications. IP handsets can be connected to the OfficeServ via a LAN/WAN network, and can also be connected via external data links, such as DSL - liberating you and your staff from the rigidity of the conventional corporate infrastructure.

Samsung has continued their focus on a "user friendly" interface with its IP handsets which operate in exactly the same way as the digital handset range. Aside from your staff finding it easier to access the full power of your Samsung system, a standard user operating environment for both IP and digital handsets reduces time and resources for staff training.

Wireless Mobility - the freedom of wireless technology

Samsung wireless mobility solutions takes office telephony into new areas, giving your staff complete freedom to move around the office, while still being able to take and make calls. With interruption free handover between base stations, your staff can roam over large industrial, retail office or hospitality complexes and remain in constant contact and manage their calls from anywhere in the building or site.

Samsung mobility solutions now provide the option of either DECT (Digital Enhanced Cordless Telephony) wireless voice technology or Wireless IP (based on industry standard 802.11b/g) for wireless voice and data mobility.





CTI Applications – Get smart with your PC Computer Telephony Integration

The OfficeServ CTI application suite consists of a range of CTI applications designed to enhance the functionality and usability of the Samsung OfficeServ telephone system. Samsung OfficeServ simplifies CTI so that almost any organisation can experience its benefits - either individually or across your network so that your whole office can communicate more efficiently. Samsung OfficeServ systems are also Microsoft TAPI compliant, and therefore compatible with a wide range of industry standard CTI applications.

OfficeServ Operator

OfficeServ Operator enables users to quickly and efficiently find and transfer incoming calls to extensions at any site. A mixture of comprehensive Extension Status, Dial-by-Name, Speed Dials, and Incoming Source Keys makes OfficeServ Operator intuitive and easy to use.

OfficeServ Call

A Windows call control application OfficeServ Call provides simple point-and-click access to the full range of advanced call handling features of the OfficeServ system. OfficeServ Call can interact with a range of TAPI based applications such as Outlook, to provide productivity enhancing functions such as dialling from Contact List, Screen Pop, Missed Calls, and also displays Busy Lamp Field (BLF) to identify the status of other users.



OfficeServ EasySet

OfficeServ EasySet is a Windows Browser application that enables users to customise individually their extensions without the need for extensive training or reference to the system manager. Features such as Extension BLF, Divert Target, Divert Condition and Personal Speed Dial can be easily changed by a simple point-and-click.

OfficeServ Manager

A simple windows based system management and administration package, OfficeServ Manager puts you in control by allowing easy management of your telephone resources. No longer do you have to call your telephone hardware provider to make simple every day changes to your telephone system.

Email Gateway

The Email Gateway gives you the ultimate desktop so your staff can simply access and manage voice, email and fax messages all from their PC inbox, using great features like:

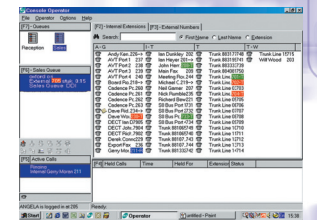
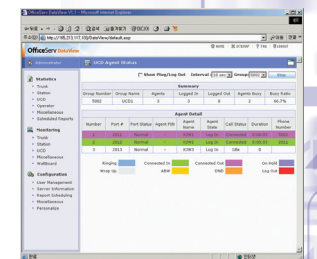
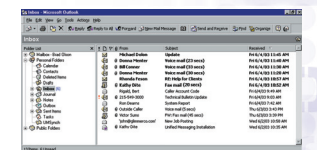
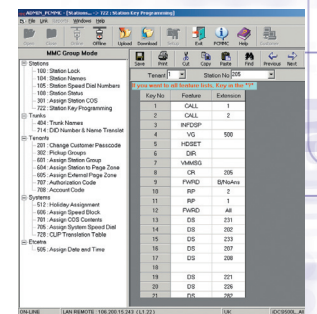
- Forwarding voice mail messages, with additional text, via e-mail (as .wav attachments)
- Viewing fax attachments on-screen
- Use of standard Inbox features to manage and file voicemail and faxmail messages

OfficeServ DataView

OfficeServ DataView provides statistical reports, real time monitoring and scheduled reports on the call traffic of an OfficeServ system using a web based user interface. OfficeServ DataView is connected to the OfficeServ System via the OfficeServ Link application. The call data is stored in a common database and users can access the OfficeServ DataView information via a web browser from any authorised PC on the network.

ACD Call Centre

Provides a complete PC based call centre solution. The main features include full call control from the agents screen, remote agent working, multiple queues, skills based routing, soft wall boards and real-time and historical reporting.





Data-Communications

The OS7200 data-networking modules provide a common communications transport for your business applications. Secure voice and data services can be delivered wherever there is IP connectivity. Samsung Business Communications has developed a suite of applications that enhance the OfficeServ 7200 data-communications modules to ensure the best possible quality for your voice communications and to protect the integrity of your Data Network.

Policy Managed Networks - Pre-configured QoS for converged voice and data - with many years experience in providing converged solutions, Samsung has designed the OfficeServ 7200 to deliver crystal clear voice quality no matter which type of telephones are deployed.

The system is pre-configured so that by default, voice traffic is handled in real-time. This means installations can be done without worrying about complex configuration rules. More sophisticated users can employ the powerful management interface to build policy-based networks, allowing System Managers to control how limited resources like WAN links are allocated to specific applications and users. Firewall and Intrusion detection - OfficeServ 7200 is delivered with a sophisticated rules engine for detecting and preventing attacks on your valuable business assets... Intrusion Detection/Prevention provides valuable statistics and alerts concerning all inbound and outbound communications.

The OfficeServ 7200 also has the ability to securely host your company's Internet services like web servers, database applications and email without compromising security. VPNs - Security is a key concern when communicating over the public Internet. OfficeServ 7200 supports Virtual Private Networks (VPNs) so you can securely link multiple sites or extend the reach of your network to include home-workers and mobile employees. Samsung's IP telephones include this VPN technology in order to make deployment as easy as possible. This feature keeps costs to a minimum and allows you to deploy homemaker solutions without the complexities of additional VPN devices. LAN Interface Module: Layer 2/3 Ethernet switches The OfficeServ 7200 Switch module contains 16 10/100baseT Ethernet ports.

On its own, it acts as an unmanaged Layer-2 switch. When combined with the WIM, it becomes a powerful Layer-3 switch, pre-configured to prioritise your mission-critical voice communications. WAN interface module: Resilient Multi-port Router The WIM is a flexible state-of-the-art router for connecting your sites together and/or to the Internet. It incorporates a Firewall, Intrusion Detection System (IDS) and Virtual Private Networking (VPN) software ensuring your network is secure and reliable.

OfficeServ 7200 System Capacity Chart

System Features	
PSTN Analogue Lines (max)	80
ISDN Basic Rate Digital Lines (equiv. channels)	40 (80 channels)
ISDN Primary Rate Digital Lines (equiv. channels)	4 (120 channels)
Total Extensions	160
Digital Stations	160
IP Stations + WIP	120
Analogue Stations	160
Data Extensions (ISDN 128kbits)	48
Music Sources	1 internal/ 2 external
WIP Basestations (combo/basic)	12/40
WIP Handsets	120
CTI	Network / TAPI
Digital Voicemail	Yes
Direct Indial numbers	999 numbers
Calling Line Identification (CLI)	PSTN / ISDN
Trunk Groups	30
Station Groups	40
ACD Groups	20
Pick up Groups	99
Account Codes	999
Authorisation Codes	500
CLIP numbers (translation table)	1000
CLIP Review blocks	2000
Auto Attendant	20
Least Cost Routing	Yes
Total Speed Dial Locations	2500
System speed dialling	950
Station speed dialling (max per station)	50
External Page Zones	4
Internal Page Zones	5
SIO Ports	0 + LAN
Remote Programming/support	Yes
LAN Ports	1
Virtual Extensions SLT	20
DIGITAL	40

Data Specifications

Router	Firewall
RIPv1	IPSec, PPTP
RIPv2	DES, 3DES
OSPFv2 Open Shortest Path First	Automated rules update system
PPP	ESP (Extended Services Processor)
PPPoE	Intrusion Detection/Prevention
IP Multicasting	Access List security
HDLC Web-based management	
Frame Relay	
Packets per second processing = 50Kpps	Switching
WAN	Serial interface (V.35) 802.1Q tagging
ADSL interface for connection to Internet	802.1p
NAT (Network Address Translation)	802.3x Layer 2 flow control
DHCP Client and server	Layer 3 Routing
SNMP (Network Management) MIB II images	Switching Capacity (min/max) - 3.2/25.6 Gbps
WFQ (Weighted Fair Queue)	Multicasting
IP Precedence	VLANs - 32
Inter-VLAN Routing	Mirrored ports for troubleshooting
Command line configuration	SNMP (Network Management) MIB II support
Web configuration interface	IEEE Ethernet 802.3
Network Analysis	IEEE Fast Ethernet 802.3u
CHAP/PAP across WAN links	IEEE 802.1d Spanning Tree
IGMPv1	IEEE 802.1q VLANs
IGMPv2	Spanning Tree
NAT/PAT	IGMP Snooping
Application Layer Gateway (ALG)	
802.1q QoS	

