

Splicecom 
maximiser

The next generation business communication system



Your Interactive Brochure CD



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What would you like it to be?

I would like Full IP Network Convergence	You can have it immediately or implement it in the future	✓
I would like Web Integration & CTI	You can have them immediately or implement them in the future	✓
I would like a Mobile Workforce and Hot Desking	You can have them immediately or implement them in the future	✓
I would like Multi-site Communications	You can have it immediately or implement it in the future	✓
I would like to provide for my future needs	A single maximiser Module can provide all the functionality that you need now and in the future.....	✓
I would like to protect my existing investment in Comms Equipment		✓
I would like voicemail and Auto Attendant as standard		✓
I need a cost effective simple PABX		✓
....and at a low cost entry without penalty providing full investment protection. maximiser - the simple PABX with freedom to make it what ever you want it to be.		

All this available immediately from a single **maximiser** module

NOW. Pick the point at which you want to enter and you can see the freedom of the **FUTURE.**

Splicecom maximiser

The next generation business communication system

Designed to maximise your business communications, maximise your return on total network investment, maximise productivity, maximise efficiency, maximise customer care and maximise your competitive advantage, the **maximiser** from SpliceCom is an all-new, next generation, business communication system.

Developed and conceived at the beginning of the 21st Century to take advantage of powerful advances in technology whilst protecting current investments in IT applications and network infrastructure, **maximiser** delivers voice, video and web enabled IT applications to the desktop, creating business advantage for all companies, irrespective of their size.

The **maximiser** allows organisations to take advantage of the often-quoted cost savings and business benefits associated with IP Telephony

without the need to converge their underlying networks - or even deploy IP handsets. An open, standards based architecture means that any existing LAN infrastructure equipment can be upgraded, or replaced, as and when business needs dictate, whilst delivery of communication services remains consistent.

In our current 'Time Poor but Information Rich' age enormous productivity benefits accrue from the ability to deliver exactly the right information to the right people at the right time. It is with this requirement in mind that **maximiser** has been developed.



MAXIMISE

1

...Internal and External Customer Service

Ease of Use • Call Forwarding & One Number • Improved Customer Service • Incoming Call Differentiation
Built in CRM • Integrating Existing Contacts Database • Outgoing Calls • Voicemail & Auto Attendant
Call Register & Unified Messaging • Internal Broadcast Communication • Video Broadcast

The
Range of
Terminals
and
Softphones

2

...Communication Investment through Adaptability & Scalability

8 to 5000 Extensions - Only 3 Components • Telephony Features & Functions • System Management • Hot Desking
Wireless LAN • IP Phone Solution • Networked Systems • Call Routing • Homeworking • Voicemail & Auto Attendant

The System
Hardware

3

...Existing and Future Web Enabled IT Investment

Using The Web For Business Advantage • Maximising Your Existing IT Investment • "Push" Technology
Calling Line Identity (CLI) Redefined • Departmental Information Transfer • Video • Enhancing Company Security
CTI • Autonomous Web Access • **maximiser** Implementation

Unique
Desktop
Convergence

4

...The Evolution of your IT & Telecomms Systems

Some Open PBXs Are More Open Than Others • Is "Convergence" Real? • Infrastructure • Network
Existing Telephone Systems • Applications • Terminals - IP or Analogue - Cordless or Wireless?
Desktop Delivery - Web or TAPI? • SIP

Open
Connectivity

5

...Network Infrastructure, Bandwidth and Knowledge

Why Invest in VoIP • The Case for IP Based Business Telephony • Migrating To IP Telephony - One Step At A Time
PBX Replacement • Utilising Your Existing LAN Infrastructure • Legacy PBX Migration

Expansion
with IP
Telephony

6

Why SpliceCom Solutions are Different

Why Do Something Different? • Why **maximiser**? • We Can Listen • A World Of Technology • Responsiveness
Accurate Information • Scale • Cost of Acquisition • Total Cost of Ownership • Unique Architecture

Why
SpliceCom
Solutions
are Different

7

Glossary

Jargon
Buster

Maximise Customer Service (Internally & Externally)

Supporting from 8 to 5000 extensions. The **maximiser** business telephony system from SpliceCom provides a breakthrough in converged communications. Developed from state of the art technology it delivers real life benefits associated with many traditionally separate components in one single, seamless system. Through the use of an innovative architecture, the **maximiser** eliminates the physical limitations of traditional telephone systems, allowing great savings to be made on administration, management and infrastructure costs. This approach allows small and large businesses alike to deliver un-paralleled customer service - to internal and external customers.

The SpliceCom Range Of Terminals

For those seeking the real business benefits that can be gained from the convergence of voice, data, video and web enabled applications, SpliceCom's broad range of Proactive Communication Stations (PCS) delivers the ultimate in service to the desktop. The PCS software application (PCS 50) is equally at home when loaded as software only onto a desktop PC or when delivered fully Integrated into the PCS 400 (Full Colour 640 x 480 VGA Touch Screen) or the PCS 200 (480 x 320 Mono Screen).

PCS 400 allows delivery of voice and data services to the desktop via a single cable, by connecting directly to your LAN infrastructure. A desktop PC or Laptop can be plugged into the PCS 400.

The PCS application, however delivered, allows the relevant information from your core business applications to be "pushed" to the desktops of those who need it in a timely and controlled manner.



Proactive Communication Station with Touch Screen Technology



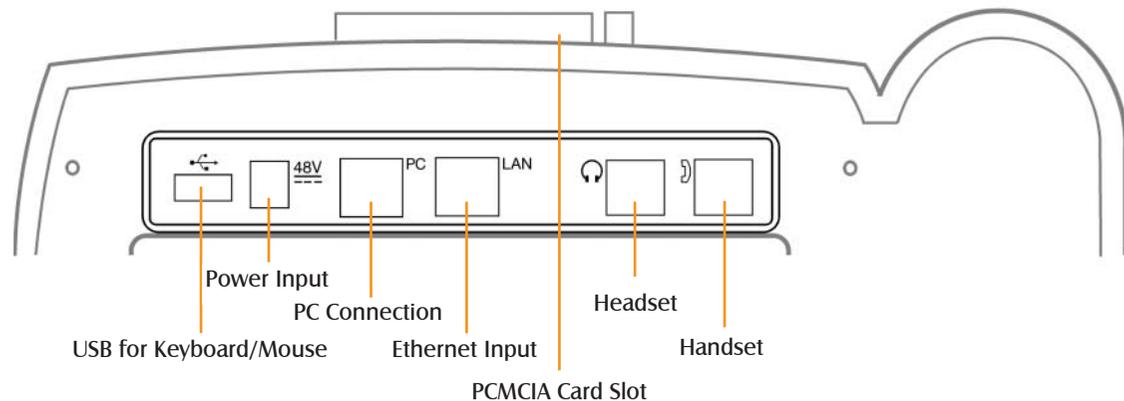
PCS 400

- Dimensions (mm):
275 (w) x 190 (d) x 145 (h)
Weight: 1730g
- Key Features:
- Full Colour VGA Touch Screen - 640 x 480 pixels
 - Context sensitive operation
 - Handsfree Speech
 - Two port, QoS 10/100 Mbps Ethernet Switch
 - USB for connectivity of external mouse and/or keyboard
 - Headset connection
 - Accepts Power over Ethernet (802.3af)
 - Alternative external PSU option
 - Wall Mounting Option built in

PCS 200

- As for PCS 400 except
- Monochrome Screen - 480 x 320 pixels
 - Single 10/100 Mbps Ethernet port

PCS 400 Connectivity (rear view)



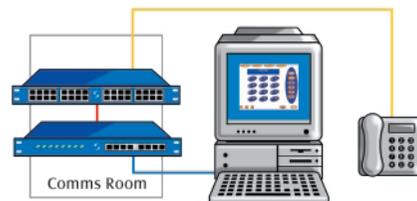
Any Analogue Phone + FREE PCS 50 Software = PCS 50 Softphone on your Desktop PC - equivalent to the PCS 400 or PCS 200



PCS 50 Analogue Phone Partner

Identical to the PCS 400, this application utilises your existing PC and runs in partnership with an analogue phone via an Ethernet connection.

The software requires Microsoft Windows 98 or higher and utilises the processing power of the PC.

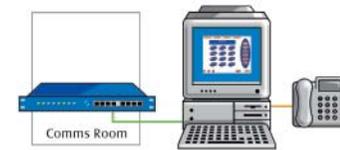


Configuration for PCS 50 and Analogue Phone

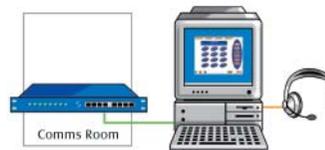
PCS 50 IP Softphone

The IP Softphone variant uses a USB Phone. Alternatively a headset & microphone can be used in conjunction with the PC soundcard. This configuration allows direct desktop setup utilising only one Ethernet port.

The features are identical to the PCS 400.



Configuration for PCS 50 and USB Phone as IP Softphone



Configuration for PCS 50 and headset as IP Softphone

CAT 5 Cabling Analogue Voice	Copper Pair Analogue Voice	CAT 5 Cabling IP Data	CAT 5 Cabling IP Voice	CAT 5 Cabling IP Voice & Data
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Ease of Use

For voice communications, the PCS 400 is beyond comparison with existing top of the range digital phones for making and receiving calls. It empowers the user with call control and call information through an integrated, full-size VGA Touch Screen. Compared with hardware based business phones which use context sensitive keys around a small display to aid use, the PCS 400 provides a far larger, software driven context sensitive screen. The use of clear graphical icons brings mobile phone intuition to the business desktop. The simplicity of use unlocks features and benefits, that hitherto have been concealed in the user manuals of traditional 'hard' phones. This in itself is the key to un-locking advanced and powerful business telephone functionality that previously would have been beyond the reach of most employees. The end-result is greater business efficiency and improved customer service.

Call Forwarding

Comprehensive and easy-to use call forwarding options ensure that calls get through to your employees even when they're out of the office. Because the internal users database includes employees extension, home & mobile numbers, users can choose to forward their DDI calls, those for any call group that they participate in, or both, to their intended locations.

Button Key	
	Home
	Back
	Forward
	Stop
	Refresh
	User Configuration
	More
	Log In
	Information
	Help
	Speaker
	Mute
	Play message
	New Message
	Missed Call
	Missed Call & New Message
	Dial/Callback
	Record
	Delete/Clear
	Speed Dial -ready
	Busy
	Park slots 1-4
	Mute Off
	Mute
	Volume Up
	Volume down
	Keyboard on
	Keyboard off
	Contacts
	Favourites
	Departments
	Users
	Redial
	Exit
	Answer
	Hang Up
	Transfer
	Add Note
	Look Up
	Switch
	Search
	Page Up
	Line Up
	Line Down
	Page Down
	Further Numbers
	New Contact

One Number

Whilst some competitors charge a premium for 'One Number' applications, **maximiser** provides the same features as standard. Simultaneous Ringing allows desktop extensions to be 'twinned' with another number, such as a mobile phone, so that they both ring at once. This means that your employees no longer need to remember to set call forwarding when they're away from their desk, whilst callers are less likely to hang up because the "right" phone rings every time. Now every employee can be contacted by DDI, wherever they may be - with voicemail as the last resort not the first option.



Ready to Dial

193

019237162

Contacts

Favourites

Departments

Users

Answer

Last number redial

Exit

Select Contacts

Name	Number	Mobile	Home
Frances D...	01923266...		
Frank Bre...	01296625...	07836339...	00349713
G3 Teleco...	02070751...	07980785...	
Gemma H...	07899907...		
Graham R...	01923774...	07801442...	
iCS	01344873...		
ITC	01253783...		
Jeremy C...	00349567...	07836275...	
Jodi Lynch	07748407...		
John Smith	01923712...		
Jon Musker	02074323...	07973470...	
Malcolm ...	01473645...		
Martin Sm...	07000781...		
Mary Ged...	02077202...	07752044...	
neil bray...	01992516...		01992500
OASIS Jo...	02089072...	07958565...	
Orckid			

Page up

Line up

Line down

Page down

Further numbers

Dial

Add contact

Exit

Get Messages

Time	Name	Number
10:57 13/11/2002	Sarah Stacey	273
10:56 13/11/2002	Sarah Stacey	273
10:55 13/11/2002	Bob Geddes	267
10:55 13/11/2002	Watford	01923716267
10:54 13/11/2002	Watford	01923716263
10:53 13/11/2002	Matt Hilder	263
10:51 13/11/2002	Abid Bhatti	270
10:50 13/11/2002	Robin Hayman	265
10:47 13/11/2002	Watford	01923716265
10:45 13/11/2002	Watford	01923716261
10:44 13/11/2002	Ros Leftley	264
10:43 13/11/2002	Robin Hayman	265
10:42 13/11/2002	Robin Hayman	07785902394
10:41 13/11/2002	Robin Hayman	07785902394
10:39 13/11/2002	Sarah Stacey	273
12:55 12/11/2002		07879421243
12:19 11/11/2002	Datatel	01252666789
11:50 11/11/2002		07786072217

Call back

Play message

Record greeting

Delete message

Exit

Personal Configuration

User Configuration

General | Speed Dials | Ring Tunes

Call Waiting
 None Enabled No Tone

Follow Me
 None Personal All
 Both Per Both All

Forward On Busy: 2270

Forward On No Answer: 2270

Out Of Office: In the Office

Telephone: 2272

Mobile: 07785666999

Home: 01494123456

Do Not Disturb: 01923716999

OK Cancel Apply

Improved Customer Service

Being better at Customer Service generates new customers and customer retention ahead of your competition. The **maximiser** enables improved customer service in many different ways.

Incoming Call Differentiation

New Customers

Of course all telephone extensions are able to present the telephone number of the calling party, however the real power of the system is the ability to enhance this information to provide real value to the incoming call handler. Incoming calls to all **maximiser** extensions present the target number dialled (TND) which can be a group or department or a specially allocated campaign number. All of this BEFORE the call is answered.

Incoming Call Differentiation

Existing Customers

The Open Standards LDAP database stores your customer contact details which are presented to the called destination before the call is answered. The **maximiser** customer record card is dynamic and updateable by all users of the PCS range of desktop stations and can be applied equally to internal employee contact information and known or prospective customers.

Analogue Phone Display



- Incoming Call Number Identity (CLI)
- Called Party (TND)
- Incoming Call Name Identity

Call Connected Screen



- Incoming Caller Information
- User Information
- Call/Contact Notes
- Current Call History



Customer Contact Management

Transfer

Hang Up

Conference

Switch

Make a Note

Look Up

Record

Built In CRM Application

All contact entries have a notes field attached to them which can be updated during or following the call by any user of the PCS 50, PCS 200 & PCS 400. This information is thus always available to all employees receiving or making a call to known prospects and customers. Additionally when a call is transferred internally the recently written, live notes go with the call, as does the current call history.

Integrate your EXISTING contacts database

The real power of **maximiser** is unleashed when your existing customer focused IT Applications are seamlessly converged with your business telephone system. Customer records held on any Web/Intranet enabled application, relating to the called or calling party can be pushed to the screen of the PCS 400 & 200 and also to the PC Screen where **maximiser's** softphones (PCS 50) have been installed irrespective of their implementation method - i.e. as an IP or analogue extension.

The **maximiser** uses native HTML to integrate external applications. This offers direct connection..... No 'glue' is required. Easy to implement, easy to manage, easy to maintain.

Alternatively, where existing IT applications have not yet been Web/Intranet enabled, integration with **maximiser** can be achieved via XML or Microsoft's Telephony API (TAPI).

Data Input Options

Input Panel

Esc	1	2	3	4	5	6	7	8	9	0	-	=	←
Tab	q	w	e	r	t	y	u	i	o	p	[]	
CAP	a	s	d	f	g	h	j	k	l	;	'		
Shift	z	x	c	v	b	n	m	,	.	/	←		
Ctl	á	ü	'	\				↓	↑	←	→		

Connect a USB keyboard or utilise the integral soft keyboard with stylus

Outgoing Calls

The same internal LDAP database serves three distinct directory areas termed as Contacts, Departments or Users. From these directory areas users can select and compile their own personal Favourites which then function as Speed Dials, Direct Station Select keys and a Personal Busy Lamp Field.



PCS 50 & Analogue Phone

Contacts

Name	Number	Mobile	Home	abc	def
Frances D...	01923266...			abc	def
Frank Bre...	01296625...	07836339...	00349713	def	ghi
G3 Teleco...	02070751...	07980785...		ghi	jkl
Gemma H...	07899907...			jkl	mno
Graham R...	01923774...	07801442...		mno	pqr
ICS	01344873...			pqr	stu
ITC	01253783...			stu	vwx
Jeremy C...	00349567...	07836275...		vwx	yz
Jodi Lynch	07748407...			yz	abc
John Smith	01923712...			abc	def
Jon Musker	02074323...	07973470...		def	ghi
Malcolm ...	01473645...			ghi	jkl
Martin Sm...	07000781...			jkl	mno
Mary Ged...	02077202...	07752044...		mno	pqr
neil brayb...	01992516...		01992500	pqr	stu
OASIS Jo...	02089072...	07958565...		stu	vwx
Orckid				vwx	yz

External Contacts Database

Favourites

Abid	Bob	Brian	Conference
DECT	Fax	Graham	Keith
Matt	Pete	Rax	Robin
Robin PC	Ros	Sarah	Sean

Busy Lamp Field, Direct Station Select & Speed Dials

Departments

Name	Number	abc	def
Main	1000	abc	def
Sales	2000	def	ghi
EMEA Sales	2100	ghi	jkl
US Sales	2200	jkl	mno
Asia-Pac Sales	2300	mno	pqr
Sales Support	2400	pqr	stu
Technical Support	3000	stu	vwx
Field Service	3100	vwx	yz
Help Desk	666	yz	abc
Admin	4000	abc	def
SOP	4100	def	ghi
Accounts	4200	ghi	jkl
Engineering	5000	jkl	mno
Software	5100	mno	pqr
Hardware	5200	pqr	stu
Applications	5300	stu	vwx
HR	6000	vwx	yz
Marketing	7000	yz	abc
Sunday Times Advert	111	abc	def

Easy Access to all Internal Departments

Users

Name	Number	abc	def
Playroom	202	abc	def
Rakesh Patel	274	def	ghi
Rakesh PC	2274	ghi	jkl
Robin Hayman	265	jkl	mno
Robin Hayman.	4069	mno	pqr
Robin PC	2265	pqr	stu
Ros Leftley	264	stu	vwx
Ros Pots	2264	vwx	yz
Sarah PC	2273	yz	abc
Sarah Stacey	273	abc	def
Sean Harding	261	def	ghi
Sean PC	4061	ghi	jkl
Splice Phone x4063	4063	jkl	mno
SpliceCom Fax	277	mno	pqr
Study	206	pqr	stu
Unused Number	280	stu	vwx
Upstairs Dect	271	vwx	yz

Internal Directory



Call Register

Missed Call
Message
Old Message



Time	Name	Number	
10:57 13/11/2002	Sarah Stacey	273	
10:56 13/11/2002	Sarah Stacey	273	
10:55 13/11/2002	Bob Geddes	267	
10:55 13/11/2002	Watford	01923716267	
10:54 13/11/2002	Watford	01923716263	
10:53 13/11/2002	Matt Hilder	263	
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10:47 13/11/2002	Watford	01923716265	
10:45 13/11/2002	Watford	01923716261	
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12:55 12/11/2002		07879421243	
12:19 11/11/2002	Datatel	01252666789	
14:50 11/11/2002		07785902394	



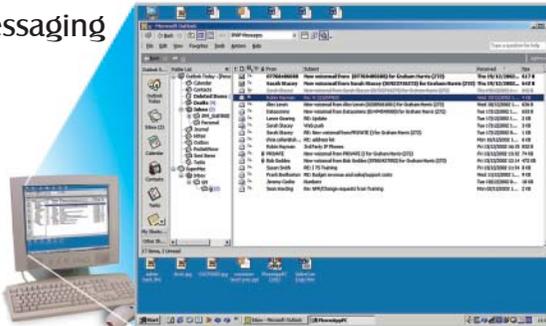
Voicemail/Auto Attendant

Voicemail/Auto Attendant is integral within **maximiser**. Every system is supplied with 30 mail boxes and 30 hours recording time at no additional cost. The voicemail system allows for simple reactive or proactive access to voicemail messages either locally or remotely from anywhere in the world. See Voicemail - section 2-12.

Call Register/Unified Messaging

Call Register allows local users of a PCS to see in a clear graphical layout the origin and identity of ALL missed calls and outstanding messages with the 'mobile like' ability to return all calls with one simple key press. Additionally users can choose to forward all voice mail messages to email creating a genuine UNIFIED MESSAGING application.

Unified Messaging



Internal Broadcast Communication

The combination of **maximiser** and the PCS range, (including the PCS 50 Soft Phone) leverages the investment and power of existing or intended Internet/Intranet capabilities. For the first time companies can PUSH Intranet or Internet pages to the telephone desktop of internal users. Create or define the page (URL), decide who should receive it and when they should receive it across the entire organisation. The company no longer relies on their staff keying in the URL to look at updated pages. Internal Communication comes to life in a stimulating and controlled manner. There's more: (See section 3).

Video Broadcasting



Video Broadcast

Through the integration of Multi Media Streaming all users of the PCS application can receive streamed video. Imagine the possibilities. Proactive internal video communication at set times to groups of predefined users or on a company-wide basis.

Maximising your Communications Investment with Flexibility, Scalability and Manageability

The innovative architecture utilised by the **maximiser** business telephone system from SpliceCom, rips-up the conventional rule book, delivering un-paralleled Total Cost of Ownership and Management - whatever the size of your business.

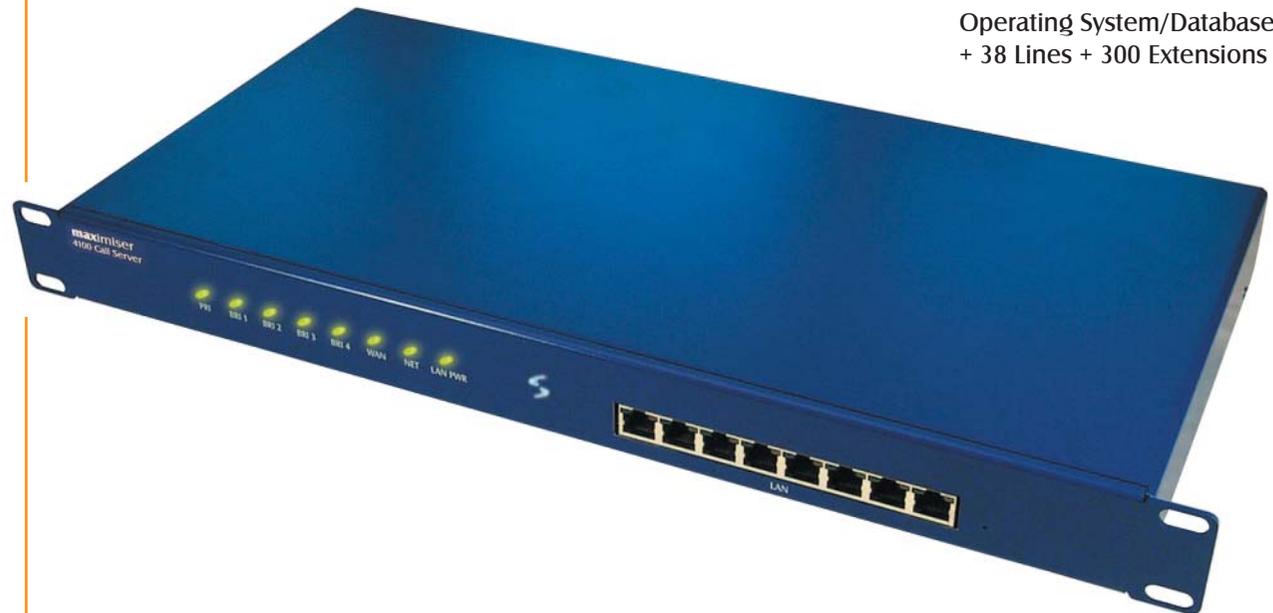
From 8 to 5000 Extensions with only 3 Components

From a simple, small, stand alone PABX the **maximiser** can scale seamlessly, providing a fully networked communications system, allowing voice, data, video and web-enabled IT resources to share the same underlying network and information. There are no geographic boundaries. The same facilities are available across multiple offices, home workers and mobile employees. For the first time, the ability to leverage technology for real business benefit is available to small and medium sized business and major corporations.

System Hardware

The **maximiser** system is completely modular and comprises three different, 1u high, 19" rack mountable modules; Call Server, Phone Module & Trunk Module. All **maximiser** systems are built around these three basic modules, how, where and why you choose to deploy each of the components will be totally unique to your business.

Call Server Module



4100
Operating System/Database
+ 38 Lines + 300 Extensions

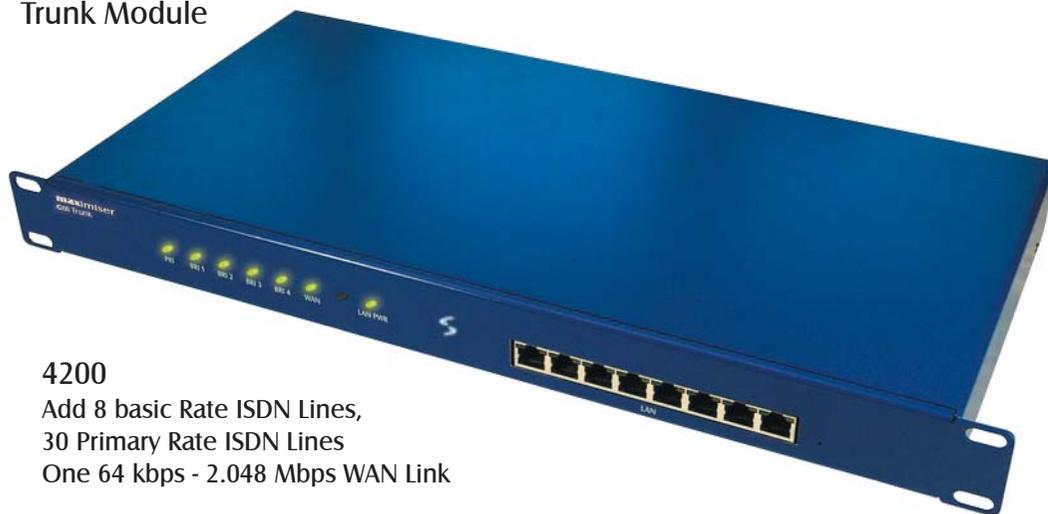
The 4100 Call Server Module

- provides the brains of any **maximiser** system. It is responsible for call control and the switching of voice and data traffic, as well as hosting the integrated voicemail and auto attendant. As a stand alone unit it can support physical connections of up to 38 trunk lines and 8 IP telephone Extensions. The Call Server module also hosts the IP Routing capabilities for the System, the H.323 Gateway and Gatekeeper, an Integrated Firewall, the Dynamic Host Configuration Protocol (DHCP) and the Lightweight Directory Application Protocol (LDAP) Servers.

The 4100's operating system controls a maximum of 300 extensions (any mix of analogue or IP). Analogue phones require 4300 modules and IP phones require LAN Switches - ideally with QoS.



Trunk Module



4200
Add 8 basic Rate ISDN Lines,
30 Primary Rate ISDN Lines
One 64 kbps - 2.048 Mbps WAN Link

The 4200 Trunk Module

- provides extra ISDN Trunk and WAN connectivity, in installations where more ISDN circuits or point-to-point digital links are required. Like the trunks provided on the 4100 Call Server Module, the ISDN interfaces on the Trunk Module can be used to connect to ISDN services, or to allow connectivity to 3rd party equipment such as legacy PBXs, routers, Group 4 fax machines, etc. Connectivity between the 4100 Server Module and the 4200 Trunk Module is achieved over an existing or dedicated LAN via the 10/100 Megabit LAN Ports. It is this LAN connectivity that enables Trunk Modules to be located either centrally in the conventional comms room or distributed anywhere on the company's Ethernet network.

Phone Module

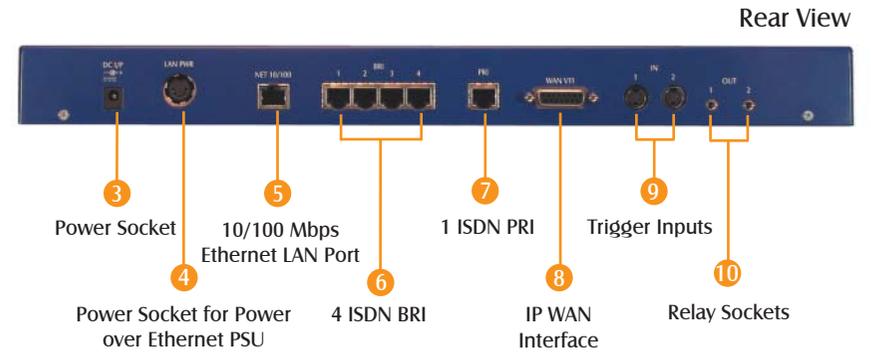
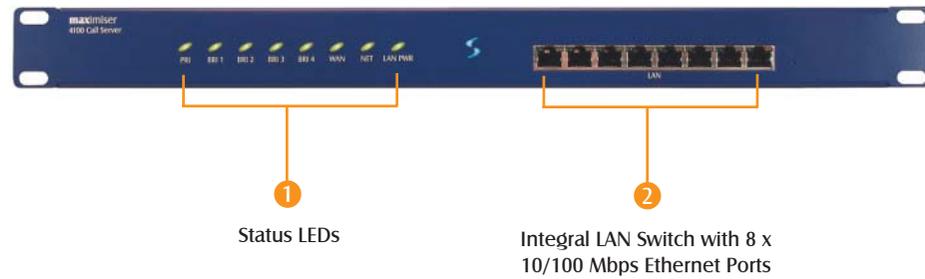


4300
Add 15 Analogue Extensions (4315)
Add 30 Analogue Extensions (4330)

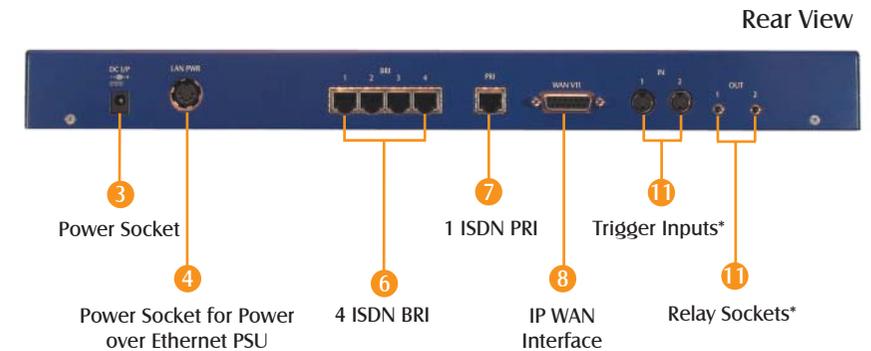
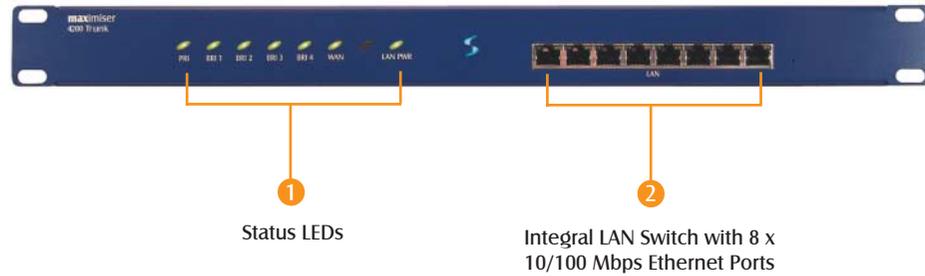
The 4300 Phone Modules

- provide connectivity for up to 15 or 30 analogue telephones, modems or fax machines respectively. Connectivity between the 4100 Call Server Module and the 4300 Phone Modules is via the 10/100 Megabit LAN Ports on the front of the modules. It is this LAN connectivity that enables Phone Modules to be located anywhere on the Ethernet network where a connection point exists. The Phone Module allows a single CAT 5 (or better) cable to replace up to 30 conventional pairs of copper cable.

4100 Call Server Module



4200 Trunk Module



4330 Phone Module



*For Future Use



1 LED Status Lights

LED 1 - PRI

Indicates that Primary Rate ISDN trunk is connected and active. Flashing LED indicates call in progress.

LED 2-5 - BRI 1-4

Indicates that Basic Rate ISDN trunks 1, 2, 3 or 4 are connected and active. Flashing LEDs indicate call in progress.

LED 6 - WAN

Indicates that digital, point-to-point Wide Area Network service is connected and active.

LED 7 - NET (4100 Call Server only)

Indicates that 10/100 Mbps, Ethernet socket at the rear of the Call Server Module is connected and active.

LED 8 - LAN PWR

Indicates that the LAN power supply is connected and providing power to Ethernet devices connected via the 8 port 10/100 Mbps LAN Switch at the front of 4100 Call Server Module and 4200 Trunk Modules.

2 Integral QoS LAN switch

Direct connectivity for up to 8 IP devices (existing LAN network, IP phones, PCs, Servers, LAN Switches, etc.) via 8 x RJ45 ports, dual speed, 10/100 Mbps Ethernet interface with integral LEDs reflecting connectivity (Link) and activity (Data). All ports auto-sense for MDI/MDIX connectivity.

3 Power

Primary 48Vdc, 1Amp. Power Supply Unit (PSU), CE Safety Approved. Supplied as standard.

4 Powered Ethernet

A socket for the connection of the Power over Ethernet power supply supporting the 802.3af standard. Provides direct power via the LAN Switch (2) where IP Phones supporting this standard are deployed. 48Vdc, 2.7Amp, Power Supply Unit (PSU), CE Safety Approved. Supplied as standard with 4100 Call Server, optional extra for 4200 Trunk Module.

5 10/100 Mbps LAN Port

This 10/100 Mbps Full Duplex Ethernet port provides trunk connectivity to DSL, Cable Modem or existing WAN services, either directly or via an Ethernet network. For security, this port is segregated from the internal LAN Switch via an integrated Firewall.

6 Basic Rate ISDN S/T

Provides four Basic Rate ISDN circuits, (8 trunk lines) via 4 x RJ45 ETSI S/T interfaces. CTR3 compliant for Pan European Connection.

7 Primary Rate ISDN S/T

Provides one Primary Rate ISDN circuit (30 trunk lines) via 1 x RJ45 ETSI S/T interface. CTR4 compliant for Pan European Connection.

8 IP WAN Interface

Provides connectivity to digital, point-to-point Wide Area Network services via 1 x 15 pin D-type (V.11). Operates at speeds up to and including 2.048 Mbps for transporting IP voice and data between sites.

9 Trigger Inputs

Two trigger inputs to accept signals from fire or intruder alarms, provided in a mini-DIN format.

10 Relay Sockets

2 x 3.5mm jack sockets to drive two external door release relays.

11 For Future Use

12 Analogue Extension Sockets

30 x RJ45 Sockets (15 x RJ45 sockets in 4315) with integrated LEDs for ringing and off-hook, supporting the connection of standard analogue (POTS) telephones, fax machines and modems.

13 10/100 Mbps LAN Port

1 x RJ45 port, dual speed, 10/100 Mbps Full Duplex Ethernet interface with integral LEDs reflecting connectivity (Link) and activity (Data). Provides connectivity to Call Server, either directly or via existing LAN infrastructure.

14 PCMCIA Socket

Allows insertion of PCMCIA Wireless LAN card, which negates the need for a direct LAN connection to the Phone module. Connectivity is achieved via a Wireless LAN base station attached to the Call Server's local Ethernet network.

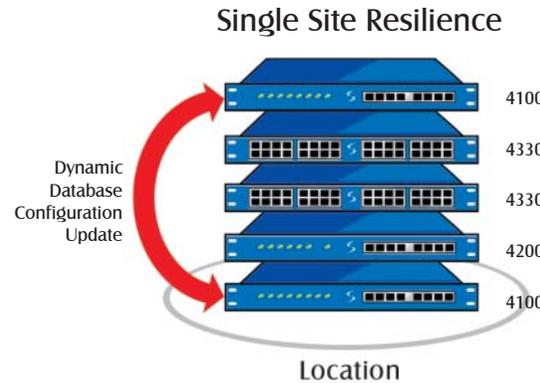


System Capacity

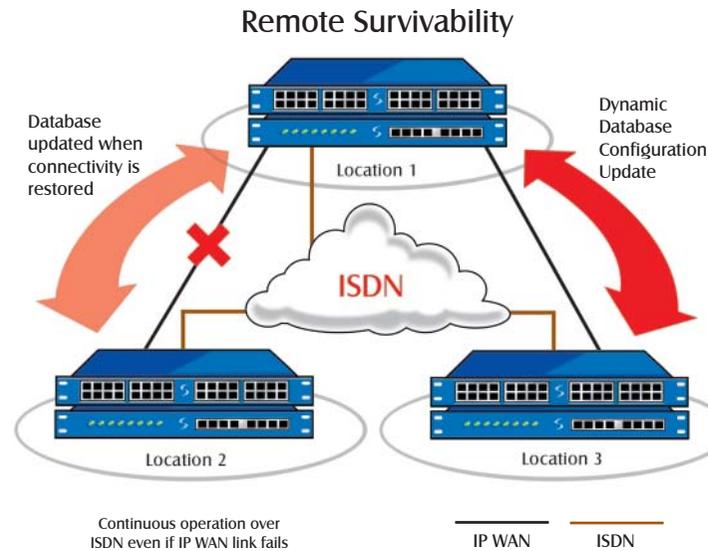
The total current capacity of the **maximiser** is 5000 extensions and 100 Call Servers. Each Call Server module handles up to 300 extensions, be they analogue, IP or any mix of the two. If your requirement is for more than 300 extensions simply add more Call Servers. This approach allows systems to grow in an organic manner without the need to upgrade or replace processors and cabinets as is the case with traditional PBXs. No matter how big or small your system may be it still appears to users as one single entity and is managed as a single system from any Call Server.

Resilience

In a single site installation the Call Server Module can be duplicated for real time 'standby' resilience when deployed in business critical applications. The LDAP Database holds real time information relating to the rest of the local system components and is replicated centrally and then distributed to any other connected Call Server in real time. In a multi site network with Call Servers distributed over the company's IP WAN, all Call Server Modules are constantly receiving updates from all the other connected Call Servers. This provides real resilience against local equipment failures and network downtime. Remote survivability means that even if an IP link between sites fails it will still be business as usual as calls can still be made and received over the local ISDN network. Once the IP WAN link is restored, only database changes are forwarded between Call Servers, minimizing the traffic between sites.



Call Server Modules automatically update each other, allowing duplication for real time, 'Standby' resilience locally - and Remote Survivability across a network.



Continuous operation over ISDN even if IP WAN link fails

System Management

The scalable, distributed architecture allows **maximiser** to be managed and administered from anywhere, via a single, platform independent, web-based management interface, regardless of the number of sites and employees within your company. All configuration information resides within the single



LDAP database, which is then copied to every 4100 Call Server Module. PBX, gateway, gatekeeper, router, web-server, voicemail and auto-attendant; **maximiser** treats all these aspects as a single seamless system. Access can be achieved from anywhere on the LAN network, or remotely, either via a VPN link or using ISDN dial-up. Once the configuration has been updated any changes, and only the changes, are then transmitted to all other Call Servers on the network, ensuring that management traffic is minimised as the database information is replicated. From a simple single site configuration to an advanced implementation linking 100 different offices, it's all one system as far as **maximiser's** system manager is concerned.



Complete Hot Desking

Hot Desking is much talked about but how many systems really allows any employee to take their DDI, voicemail and group membership with them to any phone at any location on or off (via DSL) the network? Support for "Hot Desking" and IP Telephony means that the administration headaches associated with flexible working and adds, moves and changes are eliminated.

Wireless LAN



All 4300 Phone Modules feature a built in PCMCIA slot allowing a wide range of 802.11b Wireless LAN cards to be installed for use in environments where the deployment of traditional structured cabling may prove difficult or unnecessary. Telephone calls are made and received via a base station connected to the 4100 Call Server, either directly, or via the LAN infrastructure. This allows the Base Station and Phone Module to be installed exactly where they're needed.

Integrate Your Existing System

Should you wish to integrate the **maximiser** with your existing telephone system, the BRI and PRI connections on the 4100 Call Server and 4200 Trunk Module offer S interfaces, allowing direct connection to the trunks of your existing PBX or Key System.

Single Site PABX

Where replacement of an existing PBX/Key System is required, the **maximiser** system can be located in a single rack, allowing existing installations of copper plant for extensions and ISDN and/or WAN services to be protected. In this instance all the modules are simply connected together using Category 5 (or better) cable via the 10/100 Mbps LAN Port. Existing analogue telephones and installed twisted copper pair cabling may continue to be used.



From 8 ISDN trunks.....to 5000 IP or Analogue Extensions

CAT 5/5e/6 or Copper?

In new installations or at greenfield sites the CAT 5 connectivity between modules provides the opportunity to locate the different **maximiser** system components at different locations throughout the business. By taking this flexible approach to the installation architecture you can greatly reduce the amount of cabling required as each telephone extension is only required to run back to the nearest Phone module, instead of all the way back to the central PBX. You can choose to use a totally separate LAN network for voice, or, if your LAN switches provide Quality of Service (QoS), you can totally converge your voice and data networks.

The IP Phone Solution

As an alternative to your existing or new analogue phones, users of the **maximiser** have the option to deploy additional Business Telephones that connect directly to the LAN network, without the need for a Phone module, or additional cabling. These IP phones are available in two formats; a hardphone, which looks exactly like a traditional business phone, but plugs into a LAN switch rather than a Phone module and a softphone. The PCS 400 is an IP hard phone.



The IP Softphone Solution



IP softphones comprise of a software application running on a laptop or desktop PC with a USB connected telephone handset, or a headset and microphone connected to the PC's soundcard. This allows the PC to operate as a highly featured business telephone in addition to handling it's normal IT duties, to provide full

desktop convergence over a single CAT 5 (or better) cable. The PCS 50 is an IP Soft Phone application. For more information regarding the deployment of Voice over Internet Protocol (VoIP) and IP Telephony see Section 5.

Networked Systems

Deploying a **maximiser** solution across geographically distributed sites allows you to deliver a constant and feature rich service to your customers and employees, no matter where they may be located. Single site, campus, nationwide or multi-national business - **maximiser** lets you treat them all the same.

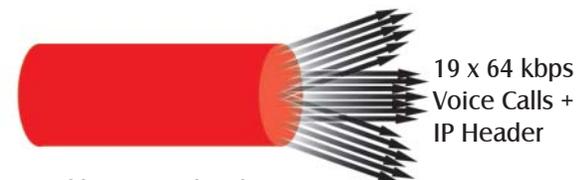
Use of Existing Data Network for Voice

If your company already has a company Intranet, private IP data network or Virtual Private Network (VPN), the **maximiser** can make use of your existing infrastructure to transport voice between sites "Toll Free." Alternatively, you can utilise the IP router within the **maximiser** to construct your own integrated IP voice and data network.

Optional Voice Compression equals Cost Savings

Support for G.729a, standards based, 8k voice compression will allow further cost savings to be realised by placing more voice calls down an existing Wide Area Network (WAN) connection between sites. These links between sites can also be used to serve as distributed points of presence (PoPs) for your organisation.

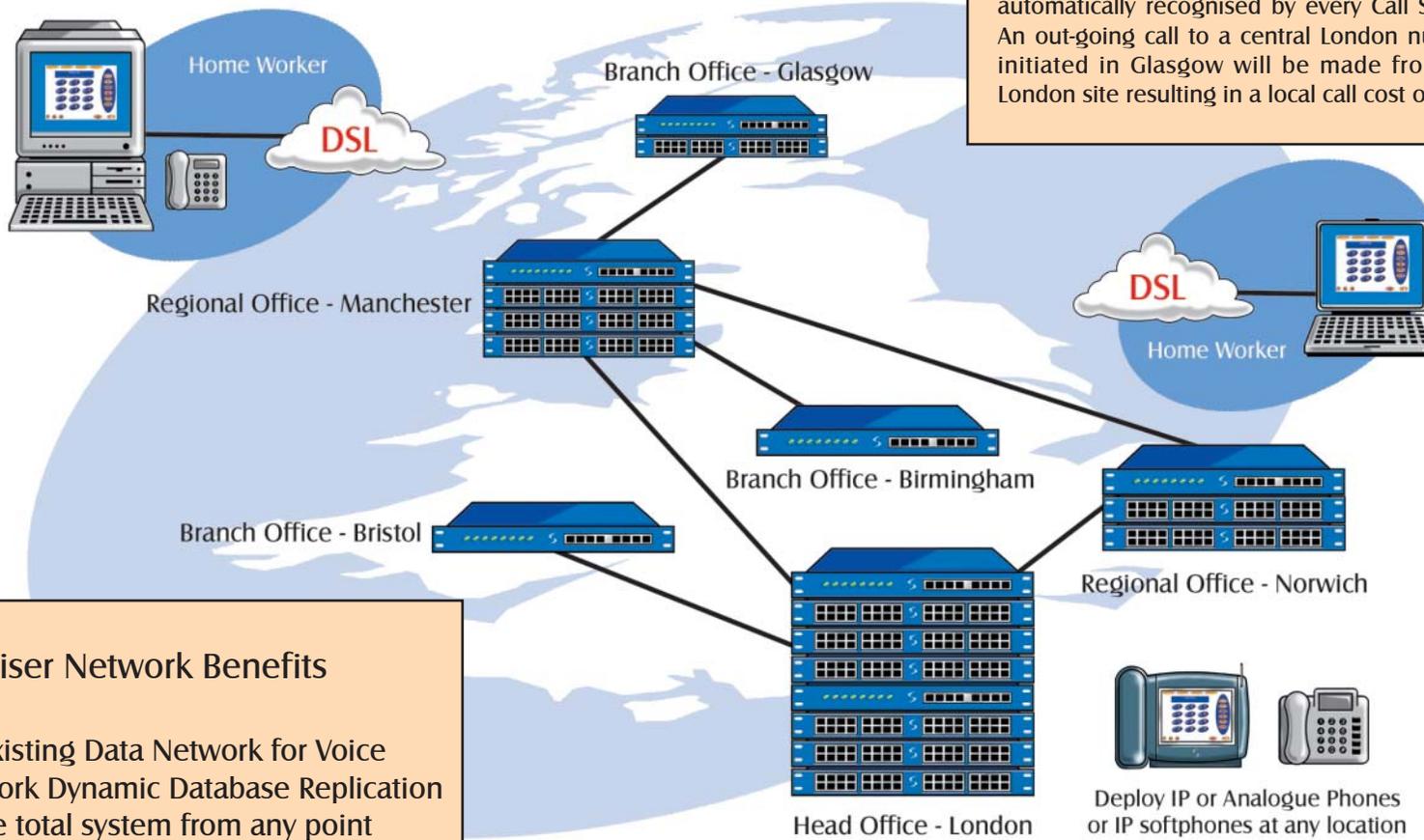
256 kbps Digital Link



256 kbps Digital Link with 8 kbps voice compression



IP WAN Network



STD Breakout

All UK and International STD codes are automatically recognised by every Call Server. An out-going call to a central London number initiated in Glasgow will be made from the London site resulting in a local call cost only.

The **maximiser** Network Benefits

- Use your existing Data Network for Voice
- Cross Network Dynamic Database Replication
- Manage the total system from any point
- Automatic Alternate Routing protects users from Network Failure

Network up to 100 Call Servers and 5000 IP or Analogue Extensions

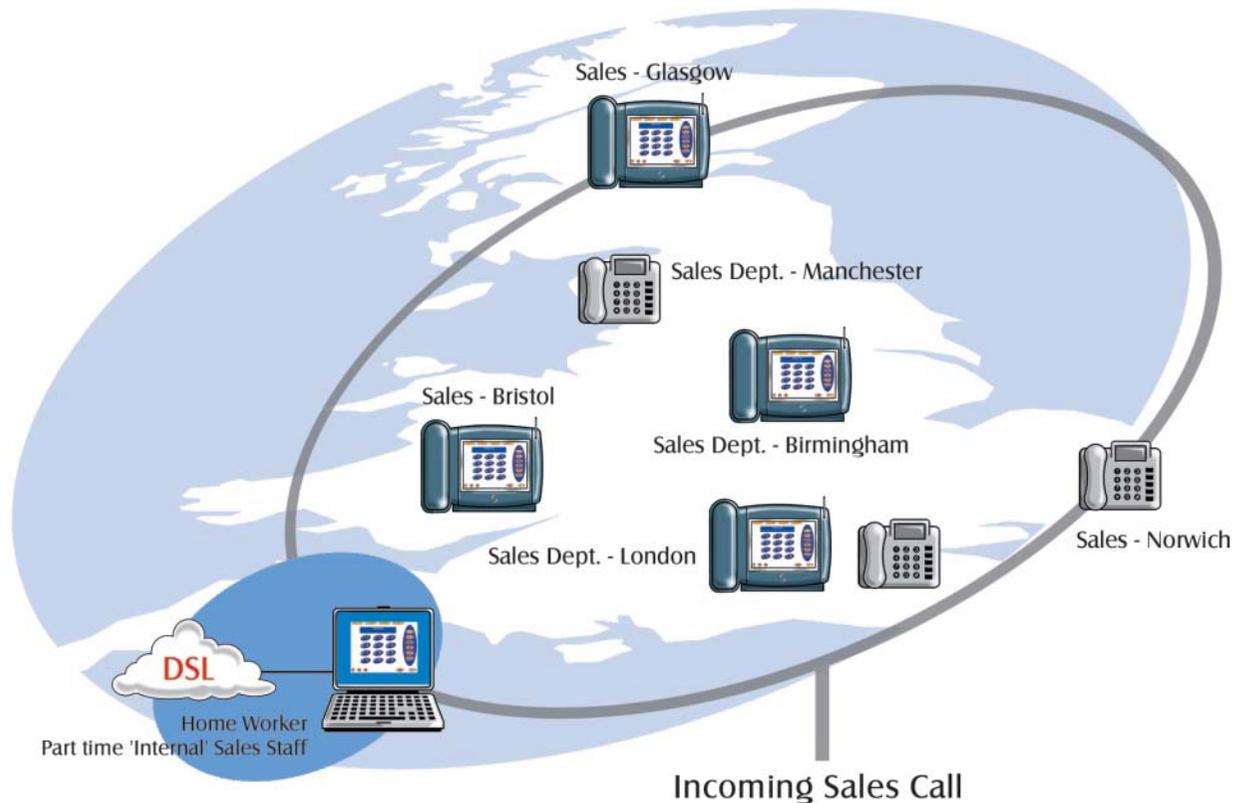
Incoming Call Routing

Given that the use of ISDN allows the acquisition of thousands of telephone numbers per trunk line the foundation of the **maximiser's** incoming call routing is based upon the telephone number dialled by the incoming caller and/or the skill set or capability classification of particular employees or groups of employees. This allows the **maximiser** to take customer service to the next level by allowing you to organise your incoming call flow around customer and organisational needs rather than be limited to a traditional "Hunt Group" operation offered by existing PBXs. The **maximiser** architecture allows you to define Users, Groups and Departments. A Group comprises of a collection of Users and/or previously created groups, and can be automatically populated with users who have the appropriate skill set and level. However, only Departments have DDI and extension numbers associated with them allowing extremely flexible call flow routines to be designed. Groups, Alternate Groups and out of hours routines can all be defined on a per Department basis, allowing multiple Department calls to be handled by a single Group. Ring times before queuing, queue limits, in-queue announcements, wrap-up times and no-answer actions are all defined on a Department by Department basis.

Homeworking

A high speed DSL service combined with Quality of Service allows a homeworker to exist as a real extension of the **maximiser** in retaining their status as part of a department or group. Voicemail, DDI, transferred calls and internal extension to extension calls are NO different. Homeworkers require a PCS 50 softphone installed on their PC/Laptop. Outgoing calls are routed via the **maximiser** and therefore charged to the company account.

Incoming Call Routing to the Sales Department



Nationally distributed Skill Sets form geographically independent department for all incoming calls to 'Sales'



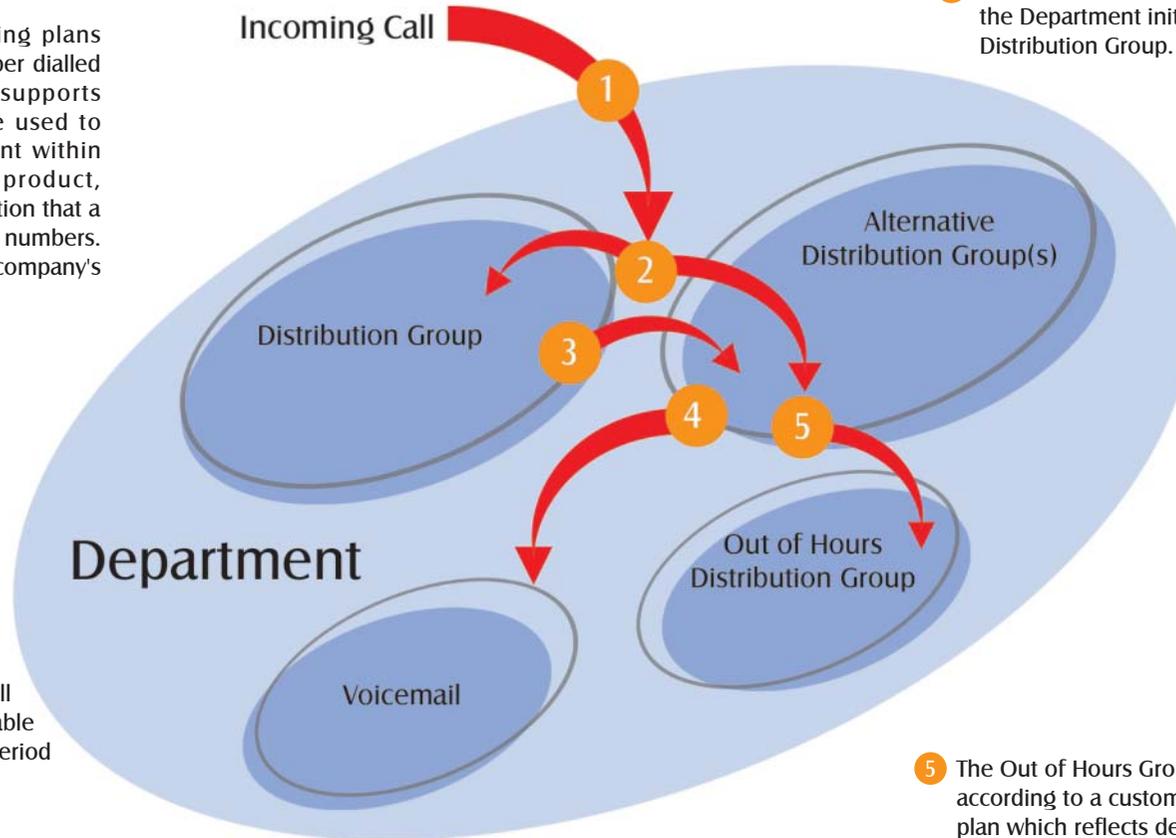
Call Routing - Departmental Call Flow

Departments

'Departments' are effectively call routing plans associated with a specific telephone number dialled by the incoming caller. The system supports unlimited 'Departments'. These can be used to identify calls for a particular department within the business, or equally to reflect a product, campaign, customer or any other classification that a business uses for its published telephone numbers. The Users populate groups based on the company's requirements.

1 Incoming Call to a Department

2 Distribution Group - All calls for the Department initially ring the Distribution Group.



3 Alternate Distribution Group - Calls will move if Distribution Group is unavailable for whatever reason or if after a set period of time a call remains unanswered.

5 The Out of Hours Group is used according to a customisable time plan which reflects departmental working hours.

4 Voicemail Box - Calls will move to voicemail if not answered at the 2 previous distribution groups after a predetermined time.

Distribution Groups

Each Department controls the routing of its calls by the use of Distribution Groups.

Distribution Group

All calls for the Department initially ring the Distribution Group.

Alternate Distribution Group

Calls will move here if Distribution Group if after a set period of time a call remains unanswered.

Voicemail Box

Calls will move to voicemail on a predetermined time out setting.

The Out of Hours Group

This is used according to a customisable time plan which reflects departmental working hours.

Group Hunting

Within the distribution group incoming calls can be circulated in different ways.

All Extensions Hunting

This ensures all free users in a group are rung simultaneously.

Rotary Hunting

This rotates a call through a group of users. The system will move the call on through the subsequent available users until answered. Thus the call can 'rotate' around the whole group. The call will move immediately on busy and queue if all group users are busy. The next call is always presented to the first user in the group.

Sequential Hunting

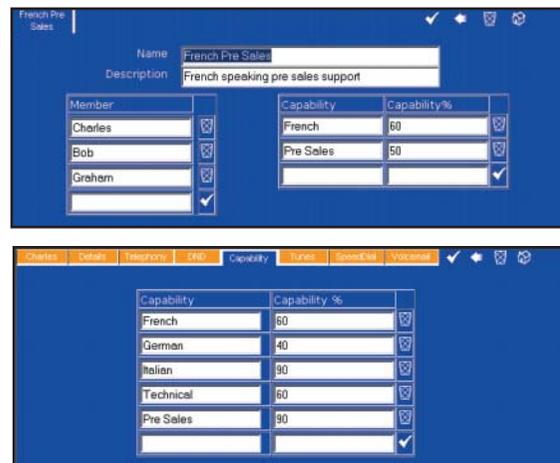
As rotary hunting but the next call is presented to the first free user after the user whom answered the previous call.

Manual Hunting

This is designed for use in specific scenarios where the customer requires the call distribution to be handled by a third party application rather than the switch. The manual option enables the other application to control which user receives the call.

Skill Set Capability

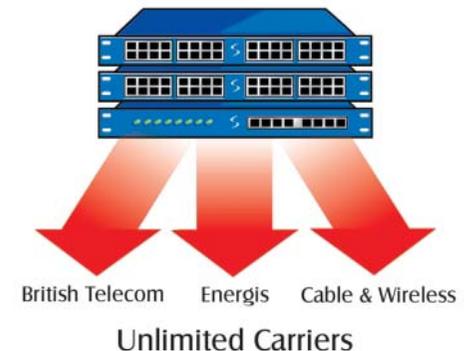
maximiser gives you the unique ability to assign skills levels to users, and their strength or competency in that particular skill. This enables you to automatically populate a Group based on a specific skill requirement and threshold. For example, participation in a Help Desk group requires at least 60% support skill capabilities. This automatic population of Groups through skill set capabilities is also cumulative. A



requirement for 60% support capabilities AND 50% fluency in French will only place those users who meet both requirements into the Group. Setting up groups for new campaigns has never been easier!

Least Cost Routing (LCR)

maximiser offers the perfect balance between the cost savings to be gained through the use of multiple alternative carriers, whilst maintaining availability in the event of a particular service being unavailable. Support for an infinite number of alternative carriers (or LCR suppliers) is a standard maximiser offering. You choose which service you want to use for a particular call destination and maximiser will automatically route it for you. You can select different services for different times of the day, or days of the week, you can specify which alternative route should be used in the case of the primary service failing or being engaged - all on a call-by-call, or destination-by-destination basis. And being a single distributed system, you only need to change the LCR configuration once on maximiser to update all your sites - using the integrated LDAP facility which allows you to automate the whole process.





Call Logging

Gone are the days when a PBX needed a physical Call Logging port. Being a LAN based system **maximiser** allows information relating to calls to be captured and stored wherever it's most convenient to you. A simple connection allows call information to be saved in CSV format at any location, allowing it to be manipulated and analysed via a wide-range of third party applications at a centralised or remote site.



Call Recording

In addition to supporting the deployment of 3rd party Call Recording systems for selective and bulk recording of voice calls, **maximiser** allows your staff to record their own calls at the touch of a button wherever necessary. When using PCS 400 or PCS 50 a "Record" icon appears on the context sensitive display whenever a phone call is in progress. If a user chooses to record a call it is stored in the same manner as their voicemail. This allows users the freedom to listen, copy or forward it to email or store it wherever they wish.

Voicemail & Auto Attendant

If all the features of One Number, follow me and Hot Desking somehow fail to connect your customer to the person or department they require **maximiser's** integral voicemail is a fail safe, which can also be used out of hours.

Voicemail auto attendant and unified messaging are all supplied as standard on all **maximiser** systems at no extra cost. Every system is supplied with 30 voice mailboxes and 30 hours of message storage, as standard (upgradable to 1000 voicemail boxes).

The easy to use voicemail allows remote retrieval of messages with PIN code security for those out of the office. However, "knowledge" of employee's home and mobile phone numbers allows calls placed from them to be automatically routed directly through to the appropriate mailbox - ideal when collecting calls from a mobile when on the move. The number of outstanding voicemail messages is clearly shown on analogue caller display phones, while the intuitive icon driven display of the PCS is ideal for collecting messages. PCS even allows you to see who's left messages before you listen, and potentially even more importantly who's called and hasn't left a message, allowing a one-touch call-back. Alternatively you could choose to forward your voicemail messages to email, so keeping all your messages in one place. You can also send an email notification - ideal for those working from home - or SMS text message to a mobile phone alerting you of a new voicemail. In either case you'll be able to see the number and name of whoever's left the voicemail. The **maximiser** Auto Attendant provides a simple to use, single level, ten-entry system to increase your options for handling incoming calls.

Using the Web for Business Advantage

The **maximiser** is a brand new, next generation Business Telephone System. It has been conceived and designed at the beginning of the 21st Century to take advantage of powerful advances in recently proven architectures and technologies, along with current IT implementations and investments. It is not an evolution of systems produced in the past, which are typically challenged by previous design conventions in the field of business telephony. In the 'Time Poor but Information Rich' age of the 21st Century enormous productivity benefits accrue from the ability to deliver exactly the right information to the right people at the right time.

SpliceCom's range of Proactive Communications Stations (PCS) can, display any Web enabled, or Internet/Intranet based applications.

And it's not just the PCS 400 and 200 but also the PCS 50 soft phone that runs on a laptop or desktop PC as a partner to an analogue phone, that delivers exactly the same functionality and benefits irrespective of the type of handset deployed.

Maximising Your Existing IT Investment Through PUSH Technology

However, with this wealth of up-to-the-minute information now available on a company wide basis, how does a company manage which information is accessed by which employees? How can a company ensure that the right person, gets the right information at the right time to make right decision?

Intranet Push

*"Through the deployment of **maximiser** and PCS any company can now "push" Intranet or Web enabled information to their employees desktop as a proactive predefined communications strategy or as a prepared response to many different types of events."*



The "default" page for all of SpliceCom's PCS terminals and applications can be defined by the IT or telecoms management, on a user-by-user basis. This page, which is displayed at all times that a telephone is not being used, is in native HTML format, and is simply specified, by the system manager in URL or IP address format. Typically this would be the company Intranet home page, so guaranteeing that all PCS users do not even have to choose, or forget, to access the latest company news.

Calling Line Identity (CLI) Redefined

maximiser can also push Intranet (or Internet) information based on the identity of an incoming or

outgoing telephone calls. In this case the incoming CLI, or number dialled is linked to a URL or IP address. For example, the home page of the web site of the company calling you could simply be pushed to your PCS terminal or application, allowing their latest news to be visible as the recipient answers the incoming call. Alternatively, telephone numbers could be linked to the appropriate record on your in-house Customer Contact, CRM or accounts database application.

Departmental Information Transfer

maximiser also allows managers to "push" the latest information to their direct reports and teams. A sales director may want his team to see the latest sales-out figures at the end of every week, or even every day. By linking the URL or IP address of the page where this information resides, it can automatically be pushed to all those who need it on time of day and/or day of week basis.

Another way of achieving this is through a short-code or speed dial. This would allow the Marketing department to push an Intranet page holding the latest company press release to the desktop of every employee.





Video

maximiser allows the pages from any Intranet or web enabled application to be pushed to the PCS terminal or application. If it's in HTML format you can push the information where you like, when you like. And that includes Web Cams. These low-cost devices combine good image quality, with ever increasing functionality including remote control of focus, zoom and panning. Combining **maximiser**, PCS and Web Cam functionality allows a wide-range of business applications to be delivered. Used in combination with a door entry phone for increased security, surveillance of unattended remote sites, or utilised in conjunction with the external relays to provide visibility in the event of an intruder alarm being triggered in the example below, implementation will only be limited by your needs or imagination.



Enhancing Company Security

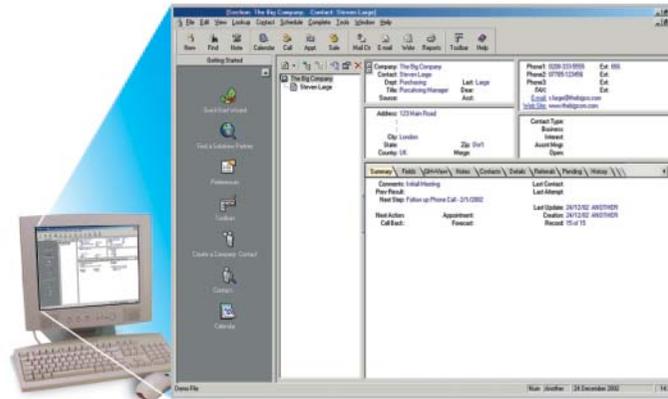
Each 4100 Call Server module supports two inputs from external relays, triggers or contacts. In the event that one of these inputs is activated associated web pages can be pushed to single, groups or all PCS devices. In the event of an intruder alarm this could be a page detailing the specific area, with perhaps contacts and/or telephone numbers in that zone, or in a retail environment this could perhaps be an under temperature fridge alarm. In the case of a fire alarm, you could have details relating to the route of the fire exit, which could be unique for every PCS, pushed to the display. And being a multi-media device and application, the PCS could also play an audible alarm or pre-recorded message at the same time.



Unique
Desktop
Convergence

CTI - As It Is

Programming interfaces like TAPI, JTAPI, TSAPI and the like provide "software glue" between the PBX and the phone number embedded within the application. It can be expensive to implement and maintain, requiring new versions of the "software glue" to be installed each time the software application is upgraded on the client PC or application server. CTI only allows one application to run at any time - you can't run an accounts package and a customer contact package at the same time and expect the appropriate record to be "popped."

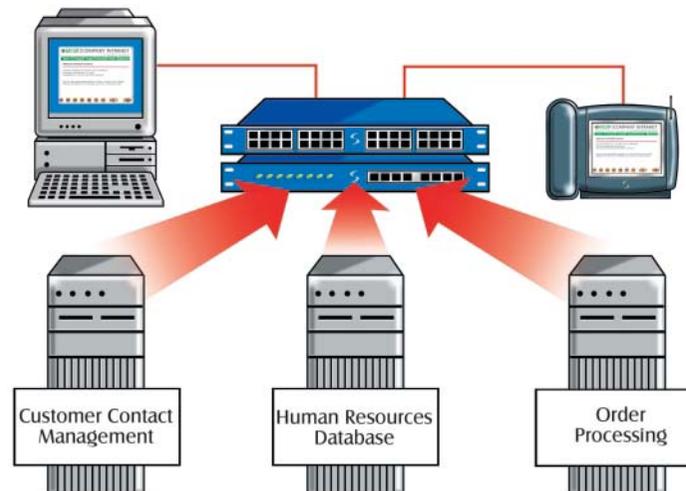


Customer Contact Management

CTI - As It Can Be

CTI was developed as an upgrade to existing Business Telephone architectures, however, support for the integration of web enabled applications is a fundamental cornerstone of the maximiser's 21st century design. Pages from Web enabled applications are pushed directly to the PCS terminal or application, no lower level interfaces are required. It is a direct connection. You can even host your home page on the web server integrated within the 4100 Call Server module.

maximiser allows you to leverage the power and investment in existing 'Line of Business' applications.



CTI via HTML allows integration of multiple Line of Business Applications

Autonomous Web Access by Employees

There's no doubt that both directly and indirectly, the World Wide Web and Internet have changed the way we do business forever. Geographical independence allows servers to be located on any site within the company LAN/WAN network. It also means that employees can access this new world wide web of unlimited information they require from anywhere on the company network, at a time to suit them.

There is however a downside to all this flexibility and freedom. As we all know, it's not only business that's been revolutionised by the web - it's had a big impact on our lives outside the office as well. And that's the dichotomy, once you grant your employees web access how do you know that they're using it for business research and not booking holidays, buying CDs or DVDs, or catching up with the latest sports news?

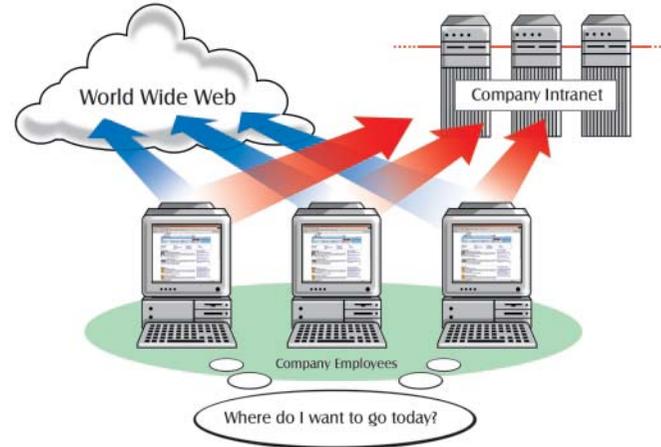
Many companies have utilised Internet technology and web based applications to develop their own private, Internal source of relative, targeted information designed for a predefined closed user group - the employees. The company Intranet, through which all company applications and information can be accessed, is a fabulous tool for keeping employees up to date with company news and processes. But making the information available, investing in the resource to maintain this information and keep it live doesn't guarantee that it will be used. The employee has to take a proactive and conscious action to access the Company Intranet. Even then how can you be sure that any particular employee will access the relevant pages for his or her job function?



maximiser Implementation

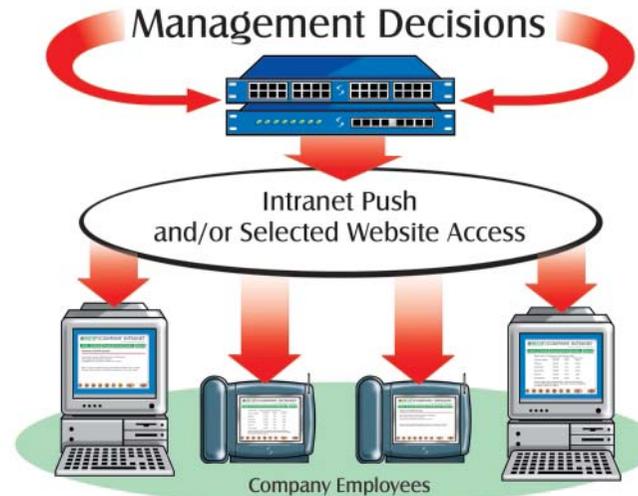
When it comes to web access, **maximiser** and PCS allows management decisions to be placed at the top of the business agenda once more. This is achieved through the ability to "push" any web enabled, Internet or Intranet based information to the desktop of your employees' - on a person-by-person, departmental or company wide-basis. You can configure what appears as default on the PCS screen - when it's not being used to make or receive phone calls. If you make this your Intranet home page, you can ensure that everyone will see it every day. However, you can choose to "push" information to certain employees or departments at specific times of the day, on certain days of the week, or on the fly. You can even ensure that the relevant information appears on screen whenever anyone makes or receives a phone call. The ultimate in control means that if you wish, PCS can be configured so that a URL or IP address cannot be manually entered. As such the flexibility of **maximiser** and PCS allow business and IT management policies to be applied consistently on a company-wide basis.

Autonomous Web Access by Employees



maximiser Implementation

Management Decisions



Unique
Desktop
Convergence

Some Open PBXs Are More Open Than Others

SpliceCom's **maximiser** has been designed to form a key component within your overall communications strategy. However, **maximiser's** delivery allows you to overlay it on your existing LAN infrastructure, where it will continue to deliver service, totally independent to any network changes and equipment upgrades you will make as your needs evolve.

Is 'Convergence' Real?

Convergence means far more than running your voice and data traffic over a single network infrastructure. Convergence is a mind-set, an attitude, a methodology. Convergence should provide a framework that offers a fast and flexible response to business change. For Convergence to succeed all components - Infrastructure, Network, Applications and End Points (Terminals) - must be as open and as interoperable as possible, to offer the greatest flexibility. Welcome to **maximiser** and the world of open telephony.

The **maximiser** components are constructed around five main industry standards - the Lightweight Directory Access Protocol (LDAP), H.323, H.450, Hyper Text Mark-up Language (HTML) and Microsoft's Telephony Application Programmers Interface (TAPI).

At the very heart of **maximiser** lies a replicated information directory. It is this directory, held on each 4100 Call Server module, that allows the system to act as one, even though its components may be located on different continents. LDAP (the internet standard

Open Connectivity = Freedom Of Choice

By selecting **maximiser** as your Telephony Platform you can choose:

TERMINALS



OFF SWITCH APPLICATIONS



CTI APPLICATIONS



EXISTING PBX INTEGRATION



STANDARDS BASED CONNECTIVITY



NETWORK INTEGRATION

SOME OPEN PBXs ARE MORE OPEN THAN OTHERS!

for accessing databases) is the protocol used for both read and write access to this directory, allowing it to be configured from external applications that also support this widely deployed standard.

H.323 is the most commonly used standard for multimedia calls over packet networks - or Voice over Internet Protocol (VoIP) as we commonly call it. Defined by the ITU, it originated as the standard for Internet video conferencing, however, it's now better known for the key role it plays within IP Telephony, because of its key integration with ISDN. It is this standard that **maximiser** uses to deliver voice services; all modules operate as H.323 Gateways, whilst the 4100 Call Server Module also offers H.323 Gatekeeper functionality.

In addition to H.323, a complimentary standard, H.450 allows **maximiser** to deliver supplementary telephony services - Call Transfer, Call Hold, Call Park/Pickup, etc.

Hyper Text Mark-up Language, or HTML, is the standard for defining documents utilised on the World Wide Web (WWW) and by Web enabled applications. It is native support for HTML that allows these documents to be directly viewed on the screen of the Proactive Communication Station. The management and configuration of **maximiser** is also displayed in HTML format, allowing it to be viewed from any browser interface.

The Telephony Application Programming Interface (TAPI) is Microsoft's CTI standard, used to create a link between a Windows based applications and PBXs. **maximiser** uses TAPI to support legacy applications that have yet to be Web enabled.



Open Connectivity - You Choose

Your Choice of Terminals

- IP Phones
- Analogue Phones
- Analogue Cordless phones
- DECT Phones
- H.323/DECT
- Wireless IP Phones

- Open for Other Telephone Systems via PRI/BRI ISDN S Interface DPNSS, QSIG

Open for Standards Based Connectivity

- LDAP
- H.323
- H.450
- HTML
- PHP
- TAPI
- XML
- BRI S Bus
- PRI S Bus
- 11 Mbps 802.11b

Your Choice of Off-Switch Applications

- Voicemail systems
- IVR Applications
- ACD Management Applications
- Call Logging Systems
- Public Address Systems
- Speech Recognition
- Unified Messaging
- Call Recording Systems

Your Choice of CTI Applications

- Power Dialling
- Contact Management
- Company Intranet

Open for Network Integration

- Any QoS LAN switches
- Wireless LAN applications
- Existing copper cable, Existing CAT 5 (or better)
- DPNSS
- QSIG



Open Connectivity

The SpliceCom philosophy recognises the customers existing investments in hardware or software applications and allows users of **maximiser** to select 'Best of Breed' solutions for all off switch hardware and software applications.



Infrastructure

SpliceCom's **maximiser** is designed to take advantage of your existing cable installations. Connection to either existing Copper plant or CAT 5 enables real recognition of existing investment.

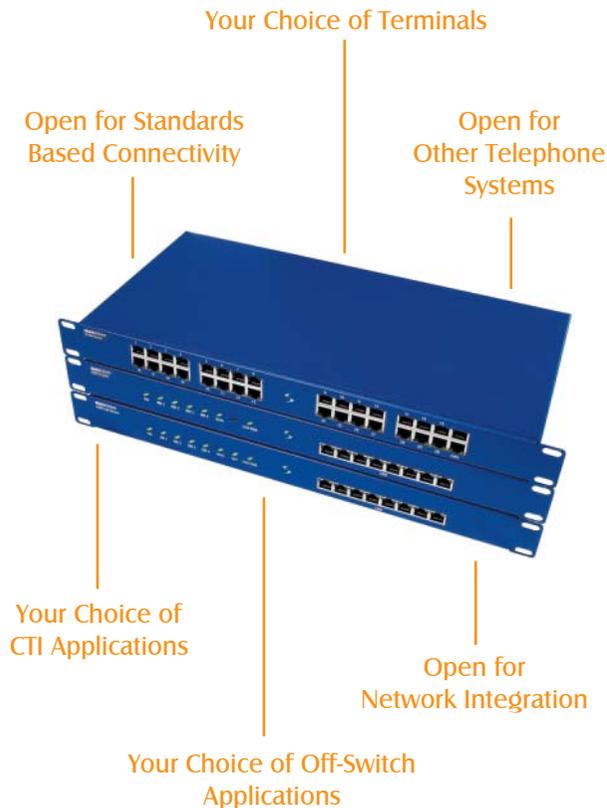
Network

The **maximiser**, can be overlaid on top of your existing LAN infrastructure. This allows **maximiser** to provide continuous operation, whilst your underlying IT network evolves, with infrastructure equipment being upgraded or replaced to meet your ever-changing business needs. As such, **maximiser** embraces open industry standards wherever they exist - a fundamental difference from traditional PBX design. SpliceCom's approach not only allows easy integration with your existing VOICE OR DATA network infrastructure and applications, it also provides you with freedom of choice when it comes to which devices you wish to deploy.

Existing Telephone Systems

Multi-line systems can be attached via the BRI or PRI S Bus connections offered by the Call Server or Trunk Modules. Alternatively, standards based H.323 to DECT systems are now emerging, allowing high degrees of positioning flexibility. Media Gateways allow **maximiser** to co-exist with your existing PBX's, providing DPNSS & QSIG support which enables **maximiser** to be introduced on a site-by-site basis. Although mostly superfluous in a converged voice and data network environment, the use of Media Gateways also allow analogue trunk lines to be retained in circumstances where it is deemed absolutely necessary.

This open approach also helps when it comes to migrating your voice network, replacing your existing PBXs to take advantage of all the new services that **maximiser** enables to meet your specific needs. You'll want to roll-out **maximiser** in a controlled manner, as and when your budget and business needs dictate.



Applications - Open Integration

For the first time **maximiser** allows control of your telephone system to be fully integrated with your core IT applications. Built around an open LDAP database, **maximiser** allows direct interaction. Control and changes to your phone system configuration can be made from related applications. For example, a record created by the HR department for a new employee joining your company, could automatically create a new **maximiser** user entry and allocate an extension for this employee using LDAP. Information can be extracted from the **maximiser** database for use by other applications, information can also be changed, modified or updated and inserted (or re-inserted) into the **maximiser** database on-the-fly without loss of service. With this single database being replicated on each site and each 4100 Call Server module, automation of many time consuming management processes becomes reality.

And because we're now talking in open IP Telephony terms, it's not just phones from different vendors that can be used with **maximiser**, it's all types of endpoints (as they're called in IP terminology). Any existing or soon to be selected applications such as voicemail, auto-attendants, Speech Recognition, Interactive Voice Response (IVR), Unified Messaging systems - can all be deployed with **maximiser**.

Open Terminal Connectivity - IP or Analogue?

In addition to the PCS 400 and PCS 200, **maximiser** presents an open invitation to deploy any IP or analogue business telephone. The 4315 Phone Modules provide connectivity for standard 2-wire analogue phones, whilst support for UK style Caller



Display allows information on the caller's name and number, and the department or name of person being called, to be clearly shown on phones supporting this feature. IP telephony is provided via the widely adopted International Telecommunications Union (ITU) H.323 standard. Used in conjunction with H.450 (a related open standard for the provision of supplementary services, including Call Transfer, Call Hold, Call Park, Call Pickup, etc.), H.323 allows a completely open choice of IP Telephones from worldwide manufacturers.

Cordless Or Wireless?

For mobility, **maximiser** offers connectivity for standards based wireless phones supporting DECT or Wireless LAN 802.11b.

DECT currently offers the best price performance for this requirement and single line DECT phones can be attached via the Phone Module.

Where IP is a requirement, Wireless VoIP phones adhering to the 11Mbps 802.11b specification provide a field proven solution.

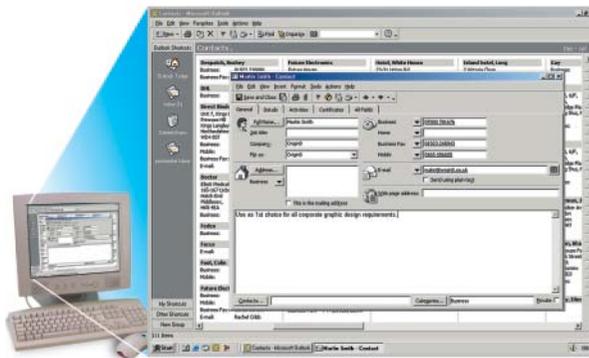
H.323/H.450 compliant devices are available for the **maximiser** system and are likely to become evermore popular once the 802.11e specification is ratified to provide a Quality of Service (QoS) for voice in a Wireless LAN environment.

Desktop Delivery - Web or TAPI?

Integration with applications at the desktop is handled in two different ways. Using SpliceCom's Proactive Communication Station (PCS), in any of it's

various formats, allows web-enabled applications to be directly "pushed" to the desktop in native HTML format. This is by far the easiest method of converging voice and IT applications to date, providing ease of integration with minimal on-going support requirements. Being platform independent, HTML allows multiple applications to be supported on a single desktop device AND be fully integrated with your telephone system for the first time.

Popping a Contact Record



For legacy applications which are not web enabled, support for TAPI, allows customer records to be "popped" on PC screens for incoming calls, and phone calls to be automatically generated from customer contact records, such as those within Microsoft Outlook.

SIP

SIP (Session Initiation Protocol) is an emerging standard, currently being developed by the Internet Engineering Task Force (IETF) SIP Working Group.

SIP's development is aimed at Internet type devices, where it is viewed as a simpler alternative to the more telephony focussed H.323.

As a protocol, SIP will eventually "do" many of the same things as H.323 - it will simply implement them in a different way. In fact the two protocols share the same underlying voice communication (RTP) and encoding mechanisms and differ only in terms of call setup and management.

The overall application base, infrastructure and architecture of the **maximiser** will prove equally effective whichever of these underlying control protocols is utilised. As such, it is SpliceCom's intention to support both of these end-point technologies. This will allow SIP devices to be deployed with **maximiser**-based systems, in addition to continued support for the large installed base of H.323 end-points that exists today.

Open
Connectivity

Why Invest in VoIP?

What is IP?

Internet Protocol (IP) is the term used to describe the communications protocol used to transport data over the great majority of Local Area and Wide Area Networks.

What is VoIP?

This over generalised and over used acronym stands for Voice over Internet Protocol. VoIP converts analogue speech into an IP data stream, which allows it to be transported over a data network.

What is the value of IP?

It is widely, almost universally, adopted by all businesses in the commercial world. It is a working and accepted standard on which the growth of data networking has and will be based.

So, why Voice over IP?

It is the simple idea of using the same network for transporting voice traffic that you use (or intend to use) for data traffic. IP forms the basis of the majority of computer communications both internally and across networks and as such is an ideal protocol for the transport of voice traffic.

Is VoIP the same as IP Telephony?

VoIP is an umbrella term for the transportation of voice over a data network. IP Telephony is the conversion of analogue voice into a data stream using IP data conventions - and relies on an IP device(s) for switching and call processing.

How will it save me money?

Installation and Maintenance Costs.

For backbone installations the cable used for IP data can carry the equivalent of hundreds of pairs of conventional copper cable, which have traditionally, been used for voice traffic. This results in less work, less capital and less maintenance. For desktops that have a PC and a telephone present only one socket need be installed at each desk. An IP phone plugs into the wall or floor mounted Ethernet socket, while the PC connects to a second LAN port on the IP phone.

Cost Of Telephone Calls

Where an existing private data network exists to carry data between buildings on a campus or across nationally distributed premises and telephone calls between locations are made using the PSTN (charged on a per minute basis), you can use the same data infrastructure, an existing or pre-paid overhead, to carry the voice traffic.

Management Costs

The cost of human and technical resource is vastly reduced through the implementation of a single network for both voice and data traffic.

So it just saves me money?

It will also improve productivity and efficiency through the convergence of your customer facing telephone resource with your customer facing business applications.

Application Convergence

The evolution of Computer Telephony Integration produced improved customer service through the implementation of gateways, which allowed the disparate worlds of voice and data to pass information to each other. These gateways were often cumbersome and expensive to implement and in some cases prohibitively expensive.

IP telephony completes the evolutionary cycle by integrating information relating to phone calls into LAN based applications.

With a VoIP implementation both the PC/LAN and the Telephone System talk the same language creating the opportunity for simple cost effective integration of line of business application.

Isn't it a very high cost capital expenditure?

The principal of VoIP is based on increased payback through improved efficiency and reductions in Total Cost of Ownership. If you have existing investment in LAN/WAN infrastructure VoIP is designed to optimise economies of scale from existing investment.

Do I need to re-invest in IP telephones for every user?

This is entirely optional dependent upon the features and facilities required at each location.

Does this mean I can run a mix of IP phones and analogue phones on a system?

Absolutely.

But will I be restricted in my choice of IP phones?

No. **maximiser** allows you to use ANY IP phone that conforms to the widely deployed H.323/H.450 standard and in the future all those devices that embrace the emerging SIP standards.

OK, but this is new and my choice will be limited.

In addition to the SpliceCom range of Proactive Communication Stations (PCS), there are many manufacturers building IP phones to the standards which are available today.



What about my existing investment in cabling ?

Most businesses already have some form of cabling infrastructure in place. Significantly most new buildings these days are being flood wired with CAT 5 (or better) cabling as a 'given' in pretty much the same way as electricity outlets. This is the perfect infrastructure over which to run your voice and data communication needs.

You do not need to replace your existing investment. **maximiser** will take advantage of whatever you have in place, be it copper or CAT 5.

What about my existing investment in phones?

If you wish you can continue to use all types of existing analogue phones and retain the core copper cabling used by these devices. In fact **maximiser** can reenergise these functional instruments substantially. **maximiser** provides a free of charge Software based phone which runs on the PC. The PCS 50 Analogue Phone Partner sits along side your existing (or new) analogue instrument but lifts its value into the 21st Century by providing all the features and benefits of the PCS 400 IP Phone.

Does that mean I can get IP telephony benefits at the PC desktop without any additional cost?

Virtually, yes. All that is required is that the **maximiser** Call Server is connected to your LAN network allowing an 'association' to be made between PC's and Analogue extensions at the desk top.

What will the quality of voice calls be like?

The quality of voice calls across a well installed **maximiser** system is as good as, and in some cases better, than you'd associate with a traditional PBX. Problems with VoIP voice quality in the technologies' early life, have been resolved by techniques that ensure sufficient bandwidth is always available.

How do I know I will have the bandwidth available on my data network?

For a totally converged VoIP solution to be optimised it is necessary to run LAN switches on your network that support Quality of Service capability.

What is Quality of Service capability?

Quality of Service (or QoS) is all about the ability to provision the appropriate bandwidth for each application you run on your network. As voice calls are particularly sensitive to delay QoS also means giving voice priority over data traffic in a converged network.

What if I don't have "Quality of Service capability"?

You can still access the advanced feature benefits of **maximiser** by keeping your voice and data traffic separate or you can decide to upgrade the LAN switches to achieve full integration. See section 5-5.

Even with QoS capability, how do I know that the additional bandwidth demands of voice traffic will not crash or clog my network?

Traditional PBXs existed in their own separate world. Phones were directly connected to the PBX, which had the processing capacity to switch a finite number of these phones. This gave an overall system capacity. The LAN world, on the other hand, is completely undeterministic in nature. As new applications are added and work patterns change, so the bandwidth requirements increase, leading to the need for equipment upgrades and infrastructure changes. It is to this constantly evolving world that VoIP and IP telephony belong. As a ready reckoner, each Ethernet cable can handle at least 300 phone calls at 100Mbps and 30 phone calls at 10Mbps. On the backbone you'll need to add in your current data traffic requirements. However, QoS will ensure that your voice traffic gets priority and that voice quality is maintained. As each installation will be totally unique, your **maximiser** supplier will be able to discuss your particular needs with you and offer recommendations on network design and implementation.

All or nothing sounds very expensive and very risky?

That's why **maximiser** can be implemented as a 'Drop In' replacement PBX with NO IP handsets, allowing you to graduate to part or full IP Telephony at a pace to suit your needs and budget.

Isn't it a massive project?

No, not if you don't want it to be - you can do a bit at a time to suit your business needs and budget or you can of course choose to go all the way from day one.

Won't I have to upgrade my entire data network?

No, not at all, however you may appreciate the value of upgrading existing LAN Switches to accommodate QoS features. Many manufacturers provide this as a software only upgrade.

Is it really possible to do 'a bit' at a time?

Yes, absolutely!

What if I have a relatively new investment in a traditional PABX but would like to benefit from the application features of the maximiser?

Deploying **maximiser** as part of your existing PABX can be achieved simply via PRI or BRI S Bus connection.

What if I have a relatively new investment in a traditional PABX but need a new telephone system on the network at a new location?

No problem. The implementation of an H.323 Media Gateway allows voice network integration over DPNSS and Q SIG Links.

Why should I be a pioneer?

You won't be! It only took two years from the introduction of IP Telephony into the UK in 1999 to the stage where sales of IP-enabled PBX's surpassed those of traditional PBXs during 2001. Companies as diverse as Lloyds of London, Vosper Thorneycroft and HJ Heinz all rely on IP Telephony for their phone calls.

The case for IP based Business Telephony

The major advantages of this approach to business telephony are two fold; you can save money by halving the number of cables required on every employee's desktop, while greatly increasing efficiency through tighter integration between your phone system and any line of business applications you may be running, or planning to implement, on your PC network. Running an IP hard phone to your desktop means a single LAN cable, your desktop PC connects to the built-in switch on the phone, reducing the amount of copper plant, LAN cables and LAN infrastructure switch ports required by 50% - a great saving whatever your size of company. For an IP soft phone the same is true, there's only one cable to your PC, which handles phone calls and network traffic. Due to the distributed and flexible nature of the **maximiser** architecture, even the continued use of traditional analogue phones means less cabling, with up to 30 twisted pair copper cables being replaced with a single LAN cable. In some cases, through the deployment of a wireless LAN, there may be no cables at all! As your PC LAN network runs a protocol called IP (Internet Protocol) and your telephone system now utilises the very same protocol for transporting voice calls, it becomes much easier to integrate information relating to phone calls into LAN based applications. Up until now this has been achieved through the use of CTI (Computer Telephony Integration), which allowed some information on phone calls to be passed through to the PC network, via a gateway. This approach tended to be expensive to deploy and labour intensive to install, support and maintain. Now the telephone system and the PC network live on the LAN and talk the same language, reducing the cost of implementation. This makes the **maximiser** the ideal



platform for rolling out line-of-business applications. SpliceCom have taken this winning approach to business telephony one stage further by fusing phone and application together into the ultimate desktop tool - the Proactive Communication Station (PCS).

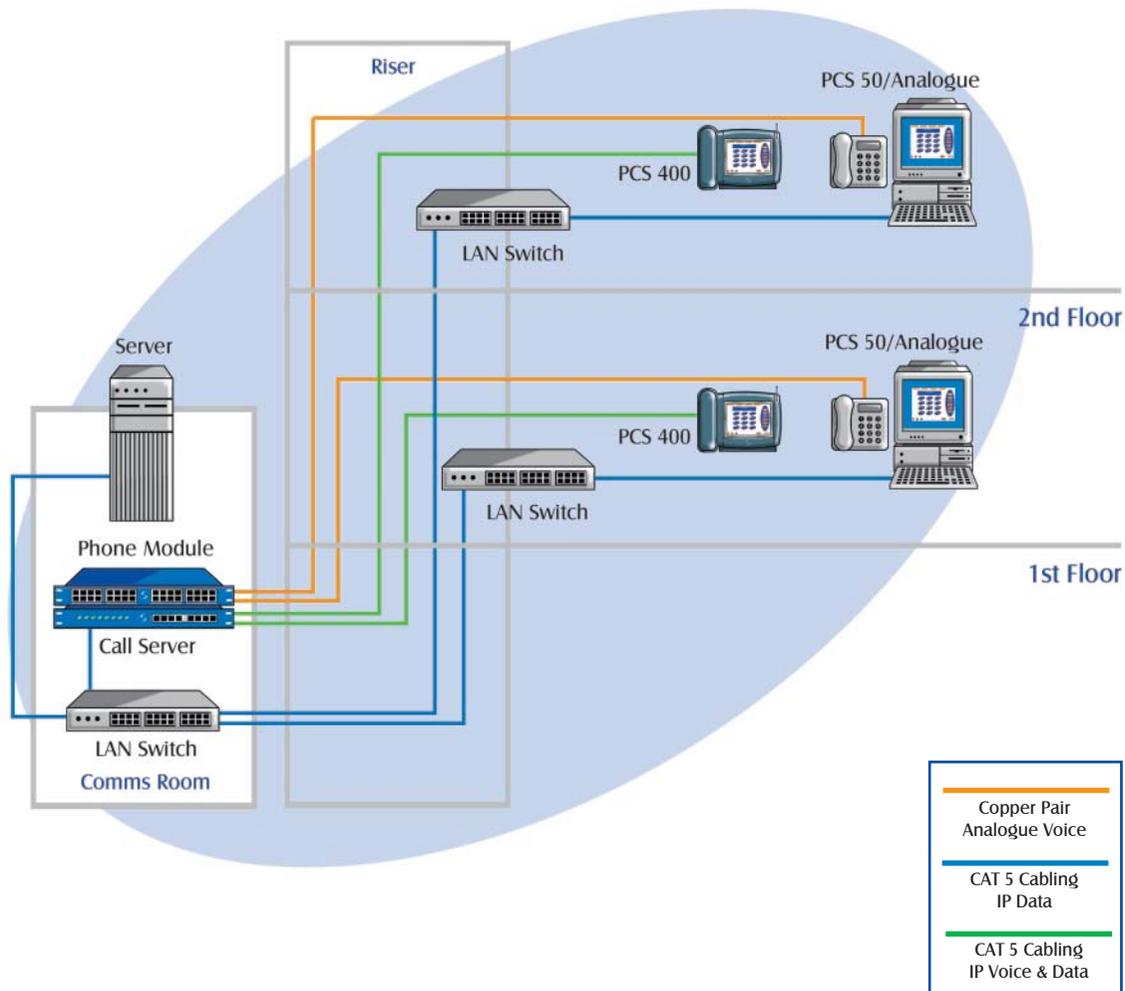
Migrating to IP Telephony - one step at a time

The ideal scenario for the introduction of IP Telephony is the Greenfield site. As the majority of companies won't have this luxury, **maximiser** has been developed to integrate with your current network infrastructure as it stands, so maintaining your current investment and enabling migration at your own pace.

PBX Replacement

If you're looking to replace an existing telephone system that's run out of steam, then the investment protection offered to you by the **maximiser** is likely to be a key factor in your decision making process. You can install the required number of **maximiser** modules, Call Server, Trunk and Phone, in a single cabinet in exactly the same manner as a traditional PBX. The **maximiser** allows you to retain your existing investment in copper plant. By terminating your existing twisted pair cabling with RJ45 connectors they can be directly connected to the Phone modules. The **maximiser** allows you to retain your existing investment in traditional analogue phones - but provides far greater facilities. A single connection from the 4100 Call Server module fed into your existing LAN is all it takes to further energise these phones by allowing them to utilise existing desktop PCs and laptops to run the PCS 50 Analogue Phone Partner.

maximiser in a traditional infrastructure



Expansion with IP Telephony

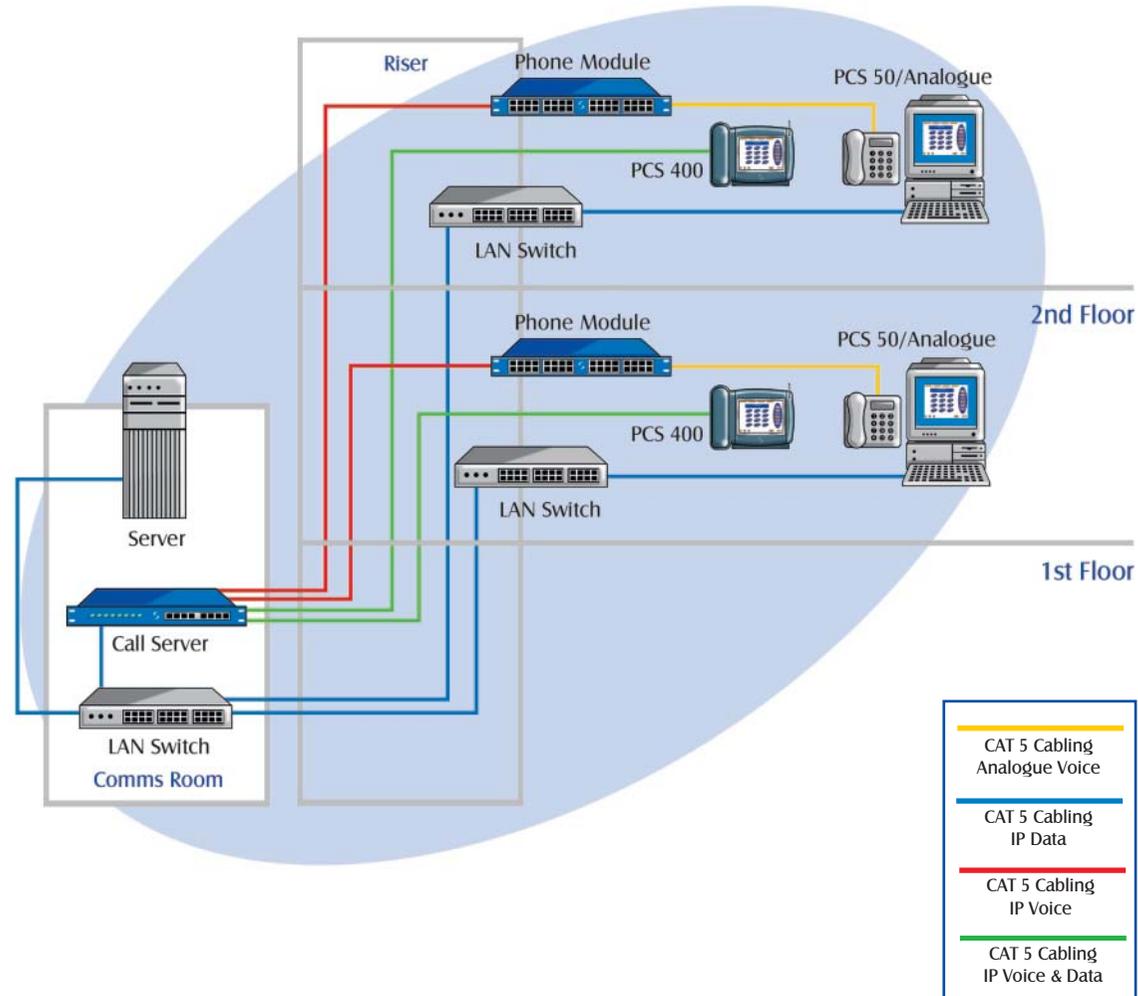


The QoS LAN Switch integral to the Call Server Module ensures that your voice and data traffic remain on separate networks. Want to move into the world of IP Telephony? Then just connect Category 5 cables (or better) directly to the Call Server module - or a LAN Switch connected directly to the Call Server - and your PCS 400s or hard IP phones. This allows you to change the mix and migrate to the newer voice technologies as and when its right for your particular organisational needs, but you can still keep your voice and data networks separate.

Utilising your Existing LAN Infrastructure

Chances are, the LAN Switches you're currently using on your network don't support Quality of Service (QoS). That doesn't matter, you still have full access to all the business benefits that **maximiser** has to offer by keeping your voice and data traffic separate. However, if you're lucky enough to use a structured cabling scheme for voice and data connectivity, then **maximiser** can deliver further cost savings and efficiencies to your organisation. You can now distribute Call Server, Trunk & Phone Modules exactly where they're needed throughout your building or campus, rather than being forced to centralise them within a single cabinet, as is the case with traditional PBXs. Now cables for analogue extensions only need to run from the desk to the riser where the Phone Module can be located - a single LAN cable handles up to 30 phone calls between the Phone Module and the Call Server. A single connection between the Call Server and your existing LAN network allows the PCS 50 Analogue Phone Partner to be run on desktop PCs, delivering all the benefits of PCS to your analogue phone users. Again, hard IP Phones and PCS 400s can be connected directly to the Call Server or via low-cost LAN switches dedicated to voice traffic - this being the case these switches do not require QoS support.

LAN without QoS Switches





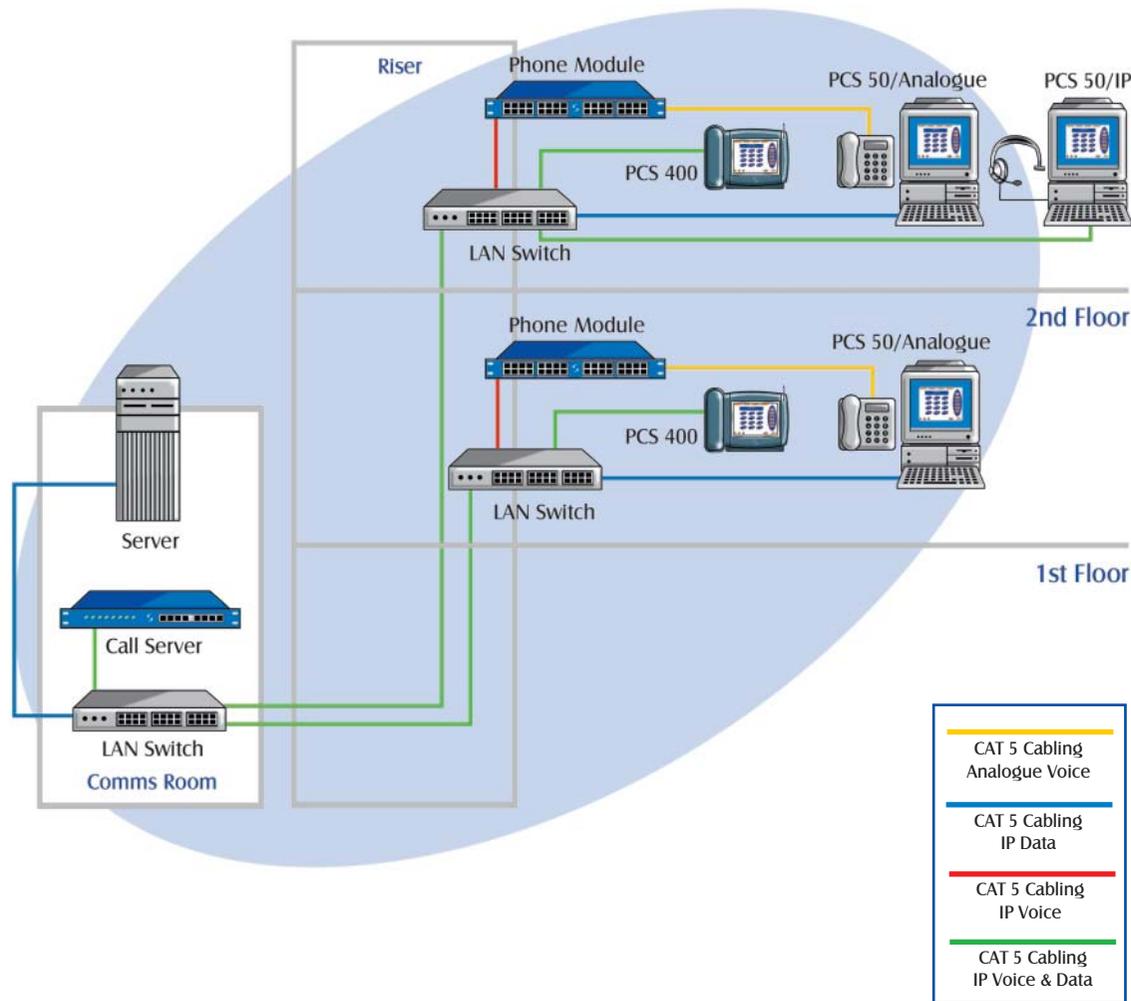
At the point you upgrade your LAN Infrastructure equipment to support QoS, **maximiser** allows you to fully converge your voice & data networks. Connectivity of Call Server, Trunk & Phone Modules along with PCS 400 and IP hardphones can be overlaid on your IP network. Where the latter two devices are deployed, only one LAN cable to the desktop is now required and IP Softphones, such as the PCS 50, running on desktop or laptop PCs can be utilised. The upshot of this is only one network for voice & data, far less equipment to manage and a massive reduction in the amount of cabling required.

Legacy PBX Migration

Many companies will have made significant investments in their central site PBX that they're not ready to write-off just yet. Some will have little desire to disrupt everyday operations, yet want to trial IP Telephony in anticipation of short-to-medium business needs. Others will have PBXs that cannot be upgraded to support IP in the future or the cost of an IP upgrade is deemed excessive. A few may need to bring a new branch office on-line, but not want to invest further in their current preferred, yet aging PBX solution. For all of these scenarios, and many more, **maximiser** can be used in conjunction with your existing telephone system.

Deploying **maximiser** behind your existing PBX (or fronting it) can be achieved simply via PRI or BRI S Bus connection(s). This allows calls and CLI information to be automatically routed and manually transferred between switches. In situations where remote networking of **maximiser** to a central site PBX is required, this is achieved over DPNSS or QSIG links, via an H.323 Media Gateway, or, using the same gateway, over an existing IP WAN router infrastructure between offices. Where no data WAN exists the IP router integrated within the **maximiser** architecture can be utilised to enable the transport of inter-site voice calls and data between offices over a single link.

LAN with QoS Switches



Expansion with IP Telephony

Why Do Something Different?

Business telephone systems have evolved dramatically over the last 20 years largely as a result of the introduction of competition and evolution in technology, resulting in the opportunity to provide much improved customer service to customers contacted in any way by telephone.

1970's

At this time businesses could only purchase (or in some cases only rent) business telephone systems exclusively from The Post Office, latterly British Telecom. The range was extremely limited and restricted to Electromechanical PABXs or Key & Lamp Systems. They were essentially non differentiated commodities which did a reliable job of producing 'Dial Tone' at locations where it was required - In some cases with rotary dial telephones! Customers had little choice of supplier or equipment.

1980's

The Impact of BT's Liberalisation brought about the introduction of competition and new products which harnessed Microprocessor technology to provide electronic versions of PABXs and Key Systems (previously Key & Lamp). Customers could now choose between suppliers, manufacturers and products.

1990's

The power of PC processing and the evolution of Data Networking allowed suppliers to start to integrate the 2 technologies to provide real customer service benefits through the implementation of CTI (Computer Telephone Integration).

These were value added additions to original equipment. Manufactures added features and PC's to

their existing designs but protocol conversion was required to make the systems talk to each other as they operated in different worlds. By the end of the 90's most businesses had replaced their electromechanical products.

21st Century

IP telephony emerged as a possible way of reducing costs in the late 1990's. VoIP is the new entry to the technological evolution in the market. Existing manufacturers found ways to 'bolt on' IP solutions to their existing products, often designed in the early or mid 90's.

Why **maximiser**?

maximiser is different because it was designed in the 21st Century to fully accommodate existing AND future trends in cost saving technology and the increasingly discerning needs of companies in today's customer facing culture.

maximiser is NOT an older system with bolt on's or upgrades or converters. It is a completely new design which harnesses the leading edge of capability in the worlds of Software Applications, Processing Power, Ease of Use and crucially, Installed Bandwidth. As a result the **maximiser** is equally at home as a simple Analogue PABX, as it is in a full-on IP-PBX configuration with touch screen phones, and Web Push applications.

We Can Listen

maximiser is different because it is designed and manufactured in the UK by a company with proven management who have demonstrated time and again their ability to compete effectively on the world stage of Telecommunications and Data Communications Solutions for Business.

A World of Technology

SpliceCom is not precious about the need to homegrow the core technologies. This philosophy provides a unique opportunity to leverage the pioneering efforts of other world leading suppliers - but only at a time when these new technologies have been proven and delivered successfully. "Leading Edge" not "Bleeding Edge".

Responsiveness

SpliceCom respects the size and status of our competition. There are many very successful multi national global suppliers involved in the supply of Voice and Data Solutions.

Their giant size is your comfort factor, but size doesn't always count. Like a Supertanker that can take 5 miles to turn or stop. Globalisation of customer solutions in an evolving market can hinder responsiveness to market change particularly on a localised basis. Giants can move too far away from the needs of the customer. They don't always listen and sometimes appear unapproachable at any level of influence.

As a competent, established UK company you can talk to us at any level of management and we will listen. You can directly influence the direction of product development .

Accurate Information

The **maximiser** is supplied via a 'one step' route to market. A limited number of Authorised, fully trained and Certified Resellers who have proven their competencies are able to supply the product. There are no wholesalers so every supplier has a direct line to all levels of management in our company, as



indeed you do. This philosophy is designed to ensure the accurate and professional dissemination of product knowledge, not only when implemented but crucially, throughout the lifetime of the product.

Scale

This acquisition of communications technology is important to your company. Your needs are going to change through growth to diversification or a need to compete.

How do you know that the system you purchase today will continue to satisfy your changing and evolving needs? Will you need to buy another new system in 3-5 years time or will today's prudent choice continue to serve your needs into the future?

The **maximiser** can be supplied with as few as 4 ISDN exchange lines and 8 extensions and from this start point in can grow, without the need for any component replacement to 5000 extensions, either on one site or distributed to multiple locations all working together as one seamless system.

The scale argument is also true at an application level however simple your needs may be. NOW **maximiser** can do it cost-effectively AND you can be assured that your future identifiable needs can also be satisfied, whenever you choose in the future, by today's investment in **maximiser**.

Cost of Acquisition

maximiser has been devised to slot into your existing infrastructure and desk top assets. We are not offering a 'Fork Lift truck' solution to bring you up to date. You keep to what's important to you, but still get the benefits of satisfying your current needs and protecting your future requirements.

Total Cost of Ownership

With only 3 simple building blocks to the entire system, you can manage the inventory in a cost effective, capital reducing manner. Move, change, relocate, redeploy, its all very simple with **maximiser**. IP telephony and convergence with your IT infrastructure will save you money.

Management of the entire system from one location either locally or remotely will save the overhead of multiple sources of competence.

Open for Choice

Our completely OPEN approach to your needs ensures that you have a choice. As terminals and applications emerge from other vendors you are free to choose (see section 4). We do not seek to own you. We recognise the importance of choice. **maximiser** is an open platform and you are not 'Tied In'.

Leverage the Power of the Web

maximiser can harness the power of the WEB to put the right information on to the right desktop at the time. Proactive internal communications is enabled by the range of PCS terminals.

Leverage the Power of the Desktop

The PCS 50 Analogue Phone Partner, supplied free of charge makes optimum use of the PC power on the desktop (see section 1-2).

Unique Architecture

We understand that not everyone today wants IP Phones throughout their organisation - or in some cases at all. **maximiser** offers the same level of

business benefits through the deployment of analogue phones as it does with our top of the range PCS 400 IP desk station. However, these analogue phones are supported through a system that is entirely IP at its core - as opposed to the TDM methods utilised in "bolt-on" or upgraded IP systems. This approach gives you immense flexibility and cost savings in network design and implementation, allowing Phone Modules to be placed exactly where you want them utilising your existing cabling infrastructure, drastically reducing the amount of cables required. You could even use Wireless LAN connectivity via the in-built PCMCIA slot (see Section 2-6).

Line of Business Application Integration

An open approach means that any HTML enabled business application can be very simply and cost effectively integrated with the **maximiser**. There is no absolute need for complex CTI protocol conversion although this can be achieved if considered essential.



Why
SpliceCom
Solutions
are Different

10/100 Mbps Port

Mbps stands for Megabits Per Second and describes the speed at which data is transmitted. A 10/100 Mbps port allows connection speeds of either 10 Mbps or 100 Mbps. This dual speed port facilitates either low speed (old) or high speed (newer) network connections. It is terminated in an RJ45 Socket which is the accepted standard for data connections - It defines the type of plug and socket arrangement.

640 x 480

A description of the size and quality of a graphical presentation on a screen. 640 expresses the number of pixels on the horizontal plane and 480 on the vertical. See VGA Video Graphics Array (VGA)

802.1p

This is an IEEE (Institute of Electrical and Electronics Engineers,) recommended standard for data communications that allows for different classifications of importance and therefore priority to be associated with packets of data. It allows similar traffic types, such as voice, to be grouped together, each type having its own class, with an associated level of service priority. In operation, 802.1p calls for the use of priority fields within the packet of data to signal the data switch of the priority-handling requirements.

BLF

Busy Lamp Field. An indicator that shows the status of a telephone extension or user - free, engaged or do-not-disturb.

BRI

Basic Rate ISDN. Initially there were simply 'telephone lines' which were analogue. Today businesses have a choice of analogue or digital telephone lines, the latter uses end point installations on a copper cable infrastructure to facilitate the communication of data over the same connection and clearer, faster voice connections. ISDN is the term used to describe the faster type telephone lines. It stands for Integrated Services Digital Network. The service is available in 2 distinct formats and costs; BRI (Basic Rate ISDN) provides two 'telephone lines' each providing data communications at a speed of up to 64 kbps (64,000 bits) for voice or data and one 16 kbps signalling channel. Often referred to as ISDN2 in the UK. PRI (Primary Rate ISDN) is similar but provides for 30 'telephone lines' with the same capability per line. Today the cost/feature differentiation between ISDN and Analogue makes it difficult to justify analogue lines.

Cable Modem

Traditional dial-up modems provide online access through the public telephone network at up to 56 kbps (equal to 56,000 bits per second). A cable modem, on the other hand, gives users high-speed Internet access through a privately subscribed to service at more than 1 Mbps (1 million bits per second), or about 20 times faster. Cable modems typically connect to computers through a standard 10Base-T Ethernet interface. A wire, called "Category 5 cabling," is run from the cable modem to an Ethernet card in the computer. Data is transmitted between the cable modem and computer at 10 Mbps. cable modem technology also will support Universal Serial Bus (USB) and home phone-line networking connections to computers. An alternative to DSL.

CAT 5

Short for Category 5 network cabling CAT 5 is a common standard for data cabling it is based on the EIA/TIA 568 Commercial Building Telecommunications Wiring Standard developed by the Electronics Industries Association as requested by the Computer Communications Industry Association in 1985. Category 5, cabling consists of four twisted pairs of copper wire terminated by RJ45 connectors, supports frequencies up to 100 MHz and speeds up to 1000 Mbps. It can be used for ATM, token ring, 1000Base-T, 100Base-T, and 10Base-T networking. Computers hooked up to LANs are connected using CAT 5 cables. So if you're on a LAN, most likely the cable running out of the back of your PC is Category 5. CAT 5 is the established standard to which all new premises are cabled for the purpose of data communications. CAT 6 is now also available and **maximiser** is equally at home with CAT 5 or higher.

CE

The CE mark is the official marking required by the European Community for all Electrical and Electronic equipment that will be sold, or put into service for the first time, anywhere in the European community. It proves to the buyer -or user- that this product fulfills all essential safety and environmental requirements as they are defined in the European Directives. The CE markings directive (93/68/EEC) was adopted on 22/7/1993.

CLI

Calling Line Identity. The presentation, by the network, of the caller's telephone number to PBXs and terminal equipment allowing the recipient to observe the identity of the caller before the call is answered - or even to search a database based on the information

provided and provide a record card, from that database which relates to the 'callers identity' i.e. telephone number.

Context sensitive

The ability of the PCS to change the information, options and buttons presented on its screen based upon the known activity of the terminal user. The PCS range offers different, intelligent call control options dependent upon the context (i.e. operation) of the terminal as a telephone call progresses.

CRM

Customer Relationship Management. A much over used term used to describe any business application holding customer names, address and key information relating to each customer entry which is designed to enhance the contact with each discreet customer through the availability of relevant customer information. Ranges from simple sales/contact management systems to a full blown, company-wide integration of customer database information across multiple platforms.

CTI

Computer Telephony Integration (CTI) has existed since the early 1980s, CTI links computing (data) and telephony (voice). The functional integration of these technologies provides an applications platform for the enhancement of numerous business processes. The basic components of all CTI systems include a switch (e.g., central office switch or PBX), a computer (e.g., a desktop PC), a gateway between the two and CTI-capable application software.

DDI

Direct Dial Inwards. DDI allows you to increase the amount of telephone numbers available for use with ISDN. One Analogue telephone line can support one telephone number: ISDN lines can support the allocation of multiple telephone numbers to one telephone line thus allowing the DDI feature. Using DDI you can allocate individual extensions (or people or departments or groups of people) their own telephone numbers, so customers can contact the right people directly, without going via your switchboard. A DDI range of numbers are ordered along with your ISDN service and the service provider allocates you a range of telephone numbers that are at your disposal to be used whenever you wish. So, if you are running an advertising campaign for a certain product, you could pick a number from your DDI range to take the incoming calls. If changing campaigns you can change the telephone number advertised, allowing you to monitor the number of enquiries that your campaign is generating, without having to contact BT.

DHCP

The Dynamic Host Configuration Protocol (DHCP) is an Internet protocol for automating the configuration of computers that use IP. DHCP can be used to automatically assign IP addresses, to deliver IP configuration parameters such as the default router, and to provide other configuration information such as the addresses for printers and servers.

DiffServ

Differentiated Services. An IETF standard that allows IP equipment to be configured to offer varying service levels to different applications and users across the network. The purpose of DiffServ is to provide a means for IP routers and hosts to differentiate among various classes of IP traffic in order to control Quality of Service (QoS) characteristics such as latency, bandwidth, and packet dropping strategies. QoS lets you provide different service levels for different types of traffic. The term DiffServ refers to the definition and interpretation of the field in the IP header originally called Type of Service (ToS) and more recently redefined as the DiffServ Code Point (DSCP) field.

DSL

Digital Subscriber Line. DSL is the technology behind today's increasingly popular range of "BROADBAND" offerings from network providers and Internet ISPs. Broadband allows a user to commit to a regular monthly payment with no charge for the amount of time spent on line. A (Asymmetric) DSL is predominantly aimed at the data market and is part of the family of DSL-based services, sometimes referred to as xDSL or DSL. DSL uses frequencies above those that are used for voice communications to transmit digital information at high speeds over existing copper wiring. The download speed of ADSL is much faster than the upload speed, making the service asymmetric. It is possible to use an ADSL connection for both data access and a normal voice conversation simultaneously. ADSL is always-on. Download speeds of up to 2Mbps (up to 40 times faster than a 56k modem). Upload at speeds of up to 250kbps (up to 4.5 times faster than a 56k modem).

DSS

Direct Station Select. The ability to directly dial an extension number by one touch of a button or click of a mouse. Each user or a system manager can configure which external telephone numbers or internal extension numbers can be configured as a DSS button on a users phone.



Ethernet

The dominant standard for Local Area Networks (LANs) developed by Xerox Corporation in cooperation with DEC and Intel in 1976. Ethernet uses a bus or star topology and supports data transfer rates of 10 Mbps. The Ethernet specification served as the basis for the IEEE 802.3 standard. A newer version of Ethernet, called 100Base-T (or Fast Ethernet), supports data transfer rates of 100 Mbps. And the newest version, Gigabit Ethernet supports data rates of 1 gigabit (1,000 Mbps).

Ethernet network

An end-to-end LAN system providing connectivity for PCs, Servers and Peripherals.

Ethernet switch

Also known as a LAN switch. Today, switching technology has emerged as the evolutionary heir to bridging-based internetworking solutions. Switching implementations now dominate applications in which bridging technologies were implemented in prior network designs. Superior throughput performance, higher port density, lower per-port cost, and greater flexibility have contributed to the emergence of switches as replacement technology for bridges and as complements to routing technology. By dividing large networks into self-contained units, bridges and switches provide several advantages. Because only a certain percentage of traffic is forwarded, a bridge or switch diminishes the traffic experienced by devices on all connected segments. Bridges and switches extend the effective length of a LAN, permitting the attachment of distant stations that was not previously permitted.

ETSI

The European Telecommunications Standards Institute is a non-profit making organization whose mission is to produce the telecommunications standards that will be used for decades to come throughout Europe and beyond. ETSI unites 912 members from 54 countries inside and outside Europe, and represents administrations, network operators, manufacturers, service providers, research bodies and users.

Firewall

A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially Intranets. All messages entering or leaving the Intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria. Usually placed between

public and private (company) network boundaries. A firewall is considered a first line of defense in protecting private information. For greater security, data can be encrypted.

G.729 Annex A (G.729A)

As a low bit rate speech coder standard from the International Telecommunication Union-Telecommunication standardization sector (ITU-T), for compressing toll quality speech (8000 samples/second).

Gatekeeper

The gatekeeper is the most powerful management tool available for an H.323 multimedia network. Integrating a gatekeeper when designing an H.323-based network for Internet Protocol (IP) Telephony applications is fundamental. As the brain of the H.323 network, this application performs essential control, administrative, and managerial functions required to maintain the integrity of networks in both enterprise and carrier environments. As the key industry standard mechanism integrated into the H.323 network, the gatekeeper provides the following functions: authentication, authorization, accounting call control and call routing, basic telephony services such as directory services and private branch exchange (PBX) functions, control of H.323 bandwidth usage to provide quality of service (QoS) and protect other critical network applications from H.323 traffic, total network usage control overall system administration and security policies. Provides the intelligence for providing new services and applications. Allows network administrators to configure, monitor and manage the activity of IP endpoints, set policies and control network resources.

Gateway

A device that performs protocol conversion between different types of networks or applications. It is a system that allows otherwise incompatible computer networks to communicate with one another e.g. H.323 and ISDN.

Greenfield Site

Defines a building where no legacy equipment exists, allowing a network to be designed from scratch. A rare luxury for customers and suppliers alike, typically only occurs when companies open new offices or relocate to a new building.

H.323

The most commonly used standard for multimedia calls over packet networks - including VoIP. H.323 is a standard that specifies the components, protocols and procedures that provide multimedia communication services-real-time audio, video, and data communications-over packet networks, including Internet Protocol (IP) based networks. H.323 is part of a

family of ITU-T recommendations called H.32x that provides multimedia communication services over a variety of networks. It originated as the standard for Internet video conferencing.

H.323 Gatekeeper

Resides within the **maximiser** Call Server module. See Gatekeeper above.

H.323 Gateway

Resides within the **maximiser** Call Server, Trunk and Phone modules. Provides the conversion between packet based LANs and ISDN in the case of the Call Server and Trunk modules and between the LAN Network and Analogue telephony for the Phone modules.

H.450

The ITU standard for providing supplementary telephony services - Call Transfer, Call Hold, Call Park/Pickup, etc. - in an H.323 network environment

Hot Desking

My extension can be any phone connected to the system at any place at any time. I can work in any physical location and still retain my personal extension number. I can make and (critically) receive phone calls and associated services independent of my location within a building, or even different offices within my company. With **maximiser**, (but not with all Hot Desk offerings in the market place) Your DDI, voicemail, group participation and general attributes stay with you, no matter which physical extension you utilise.

Hot Standby

A scenario where a critical system component can be automatically backed-up by another in the event of equipment or network failure, enabling continuity of services. **maximiser** Call Servers can be configured in Hot-Standby mode when deployed in business-critical applications.

HTML

Hyper Text Mark-up Language. A standard authoring language for creating and defining documents to be utilised on the World Wide Web (WWW) and by Web enabled applications. Viewed through a browser.

IP

Abbreviation of Internet Protocol, pronounced as two separate letters. IP specifies the format of packets and the addressing scheme. Most networks combine IP with a higher-level protocol called Transmission Control Protocol (TCP), which establishes a virtual connection between a destination and a source. IP by itself is something like the postal system. It allows you to address a package and drop it in the system, but there's no direct link between you and the recipient. TCP/IP, on the other hand, establishes a connection between two hosts so that they can send messages back and forth for a period of time. The current version of IP is IPv4. A new version, called IPv6 or IPng, is under development. IP and TCP/IP are the predominant network protocols.

IP Address

An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address. Within an isolated network, you can assign IP addresses at random as long as each one is unique. However, connecting a private network to the Internet requires using registered IP addresses (called Internet addresses) to avoid duplicates.

IP Telephony

IP Telephony (Internet Protocol telephony) is a general term for the technologies that use the Internet Protocol's packet-switched connections to exchange voice, fax, and other forms of information that have traditionally been carried over the dedicated circuit-switched connections of the public switched telephone network (PSTN). Using the Internet, calls travel as packets of data on shared lines, avoiding the tolls of the Public Network. The basic steps involved in originating an Internet telephone call are conversion of the analog voice signal to digital format and compression/translation of the signal into Internet protocol (IP) packets for transmission over the Internet; the process is reversed at the receiving end.

ISDN

In the beginning there were simply 'telephone lines' which were analogue. Today business have a choice of analogue telephone lines or digital telephone lines, the latter uses end point installations on a copper cable infrastructure to facilitate the communication of data over the same connection and clearer, faster voice connections. ISDN is the term used to describe the faster type telephone lines. It stands for Integrated

Services Digital Network. The service is available in 2 distinct formats and costs; BRI (Basic rate ISDN) provides two 'telephone lines' each providing data communications at a speed of up to 64 kbps (64,000 bits) per second for voice or data and one 16 kbps signalling channel. Often referred to as ISDN2 in the UK. PRI (Primary Rate ISDN) is similar but provides for up to 30 'telephone lines' with the same capability per line. Today the cost/feature differentiation between ISDN and Analogue makes it difficult to find a case for analogue lines.

ITU

International Telegraphic Union. Standards organisation that replaced the CCITT.

Tu

A measure of height for cabinet mounted equipment. $Tu = 1 \frac{3}{4}$ "

LAN

Local Area Network. A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN).

Most LANs connect workstations and personal computers. Each node (individual computer) in a LAN has its own CPU with which it executes programs, but it also is able to access data and devices anywhere on the LAN. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with each other, by sending email. There are many different types of LANs, Ethernet being the most common for PCs.

LAN Power (802.3af)

Power over Ethernet (PoE) is a technology for wired Ethernet LANs (local area networks) that allows the electrical current, necessary for the operation of each device, to be carried by the data cables rather than by power cords. This minimizes the number of mains connections required to install the network. The result is lower cost, less downtime, easier maintenance, and greater installation flexibility than with traditional wiring. The alternative is to power each device directly from individual power supplies.

LDAP

Acronym for Lightweight Directory Access Protocol, a set of protocols for accessing information directories. LDAP is based on the standards contained within the X.500 standard, but is significantly simpler. And unlike X.500,

LDAP supports TCP/IP, which is necessary for any type of Internet access. Because it's a simpler version of X.500, LDAP is sometimes called X.500-lite., LDAP should make it possible for almost any application running on virtually any computer platform to obtain directory information, such as email addresses and other key data. Because LDAP is an open protocol, applications need not worry about the type of server hosting the directory.

Line Of Business Application

A Line Of Business application is one of the set of critical computer applications that are vital to running an enterprise, such as accounting, supply chain management, and resource planning applications. Line Of Business applications are usually large programs that contain a number of integrated capabilities and tie into databases and database management systems. Increasingly, Line Of Business applications are being connected with network applications with user interfaces on the Web and with personal applications such as email and address books and now thanks to **maximiser** business telephone Systems.

MDI/MDIX

A type of Ethernet port connection using twisted pair cabling. The MDI (for medium dependent interface) is the component of the plug and socket that provides the physical and electrical connection to the cabling medium. An MDIX (for MDI crossover) is a version of MDI that enables connection between like devices. MDI ports connect to MDIX ports via straight-through twisted pair cabling; both MDI-to-MDI and MDIX-to-MDIX connections use crossover twisted pair cabling.

Multi-media Streaming

A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are becoming increasingly important with the growth of the Internet because most users do not have fast enough access to download large multimedia files quickly. With streaming, the client browser or plug-in can start displaying the data before the entire file has been transmitted.

N kbps Digital Trunk

A point-to-point digital link for the transport of voice and data, such as BT's Kilostream or Kilostream N services. Bandwidth is designated as N, which is usually a multiple of 64.

N kbps Voice Compression

The ability to squeeze more voice calls down a link by reducing the amount of bandwidth each call takes. A voice call is usually 64 kbps. The call once it is compressed, will be N kbps, a typical value for N being 8 (see G.729A).

Operating System

A program that defines and controls the operation of a device or network. The most important program that runs on a business telephone system. Every general-purpose computer based system must have an operating system to run other programs. Operating systems perform basic tasks, such as recognizing input from the keyboard/handset, sending output to the display screen, keeping track of files and directories on the system, and controlling peripheral devices such as disk drives and Terminals. It is like a traffic cop making sure that different programs and users running at the same time do not interfere with each other. The operating system is also responsible for security, ensuring that unauthorized users do not access the system.

Park Slots

An area on the PBX where calls can be "parked" after having been already answered. This then allows the parked call to be picked up from any phone by the intended recipient, or for the person who parked the call to move away from their phone, before returning to the call, possibly at a different extension location.

PCMCIA

Short for Personal Computer Memory Card International Association, is an organization consisting of some 500 companies that has developed a standard for small, credit card-sized devices, called PCMCIA Cards. Originally designed for adding memory to portable computers, the PCMCIA standard has been expanded several times and is now suitable for many types of devices.

PCS

Proactive Communication Station. SpliceCom's range of Terminals and applications that converge voice, data, video and web-enabled applications at the desktop be it a PC or a dedicated **maximiser** terminal (PCS 400).

PCS 50 Analogue Phone Partner

A free of charge application that delivers all the business benefits of SpliceCom's top of the range PCS 400 to analogue phone users. Runs on a desktop PC or laptop.



PCS 50 IP Softphone

A free of charge IP softphone application that delivers all the business benefits of SpliceCom's top of the range PCS 400. Runs on a desktop PC or laptop, from which calls can be made via a USB phone or headset and microphone.

Point-to-Point Digital Link

An end-to-end digital service for voice and data, such as BT's Kilostream.

PoP - Point of Presence

The point at which a telephone call transitions from the internal company network to the public switched network. Originally a term used by Internet Service Providers (ISPs), it is now used to describe company networks where the offices are spread widely geographically, but are interconnected using private circuits, enabling calls to be passed for "free" between these sites.

PRI - Primary Rate ISDN

A switched, digital service for voice and data. Comprises 30 x 64 kbps B channels and 1 x 64 kbps D channel for signalling. Often referred to as ISDN30 in the UK. See BRI above.

Power over Ethernet (802.3af)

The emerging IETF standard for supplying power to devices, including IP Phones and Wireless LAN Base Stations, over Ethernet cabling. It allows the electrical current, necessary for the operation of each device, to be carried by the data cables rather than by power cords. This minimizes the number of wires that must be strung in order to install the network. The result is lower cost, less downtime, easier maintenance, and greater installation flexibility than with traditional wiring.

PSU

Power Supply Unit.

QoS

Quality of Service. On the Internet and in other networks, QoS is the principal that transmission rates, error rates, and other characteristics can be measured, improved, and, guaranteed in advance. QoS is of particular concern for the continuous transmission of high-bandwidth video and multimedia information. Transmitting this kind of content reliably is difficult in public networks using ordinary "best effort" protocols.

Relay Sockets

A device output which allows a circuit to be closed through an external event. Commonly used to activate electronic door relays.

SIP

The Session Initiation Protocol (SIP) is an evolving Internet Engineering Task Force (IETF) standard protocol for initiating an interactive user session that multimedia elements such as video and voice. It uses the same Voice/IP stream as H.323, but provides an alternative for call setup and clear down.

Software Glue

An often-used term for middleware, a software component that sits between the application and programming interface to "join" them together.

S/T - ISDN terminology

The S (subscriber) Interface is that between the Network Termination Unit (wall box) and the ISDN device. The T (trunk) Interface is the ISDN, BRI or PRI circuit interface.

TAPI

Telephony Application Programming Interface. Microsoft's CTI standard, used to create a link between a Windows based applications and PBXs.

Trigger Input

The ability to receive a connection from an external device, such as an alarm, which allows an event to be generated when the circuit is closed, or "triggered."

Trunks

A switched connection to the public network over which voice and/or data calls can be made or received.

Unified Messaging

Unified messaging (sometimes referred to as the unified messaging system or UMS) is the handling of voice, fax, and regular text messages as objects in a single mailbox that a user can access either with a regular email client or by telephone. The PC user can open and play back voice messages.

URL

Uniform Resource Locator. It is the equivalent of an address that you want to visit on the Internet. A method of opening to a file in a directory that can be located anywhere on the Worldwide web. The format usually follows <http://www.host/folder/file/document>.

USB

Universal Serial Bus. Serial, 4-wire bus architecture for PCs and peripherals. Supports up to 128 devices at a distance of 5m at speeds up to 12Mbps.

V.11 Interface

An electrical standard, defined by the ITU, which is recommended for balanced, high-speed communications operating at data signalling rates up to 2 Mbps.

VGA

Video Graphics Array. A graphics display system for PCs developed by IBM. VGA has become one of the de facto standards for PCs. The PCS 400 VGA display has a resolution of 640 x 480 pixels with 65536 colours.

VoIP - Voice over IP

A generic term to describe voice communications over an IP network

VPN - Virtual Private Network

Allows a private and secure "tunnel" to be constructed over a public network - usually the Internet. Data and/or voice traffic can then be transported across this link.

WAN - Wide Area Network

A term used for a network used to link geographically separate LANs into a large internetworked system.

Web Enabled Applications

Any business application that supports HTML allowing it to be viewed through a web browser such as Microsoft Internet Explorer or Netscape Navigator. Allows applications to be platform independent, that is they will run on Windows, Linux, Unix, Apple Mac computers, etc.

WebCam

A video camera, generally LAN attached, that outputs it's picture frames in HTML format. This allows the video stream to be viewed directly through a browser.

Wireless LAN

A means of connecting Ethernet devices or networks without the need for physical cabling. 802.11b is the standard in widest use, supporting 11Mbps operation. Both 802.11a and 802.11b are emerging standards for 54 Mbps wireless LANs, however, only the latter standard is backwards compatible with 802.11b.

XML - Extensible Markup Language

A set of rules for designing text formats, which allow data to be formatted in a structured and organised way. Bears many similarities to HTML, it allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.



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