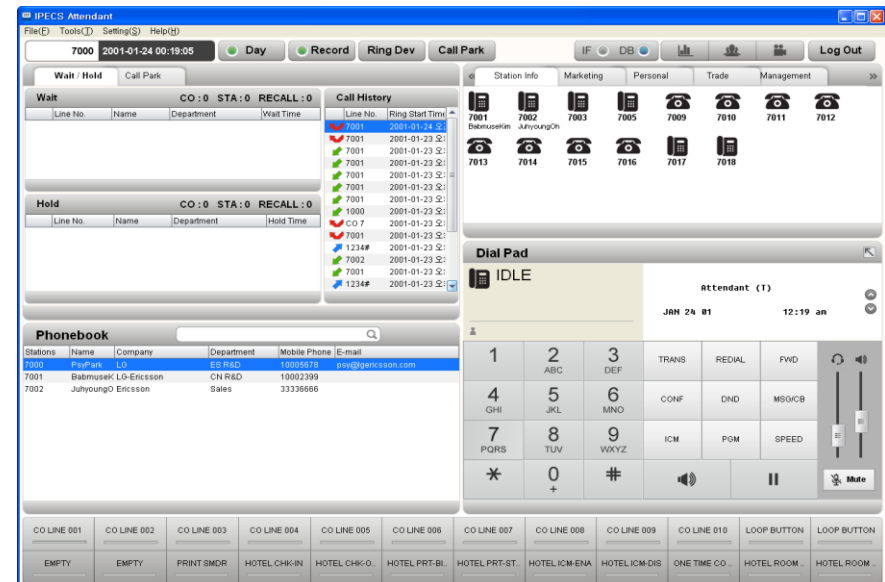




Ericsson-LG Enterprise

Dec. 2012





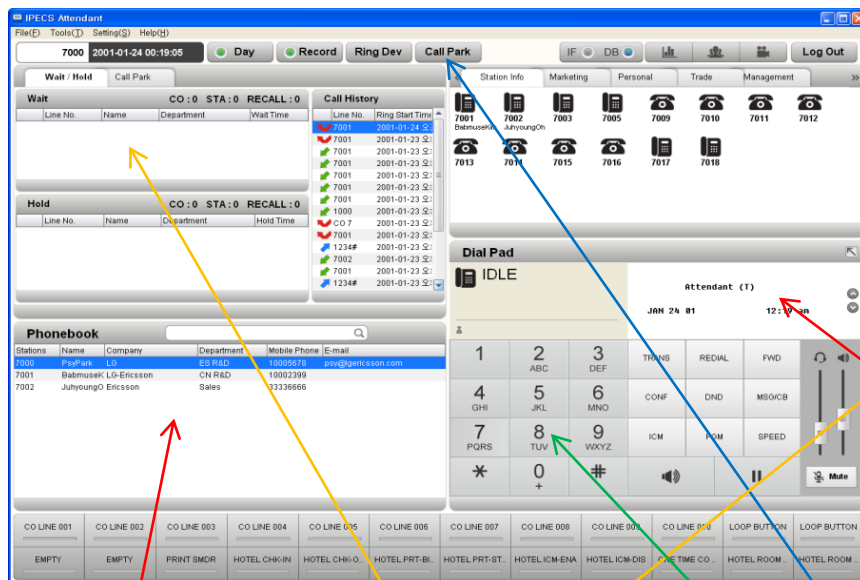
- › Enhanced IP based attendant console
 - Application enhancing the attendant features by visualizing the attendant call handling and control functions
 - Easier managing the call handling without having to switch the attention between the telephone and the PC
 - All the existing features of ez-Attendant are migrated to the iPECS Attendant and added several enhancements

iPECS Attendant Overview



SMB version for iPECS LIK and MG

LME version for iPECS CM

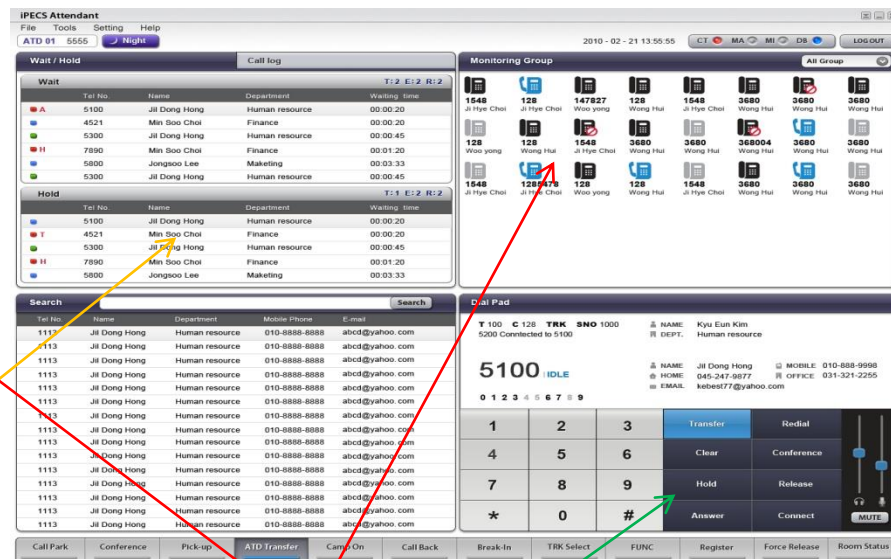


Search &
Phone
book

Queue
window :
Waiting and
holding list

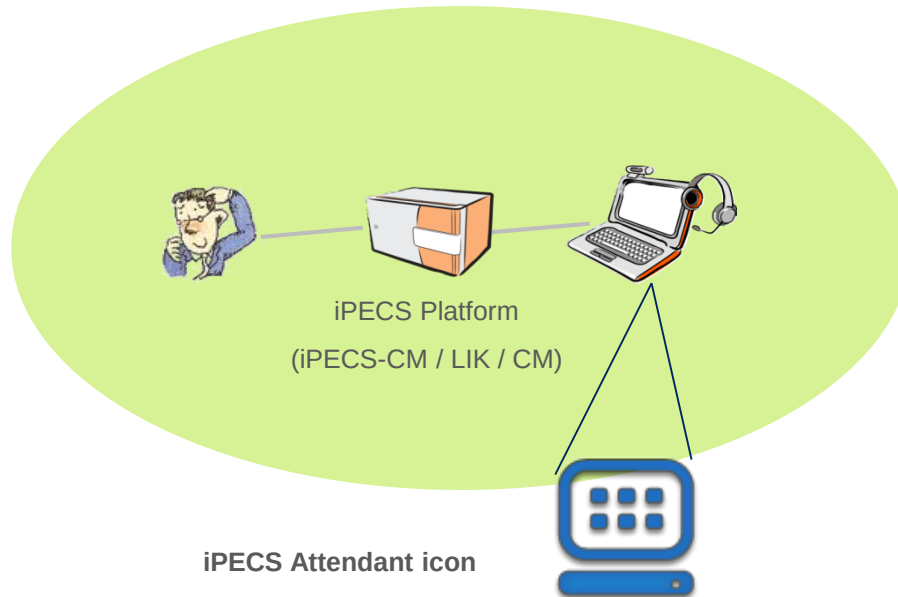
Function buttons / Alarm

Dial Pad & Volume control



Status monitoring:
Extension & Trunk

iPECS Attendant Value Proposition



Easier Managing of Call Handling – Quick learning

Embedded IP Softphone – Lower TCO

Directory Management – Full control

Productivity Tool with New Design – More efficiency



› Easy to be an attendant

- Route calls with the clicking mouse without switching PC and phone
- Status monitoring at a glance with presence based icon and operator takes alternative action
- Programmable button setting and flexible menu change
- Drag and drop call control



› Flexible call handling

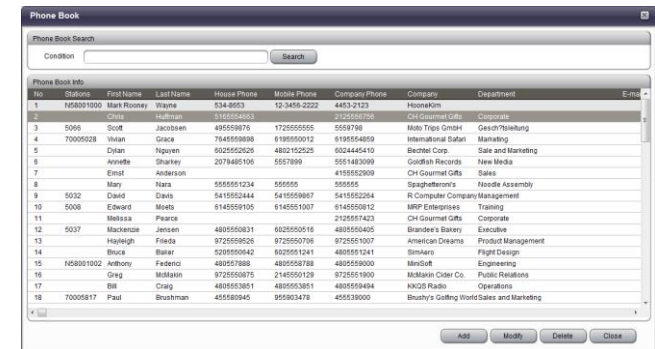
- Queue windows displays call waiting list with waiting time and priority
 - Caller information displaying incoming call type: internal, external, recall etc.
 - Wait time and priority based call handling
- Phone book and directory search
- Call park, paging, e-mail for alternative call handling
- Night Service or emergency mode
- Manual trunk selection for urgent outgoing call
- Easily set conference, redial, release and etc.

Wait / Hold		Phone Book	Call log	Speed Dial
Wait		T: 667 E: 52 R: 55		
Line	Name	Department	Waiting time	
 A	Recall	Jil Dong Hong	Human resource	
 B	Extension	Min Soo Choi	Finance	
 C	TRK	Jil Dong Hong	Human resource	
 H	Recall	Min Soo Choi	Finance	
 D	Extension	Jongsoo Lee	Marketing	
 E	Extension	Jongsoo Lee	Marketing	
Hold		T: 667 E: 52 R: 55		
Line	Name	Department	Waiting time	
 B	Extension	Jil Dong Hong	Human resource	
 T	Recall	Min Soo Choi	Finance	
 C	TRK	Jil Dong Hong	Human resource	
 H	Recall	Min Soo Choi	Finance	
 D	Extension	Jongsoo Lee	Marketing	

- › Utilizing embedded IP soft phone
 - Various call features of iPECS platform via IP soft phone
 - Call forward / Call transfer / conference
 - Call park / Hold and retrieve
 - Redial / Mute / Connection
 - Screen call pop up
 - Call pick up, answer, restriction, Series call
 - Reducing TCO by flexible configuration w/wo hardware desktop phone
 - No additional hard phone required while ez-Attendant needs to be integrated with key set
 - No compromise on the voice quality of communication though using a PC



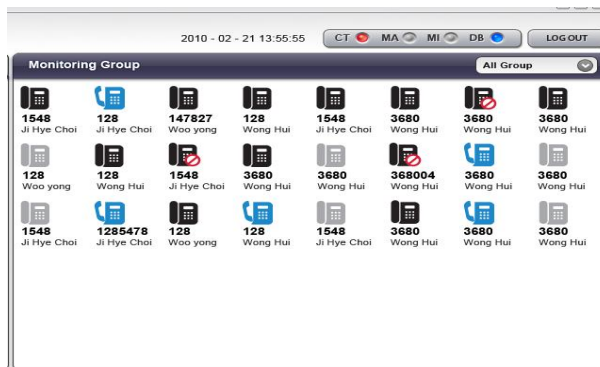
- › Data Base management
 - Link with local and corporate contact databases
 - Multiple local DB interface
 - File upload/Download
 - DB back up to local hard disk
 - ACT!, Gold Mine, ez-Attendant, Excel format is supported
- › Directory Service
 - Search on up to 17 DB fields, on any combination of fields
 - Various search options using wild card character, name using phonetic (sounds like), last name, first name, department, extension, job title, location, etc.
- › Phone Book
 - Name, station, department information
 - Editable to fit users
 - Easy to add, modify and delete
 - Import and export external data: EXCEL, cvs, text



- › Various and quick alternative contacts
 - Text message to any iPECS phone with display including wireless DECT or Wi-Fi as well as remote terminals
 - Paging: internal/external, person/group
- › Local language support
 - Prompts and text in any desired language for operators
- › Flexible and configurable layout and user interface to increase efficiency
 - Intuitive design and icons for quick call controlling
 - Select monitoring windows displays: Icon or list type
 - Drag & drop for call forward, conference and on hold call transfer
 - Preset message for subscribers
 - Customizable font, language and display layout
 - Available to change button labels, speed buttons setting and other settings
- › Statistic report
 - Call statistics for each operator
 - Calls handled by attendant /Number/call type
 - Average Call Time
 - Attendant activities

› Snapshot of group monitoring

- Easily checking and monitoring the status of group at a glance
 - Display real time status of station and trunk that registered at monitoring group
 - Up to 300 monitoring member
- Option for list or icon view
 - Call set up by double clicking the icon or list
 - Additional menu clicking right button of the mouse on the station icon
 - Call, SMS, Attendant cancel, Large icon, small icon, List view



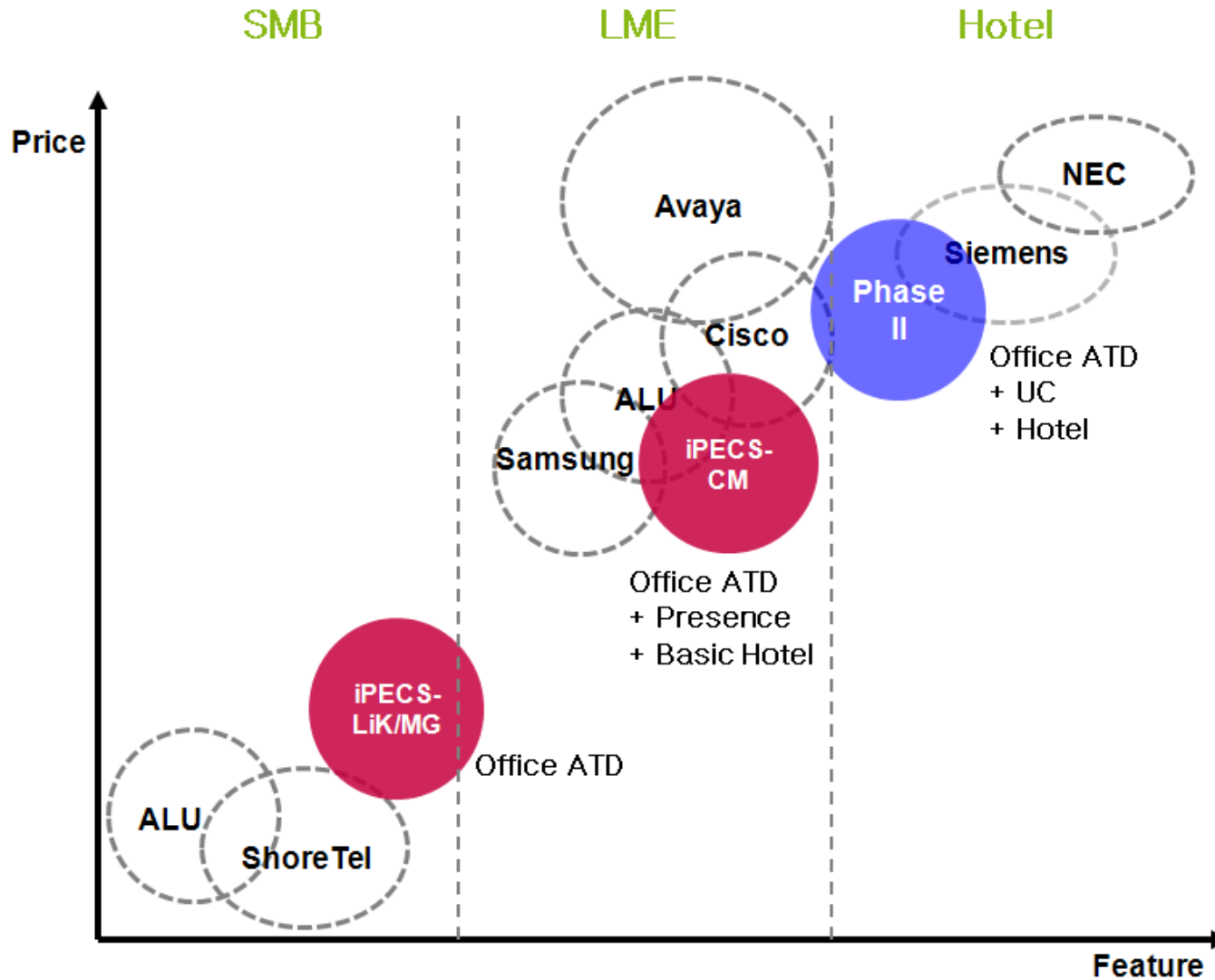
› Hotel Features

- Wake up Set/Reset
 - Time (Hour/Minute), Option (Everyday, Today, Tomorrow)
 - Multiple wake up setting for a guest up to 5
 - Wake up group register/reset
- Check In/Out
 - Room check in/out, Group Check-in/out
 - Room swapping
- Room Status
 - Maid status: Agent or maid register room status
- Call control
 - Room cutoff set/reset/override
 - Room to room block
 - Supervisor

Note:

- *Hotel features are different based on the call platform. Please refer to the feature list table.*
- *iPECS Attendant Hotel version including PMS functions will be released for iPECS-LIK and MG later.*

iPECS Attendant Positioning



- › Major vendors are likely to upgrade existing basic soft console to advanced IP Attendant Console adding UC or Hospitality features.

Model Name		Remarks	Status
Cisco	> Cisco Unified CallManager Attendant Console > Cisco Unified Enterprise Attendant Console	> IP attendant, personal small line status tool for office usage > Server/Client > 25~100,00 IP Phone per system > Arch Solution OEM	Adoption of UC features such as Presence
Siemens	> OptiClient Attendant PC Console > OpenScape Concierge	> Traditional PC attendant Console > (World first) UC applied attendant	
Avaya	> Avaya One-X Attendant	> Office attendant console > Dual monitors support > 250,000 phone book/2,000 BLF > Virtualization: Vmware, Hyper-V support	
NEC	> Integrated Attendant Console > IAC Business(IAC Lite/IAC) > IAC hotel/Motel > IAC Blind Operator console	> CTI, an NEC Univerge solutions partner make IAC & related solutions. > Various features for hospitality	Specialty on Hospitality

- › Major vendors charges premium for advanced features like external database access, presence (UC feature) and hospitality features.

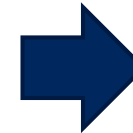
Model	Vendor	Description	Price	Remark
Hotel	NEC	IAC	\$6,584	MSRP
	Siemens	ACWin IP Attendant	\$4,593	MSRP
LME	CISCO	Enterprise Attendant	\$4,107	MSRP
	Avaya	One-X Attendant	\$7,388	MSRP (\$2,450 ext-DB, \$2,450 Presence module excluded)
	ALU	4059 multimedia attendant console	\$2,930	MSRP (\$1,269 POP-UP module excluded)
	Samsung	IP-PC Attendant	\$1,800	Dealer Price
	Skycom	PC Attendant	\$1,300	Partner Price
SMB	ShoreTel	ShoreWare Operator Call Manager	\$595	MSRP
	ALU	PIMphony Attendant	\$624	MSRP
	Ez Attendant	PC Attendant	\$400	Existing LG-Ericsson Solution for SMB

Competitive Analysis



Comparison Table

S/W Attendant	Company Model Name System	LG-Ericsson PECS Attendants		NEC	Cisco	Skycam	Simens	Avaya	ALU	ShoreTel
		PECS-CM	PECS-LUKMG	NEAX-7400 Series	Red Enterprise Attendant Com p Unified Communications Man	ARIEL	HiPath 2000/3000/5000	one-X Attendant CM V3.1 and higher	4259 IP Attendant OmniPCX Ent	Operator Call Manager ShoreGear Series
General	Design									
	Phone Window									
	Capacity	30 per tenant	5		25	30 per tenant			50 per group	
	CPU	above 1GHz	above 1GHz	above 1GHz	Pentium IV	above 1GHz	2 GHz	2 GHz	above 400 MHz	P4 2.0GHz
	OS	Windows 7, XP, Vista	Windows 7, XP, Vista	Windows 7, XP, Prio	Windows Vista, XP	Windows 7, XP, Vista	Windows XP, 2003, Vista	Windows XP, 2003, Vista		Windows 7, XP, Vista
	Memory	above 1GB	above 1GB	above 1GB	1GB	above 1GB	1 GB	1 GB	512MB	150MB
	Security									
	Encryption Algorithm									
	Voice Codecs(QoS)	G711, G729	G711, G729	G711, G729	G729, G711	TDM	G729, G711, G723	G729, G711		G.711/G.722
	Multi Language Support									OUS, France, Spain, Germany)
Basic	Call Control	Dial / Answer								
	Transfer									
	Hold									
	Conference									
	Pick Up									
	CFWD									
	DNQ									
	Night Service									Pickup night bell ?
	System Alarm									
	Charged Call									
Application	Database									
	Remote Connection									
	Local DB									
	Call type									O(16Calls)
	Priority									
	Information									
	Information Display			O (only window)			O (only window)			
	Record	P2	P2							
	Tenant / Class									
	Show Dial									
Advanced	Account management									
	Log									
	statistic by account									
	Phone Book									
	Search									
	LDAP	P2	P2					O(ODBC, LDAP)		
	Calendar	Calendar Call Routing	P2							
	3rd Party App. Integrat	Microsoft Outlook	P2							O(2003, 2007)
	Real-time									O(then App 4.5)
	Log/Statistics									
Advanced	File management									
	File Upload									
	File Download									
	Integration									
	Message Notification									
	E-mail									
	Programmable Button									
	Layout									
	Language / Font									
	Ring change									
Advanced	Presence									
	Real-time									
	Information			O(Optional)						
	Grouping									
	Check-In/Out		P2							
	Wake Up		P2							
	Room Cut		P2							
	Room Swap		P2							
	Maid Status		P2							
	DNQ		P2							
Advanced	Message		P2							
	Room call barring		P2							
	Guest Information Display		P2							
	Language		P2							
	Hotel Advanced Solution									
	Embedded PMS									
	UC Integration									



comparis on table



Most vendors have complete set of basic features, but have different subset of application features.
(Only Ericsson-LG offer affordable hotel features.)

Requirement for iPECS Attendant

› PC Requirements

- Processor: CPU 1GHz
- Memory : 1GB
- Hard Disk: 100GB
- Operating System, Windows XP service pack 2, Windows Vista, Windows 7
- Windows Resolution: 1,280 x 1,024

› System Requirements

System	S/W Version	License Name		Remark
		Office	Hotel	
iPECS-CM	v3.0Dm+	CML-IPATDS 1 st release: Feb	Additional license needed: CML-HOTEL	CML-IPEXT is required 1 copy / 1 user
iPECS-LIK	LIK5.6 (Office) LIK6.0 (Hotel)	LIK-ATD 1 st release: Feb	LIK-ATDH 1 st release: May	1 copy / 1 user
iPECS-MG	v2.0C+	MG-ATD 1 st release: Feb	TBD	1 copy / 1 user

Feature Comparison Table (1/2)

› Features comparison table for each call platform

Function	Function detail	iPECS-CM	iPECS-LIK / MG	Remark
System	System time setting	X	O	
	Call Parking/Paging	X	O	
	E911 audible and visual notification key	X	O	
	Visual Major and Minor alarms, alarm notification	O	O	
	Text message send/receive (through 3G)	X	O	
	Text message send/receive (ATD<->Extension)	X	O	
	Trunk Monitoring	O	O	
Trunk call handling features		O	O	
Setting change		O	O	
Layout change and management features		O	O	
Application basic features		O	O	
Hotel	Wake up set/reset: Display time, minute, Option (everyday, today, tomorrow) etc.	O	O	iPECS Attendant for LIK-Hotel version will be released in Q2
	Multiple wake up setting	O	O	
	Wake up group set / reset	X	O	
	Room Cutoff Set / Reset / override (Call restriction)	O	X	
	Check In / Out	O	X	
	Group Check In / Out	O	X	
	Room Swapping	O	X	
	Maid Status (agent or maid register room status; cleaning, cleaned)	O	X	
	Room Cut	O	X	
	Room to room block	O	X	
	Supervisor	O	X	

Feature Comparison Table (2/2)

Function	Function detail	iPECS-CM	iPECS-LIK / MG	Remark
DataBase	DB Data Back up	O	O	
	File Upload / Download	O	O	
	Back up system component data to local hard disk	O	O	
	Multiple local DB interface	O	O	
	Input of Directory Name in Phone Book	O	O	
	Phone Book (A Function that operators search locally saved phone book) - Display subscribers extension, name, department information etc. - Provide trunk, station or customized editable phone book - Add, change and delete phone book - Manage external phone number - Load and extract external data (EXCEL, cvs, text)	O	O	Customizable phonebook
	Use Local DB	O	O	
Directory Service	Search on up to 17 database fields	O	O	
	Search on any combination of fields	O	O	
	Search using wildcard characters	O	O	
	Search for names using phonetic ("Sounds Like") searching	O	O	
	Some fields include drop down menus (ex. Department)	O	O	
	On any single match, all others in the same department are listed	O	O	
	Searching is consistent no matter what back end DB or directory is used	O	O	
	Option: last name, first name, department, extension, job title, location....etc	O	O	
	display date, time, source, destination	O	O	
Statistics report	Call statistics for each operator	O	O	
	Calls handled by Attendant / Number / Call type	O	O	
	Average Call Times	O	O	
	Attendants Activity	O	O	

› **Hotel PMS service enhancement**

- Import / Export Speed Dial information to excel file
- Pop-up window for 911 emergency call
- Group Registration (wake-up / Group Check-in)

› **Advanced Feature**

- Flexible ODBC Integration
- Video Call processing
- Powerful call History & Statistics
- Call Recording
- Call history window

P2 : New Hotel PMS Features



Feature List	Description	Supported Platform
Import / Export Speed Dial information from/to excel file	Operator can save or load Speed Dial configurations in Excel file format	LIK/MG
Pop-up window for 911 emergency call	[1] Emergency call pop-up will enable operator to respond quickly. [2] Missed call pop-up display is also activated for additional information.	LIK
Registration history	[1] Check-in/out information [2] Wake up registration information [3] Wake up cancel information	LIK/CM
Group Registration	[1] Check-in can be processed in groups. [2] Wake-up call can be processed in groups.	LIK/MG/CM

P2 : New Feature Enhancements

Feature List	Description	Supported Platform
Group Information	Subscriber can be assigned to groups	LIK/CM
Tone/ Ring device selection	Ring sound is directed to speaker and tone & voice is directed to headset.	LIK/CM
Call statistics for each operator	[1] Statistics report for individual operator calls [2] Statistics report for total operator calls	LIK/CM
Attendant activity report & Average call times report	[1] Record operator service time & report statistics [2] Call is classified as Staff Call / Department Call / Guest Room Call [3] Report average call time for each Call types	LIK/CM
Statistics in graphs	[1] Line-chart Display for statistics [2] Bar-chart Display for statistics	LIK/CM
GUI enhancement	[1] Larger fonts & more visible Notification information [2] History & video window added	LIK/CM

P2 : New Advanced Features

Feature List	Description	Supported Platform
DBMS Inegration (ODBC, LDAP)	[1] ODBC Integration : works with MySQL, MSSQL [2] Works with LDAP	LIK/CM
Outlook Contact Excel Integration	[1] MS Outlook Contacts can be imported [2] Contacts can be stored in Excel format	LIK/CM
Call recording service	[1] Call recording (in PC softphone call) [2] Management interface for recorded files	LIK/CM
Video	Video calls with other video terminals	LIK/CM
One-touch transfer	Calling through clicking the station number on the dialpad	LIK
Drag & Drop	Independent monitoring window with drag & drop support	LIK
Integration with Headsets	Headset Hook Switch is supported *** Plantronix products only	LIK/CM
Recent Call History window & Staff call history	[1] Real-time recent call history window [2] Department call history [3] Guest room call history	LIK/CM
Missed call notification	Show missed calls in History window	LIK/CM
Emergency call history	[1] Show Emergency call history [2] Show by call types (All, OG, IC) [3] Show by operators (per ATD / Total ATD)	LIK/CM



- › 2012-06-11: positioning changed
- › 2012-07-10: licensing information updated
- › 2012-12-26: P2 enhancement information added