

**aria**soho  
*Digital Hybrid PABX for SOHO*

# SMART Communications



## SMART partners for communications

New technologies in the realm of telephony bring us advancement in communications which in turn influence changes in business from large-sized enterprises to small ones. However, traditional imperatives in the SOHO telephony market stand fast asking for values like cost effectiveness, easy Operation & Maintenance (O&M) at the forefront.

SMART partners for communications





## SMART telephone system with Plug & Play facility

ARIA SOHO is designed to be a user-centric telephone system in regard to installation and O&M. With Plug & Play facility thru a full-hybrid architecture, the ARIA SOHO gives a maximum flexibility in selecting types of user terminals whether dealing with Analog SLT, FAX or Digital phone. And when connecting external lines, ARIA SOHO recognizes varying signals identifying FAX from voice and automatically delivering them to the appropriate types of terminals.

In fact, this facility can especially satisfy the needs of small- to medium-sized enterprises as well as home users with little-to-no engineering background.

As one of basic components, LG-Nortel has developed an integrated device and implemented it into a basic cabinet of ARIA SOHO making some of services costless.

- Call Processing Tone Detection
- SMS / Caller ID Sending / Receiving
- DTMF Processing
- Fax Tone Detection



## LG-Nortel DIGITAL Technologies: Making services cost less

Traditionally in the small telephony environment, fundamentals in technology seem to be beyond the interest of users as long as basic services are satisfied.

This nature often keeps users from evolving to an upgraded environment for smarter communications and also forces them to resort to a separate payment for additional services.

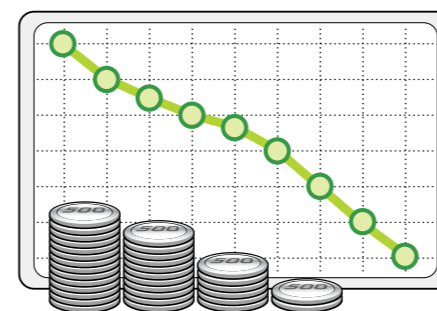
## Affordable scale to 48 extensions

Due to its digital architecture, ARIA SOHO easily and affordably expands up to 48 extensions without wasting initial investment.



## Managing communication costs

ARIA SOHO provides services to monitor and restrict outgoing traffic (as needed) in order for a manager to control communication cost.



## Sophisticated service options

On users' requests, ARIA SOHO can provide additional sophisticated options usually offered in larger telephone systems.

- TAPI interface for integration with 3<sup>rd</sup> party applications
- PC based attendant : **ez-attendant**
- TAPI based PC phone : **ez-phone**
- Built-in voice mail / Auto Attendant
- Modem unit for remote maintenance
- LAN interface for Ethernet connection



## Empowering analog extensions

As cost can be a primary issue for most small offices, digital telephones could be selectively given to only a few employees.

Accordingly, the majority of system features should be easily supported to SLT users rather than digital proprietary telephones users.

In ARIA SOHO, the upgraded services represented by SMS, CID and several PC applications are analog extension focused.

## Customer driven system

Small enterprises or home users may want to have full-control to manage the system for themselves. ARIA SOHO gives hands-on methods for M&O like PC-Admin (On-line / Off-line) software and Speed Editor for updating the User database.

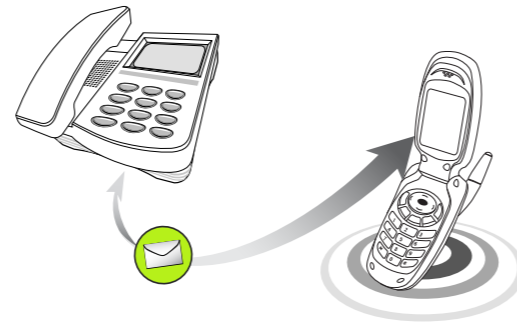




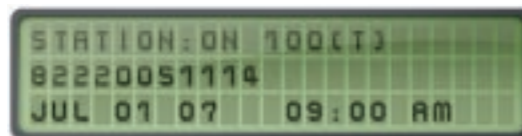
ARIA SOHO detects caller identification information (CID) from the CO Line and displays it on CID capable SLT as well as digital telephone. Compatible CID signals for CO line are FSK-type, Dual Tone Multi-Frequency (DTMF) type and ANI. For extension side, a SLT user should have a CID capable SLT supporting FSK or Dual Tone Multi-Frequency (DTMF) type protocol.

### Short Message Service (SMS)

Messaging has become a very useful tool for modern lifestyles. No wonder that its applications in the business environment is recently being identified as an effective way for sharing information. ARIA SOHO recognizes SMS messages sent from PSTN, where available, and sends them to SMS capable SLT or LG-Nortel's TAPI phone (ez-phone). The compatible specification for SMS in ARIA SOHO is "Protocol type I of ETSI ES 201 912".



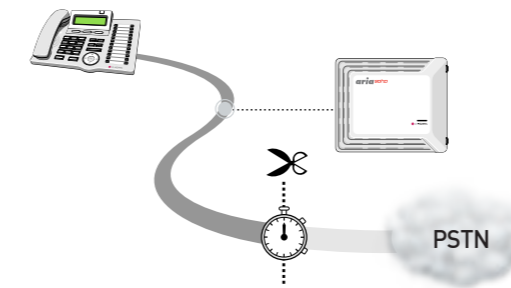
Caller ID for CO lines & analog extensions



### Call Cost Control/Monitoring

Telecommunication cost seems to be one of the major issues that takes a big place in the cost sheet for running a small enterprise.

ARIA SOHO provides a variety of Call Cost Control/Monitoring facilities.



#### Call Cut-Off Timer for each extension

Activated and set by system programming; when the timer expires, the on-going call will be disconnected.

#### Pre-paid Call

Works with the optional Call Metering Unit (CMU) that recognizes specific billing signals sent from the PSTN and give each extensions limited minutes for out-going calls.

#### Barge in

Enables a designated extension to intrude in on-going conversations after a warning tone is presented.

#### SMDR

For billing in ARIA SOHO, up to 1000 calls be logged in before being printed out or downloaded to a PC.

#### Least Cost Routing (LCR)

Automatically uses LCR tables and types of operation to identify the least expensive routing for outgoing calls.

### PC Applications



Due to its digital architecture, ARIA SOHO can be activated to run as an application service platform by implementing proper key codes.

#### TAPI Interface (1<sup>st</sup> / 3<sup>rd</sup> party)

The most commonly used CTI interface from Microsoft can be enabled that extensions can use TAPI compatible software for making calls.

#### LG-Nortel's TAPI based PC phone (ez-phone)

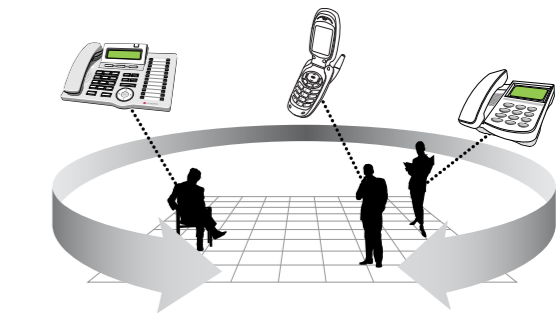
Improves individual call controls and provides a handy tool to send/receive/save SMS.

#### PC Attendant (ez-attendant)

PC based attendant console running on MS-Windows will be a good supplementary option replacing an attendant console. Normally, running the software attendant is preferred in larger scale configuration of ARIA SOHO consisting of 2 cabinets rather than a small configuration.

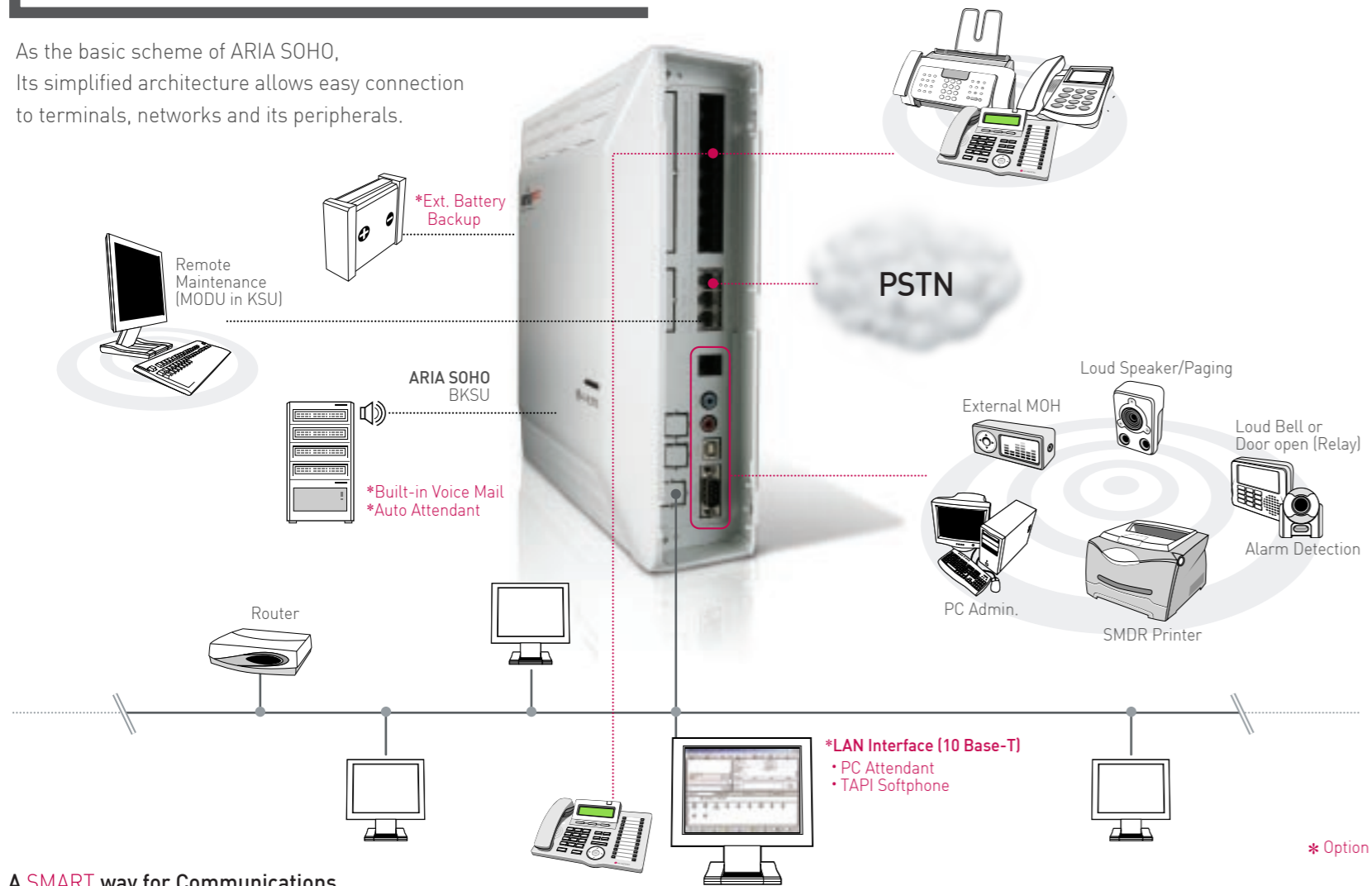
### Conferencing

ARIA SOHO gives two ways of conference which are "Multi-party conference (max. 15 parties)" and as an upgraded conferencing method - "Conference rooms".



# A SMART way for Communications

As the basic scheme of ARIA SOHO, Its simplified architecture allows easy connection to terminals, networks and its peripherals.



A SMART way for Communications

## Proprietary digital telephones

As proprietary digital terminals, ARIA SOHO offers customers several choices - LDP-7224D, LDP-7208D, LDP-7248DSS as desk top telephones and LDP-DPB as a door phone. LDP-7224D can be normally used as a programming terminal as well as an attendant console. For accommodating an user's convenience, wall mount brackets are provided as an option for desktop digital phones.

## LDP-7224D

- Triple line LCD (3 x 24)
- 3 soft keys
- Navigation key
- Headset jack
- 24 flexible buttons
- 7 fixed function keys
- Speaker phone
- Dual LED
- Wall mount brackets



Wall-mount brackets 4



## LDP-7208D

- Dual line LCD (2 x 24)
- 8 Flexible buttons
- 5 Fixed function keys
- Speaker phone
- Single LED
- Headset jack
- Wall mount brackets



## LDP-7248DSS

- 48 Programmable keys
- Direct Station Selection



## LDP-DPB

- Digital door phone
- Rotary type volume
- Dimension (mm)  
: 99 (W) \* 132 (L) \* 33.1 (H)





## Product Components

ITEM	ADD-ON OPTIONS	MAX. CAPACITY		SPECIFICATION	
		CO	*Ext.		
BKSU (Basic Key Service Unit)	1 CHB308 / CSB316 / SLIB8 1 VMIU/AAFU 1 LANU 1 MODU 1 DPU2 1 CMU	6	1D+15H / 1D+7H+16A	3 CO lines & 8 Ext.(1 Digital + 7 Hybrid) 1 Alarm detection 1 Door open relay 1 External MOH Interface 1 Paging Interface 1 USB (USB 1.0 and 1.1 compliant, Slave) 1 RS-232C 1 Power failure transfer circuit	
EKSU (Expansion Key Service Unit)	1 CHB308 / CSB316 / SLIB8 1 DPU2 1 CMU	6	16H / 8H+16A	3 CO lines & 8 Hybrid Ext. 1 Alarm detection 1 Door open relay 1 Power failure transfer circuit	
Expansion Board	CHB308	1 CMU	3	8H	3 CO Lines and 8 Hybrid Ext. 1 Power failure transfer circuit
	CSB316	1 CMU	3	16A	3 CO Lines and 16 SLT Interface Board 1 Power failure transfer circuit
	SLIB8	N/A	0	8A	8 SLT Interface Board
function Unit	VMIU	N/A	N/A	N/A	Voice Mail Interface Unit - 4 ch. / 2 hrs
	AAFU	N/A	N/A	N/A	Auto Attendant Function Unit, 4 channels
	LANU	N/A	N/A	N/A	LAN interface Unit : 10 Base-T Ethernet (IEEE 802.3)
	MODU	N/A	N/A	N/A	Modem Unit (33Kbps)
	DPU2	N/A	N/A	N/A	2 Door Phone interface Unit & relay
CMU	N/A	N/A	N/A	N/A	Call Meeting detection Unit (3 channels)

A : Analog extension  
D : Digital extension  
H : Hybrid extension

## Other Specification

ITEM	DESCRIPTION	SPECIFICATION
PSU	AC Voltage Input	230 +/- 10% Volt AC @47-63Hz
	AC Power consumption	90W
	AC Input Fuse	1.25A @250Volt AC
	DC Output Voltage	+5, -5, +27, +30Volt DC
External Backup Battery	Input Voltage	+24 Volt DC(+12VDC x 2ea)
	Battery Fuse	5.0A @250Volt AC
	Charging Current	Max. 200mA
	Battery Load Current	Max. 3A
Operating Environment	Temperature	0 (oC) - 40 (oC)
	Humidity	0 - 80% (non-condensing)
Dimension	KSU	339mm(W) x 288mm(H) x 85mm(D)
Weight	Basic KSU	2.0 Kg
	Expansion KSU	1.9 Kg

## HOW TO GET INCOMING CALL

Ring Assignment  
PLA (Preferred Line Answer)  
DISA (Direct Inward System Access)  
CCR (Customer Call Routing)  
with VMIB  
CO Line Name  
UNA (UNIVERSAL NIGHT ANSWER)

## HOW TO ACCESS OUTGOING CALL

Basic access  
Call time restriction  
CO Line Queuing  
CO Step Call  
Emergency Call service  
Hot Line & Warm Line  
LCR (Least Cost Routing)  
ACNR (Auto Call Number Redial)  
Last Number Redialing  
Save Number Redialing  
Station Speed Dialing  
System Speed Dialing  
Private Line

## REROUTING FEATURE

Call Forward  
: Unconditional, Busy, No Answer,  
Busy/No Answer, Follow-me  
Call Forward Station Off-net  
: Unconditional, No answer  
Call Forward Station Off-net with Tel No.  
: Unconditional, No answer  
Call Forward, Incoming CO Off-net  
SLT Call Forward  
Preset Call Forward  
Call Transfer to CO Line / Station  
Hold  
Hold Preference  
Automatic Hold  
Park  
Directed Call Pick Up  
Group Call Pick Up

## CALL BARRING FEATURE

Account Code  
Authorization Code  
Automatic Call Release  
COS (Class Of Service)  
System Speed Zone  
Walking COS

## SMDR

Display / Print-out

## CALL HANDLING

Absent Text Message  
Custom Message  
Pre-selected Message  
Alarm  
Automatic Privacy  
BGM (Background Music)  
Camp-on  
Change Ring Type  
Data Line Security  
Dialing Security  
DND (Do Not Disturb)  
DND - One Time DND  
Flash  
Flexible Button  
Headset  
Intercom Signal Mode  
Intercom Tenancy Group  
Message Wait / Call Back  
MOH (Music On Hold)  
13 Internal melody sources  
Mute  
On-Hook dialing  
Station Name  
Station Program  
Station Program Menu  
Station Relocation  
Station Serial Call  
Voice Over  
Wake-up  
Extend CO-to-CO Connection

Forced Hands free Mode  
Hot Desk  
Call Log  
In-Room Indication  
Chime Bell  
Emergency Intrusion  
Forced Trunk Disconnect  
Barge In  
CLI on Analog SLT

## VOICE MAIL SERVICE

Recording System  
VMIB Announcement  
Remote Control  
Two-way Recording  
Two-way Recording via SMDI  
Two-way Recording via VMIB  
Recording User  
VMIB Announcement  
VMIB Announcement for  
Auto Attendant  
VMIB Message Transfer  
VMIB Message with CLI

## HUNT GROUP

Terminal Group  
Circular Group  
Ring Group  
Voice Mail Group  
UCD Group (Unified Call Distribution)  
ACD  
(Automatic Call Distribution)

## CONFERENCE FEATURE

Confer ence -  
SLT (BROKERS Call)  
Paging Conference  
Conference Room

## PAGING FEATURE

Internal page / External page /

All-Call page / Meet-me Page  
Pre-recorded MSGSOS Paging

## LINKED STATIONS

Executive/Secretary

## EXTERNAL DEVICE CONTROL

Door Opener  
Door Phone  
Loud Bell

## ATTENDANT SERVICE

Assign Attendant  
Attendant Call & Queuing  
Attendant Forward  
Attendant Intrusion  
Attendant Override  
Attendant Recall  
Change LCD Date/Time display  
Day/Night service  
Disable Outgoing Access  
ICM Box Music Selection  
Station Feature Cancel  
DSS/DLS Consoles  
TRAFFIC ANALYSIS  
Traffic Analysis - Attendant  
Traffic Analysis - Calls  
Traffic Analysis - CO  
Traffic Analysis - H/W Unit

## SOFTWARE UPGRADE

USB  
LAN  
SERIAL(COM port)  
MODEM