

# NEC

## **Integrated Attendant Console**

**White Paper**

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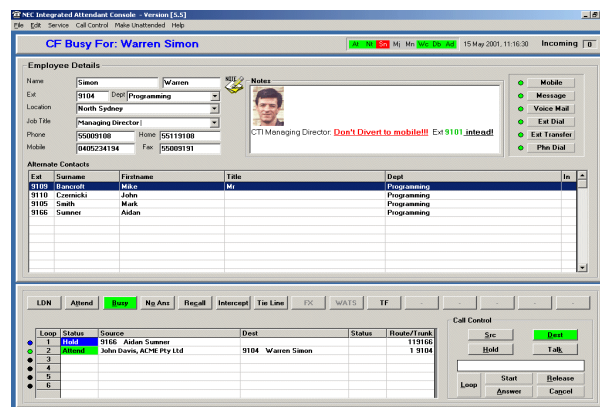
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# Overview

With the convergence of telephones and computers the speed in which people want results has increased. This increase has affected all areas of business all the way down to the switchboard. The switchboard is the hub of an organisation's telephone traffic and more importantly the first contact most people will have with an organisation. If the switchboard is not efficient and professional the first impression can reflect badly on the company. This is an area of your business which needs special attention and the right equipment to assist operators in producing excellent results and ensuring your business portrays the professional image it deserves.

NEC understands that a switchboard is an important part of any telephony solution. With convergence and the need to ensure the whole solution is functioning at it's best, NEC have designed the Integrated Attendant Console.



The IAC (as it is commonly known) is a total solution to switchboard needs. The IAC is a true attendant console that can directly replace the SN-694 and SN-716 hardware consoles. The IAC has an impressive suite of features and was designed with three aims:

1. Improve Operator efficiency
2. Improve the professional image of your business
3. Make the operator work smarter and not harder

The IAC can do much more than just answer calls. NEC has designed the IAC with a powerful directory which allows the operators to perform searches onscreen whilst talking to the caller. The IAC displays staff directory information about the intended recipient of the call, giving the operator an extra professional edge when speaking to caller.

NEC understands that directory integration is the key to empowering your switchboard.

One of the keys aspects of the IAC is ensuring that the operator has up to date staff directory information. The IAC achieves this by having a suite of tools that simplify the task of directory integration. A second key aspect of the IAC is the powerful search capabilities available on screen.

The IAC is also unique and ahead of the competition. Being a true attendant console, its performance and capabilities are unrivalled. The IAC does not require any special add-ons such as TAPI or OAI, this reduces the cost to the customer and ensures a more robust and stable console.

## Screen Layout

**Employee Details**  
The Employee details section allows the operator to see who the intended callee was and gives the details for alternate contacts, position and department

**Indial Greeting**  
The Indial greeting lets the operator know who the call is intended for and the reason the call has come to the switchboard

**Incoming Call Indicator**  
This allows the operator to see how many calls are waiting

**Alternate Contacts Screen**  
This section allows the operator to see other personnel with in the called parties department.

**ICI Buttons**  
Incoming Call Indicator buttons allow the operator to see what type of call is incoming

**Loop Display**  
This function is a direct copy of the layout of the SN-716. This has been done so that an operator with previous experience on a console can immediately be familiar with the IAC screen. Loop display show the status of a call and the route and trunk

**One Touch Smart Keys**  
These allow the operator to action common actions with use of a single button

**Call Control**  
The call control section is where the operator can answer the call, place a caller on hold, transfer a caller and disconnect a caller.

Loop	Status	Source	Dest	Status	Route/Trunk
1	Hold	9166 Aidan Sumner			119166
2	Hold	John Davis, ALICE Pty Ltd	9104 Warren Simon		1 9104
3					
4					
5					
6					

## Versions

The IAC has been designed to cater for a large audience of customers. Through continual refinement the IAC is now available in three versions.

### **IAC Business**

IAC Business is the standard IAC console which is used by the majority of organisations. This has the full range of features and is the console in which all others are measured against.

### **IAC Hotel/Motel**

The hospitality industry is very different to other industries in the way it provides service to their customers. The IAC Hotel/Motel has been specifically designed to cater for this different environment providing all the additional tools required to satisfy the customer.

### **IAC Blind Operator Console**

Utilising the latest technology the IAC has also been designed for blind operators. The IAC Blind Operator console has been designed with this unique requirement allowing a blind operator to process a call with the same efficiency as a sighted operator.

## Benefits

The IAC is a comprehensive solution for any business looking at leveraging their existing infrastructure or having a view to expanding in the future. Below are a list of the benefits you will have by introducing the IAC to your business:

### **Improved operator productivity**

- ✓ IAC displays appropriate greeting when an operator answers the call.
- ✓ Full directory information is popped on call answer.
- ✓ IAC provides a quick and powerful search facility, this enables faster call turnover.
- ✓ Common call transfers can now be actioned with the touch of a button.
- ✓ Transfers to Voicemail are in the region of 15 seconds faster than hardware consoles.

### **Reduction in switchboard operational costs**

- ✓ Fewer Operators required due to increase in productivity.
- ✓ Rosters of both permanent and casual staff can be optimised using the advanced statistical package.
- ✓ IAC operates on Microsoft Windows NT 4.0 or Windows 2000 professional operating system. This allows the operators to multi-task allowing them to use other applications such as Word or Excel.

### **Reduced operator training time**

- ✓ The powerful but easy to learn IAC interface will reduce staff training lead-time.
- ✓ Ease of use means that a lower skilled (and lower cost) operator can be employed.
- ✓ Operators no longer need to be telephony specialists.

### **Improve organisations professional image**

- ✓ Switchboard operators are often the first point of contact with your organisation.
- ✓ Operators can answer calls for various business units or departments using indial specific screen pops.
- ✓ Reduced office clutter - no longer a need for physical hardware or paper directories.

### **Leverage existing database information**

- ✓ Directory information is a valuable resource and a powerful tool.
- ✓ IAC provides a rich suite of directory integration tools which allow integration with almost any directory information system.
- ✓ IAC can integrate with most standard PABX call accounting packages.
- ✓ The IAC directory database provides for a virtually unlimited number of directory entries.
- ✓ IAC can perform searches with any combination of fields.

### **Leverage existing Voice mail, E-mail and Paging Systems**

- ✓ Tightly integrated email and pager messaging replaces untidy paper message taking facilities.
- ✓ No longer need to enter pager numbers.
- ✓ No need to search for email addresses.
- ✓ Fast automated transfer to *any* voice mail system, either local or remote.

## **Features**

The IAC solution will do things to your switchboard you never thought possible. With extensive research and development the IAC is packed full of practical features which will not only compliment your existing infrastructure, but will also improve your professional image. This will make your customers think from that very first call "This is an organisation I would like to do business with".

IAC features include:

### ✓ **Powerful Directory database**

A Database is a large and important part of any modern business. The IAC database has been design with this in mind. Not only is the IAC database powerful and fast it also has extensive search functionality and can integrate with most existing database formats. The IAC database has an "open" design and uses Microsoft's ODBC standard.

### ✓ **Voicemail Integration**

Voicemail Integration allows the operator to transfer a call to your Voicemail at the touch of a button. Typically an operator would be required place the caller on hold, dial the Voicemail pilot number, wait for the Voicemail to answer, dial the mailbox number, wait for that to answer, then release the caller through to Voicemail. The caller would not hear the first 1 or 2 seconds of the greeting message.

Using the IAC, a single button click transfers the caller directly to the correct mailbox and they will hear the full greeting message. The call is immediately released from the console, and the operator is ready to process the next call. The Voicemail integration will on average save 15 seconds per call and can work with most voicemail systems.

### ✓ **Mobile, Pager and E-mail Integration**

One of the advanced functionalities that the IAC has over other consoles is it's ability to integrate with Mobile phones, Pager and E-mail all at the touch of a button. This allows the operator to contact a person anywhere at anytime.

### ✓ **CLI and screen popping Tools**

CLI (Caller Line Identification) and Screen popping are both features which have been designed to give an operator more information when a call goes to the switchboard. CLI can be displayed if ISDN trunks are in use. The operator can enter the callers name and company details into the database so that they can be displayed next time the person calls.

### ✓ **Itinerary**

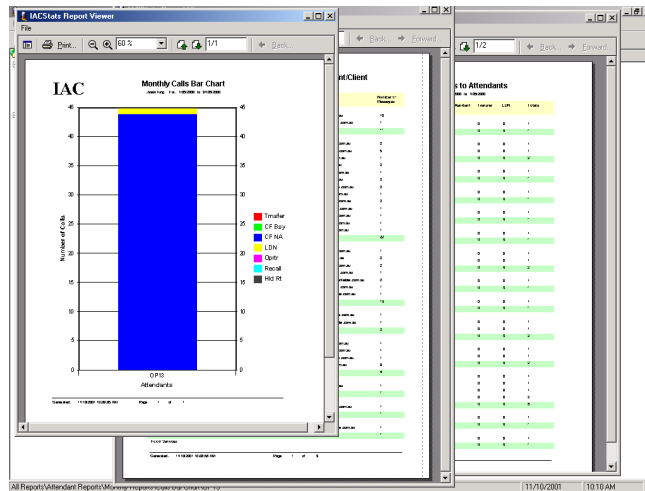
The Itinerary function on the IAC allows staff to inform the switchboard when they will be out of the office or in a meeting. This is a great tool and lets the operators stay informed of the movements of staff. The itinerary information is displayed on the IAC along with the staff members directory details.

### ✓ **Hotel/Motel Functionality**

Hotels and Motels have always had to use a hardware console in co-operation with their PMS (Property Management System). Now the IAC integrates both functions into an advanced application called IAC H/M. The IAC H/M is designed to bring together guest information with advanced PABX functions in the hospitality environment, all available from the one screen.

## ✓ Statistics and Reporting Capabilities

The ability to gain reliable statistics on call trends is always an important part of an organisation's switchboard. IAC Stats is designed to provide information on callers, call trends and staff performance. This information can be used as a vital tool when resource planning and assists you in understanding who is calling and when.



## Directory Integration

Installation of an IAC typically does not require a high degree of customisation work. Since it uses standard NEC proprietary PABX interfaces, connection to the PABX is usually a matter of plug and play, particularly since there is no requirement for any TAPI or OAI systems.

PABX specific installation work is usually a simple matter of configuring (via standard IAC software) initial greetings, outside number prefix, and numbering plan length. Some MCI cabling may be required.

Systems integration work is usually limited to situations where the IAC will be interfacing with some external system such as a Voice Mail system, a paging system, an Email system, or a non standard database. Integration with such external systems can be performed at installation by NEC technicians.

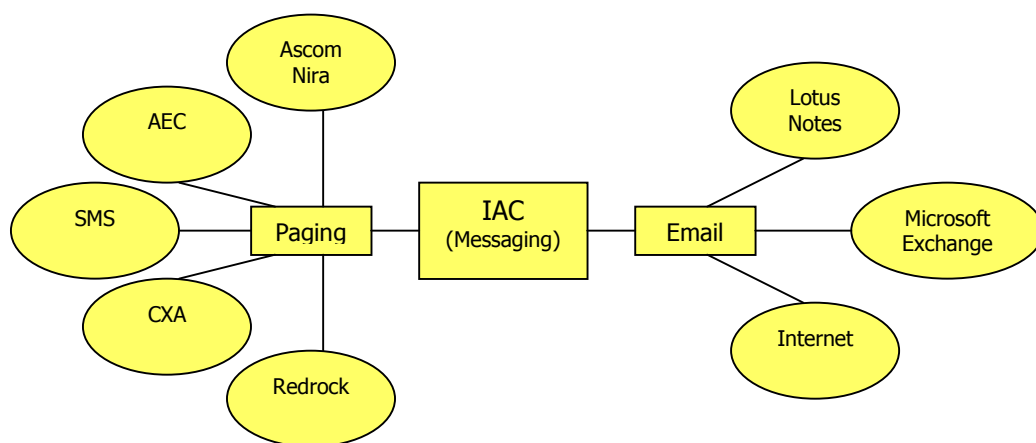
### Voice Mail

In the majority of cases, integration with a Voice Mail system is as simple as entering the Voice Mail pilot number in the IAC configuration utility. In situations where MCI (Message Centre Interface) is not supported, the IAC can be configured to use in-band signalling, in which case some additional configuration parameters such as access codes will need to be added. This can be done at installation by NEC technicians.

### Email

Because the IAC uses SMTP (Simple Mail Transport Protocol) as its messaging interface it can be easily integrated into nearly any office email system. This is usually as simple as entering the hostname or IP Address of the local email server in the IAC configuration utility. This can be done at installation by NEC technicians.

Email installation can easily be achieved with Lotus notes or Microsoft Exchange acting as the email gateway.



### Paging

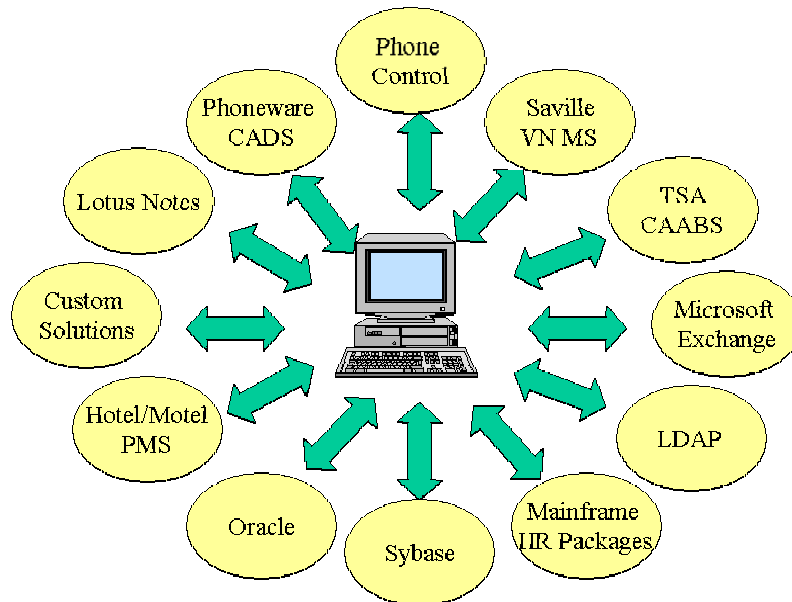
The IAC supports three of the most common paging providers - CXA, AEC, and Redrock. These providers use very different underlying communications technologies, and so configuring each one is slightly different.

Configuring the IAC to use the CXA system is as simple as entering a hostname or IP Address of the CXA server. The IAC interfaces to the AEC and Redrock systems via a driver application (which is supplied standard) which provides for parameters specific to these systems to be configured.

Regardless of the paging system in use, all integration work can be performed at installation by NEC technicians.

## Directory Integration

All IAC directory database access is via ODBC (Open Database Connectivity). This is a very widely used Microsoft technology which provides easy access to a variety of different data sources. In practice, this means that the IAC can use such database systems as Access, SQL Server, Sybase, Oracle or Informix for its directory database with minimal integration work.



ODBC also allows the IAC to import and cleanse data from virtually any data source via standard utility software which is provided with the IAC. This allows data to be imported from such disparate sources as call accounting systems, mainframes, LDAP servers and even many in-house or proprietary systems. This can be performed at installation by NEC technicians, or sometimes unusual or difficult requests can be provided at additional cost.

## Cost Justification

Cost justification is an important part of the decision process when looking at making a change in your business. Smart companies will always weigh up the advantages of a new product to the cost associated. Essentially they are looking for a good return on their investment.

The IAC is no different to any other product in that it must prove itself when prices are being discussed. Where other products fall behind this is when the IAC proves itself to stand out from the rest. The IAC was designed to reduce costs, increase operator performance and improve a company's professional image.

To assist you in cost justifying the IAC we have compiled some examples of how the IAC actually saves costs when introduced to a typical business. The following examples are common in most businesses and it is important to highlight that the IAC will typically save a business even more money once the specific needs have been determined.

### **Voice Mail Savings**

By enabling the voicemail function on the IAC an operator is able to save an average of 15 seconds per call. On an average day the operator would receive 400 calls, and say 20% are transferred to VM:

Operators Average calls per day	400
20% average amount transferred to V/M	80
Daily time saving with V/M	20 Minutes
Operator average hourly wage	\$18.00
<b>Savings</b>	
Cost saving per day	\$6.00
Cost saving per week	\$30.00
Cost saving per year	\$1,560.00

### **Reduced Training Costs**

The IAC has been able to drastically reduce the cost of training for operators. Once upon a time an operator would do a mini apprenticeship in order to learn a switchboard. The apprenticeship would involve some initial training and then 2-3 days being supervised by a trainer or a more experienced operator.

With the IAC we have been able to reduce this time to 3 hours. An astounding figure when you consider the daily cost of a trainer.

*How have we achieved this?*

Keeping it Simple, that's the key. The philosophy behind the IAC has always been to produce a product, which is simple, yet meets the complicated needs of a switchboard. All that is now required for training is familiarisation with the PC and some practice calls. Once an operator is comfortable with this they can then start taking calls.

*What does this mean in training costs?*

Average daily cost of a trainer	\$200.00-\$500.00
<u>Hardware console</u>	
Average length of training time	3 Days
Cost of training on Hardware console	\$600.00-\$1,500.00
<u>IAC</u>	
Average length of training time	3 Hours
Cost of training on IAC	\$75.00-\$187.50
Training saving with IAC	\$525.00-\$1,312.50

## Resource Planning

By utilising the IAC Statistics package management is able to increase productivity with correct balancing of staff work hours to the peaks and troughs of call flow.

*What does this save you in staff utilisation?*

Savings via smarter resource management	10%-30%
Increase in professional image of business	\$\$\$

## Improved Productivity

Productivity can be influenced by so many factors. The IAC has been designed so that the call process is as streamlined as possible. Some of the features which assist in creating a more streamlined product include Screen Popping, One touch smart buttons, Database integration and the use of CLI.

These features can alone increase productivity by up to 20%.

*What does this mean to you?*

A typical operator wage is \$37,750.00 P.A.

Cost saving areas:

Productivity increase @ 20%	\$ 7,500.00 P.A.
Smarter resource planning @ 10%-30%	3,750.00-\$11,250.00 P.A.

Total Saving: \$11,250.00-\$18,750.00 P.A.

**Please Note:** All figures are real results compiled by a major Australian airline customer using IAC consoles.

## Return on Investment

Now that you have seen what the IAC is capable of saving, it is easy to understand why it has a Return of Investment of less than 1 year. This type of return is unheard of in a time when businesses feel they need to pay large sums of money for a good product.

The IAC has been designed to provide Quality, Savings and smarter solutions at a fair price.