

# The Bull Contact Centre System



## / Benefits of CCS

The Bull Contact Centre System, (CCS), is comprised of integrated, modular software applications that are used to build business critical solutions for customer facing organisations. These solutions can range from customer contact centres with advanced Automatic Call Distribution (ACD), Integrated Voice Response (IVR), MIS and Computer Telephony Integration (CTI) functionality, through to virtual office systems able to support new, more flexible organisational structures, where staff are often more mobile.

CCS manages and routes all types of telephone and web contacts, thus ensuring optimal efficiency of operation and maximising on agent skills. This allows your contact centre to utilise multi-skilled agents in the most optimal way, thus creating greater efficiencies in the contact centre operation, and providing a higher level of service to your customers. Proactive management of customer service levels is achieved through real-time management of the call centre resources.

CCS has been developed with a number of key design objectives in mind. As a result the system has the following important features and characteristics:

- The system uses open and de facto standards throughout and runs on readily available industry standard hardware and software

platforms.

- A thin client approach has been adopted and it is possible to manage the system remotely over the web. All reports therefore can be pulled off using the web interface, from any location.
- All of the functionality required for a call centre can be resident on a single server and cost effective solutions can be provided that scale easily from entry level systems with a few users up to systems with over a hundred users.
- CCS can be deployed within an existing voice and data infrastructure using what is called a technology insertion approach. This means that the system can talk to any digital PABX using standard digital protocols such as Euro ISDN, DASS and DPNSS. As a consequence there is no need to use expensive proprietary CTI interfaces.

## / Services

There are a number of Contact Centre services which are provided by CCS:

- Automatic Contact and Call Distribution using Skills Based Routing and other routing rules, ensuring the best agent for the call takes the call.
- Can act as a PABX in its own right.
- Automatic Call-back facility allowing for a caller to leave a message and be called back once an agent is free.
- Location Independent Working (LIW) and Mobility. The LIW module allows the customer to publish a single contact number for employees, who can then manage their own LIW plans. This feature allows for working from Home options both in terms of permanent employees and also in terms of part time employees, used to manage overload times, whilst still providing centralised control and visibility.
- Full Call Recording, Retrieval and Playback, either automatically or on demand.
- Full Voice Messaging from any location and connection to email.
- Real Time and Historical reports.

- Web based management configuration and reporting.
- Agent client supporting contact handling and real time reporting requirements.
- Reduction in operating costs due to integrated automated service.

## / Agents

To keep customers loyal and happy, organisations need to provide quality service; and that often means giving customers freedom over 'when' they choose to make contact.

CCS processes all the incoming callers in a 'Universal Queue' where each caller is considered relative to all other callers in determining whether they can be distributed to the next available agent.

One of several different routing options can be chosen to associate agents with particular campaign-queues, ensuring that a call is routed to a qualified agent with the minimum delay. Routing options include group and skill-based routing. The latter allows more-skilled agents to receive more calls for campaigns in which they are particularly knowledgeable.

Each campaign is given a priority, thus allowing calls on 'important' campaigns to be given a priority over calls on other campaigns. The longer a call is held in a queue, the greater its priority becomes, thus preventing a call on a lower priority campaign from never being answered should there always be a queue on the higher priority campaign.

When receiving a call for a campaign, the agent can choose to hear a message identifying the campaign, avoiding the need to refer to their screen to determine this.

The rules will operate such that when a new caller arrives and there are agents free, the best agent will be found for the caller. Where all agents are busy with callers waiting, and an agent becomes free, the best caller will be selected for that agent.

This gives great flexibility to the contact centre supervisor in the way rules are set for the routing of contacts to agents.

- An agent friendly approach has been taken in designing the contact centre agent's environment. The use of a soft-phone means that there is a single intuitive user interface and

many tasks can be automated or performed with a mouse click.

- In order to create an optimal environment, the contact centre agent is provided with all of the information they need regarding their current workload and performance. The agent is able to view statistics relating to their performance, see the type of call that they are about to take and see details of the caller.
- Using Internet Explorer, the supervisor can create a visual representation of the call centre, defining individual agent positions. Once created, the plan then enables the supervisor to very quickly check on the status of agents within the call centre, as the seats are coloured to represent the status of the agent (logged-out, available, busy on a call, etc). This graphical display is very useful for instance, when the number of calls is building up and the seats are all occupied, to allow the supervisor to see at a glance, what everyone is doing.

Each agent uses a screen-phone running on their PC with the following features:

- Permanent voice-connection established between the agent's desk phone and the CCS server when the agent logs in using the AgentPhone.
- Answer incoming calls with the click of a mouse, or alternatively the AgentPhone can automatically answer the call after a defined delay, without the agent doing anything at all.
- Place caller on hold when desired.
- Mute agent's microphone.
- Transfer call to a third party, using the AgentPhone dialler—the third party can be a telephone number (that the agent is permitted to call), another agent, a campaign or a call-queue.
- It is also worth noting that the use of a PC screen-phone means that there can be a complete absence of ringing telephones in the contact centre.
- Establish a conference call with a third party.
- Create and play pre-defined greetings to callers to eliminate this repetitive task.
- View many different statistics, showing information on the agent's performance, call history, call-centre performance and callers waiting.
- For supervisor users, the ability to monitor another

agent's conversations—for example, as part of a training-exercise. This feature can be restricted so that a supervisor can only monitor their own team's performance.

- Alert option to request assistance from a supervisor, controlled by the agent.
- Multiple call handling. Although only a single call can be connected to the agent at any one time, if desired, the AgentPhone will handle multiple calls, with the agent being able to switch quickly between calls.

## / Call recording

Call recording is becoming a critical function within modern contact centres. Calls are recorded for many reasons including the capturing of information about the customer, recording a controversial call, for training purposes to improve service delivery and customer satisfaction. Call recording can be under the control of the agent, the supervisor or automated.

## / Integrated voice response

Flexible integrated voice response (IVR) system.

- At a simple level, typically used to front-end a campaign, and then either play a welcome message to the caller before transferring the call to the campaigns call-queue, or inform the caller of important information, which may result in no further interaction with an agent being necessary. An example of this would be changes to the days of rubbish collection, due to a bank holiday.
- In more advanced configurations, can be used to allow callers to navigate a series of choices using their phone's keypad and then finally to be transferred to the appropriate call-queue served by an agent able to answer the call. This option is very useful when a single DDI is used to handle different types of call, as it provides an automated routing system with no human input.

Each incoming DDI can be uniquely configured to behave in a tailored manner. This enables the following options to be possible for each campaign:

- Play specific welcome messages to the caller before queuing the call in the system.

- Play information messages to the caller when the campaign's lines are closed.
- Route calls to an Integrated Voice Response (IVR) system if no human interaction is required, or if some automated steps can be performed before the call is transferred to an agent.
- Play a crisis message to caller in case of extraordinary problems.
- Offer caller the choice to leave a recorded message and then receive a return phone call, or email.
- Tailored in-queue messages to be played to the caller when no agent is available to process the call. This can either be one or a number of messages in sequence, letting the customer know what is happening, whilst waiting for an agent.

Recently, IVR has encouraged the Self-Service customer, who is low cost and has allowed customers demanding service on a 24/7 basis, the facility to carry out their business at any time of the day or night, without necessarily needing to speak to a human being.

## / Service and support

Bull has a large number of fully trained engineers who will be supporting the customer throughout the Implementation, Project Management and Servicing part of the CCS rollout.

Each system will be built and tested in house before being migrated to the customer's premises. The installation team will then install and test the system, before running through an agreed acceptance procedure with the customer.

Each installation will be managed by a Project Manager, who will be utilising Prince2 Project Management, to produce project plans and ensure that the project is kept to strict controls. The Project Manager will also be involved in any change management discussions that may be required by the customer, prior to installation.

All training courses will be held on the customer's premises and are designed to be non technical and aimed at the effective administration of the call centre by non technical personnel. Training is carried out for both agents and supervisors.

There is the facility for customisation and integration services if required by the customer.

Support hours are as required by the customer, to support their business, including twenty four seven coverage. All support costs include for software upgrades and firmware upgrades to the voice card. Support is carried out by Bull staff at all hours, and Development staff can also be involved in 3rd line support when required. This means that customers have access to all levels of engineers, who are all based in the UK.

## / Management Information

The user interface to the system has been designed with business users in mind and it is not necessary to be a telecommunications expert or an IT expert to administer and configure the system.

CCS has been designed with the objective of enabling the manager and supervisors to manage the system proactively rather than reactively. Real time alerts are raised when predetermined performance thresholds are approached thus enabling action to be taken, prior to service level targets being missed. All information can be displayed on large screens in order that the agent's can see their own performance.

In order to support the proactive management approach the configuration tools enable changes to the system, such as moving agents between groups or recording new "in queue" messages, to come into effect at virtually the same instant that the change is made.

CCS MIS is a sophisticated module that collects data not only about telephone calls and all the other form of contacts, but also about agent activity. Extensive information is available for all levels of management. Real time and historical information and statistics can be reported on by specified parameters such as agent or DDI and can be displayed on the supervisor's screen, real time large screens for the agents or printed out and distributed to the various management departments. Some of the reports allow

for Resource Utilisation Measurement, Agent Performance Measurement and Campaign Management.

The MIS system provides managers and supervisors with the ability to easily create user-definable and real time on-screen displays of information about calls to maximise contact centre performance. Some of the benefits which can be achieved are:

- Increased supervisor and agent productivity
- Fewer abandoned calls
- Improved strategic planning
- Shorter call length, increasing agent productivity
- Reduced waiting time for callers
- Effective control of manpower costs, whilst providing effective staffing, including rota adherence and monitoring
- Fast investigation when a problem occurs, allowing for a fast resolution
- Centralised reporting of all of the agents, wherever located, including Home workers
- Reduction in operating costs due to the use of integrated, automated services
- Dual server configuration is an option, in which two servers work together to handle incoming calls, thus providing improved resiliency and no single point of failure.

## / Technology Insertion

CCS brings together voice and data on a single Microsoft Windows 2003 server and thus allows the organisation to manage multiple communication channels easily and effectively. CCS servers can provide PABX functionality and can therefore be used instead of a conventional PABX in a new office. More importantly they can also be used within an existing voice and data infrastructure, thus safeguarding the investment that has already been made in conventional telephone systems whilst bringing new functionality, such as skills based routing and location independent working to the organisation. The technology is open, cost effective, scalable, future proof and easily integrated into the customer environment.

In fig.1 the Bull CCS would typically be inserted into a customers existing communications infrastructure.

The CCS system is connected to the customers telephony PABX by a number of PRI (E1) cables, each capable of supporting up to 30 concurrent phone calls. The CCS server then "talks" to external callers

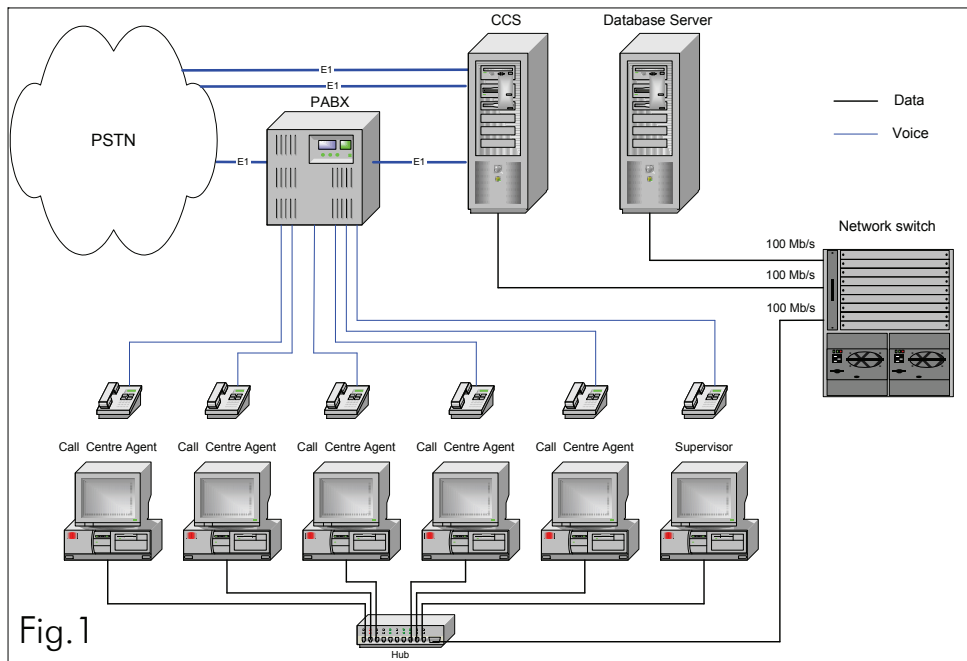


Fig. 1

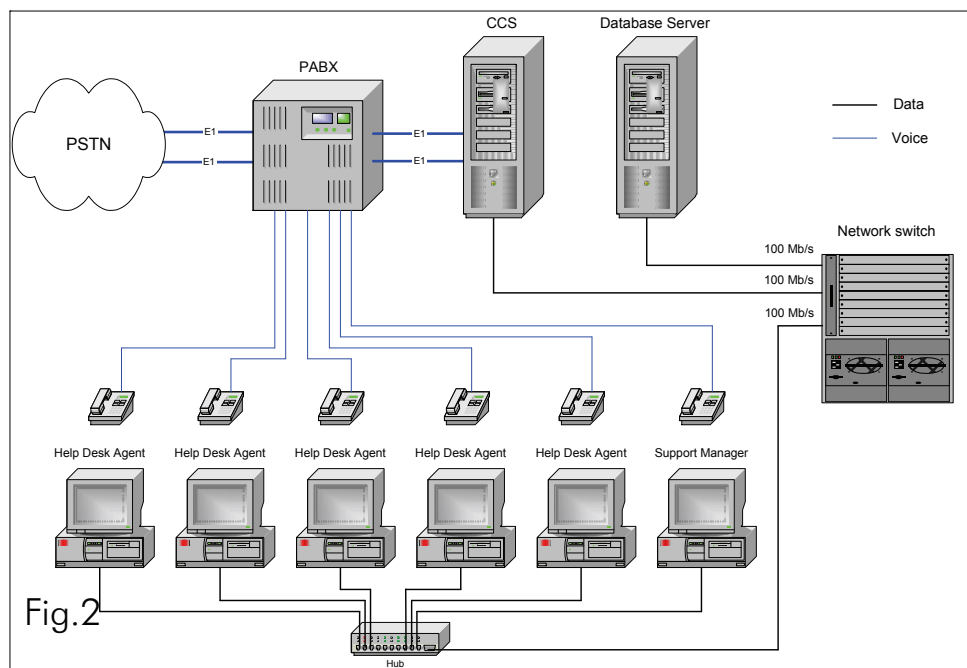


Fig. 2

existing infrastructure as shown below. Here the CCS server has a connection to both the customer PABX and the PSTN. This option may be used if the existing PABX does not have sufficient capacity to support the calls that will be made to the CCS system without incurring considerable cost to upgrade it, or if the customer wishes to avoid extensive reconfiguration of the PABX to route calls to the CCS.

CCS security employs the customer's existing Microsoft Windows security setting, so a new security system does not have to be managed by the customer. Existing Windows accounts simply need to be given permissions to the appropriate resources.

Dual server configuration is possible, in which two servers work together to handle incoming calls, thus providing improved resiliency and no single point of failure.

CCS can be utilised in a VOIP environment, thus capitalising on the savings that Internet features give to any company.

### / Further details

For further information about this project or other Bull solutions please contact Bull at:

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and internal agents via the customer's PABX. The CCS must also be connected to the customer's IT network, allowing the Agent ScreenPhone software, running on the agents' PCs, to communicate with the CCS server.

In the next example (Fig.2), the CCS database is hosted on a separate database-server.

Another option is to insert the Bull CCS into an