



CyberObject

ICAS

Intelligent Customer Advocate System

**Frequently Asked Questions
Updated February 1999**

3050 A-1 Business Park Drive
Norcross, GA 30071
Tel: (678) 969-1515
Fax: (678) 969-1514
Web: <http://www.cyberobject.com>

Frequently Asked Questions about ICAS

Table of Contents

Q: What is ICAS?..... 4

Q: How much faster can I resolve a case of trouble with ICAS? 4

Q: What is the resolution rate of ICAS on the customer’s first call?..... 4

Q: Will ICAS have a positive effect on our training costs and operator proficiency?... 4

Q: Can ICAS improve QDO/QDI? 4

Q: If my back-end systems, network, or server hardware fails, could the CSR continue to use ICAS without “paper” ticketing?..... 4

Q: What type of trouble can ICAS handle? 5

Q: How does ICAS improve productivity and throughput?..... 5

Q: How does ICAS integrate, incorporate and enforce my ever-changing business processes/procedures? 5

Q: How does ICAS support new product offerings and/or new product packaging?.... 5

Q: What about people leaving the company and taking their knowledge with them?... 6

Q: How does ICAS gather relevant information from various back-end systems? Do I still have to manually login to each back-end systems to retrieve information? 6

Q: Does ICAS have the capability to provide parity access to CLEC or any external user to help meet the regulatory requirements (TA96)? 6

Q: What kind of security mechanism does ICAS provide? 7

Q: Does ICAS require a database? If so, what database does ICAS support? What information is stored in the database?..... 7

Q: How many different OSS applications/systems that ICAS can access currently?.... 8

Q: With acquisitions, how can I enforce a standard trouble administration process across the board (company boundary) with variety of back-end systems and platforms?..... 8

Q: We require high availability. Does ICAS support that?..... 9

Frequently Asked Questions about ICAS

Q: Is ICAS Y2K compliant? 9

Q: What about self-service customers?..... 9

Q: How does ICAS provide electronic bonding support?..... 9

Q: What’s coming in ICAS? 9

Frequently Asked Questions about ICAS

Q: What is ICAS?

A: ICAS stands for Intelligent Customer Advocate System. It is a trouble receipt and trouble resolution expert system for the telecommunication industry.

Q: How much faster can I resolve a case of trouble with ICAS?

A: According to our statistics on the ICAS trial period with one of our customers, *the AWT (Average Working Time) was reduced by 50%.*

Q: What is the resolution rate of ICAS on the customer's first call?

A: Again, according to our statistics on the ICAS trial period with one of our customers, *ICAS resolved over 90% of customer trouble calls on the very first call.*

Q: Will ICAS have a positive effect on our training costs and operator proficiency?

A: ICAS provides the CSR with an easy-to-use GUI interface, step by step instructions, and transparent access to backend systems. It also provides significant training savings.

Here is an example. One of our customers hired 150 people with no telephone or computer experience. After a one-week ICAS training program they were outperforming 20 years veterans.

Q: Can ICAS improve QDO/QDI?

A: ICAS is a trouble administration expert system. By tuning the ICAS rules, you can significantly improve your QDO/QDI.

Q: If my back-end systems, network, or server hardware fails, could the CSR continue to use ICAS without "paper" ticketing?

A: ICAS is designed to provide high availability. CyberObject has engineered a very complex fail over, fault tolerance and queuing processes into both the ICAS server and the client. *So even if everything else fails, the CSR is still able to continue to use ICAS for trouble receipt and resolution.* These trouble cases are queued and held until the systems are back online at which point ICAS automatically sends them to the back-end system.

Frequently Asked Questions about ICAS

Q: What type of trouble can ICAS handle?

A: ICAS is designed to be a single point of contact system for trouble administration. It can handle cases of trouble reported for:

- Consumer/Residential POTS
- Business POTS
- Centrex
- ISDN
- PBX
- Specials

Q: How does ICAS improve productivity and throughput?

A: Each CSR is using the same rules in the same way. The rules are based on the knowledge and expertise of your best people so, in fact, capture your “best practices”. Nothing is left to chance, the operator simply asks the customer a set of predefined questions and moves through the application depending on answers. *ICAS enables every CSR to be a “star” performer!*

Q: How does ICAS integrate and implement my ever-changing business processes/procedures?

A: It’s easy to integrate new business processes/procedures into ICAS because of its knowledge based architecture. In most cases, it is simply a matter of modifying the ICAS rules, which does not require making coding changes, nor does it require someone with programming experience to make the changes.

Moreover, ICAS is an ideal tool to implement new business processes/procedures. *You make the change, update the knowledge base on the ICAS server and your processes/procedures are available immediately to all CSR’s without any software distribution/installation.*

Q: How does ICAS support new product offerings and/or new product packaging?

A: You can **quickly** add support for new product offerings and/or new product packaging by upgrading the ICAS knowledge base with trouble supporting process/knowledge. In most cases, it is simply a matter of modifying the ICAS rules, which does not require making coding changes, nor does it require someone with programming experience to make the changes.

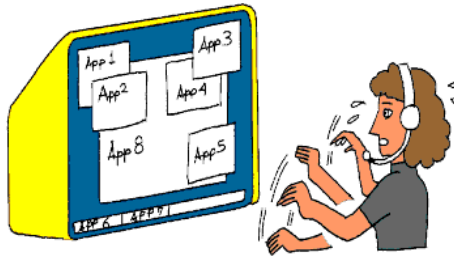
Frequently Asked Questions about ICAS

On line help or on line tutorial about supporting new product offering could be made available to all ICAS CSR, too.

Q: What about people leaving the company and taking their knowledge with them?

A: One of the advantages of a knowledge-based system is that it retains and protects your company's intellectual property. Your business "know how" is captured in the ICAS knowledge base. Since minimal training is required for new users, operators who retire or otherwise leave the company will have minimal impact on overall performance.

Q: How does ICAS gather relevant information from various back-end systems? Do I still have to manually login to each back-end system to retrieve information?



A: ICAS intelligently determines what information is needed, where to get it and then retrieves it, transparent to the CSR. With ICAS, the CSR no longer deals directly with multiple applications or needs multiple login IDs/passwords.

Q: Does ICAS have the capability to provide parity access to CLEC or any external user to help meet the regulatory requirements (TA96)?

A: With its built-in multi-level security mechanism and standards based, open architecture, ICAS is securely accessible to anyone via the following means:

- Internet
- Dedicated link
- Dial-up link

ICAS also provides an API for app-to-app access.

Beyond that, you can have a separate ICAS rule set for CLEC/external users and block access to confidential or proprietary data. We are currently using ICAS in a CLEC trial with one of our customers.

Frequently Asked Questions about ICAS

Q: What kind of security mechanism does ICAS provide?

A: ICAS provides five (5) levels of security:

- **Network access**
 - SSL session (authentication/authorization via digital certificate)
 - Data encryption via private/public key
 - Works with various firewall implementation
- **ICAS client access control** (access authorization)
- **ICAS server access control** (each transaction is authenticated/authorized)
- **Record access authorization.** If a user tries to access a record that does not belong to him/her, his/her request will be rejected and no data will be transported to the requester.
- **Access pattern access control.** ICAS server logs all the access information.
There is a mini expert system installed on the ICAS server to analyze the access pattern statistically on the fly. If the block pattern is identified, the access is rejected.

Q: Does ICAS require a database? If so, what database does ICAS support and what information is stored?

A: Yes, ICAS does require a relational database to run. It will work with any major relational databases such as Oracle, Informix, SQL server, Sybase, etc.

The first hand information involved in the trouble diagnosis and resolution process is stored in the ICAS database. The information can be potentially used by a technician for trouble correlation and statistical analysis.

Frequently Asked Questions about ICAS

Q: How many different OSS applications/systems can ICAS access currently?

A: ICAS can access the following OSS systems either today or in the near future:

- LMOS including TE, TR, TV, DATH, DLETH, RST, DMLT, MSCR, RTE
- WFA/DO
- WFA/C
- ACIS
- ASON
- ROS
- V/FIX
- SOCS
- CRIS
- COSMOS
- PREDICTOR
- JMOS
- LFACS
- TIRKS (soon)
- OCCUSPAN (soon)

The communication subsystem is CORBA based and highly modularized. With its powerful info bus and proxy module, it is very easy to add access to any back-end system in any communication protocol.

Q: With acquisitions, how can I enforce a standard trouble administration process across the board (company boundary) with a variety of back-end systems and platforms?

A: By plugging in a customized ICAS proxy between the ICAS server and any other back-end system, you have built a secure and fault tolerant transport link between all the ICAS clients (across the board) and the back-end system that could be located anywhere.

By reusing the ICAS knowledge base, you enforce a standard process/procedure across the board. Moreover, ICAS is also flexible enough for different user groups running different sets of rules. ICAS is an exceptional tool for bringing a variety of applications and back-end systems into one screen.

Both the ICAS server and client are platform independent. Your investment in hardware is protected.

Frequently Asked Questions about ICAS

Q: We require high availability. Does ICAS support that?

A: ICAS has complex built-in fail over, fault tolerant and queuing processes. With appropriate hardware support, ICAS is ready to provide 24 x 7 availability to its user community.

Q: Is ICAS Y2K compliant?

A: Absolutely. It was designed to be from the start.

Q: What about self-service customers?

A: ICAS can easily be integrated with IVRU systems to provide 24 x 7 support without operator intervention.

ICAS is internet-enabled with tight security implementation. This provides the potential for subscribers to trouble-shoot their own line problems directly from the Internet.

Q: How does ICAS provide electronic bonding support?

A: ICAS provides the following interfaces for electronic bonding:

- EDI
- CORBA
- CMIP
- HTTP

Q: What's coming in ICAS?

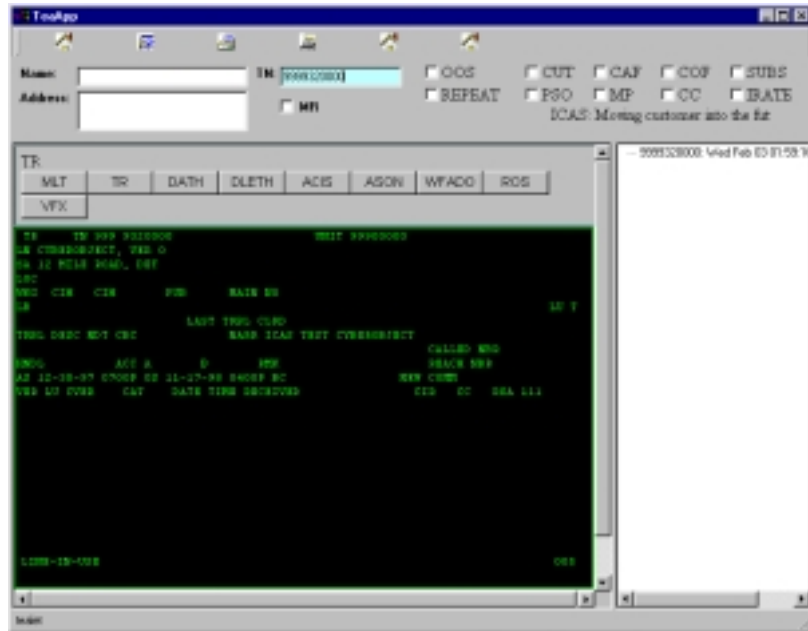
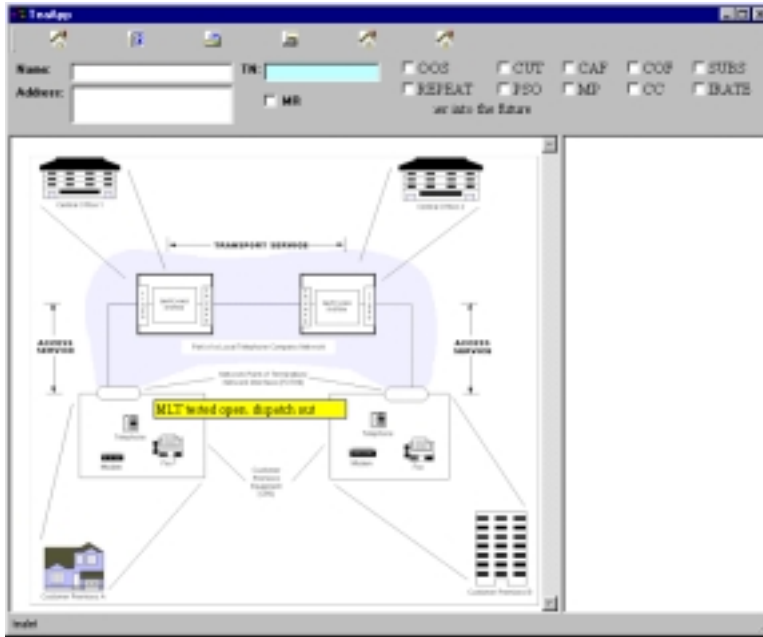
A: CyberObject is continually looking for ways to improve ICAS and make it easier to use. CyberObject is scheduled to release a new version of ICAS: version 2.00. Please visit our web site at www.cyberobject.com to experience our technological innovations and new version of ICAS.

New features in the coming version 2.0 of ICAS:

- ***Seamlessly integrate with the Web.*** The user will be able to define any GUI interface using HTML to interact with CyberObject's expert system. The rules shall be able to generate HTML dynamically to present information interactively.
- ***True Web access.*** The user should be able to access ICAS client from the Web. No software distribution/installation.
- ***Graphical view of the trouble location and trouble description*** shown as the following sample screen shot.

Frequently Asked Questions about ICAS

- **Small memory footprint.** The total size of the ICAS client will be less than 500K. It should be able to run in Laptop, PDA.



Frequently Asked Questions about ICAS

Contact Information:

Sales Marketing

Christopher Reed

Tel: (404) 842-0015

Fax: (404) 264-1154

Corporate Offices

CyberObject Corporation

3050 A-1 Business Park Drive

Norcross, GA 30071

Tel: (678) 969-1515

Fax: (678) 969-1514

Web: <http://www.cyberobject.com>