
CHAPTER 10

Screen “Pop”



This chapter shows you how to configure, implement, and use Screen “Pop”, the server-side APM module that delivers call-coordinated customer data to agent screens.

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- Configuration and Administration (*page 1*)
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- Troubleshooting and Maintenance (*page 9*)

What is Screen “Pop”?

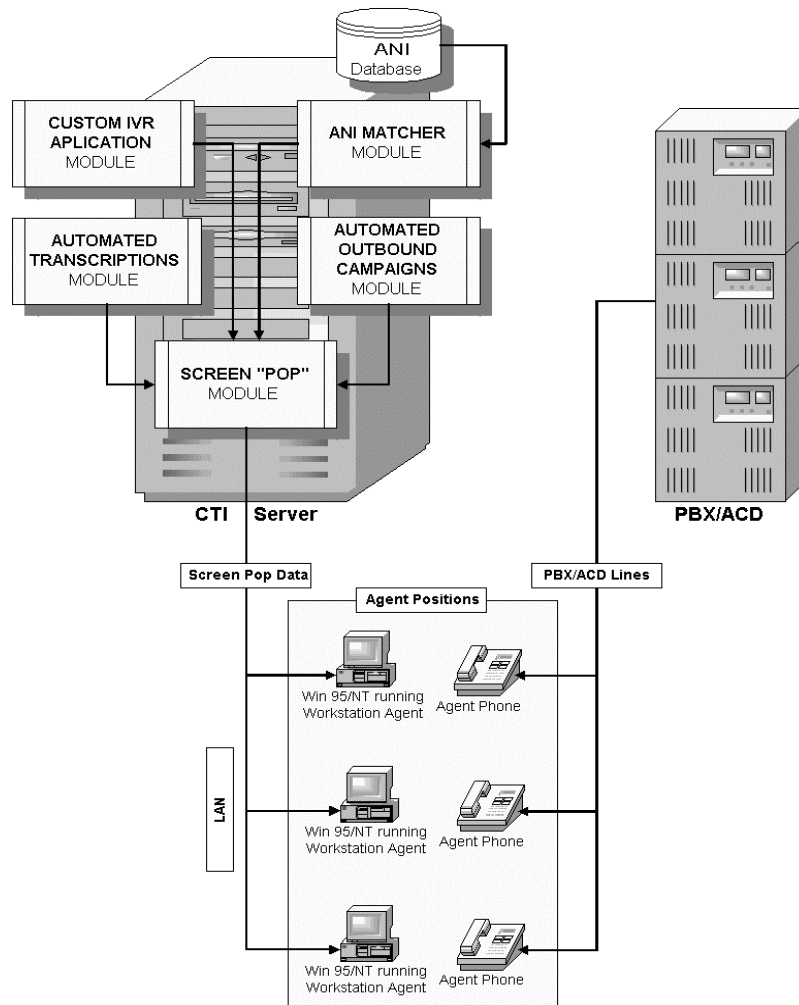
The Screen ‘Pop’ module coordinates delivery of database information to agent workstations in conjunction with presentation of inbound and outbound calls by the ACD. This functionality, integrated with other related APM services, plays an important role in improving both agent efficiency and customer service. Through flexible protocol and formatting options, CTI Server can direct your data processing systems to populate workstation screens with pertinent customer data – account number, name, phone number, and other available information – simultaneously with the call’s arrival. In fact, Screen “Pop” can be presented to agents along with *any* inbound, outbound, or APM-generated call, including callbacks and outbound campaign calls.

Configuration and Administration

If you have already configured other APM modules, you may be accustomed to using configuration forms and **.cfg* files to set up CTI features. However, the Screen Pop setup doesn’t follow that model! Because it merely coordinates delivery of data supplied by related modules, the Screen Pop application itself requires little configuration. The products that collect and compile screen pop info determine the content of what’s

delivered. The Workstation Agent module is what displays screen pop on agent PCs. In some instances, custom IVR programming will be required to tailor Screen "Pop" for specific or unusual requirements.

Nor are any special switch-side settings required in the ACD. Typically, however, another feature – ANI Matcher, Auto Transcriptions, callback – must be installed for the Workstation Agent module to show Screen "Pop". The following chart illustrates the modules that can optionally feed caller data to the Screen "Pop" module.

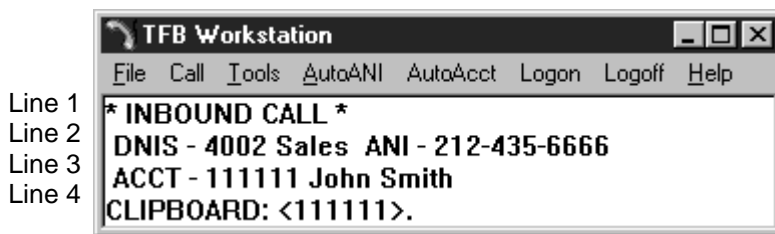


Using Screen ‘Pop’

In most configurations, the visual interface for screen “pop” data is TFB’s Workstation Agent application. Regardless of where the data originates, it’s sent between CTI components in a fixed, comma-delimited ASCII format, called the “screen pop message string” (SPMS). APM associates one of these messages with each call as it’s routed through various ACD and CTI components, then uses it to populate the workstation screen with caller data when the call arrives at an agent position.

Reading the Screen Pop Display

The Workstation Agent window shows ‘screen pop’ of current caller information in conjunction with any inbound, outbound, or APM-generated call. The display includes the type of call (INBOUND, OUTBOUND, etc.), the DNIS number and name, the ANI number, the account number, the caller’s name, and the account information optionally written to the Windows clipboard. Note that in some instances, only portions of this information may be available.



- | | |
|-----------------------|---|
| Display Line 1 | Call Type. This may be ‘INBOUND’, ‘OUTBOUND’, ‘CALLBACK’, ‘AUTO-TRANSCRIPTION’, or ‘INTERNET CALLBACK’ |
| Display Line 2 | DNIS Routing number, DNIS name, and ANI number |
| Display Line 3 | Account Number, name, and misc. fields. |
| Display Line 4 | (Optional) Line 4 indicates in brackets ‘<>’ any data sent to the Windows clipboard. This is normally the account number, but if that’s unavailable, the ANI is written to the clipboard instead. This feature is only active if Clipboard On is selected in Tools Config. Workstation , from the Workstation Agent menu. |

More Information – The display is also documented in the Workstation Agent chapter of the APM Agent User’s Guide. You can share screen pop information with your custom applications. See the section in this Chapter entitled, “*Sharing Screen Pop Information*”.

Sharing Screen Pop Information

Depending on your requirements it may be useful to extract real time caller data from the screen pop message string (SPMS), and share it with other applications in real time. Sharing is typically done at the point of arrival at an agent workstation, and it's therefore configured through TFB Workstation Agent. This section discusses the SPMS format, and the various methods available for accessing that data. TFB actually provides four automated options for sharing current caller information with your custom databases, and proprietary applications.

Three methods automate sharing of complete caller data,

METHOD 1 Using **DDE** (Dynamic data exchange)

METHOD 2 Using an **ASCII file**

METHOD 3 Using **COM**

One method provides for sharing of the account number or ANI number ONLY,

METHOD 4 Via the **Windows Clipboard**

These features can be independently activated in Workstation configuration dialog by clicking **Tools | Config. Workstation**. While using the clipboard is the simplest way to grab a caller's account number or ANI, if you want to share the entire current screen pop message with other applications, you must use either DDE, COM, or an ASCII file.

The Screen Pop Message String (SPMS) Format

Before looking at the details of each data sharing option, let's examine the format used. The first three methods use the screen pop message string, a comma-delimited ASCII string in the following format:

SP , HOST , S , DN , DNIS , ANI , ACCT , CONTROL , MISC , NAME , UNKNOWN

Where,

This Field...	Is used for...
SP	Denotes screen pop message type, always 'SP'
Host	Unused (reserved for future expansion), always '111'
S	Unused (reserved for future expansion), always 'S'
DN	Agent DN (PBX line number)
DNIS	Pilot number and split name (if available)
ANI	caller's 10-digit ANI
ACCT*	caller's account number or user-defined. Otherwise " , , "

(screen pop message string, cont'd)

This Field...	Is used for...
CONTROL	Type of call is determined by the <i>first</i> character in this field, <ul style="list-style-type: none"> " " or "0" = Inbound call "00001211" = Callback "#0001211" = Callback "!0001322" = Outbound "%0001322" = Auto transcription "\$0001322" = Internet callback
MISC*	User-defined field (if needed). Otherwise " , , "
NAME*	Name of caller, or user-defined. Otherwise " , , "
UNKNOWN	Unused (reserved for future expansion), always delimit with comma

*User-defined fields, available for your use.

The SPMS format is the same regardless of whether the data is passed via DDE, COM, or ASCII files. Note that CONTROL is a proprietary field, and only the first character in CONTROL is actually used to indicate the call-type.

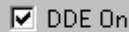
Exploiting the 'User-Defined' fields

The NAME, ACCT, and MISC fields are actually user-defined. Although they are labeled according to their most common use, in practice, those fields may contain any data that suits your requirements. How do you designate these fields for a particular use and get *your* data into the message string? That depends primarily on the *source* of the data – whether it's ANI Database, a custom IVR application, Auto Transcriptions, or Automated Outbound Campaigns. The ANI Database, for instance, is queried to fill the corresponding fields in the SPop Message. When you create and update the ANI database, it's as simple as filling those specific fields with the data you wish to use, and making sure all user's understand your custom use of those fields.

More Information – The data in the Screen pop message string can originate in, and be determined by, one or more other APM applications. See Chapter 9, *ANI Matcher*, Chapter 8, *Automated Outbound Campaigns*, and Chapter 11, *Automated Transcriptions* for topics concerning screen pop data.

Sharing Screen Pop Data Using DDE

Custom applications that support DDE can be configured to access the screen pop message string. To activate this feature, set the **DDE On** flag in **Tools | Config. Workstation**, from the Workstation Agent menu bar.

A screenshot of a configuration dialog showing a checkbox labeled "DDE On" which is checked.

Workstation Agent then places current caller data in a DDE server, in the standard screen pop message format.

Sharing Screen Pop Data Using an ASCII file

Workstation Agent can be configured to write screen pop messages to an ASCII file on the workstation’s local hard drive for import into other applications. To activate this feature, enter a valid path and file name in the **SPOP Filename** field of the Workstation Agent configuration dialog. When a call comes in, APM writes the screen pop information to the specified file, in the standard screen pop format.

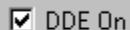
If the file does not exist, Workstation Agent automatically creates it. Custom applications may extract caller information from the file, or an agent may import the file into any application that accepts comma-delimited ASCII strings, such as Microsoft Excel™. Note that the file only contains information about the current caller, and it’s overwritten with each new call.

SAMPLE Screen Pop Message String

```
SP,HOST,S, DN, DNIS, ANI, ACCT, CONTROL, MISC, NAME, UNKNOWN  
SP,111,S,5001,4005 Accounts Payable,2135551212,333333,0000007,,Bill_Clinton,
```

Sharing Screen Pop Data Using COM

Custom applications that support COM can access the screen pop message string from a standard Com server. To activate this feature, set the **COM On** flag in **Tools | Config. Workstation**, from the Workstation Agent main menu.

A screenshot of a configuration dialog showing a checkbox labeled "COM On" which is checked.

Workstation Agent then places current caller data in a COM server, in the standard screen pop message format.

NOTE COM is only supported on newer versions of TFB Workstation.

Sharing Screen Pop Data via the Windows Clipboard

In instances where you need *only* the account number, or where the caller’s account number is used by agents to query your proprietary customer database, there is a simpler sharing option than those above. The Account number (or ANI) can be shared with other applications via the Windows clipboard. To activate this feature, set the **Clipboard On** flag in **Tools | Config. Workstation**, from the Workstation Agent main menu.

A screenshot of a configuration window showing a checkbox labeled 'ClipBoard On' which is checked.

When a call arrives at an agent position, Workstation Agent then places the caller’s account number (or the ANI, if the account number is not available) into the Windows clipboard. The information can then be read by other applications, or manually pasted into other Windows applications using Ctrl+V. Note that information in the clipboard is overwritten with each new call.

WARNING When **Clipboard On** is selected in the Workstation configuration, clipboard data is automatically re-written with each incoming call. If you have other active applications using the clipboard, ensure that this feature is not in conflict with those existing data paths.

More Information – To find out more about configuring sharing options, see the configuration section in chapter 15, Workstation Agent.

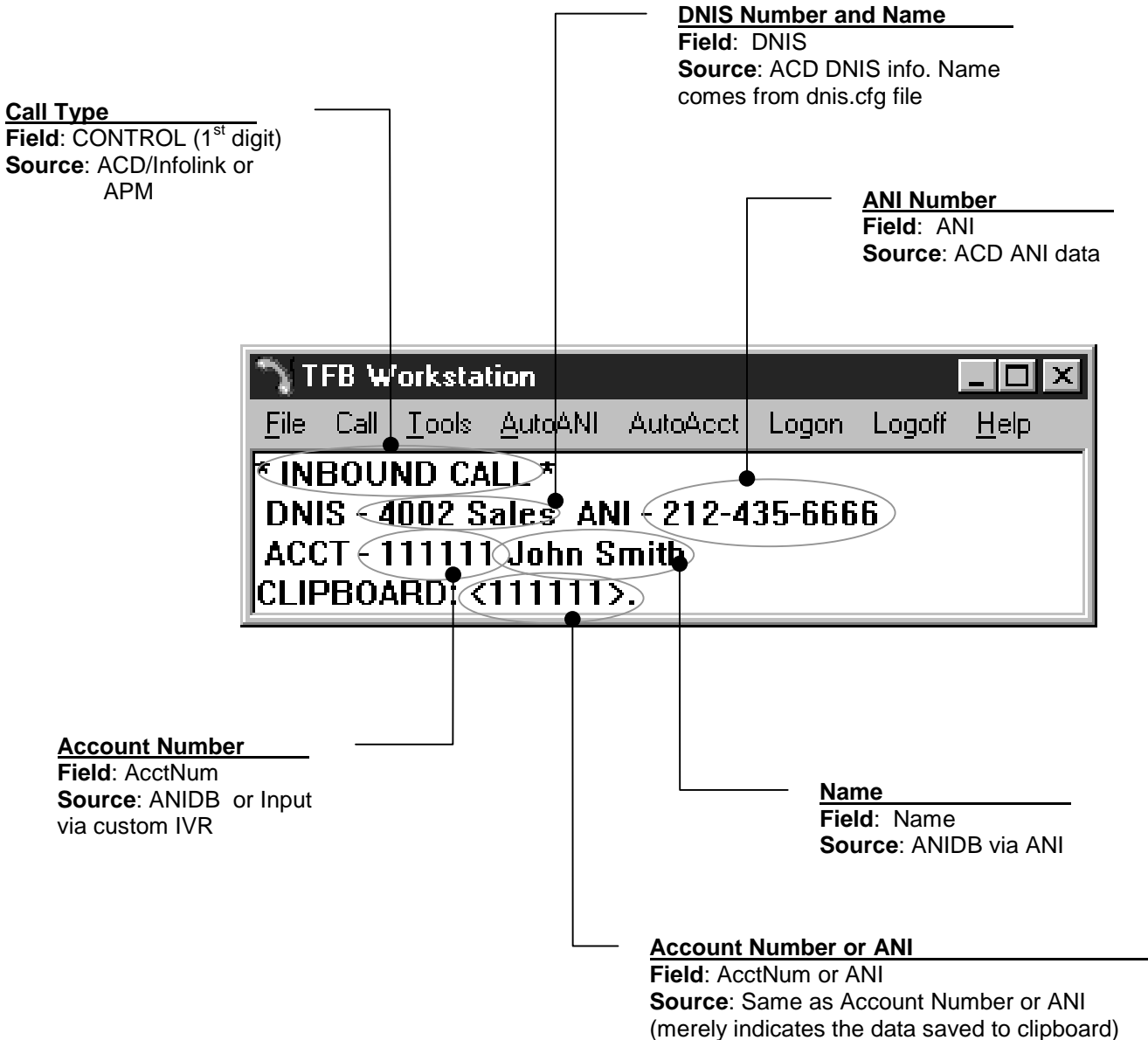
Important Considerations for Sharing Screen Pop Data

It should be evident from the previous topics that enabling various sharing options is a relatively simple task. If you plan to share screen pop data with other applications, however, be sure to consider the following important items to ensure that you have accounted for the more subtle nuances of this system.

- Sharing options must be configured individually on *each* agent workstation.
- Data (account number or ANI) written to the clipboard at any given workstation is overwritten by the next call! If this data must be retained after call completion, agent procedures should be put in place to ensure that incoming calls are disallowed until the clipboard is properly saved. To avoid conflict, use caution if you plan to specifying screen pop files on shared network drives.
- No matter how you use the ACCT, NAME, and MISC fields, the screen pop display still shows *these* labels next to your data! Anyone using this system should be aware of the precise meaning assigned to these fields in your environment.

Where Does the Data in the "Pop" Display Originate?

To illustrate the connection between CTI components, the following chart shows the relationship between the display and the data fields in the screen pop string. For each piece of display data, the call-outs in the chart below denote the associated **Field** in the screen pop string, and the possible **Source(s)** of that data.




Troubleshooting and Maintenance

Screen pop itself is maintenance-free after installation. When a problem arises, or configuration changes, it’s generally best addressed in the modules that either compile the screen pop data (ANI Matcher, ANIDB, custom IVR applications), or those that actually display the data for agents (Workstation Agent).

Use the following Troubleshooting Guide when you have problems getting results from screen pop. Notice that the solutions generally lead to the configuration of *other* modules.

Troubleshooting Guide: Screen “Pop”

Problems / Questions	Solutions 
Calls are routed to the proper pilots by ANI Matcher, but when the call arrives at an agent position, no screen pop data is displayed at all.	<ul style="list-style-type: none"> ▪ Ensure that Workstation Agent is properly installed and configured on the agent’s PC. See Chapter n, Workstation Agent. ▪ Ensure also that Workstation Agent is running and that the agents in question have logged in to the ACD via the Workstation Agent main menu.
Calls are routed to the proper pilots by ANI Matcher, but when the call arrives at an agent position, only the ANI and DNIS are displayed in the screen pop window. No customer data is shown at all.	<ul style="list-style-type: none"> ▪ Workstation Agent is properly configured if you’re seeing some but not all of the desired screen pop fields. ▪ Ensure that ANI Matcher is properly configured. See Chapter n, ANI Matcher. ▪ Ensure that the desired data exists in the ANI Database. You can do a manual query by activating ANIDB Update from Workstation Agent main menu, or from the CTI Server main menu. See Chapter n, Workstation Agent.
The DNIS number appears in the screen pop display, but the DNIS name does not.	<ul style="list-style-type: none"> ▪ Open <i>dnis.cfg</i> in a standard text editor to ensure that all desired DNIS numbers in your system are properly named. If you make changes to this file, save it as ASCII text, and restart the CTI Server main window to re-initialize the system. This file is required because DNIS names are not available through Infolink .

