FacetPhone Manager's Guide

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A Manager's View of FacetPhone

Before reading this guide you should have already read the "FacetPhone User's Guide" for a basic understanding of FacetPhone.

This guide will cover information that managers need in order to make decisions regarding the operation of their FacetPhone system.

System Architecture

This section gives a fairly non-technical description of the parts of a FacetPhone system and how they fit together.

Overview

A FacetPhone system consists of:

- A computer running the FacetPhone server software.

- IP phones which serve as the telephone instruments for most users.

- IP telephony gateways that connect analog telephones and telephone lines from the phone company to your LAN.

- Desktop PCs and Macs running the FacetPhone user interface.

- iPhones running the FacetPhone mobile app which serves as a combination of an IP phone and user interface features.

- Optionally, other soft phones running on laptops, smartphones, etc.

System Diagram

The following diagram shows how the pieces of a FacetPhone system connect on your LAN/WAN and how the system connects to your phone service (Public Switched Telephone Network) and the Internet.
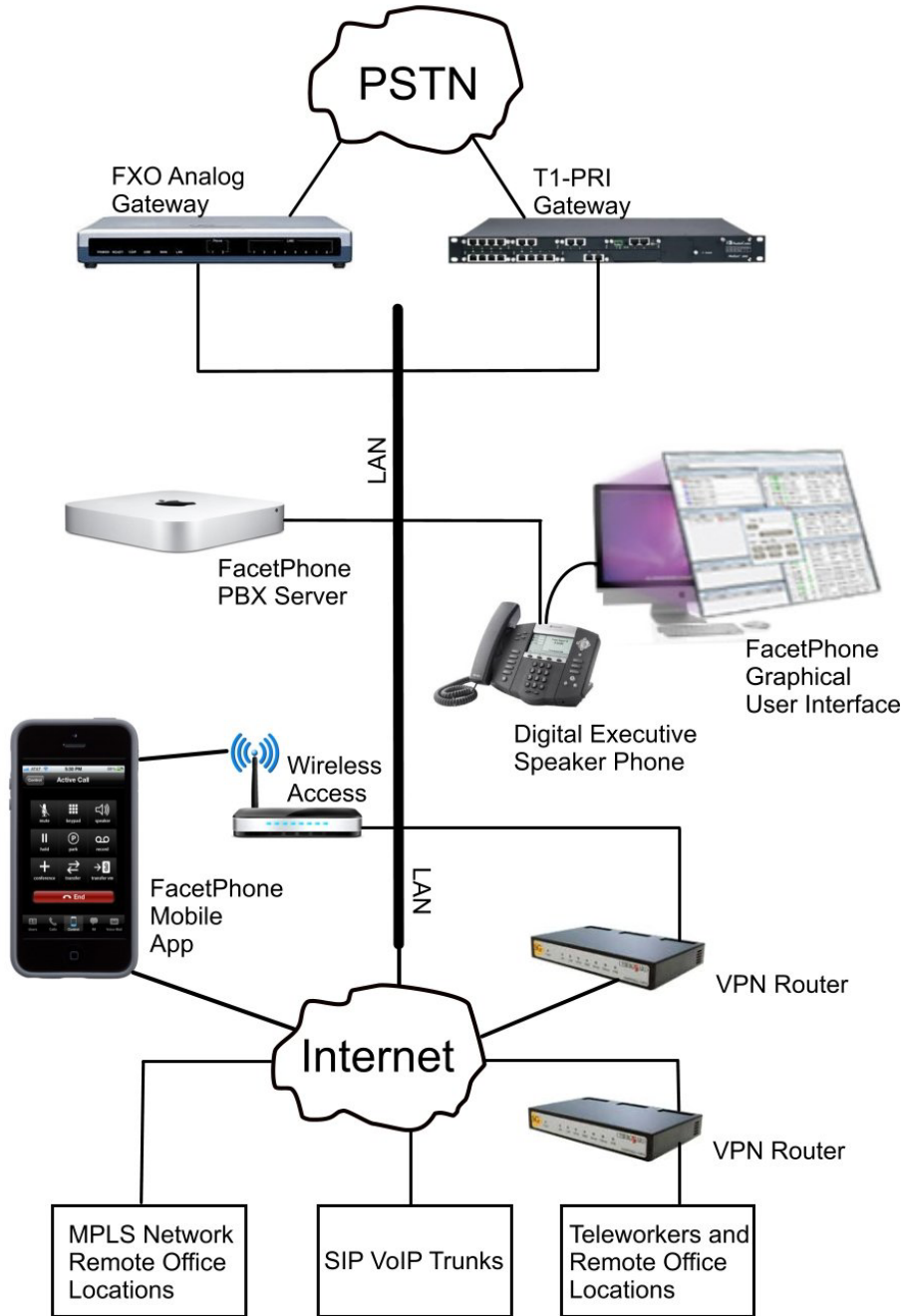
As you can see in the diagram, the FacetPhone server and IP phones are all plugged into your Local Area Network (LAN). The IP phones have a switch in them, so if there is only a single network connection at a desk, the phone can be plugged into the network and the PC or Mac plugged into the phone.

If you get your phone service from analog phone lines, then those lines are plugged into the FXO analog gateway at the top left of the diagram. The gateway also plugs into your LAN.

If you get your phone service from a T1 PRI digital line, then it is plugged into the T1-PRI gateway at the top right of the diagram. This gateway also plugs into your LAN.

If you get your phone service from a SIP trunk, no gateway is required to interface with your phone service. Settings on your firewall will bring the phone calls directly to the FacetPhone server. This is shown coming in from the Internet at the bottom of the diagram.

You can have branch offices and telecommuters connect to the FacetPhone system across the Internet. In some cases this connection may need to be through a Virtual Private Network (VPN) and in other cases this is not necessary. If you have an MPLS network connecting your branches, then they will all be able to connect to the FacetPhone system through this connection.

Finally, the FacetPhone Mobile App can connect either via Wi-Fi within the office or via your cell phone data connection when not on a Wi-Fi connection.

Defining the Numbering Plan

A site's numbering plan determines what the users' extension numbers will be, what the telephone station numbers will be, what line numbers will be and what digits are available for auto-attendant menu choices. All of these considerations must be taken into account when establishing the numbering plan. FacetPhone is very flexible in its numbering scheme. However, there are certain guidelines to follow to ensure that the numbering plan will make sense to the users and allow a fully functional auto-attendant.

User extension numbers and telephone station numbers must all contain the same number of digits. For example, at a site that will have a maximum of 100 users, you cannot number the extensions 1 through 100. Some users would have a single digit extension, most would have two digit extensions and one would have a 3 digit extension. In this case, it would be best to number the user extensions and phone stations from 100 through 199.

If you are replacing a system and you are happy with the numbering system on your old system, we can use what you already have. For example if you old system uses extensions 300-399, there is no problem in bringing this numbering scheme over to the new FacetPhone system. It is best to choose a numbering plan that will handle the largest size the site is likely to become. Users will find it disruptive if the numbering plan has to be changed in the future. For sites with over 100 potential users, we suggest using 4 digit extensions and station number. You can have extension ranges like 100-299 but every leading digit that is used up by extension numbers can put a limitation on auto-attendant options as explained below.

Another part of the numbering plan is the definition of a range of speed dial numbers. You can define speed dial numbers of any range as long as a speed dial number does not start with the same digit as a user extension, a station number or the digits used to dial an outside number (usually 9) or select a trunk group (usually 8).

When creating a numbering plan, you will also want to keep in mind what auto-attendant options are available. If the auto-attendant allows the caller to dial a user's extension, then the digit(s) that extension numbers start with cannot be used for other options in the

auto-attendant. For example, if your extensions all begin with 1, then options 0, 2-9, # and * are available for choices in the auto-attendant. Since speed dials are not accessible to callers in an auto-attendant, the speed dial range does not have any effect on auto-attendant options.

Determining How Your Incoming Calls Are Handled

Every FacetPhone customer must determine how their incoming calls will be handled. This section will give you the information necessary to understand the options you have and how the system can be configured to handle your calls.

Operator Groups

When a call comes in from the phone company, it is assigned to an operator group and the settings for that group determine how the call is handled. Each line defined on the system has an operator group assigned to it. Calls that come in on the line are sent to the group specified in the line definition. Calls that come in to a specific DID (Direct Inward Dial number) can be assigned to a different operator group that will override the line group assignment. So, for example, you could have all your lines in your main company group but if your phone service provides DIDs you may have direct phone numbers that go to other groups such as sales, support, etc. In order to have DIDs from the phone company, your service must be either T1 PRI or SIP trunks.

An operator group can have operators and operator stations assigned to it. When a call is being rung to an operator group, operators can opt in or out of having the call ring to them by changing their status on the FacetPhone user interface. On the other hand, operator stations will always be rung when on-hook regardless of any user being associated with it or their status setting.

Auto-attendants

Each operator group is set to have its auto-attendant on or off. If it is on, you specify the auto-attendant script to run. FacetPhone auto-attendants are implemented with an extremely powerful scripting language. We can make an auto-attendant to do almost anything

you want. Even if you want to ring the operators first, we usually do this with an auto-attendant script.

If the auto-attendant is off, calls to the group will ring all operator stations and the phones of any operators who have a status indicating that they are accepting operator calls. You can specify a number of rings after which an overflow auto-attendant can be run if no operator has answered. The overflow auto-attendant might tell the caller that all the operators are busy and take a voice mail. This simple scenario works well in the case where you want all the operators rung at the same time with a simple overflow script if nobody answers.

However, most customers will find it useful to have an auto-attendant turned on even if the first thing it does is ring the operators. This allows additional auto-attendant features such as backup operator groups to be easily added. The rest of this chapter will describe the features that are available in the auto-attendant.

Ringing Operators vs. Presenting a Menu

The first thing to decide about your incoming call handling is whether you want to immediately send callers to the operators or present a menu to allow the caller to choose what they want. With a FacetPhone auto-attendant we can implement just about any scenario you can think of. Here are some examples:

- The operators can be rung immediately. If nobody is available or nobody answers, the caller can be queued waiting for an operator to become available, they can be sent to a menu, or they can be sent to voice mail.

- A disclaimer or message about call recording and monitoring can be played first and then the operators rung.

- A menu can be presented first to allow the caller to make choices to indicate what they need and therefore get to a more selective group of operators. The menu can allow the caller to dial a user's extension if they know it or it can give a company directory as one of the menu options.

- Backup up groups of operators can be defined so that if none of the primary operators are available, additional operators can be added to the search for an available operator to take the call.

- In some cases you may only need a menu and no live operators if callers can completely help themselves with the options on your menu. FacetPhone auto-attendants can interface with other software, providing a powerful platform for delivering information to callers.

Ringing One Operator at a Time vs. All at Once

In a high volume call center setting, it is often desirable to send incoming calls to the next available operator instead of ringing the phones of all the available operators. This is called Automatic Call Distribution (ACD). The system searches operators according to some method trying to find one who is available for a new call. FacetPhone has three methods of distributing calls:

- Round Robin – Operators are searched in a circular list. Once an operator takes a call, the next call goes to the next operator in the list if they are available.

- Longest Idle – Operators are chosen based on which one has not been on a call for the longest amount of time.

- Fixed Order – Operators are checked for availability in a fixed order with the same operator always checked first and working down the list.

Operators can change their status to make themselves unavailable for calls. When they change their status back to being available for calls, then calls will be distributed to them again. When an operator becomes newly available and the longest idle method is in use, then the newly available operator will be considered the longest idle to go ahead and get their first call to them.

When using ACD there are two ways to determine the pool from which available operators are chosen. In most cases, you simply use the operators in a group such as sales or support. However, if you have many different skills among the operators, you might find it

better to have a large group of operators but use the caller's choices in the menu to identify the skills needed to help them. Then each operator in this large group would have all their skills identified and the system would search for the next available operator based on the match of the skills associated with the call and the operators' skills.

In companies with lower incoming call volume, it often makes more sense to ring all the operators at once with perhaps a backup group of more operators if the primary group does not answer soon enough.

Built-in Auto-attendant Functions

The following functions are available for use as options in your auto-attendant:

- Play a prompt – You can record a prompt to be played when the user chooses an option. For example, the prompt may be your hours of operation and directions to your office.

- Company directory – You can present callers with an option to enter the company directory where they can use the key pad to spell the first or last name of the person they are looking for.

- Group voice mail – You can send the caller to voice mail for a group.

- Ring operators – You use this action for an option to ring the operators from a menu.

- Transfer to a group – This one is fairly common. For example the menu might say "for sales press 2" and you could use this function to transfer the call to the sales group. Then the auto-attendant settings for that group would be used to determine how the call is handled from that point.

- Transfer to a user – If an option like "press 5 for accounts payable" should go to an individual, then you can use this action to transfer the call to the user. If they don't answer, then it will go to their personal voice mail.

- Transfer to an outside number – This allows one of the options to transfer the caller to an outside number, perhaps

somebody's cell phone or another office that is not on the FacetPhone system.

- Transfer to a station – Not an often used function, but you can have an option transfer the caller to a particular station such as a warehouse phone.

Customized Auto-attendant Functions

FacetCorp can create customized auto-attendant functionality for your system. This is not included in a standard installation, but is billable at the current hourly rate. We can give you an estimate on any non-standard functionality that you would like implemented on your system. These projects can usually be done for a reasonable cost.

Reports

FacetPhone provides a variety of reports about the usage of the system. The FacetPhone server provides a web page where you can get the documentation, download software and access the report generator. When you click on the report link, the following form will be presented:

As you can see, you can select a variety of report types, the dates and times to be reported on and the types of calls. You can limit the report to certain lines, user extensions, physical phones, group association, job code or any string you want to search for in the caller ID of call parties.

In addition, your system can be configured to write call records to a MySQL data base so that you can use reporting programs to create your own custom reports.

Call Recording, Archiving and Monitoring

Call Recording

With FacetPhone you can turn recording on and off during a call or you can setup your configuration to record all your calls. If you want to restrict your users' usage of this feature you can prevent them from turning recording on and off during a call and lock them into either recording all or none of their calls.

You should understand the local laws about recording and monitoring calls. Some states are "one party" states in which only one party in the call (in addition to the monitor) needs to know that it is being recorded or monitored. Other states are "two party" states where both of the main parties in the call need to be aware that the call may be monitored or recorded. A simple disclaimer played to callers usually satisfies this requirement.

By default, call recordings go into the new voice mail folder of the user doing the recording. Recordings can be directed to a group voice mail box instead. You can listen to and forward a recording in a mail box the same way you can a voice mail.

Archived Recordings

If you record a lot of calls, it is probably desirable to have them moved out of the FacetPhone mail folder at some point and put into an archive. The archive gives you a web page with a list of all recordings by date. Once a recording is in an archive you can listen to it by clicking on it but you cannot forward it to anyone. We can configure the system to automatically archive selected voice mail folders and remove the voice mail from the FacetPhone mail folder.

Call Monitoring and Barge-in

Monitoring is initially disabled on a new FacetPhone system, so you will need to let us know if you wish it enabled. After that, monitoring can be enabled for each group from the administrative interface. To monitor a call there must be a group such that you are a manager of the group and the person you are monitoring is not a manager but only a member of the group.

When you monitor a call, you can hear the other parties in the call but they cannot hear you. If you want to make yourself an active party in the call you can barge-in on it. At that point all the other parties can hear you and you are a normal party to the call which is now a conference call.

ACD Summary Window

The FacetPhone computer user interface has an ACD Summary
window that can be opened to allow you to see how an ACD queue is
performing and set thresholds for alerts. This window shows the
number of agents logged in to the group, how many are busy, and
how many are free to take an incoming call. It also shows the
current number of calls for the group, how many are queued and the
average wait time:
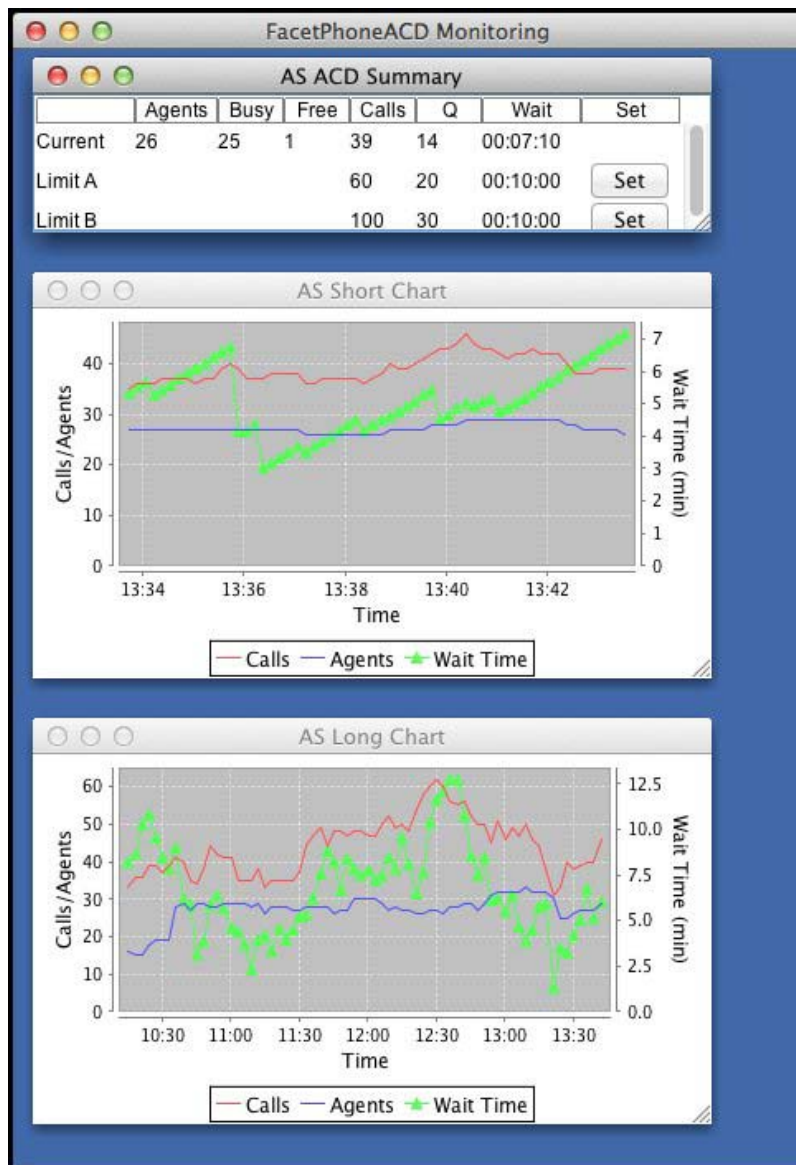
The two graphs at the bottom of the window show the number of calls, number of agents logged in and wait time as lines over time. The top one is on a short time frame to show recent activity close up and the bottom one shows a long term graph of activity.

You can set two limits to receive an alert if the defined limits are met or exceeded. You can define limits for the number of queued calls, the total number of calls and the longest wait time:
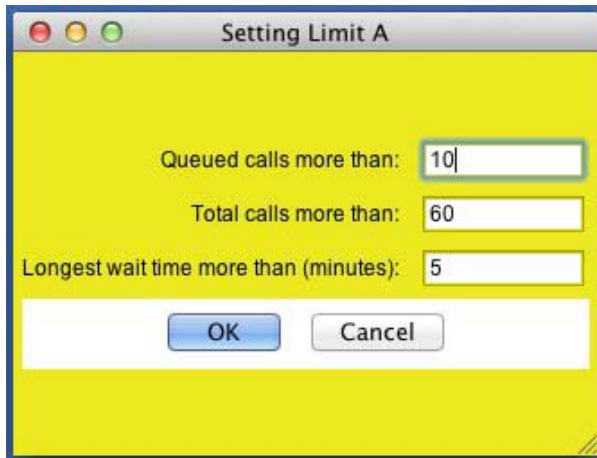
If one of the alert limits is hit, the alert window will be displayed and an audible alarm played:
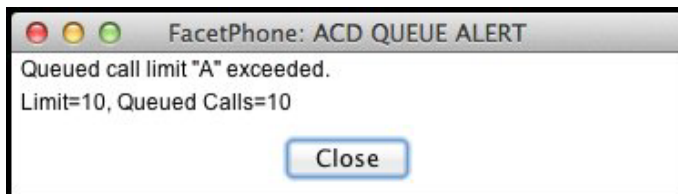
Computer Telephony Integration

FacetPhone is able to integrate with other software applications such as customer relationship management systems. This allows you to dial from those applications and receive caller ID information from the phone system in order to find a customer record in the application.

FacetPhone has been integrated with the following products:

- FileMaker programs can easily be enabled to dial from a contact record and also lookup a record and do a "screen pop" of contact based in incoming caller ID information.

- Daylite programs can dial and get screen pops from caller ID information via a FacetPhone plug-in.

- TAPI enabled Windows programs can be integrated with FacetPhone via the open source SIPTAPI package.

- FacetPhone has a UTAPI (Universal TAPI) package that can be used by any program that can run another program.

- FacetPhone has a NetTAPI protocol that allows applications to be written that integrate extensively with the FacetPhone system by establishing a TCP connection to the FacetPhone server and exchanging information.