

FacetPhone V4 -- Changes Since V3 December 2006

- The system now allows a user's voice mail script to queue the call to the user so that the call will ring to the user after he finishes his current call. This facility requires that the user has selective voice mail processing enabled and the queueing should only be done from the "busy" script. The new IVR function Transfer\_to\_user\_queue is used to put the call in the user's queue.
- Made a change to keep call recording from skipping the first 80 msec. of the recording as is done with voice mail to remove the beep.
- Made a change to send the names and group memberships of all users to a user interface even when the user interface is not displaying a group watch window that includes the user.
- Created a smaller user structure for use by the IVR process.
- Added an IVR function Notify\_when\_parked( int notify ) that sets an IVR script's ability to
  receive the E\_CALL\_PARKED event when a call on hold is parked. The "notify"
  parameter should be TRUE to enable the event and FALSE to disable the event. By
  default the event is disabled.
- Made a change to allow extension numbers and speed dial numbers to be dialed in the user interface dial box.
- Added a gateway setting to disable in-call volume changes on a Voipack gateway by instructing the user interface to not display the volume slider bar. Currently this setting must be manually set in the gateways.cfg file.
- Made a change to prevent conferencing a call before a SIP gateway involved in the call has established its dialog.
- Made a change to prevent a user's "office" and "not logged in" location profiles from being deleted.
- Made a change to support additional functionality in branch to branch calls such as call recording, conferencing and monitoring.
- Made a change to the IVR and conference processes to set the type of service byte on outgoing packets when a remote gateway is involved in the conference or IVR session. Currently this is only supported on Linux.
- Changed the default type of service byte for packets being sent between remote gateways to be B8 instead of B0.
- Added user status recording. When a user's status is changed, it will now be logged to the logs/user\_status.txt file. Each record in this file contains the fields: User extension Date in yyyy/mm/dd format



Time in hh:mm:ss format Name of the status being set w=y/n indicating whether the "at work" status is yes or no p=y/n indicating whether the "available for phone call" is yes or no o=y/n indicating whether the "available for operator calls" is yes or no t=y/n indicating whether the "available for text chat" is yes or no Each field is separated by the '|' character.

- Added an IVR function to set the user extension of the caller: Set\_user\_caller( uid );
- A new column was added to a user watch window in the user interface which shows the amount of time that a user has been in their current status.
- Made a change to the IVR and conference processes to add parameters to the SDPs that they produce.
- Added a setting that prevents the "M" monitoring status on a call from being displayed even to the users who would be allowed to monitor the call. The setting <hide\_monitoring\_on\_ui=y> should be put in the sys.local.cfg file.
- Added a new IVR function Dequeue\_call() which will take the call off of the group's call queue.
- Made a change to the conference process to ignore packets from recvonly parties in order to support monitoring on devices that do not support recvonly mode.
- Made additional changes to support the Zhone 6200. The gateway name is the IP address in square brackets. The IVR process detects digits for the gateway since it will not notify of digits after a connection is made.
- Made a change to the IVR process to not play a message about the voice mail folder being full when it is recording a call instead of a voice mail.
- Made a change to properly handle MGCP response codes between 0 and 199.
- Changed the Configure\_voipack script to turn off silence detection as used to detect call termination.
- Made a change to have the system record each user's last status so that they can be restored if the system is shutdown and restarted.
- Added the "none" option to the default status for a location profile. This is primarily
  intended for use with the "not logged in" profile so that a user can set a status before
  logging out (such as a forwarding status) and then after logging out, the last status he
  selected will remain his current status while logged out.
- Changed the format of the "Time" column on the User watch display to include the number of days in a status, if it is more than 24 hours.



- Added a status "<none>" that can be selected as the default status for a location so that the user can tell the system not to change status on logout or location change.
- Added an example call detail reporting script to the installation. This serves as a placeholder for a locally customized reporting script. The file is in the FacetPhone installation directory as /bin/fp\_cdr.local.example
- Added the initial Net-TAPI implementation.
- Made a change to allow managers who are not also operators to change the autoattendant settings.
- Changed the contents of the "Long Chart" graph in the ACD monitoring to reflect the maximum calls, agents, and wait time during the last period instead of the average.
- Added a "do not disturb" user status to the standard list of status definitions.
- Changed the caller ID string sent to Adtran gateways to have the number and name quoted as on other gateways.
- Added an indication in the user interface "Activity:" display if the current call is being recorded.
- Changed the "From:" voice mail field when the voice mail is a recording of a monitored call to have the name of the inside party being monitored instead of the monitors name as in normal call recordings.
- Added the new IVR function Get\_queue\_stats() which gets queueing statistics for the current group. The IVR script should wait for an E\_QUEUE\_STATS event after calling this function. After that event is received the following built-in variables will be set: QUEUE\_WAIT The average wait time in seconds for calls to be queued. QUEUE\_INDEXThis call's position in the queue. QUEUE\_LENGTH The total number of calls in the queue.
- Made a change to remove double quotes from incoming caller ID on a SIP T1 gateway.
- Added a new standard IVR script named "q\_and\_a.ivr". This script will ask up to 10 questions and record the callers answers and then concantenate all the answers into a single voice mail sent to the current group's new voice mail folder. This script was added to the standard ivr.cfg along with the following prompts: q\_and\_a\_intro, q\_and\_a\_end, question1, question2, question3, ... question10. The script will ask any of the questions for which there are group recordings.
- Added the following new IVR built-in functions:

#### Gen\_group\_TMPNAME()

Creates a unique file name for a file in the currently selected group's vmprompts directory.



Group\_prompt\_exists( "base\_prompt\_name" ) Returns true if the prompt whose name is given without a file extension exists in the currenlty selected group's vmprompts directory.

Concat\_recordings( "filename1", "filename2" ) Concatenates the two recordings whose full path names are given into one recording. The resulting recording has the name of the first recording supplied.

Save\_new\_named\_group\_vmail\_with\_subject( "filename", "subject" ) Saves the recording in the file whose full path is given into the current group's new voice mail folder and the voice mail is given the supplied subject.

- Added an E\_TT\_ANY event type that can be specified as the stop record tone for a recording function. This allows the caller to press any key to end the recording.
- Made a change to not request digits from an EyePmedia soft phone during a connection since it does not remove the digits from the audio stream.
- Added a new built-in IVR function: Play\_duration\_no\_sec( int sec ) This function will convert the duration in seconds into hours and minutes rounding the seconds to the nearest minute. It will then announce the number of hours if greater than 0 plus "hour(s)" and then the number of minutes plus "minute(s)".
- Added a new built-in IVR function: IVR\_controlled\_call( int on\_off ) This function tells the PBX that the IVR process is in charge of the call and the call should not be ended when the line it is connected to hangs up. This allows the IVR function to make multiple outgoing calls.
- Added a new message to Net-TAPI in which the server will notify the Net-TAPI client when a call being watched by the client ends for the user being watched by the client.
- Added the optional ability to associate entries in call\_routing.cfg with a particular outgoing trunk group. If doing this, the entry should begin with <trunk\_group=n>. If this data element is missing, then the call routing entry will be applied to all outgoing calls as they have been previously.
- Added the ability for the user menu to change the voice mail notification call feature on or off and specify the number to call if it is being turned on.
- Made a change that allows an administrator to view any display regardless of the privacy settings.
- Made a change to turn off the status setting showing that a user is available for text messaging if the status is being used when the user is not logged in.
- Added the branch.cfg file where information about branches can be configured.



- Made a change to use the timezone of the branch of a phone's gateway when composing the time for a caller ID message. This only works on systems running on a Linux platform.
- Increased the maximum number of displays allowed per location profile to be 50.
- Added a new IVR function Transfer\_to\_station( station\_number ) that allows the IVR to transfer the call to a station with no user logged in.
- Added home\_branch fields to the user and group structures. There is no GUI administration for these yet. These branch associations will be initially created for users by using the gateway branch for the user's phone. If none is found, then the user's home branch will be initialized
- to 0. The home branch for a group will be initialized using the branch of the lines that a group controls. If no branch is determined by this method the group's home branch will be initialized to 0. A user's or group's voice mail will report the time stamp relative to the time zone of the user's or group's home branch. Using the time zone for voice mail time stamps only works on systems running on a Linux platform.
- Created a new variable available to IVR processes named GROUP\_AUTO\_ATTENDANT that contains the name of the current auto attendant for the currently selected group.
- Added an IVR function Get\_item\_from\_list( list, nbr, item ) which gets returns item number "nbr" from the comma delimited "list" and puts the result in "item".
- Changed the vm\_notify\_call.ivr script to allow a comma delimted list of phone numbers to be specifed for the voice mail notification call. Different numbers will be called in quick succession until one of the called parties enters the user menu. If none of the notified parties enters the menu, then it will wait one minute and start calling the numbers in the list again.
- Made a change to allow the Zhone 6200 to send digit notifications when connected to an IVR process.
- Added a privilege value "hide\_outside\_calls" that will remove a call from the call displays of all users not a party to the call when the user with this privilege is a party to the call. If the privileged party leaves the call, it will reappear on the call displays of users watching the group's calls. In build 495, this privilege must be manually edited into the user.cfg file and then the system must be restarted for the changes to take effect.
- Changed the last user status handling to also save the forwarding phone number if one is in the status so that it will be restored if the saved status is an ad hoc number rather than one stored
- in the status definition.
- Added group voice mail handling capabilities that work the same as user's voice mail handling options. In build 495 the settings must be manually edited into the groups.cfg file and the system must be restarted for the changes to take effect.



- Added the ability to enter a speed dial number as the outside number in an outside transfer using the GUI or the TUI.
- Added a new record type to the user\_status.txt file that shows when users' location profiles changed. This indicates logins and logouts.
- Made a change to send any changes to call notes to all watchers of the call instead of only call parties.
- Made a change to have the PBX periodically try to restart a phone or line that has been deactivated due to loss of connectivity with its gateway.
- Made a change to update the mail displays of all watchers of a group's mailbox when the subject on a group mail is changed.
- Made a change to the way #0 works to allow it to pick up calls from any group that the phone's associated user is a member, operator or manager of. Previously it would only pick up calls in the phone's operator group.
- Made a user interface change to allow any user to open a call display for any call that they can see in a group call list display.
- Made a user interface change to put the call note, if one exists, in the empty party column of a parked call in a group call list display.
- Added user interface administration for the new voice mail notification methods that allow the system to call a list of phone numbers or send SMS text messages to a list of cell phones.
- Added user interface administration of the gateway settings generate\_incall\_dtmf, only\_send\_vmwi\_when\_diff and allow\_vol\_change\_on\_ui.
- Added user interface administration of the line setting paging\_system\_connected.
- Added server support for event scheduling to turn auto-attendants on and off instead of using cron.
- Made a change to save a user's voice mail handling settings when the OK button is clicked on that screen. Previously, these settings would not be saved until the OK button on the main user configuration screen was clicked.
- Added administration of scheduled events to be used to turn auto-attendants on and off for groups or change their auto-attendant script. When upgrading to this build, the crontab entries for managing auto-attendants should be removed and the auto-attendant management should be setup using this new facility. The crontab entries for rotating logs should NOT be removed. To administer scheduled events, choose on the FacetPhone UI menu:

Admin -> Change system configuration And then on the Administration window menu: Add -> Add a Scheduled Event



or:

Configure -> Configure Scheduled Events

- Added a company\_holiday\_menu IVR script for use during holiday closings. It plays a company\_holiday\_greeting and company\_holiday\_menu which may be customized. The company\_holiday\_greeting is meant to be customized for each holiday. The standard company\_holiday\_menu is the same as the company\_closed\_menu.
- Added a feature in which an abbreviated call display window will be automatically displayed when a user parks a call with the user interface. This feature is turned on system-wide with the setting in sys.local.cfg: <call\_display\_when\_ui\_park=y>
- Changed the call detail record to include the DID number. The field will be blank if there was no DID number. The CDR version has been changed to CDR\_1.1 and the new field is after the note field.
- Added UI administration of group voice mail handling options.
- Updated Time Spent call report generator to handle v1.1 call records.
- Added a feature where the system will automatically change an ACD operator's status if a call is routed to them and they don't answer. The feature is turned on by adding to the sys.local.cfg a line similar to:

<acd\_oper\_change\_stat\_no\_answer><old=oper on duty><new=away from desk>

The "old" status is the status that the non-answering operator must have in order for their status to be changed. The "new" status is the one that the operator's status will be changed to. The "old" and "new" status must be in the public user status list.

 Added a feature where a person's status will be automatically changed if they do not make an outgoing outside call within a specified number of minutes. The feature is turned on by adding to the sys.local.cfg file a line similar to:

<outbound\_agent\_change\_stat\_no\_call><old=at desk><new=away from desk><minutes=5>

The "old" status is the status that the person must have in order for their status to be changed. The "new" status is the one that the person's status will be changed to. The "old" and "new" status must be in the public user status list. The "minutes" setting is the number of minutes that must elapse without the person making an outgoing call before their status will be changed.

- Updated the call detail record reports to handle the new version 1.1 call detail records.
- Made a change that allows the sys.local.cfg setting <display\_did\_party\_as\_cid=y> to work on analog lines even though they do not furnish any DID information. The line's operator group is used as the Caller ID name.



- Included 'fp\_vm\_archive' and 'fp\_vm\_purge' scripts for use in automatic voice-mail archiving schemes.
- Insure that sequence numbers always increase and timestamps always reflect a true time even if multiple IVRs are run on a connection in sequence.

The resetting of the initial sequence numbers and timestamps in each ivr was suspected of causing loss of audio when switching from answering ivr, to ringback ivr, to voicemail ivr. Seemed to take several seconds to recover.

The general scheme is that:

sequence numbers are the number of seconds since 10 AM GMT \* 50 and time stamps are the number of seconds since 10 AM GMT \* 8000.

- Added a comfort noise packet to the end of each playing of a prompt.
- Made a change to allow a local backup server to take over only the gateways at its branch.
- Updated "fp\_vm\_archive" script with "-s SUBDIR" option to allow for archiving to a named subdirectory of a date-stamped subdirectory of the archive directory. This script has Linux specific code and is only available in FacetPhone for Linux.

New command syntax:

fp\_vm\_archive - archives voice-mail in FacetPhone folder.

#### USAGE:

fp_vm_archive (-u USER -g GROUP) [-f (new saved)] [-d YYY/MM/DD]
-a DIR [-s SUBDIR] [-t] [-h] [-p -r] [-U UTIL_USER]
[-P PIN] [-v]

-u USER	FacetPhone user whose folder gets archived
-g GROUP	FacetPhone group whose folder gets archived
-f (new saved)	voice-mail folder to archive (default: new)
-d YYYY/MM/DE	D archive date (default: today's date)
	(date can be in YYYYMMDD or YYYY/MM/DD format)
-a DIR	archive directory
-t	archive in time-stamped subdirectory
-s SUBDIR	archive subdirectory (below date-stamped w/-t)
-h	create HTML index of archive
-р	purge voice-mail folder after archive
	(tells server to remove files)
-r	remove voice-mail files after archive
	(removes files directly without server)
-U UTIL_USER	FacetPhone utility user used to do purge



-P PIN PIN of utility user used to do purge -v verbosely display what's going on

- Added support for IP phone "business phone" package to take the phone off-hook automatically if the user initiates a phone function from the user interface and currently has their phone on-hook.
- Added support for Conference and Messages buttons on an IP phone with the business phone package.