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**Voice Processing
System**

KX-TVP200E

Product Description

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System Parameters

	Minimum	Maximum
Ports	0	12
Recording Time	32 hours	32 hours
Extension Numbering	2 digits	5 digits
Personal Greeting Length	8 seconds	60 Seconds
Message Retention Time	1 day	Unlimited
Incoming Message Length	1 minute	Unlimited
Mailboxes	1024	1024

System Components

KX-TVP200E

The voicemail system is initially configured with:

1. zero ports
2. 32 hours recording time
3. RS232C for system programming and printing reports.

KX-TVP204E

Provides four DPITS voice/fax ports to expand the KX-TVP200E by four ports

KX-TVP102E

Provides two DPITS or SLT voice ports to expand the KX-TVP200E by two ports.

About the KX-TVP200E

The KX-TVP200E is a voice processing system packed with features normally only found on much larger systems. The KX-TVP200E also has some features that are unique. This product description will guide you through the main features and benefits of this voice processing system and will also explain what facilities a telephone system should provide in order to gain the most from the KX-TVP200E.

The KX-TVP200E may be connected to any analogue telephone line or analogue extension of a telephone system. However the level of functionality will vary dependant upon the level of integration between the exchange and the KX-TVP200E.

To give you an idea of varying levels of integration the following examples will provide a basic comparison.

Types of Connection

Connection without voicemail integration

Connection to a direct exchange line.

Connection directly to a telephone line provides the least level of functionality. Both callers and mailbox users must have telephones capable of dialling in tone. When the number of the voicemail is rung it will answer and prompt the caller to dial the mailbox where they wish to leave a message. The mailbox owner can then call the voicemail at regular intervals to find out whether they have received any messages.

Connection to a basic telephone system.

Basic telephone systems provide slightly more benefit than a direct connection to line. Again the callers and mailbox owners must have tone telephones. If the voice processing system is to be connected to a telephone system where some or all of the other extensions are proprietary telephones the telephone system must be capable of generating DTMF tones internally - not all are! Just like the direct exchange line example the voicemail must be rung both to leave a message and to retrieve messages. The one benefit for extension users is that their calls to the voicemail are free.

Connection to a telephone system accepting timed break recall

If the telephone system is capable of accepting timed break recall signals then the voice processing system can not only provide a basic level of voicemail operation but can also operate as an automated attendant (see Automated Attendant operation later in this guide for full details). Automated attendant allows a caller to gain access to the extension they require by entering the extension number when prompted to do so by the voice processing system.

Connection with integration

Telephone systems providing “follow on ID”

When a telephone is set to call forward to voicemail the telephone system automatically dials the extension user's mailbox number. When a caller makes a call to the extension or divert the call is re-routed to voicemail and the extension user's personal greeting is heard. To the person calling it seems as though their call has been answered by a personal answering machine.

Telephone systems providing “in band” signalling.

In the previous examples the voice processing system must detect and recognise all system generated tones. When the telephone system provides “in band” signalling the tones are pre-fixed with a DTMF digit string. The voicemail can detect the DTMF tones and react immediately. This dramatically increases the speed with which the voicemail operates and its ability to react correctly.

For example when the caller is transferred using the automated attendant feature the voice processing system listens to the ringing tone. Ringing tone is presented in bursts therefore the voice processing system must wait until ringing has stopped for longer than the silence between bursts to ensure that the call has been answered before connecting the caller. When in-band signalling is used the DTMF digit indicates that the call has been answered and the caller can be connected straight away.

Digital Integration (KX-TD Series only)

The signalling between telephone system and voicemail is carried out completely digitally this not only speeds up the operation of the voice processing system beyond the performance associated with “in band” signalling but also provides additional functionality: Two way recording, live call screening and fast set-up.

Modes of Operation

Voicemail

Description

When rung the voice processing system answers and greets the caller with "Good Morning/Afternoon/Evening" and then asks the caller to dial the number of the mailbox where they wish to leave a message. When the caller enters a number the VPS then compares the number entered with it's mailbox numbers. If a match is found the caller is connected to that mailbox. Otherwise the voice processing system advises the caller that they have dialled an incorrect number.

Benefits

Allows verbal messages to be left for the mailbox users. Eliminates mistakes made when the message taker does not fully understand the message they are taking. Eliminates paper messages. Allows the mailbox user to retrieve their messages 24 hours a day 365 days a year. Message retrieval does not require the assistance of office based staff.

Interview Service

Description

The voicemail answers the incoming caller and then asks a series of up to ten questions the responses to which are recorded into a (nominated) mailbox.

Benefits

Gathers information in a structured format. Useful for order gathering or market surveys. Ensures that the correct information is given by the caller - no more messages without return telephone numbers.

Automated Attendant

Description

This mode greets the caller as before but then asks the caller to enter the extension number of the person who they would like to contact. The voice processing system is told during installation how many digits make up the extension numbering scheme and the permissible leading digits of the numbering scheme. When the caller enters the number they require, the voice processing system compares the number entered to check if the number is a valid entry. If it appears to be correct the voicemail will transfer the caller to the extension they require.

Benefits

Can be used as an aid to the operator. Calls can be directed to the voice processing system and callers can be passed to extensions without the operator needing to be involved. The voice processing system can also be used for operator overflow at busy times of day. The voice processing system can also be used for direct extension access for "out of hours" operation.

Custom Service

Description

Custom service provides either voicemail or automated attendant operation with increased functionality. In addition to either voicemail or automated attendant operation each single digit can be assigned a particular function. There is a customer recordable menu which is played to the caller advising them of the available options.

Typical applications are to prompt the caller to dial 1 for sales, dial 2 for service and so on. However the Panasonic voice processing system can do much more.....

For each digit you have a choice of:

transferring to a nominated mailbox, transferring to a nominated extension, transferring to the operator, going to the previous menu, starting voicemail, service, starting automated attendant service, and much more

Added to this there are 100 of these configurable custom services which can be inter-linked to provide even more options to the caller.

Benefits

The voice processing system becomes completely configurable to the customer's requirements. The caller can be given sufficient information to reach their destination without having to know the extension or mailbox they require. Menu messages can be recorded to provide the caller with information on products and services. Callers after listening to information, can even be directed to an interview mailbox so that their name and other details can be recorded for follow up.

Specifying the voice processing system

Ports

The number of ports is one of the most important factors to consider. If you do not provide enough, the voice processing system may be unable to answer all of the incoming calls. Too many and the customer may end up paying for hardware that is never used. A rule of thumb guide is to check with the customer to see the maximum number of calls which will arrive simultaneously as this will determine the number of ports required.

Mailboxes

To operate effectively every extension user on the telephone system where voicemail is used must use the voicemail. There must be one mailbox for every extension user and a mailbox for other staff who may not have their own personal extension.

Recording Time

Depending upon the requirements of the mailbox user, it may be necessary to allocate some mailbox users more recording time than others. Each mailbox can be allocated between 5 to 100 minutes recording time. The recording time though allocated is only actually used as and when messages are recorded. The maximum storage capacity of the voice processing system is 6 hours.

System Administration

System administration is carried out from a PC running a communications package which is connected to the serial port of the voice processing system.

The initial configuration must be carried out at time of installation. However the management of the system can be carried out by PC or by the system manager.

The voice processing system must have the following settings carried out at time of installation by the installing engineer:-

The PBX interface parameters

- These are the sequence of operations the voice processing must carry out to transfer calls, retrieve held calls, activate message waiting lamps etc.

The service provided by the voicemail on each of its ports

- Voicemail, Automated attendant etc.

Quick set-up

Description

Quick set-up allows the system administrator to quickly set up the KX-TVP200E. The type of PBX that the voicemail is connected to, the extension numbers which require mailboxes and the user's names, and the type of operation of the voice processing system's ports along with any passwords need to be input. The voice processing system will then configure itself automatically.

Benefits

Saves a great deal of time compared with creating the mailboxes individually.

Setting up mailboxes

Description

Mailboxes may be created individually allowing total flexibility to customise the mailbox to the exact requirements of the user. Each mailbox can be created to have completely different features and facilities to any other mailbox.

Benefits

Allows total flexibility of the voice processing system. Mailboxes do not need to be set-up with facilities not allowed to certain mailbox users. For example only those mailboxes with a definite requirement for external message delivery need be provided with this feature.

Editing mailboxes

Description

Once created a mailbox may be edited to provide additional functionality or have facilities removed.

Benefits

If a mailbox needs to be re-allocated to a different person their exact requirements can be met without needing to delete the mailbox and create another tailored to their requirements.

Deleting mailboxes

Description

If a mailbox is no longer required it can be removed completely from the voice processing system.

Benefits

Ensures the integrity of the voice processing system staff who leave, and prevents outside callers from using "spare" mailboxes for their own use.

Resetting mailbox passwords

Description

The personal password which a mailbox user has set can be removed from the mailbox.

Benefits

If the mailbox user has forgotten their password or an employee has left the company and left their mailbox password protected, the system administrator can remove the password so that the mailbox can be used once more.

Listing mailboxes

Description

The system administrator can call up a listing of all current mailboxes on the system.

Benefits

The system administrator can quickly ascertain whether all mailbox users have been assigned mailboxes and also the spare capacity of the voice processing system.

Class of service setting

Description

The class of service for each mailbox determines the features and facilities that the particular mailbox is permitted to use. The options which make up the class of service are:

1. Message notification
2. Beeper call-back number entry - the caller can enter their telephone number
3. Message waiting lamp notification - The message waiting feature of the telephone system can be used
4. Device notification for un-received message - the voice processing system can call a pre-determined device to notify of a message
5. Authorisation of external message delivery - the mailbox user can have the voice processing system call an external number to deliver their messages
6. Prompt mode - one of up to three languages can be used to prompt the mailbox user when they access their mailbox.
7. Authorisation of automatic forwarding - messages can be sent to another mailbox after a pre-determined period of time.
8. Mailbox number - specifies where the messages are forwarded to under automatic forwarding.
9. Delay time - Specifies the amount of time in hours and minutes before messages are forwarded to another mailbox.
10. Forwarding mode - Specifies whether messages are copied or moved.

Benefits

Allows the mailbox to be set so that the mailbox user only has access to those features they are allowed to use.

Port assignment

Description

The system administrator can set the mode of operation of the voice processing systems ports for both day mode and night mode. The parameters include:

Company greeting - specifies which of the user recordable greetings is played to the caller before the selection menu.

Incoming call service - sets the mode of operation of the port (voicemail, auto attendant etc.).

Incoming call service prompt - which of the three languages is used for the prompts or whether the language can be selected by the caller.

Prompt for rotary callers - which of the three languages is used to advise callers from a rotary telephone.

Delayed answer time - the voice processing system can be set to answer after a delay of up to 60 seconds this will allow callers to hear a ringing tone before the voicemail answers

Note: once ringing has been applied to the voice processing system the port will answer. This facility should not be used as an alternative to delayed ringing.

Benefits

Allows the system administrator to customise the answering of the voice processing system to the customers requirements and to allow the caller to be greeted by customer recorded messages. Allows the various ports on the voice processing system to be set either for the same or different tasks.

Department dialling

Description

Allows single digit access to specific extensions (or hunt groups). For each digit 1 through 9 a destination extension can be nominated.

Benefits

Callers can select a department able to deal with their call as an alternative to a specific person.

Operators parameters

Description

The operator(s) on the telephone system can be identified to the voice processing system. When the caller dials 0 for the operator or does not enter any digits the call can be transferred to the telephone system operator(s). The operators parameters can be different between day and night service. The parameters for the operators are:

1. Operator service - enables or disables the operator
2. Operators extension - specifies the operators extension number
3. Operator's mailbox - specifies into which mailbox messages for the operator should be directed
4. Operator no-answer time - sets the length of time the operators extension should be rung before deciding there is no answer.
5. Busy coverage mode - dictates the action the voice processing system should take if the operator is busy
6. No-answer coverage mode - dictates the action the voice processing system should take if the operator does not answer.
7. Message repeat cycle - specifies the number of times the prompt should be played to the caller before deciding the caller has hung up.

Benefits

Ensures that all callers reaching the voice processing system reach the extension they require. Ensures that callers with rotary telephone do not end up in "voicemail jail". Ensures callers who do not know the extension number they require can be connected to the extension they require manually.

Alternate extension

Description

This facility is used where some extensions require a different transfer sequence programmed in order to transfer calls to them successfully. Should some extensions require it a different method of call transfer may be used when transferring calls to extensions listed within this group.

Benefits

Allows the voicemail system to cope with more than one transfer sequence. This allows the voicemail to transfer calls to extensions even if the operation to transfer calls is different to the standard transfer sequence.

Custom service

Description

Custom service provides a highly flexible "front end" to the voice processing system. The various keys on a tone telephone can activate features of the system. There are 100 programmable custom service settings which can be inter-linked. The menu of features is user recorded so that the combination of features is virtually limitless. The digits of the keypad can have the following functions assigned to them:

Transfer to mailbox - calls can be directed to a specified mailbox
Transfer to extension - calls can be transferred to a specified extension
Operator - calls can be transferred to the operator(s)
Exit - the voice processing system plays the exit prompt then disconnects
Previous menu - the caller is taken to the previous custom menu
Custom service - the caller is transferred to another custom service
Voicemail service - the caller is connected to voicemail operating mode
Call transfer service - the caller is connected to automated attendant operation
Subscriber service - connects the caller to subscriber (voicemail) service
Department dialling - allows the caller to use the department dialling feature
Dial by name - allows the caller to enter by name using the letters on the digits of their keypad*
Repeat menu - repeats the custom service menu
Main menu - returns the caller to the top (first) custom menu
Fax transfer - transfers the caller to the nominated fax extension

Note: Different telephones may have different patterns of letters on the digits. Some may not be suitable for use with this feature.

Benefits

Allows callers access to all the facilities of the voice processing system in any combination required. Multiple levels of custom service can be used to guide callers to the feature, mailbox or extension they require.

Mailbox group assignment

Description

By grouping mailboxes messages can be sent simultaneously to all members of the group. The system administrator can create up to 20 of these groups containing up to 20 members in each. Once a group is created the system administrator can call up a group listing which lists all members in the group and also can remove any mailbox from any group.

Benefits

Saves time recording the same message in each mailbox individually. Avoids mistakes where some people who should receive the message do not have the message left for them.

Extension group assignment

Description

Groups of extensions can share a single mailbox. Each group can have up to 20 members. Each member is notified by their message waiting lamp if a message is received in the shared mailbox. The system administrator can create up to 20 of these groups and once created can add or delete members. The system administrator can also call up a list which shows all current members of any group.

Note: if an extension forms one of these groups it cannot have it's own personal mailbox.

Benefits

Useful for call centres where multiple extension users are dealing with the same type of call. Any extension user can access the mailbox and deal with the enquiry. If the mailbox is in interview mode this make a powerful tool for gathering information (such as enquiries about products or services) the mailbox can be interrogated and the information they require dispatched to them.

Day service

Description

This setting specifies the starting time for day service and night service. The operating mode for the ports can be changed between day service and night service. For example the voice processing system might operate as an automated attendant during day service but might operate in voice mail mode during night service. Also the operator's parameters can be different between day and night.

Benefits

Allows the voice processing system to operate in the most useful way during both working hours and outside of normal working hours.

Holiday setting

Description

Up to 20 (twenty) dates can be set as holidays. the operation on these dates can be specified as being different on these dates. For example if the regular night service is voicemail operation, then on the specified holiday dates the voice processing system could operate in voicemail mode throughout. The parameters which can be set are:

Name of holiday - The name of the specified holiday may be entered to make the setting easily identifiable

Date - The date on which the specified holiday operation will be performed

Retain holiday - Set if the holiday occurs on the same date each year otherwise the voice processing system will cancel the setting after it has been carried out

Service - specifies the service the port provides to the caller i.e. voicemail, auto attendant etc.

Company greeting number - specifies which user recorded company greeting will be played to the caller

Port affected - specifies which ports will have the holiday service in operation.

Benefits

The voice processing system can be programmed up to a year in advance to ensure that the response from the system is correct during holidays.

Daylight saving time

Description

The voice processing system can automatically adjust the clock by 1 hour on the pre-programmed dates

Benefits

Avoids the usual panic by the customer on the dates where the clocks go back/forward.

Extension numbering

Description

This setting allows the voicemail to quickly identify correctly entered extension numbers and will promote prompt transfer of callers to extensions.

Benefits

If a caller enters an incorrect extension number this will be immediately recognised by the voice processing system and the caller can be advised. If not used the voice processing system will attempt to connect the caller to the extension number they entered wasting time.

Dialling parameter

Description

Advise the voice processing system of some of the settings for making calls. the settings are:

1. Number of digits to access outside line - advise the voicemail of when external dial tone is likely to be received.
2. Call transfer no-answer time - during transferring a call this setting specifies how long to wait for an answer from an extension.
3. Outgoing call no answer time - during external message delivery this setting advises how long the voice processing system should wait for an answer from the external party.
4. Pause time - specifies the duration in seconds a pause stored as part of a dialled number should be.
5. Outgoing call set-up sequence - specifies whether there is any special action the voice processing system should carry out, between dialling the digit to access the outside line and sending the telephone number required.

Benefits

Allows the system to correctly route callers and messages to users of the voice processing system.

Message waiting notification

Description

Controls how message notification is carried out. The following parameters may be set:

1. Outgoing call ports - specifies which ports may be used for the purposes of making outgoing calls for device notification.
2. Message waiting lamp ports - specifies which ports may be used for setting and cancelling the message waiting lamps.
3. Message waiting lamp for every message - tells the voice processing system whether it should light the message waiting lamp every time a message is left.
4. Max. digits for call-back number - sets the maximum number of digits a caller may enter as part of a call-back number.
5. Call-back number entry inter-digit time-out - controls the maximum period of time allowed between entry of one digit and the next during call-back number entry.
6. System call-back number - Advises the recipient of external message delivery of the telephone number to call to retrieve their messages if the external message delivery resulted in the recipient entering the wrong password.

Benefits

Allows complete control over how the voice processing system attempts to advise mailbox users of their messages.

Call hold

Description

Controls all aspects of holding callers for a busy extension. The following parameters may be set:

1. Call hold mode - If set allows the caller the option of holding.
2. Call queuing announcement mode - If enabled, advises callers of their position in the queue.
3. Call retrieval announcement timing - sets the interval between prompts asking the extension user to take the held call.
4. Re-dialling cancel timing - sets the intervals between prompting the outside caller as to whether they wish to continue holding.

Benefits

Provides complete flexibility relating to held calls.

Rotary telephone service

Description

Specifies the action the voice processing system should take when called, but when there is no DTMF (Tone dialling) received from the caller.

Benefits

Allows a call from a person with a rotary dial telephone to either leave a message or call the operator.

Intercom paging parameter (KX-TD Version 2)

Description

This facility allows the voice processing system to make a paging announcement through the proprietary telephones to alert an extension user that there is a call for them.

Benefits

Improves call handling, allows the extension user to receive their call even when they are away from their extension.

Fax management

Description

The voice processing system can detect the calling tone generated by group 3 fax machines. When detected it will automatically transfer the fax call to a fax machine registered with the voice processing system. The following parameters can be set to enable this feature:

1. Automatic transfer of incoming fax call - may be enabled if fax transfer is required
2. Main fax extension number - nominates the first device to which to transfer incoming fax calls
3. Alternate fax extension number - nominates a second fax machine to which fax calls should be transferred if the first device is busy or does not answer.
4. Fax no-answer time - controls the length of time the voice processing system allows the fax device to respond.
5. Fax manager mailbox number - specifies the mailbox number to inform if fax messages have not been received.
6. Fax no answer coverage mode - the voice processing system will leave a message about failed fax calls and can also inform a specific extension
7. Fax notification mode - the voice processing system will leave a message notifying the number of successfully received fax messages and can also inform the specified extension.

Benefits

Allows fax calls which have been directed to the voicemail system to be re-routed to the fax extension. If for any reason the transferring of such calls is unsuccessful this also can be advised to a mailbox user.

Disconnect Parameter

Description

This parameter sets the maximum period of silence that the voice processing system will record. If the caller pauses during recording for more than this period of time recording will stop.

Benefits

The period of silence is adjustable so that it can be set to a greater time than the voice processing system's callers pause. If set correctly no caller should be cut off under normal circumstances.

RS232 Parameters

Description

The RS232 port on the voice processing system can be used for programming (this section) and printing reports. The voice processing system's parameters can be set to suit the type of equipment connected.

Benefits

If the parameters of the printer or terminal connected cannot be adjusted, the voice processing system can be adjusted to suit the device connected.

Port setting

Description

The settings on the voice processing systems ports can be adjusted to suit the PBX to which it is connected. The following settings are adjustable:

1. Flash time - The duration of the timed break recall signal
2. CPC signal - the voice processing system is able to detect CPC if provided and release the port automatically
3. Disconnect time - The period of time between, the end of a previous call and the voice processing system using the same port to make an outgoing call.
4. Dial mode - The dialling mode can be altered between DTMF (tone) and pulse dialling.

Benefits

Allows the voice processing system to be set to the ideal values for the PBX to which it is connected.

PBX interface parameters

Description

The voice processing system has default settings to suit all KX-T and KX-TD telephone systems. Other PBX system can be accommodated by setting the various parameters accordingly. The adjustable parameters are:

1. PBX type - Specifies the type of PBX the voice processing system is connected to.
2. Integration mode - advises the voice processing system of any additional information the PBX will provide (no-integration, in-band or digital). This setting must be set to none unless the PBX supports this feature.
3. Operator transfer sequence - determines the sequence of keystrokes required to transfer a call to the operator
4. Extension transfer sequence - determines the sequence of keystrokes required to transfer a call to an extension
5. Alternate transfer sequence - advises the voice processing system of an alternative method of transferring calls.
6. Reconnect sequence on busy - specifies how the voice processing system should re-connect to the caller when the extension called is busy.
7. Reconnect sequence on no answer - specifies how the voice processing system should re-connect to the caller when the extension called does not answer.
8. Reconnect sequence on refuse call - specifies how the voice processing system should re-connect to the caller when the extension called refuses the call.
9. Light-on sequence for message waiting lamp - determines the sequence of keystrokes required to light a message waiting lamp.
10. Light-off sequence for message waiting lamp - determines the sequence of keystrokes required to turn off a message waiting lamp.
11. Call waiting sequence - advise the voice processing system of how to invoke call waiting on a busy extension.
12. Release for call waiting - advises the voice processing system of how to release the held call to the extension.

Benefits

Allows the voice processing system to be set up to work with any compatible PBX system.

Maintenance (Utility commands)

Description

The utility commands provide additional settings. Most should only be used by engineers. The options are:

- OFLN - stops the voice processing system from answering incoming calls
- ONLN - resumes answering of incoming calls
- PASS - sets the password for programming and re-setting (defaulting) the system to the factory parameters
- TIME - allows the time and date to be set.
- PSET - allows system reports to be printed everyday at a specified time.
- ELOG - provides details of any errors which have occurred
- SAVE - allows backup of the voice processing systems parameters to a PC
- LOAD - allows programming parameters to be loaded from a PC
- GPRN - allows the programming parameters to be downloaded in text format to a PC.
- VERS - displays the program and ROM versions
- CREP - provides information on the key assignment of any custom service and the number of times it has been accessed.
- CCLR - clears the counter which indicates how many times a custom service has been accessed
- MWL - specifies how many times the voice processing system should attempt to set the message waiting lamp on each extension.
- MRL - specifies the minimum duration of a message. If the message is shorter than this time then it will not be stored.
- MPLT - lists all the recordable prompts which have been re-recorded or disabled.
- HELP - lists all the utility commands
- QSET - starts the quick set-up procedure.

Benefits

Provides engineers with additional functionality to overcome possible shortcomings of the PBX.

System reports

Description

Reports about system settings or system usage can be obtained to provide information about the operation of the voice processing system. The following reports can be obtained:

Mailbox assignments - provides information on what facilities are available to each mailbox
COS. assignments - provides information on what facilities are available to each class of service
System service report - indicates the function of each port during day, night and holiday modes
Call account report - shows details of all calls made to an external number and the mailbox which made the call
Port usage report - shows the types of calls made using each port and the total usage time.
Disk usage report - details the amount of recording time available, used, and details on all messages recorded.
Mailbox usage report - gives details about all messages received by and calls made by the mailbox
Fax call report - provides details about all fax calls received by the voice processing system and the fax machines the calls were directed to.

Benefits

Provides a great deal of information on the workings of the voice processing system. Provides the system administrator with a convenient way of monitoring the voice processing systems operation.

Initialising the system

Description

Specifies the number of digits required for the mailbox numbering scheme.

Benefits

Allows the voice processing system to use the same numbering scheme for it's mailboxes as any telephone system using 2, 3, 4 or 5 digit extension numbering schemes.

System Management

System management is carried out via a tone telephone. To gain access to system management the voice processing system must be called and entry gained to the system managers mailbox. Normally this type of programming would be carried out on site by the person responsible for the day to day operation of the system. This particular method of programming can be carried out from any tone telephone (provided the line quality is sufficient) from anywhere in the world. The system manager has access to the following features:-

Setting up mailboxes

Description

Mailboxes may be created individually allowing total flexibility to customise the mailbox to the exact requirements of the user. Each mailbox can be created to have completely different features and facilities to any other mailbox.

Benefits

Allows total flexibility of the voice processing system. Mailboxes do not need to be set-up with facilities not allowed to certain mailbox users. For example only those mailboxes with a definite requirement for external message delivery need be provided with this feature.

Editing mailboxes

Description

Once created a mailbox may be edited to provide additional functionality or have facilities removed.

Benefits

If a mailbox needs to be re-allocated to a different person their exact requirements can be met without needing to delete the mailbox and create another tailored to their requirements.

Deleting mailboxes

Description

If a mailbox is no longer required it can be removed completely from the voice processing system.

Benefits

Ensures the integrity of the voice processing system staff who leave, and prevents outside callers from using "spare" mailboxes for their own use.

Resetting mailbox passwords

Description

The personal password which a mailbox user has set can be removed from the mailbox.

Benefits

If the mailbox user has forgotten their password or an employee has left the company and left their mailbox password protected, the system administrator can remove the password so that the mailbox can be used once more.

Setting class of service parameters

Description

The class of service for each mailbox determines the features and facilities that the particular mailbox is permitted to use. The options which make up the class of service are:

1. Message notification
2. Beeper call-back number entry - the caller can enter their telephone number
3. Message waiting lamp notification - The message waiting feature of the telephone system can be used
4. Device notification for unreceived message - the voice processing system can call a pre-determined device to notify of a message
5. Authorisation of external message delivery - the mailbox user can have the voice processing system call an external number to deliver their messages
6. Prompt mode - one of up to three languages can be used to prompt the mailbox user when they access their mailbox.
7. Authorisation of automatic forwarding - messages can be sent to another mailbox after a pre-determined period of time.
8. Mailbox number - specifies where the messages are forwarded to under automatic forwarding.
9. Delay time - Specifies the amount of time in hours and minutes before messages are forwarded to another mailbox.
10. Forwarding mode - Specifies whether messages are copied or moved.

Benefits

Allows the mailbox to be set so that the mailbox user only has access to those features they are allowed to use.

Setting the system clock

Description

The system manager is able to set the time and date on the voice processing system.

Benefits

Useful for correcting the time if for any reason the time is wrong on the voice processing system.

Obtaining system reports

Description

Reports about system settings or system usage can be obtained to provide information about the operation of the voice processing system. The following reports can be obtained:

Mailbox assignments - provides information on what facilities are available to each mailbox
COS assignments - provides information on what facilities are available to each class of service
System service report - indicates the function of each port during day, night and holiday modes
Call account report - shows details of all calls made to an external number and the mailbox which made the call
Port usage report - shows the types of calls made using each port and the total usage time.
Disk usage report - details the amount of recording time available, used and details on all messages recorded.
Mailbox usage report - gives details about all messages received by and calls made by the mailbox
Fax call report - provides details about all fax calls received by the voice processing system and the fax machines the calls were directed to.

Benefits

Provides a great deal of information on the workings of the voice processing system. Provides the system administrator with a convenient way of monitoring the voice processing systems operation.

Clearing system reports

Description

The information in any system report can be reset so that the accumulation of data can start again from the time of reset.

Benefits

This feature is useful when the system manager wants to get reports on a daily, weekly, monthly, yearly basis or for any other interval. The previous data is cleared so only information accumulated during the particular period is obtained.

Delivering messages to all mailboxes

Description

The system manager can send the same message simultaneously to all mailboxes assigned on the voice processing system. The message is not stored like other messages but is heard immediately the user enters their mailbox but before they can carry out any operations within the mailbox.

Benefits

Allows the system manager to send a message to all mailbox user regardless of any groups and ensure that they hear the message even if they have not accessed their mailbox to retrieve messages.

Delivering messages to specified mailboxes

Description

The system manager can record a message into a specific mailbox in a similar way to any other mailbox user. When the message is heard the mailbox user will be informed that the message has come from the system manager.

Benefits

Identifies the person leaving a message without the need for the caller to state their details. Allows the message recipient the option of replying directly to the message sender as one of the options from within their mailbox.

Checking mailbox distribution

Description

The system manager is able to confirm that messages sent to mailbox users have been listened to.

Benefits

Advise the system manager if any mailbox users are ignoring messages left for them.

Password protection

Description

The system manager's mailbox can be password protected to prevent unauthorised access and therefore prevent tampering with the voice processing system. The password can be up to 8 digits in length and can be comprised by any of the digits 0 through 9

Benefits

Ensures the security of the voice processing system. Avoids unauthorised access and therefore stops people from setting up mailboxes or altering the facilities available to existing mailboxes.

Listening to messages

Description

Messages may be left for the system manager. The type of message would be regarding creation or deletion of a mailbox or changing a parameter on an existing one.

Benefits

Allows mailbox users to leave requests for the system manager.

Message Manager

Message management is carried out via a tone telephone. To gain access to message management the voice processing system must be called and entry gained to the Message Manager's mailbox. Normally this type of programming would be carried out on site by the person responsible for the day to day operation of the system. This particular method of programming can be carried out from any tone telephone (provided the line quality is sufficient) from anywhere in the world. The message manager is responsible for the general delivery mailbox, setting the extension which receives requests for operator assistance and for re-recording any system prompts. The message manager has access to the following features:

Listening to messages

Description

The Message Manager's mailbox is also the general delivery mailbox where messages may be left by callers who either have a rotary telephone or who do not know the number of the mailbox where they need to leave their message. Messages can be transferred by the message manager to the mailbox the caller required.

Benefits

Ensures that no caller is unable to leave a message.

Message waiting lamp operation (general mailbox)

Description

The message manager can enable or disable message waiting lamp operation on the operators extension.

Benefits

The message manager can choose whether the operator or themselves deal with calls in the general delivery mailbox.

Notification by calling

Description

When a message is received in the general delivery mailbox the voice processing system can be set so that it makes a call to up to 3 telephone numbers to notify that a message has been received. The notification can be set to certain times of day only, immediately a message is received or disabled.

Benefits

Increases the priority with which messages are dealt. The call to deliver the message increases the likelihood of the message being responded to quickly.

Message managers password

Description

The message manager's mailbox can be password protected to prevent unauthorised access and therefore prevent tampering with the voice processing system. The password can be up to 8 digits in length and can be comprised by any of the digits 0 through 9

Benefits

Ensures the security of the voice processing system. Avoids unauthorised access and therefore stops people from altering the recordable or system prompts.

Operators extensions

Description

The message manager can specify which extensions the voice processing system considers to be the operator(s) extension(s) The operator's extension can receive message waiting notification from the general delivery mailbox. The operators are the extensions which receive calls when the caller dials 0 for the operator when prompted to do so by the voice processing system. The operators can also be set to receive calls when the caller does not enter any digits.

Benefits

Improves caller handling. Ensures that a caller will always get connected to an extension even if they are calling from a rotary telephone or do not know the extension number they require. Allows the message manager to alter those people who receive operator calls.

System clock

Description

The message manager is able to adjust the time and date on the voice processing system.

Benefits

Allows the system clock to be adjusted for start and end of British summer time.

Company greetings

Description

The company greetings can be recorded and played to the incoming caller in place of the standard "Good morning/afternoon/evening welcome to the voice processing system" in place of this standard prompt a user recordable greeting containing the company name can be played.

Benefits

Customises the voice processing system to personalise it to the company who are using it

Company name

Description

The company name is played as part of a message which is relayed when the voice processing system attempts to deliver a message to an external number but the person who answers the call enters the wrong password. The voice processing system advises the caller of the company name and the telephone number to call to receive their messages.

Benefits

Advises mailbox users of the procedure for retrieving messages from a remote location when external delivery has proven unsuccessful.

Department dialling menus

Description

The department dialling menu advises callers of which digit to dial to access a specific department within the organisation. The menu message is user recordable so that the operation of the voice processing system can be exactly tailored to the end user's requirements.

Benefits

Provides total flexibility for the voice processing system to meet the customers requirements.

Custom service menus

Description

Custom service is the most flexible way of answering incoming callers. Custom service allows the caller to dial a full number to access mailbox or extension and in addition to this special functions can be allocated to each single digit on the keypad. The menus advising the caller of the options available to them are user recordable.

Benefits

Provides a powerful yet caller friendly answer to callers. The callers can quickly connect themselves with the extension, mailbox or feature they require.

Voice labels for mailbox lists

Description

Each of the mailbox lists can have a user recordable label detailing the function of the list.

Benefits

Quickly identifies the purpose of the mailbox group. Assists in the process of determining whether the correct group has been accessed.

User prompts

Description

The Panasonic KX-TVP200E voice processing system has three sets of user prompts. The first is pre-recorded at the factory in English the other two are not recorded as standard. All three sets of prompts can be recorded. The unrecorded prompts can be recorded in another language if required.

Benefits

With one other or both sets of prompts recorded the voice processing system can operate in bi-lingual or tri-lingual mode.

Selection menus

Description

If the system prompts have been recorded in more than one language the incoming caller should be advised of their available choices. The selection menu is user recordable to advise the caller of their choice of languages.

Benefits

Provides a totally user friendly operating mode for callers for whom English is not their first language.

Mailbox Use

Mailbox use is carried out via a tone telephone. To gain access to your mailbox the voice processing system must be called and entry gained to your mailbox. Normally this operation can be carried out on site from your own extension. This operation can be carried out from any tone telephone (provided the line quality is sufficient) from anywhere in the world. The mailbox user has access to some (or all) of the following features:

Receiving Messages

Description

Messages which have been left for a mailbox user can be retrieved from either an extension of the PBX or from an external tone telephone provided access can be gained to the voice processing system. Regardless of the mode of answering the voice mail system can be switched to voicemail operation by dialling a code.

Benefits

A mailbox user can retrieve their messages from virtually anywhere in the world.

Message Playback Options

Description

During playback, messages can be repeated or skipped, part of the message can be rewound or fast forwarded, the previous message can be played again, and the playback speed can be increased. The messages can also be scanned; During scanning the first 4 seconds of each message is played along with the time and date the message was received.

Benefits

If you are writing down a number, or the caller speaks too quickly, you can listen to the message or part of it again. If the caller speaks slowly or there are passages without any relevant information you can speed up the message or skip bits of it.

Replying to Messages

Description

If the message has been sent to you by another mailbox user from within their mailbox, the message sender is identified. You have the option at the end of the message of replying to the message sender. If this choice is made you may return their message without having to enter their mailbox number.

Benefits

Provides a quick and reliable method of replying to messages sent to you.

Message Transfer

Description

Message transfer allows a mailbox user to copy a message into another mailbox. You may also add your comment at the end of the message.

Benefits

If the message is not for you or some other person is better able to help the caller, the message can be sent to their mailbox saving you time recording a message for them repeating the information received by you.

Erasing Messages

Description

At the end of a message the voice processing system gives the user the option of deleting the message they have just heard. This option of deleting a message is also available during message playback.

Note: Once a message is deleted it cannot be restored.

Benefits

Saves space in any mailbox and therefore releases disk space to be used for other messages.

Message Waiting Notification

Description

If your telephone system is equipped with some form of message waiting indication the voicemail can use this to indicate that you have received messages

Benefits

Notifies you if you have received a message and therefore only when you receive message waiting notification do you need to call into the voice processing system.

Live Call Screening (KX-TD Series only)

Description

This feature provides “virtual telephone answering machine emulation” whilst a caller is recording a message in a mailbox the mailbox owner can hear the caller through the loudspeaker of their proprietary telephone. If they wish to talk to the caller they simply lift their hand-set and they can then speak to the caller.

Benefits

Allows a mailbox user to be “out when they’re in” they can choose which calls they answer whilst less important calls can be dealt with at a later time.

Recording a Two-Way Conversation (KX-TD Series only)

Description

During a telephone conversation you can start to record the conversation. The recording is stored in the extension users mailbox along with messages.

Benefits

Allows the extension user to record telephone numbers, directions or other information without having to write them down. It also allows the details to be taken far faster than would be possible writing down the information longhand.

Delivering Messages to Other Subscribers

Description

From within a mailbox the user can send a message to another mailbox user. This identifies the message sender to the recipient.

Benefits

Allows the message recipient to reply directly to the message sender using the “replying to messages” feature.

External Message Delivery

Description

A mailbox user can record a message for delivery to an external number. The message will be delivered at a particular time on a particular date specified by the mailbox user. The mailbox user is also able to check to see if the message was received.

Benefits

Allows a mailbox user to record a message for delivery up to one month before it is to be delivered. Useful for reminding colleagues of meetings or other important dates.

Recording Messages

Description

Any caller can record messages into any mailbox. The voice processing system needs to be called. If the voice processing system asks for the mailbox number the caller may enter this and leave a message. If the caller does not know the mailbox number they require they may dial # then 1 they may enter the first three or four letters of the persons last name using the lettering on their keypad*. If the voice processing system does not answer in voice mail mode the caller can dial # then 6, this will alter the port service to voicemail mode for the duration of the call. Rotary telephone users may leave messages in the general delivery mailbox.

**Note: Different telephones may have different patterns of letters on the digits. Some may not be suitable for use with this feature.*

Benefits

Allows external callers to call the voicemail directly to leave messages for mailbox users.

Call Transfer

Description

When the voice processing system is providing an automated attendant facility the extension user's have options about how they receive calls transferred to them by the voice processing system. The options are:

1. Call blocking

Calls will not be transferred to an extension with this set. Instead all calls will be directed into the extension user's mailbox.

2. Call screening

Callers will be asked to record their name. When the caller is transferred the extension user will be advised of who is calling by replaying the recorded name. The extension user is then given the choice of answering the call or directing it to their mailbox.

3. Intercom paging

When a call is received the extension user is paged through the proprietary telephones. They may then answer the call from any telephone.

4. Beeper access

The voice processing system will call your beeper and advise you of the call-back number entered by the caller.

Covering Extension

Description

While a mailbox owner is away from their office they may have their calls and messages directed to another extension.

Benefits

Allows callers to speak to a nominated colleague who is also able to help them with their enquiry.

Message Reception Mode

Description

Two modes of recording can be selected by the mailbox user if the voice processing system is operating in automated attendant mode and a caller has been invited by the voice processing system to leave a message:

1. Message recording mode

When a caller reaches a mailbox they will hear the personal greeting (or pre-recorded system greeting) followed by a beep tone after which they may record their message.

2. Interview mode

When a caller reaches a mailbox they will hear the personal greeting (or pre-recorded system greeting) followed by an instruction to answer the following questions. There are up to 10 questions which are recorded by the mailbox user. Following this the voice processing system will invite the caller to leave any other information after a tone.

Benefits

The mailbox user can choose to allow the caller to either leave any message, or gather information from the caller in a structured format. Prevents the caller forgetting to leave their name or telephone number.

Personal Greeting

Description

The system will provide a default greeting for each mailbox of “mailbox [mailbox number] please leave me a message at the tone, to end recording hang up or press 1 for more features, to pause and re-start recording press 2” followed by a tone. This pre-recorded message can be replaced by a user recorded personal message for each mailbox.

Benefits

Personalises the mailbox. A personal message identifies the owner so that the caller knows they are leaving a message for the right person.

Password

Description

Each mailbox can have a password set by the mailbox user. The password can consist of up to 8 digits and comprise of the digits 0 through 9 (100,000,000 combinations).

Benefits

Stops unauthorised access to a mailbox. Callers are unable to access the mailbox to retrieve messages or change parameters unless they know the password.

Name

Description

A mailbox user can record their name on their mailbox. The name is used when a message is sent to them or their mailbox forms part of a list. The name is also used to identify the mailbox owner to an outside caller if the owner has not recorded a personal greeting.

Benefits

Advise internal callers that they have reached the correct mailbox.

Personal Group Distribution Lists

Description

A personal group distribution list is similar to a system group distribution list. It can be set and edited by the mailbox user and allows the mailbox user to simultaneously record a message into multiple mailboxes.

Benefits

Saves time recording the same message repeatedly into multiple mailboxes.

Notification by Calling

Description

If your mailbox has received a message the mailbox user can program the voice processing system to deliver their messages to them at another location. The alternative location can be an extension of the telephone system or an external telephone number. The voice processing system can be set to call up to three numbers. The notification can take place either immediately the message has been left, alternatively once or twice a day between specific times.

Benefits

The voice processing system can call the mailbox user when a message has been left and can try multiple numbers to track the user down. Avoids the mailbox user having to call into the voicemail repeatedly to find out if they have messages. Ensures telephone calls are only made when messages have been received.

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