

HI!

My Name Is

Gastón

Cases



Conferencing Server

Law firm



Dictation Server

Medical Facilities



Asterisk-based Law firm Conferencing Server

Feature rich conference server based on cbmysql

Multi-level conference attendants

Full events logging and reporting

Key Elements



User identification

4 user types



Conference initiation



Termination (leave/kick/end)

Conference Server

For each user:

- Identify
- Entry and exit time
- Termination cause

User types:

External

- Clients

Internal

- Agents

- Owner

- Sysadmin



Conference Server

Conference starts when the owner arrives.

Conference ends when last agent leaves.

DID management for conference rooms.

Reporting: total, entry and exit time for each participant.

Recordings: On/Off

WebGUI:

- * Simplified

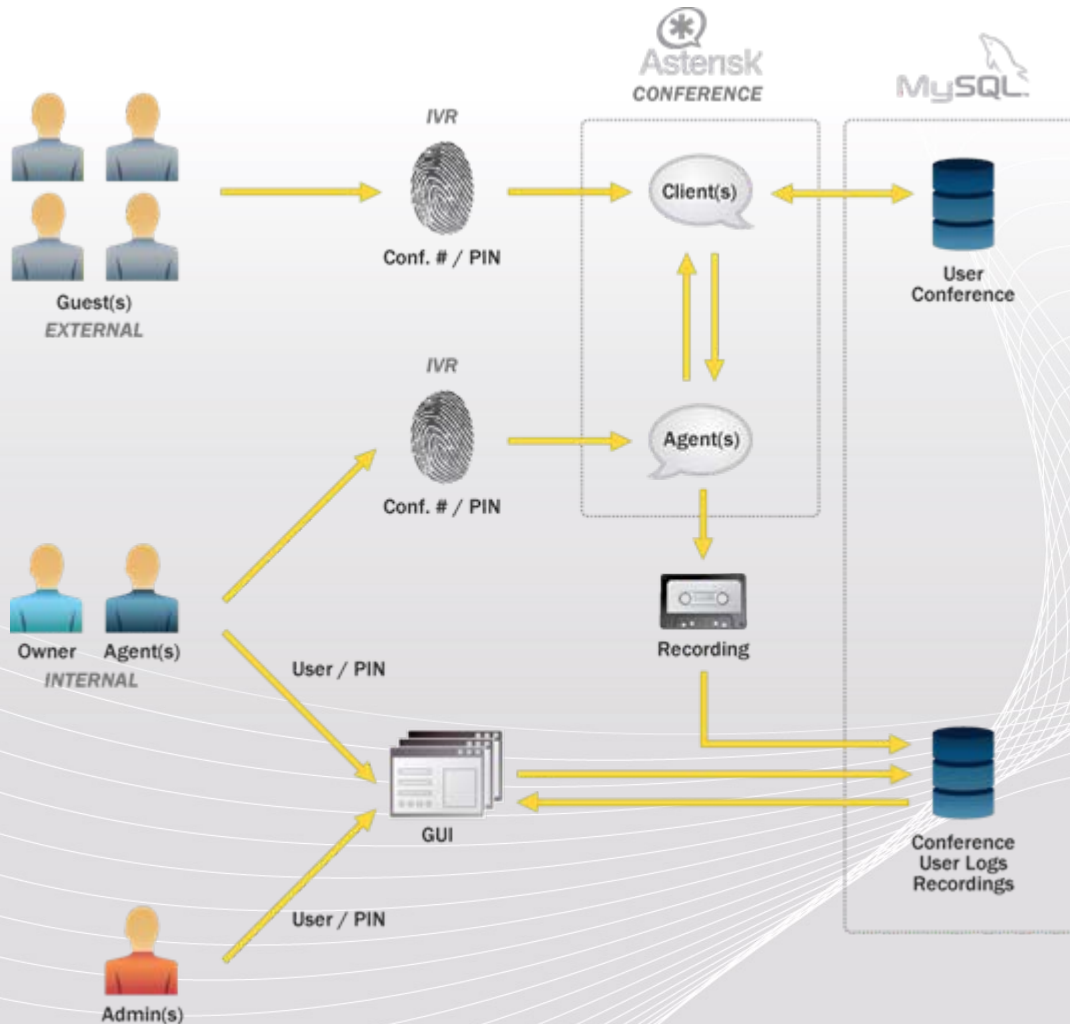
- * Process driven



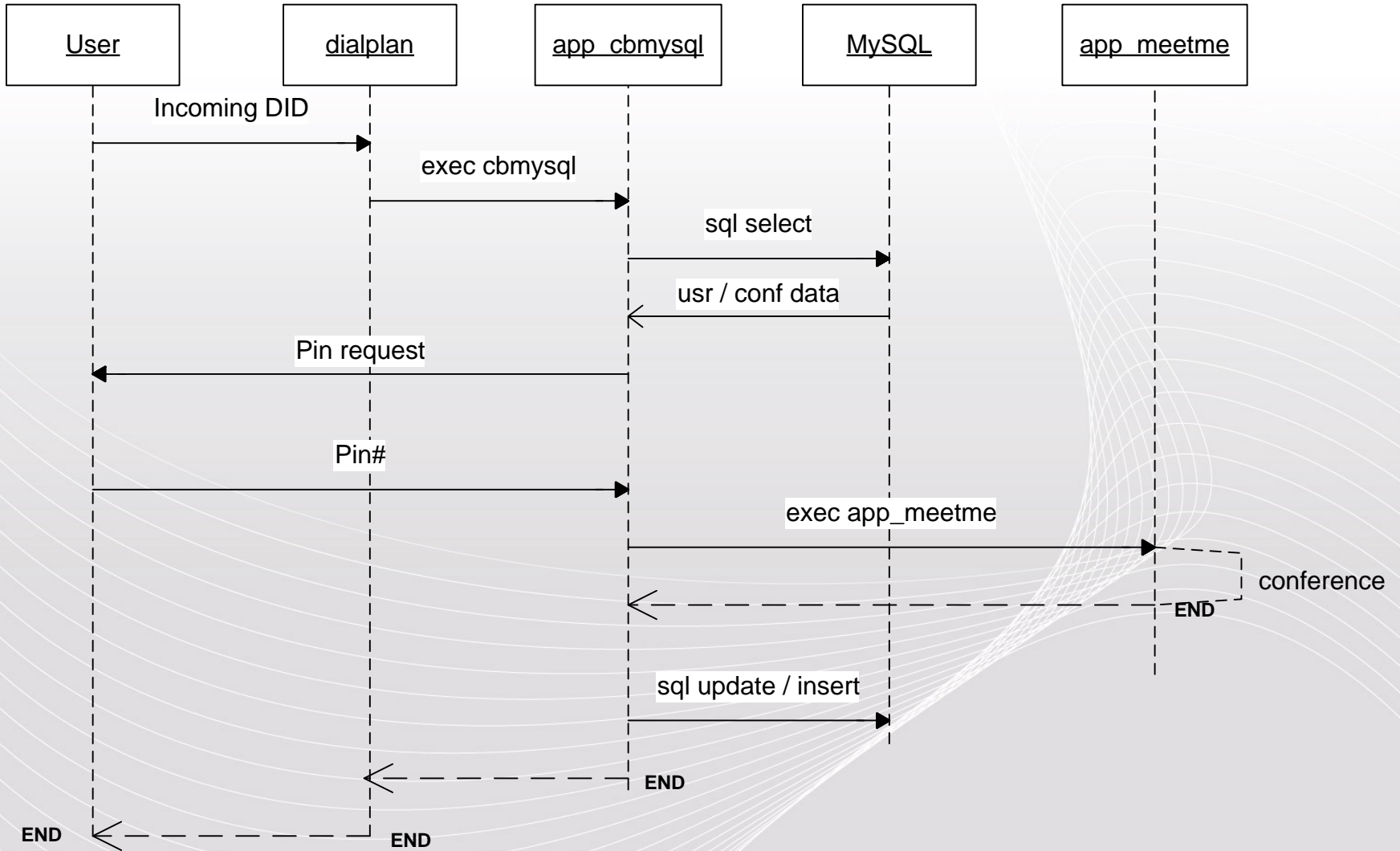
Toolkit



Solution Diagram



app_cbmysql.c



Conference Management System | User Portal

Fill in any of the fields below to search

From Date:

To Date:

Billing Code:

Status: Locked Unlocked Both

Current Conference

Name	Mute	Kick
John Doe		
Jane Doe		
Jane Smith		

Past Conferences

Locked	Conf.ID	Billing Code	Date	Start	End	Parts.	Duration	Status	Recs.	Notes	Edit
unlocked	74	BBA99876	09/27/10	08:02:26am	08:10:13am	15	0:07:47				
unlocked	75	PLEASE ENTER	09/27/10	08:11:35am	08:11:49am	15	0:00:14				
unlocked	76	BBC996677	09/27/10	08:14:21am	08:14:41am	10	0:00:20				
unlocked	78	PLEASE ENTER	09/27/10	08:25:51am	08:26:33am	5	0:00:42				
unlocked	79	PLEASE ENTER	09/27/10	08:29:32am	08:29:38am	2	0:00:06				
unlocked	80	PLEASE ENTER	09/27/10	08:36:01am	08:36:10am	2	0:00:09				
unlocked	81	PLEASE ENTER	09/27/10	08:43:36am	08:44:00am	4	0:00:24				
unlocked	82	PLEASE ENTER	09/27/10	11:54:19am	11:54:31am	18	0:00:12				
unlocked	86	PLEASE ENTER	09/27/10	12:29:01pm	12:29:25pm	9	0:00:24				
unlocked	90	PLEASE ENTER	09/27/10	01:07:46pm	01:08:15pm	11	0:00:29				

User Portal - Home

Before conference (owner)

- Create conference (MySQL)
 - Global PIN conference (MySQL)
 - Per user PIN conference (MySQL)
- Send invitations
- Assign DID to conference (ARA)

During conference (owner)

- List users (online / offline) (AMI)
- Kick / mute / unmute (AMI)

After conference (Owner)

- List / search unlocked conferences
- Assign billing-codes
- Add notes



ConferencingServer Powered by **EUSNetworks**

Logged as : Admin Admin - 9999 | HOME Do Users | Reports | Settings | Logout

Conference Management System | Administration Portal

Fill up the fields and start the search

From Date: 09/27/10

To Date: 10/27/10

Billing Code:

User:

Status: Locked Unlocked Both

EXCEPTIONS : Conferces without a billing code

NORMAL : Conferences per agent with billing codes

TOTALS per Billing Code

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Admin Portal (hide all)

After conference (Admin)

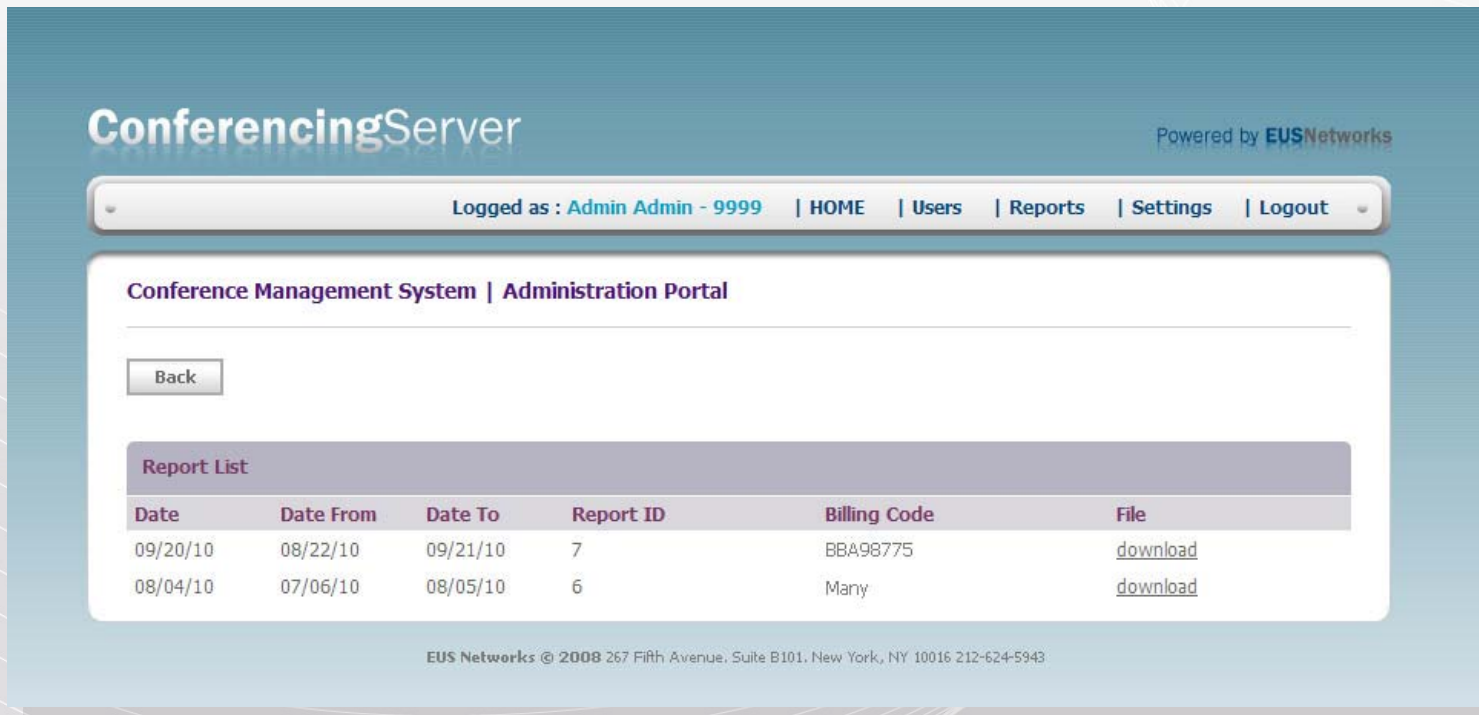
- List / search conferences
- Locked / unlocked conferences
- Approve billing-codes -> Lock
- Modify/Assign billing-codes -> Lock
- Send reminders to Agents
- Store / download Locked sessions
- Add notes



Admin Portal - Reports

Reporting

- Each report holds an approval session.
- Each approval session stores approved conferences and all related data.
- Reports are accessible through MySQL and can also be downloaded as CSV files.



The screenshot shows the 'ConferencingServer' Admin Portal. The page title is 'ConferencingServer' and it is powered by EUS Networks. The user is logged in as 'Admin Admin - 9999'. The navigation menu includes 'HOME', 'Users', 'Reports', 'Settings', and 'Logout'. The main content area is titled 'Conference Management System | Administration Portal' and contains a 'Back' button. Below the button is a 'Report List' table with the following data:

Date	Date From	Date To	Report ID	Billing Code	File
09/20/10	08/22/10	09/21/10	7	BBA98775	download
08/04/10	07/06/10	08/05/10	6	Many	download

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Multi-tenant Medical Dictation Server

Feature rich IVR; personalized IVR

Dynamic recorder simulator with rich inline features

Extended logging for billing and reporting purposes

Customized feature codes

Initial production systems exceeding 8000 login accounts

IVR management:

Per user IVR
IVR pool
#Detect

Reporting

Recordings:

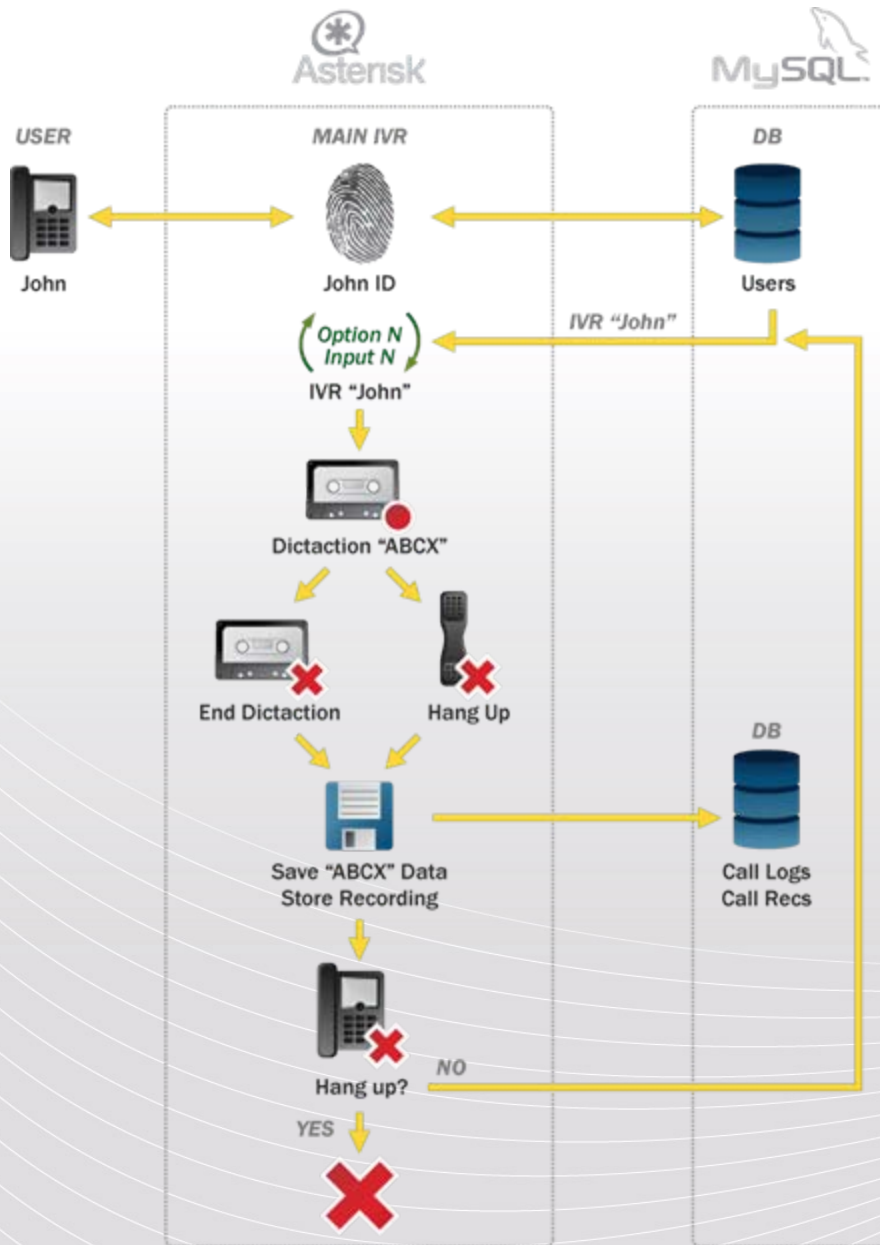
Specific key pads
Per user/group
Store all events

Text to speech

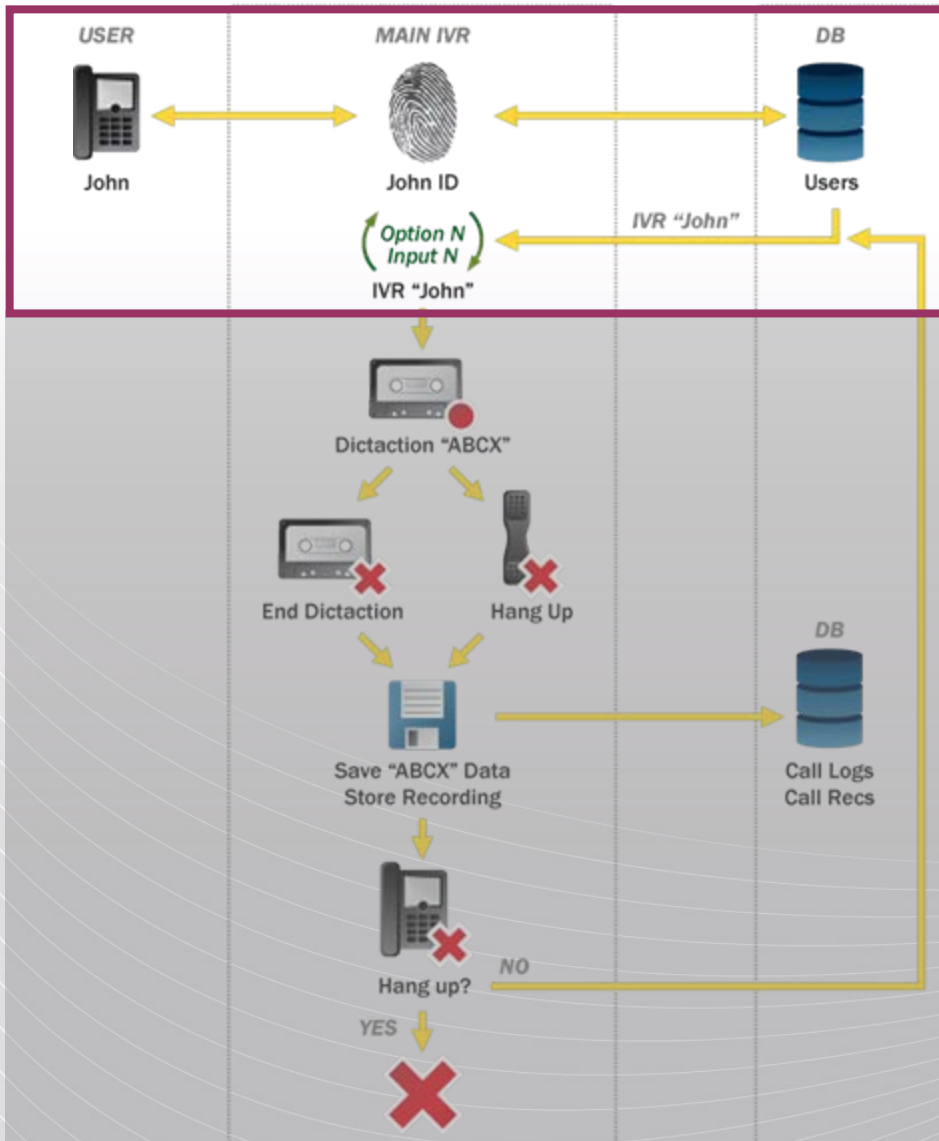


Toolkit





Solution Diagram



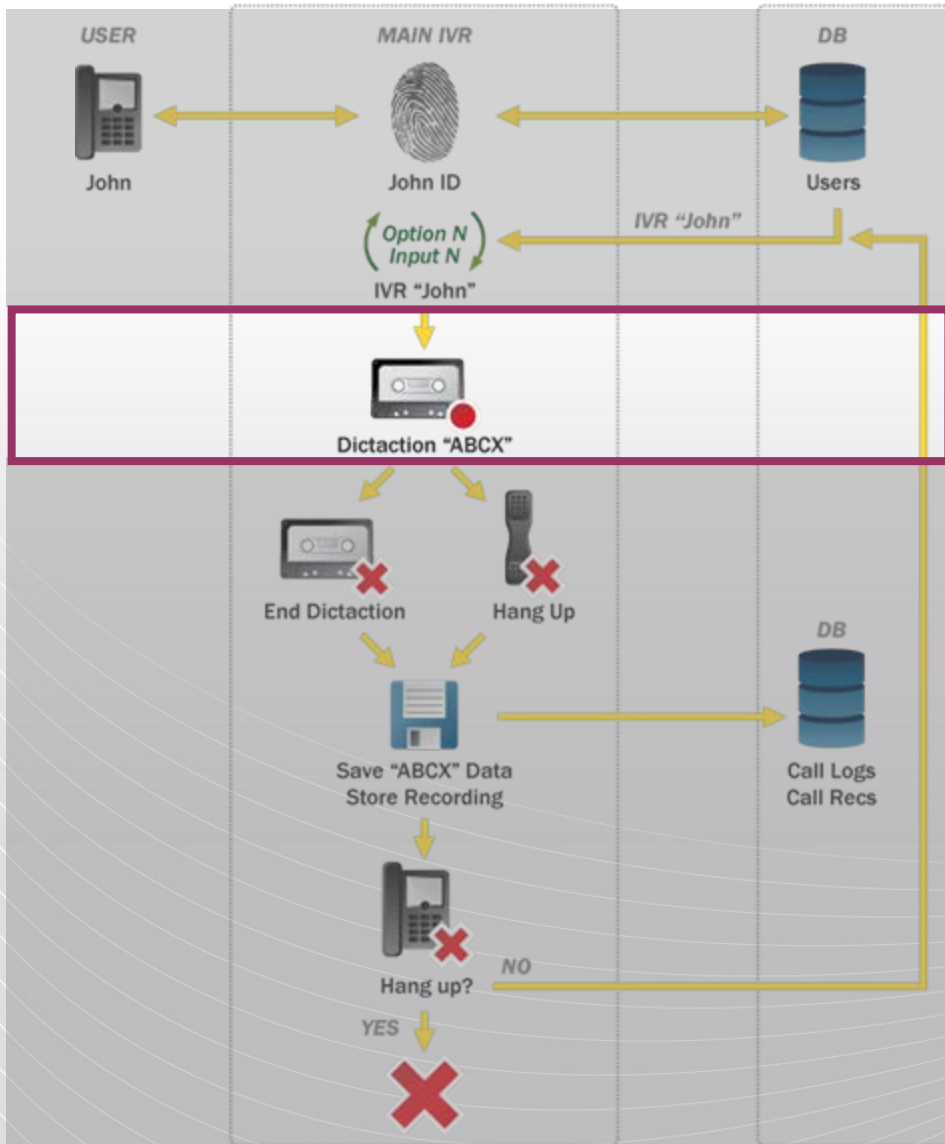
Session Initiation

- DID
- Get data
 - Personal (t2s)
 - IVR key (ARA)
 - Dictation parameters
 - Dictation UID

New feature:

- # detect





Recording

app_dictate

New features:

- Priority Set
- Extended key mapping
- Insert mode
- Overwrite mode

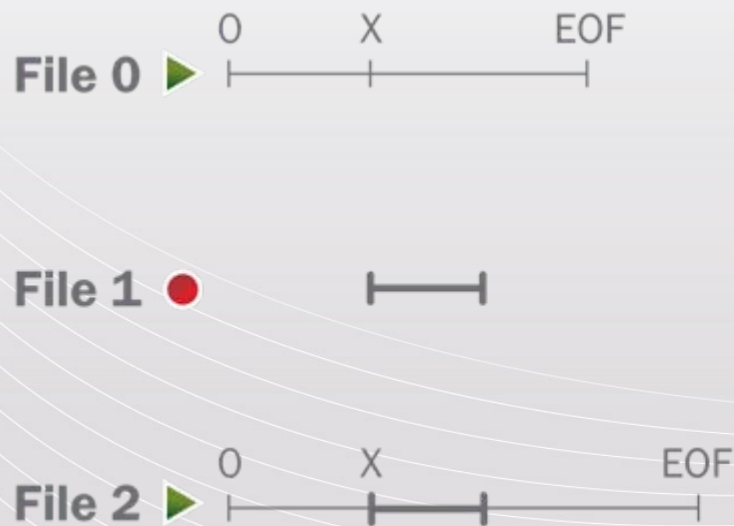
New Features: Priority Set



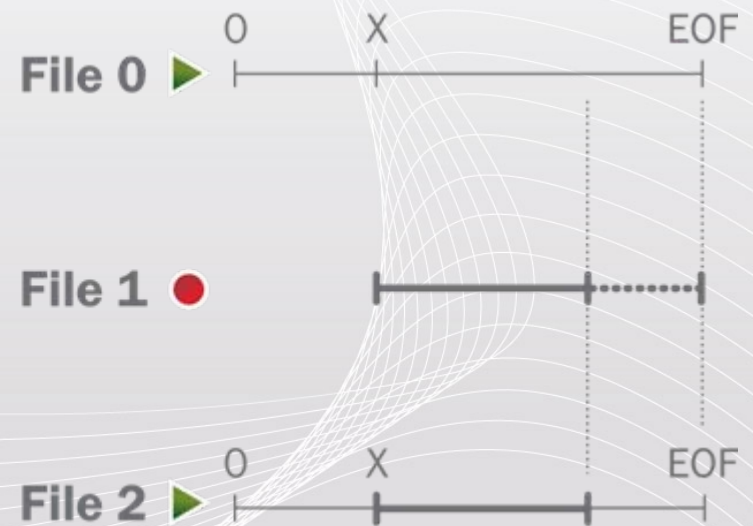
New Features:



Insert



Overwrite



New Features: # detect issue

Option N
Input N
IVR



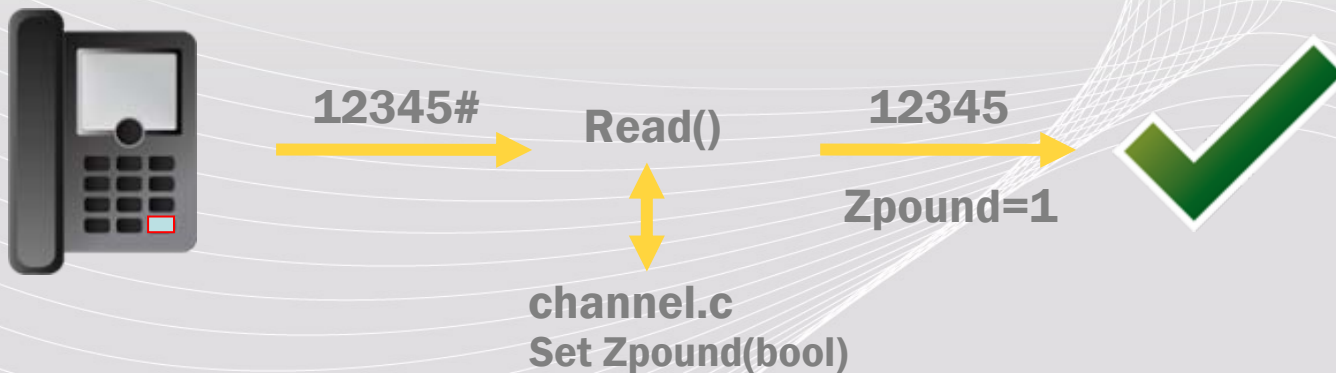
New Features:

detect issue

Option N
Input N
IVR



Solution:



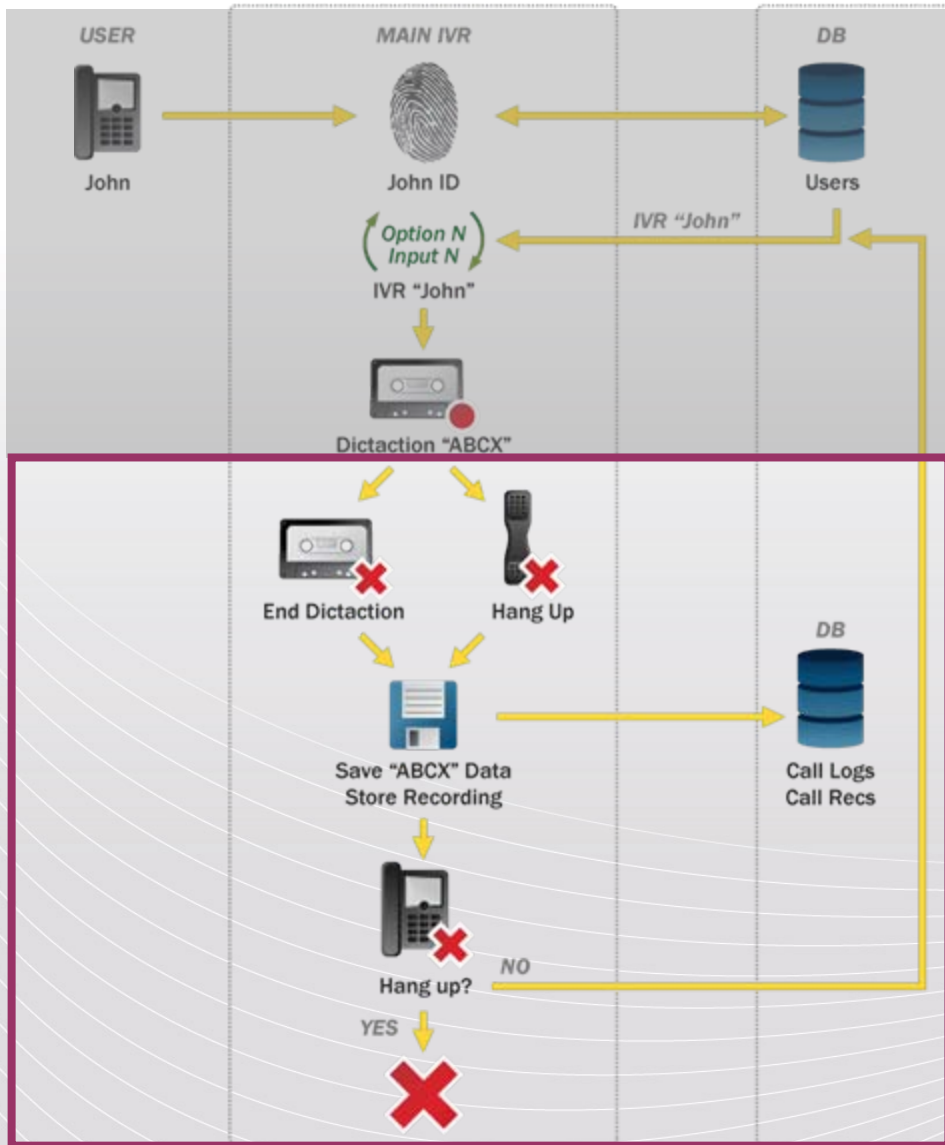
New Features:

detect (channel.c)



```
int ast_readstring_full(struct ast_channel *c, char *s, int len, int timeout, int ftimeout, char *enders, int audiofd, int ctrlfd) {  
  
    int pos = 0; /* index in the buffer where we accumulate digits */  
    int to = ftimeout;  
    char *zpound = "0"; /* ADDED: Create zpound and store '0' in it */  
    pbx_builtin_setvar_helper(c, "ZPOUND", zpound); /* ADDED: Set the channel variable ZPOUND */  
    /* Stop if we're a zombie or need a soft hangup */  
    if (ast_test_flagc, AST_FLAG_ZOMBIE) || ast_check_hangup(c)  
        return -1;  
    if (!len)  
        return -1;  
    for (;;) {  
        int d;  
        if (c->stream) {  
            d = ast_waitstream_full(c, AST_DIGIT_ANY, audiofd, ctrlfd);  
            ast_stopstream(c);  
            usleep(1000);  
            if (!d)  
                d = ast_waitfordigit_full(c, to, audiofd, ctrlfd);  
        } else {  
            d = ast_waitfordigit_full(c, to, audiofd, ctrlfd);  
        }  
        -----  
        if (strchr(enders, d) || (pos >= len)) {  
            s[pos]='\0';  
            zpound = "1"; /* ADDED: Assign 1 to zpound */  
            pbx_builtin_setvar_helper(c, "ZPOUND", zpound); /* ADDED: Set the channel variable ZPOUND */  
            return 0;  
        }  
        to = timeout;  
    }  
    /* Never reached */  
    return 0;  
}
```





End Recording

Keypad

AGI

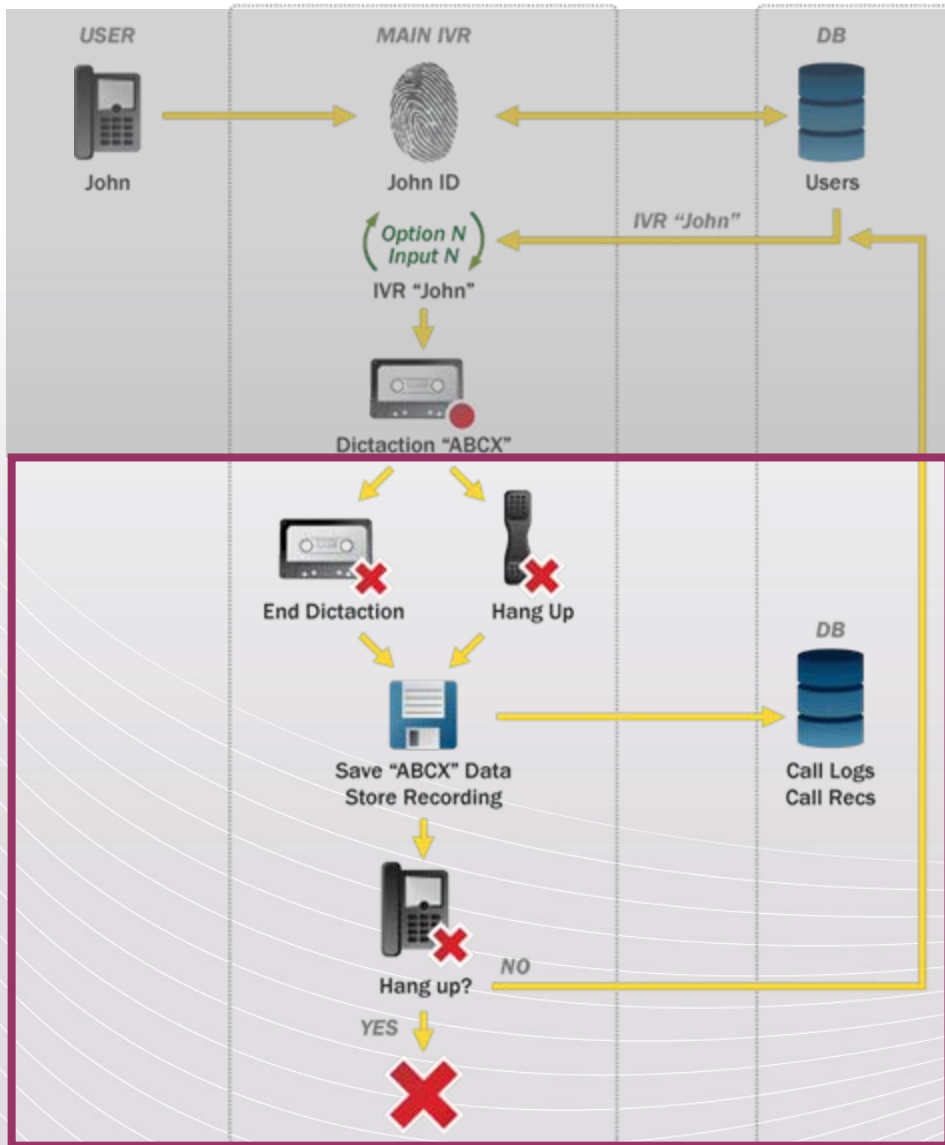
back to User IVR entry

Hangup

DeadAGI

Cleanup process





End Recording

```

exten => s,n,Dictate(/var/spool/asterisk/dictate | ${jobID})
exten => s,n,Playback(dictate/your-rec-number-is)
exten => s,n,SayDigits(${jobID})
exten => s,n,AGI(finishRec,${jobID},${Priority},${Origination})
exten => s,n,NoOp(Result script message: ${dictatingStatus})
exten => s,n,Goto(${usersIVR},s,1)
exten => s,n,Hangup

exten => h,1,NoOp(Hangup receiver)
exten => h,1,DeadAGI(finishRec,${jobID},${Priority},${Origination})

```

Questions



Thank You!



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The End