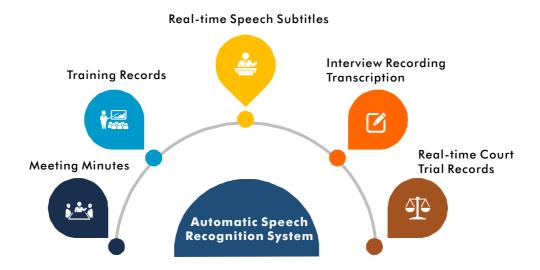


**Automatic Speech Recognition System** 

# **Automatic Speech Recognition System**

As new development of modern conference solution, automatic speech recognition (ASR) system brings more intelligent human-computer interaction experience. For traditional conferences, 70% of the meeting information depends on visual reception, and only 30% depends on sound reception. The communication by sound and video cannot satisfy the modern conference needs any more. Besides, after meeting, the document processing, meeting minutes and legal procedures of specific users are also required to be presented in words format. Gonsin Automatic Speech Recognition System can achieve real-time, complete and orderly text transcription from sound, and ensures the text corresponding to each delegate's speech. The transcribed text can be displayed on the large screen, as well as Gonsin paperless conference system in real time.

ASR system suits various application scenarios, including meeting minutes, training records, real-time speech subtitles, interview records transcription, real-time court trial records, etc.



Gonsin Automatic Speech Recognition system is developed on the platform of Gonsin full digital conference technology. By connecting the network audio data and the ASR background, and in the support of ASR and Gonsin application software, it realizes real-time voice transcribing into text.

There are two selective modes for ASR background: local server LAN, and cloud platform, so to meet different application requirements. Both modes shall be assorted with Gonsin intelligent conference management software—automatic speech recognition module.



## Advantages

The noisy environment affects the transcription accuracy, proofreading is needed.



Equip with conference system, adapt to noisy environment, clear sound pickup.

Too many speaking delegates cause record confusion and information error.



Roles, delegate's voice matches the transcribed text.

If only with written documents, It is difficult to make omission verification and quality check.



Full voice recording and text transcription save the original content, and good for post-meeting verification.

Too much words and long-time manual input cannot guarantee transcription accuracy.



Real-time transcription from voice to text, and quickly documented, this makes accuracy rate over 97%.

Traditional technology makes high labor cost



ASR supports cloud server rental deployment, and local server LAN deployment, artificial intelligence learning, and continuous system optimization.

#### Features

- Equip with conference system, adapt to noisy environment, clear sound pickup
- Real time speech recognition of each role to generate a separate voice recording file
- The speech of each role is recognized and transcribed into text in real time, and a separate text file is generated.
- It can be used with Gonsin 20000S series or Leader series conference system, supports multiple
  microphones active at the same time. The voice of each microphone can be recognized in real time; A
  separate voice recording file is generated and transcribed into text (the authorized number of voice
  transcribing module should match the number of simultaneous active microphones).
- It can be used with Gonsin Z4 Series conference system, to support one active microphone. The voice of the
  microphone can be recognized in real time, generate a separate voice recording file and transcribe it into
  text
- It can merge the text and voice recording of each role, merge and generate meeting minutes, and support text export.
- Intelligent semantic recognition and intelligent sentence segmentation based on semantics.
- Voice recording and transcribed text can be played back synchronously and displayed in contrast to realize intelligent document correction.
- It supports keyword retrieval function, can locate the corresponding content quickly, and greatly improves the efficiency of content retrieval.
- It supports the main screen and split screen display, real-time display of transcribed text on the main screen from the operating computer, and put it into the large screen display system, supporting screen resolution adaptive.
- Transcribed text can be displayed on Gonsin paperless terminal in real time;
- Support conference center cluster deployment or local conference room deployment, artificial intelligence learning, system continuous optimization.

# Gonsin Intelligent Conference Management Software - Automatic Speech Recognition Module

Automatic Speech Recognition Module V7.1.0 (ASR) is the voice transcribing function module of conference management software V7.1.0, which realizes the voice to text function. Before meeting, set the conference units of each participant with corresponding role. During meeting, the speech recognition module can recognize the voice flow of each conference unit in real time, generate independent voice recording file and transcribed text file of each role synchronously, and present them in the operation computer and large screen display. Also, it can be saved as a text + voice meeting minutes file based on the set template.

#### Basic Functions

- Real time speech recognition of each role to generate a separate voice recording file
- ◆ The speech of each role is recognized and transcribed into text in real time, and a separate text file is generated.
- It can be used with Gonsin 20000S series or Leader series conference system, supporting multiple microphones active at the same time. The speech of each microphone can be recognized in real time; A separate voice recording file is generated and transcribed into text (the authorized number of voice transcribing module should match the number of simultaneous active microphones).
- It can be used with Gonsin Z4 Series conference system to support one active microphone. The voice of the microphone can be recognized in real time, generate a separate voice recording file and transcribe it into text.
- ♦ It can merge the text and voice recording of each role, merge and generate meeting minutes, and support text export.
- ◆ Intelligent semantic recognition and intelligent sentence segmentation based on semantics.
- ♦ Voice recording and transcribed text can be played back synchronously and displayed in contrast to realize intelligent document correction.
- It supports keyword retrieval function, can locate the corresponding content quickly, and greatly improves the efficiency of content retrieval.
- ♦ It supports the main screen and split screen display, real-time display of transcribed text on the main screen of the operating computer, and put it into the large screen display system, support screen resolution adaptive.
- Transcribed text can be displayed on Gonsin paperless terminal in real time.
- Conference system management and setting (e.g. equipment search, terminal ID, sensitivity)
- Conference information editing and management (conference content editing, personnel information setting, conference unit role setting, etc.)
- Compatible with different Gonsin conference system series.
- Support screen customization, the editing of visual interface e.g. text font, color, picture and associated data. Support fast switching of multiple interface styles.
- The software supports secondary development; the interface protocol can be open for customized development on project request.

#### Technical Parameters

System	Win7 / win8 / win10 operating system 32 / 64 bit			
CPU	I7 or above			
Hard disk capacity	500GB or above			
Memory capacity	16GB or above			
Graphics card	rics card The independent graphics card supports VGA / HDMI / DVI interface,			
	and supports split screen display			
PC interface	1*RS-232 interface and 2*RJ45 interfaces			
Resolution	self-adaptive			
PC communication	Ethernet/RS-232			

# Automatic Speech Recognition Server GX-AS301

(built-in ASR engine V3.0 and voice transcribed module authorization V1.0)



#### Basic Functions

- ♦ Install ASR engine V3.0 software
- ◆ Industry leading single pass large-scale language model decoding technology
- It can customize English, Russian, Thai recognition engine
- It can customize industry identification engines for finance, politics and law, medical treatment, education, etc.
- ♦ High efficiency CTC model supports up to 50 simultaneous speech recognition channels by optional authorization
- ♦ Support the centralized deployment of conference center multiple conference rooms LAN, satisfy simultaneous voice transcribing of multiple conference rooms
- Assorted with Gonsin management software, the roles can be separated and identified.
- Support the deployment in conference center cluster or local conference room.

#### Technical Parameters

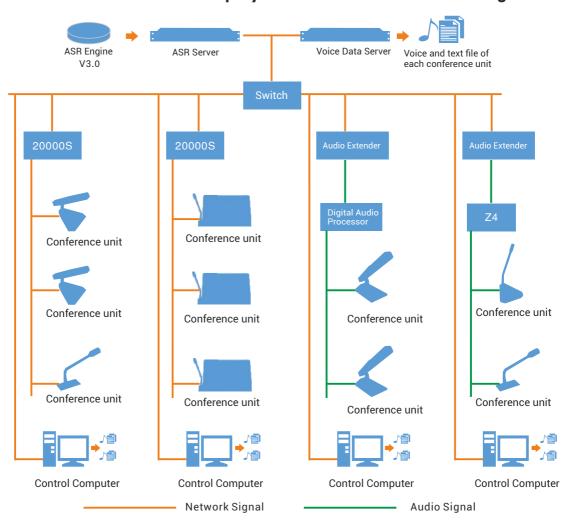
System version	Centos7.4+		
CPU frequency	>2.30GHz		
CPU core	32 Core (64 threads)		
Memory type	DDR4 2667MHz		
Memory capacity	64G		
Hard disk interface	SATA3.0/M.2		
Hard disk capacity	1TGB		
Network interface	2 x Gigabit network port		
USB interface	2 x USB3.0		
VGA output interface	1		
Power type	Hot plug power		
Power socket	1		
Power supply	500W		

# ASR Automatic Speech Recognition Engine V3.0

#### Basic Functions

- ◆ Industry leading single pass large-scale language model decoding technology
- Optional with English, Russian, and Thai speech recognition engine
- It can customize industry identification engines for finance, politics and law, medical treatment, education, etc.
- ♦ High efficiency CTC model supports up to 50 simultaneous speech recognition channels by optional authorization
- ◆ Support the centralized deployment of conference center multiple conference rooms LAN, satisfy simultaneous voice transcribing of multiple conference rooms
- \* Assorted with Gonsin management software, the roles can be separated and identified
- ASR Automatic Speech Recognition engine V3.0 software is installed in the intelligent speech recognition server to run.

### ASR Conference Cluster Deployment Scheme Connection Diagram

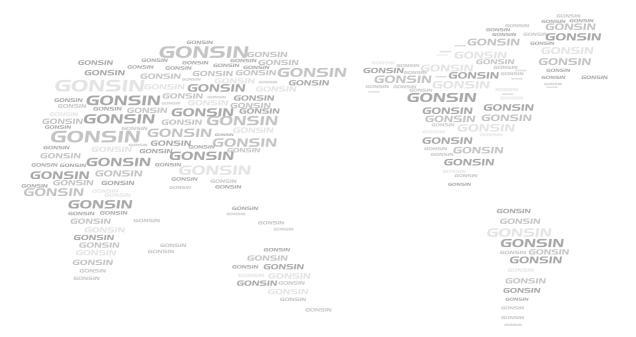




## Item List

NO.	Name	Model	Qty	Unit	Remarks			
A: ASR Application Local Deployment								
A.1	Automatic Speech Recognition Engine	V3.0	1	set				
A.2	Automatic Speech Recognition Server	GX-AS301	1	pcs				
A.3	Voice Transcribed Module Authorization	V1.0	2	way	It is based on the quantity of simultaneous active conference units, minimum two-way is provided.			
	B: ASR Application Terminal							
B.1	Gonsin Intelligent Conference Management Software ASR Module	V7.1.0 ASR	1	set	Recognize the voice flow of each conference unit, generate independent voice recording file and transcribed text file of each role synchronously, and present them in the operation computer and large screen display			
B.2	3.2 Control Computer Can be purchased by customer		1	pcs	Install Gonsin Intelligent Conference Management Software - ASR Module, recognize the voice flow of each conference unit, and generate independent voice recording file and transcribed text file of each role synchronously.			
B.3	Anti-Crosstalk Computer		1	pcs	Install anti-crosstalk algorithm software			
C: Conference system (20000S Series) supports 5 microphones active at the same time, achieves high-definition voice and simultaneous role-based recognition								
C.1	Conference discussion system	2043/2057/2061/ 2062 series	N	pcs				
C.2	Congress Server	GONSIN20000S	1	pcs				
C.3	Power HUB	HUB-P150S	N	pcs				
D: Leader Series conference system supports multiple microphones active at the same time, achieves high-definition voice and simultaneous role-based recognition								
D.1	Rectangular Columnar Short Microphone	MIC-240A	N	pcs				
D.2	Digital Audio Processor	GX-DSP1002/ GX-DSP1003/ GX-DSP1004	N	pcs				
D.3	Audio Extender	DCS-AE08	1	pcs				
E: Conference system (Z4 Series) supports one microphone active at the same time, achieves high-definition voice and role-based recognition								
E.1	Conference discussion system	4300/4200/5600/ 3300/3200 series	N	pcs				
E.2	Central Control Unit	TL-Z4/ZB4, TC-Z4/ZB4	1	pcs				
E.3	Audio Extender	DCS-AE08	1	pcs				
	F. Peripheral Equipment, Cable and Accessories							
F.1	Switch		1	pcs				
F.2	Cable		1	batch				
F.3	Audio Line		1	batch				
Note:								

- 1. Selectable conference system 20000S series, Leader series and Z4 Series (C / D / E).
- 2. When A + B + C + F are used together, it supports 5 conference units active at the same time, and supports real-time and simultaneous voice recognition of each unit, generates a separate voice recording file and transcribes it
- 3.When A + B + D + F are used together, it supports multiple microphones active at the same time, and supports real-time and simultaneous voice recognition of each unit, generates a separate voice recording file and transcribes it
- 4. When A + B + E + F are used together, it supports one active microphone, and supports real-time voice recognition, generates a voice recording file and transcribes it into text.



GONSIN CONFERENCE EQUIPMENT CO.,LTD. www.gonsin.com















