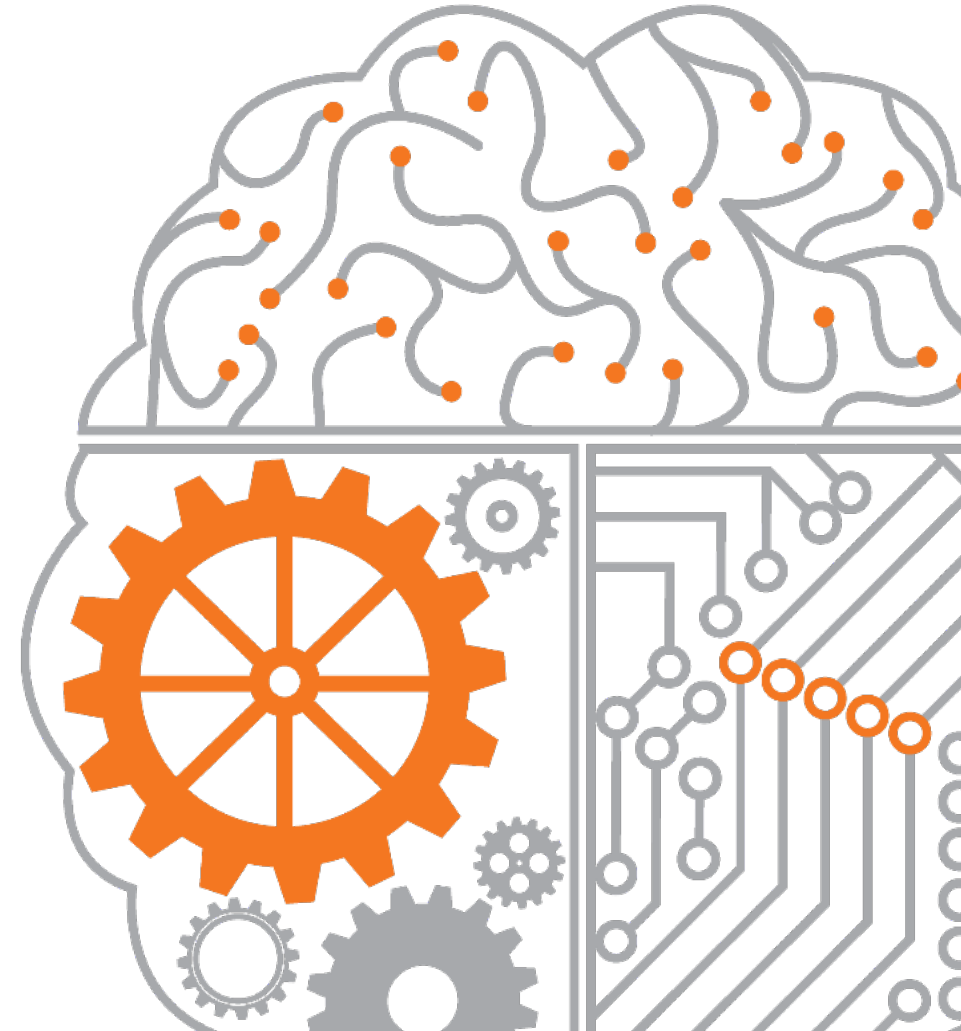


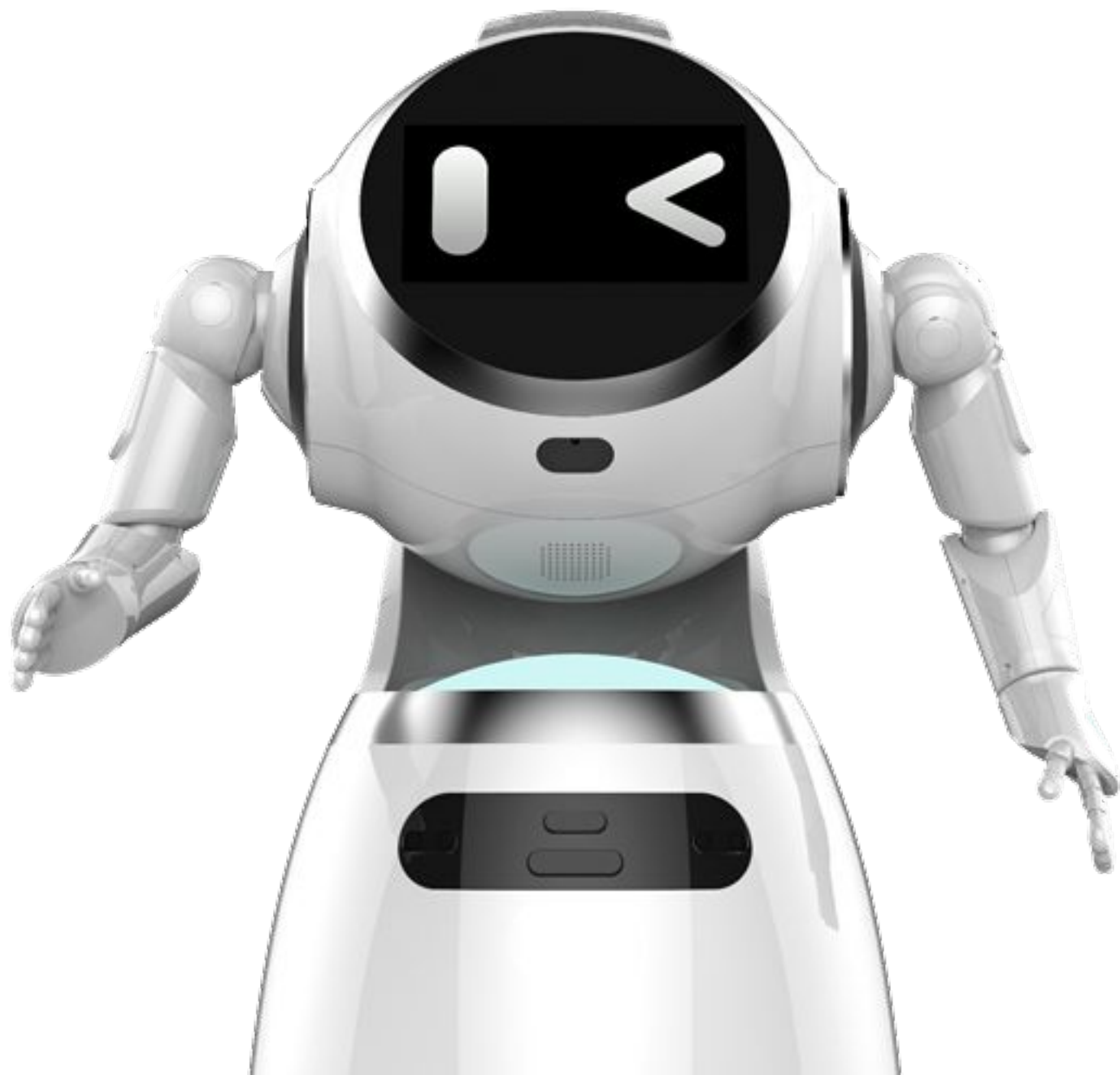


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QUALITY SUPPORT SOLUTION'S CO. LTD.





**WISO 4.0**

# Key Features of WISO 4.0



Flexible Arms  
360° Movement



Multimodal  
Interaction



Video  
Conferencing



Safe and Secure  
Database



Customizable  
Service



Proprietary SLAM  
Technology



Facial  
Recognition



Big Data Analysis  
and Management



Centralized  
Control System



Automatic Docking  
and Recharging

# Flexible Arms and 360° Movements



Humanoid Design

15 movements

12 movements on shoulder and arms

360° abrasion resistant and quiet omnidirectional wheels

User-friendly

- ✓ Trustable and
- ✓ Rich full expression
- ✓ Smooth and stable movement



6+0 Mic Array  
(covering 3-5 meters)

11.6 inch high resolution  
Touch Screen

Status LED

Sona sensor

Status LED

3 inch speaker(bottom)

2\*Driver Wheel ,

2\*Slave Omni-directional Wheel



13MP HD  
Camera

TOF Sensor

3 inch speaker(head)

RGBD Sensor (camera with  
Depth perception, Sonar  
Sensor)

Lidar and Status LED

Sona and IR sensor

Dimension : 1210 ( H ) \* 630 ( W ) \* 537 ( D ) mm  
Weight : About 45KG  
Color : According to customer request  
Material : Plastic + Metal  
Battery : 20Ah, 24V Li-ion battery  
Display : 11.6 inch TFT Touch Screen  
Camera : 13MP High Resolution Camera  
Speaker : 3 Stereo speaker  
(Head : 1 unit, 3 inch, 3W Output Power;  
Bottom: 2 units , 3 inch , 6W Output Power)  
Output Power: 6W\*2

Sensor : Head: 6+0 Mic Array \*1 TOF sensor  
Body: RGBD Sensor\*1 , Sona Sensor \*3  
Arm: Electronic skin  
Bottom: Sona Sensor\*5 , IR sensor \*6 ,  
9-axis IMU\*1 , Lidar Sensor\*1 ,  
humidity and temperature sensor\*1  
Geomagnetic induction\*1  
Recharger Infrared \*2  
Recharge dock check \*1

Movement : Head 1DOF  
Shoulder 2DOF  
Arm 5\*2DOF(L/R)  
Bottom 2DOF

System : Android(application layer)+ROS(control layer)  
Velocity : normal speed:0.3m/s ,  
Highest speed: 1m/s  
Network : Wi-Fi 2.4G/5G, 4G mobile network (optional)  
Accessory : Charging unit \*1 ,  
Adaptor \*1 ,  
User manual \*1

# SLAM Localization Technology

DGWorld SLAM is an abbreviation of our proven SLAM (simultaneous localization and mapping) Technology, which uses real-time positioning and mapping to avoid obstacles.



Real-time positioning and mapping

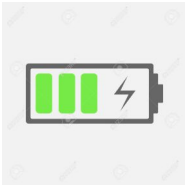
6 major sensors that are distributed in a 360° annular sensory array

- ✓ Adapt to easily to environments
- ✓ Arrive at any location with precision
- ✓ Optimized for Indoor applications





# Automatic Recharging



Automatically return to its self-recharging dock based on infrared sensors

8 hours working time (24hrs standby)

Conductive wheeling charging technology

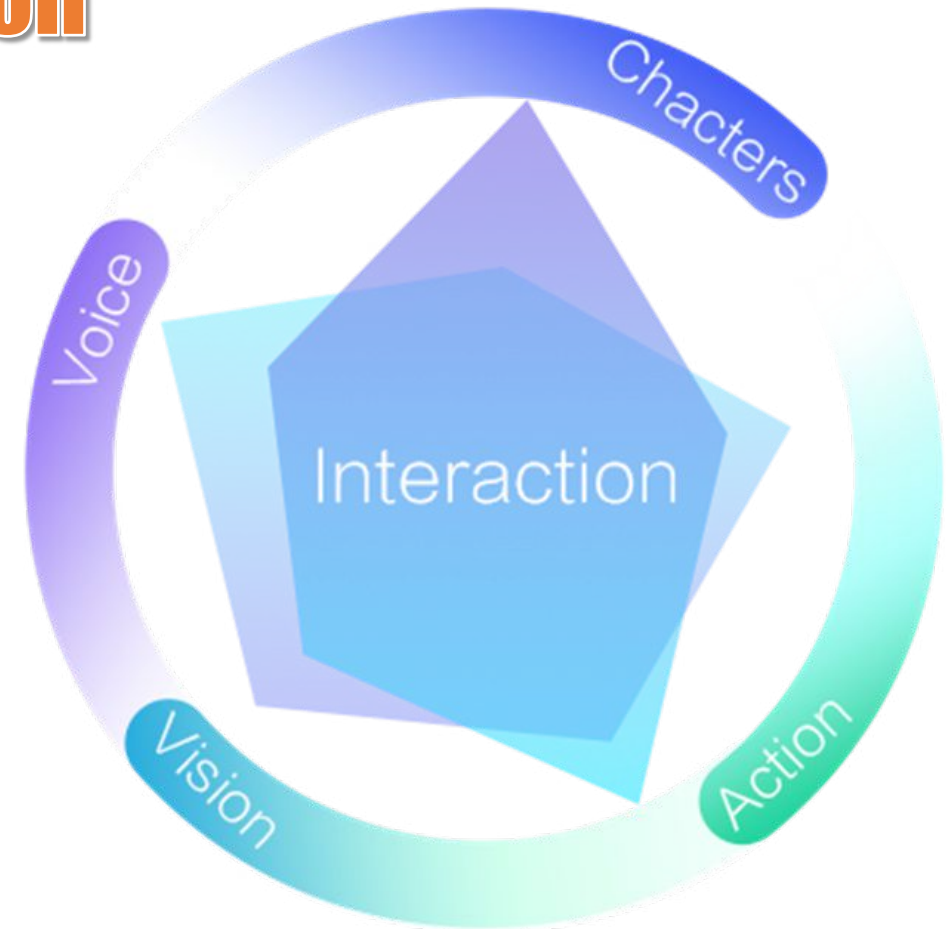
- ✓ Stable and accurate auto charging with low power consuming
- ✓ Multiple charging methods: Directive recharging, preset recharging and automatic recharging



# Multi-modal Interaction

“Modality ” means “sense” . Multi-modal interaction is an interaction with voice, action, text, expression and other modes of communication to make the users feel more like to a humanlike robot instead of machine.

- ✓ More expressive
- ✓ More humanlike
- ✓ More vivid





# Facial Recognition

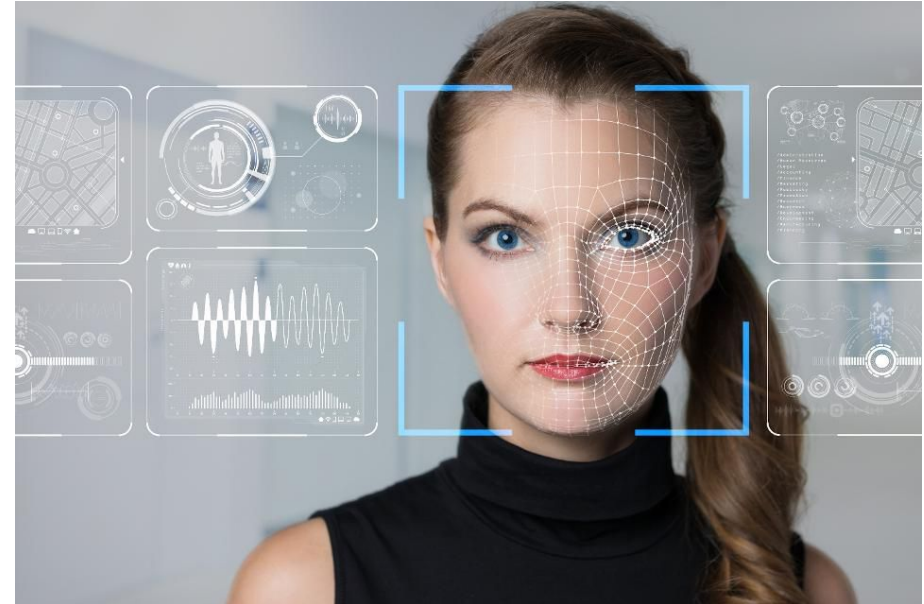


Unique Face Recognition Algorithm

Extensive public and specific training data to achieve high performance of 98% recognition accuracy

Face recognition at long distance

- ✓ Fast detection
- ✓ More accurate
- ✓ Improved user experience



# Speech and Interaction



Unique Speech Recognition Algorithm

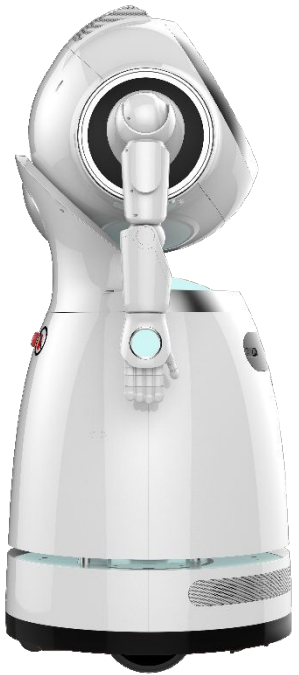
Extensive public and specific training data to achieve high performance and recognition accuracy

Array Microphone enables perfect communication even in crowded and noisy surroundings

- ✓ Speaks and understands English and Arabic
- ✓ Faster communication with WIZO
- ✓ Improved user experience



# Enhanced Safety with E-skin



High sensitivity



Fast response



Dual protection

The E-skin Technology will stop the arm movement when any obstacles are detected, to avoid any unexpected harm to people or objects.

## Features of the Electrical Skin :

- ✓ High sensitivity
- ✓ Fast response
- ✓ Soft
- ✓ Large detecting area

# Centralized Control System



Multi-machine centralized control system (map management, real-time motion control, audio and video playback)

Multiple Robots patrolling control

Remote advertising pushing on multiple robots simultaneous

- ✓ Multi-robots centralized control system (PC+WAP)
- ✓ Advanced intelligent way of patrol (self-driven and preset route operation)
- ✓ Convenient advertisement and notification pushing

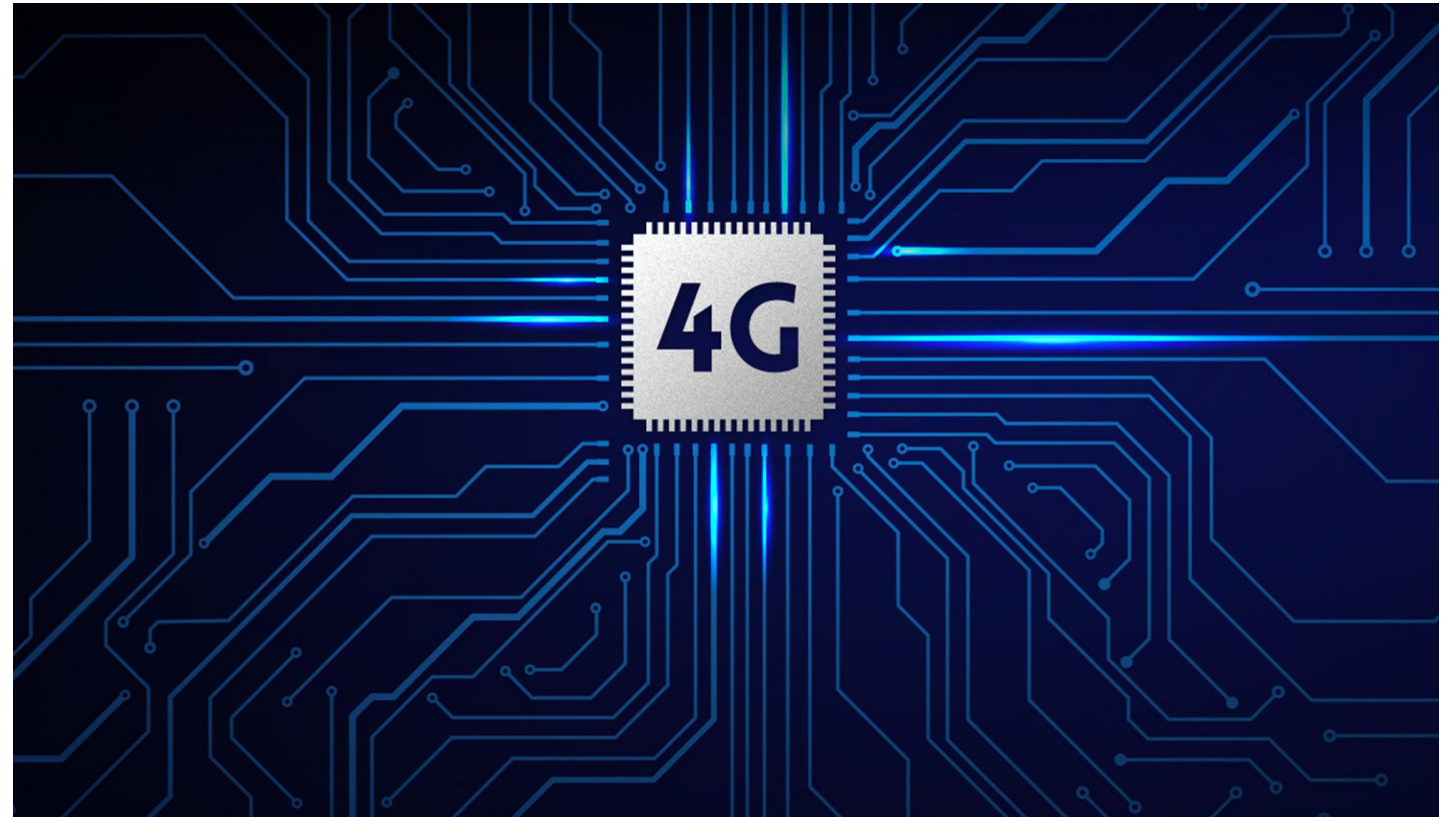


# Communication

- ✓ Integration in the existing WIFI Infrastructure (dedicated WIFI Network recommended)
- ✓ WISO 4.0 is supporting 4G router as back up network in case WIFI is not available

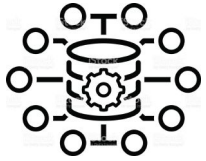
**Please Note:**

WISO 4.0 will require a permanent Internet access to activate all available features.





# Big Data Analysis and Management



Data acquisition , storage, and analysis

Discover effective information to obtain better business value

Connect WISO to your current Infrastructure and Applications

- ✓ High-efficient data acquisition
- ✓ Secured data storage at your Servers
- ✓ Intelligent data analysis





# Video Conference System

WISO provides voice and video functions that supports cloud computing and uses a high-definition audio and video to ensure smooth transmission for remote conferences.



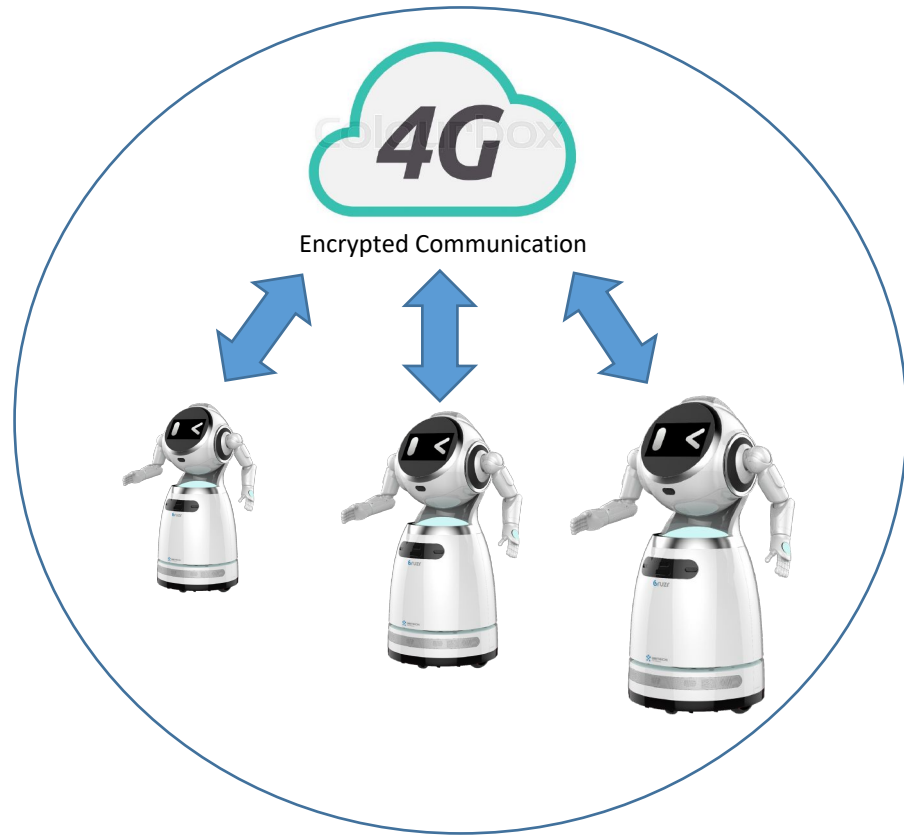
Video conferencing and video-based customer servicing

High-definition audio and video codec

Secured video data transmission

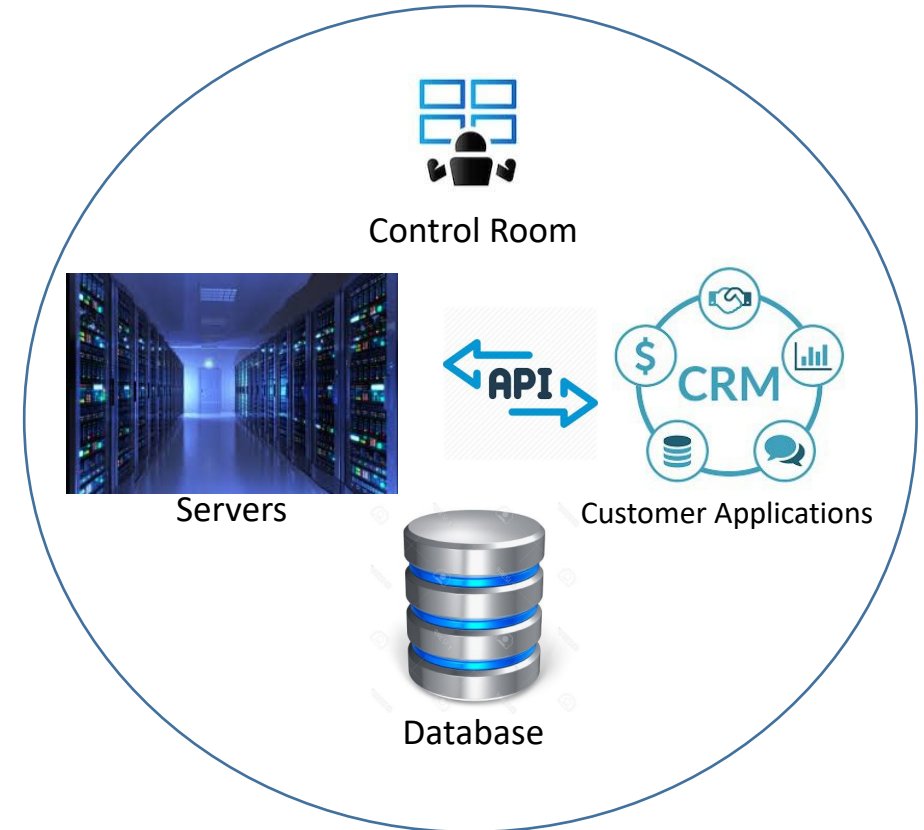


## Global WAN



Firewall

## Customer LAN



# Customized Features



**The following options can be integrated in WISO 4.0**

- Saudi ID Card Reader
- Credit Card Payment System (POS)
- Integration of your own individual Mobile Apps
- Ticket and Receipt Printer
- Coffee and Document Tray

