

Solution

Medical Voice Communication

In the complex working environment of hospitals, ordinary telephone systems cannot meet the higher communication needs of modern hospitals. FS has launched flexible and efficient IP voice communication solutions to help medical institutions accelerate the overall transformation of informatization, effectively improve hospital service quality, optimize hospital service processes, reduce hospital service costs, and create and enhance hospital brand advantages.

Solution

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Overview

Voice communication is an important communication tool for both internal and external medical industry, carrying information exchange and collaboration in multiple links such as hospital management, diagnosis and treatment services, telemedicine, health education, etc. Establishing an efficient, stable and secure voice communication system will help improve the quality, efficiency and safety of medical care in the healthcare industry, reduce medical costs, risks and errors, and innovate medical services, models and concepts.



Background

- Industry:
  Small and medium-sized medical institutions
- Region/ Country:
  Global
- Requirement:
  The general public's standard for measuring the comprehensive level of a hospital has broken through the stage of only looking at the software and hardware construction, and the quality of hospital services has also become an important consideration. Modern hospitals generally have a huge system. How to ensure the smooth collaboration of doctors and nurses in their daily work internally, while also taking into account the excellent service of patient consultation and communication externally, an efficient and stable telephone voice system is essential.
- Enterprise size
  Organization size: 700 people
- Network Speed:
  Gigabit to the desktop

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Medical Voice Communication

Difficulty & Challenge

Pain Points

The hospital has not opened an IVR for external communication, and cannot respond quickly to patient calls. Internal communication is limited by time and region. How to achieve efficient internal calls has also become a key issue for medical institutions to establish brands and services.

- Lacking of call center support
  Facing patients' telephone consultations, it is impossible to accurately and efficiently match them to a professional team

- Large number of inbound calls
  Medical staff within the hospital have a large number of internal call needs, and communication and collaboration between people often cannot be responded to and satisfied in a timely manner.

- Lacking of internal telephone network system
  The existing IP network is mature, and how to build an internal telephone network based on the existing IP network has become a difficult problem for organizations.

Expectation

A telephone customer service platform is built to provide high-quality telephone consultation and reception. In addition, each building and each clinic is equipped with a corresponding telephone. In the event of an emergency, relevant colleagues can be quickly found and contacted, thereby improving satisfaction with medical services.

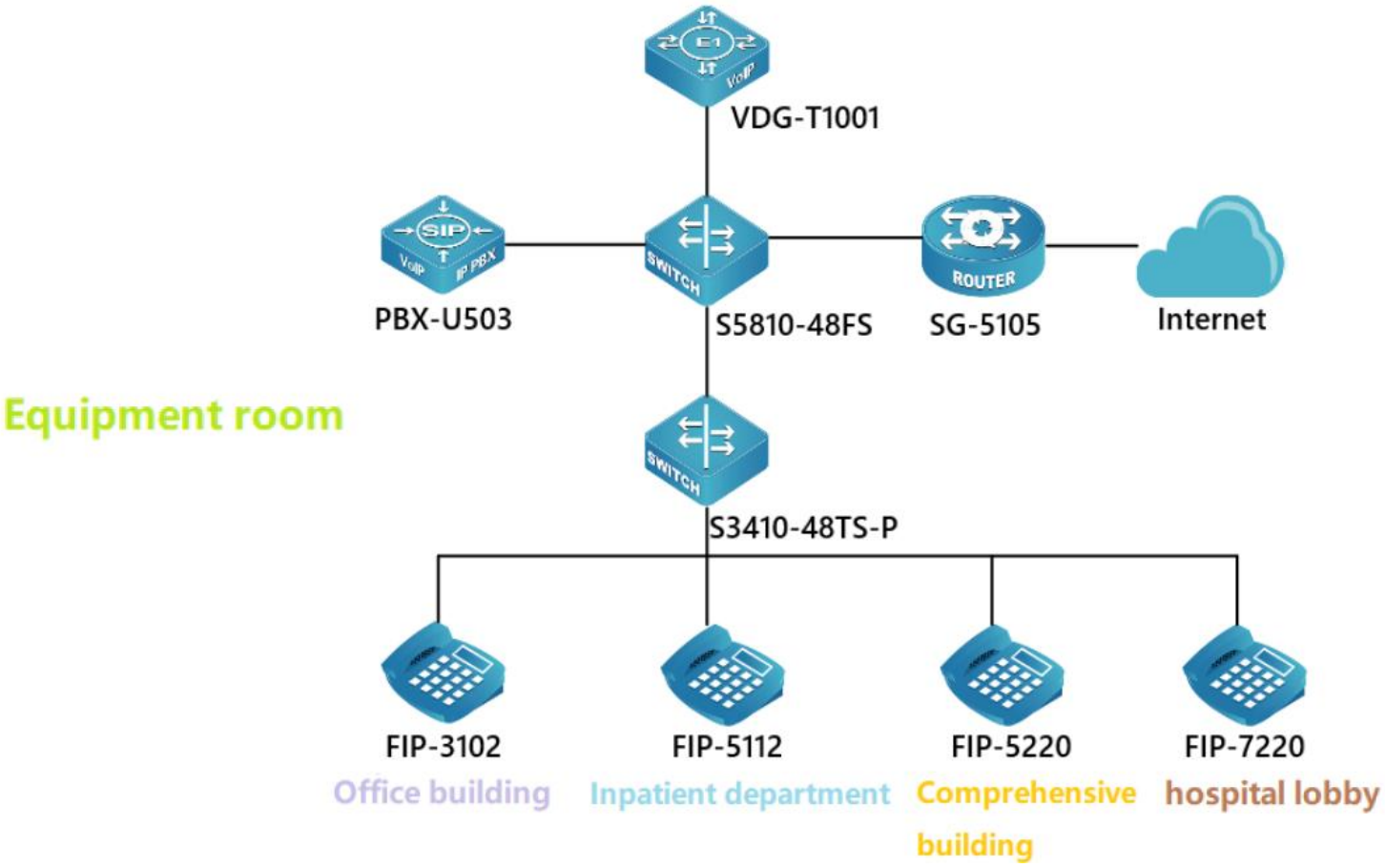
- Reduce communication costs
  Calls within the hospital are completely free, and outbound calls are charged at a flat rate.

- Efficient service
  Support intelligent IVR voice navigation to quickly and accurately respond to patient needs.

- Convenient operation and maintenance
  The phones are uniformly registered to IPPBX for unified maintenance and management.

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I Scheme Design



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Medical Voice Communication

Product Collocation

Device Name	Device Model	Key Functions (Core Highlights)
Gateway	SG-5105	• Integrate Router, Firewall, and Controller Altogether • Support IPsec/L2TP/PPTP VPN Protocols Facilitate Network Management • Better Network Traffic Control with L7 DPI • User Online Behavior Management Ensures Network Stability • Stateful Firewall, Anti DDOS Attack and URL Filtering, etc. Enhance Security • Built-in Cache Acceleration to Improve Business Service Experience • L2 and L3 Roaming Enable Optimal Performance for Seamless Mobility • Up to 10 WAN Ports to Optimize Bandwidth Usage
Aggregation Switch	S5810-48FS	• Broadcom BCM56340 Chip, Support Up to 8 Units S5810 Series Switch Stacking • 1+1 Hot-swappable Power Supplies and 2+1 Smart Fans • Support LACP, ACL, MPLS, DHCP Server, L2 Multicast Functions • Support Airware Cloud/WEB/CLI/SNMP/SSH for Flexible Operation • Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security • Support Layer 3 Features (RIP, OSPF, VRRP, etc.) • IPv4/IPv6 Dual-stack Technology
Access Switch	S3410-48TS-P	• Up to 48 PoE+ Ports, Total Budget 740W • Broadcom BCM56150 Chip, Support 4 Units Stacking • 1+1 Hot-swappable Power Supplies, Built-in Smart Fans • Support ERPS, QoS, OSPF, DHCP Server, etc. • Support SSH, ACL, AAA, 802.1X, RADIUS, TACACS+, etc. for Security • Advanced Network Monitoring Using SFlow • Support Airware Cloud/WEB/CLI/SNMP/SSH for Flexible Operation
IP PBX	PBX-U503	• Supports up to 800 Users and 100 Concurrent Calls • Supports Secondary Developed System Based on Asterisk Open Source • Web GUI Configuration, Telnet Management • Flexible Dial Plan Based on LDAP phonebook • Ideal for Contact Centers and Mid-size Enterprises

Solution

Medical Voice Communication

Product Collocation

Device Name	Device Model	Key Functions (Core Highlights)
Digital Trunk Gateway	VDG-T1001	• Support 1 Configurable E1/T1/J1 Port, up to 30 Concurrent Calls • Simple Installation and Management with easy-to-navigate Web GUI • TLS and SRTP Security Encryption Technology to Protect Calls and Accounts • Compatible with Various ISDN PBX, IP-PBX, and Softswitch • Flexible Call Routing to Reduce Communication Costs and Improve Interworking • Connect Existing ISDN PBX to VoIP and Retain the Dialing Habits
IP Phone	FIP-3102	• Delivers Wideband Audio Performance with HD Microphone and Speaker • Features 4 Soft-keys, 2 Line Keys (with LED Indicator Light) • Integrated PoE, Dual Ethernet Ports Enable You to Share a Connection with Your Computer • Compatible with 3CX, FreePBX, etc. • Up to 2 SIP Accounts, 6-way Conferencing
	FIP-5112	• Delivers Wideband Audio Performance with HD Microphone and Speaker • Features 4 Soft-keys, 2 Line Keys (with LED Indicator Light) • Integrated PoE, Dual Ethernet Ports Enable You to Share a Connection with Your Computer • Compatible with 3CX, FreePBX, etc. • Up to 12 SIP Accounts, 3-way Conferencing
	FIP-5220	• Delivers Wideband Audio Performance with HD Microphone and Speaker • Features 4 Soft-keys, 2 Line Keys (with LED Indicator Light) • Integrated PoE, Dual Ethernet Ports Enable You to Share a Connection with Your Computer • Compatible with 3CX, FreePBX, etc. • Up to 20 SIP Accounts, 6-way Conferencing
	FIP-7220	• Delivers Wideband Audio Performance with HD Microphone and Speaker • Features 4 Soft-keys, 2 Line Keys ((with LED Indicator Light) • Up to 20 SIP Accounts, 3-way Conferencing • Built-in Bluetooth 5.0 and 2.4G/5G Wi-Fi • Support Secondary Development API • Android 9.0 OS (Operating System)

Solution

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Customer Benefits

- Powerful product functions

  Intelligent IVR navigation brings accurate and detailed voice service process.

- Ultra-low cost investment

  The equipment is cost-effective, the system operating cost is low, and the investment cost of the institution is reduced.

- High rate of return

  The internal and external communication of the institution is smooth, and the service quality of the medical team has been significantly improved.



Solution

Medical Voice Communication

Core Product Introduction

Device Name	Advantages	Applicable Scene
SG-5105	• Multi-service security gateway for 500 users. • Integrates multiple functions such as stateful firewall, Internet behavior management, WAN link optimization, network traffic control, VPN gateway, network authentication, wireless controller, etc. • Can be linked to SDWAN controller to achieve unified network management of the total and branch network architecture, and can be directly connected to network monitoring. One device can handle network export construction, save network operation and maintenance management costs, improve business experience, and ensure network export security.	Enterprise
S5810-48FS	• Supports 48 1G SFPs and 4 10G SFP+. • Broadcom chip, can provide 176Gbps switching capacity and 132Mpps forwarding rate. • Suitable for large campus network aggregation and small and medium-sized network core, meeting the needs of high-speed, secure and intelligent enterprise networks.	Enterprise
S3410-48TS-P	• 48 10/100/1000BASE-T ports, 2 1Gb RJ45/SFP combo ports, and 2 1/10Gb SFP+ uplinks. • 48 RJ45 ports support both IEEE 802.3af PoE and IEEE 802.3at PoE+ (up to 30W per port), which can power connected IP phones, wireless access points, or other standard-compliant PoE and PoE+ terminal network devices. • Suitable as a large campus network aggregation and small and medium-sized enterprise network core device.	Enterprise
PBX-U503	• Support 800 users, 100 concurrent users. • Gigabit Ethernet port (GE0/1), distributed multi-core CPU. • Support expansion of multiple functional boards, with complete PBX functions.	Enterprise
VDG-T1001	• 1 E1/T1/J1 port, supports PRI, MFC R2, SS7, E&M. • Support voice, fax and other services.	Enterprise
FIP-3102	• 2.3-inch black and white screen, 2 SIP accounts, 2 line buttons. • Supports 1,000 local phone books and 600 call records, and supports 6-party voice conferences. • Support desktop placement (45° and 50°) and wall-mounted installation.	Business/Individual

Core Product Introduction

Device Name	Advantages	Applicable Scene
FIP-5112	• 2.8-inch LCD color screen, 12 SIP accounts, 2 line buttons, supports up to 14 DSS buttons. • Supports 1,000 local phone books and 1,000 call records, and supports 3-party voice conferences. • Support desktop placement (45° and 50°) and wall-mounted installation.	Business/Individual
FIP-5220	• 4.3-inch LCD color screen, 20 SIP accounts, supports up to 45 DSS buttons. • Supports 2,000 local phone books and 1,000 call records, and supports 6-party voice conferences. • Support desktop placement (45° and 50°) and wall-mounted installation.	Business/Individual
FIP-7220	• 7-inch LCD color screen, 20 SIP accounts, supports up to 100 DSS buttons. • Supports 2,000 local phone books and 1,000 call records, and supports 3-party voice conferences. • Support desktop placement (45° and 50°) and wall-mounted installation.	Business/Individual



FS has invested resources in product R&D, quality control, intelligent manufacturing, industry-leading experts, professional technical support, and networking solutions. All is to provide customers with higher-performance, lower-power consumption, and the most cost-effective products, promoting clients' network upgrades.

For more information and technical support, welcome to contact us at www.fs.com/contact_us

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