

MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTER IN KERALA REVITALIZES PATIENT CARE CAPABILITIES WITH MATRIX TELECOM SOLUTIONS

Case Study



CUSTOMER

Medical College Hospital and Research Center

INDUSTRY

Healthcare

LOCATION

Kerala

MATRIX PARTNER

Team Telecom

CHALLENGES

- A Single Rack Communication Solution
- Seamless Communication over PRI Trunks
- An Integrated Emergency Announcement System
- Retain Existing User Terminals and Cabling while Upgrading the System
- Multi-party Conference with 40+ Participants
- Heavy Maintenance due to Frequent System Breakdowns

SOLUTION

- IP Enabled ETERNITY LE – a Single Rack with 28 Universal Slots – Scalable up to 1,344 Users
- PRI Card Offering 128 Channels for Seamless Communication
- Integration of AIP and AOP to Enable Emergency Announcement through Desk Extension
- Interface Cards Supporting Analog, DKP, GSM and Open SIP Phones
- VARTA PC Client with Drag-and-Drop Conference, Centralized Directory and Single Number Reach

RESULTS

- Streamlined Communication
- Swift Emergency Announcements
- Retained Existing Cabling Infrastructure and Saved on New Investment Costs
- Multi-party Conference Automated Decision Making
- Easy Maintenance and Ensured 24X7 Connectivity



Hospitals are places where any error or miscommunication can result in death of patient. Therefore, it is very necessary for every hospital to ensure that there are no communication delays. Robust and easy connectivity is required for every department in the hospital. Seamless communication is the backbone of flawless operations. Therefore, hospitals always look for a communication solution that offers their staff an ease of connecting with each other. They want a system that enables employees to connect with the other staff members and manage all the activities from appointments to discharge facilities, efficiently.

INTRODUCTION

Kerala based medical college, hospital and research institute is a pioneer in offering health care facilities and medical education in South India. The hospital offers treatment for snake bites, child diseases, burns, plastic surgery, eye disorders, skin problems and many other disorders. The institute also offers specialization in different courses such as general medicine, radio diagnosis, ENT, physiology, pathology, microbiology and others.

With an aim of streamlining communication between these departments, the medical college hospital and research institute was looking for an advanced communication solution.

The hospital authorities understood the importance of continuous communications and hence took a tour of the entire market before settling down for a communication solution. After considering every option available in the market, the trustees relied on Matrix communication platform. There have been no issues since the deployment. Now, the hospital staff is connected with each other and can offer care to the patients within a limited time period.

CHALLENGES

The institute was looking for a flexible solution that would support their future expansion plans without modifying the existing infrastructure. There were many instances when the doctors and other staff wanted to make an announcement right from their desks. Therefore, there was a need for a system that enables these professionals to make announcements by using their desk phones.

Since the hospital was a multi-specialty one, doctors holding specialization in different fields needed to hold a conference for discussing complicated cases on a regular basis. Furthermore, many calls were dropped due to inadequate number of channels handling heavy inflow of calls. The hospital personnel couldn't afford any communication delays, therefore a system that requires minimum maintenance was their prime requirement.

SOLUTION

Matrix, in association with its partner Team Telecom, did a thorough study of the case and drafted a solution including the following components:

ETERNITY LE – IP based Communication Platform

The need of scaling up with technology was catered through ETERNITY LE. The communication platform has universal architecture with flexibility of inserting interface cards in any of the 28 hybrid slots. The solution offered connectivity up to 1,344 Analog users, 128 GSM users and 1,500 VOIP users. With features like Hot Swapability and Redundancy, the chair person at the hospital ensured that there are minimum communication bottlenecks.

Interface Cards for Constant Communication at Low Costs

Being a hospital redefining patient care at low costs, the hospital received many patient inquiries. Furthermore, another section of the hospital was a college and it also received heavy inflow of the student's calls for discussing career opportunities, admission formalities and many other topics. To effectively manage all these calls, PRI cards were inserted in the system. The cards offered ample trunk ports which reduced the call drop ratio and enabled the hospital executives manage call traffic efficiently and effectively.

Integration of AOP Port with the Communication Solution for Making Emergency Announcements

Public address system was connected with the auxiliary output port (AOP) of the system to allow the doctors and other medical professionals broadcast evacuation messages in case of fire or any other emergency. Furthermore, the public address system was used for informing the staff to be present at a particular spot in the hospital, circulating information amongst the visitors and for making local announcements in the consulting rooms. In the educational wing of the hospital i.e. the college, public address system was used to convey any important information to the students.

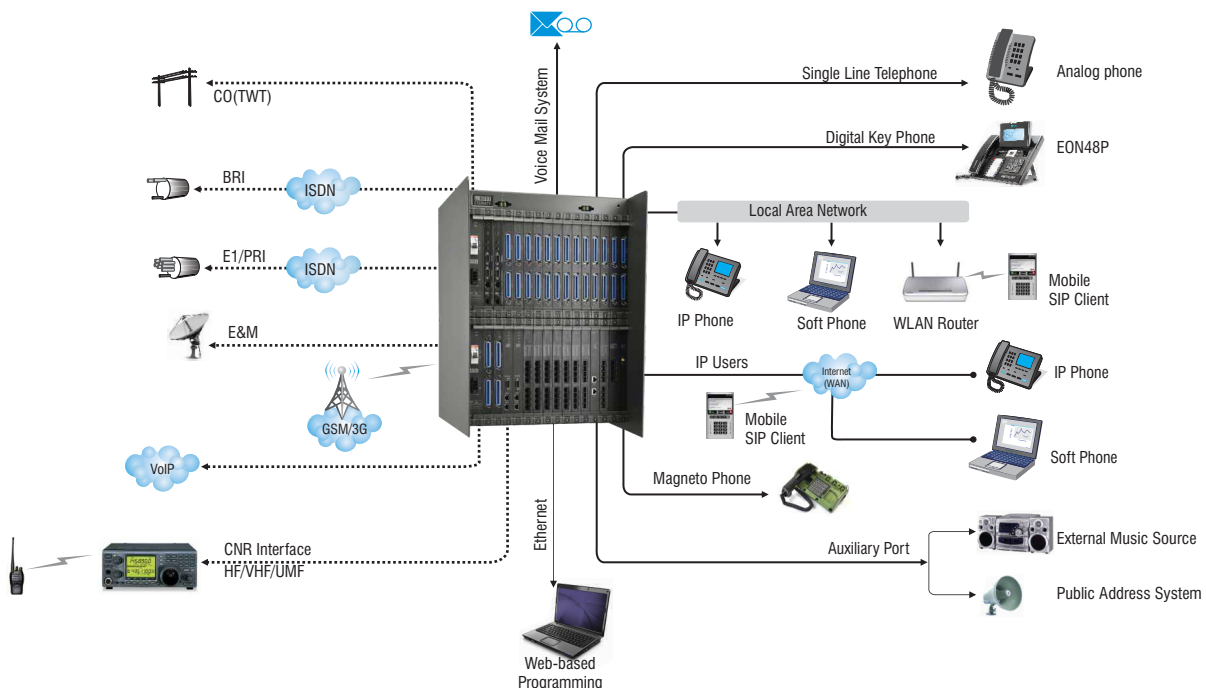
VARTA Professional License to Improve Communication Convenience

VARTA Professional License was offered to enable the staff note the Presence Status of the doctors and inform them regarding any emergency. The ease of arranging conferences and adding participants to the same improved. Communication at the ease of a single click and from the laptop screens improved interdepartmental communication and boosted staff productivity.

Web based Management and Intuitive User Interface

To cater to hospital's need of reduced downtime and no communication delays, ETERNITY LE is equipped with remote based management system. Using the feature, system engineer can manage the system from anywhere, eliminating the traveling cost and sufficing the need of timely and quick maintenance.

APPLICATION DIAGRAM



Trunk-side Interfaces

Extension-side Interfaces

RESULTS

Streamlined Communication

With connectivity of Analog users, mobile phone users, IP extension users and Digital Key Phone (DKP) users from the same platform, there has been a substantial decrease in the communication bottlenecks. With VARTA Professional License, communication convenience is uplifted and reachability of the mobile staff is improved.

Multi-party Conference Automated Decision Making Process

Using the Audio Conferencing facility of ETERNITY LE and Drag-and-Drop Conference with VARTA Professional License, hosting and participating in a conference has become easier. Now, doctors and other medical executives can connect with each other and discuss complicated/critical cases, automating the decision making process.

Retained Existing Cabling Infrastructure and Saved on New Investment Costs

The Analog extensions present in the hospital rooms were interfaced with ETERNITY LE. System's flexibility to connect with third-party phones saved the cost of buying separate extensions. Furthermore, use of existing cables for connecting extensions with the system eliminated the need to buy separate set of wires.

ABOUT MATRIX

Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization, Matrix is committed to keep pace with the revolutions in the telecom and security industries. With more than 40% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like IP-PBX, Universal Gateways, VOIP Gateways and Terminals, GSM Gateways, Access Control, Time-Attendance and Video Surveillance solutions. These solutions are feature-rich, reliable and conform to the international standards. Having global footprints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.

For further information, please contact:



MATRIX COMSEC

Head Office

394-GIDC, Makarpura, Vadodara-390 010, India.

Ph: +91 265 2630555

E-mail: Inquiry@MatrixComSec.com

Manufacturing Unit

19-GIDC, Waghodia, Dist. Vadodara-391 760, India.

Ph: +91 2668 263172/73

www.MatrixTeleSol.com