



ENHANCING WAREHOUSE OPERATIONS WITH IP INTEGRATION OF BOSCH ANALOG PA SYSTEM

About The Project:

In busy warehouse environments, communication speed and clarity can make the difference between smooth operations and costly delays. From urgent announcements to creating a motivating work atmosphere with background music, having the right audio setup is essential. But what happens when your existing PA system can't keep up with these demands? That's exactly the situation one leading food delivery company's Mumbai warehouse faced—until a smart upgrade changed everything.

The Challenge:

A leading food delivery company's warehouse based in Mumbai faced a recurring operational bottleneck—managing announcements and background music. Their existing analog PA system lacked automation, meaning scheduled announcements were impossible. For live messages, staff had to physically reach a specific

control point, which disrupted workflow and caused unnecessary delays.

Objective of the Project:

The customer wanted a flexible, easy-to-use PA system that could:

- Play scheduled background music .
- Allow live announcements from any place within the network.
- Upgrade capabilities without replacing the existing amplifier and speakers.
- Provide secure access to ensure only authorized staff can make announcements.

Our Approach:

After a thorough study, instead of replacing the entire system—which would have been costly—we proposed a hybrid upgrade that brought smart features to their existing setup.

CASE STUDY

***astTECS®**

We implemented:

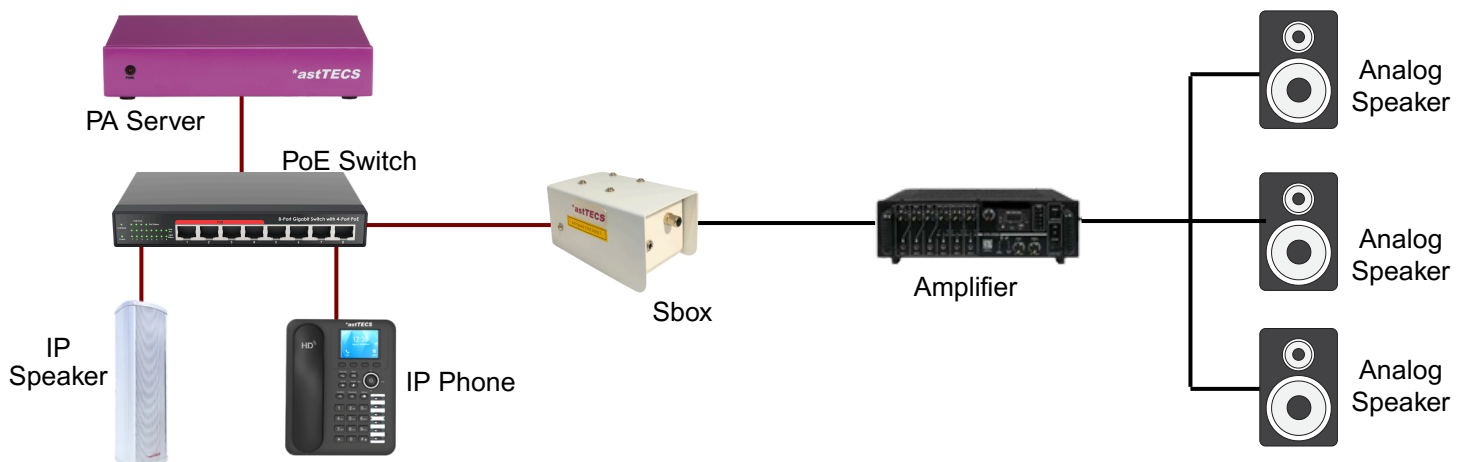
- ***astTECS SBOX** : Converts SIP to analog, bridging IP network with existing Bosch PA equipment.
- ***astTECS PA100 Controller**: Schedules announcements & background music, enables access from multiple devices like IP Phones, Mobile phones etc.
- **IP Phone**: Enables live announcements from anywhere in the network



How it works:

The integrated PA system works by combining modern IP technology with the existing analog infrastructure. At the core, the PA Server manages scheduled announcements and background music while also routing live announcements from an IP phone connected over the network. An IP speaker can directly play announcements or music from the server. To integrate with the legacy setup, the *astTECS SBOX (SIP-to-Analog converter) converted IP audio signals into analog format, which is then fed into the Bosch amplifier. The amplifier powers the existing analog speakers, ensuring clear audio distribution across the warehouse floor. This hybrid approach allows live announcements to be made from anywhere on the network, scheduled messages to run automatically, and the existing speakers to remain in use, delivering modern functionality with cost efficiency.

Additionally, the system allows the creation of multiple zones for targeted announcements. Unlike traditional analog setups, it supports overlapping zones, enabling precise communication to specific areas or combined sections when needed. Secure, PIN-based access ensures that only authorized personnel can make announcements, preventing misuse and maintaining complete control over zone-specific messaging.





Result:

The new setup delivered the best of both worlds—modern, network-based capabilities without discarding existing infrastructure. Announcements and background music now run automatically on schedule, while managers can make live announcements from anywhere using an IP phone, mobile phone, or even a softphone. Multiple announcement zones can be created for targeted communication, ensuring messages reach only the intended areas. For added control, a secured PIN-based access system ensures only authorized staff can broadcast announcements.

By combining smart IP technology with the existing analog infrastructure, we turned a static, inconvenient PA system into a dynamic communication. This upgrade has transformed the warehouse communication system into a smarter, more flexible, and more secure solution.



Author:
Mr. Melbin Thomas
Product Manager, *astTECS
Email - t.melbin@asttecs.com

Impact at a Glance:

- Reduced operational delays by enabling live announcements from any device—IP phone, mobile, or softphone.
- Automated scheduling of announcements and background music for a consistent work environment.
- Multiple zones created for targeted announcements across different areas of the warehouse.
- Secured PIN-based access prevents unauthorized use of the PA system.
- Cost savings achieved by retaining the existing amplifier and analog speakers.
- Improved work atmosphere with seamless background music and instant communication.



+91-80 6640 6640



sales@asttecs.com



www.asttecs.com