



Market Segment  
**Waterways & Sluices**

Country of Installation:  
**Germany**

Year of Installation:  
**2022**

End Customer:  
**Schleuse Hirschhorn**

System Integrator:  
**Scanwest**

Solution:  
**Emergency and operational communication**

Key Products:  
**Zenitel AlphaCom and various Turbine stations**

Key Technology:  
**IP over two-wire**

## Renewal of intercom system at Schleuse Hirschhorn

Scanvest renews sluice intercom at Schleuse Hirschhorn and implements IP technology while retaining the existing cabling

### End Customer

Schleuse Hirschhorn is a sluice facility at the German river Neckar.

The sluice was built in 1933/1959 and was equipped with an analogue intercom system in 1991. Communications are managed at a central operating station.

### The Requirement

In the course of the renewal of the Hirschhorn sluice facility the intercom system that had been in place since 1991 was also to be renewed. The analog system no longer met the current requirements for safe sluice operations. Scanvest set up a versatile IP solution, in which the existing cabling could be retained as far as possible.

### Requirements overview:

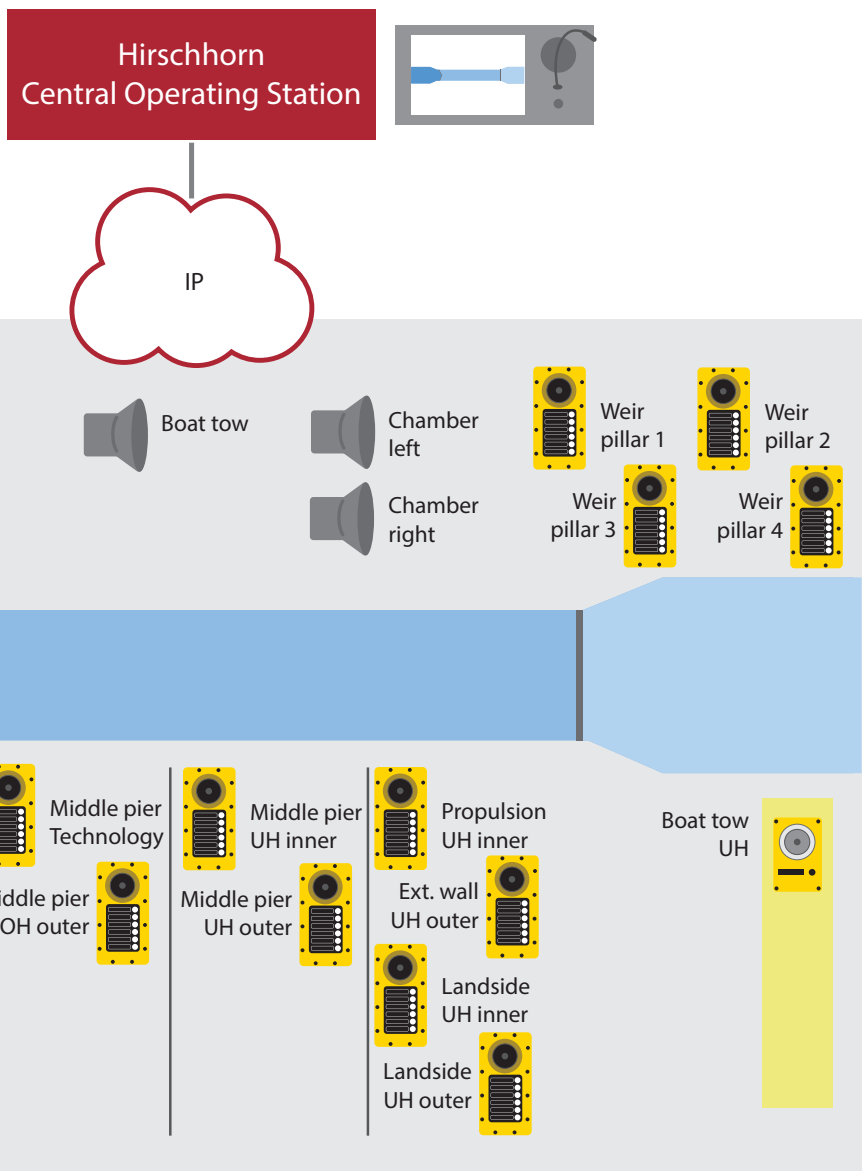
- Replacement of analog system with 21 intercom units and 10 loudspeakers > for chambers, technical buildings, weir pillars and accesses
- Delivery of a central control unit for the intercom system
- Delivery, installation and commissioning from a single provider
- Installation during operation

## System structure

The entire Hirschhorn sluice was equipped with various IP intercom stations and loudspeakers. Depending on the application area, versatile video intercom stations or robust industrial stations were used.

Calls from the system are handled at the Hirschhorn central control unit. Depending on the call station there is the option of adding a video image. From the control room, it is also possible to make announcements via loudspeakers.

The paging stations can also communicate with each other, so that it is possible to speak from any point in the sluice facility that is relevant for operation. The system is IP-based and uses the existing cabling by means of two-wire converters. signage screens across the site.



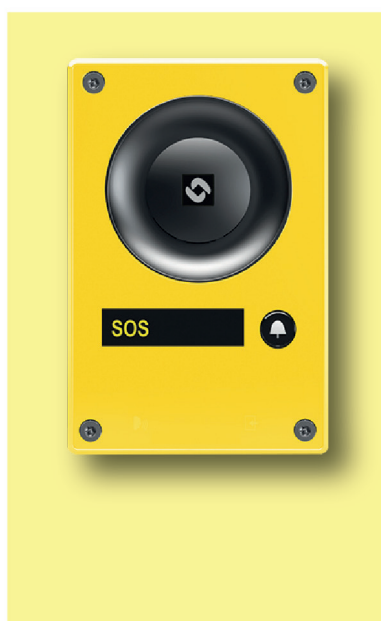
## Solution & products

### Solution overview

- Replacement of the previous terminals with different types of intercom stations
- Development of a control panel with individually designed user interface according to specification C8 of the WSV
- Stainless steel columns with intercom units in special color for boat tow
- Preservation of the existing cabling by use of two-wire converters
- Delivery, installation and commissioning by Scanvest

### Column with turbine TCIS station for boat towing

The intercom stations at the boat tows can be used to contact the operator's station. Thanks to Turbine technology, they have excellent voice quality even in the noisy environment. Columns and intercom stations were powder-coated respectively foil-coated in RAL color 1023 on customer's request, so that the intercom stations are visible from a distance. Two columns are used at the inner and outer part of the sluice.



### TCIV+ Turbine Video Intercom

Two video intercom stations are used at the sluice facility: one at the main gate and one at the service building. From here, workers can call the operator's station and can also communicate within the sluice facility. The TCIV-5 station at the service building is mounted in a weatherproof on-wall housing. The other video intercom station at the gate is installed as a flush-mount in the already existing wall cutout.

Both stations score with their IP audio features as well as their excellent video quality: they provide crystal clear audio and very good visibility even in the dark.



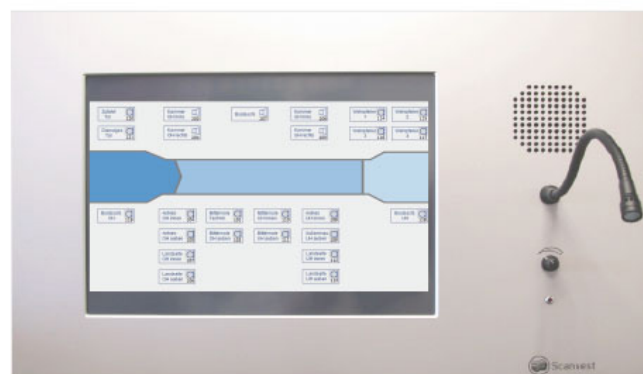
### TFIE Turbine Industrial Call Station

For the communication between operational points within the sluice facility (jetty, technical rooms, weir piers, outside area) and to the operator's station, Hirschhorn choose robust IP industrial stations with direct dial buttons. Turbine technology ensures again, that very good audio quality is maintained even within reach of loud operating noises.



### Central operating station: multifunctional control unit with touch display

Calls are visualized and processed with the aid of a multifunctional control panel. The individually programmed user interface allows individual selection of all intercom stations and loudspeakers of the sluice facility. If required, the video streams of the two Turbine IP video intercom stations can also be displayed here.

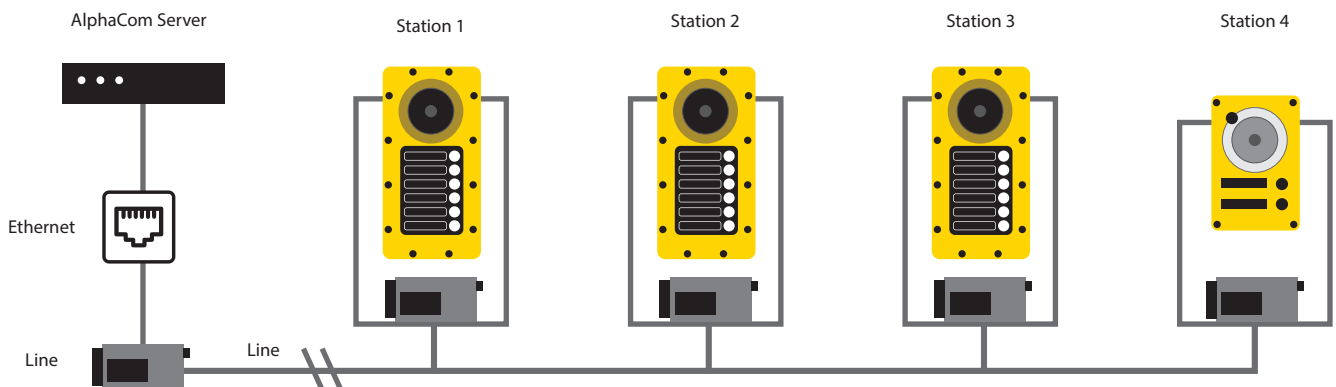




## Use of two-wire converters

Combining their expertise in all things IP intercom stations are used throughout the Hirschhorn sluice facility. They are connected via the existing telecommunications cable using two-wire converters.

The control station is connected directly to the structured Ethernet cabling.



## Why Zenitel?

Zenitel is well positioned to drive the future of intelligent critical-communication solutions. Through our portfolio of IP products & solutions, with built-in intelligence and a focus on cybersecurity, we provide organizations with superior, scalable security and flexibility. Zenitel is the proven, preferred choice for environments requiring crystal-clear audio to ensure the protection of human life, property, assets and the management of critical activities. With interoperability at all levels, we seamlessly integrate with access control, video management and security platforms.



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