

ZETRON[®] ADVANTAGE

MISSION-CRITICAL COMMUNICATION SYSTEMS

Zetron's Acom Serves at the Heart of Oslo's Gardermoen Airport



Airplanes lined up at Gardermoen airport.

Zetron's Advanced Communication (Acom) system was recently chosen to equip Oslo's Gardermoen airport. Key factors in the choice were the system's functionality and ability to expand along with the growing airport.

In an era when the airline industry is often criticized for poor customer service and a lack of timeliness, Oslo's Gardermoen airport stands out as an exception. It has twice been named Scandinavia's most efficient airport and four times its most punctual.

To ensure that Gardermoen maintains these high levels of service, the airport recently constructed a new, state-of-the-art operations center that is among the most advanced in Europe. Serving at the heart of the communications center is Zetron's Advanced Communications (Acom) system. The system, which went live in late 2011, is providing the mission-critical reliability and functionality the airport requires to maintain its sterling reputation.

Oslo Airport, Gardermoen

Oslo's Gardermoen airport is the main domestic and international airport for Norway and is the second-busiest airport in the Nordic countries. It serves as a hub for Scandinavian Airlines and Norwegian Air Shuttle, and is a focus city for the regional Norwegian airline, Widerøe.

Gardermoen's service statistics are impressive. The airport provides flights to 26 domestic destinations and about 100 European and 7 intercontinental destinations. In 2010, more than 19 million passengers passed through the airport. Of those passengers, 8.6 million were domestic—making Gardermoen the sixth-busiest domestic airport in Europe.

Reliability, flexibility, capacity

It was through a competitive bidding process that Zetron's Acom emerged as the best system to equip Gardermoen's new control center. Price was a factor, but there were additional, compelling reasons Acom was chosen for Gardermoen.

For one thing, Acom had established a reputation for reliability and flexibility at airports, airlines and emergency control centers throughout the world where it had already been installed. Acom would also be able to integrate the multiple radio and telephony

resources the airport requires to keep its complex operations running efficiently and on time. In addition, because Acom is highly customizable, it could be configured to meet the customer's exacting requirements.

Last but not least, Acom was able to provide the substantial capacity necessary to support a cost-effective expansion of Gardermoen as its traffic volumes grow and new communication technologies are deployed. This was an important consideration because of the of the airport's rapid growth in recent years.

Implementation

Once Gardermoen's system was chosen and shipped, it was installed with the help of Zetron installation partner and regional system integrator, TC Connect.

TC Connect configured the system to operate with the center's multiple brands of existing hardware, including Motorola radio equipment. They also worked with the center's staff to customize the Acom display screens.

The installation and all testing were completed, and the system went live in October of 2011.

The system at Gardermoen

Gardermoen's Acom system is now providing the high levels of integration, functionality and reliability the airport was seeking. The system combines into each operator console 27 TETRA, VHF and UHF radio channels and 60 PABX lines. This enables

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"[Acom] will enable us to maintain and build upon our reputation for quality service...even as we set out on our latest expansion program."

Alf-Einar Larsen, Control-Center Project Leader, Oslo Airport, Gardermoen

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Features:

- Flexible architecture.
- Supports P25 CSSI and DFSI.
- Efficient, intuitive, configurable user interface.
- Access to PSTN and PABX.
- Radio dispatch for up to hundreds of operators.
- Hotlines, intercom, and public address.
- Network (LAN/WAN) interfaces and protocols.
- Voice-over-IP (VoIP).
- Trunked-radio interfaces and protocols.

Guernsey Harbours' New Zetron System Gets Top Marks for Performance



Captain Peter Gill assists with operations at Guernsey Harbours.

Guernsey Harbours' highly integrated Zetron DCS-5020 Digital Console System offers advanced functionality that is improving the efficiency and effectiveness of Guernsey's busy operations.

When it comes to communication systems, there's nothing that inspires loyalty like reliability and high-level performance. That's because communications systems are often the central command-and-control point for mission-critical operations that must perform without fail, day and night, 365 days a year. So it means a great deal when a system actually delivers the reliability these conditions require.

Such was recently the case at Guernsey Harbours. Because their existing Zetron console system had provided many years of reliable service, when the time came to update their equipment, they decided to obtain and install a new system from Zetron. And they have not been disappointed. Ever since it was installed early this year, their new DCS-5020 Digital Console System has not only been providing the reliability Guernsey Harbours requires, but it also includes current technology and expanded functionality that have improved the efficiency and effectiveness of their operations.

Guernsey Harbours

One of the Channel Islands, Guernsey is located just off the coast of Normandy, 70 miles from England and 30 miles from France. The island is 24 square miles and has a population of about 62,000.

'A challenging marine environment'

Guernsey Harbours is a busy place. Its staff works with the coastguard to manage marine traffic in the approaches to Guernsey, as well as its ports at St. Peter Port and St. Sampson's Harbour. Up to 2,000 pleasure craft per day move through the area. And each year, commercial shipping moves some 500,000 passengers and many thousands of tons of freight through the area as well.

In addition to managing marine traffic, Guernsey Harbours also controls remote harbour closing lights and fog horns that warn shipping of hazards around the coastline. If a marine emergency occurs, Guernsey Harbours is responsible for coordinating search-and-rescue efforts by sea and air.

"Guernsey is a challenging marine environment," says harbour master, Captain Peter Gill. "It has been the scene of a number of shipping tragedies over the years. Not only do we manage thousands of regular to-and-fro shipping movements, but we lie adjacent to the busiest shipping lane in the world, and we are also a major destination for cruise liners."

Time for an update

Captain Gill explains why the decision was recently made to update Guernsey's communications system, and why they selected Zetron's DCS-5020 for the project: "Our original Zetron system helped us cope well with our workload," he says. "But technology moves on, and we were aware that a current-

generation system would enable us to work smarter and more efficiently. After 12 years with our previous Zetron system, we had no doubts about which vendor and solution we wanted."

That solution would include three positions of Zetron's DCS-5020 Digital Console System installed at two locations.

About the DCS-5020

The DCS-5020 is deployed widely throughout the world to control mission-critical operations for public safety agencies, and energy, transportation, and utilities companies. Designed for small to medium-sized communication control rooms, the DCS-5020 is able to integrate telephony with digital and analog radio. It supports combinations of up to 30 resources, including up to 16 screen-based operator consoles. The system's distributed processing provides the flexibility, scalability, robustness and resiliency 24/7 operations like those at Guernsey Harbours require.

Radio and Electronic Services

Zetron partner, Radio and Electronic Services, performed the system implementation at Guernsey. Located in St. Peter Port, Radio and Electronic Services has been in business for over 25 years, selling, installing, and servicing marine electronic and radio communication equipment to customers throughout the Channel Islands.

'Swap-over' from old to new

Radio and Electronic Services implemented Guernsey Harbours' system in a phased "swap-over" from the old equipment to the new system during the winter of 2010 and 2011. This included installing two DCS-5020 consoles in the St. Peter Port office. A third console was also installed in the pier head control room and linked by fiber optics.

The installation required Radio and Electronic Services to integrate the new system with legacy equipment, including Guernsey Harbours' ICOM marine VHF and UHF radio, a public phone network, private phone circuits, and an existing Zetron telemetry

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"The acid test of the system was its performance over the busy summer season... It has certainly enhanced our ability to provide attentive and efficient 24/7 service."

Capt. Peter Gill, Harbour Master, Guernsey Harbours



DCS-5020 Digital Console System

The DCS-5020 is designed to meet the demands of the smaller control room. It is particularly suited for use in public safety, transportation, utilities, and private industry.

Features:

- Integrates telephone call handling and radio dispatch.
- Based on a resilient, distributed architecture.
- Supports up to 16 operator positions and 30 line ports.
- Supports and integrates analogue radio, MPT 1327 and TETRA.
- Includes a screen-based, configurable graphical user interface (GUI).
- Offers a wide range of operator and audio interface options.



Zetron, J & K Communications Equip New, Consolidated PSAP

Operator Michelle Marten monitors multiple screens at the Wabash County Central Dispatch Center.

Wabash County recently chose Zetron's Series 4000 dispatch console to equip their new consolidated dispatch center, in part because of their past experience with Zetron products. The system has both expanded and simplified the tasks operators are able to perform.

When Wabash County, Indiana, recently decided to combine two public safety answering points (PSAPs) into one, choosing the dispatch system for the new agency and a vendor to install it wasn't exactly automatic, but almost.

The winning project bid was submitted by Wabash County's long-time and trusted vendor and service provider, J & K Communications, and it was based on Zetron's tried-and-true Series 4000 radio dispatch system.

Despite the challenges that go with combining two agencies into one, Wabash Central Dispatch has made it through its first year with flying colors. Thus far, both its new Zetron dispatch console and J & K Communication have been delivering the solid performance and service that have made them the County's preferred choice for many years.

Why consolidate?

Located in north-central Indiana, Wabash County has a population of about 33,000. Prior to the recent consolidation, Wabash County had three PSAPs—one at the City of Wabash Police Department, one at the Wabash County Sheriff's Department, and one at the town of North Manchester Police Department.

But a state mandate recently dictated that by 2013, all counties in the state will be limited to no more than two PSAPs each.

Wabash County responds

Well ahead of the deadline, Wabash County decided to merge the Wabash City and County PSAPs to create a consolidated agency and house it at a new location unaffiliated with any law-enforcement agencies.

Bob Brown, director of the Wabash County Central Dispatch Center and Emergency Management Agency (EMA), explains why they made the decision when they did.

"When you're facing a deadline like this," he says "it only makes sense to get far enough ahead of it so you have time to consider your options and make good decisions."

The new consolidated center would provide dispatching and answer 9-1-1 calls for the entire County, except for the town of North Manchester, which would continue to answer their own land-line 9-1-1 calls.

'The vendor we wanted'

Based in Columbia City, Indiana, and with branch offices in Fort Wayne and Indianapolis, J & K Communications had been providing Wabash County with excellent service and support for many years. J & K had also installed the agency's original Zetron system and subsequent updates. So when J & K came in with the winning proposal based on a new Zetron Series 4000 dispatch system, it was what the County administrators were hoping for.

"J & K and Zetron have been mainstays in the county for many years," says Brown. "J & K has always been very responsive to our needs. Sure, it's a business relationship, but we've been working with them so long, everyone's on a first name basis. Those relationships are very important to me."

"Our Zetron equipment has performed very reliably for us," Brown continues. "So when we requested quotes from several vendors, we were glad that J & K came in with the winning bid. It included the equipment we needed, the vendor we wanted, and a service warranty that would cover our new and existing equipment for several years."

The solution

The Zetron solution for Wabash Central Dispatch would include:

- Zetron's Series 4000 Communication Control System and Model 4048 Common Control Equipment.
- Four positions of Zetron's Integrator RD dispatch console.
- Three Zetron Intelligent Radio Interface Modules (iRIMs).

Supporting 800 MHz and VHF

Indiana has an 800-MHz state-wide SAFT-E radio network. But for a number of reasons, including the fact that no more IDs can be added to the network, municipal and county fire departments and city police departments would continue using their VHF equipment. As a result, the dispatch system installed at the consolidated center would have to support both the 800 MHz system and VHF radios. The connection from the new system to the SAFT-E network would be made through EF Johnson radios and Zetron iRIMs.

"The consoles would connect to the iRIMs," says J & K sales representative Ted Hurley. "The iRIMs would then connect to the EF Johnson radios. This would enable them to make a wireless connection to Indiana's Hoosier SAFT-E backbone."

Implementation

The implementation of the new equipment was about as straightforward as it gets because the two PSAPs being consolidated were kept up and running during the equipment installation at the new location.

"It took a week to install the system," says Hurley. "The Zetron system was very easy to configure and hook up. The final cutover took a day, and it went very well. We had no trouble whatsoever. Then we took another week to train the dispatchers on it. The sheriff's department had previously been using Zetron touchscreens and were used to them. Those who'd been dispatching for the city had been using a button-based system, so the PC-based touchscreen was new to them. But the system is intuitive and easy to use. It wasn't long before even those who were new to the touchscreen were comfortable using it."

"They learned how to use the new consoles, and now they love them—they really do," adds Brown. "They really like the fact that it's so much easier to tell which frequency they're on."

Results

It's been just over a year since the consolidated center went live, and from all accounts, the new system is delivering the functionality and reliability for which it was chosen.

"The Zetron equipment has been good all the way along," says Brown. "It lets us do many things that we couldn't before. I can't even imagine what to do to improve it, it's doing such a good job. And J & K has been very responsive to our needs. Those are the kinds of folks you want working with you." ■

"The Zetron equipment [is] doing such a good job, I can't even imagine what to do to improve it."

Bob Brown, Director, Wabash County Central Dispatch and Emergency Management Agency



Series 4000 Communications Control System

The Series 4000 is designed for medium-sized communications centers. In addition to exceptional reliability, it offers easy programming and economical upgrades.

The Series 4000 includes:

- Support for multiple trunked radio formats/protocols.
- Integrated instant-recall recorder that captures radio traffic on each channel.
- P25 compatibility and interoperability.

Featuring three styles of operating positions and two common controller sizes, the Series 4000 can be scaled to accommodate from 2 to 48 channels and from 1 to 16 operator positions.

Zetron's Acom Serves at the Heart of Oslo's Gardermoen Airport

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Operator Kurt Kemi tracks information on one of his console screens at Gardermoen airport.

just three operators to handle many of the radio and telephone calls between the 13,000 people and 100 companies that work together to keep the airport open for business—even during the worst Scandinavian winters.

Because Acom is able to integrate a variety of tools and resources and present them on the console screens, it is now easier for operators to coordinate key elements of ground operations. This includes everything from power systems and other support systems to security, fire and rescue operations. The customized configurations of the console displays also enable operators to make decisions quickly, get the right teams and individuals talking, and keep the airport functioning efficiently.

'A highly capable solution'

The Acom system at the Gardermoen airport is proving itself every day. As a result, the customer has high praise for the system and those who deployed it.

"The customizable graphical user interface is one of the many strengths of the Acom system," says Gardermoen control-center project leader, Alf-Einar Larsen. "It means that each member of our staff can log on to a position and have information presented to them just the way they want it."

"The combined team of Zetron and TC Connect has delivered a highly capable solution," Larsen continues. "It will enable us to maintain and build upon our reputation for quality service to airlines and travelers, even as we set out on our latest expansion program."

Indeed, Gardermoen has already embarked on a project that will expand the airport's capacity to 28 million passengers per year. ■

Guernsey Harbours' New Zetron System Gets Top Marks for Performance

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system Guernsey uses to control and monitor remote operations. The installation also involved customizing the screen displays to suit each operator's individual preferences. This was done through the DCS-5020's programmable user interface.

Passing the 'acid test'

The implementation was completed and the new system was commissioned in early 2011. According to Captain Gill, its functionality and flexibility have already improved Guernsey Harbours' operations in a number of significant ways.

"With the new system, Radio and Electronic Services was able to consolidate more information than ever before onto our touchscreens," he says. "This gives our staff finger-tip control over all of our radio, telephony, and remote systems from one place. Our remote harbour lights and fog horns are also controllable in the same way. And if the operators need to move away from their consoles to another area, they can use the touchscreens to turn on remote monitoring. Live radio and telephone audio is then relayed to them over loudspeakers."

"The new Zetron system has enabled us to implement many of the lessons we have learned about how to operate most effectively," Captain Gill continues. "The acid test of the system was its performance during Guernsey's busy summer season. It showed us that, as far as the DCS-5020 system is concerned, we got it right. It has certainly enhanced our ability to provide attentive and efficient 24/7 service." ■

"The new system... gives our staff finger-tip control over all of our radio, telephony, and remote systems from one place."

*Capt. Peter Gill,
Harbour Master,
Guernsey Harbours*



Dispatcher Mike Ward monitors shipping traffic at Guernsey Harbours.



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Please contact Zetron before scheduling factory training as dates are subject to change.

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