

FORTECHO™ Case Study

Protecting The State Hermitage Museum's Art Collection *Saint Petersburg, Russia*

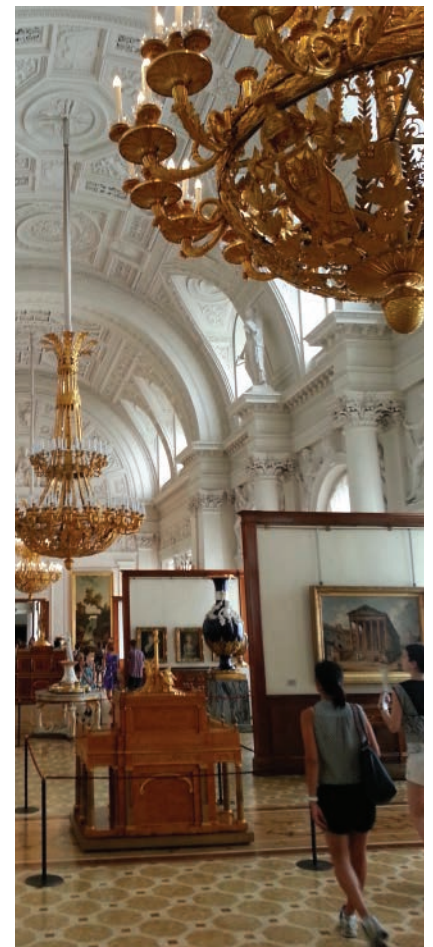
The State Hermitage Museum

One of the largest and oldest museums in the world, it was founded in 1764 by Catherine the Great and has been open to the public since 1852. Its collections, of which only a small part is on permanent display, comprise over three million items including **the largest collection of paintings in the world**. The collections occupy a large complex of six historic buildings along Palace Embankment, including the Winter Palace, a former residence of Russian emperor and across Palace Square more recently the eastern wing of the General Staff Building.

Business Challenge

The State Hermitage required a system that would improve the security of its exhibits in a diverse array of listed, historical building structures. It was necessary that:

- The whole system be invisible and have no impact on the public's viewing experience;
- The software be translated into the Russian language for the security operators;
- The system be able to manage 5,000 objects on display with immediate alarm information and no communication delay in RF transmissions;
- It should integrate with various security systems that had been installed over decades;
- It offers object-specific protection rather than simply securing a room or a perimeter; and
- Must be expandable into the General Staff Building, the software allowing each security room in the individual buildings to see all alarms.





The Solution

A pilot system was first installed to ensure the radio frequency could penetrate the thick historic walls. The Fortecho system RFID reader infrastructure was then installed in four stages, the final stage being the General Staff building.

- Tags are attached invisibly behind and inside artworks.
- When a tag is triggered it transmits detailed information to the Fortecho software via a concealed receiver four times/ second.
- In the event of an alarm, screens display the location of the artwork at risk and CCTV is displayed and recorded for visual verification and evidence. The system requires minimal day to day management and alarm thresholds can be set for individual works of art.
- Tags transmit a signal every 30 seconds for a minimum period of seven years, reducing the human cost involved in swapping tags on expensive artworks.
- Receivers were placed above ceilings, on covert ledges, on the inside and outside of walls.
- No structural change to a room or building was necessary.
- The same software warns if the receiver network is in any way compromised.

ROI

- Enhanced security of works of art and invigilators.
- Improved integration of security systems.
- Electronic historical log of all alarms
- Potential to reduce expensive, manned security.
- Instant and precise location and artwork information.



Customer Testimonial:

“We have a vast collection spread over a large area – monitoring it effectively and cost-efficiently is a great challenge, which is why we chose Fortecho. The system works extremely well – it’s a great help to us and we trust it completely.”

- P.E. German - Head of Department of Electronic Equipment, Alarm Signaling & Communications, *The State Hermitage*