

Ringhals Data center at nuclear energy site













CHALLENGE

Data center at nuclear energy site

Ringhals outgrew its 1980's data center and did not comply with many of the new datacenter security standards that now regulate the nuclear energy sector. Stakeholders commissioned a rigorous three-year investigation and decided to renovate the old data center and build a new one. This launched typical data center construction – in a very unusual security area.

One building with many standards

Standards that govern Ringhals are as numerous as they are likely to change, which is one of the challenges of working with authorities that have top security regulations. These circumstances drove Håkan Strandberg, Coromatic's site manager, to move from his Gothenburg office to a barrack on the Ringhals site for an entire year.

Several hundred requirements were made during the investigation, but the main requirement was redundancy. To achieve this, a totally new data center was built – physically separate from the former center that is several hundred meters away. The first shovel of earth was taken in March 2011, the data center was ready for occupation a year later. The center is built like a room in a room – a gray building with a heavy vault door and hermetic sealing.

Redundancy for double security

Duplicates of everything were created -

from diesel generators to a data center – to achieve redundancy. Consequently, the old data center was totally renovated. After thorough stripping and new flooring, racks, networks, and repainting, only roof shingles remained from the original facility. Despite everything new, the renovated facility will only function as a secondary security data center.

Renovation started six months after moving into the new data center. And when IT systems could be put into operation in December 2012, the duplicate data center construction was considered complete.

— Coromatic employees are as flexible as they are knowledgeable. We need these two attributes at a site like Ringhals," says Fredrik Gustavsson, Vattenfall IT project manager who ran the Ringhals project. "They replicated a facility solution that meets all our security and capacity requirements.

Now we have a data center with a belt and suspenders, which we are very proud of. The new center is also green because it takes advantage of Sweden's climate and uses cold outdoor air for cooling.





Besides actual construction, Coromatic is also responsible for ongoing maintenance of the two data centers as well as cooling, uninterruptable power supply (UPS) and backup power, function tests during power failure, fire, and other alarms. If something should happen, Coromatic quickly deploys engineers on site – 24/7 – all year round.

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After challenges with extreme documentation, heavy approval processes, and changes in conditions, the two data centers are in operation at the Ringhals site – to secure operations-critical IT continuity for many years to come.



Find more information on coromatic.com



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