



Customer Solution | Norwegian Cruise Line



NORWEGIAN CRUISE LINE: CONNECTING LAND AND SEA

Norwegian Cruise Line's fleet demands access to corporate information—current and accurate documentation—to ensure that its ships run safely and smoothly. Thousands of its customers are relying on the accuracy of preset arrival and departure times each month. Those same customers are also relying on **Norwegian Cruise Line** for a safe, enjoyable voyage. To make certain schedules are followed and safety procedures are met, **Norwegian Cruise Line** needs to connect its cruise ships at sea to the information stored centrally at its corporate head office.

THE SITUATION

Norwegian Cruise Line offers flexible cruise vacations in all major cruise destinations. With 11 active ships and 2 megaships under construction, **Norwegian Cruise Line** needs to efficiently and effectively coordinate the efforts of 16,000 employees distributed around the globe.

For **Norwegian Cruise Line**, consolidating its content and making it accessible from a central server meant implementing Microsoft's SharePoint™ content management solution. The main SharePoint installation, located at **Norwegian Cruise Line's** corporate datacenter, is relied upon to deliver critical information to every ship in its fleets en route to or from major worldwide destinations, such as Alaska, Bermuda, Bahamas & Florida, Canada/New England, Caribbean, Europe, Hawaii and the Mediterranean.

This shore to ship content delivery poses a unique challenge because it requires the use of satellite transmissions. When there are thousands of guests on board a ship also requiring the use of the same satellite bandwidth to make ship to shore phone calls and conduct business from onboard internet cafes, this bandwidth is at a premium.

REQUIREMENTS

As **Norwegian Cruise Line's** Intranet Manager Brenda Kepner was tasked with making **Norwegian Cruise Line's** previously static and labor-intensive intranet dynamic and functional; making intranet content available to personnel on board each ship, addressing the challenges of satellite transmission and deploying the company's mission critical International Safety Management (ISM) system. Given the limited pipeline for accessing content and physical circumstances that interrupt connectivity, lapses in the availability of intranet content are not unusual on board ocean-going vessels.

VITAL STATISTICS

Products:

- Microsoft SharePoint™
- Synergy Replicator for SharePoint™

Customer:

Norwegian Cruise Line

Industry:

Travel & Leisure

Website:

www.ncl.com

Application:

1. Globally distributed shore to ship SharePoint environments
2. Safety Management Compliance

Benefits:

- Content compression
- Rapid transfer of data
- Consolidated administration
- Replication monitoring console
- Faster access to up-to-date version of documents locally
- Reduced network bandwidth requirements to save time and costs
- Policy and standard changes pushed immediately from shore to ship
- User-friendly interface that requires a low learning-curve for Norwegian Cruise Line staff



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REQUIREMENTS CONTINUED

To accomplish this goal, Kepner set out a number of key deliverables for creating a successful solution:

1. The solution had to satisfy compliance requirements for ISM documentation control (version status & history, audit trail, approval workflow, etc.)
2. Centralize document control, with rapid deployment of updates to all ships
3. Provide a more powerful search engine that leverages metadata
4. Empower business owners to update content
5. Maintain regulatory compliance

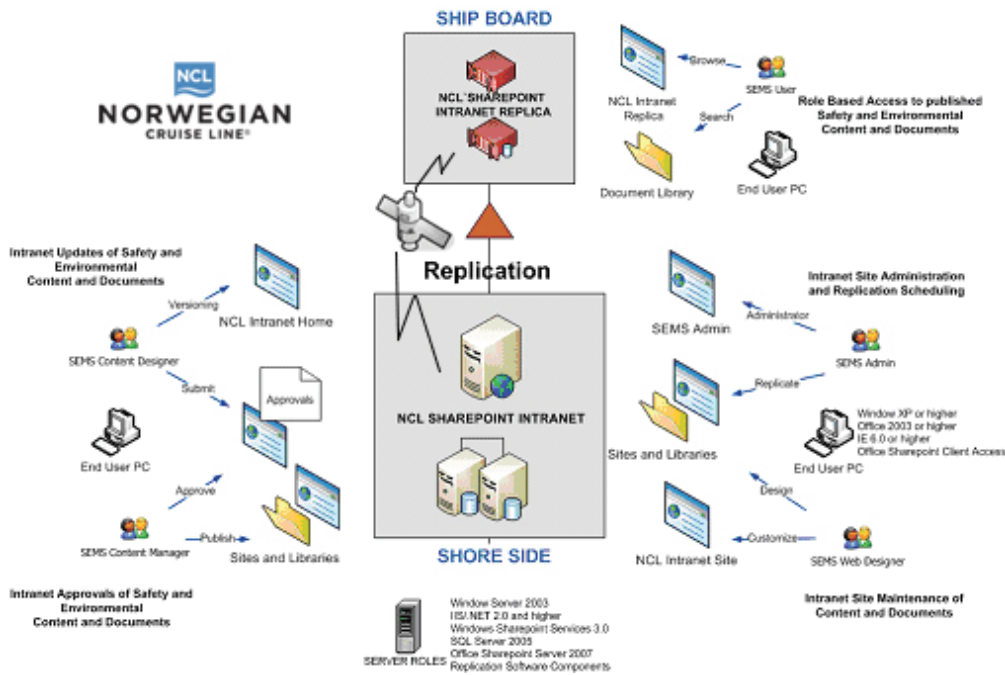
As with most organizations, maintaining regulatory compliance is more than a key deliverable. It's a business necessity. To address this critical initiative, Kepner saw the need better updating of the company's electronic Safety & Environmental Management System (SEMS).

SOLUTION

“Following an extensive proof-of-concept, we decided to implement SharePoint to serve as the foundation for our corporate intranet, but we had some very specific requirements and satellite bandwidth restrictions to consider. Microsoft suggested **Synergy Replicator for SharePoint** might be able to help address those challenges and requirements. We determined the combination of products from **Synergy** and Microsoft to be the complete solution that could address all of our concerns.”

Brenda Kepner,
Intranet Manager,
Norwegian Cruise Line

NORWEGIAN'S INTRANET ARCHITECTURE





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SOLUTION CONTINUED

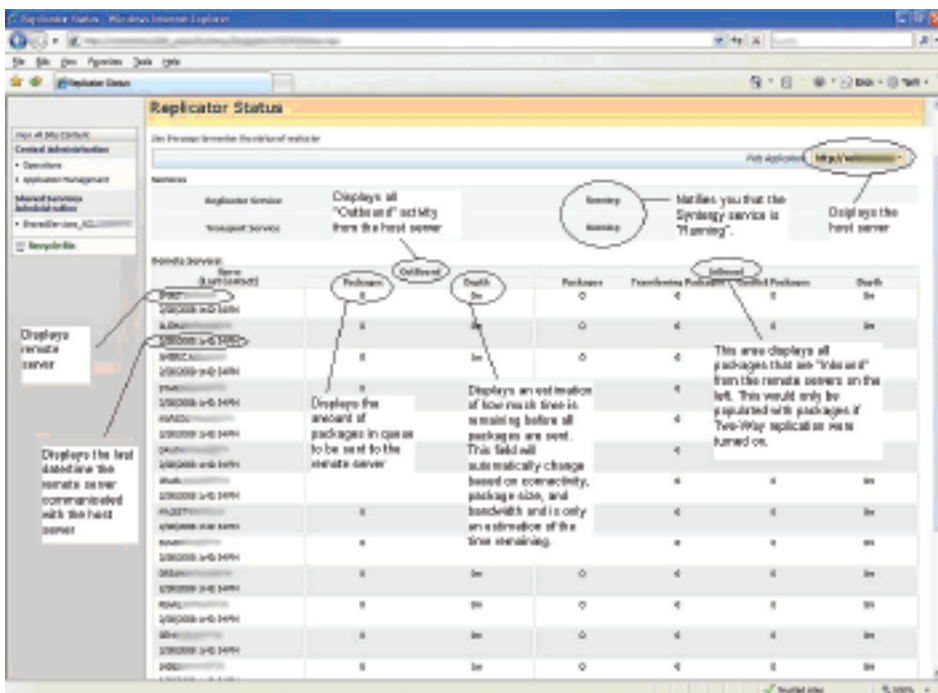
Norwegian Cruise Line needed a central location for managing documentation. With different regulations in every country and in every state for things related to the handling of hazardous materials and other safety standards, the International Safety Management (ISM) code outlines a Marine standard that each company managing a ship it must have an established system to manage safety. That system must be evidenced and documented, for it is enforced and audited routinely.

Norwegian Cruise Line laid out a 3-phase plan for deploying its corporate intranet. Phase 1 would roll out the SEMS content with plans for replicating document libraries, HTML web pages and lists. Phase 2 would involve replicating SEMS site features and phase 3 would be a fully automated system for replicating all types of changes made to the intranet & SEMS.

With Microsoft SharePoint Server as the foundation for its corporate intranet, various **Norwegian Cruise Line** departments utilize workflow templates for their content approval processes. Version histories are maintained for all documents and audit trails are available on the SharePoint server located at **Norwegian Cruise Line's** datacenter.

“Initially, our specific requirements exceeded SharePoint’s capabilities alone. With **Synergy Replicator for SharePoint** added into the mix, we addressed deployment issues and concerns regarding metadata and versioning. All in all, we’re able to better adapt the technology to the unique needs of our environment.”

Brenda Kepner,
Intranet Manager,
Norwegian Cruise Line





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SOLUTION CONTINUED

Adding [Synergy Replicator for SharePoint](#) to the mix enabled **Norwegian Cruise Line** to reorganize all its data into libraries and ensure that unique cross-domain permissions structures stay intact so that confidential content—those documents that involve ship security—remains confidential.

Norwegian's unique environment meant that it had to retain a hub and spoke model. With only 97-98% connectivity on board ships, documentation would have to be controlled centrally to accommodate gaps in satellite availability. With network latency the chief drawback to communication from ship to shore, Norwegian Cruise Line determined replication would have to be one-directional—from shore to ship. The inbound area of the [Synergy Replicator Status](#) page indicates selection for either bi-directional or one-way replication (see Image 2).

Another key feature for **Norwegian Cruise Line** to minimize demand on its bandwidth is Replicator's ability to make use of byte-level differencing. This feature enables replication of only the changes made to documents, as opposed to replicating an entire document again. This feature helps ease the burden of demand placed on satellite bandwidth. Likewise, incremental replication means that if **Norwegian Cruise Line's** satellite bandwidth is interrupted at any time, the replication package in progress will resume replication where it left off once the satellite feed is again operational.

“From a user perspective, [Synergy Replicator](#) has a low learning curve. Because it is built upon the SharePoint server and doesn't require any extra servers, all the key features of Replicator are built right into SharePoint's user interface. We are still working within the familiar SharePoint user interface. It just has a lot more features with [Replicator](#) included in the solution,” says Kepner. “We realized early during deployment that fewer SharePoint site customizations would mean fewer replication compatibility issues, however Replicator is reliable. Once installed, we didn't have to worry about it.”

SUMMARY

Norwegian Cruise Line faces stringent international, US, state and local port regulations. The logistics of trying to maintain a set of standards on a moving target, such as a ship, are complex, requiring a sophisticated plan for shore to ship document synchronization. For Norwegian Cruise Line, the combination of **Synergy Replicator** and Microsoft SharePoint offers the ability to push information from a central fixed location to its ships no matter where they may be around the world.

“Moving content from the master server to ships often exceeded 24 hours due to site volume and method of transfer. We have such a unique environment here. **Synergy Replicator** is instrumental to ensuring that every crew member aboard every **Norwegian Cruise Line** ship has the most current documentation available regarding safety procedures and environmental policy information,” sums up Kepner.



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