

# Giving maintenance crews 24/7 access to online manuals

USMC deployments in the Persian Gulf and elsewhere employ vast amounts of equipment including vehicles and weapons systems. The task of keeping that equipment in good working order falls to the Marines' huge force of "Maintainers". These men and women work to ensure that all Marine equipment, when it is called upon, is in a safe, reliable and fully operational state of repair. To perform this enormous and often complex task, the maintainers require access to all of the maintenance manuals and records that accompany USMC equipment.

The Marines also have a team of technical writers, who are continuously publishing new and improved manuals that employ in-the-field learnings and the latest technology, to improve the way maintenance is performed.

Until recently, the task of taking all maintenance documentation into the field was carried out via a paper based system, where maintainers carried foot lockers containing their manuals and documents. The bulky paper documents were updated via the military mail service.

Because the USMC operate such a variety of equipment, in so many remote locations, this paper system was highly inefficient.

## Carrying offline SharePoint into the field, not filing cabinets

To improve the information access and collaboration facilities available to their maintainers in the field, the USMC deployed Microsoft SharePoint. The maintainers now had access to a portal that gave them access to all of the manuals and records they needed, via a laptop PC. Publishing of updated manuals was now instant from the technician in the US, to all of the maintainers using the portal around the world.

SharePoint has dramatically improved the accuracy of and the access to, maintenance documentation. However, SharePoint relies on a high bandwidth internet connection. Without a connection, the portal is inaccessible and with a slow connection the download times for large manuals are unfeasibly long.

To address this problem and to extend the portal to users with no or little network bandwidth, the USMC has deployed Infonic's Geo-Replicator software on all of its maintainers laptops in the Gulf region.

Geo-Replicator provides the USMC maintainers with a complete offline version of their Microsoft SharePoint maintenance portal.

Geo-Replicator allows the maintainer to search the portals many technical manuals during maintenance procedures without needing a satellite internet connection. The virtual SharePoint site looks and works exactly as if they were connected to a US based SharePoint server via a T1 connection.



**United States Marine Corps**

**Country:** USA

**Industry:** Defense

**Profile:** Amphibious military force established in 1775.

180,000 active and 40,000 reserve troops.

**Key Drivers:** Improved access in the field to maintenance materials within a SharePoint portal.

## CASE STUDY - Geo-Replicator - United States Marine Corps



This virtual SharePoint server is heavily compressed to enable the entire portal to be efficiently stored on a standard laptop

### Choosing Geo-Replicator

"The USMC Maintainers need to have access to tens of gigabytes of data 24/7 if they are to do their job effectively. Now, rather than carrying around huge foot lockers of manuals, the information is all stored on a laptop, within the Geo-Replicator offline version of the portal, which looks and works exactly like the online version," reports Infonic Managing Director Mark Mueller.

### Benefits of Geo-Replicator

- Instant access to critical SharePoint content offline in the most remote areas of the world.
- Instant publishing of up-to-date maintenance documentation across the globe.
- Dramatic reduction in the cost of data transmission.
- Improved maintenance crew performance and reduced costs.
- Improved collaboration between maintainers and US based Subject Matter Experts.
- Satellite bandwidth is left available for other USMC purposes.

### The Infonic Geo-Replicator Solution

Infonic Geo-Replicator provides the USMC maintainers with an offline replica of their SharePoint based maintenance portal. This virtual SharePoint server is heavily compressed to enable the entire portal to be efficiently stored on a standard laptop. It looks, feels and works for the maintainer exactly as if they were connected directly to their SharePoint server on-base in the United States. But, they are not. They are viewing the web site compressed by around 80% and stored on the hard drive of their laptop. The maintainer experiences the rich look and feel of the portal and enjoys all of the search and other functionality they would expect online.

Infonic's patented Geo-Replicator technology is also used by the Marines in combination with Adobe Connect, which enables video conferencing and photo sharing, to provide effective collaboration between Marines in the field and Subject Matter Experts (SMEs) at helpdesks around the world. This collaboration over low bandwidth is made possible because with Infonic only the bytes of data within a document that have changed need to be transmitted. This greatly reduces the size of the data sent during collaborative between maintainer and SME.

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