



## WIRELESS CONNECTIVITY BRIDGE (WCB)

Wireless Connectivity Bridge (WCB) is a collaborative effort with Navy (Fleets, TYCOMs, and NAVSEA) bringing encrypted high-speed connectivity via wireless Radio Frequency (RF) to ship and maintenance shop networks for improved internet speeds during maintenance availabilities on naval installations or in commercial shipyards.

Today's maintenance business practices combined with the ships day-to-day business workload typically overwhelm current internet capacity. A T-1 line can transmit data at a speed of 1.544 Mbps which can lead to internet blackout periods. Limitations on the Maintenance Project Team affect their ability to efficiently process various items such as Contractor Furnished Reports (CFR), Requests for Contract Change (RCC), Contract QA (G-points), Process Control Procedure (PCP) review and approval, and maintenance availability schedule management. Limitations on the ship's ability to communicate via a network connection impact the ability to access Navy websites supporting sailor's pay, medical, detailing, training, supply, FITREPs/Evals, and numerous other sites directly impacting Quality of Work (QoW) and Quality of Life (QoL).

WCB solves the problem of the overburdened internet infrastructure at maintenance locations (e.g., shipyards, Regional Maintenance Centers (RMCs), and piers) and provides the increased volume/speed needed to support the data/information for today's maintenance practices. Having the necessary internet connectivity contributes to improved fleet technical assist visits (better access to technical requirements for troubleshooting), better assessments (recording and reporting assessment results), and completing maintenance availabilities on time to include SOVTs and other end of availability testing. In addition, it improves the QoW and QoL for sailors, marines, and civilians by giving them the internet capacity for working effectively and efficiently.

WCB is less expensive and more cost effective to maintain than the traditional buried cables. It also avoids related environmental concerns associated with buried cables. Increased connectivity is provided using Commercial Off The Shelf (COTS) Radio Frequency (RF) antennas and equipment that can be installed using existing above ground infrastructure. One antenna has the capacity to support four ships / barges (100 Mbps each) at a given maintenance location. Additional antennas can be installed to support additional ships / barges. With minimal equipment needed, connectivity is increased resulting in an increase in work productivity and efficiency.

WCB has been successfully operating since February 2022. Currently, it is installed at 11 locations (e.g., BAE (2), NASSCO (2), CMSD, MHI, ECR, Vigor (2), Colonna, HII-NNS). Easily installed, WCB is affordable, reliable, and upgradable solution for encrypted high-speed internet connectivity.



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