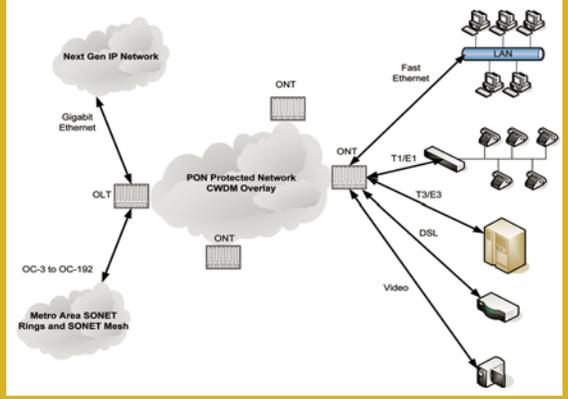




3 PHOENIX, INC.

REAL TIME SYNCHRONIZATION AND FUSION TECHNOLOGY



Data Fusion Network Architecture

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Topic Number: N04-138
(ONR, NAVSEA/PEO-IWS)

SBIR Investment: \$832K
Project Revenue: \$8.93M

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About the Technology

3 Phoenix, Inc. (3Pi) developed a low power, open architecture data fusion system designed to address the Navy’s need for a technology that provides continuous sonar distribution and allows the merging and aggregation of data from a wide range of sensors while still maintaining close synchronization. 3Pi’s iPON (inverted Passive Optical Network) and iPEN (inverted Passive Electrical Network) are passive technologies that greatly reduce the power required to obtain data from disparate sensors. The technology allows time synchronization and data fusion from different sensors, gathers data from a variety of sources and format, and supports bi-directional communications links.

3 Phoenix received funding from Program Executive Office (PEO), Integrated Warfare Systems (IWS) to apply its iPON and iPEN technology to the Periscope Detection Radar (PDR) to enable enhanced detection capabilities for the fleet. The Office of Naval Research and PEO Submarine (SUB) uses the technology in towed array telemetry for submarines, surface ships, and machinery monitoring/damage control sensor applications.

Military and Commercial Significance

3Pi’s iPON and iPEN are based on technology widely adopted by telecommunications and digital cable service providers. The technologies presents cost effective solutions for navy open architecture net-centric warfare system which requires low power, high computational density, network consolidation, and robust communications on existing network resources. iPON and iPEN accept inputs from independent analog, digital or smart sensors, synchronize the data to a common time standard, combine the signals, optionally compress the data, and re-transmit the information to data analysts using a variety of radio frequency channels or internet protocol-based networks.

About the Company

3 Phoenix, Inc (3Pi) provides technology products and services for defense applications. 3Pi’s real time synchronization and fusion technology has had a major impact on the company’s growth. 3Pi’s success with SBIR opportunities, allows the company to develop technology for dual use and provide quality engineering and management services to customers. 3Pi’s core competencies include real-time architecture systems and design, passive and active sonar signal processing, telecommunications and embedded design, open architecture computing environment practices, and program and financial management.

APPLICATIONS

- PEO IWS: PDR – Submarine detection
- PEO SUB - Towed array telemetry for submarines and surface ships
- Navy Surface Ships: SONAR Systems - Radar post processing and anti-submarine warfare
- Navy Open Architecture/Net-Centric Warfare
- Navy: Small naval research aircraft - Atmospheric measurements
- NAVSEA - Machinery monitoring, damage control sensor