

# Rapidly Arming Defense Logistics with 100% Accurate RFID

The U.S. Department of Defense's (DoD) Defense Logistics Agency (DLA) operates the world's largest and most complex supply chain. With over 60,000 suppliers and more than 5.2 million different inventory items, DoD is modernizing its logistics system to better support the warfighter. Passive RFID is at the center of that transformation as a core element of the DoD's force transformation initiative. After years of planning, the DLA needed a highly accurate RFID network established rapidly. The DLA tapped Quake Global, the leaders in the physics of RFID, to ensure the successful deployment.

**"As a pioneer in the use of passive RFID technology, the current initiative to augment our existing passive RFID infrastructure demonstrates DDC's commitment to enabling each of our 26 distribution centers around the world to receive shipments tagged with passive RFID,"**  
- Janet Cravener, Chief of DDC's Logistics Policy Division.

## Accuracy - pushing the performance envelope

Like next-generation weapon systems, the DoD expected its RFID infrastructure to be an order of magnitude more sophisticated than what was currently deployed. Boundaries relative to read-rates and performance were strict, unlike many retailers who have toyed with trial-and-error methods and experienced accuracy issues. Rather than just attempt to read a single pallet tag, the DoD demanded 20 Gen 1.0 and Gen 2.0 RFID tags be affixed to cases and read as they came through a dock door - 100% accurately. This required scientific precision when designing and configuring the RFID network. Each portal was tested ten times for that performance criteria. The DoD has shown RFID will reduce costs, increase visibility and streamline its entire supply chain, from the "factory to the foxhole." However, it can only do this if the RFID system is accurate and reliable. That is why QUAKE's physics expertise and patented optimization tools were essential.

## Making RFID Accurate and Easy

Quake Global employed specialized software tools and processes developed over years of RFID deployments to meet the DLA's tough performance and timeline requirements. QUAKE developed its EasyReader™ software tools to address accuracy and speed issues. The QUAKE team can install RFID systems significantly faster and more accurately than manual, trial-and-error methods. By using EasyReader™ tools and methodologies, full portals can be set up and tuned 75% faster than manual configuration. Even the acceptance testing protocol (ATP) was automated by QUAKE's EasyTest™ software, saving both QUAKE engineers and Government technical representatives hours of effort and time on each portal acceptance.

## Speed – leveraging a rapid deployment methodology and optimization software

Not only was system performance expected to be cutting edge, but the deployment timeline had to be an unprecedented achievement. Thanks to Quake Global' automated RFID optimization tools and RFID-specific methodologies, success was achieved despite the original timeline being reduced by 40% while simultaneously managing a 46% increase in scope. All distribution centers spanning the continental U.S. (CONUS) were evaluated, solutions designed, installed and tested to 100% accuracy in under 130 days. Quake Global achieved this scale and scope of project because of extensive implementation expertise and the scalability of the EasyReader™ deployment optimization software suite.

### Formula For Success = RFID Focused Partner

Quake Global is the industry's #1 RFID services and infrastructure optimization software provider based on end-user ratings. QUAKE is currently providing DoD with:

- Scientific assessment and system design
- Hardware evaluation and selection
- RFID installation, testing and maintenance services
- Software tools for testing and deployment

Quake Global leverages project methodologies refined over scores of Commercial and Public Sector engagements. Project methodologies is augmented with equipment knowledge vetted in our world-class laboratories. This allows our engineers, physicists, systems architects and process design specialists to transform the physics of RFID into real value for our DoD customers.

The Leader in Remote Asset Tracking

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## There is no Silver Bullet

RFID solutions are not identical. The optimal approach considers an organization's business needs, processes, workforce, and technologies. DoD's planned RFID roll-out faced specific challenges relative to read rates, configuration accuracy, and installation efficiency. Dense reader environments with many users in close proximity, portal configuration variability, high volume throughput and unrivaled material variability all contributed to predictable RF challenges.

Quake Global offered unique capabilities to mitigate potential pitfalls:

- *Invention of Industry Best Practices such as Path Loss Contour Mapping.* Quake Global invented the process of Path Loss Contour Mapping, full cycle analysis, critical boundary scanning and rapid design methodologies.
- *Scientific Tools: EasyReader™ Software Suite.* The use of internally developed scientific tools ensures configuration accuracy, speed and total network visibility.
- *Robust and Detailed Project Approach.* The depth of QUAKE's approach was developed over more than 100 RFID projects for the world's largest companies.
- *Experienced Team.* Selecting only the best and brightest, Quake Global prides itself on one source of success: workforce talent. From RF engineers to program management specialists, our people set us apart.

### Quake Global's Total Approach for Achieving Success

Our proprietary methodology and tools allow QUAKE to tailor deployments to client needs. From the initial site analysis to maintenance and training, QUAKE continues to help DoD and other Commercial and Federal customers attain results while executing within narrow timelines, limited ramp-up, and little to no impact to ongoing business. This customized approach provides the flexibility of concurrent deployments worldwide. A corporate feedback mechanism provides continual improvement, leveraging lessons learned across deployment teams throughout the project life cycle. All with one focus in mind: Supremely Satisfied Clients.



## About Quake Global

Quake Global is the leader in the physics of RFID solution design, deployment, and installation optimization software. RFID is a big part of what we do. Global corporations on four continents leverage Quake Global's expert engineers and patent-pending RFID optimization tools to achieve accuracy, visibility and speed in RFID deployments. In addition to client deployment services, Quake Global is also the publisher of the RFID Benchmark Series, the industry's first and most referenced head to head performance analysis of leading RFID tags and readers. Quake Global is also author of RFID for Dummies published by John Wiley & Sons.

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