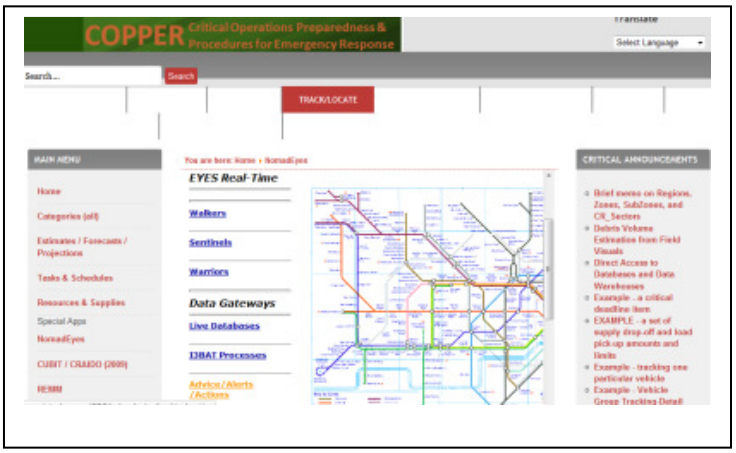
COPPER

(Critical Operations Preparedness and Procedures for Emergency Response)

Introduction oriented to Government Agencies and Not-for-Profit Organizations

INTRODUCTION

COPPER provides a full-service, extensible Command Operations Center environment including information, communication and logistical systems for companies and agencies engaged in different types and levels of activity pertaining to potential or imminent or post-factum emergencies, disasters, and other critical events affecting communities, environments, socio-economic infrastructures and the lives of people in areas affected by such events.



Please read the accompanying introductory documents for additional information on the model, the architecture, and the system including software services.

COPPER is available to all non-profit agencies including government departments, at all levels – local, regional (e.g., county), state, federal, and international – under a very nominal licensing basis that includes customizing and adaptation services by the designer team. The reason for this special offer to non-profits and governmental agencies is that these services such as are provided either solely within COPPER or in a much more efficient and pragmatic way, are needed by those entities serving the public, are deserved by those organizations, and should not be constrained from use, particularly in times and circumstances where public funding is under limitations and budget constraints, and where, simultaneously, communities in all parts of the world are faced with increasing adversities caused by extreme events, especially those caused by storms, earthquakes and other natural disturbances.

Access to the full COPPER portal requires user registration which is provided at no cost for persons with serious inquiry and legitimate intent.

If you are working for agencies such as (in the USA, for example), FEMA or other divisions of DHS, CDC or other divisions, the Dept. of Defense, or state/local emergency management, health, hazmat and homeland security departments, then we hope you will take advantage of what COPPER can provide to you.

Among other benefits, COPPER and the experienced team that has developed it can assist your agency or organization in more effective and economical negotiations, contracting, and oversight management with respect to private contracting companies that provide a variety of services such as debris removal and management, temporary housing, highway and levee repair, building demolition, and other challenges in either preparation or response to major life-threatening emergencies.

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Information Technology Resource Features and Requirements

- Management, storage, editing, and delivery of information resources to the project community
    - Maps, diagrams, and charts in multiple formats and modes (real-time GIS, top, street, satellite, others)
    - Images (photos and videos) including assessment/evaluation of locations & regions (e.g., damage or threat)
    - Reports, presentation, articles, memos (including selected external and public source material)
- Control and distribution of information on incidents, accidents, risks, threats, complaints and real-time issues
- Estimates, forecasts, predictions, projections about conditions (natural or man-made), work demands, public health risks and conditions, CBRNE situations, traffic and evacuations, supplies and deliveries, and more
- Access and interfaces to project databases for transactional and DBMA purposes
- Tracking, locating, redirection and time/fuel optimization of vehicles, equipment and personnel
- Ticketing and logging of supply and hauling loads including debris-pickup management
- Load measurement for trucks and other vehicles hauling supplies or debris
- Conduct of special operations for data collection and assessment using UAV, ALV and other robotic technologies
- Access and management for specialized environmental, health, medical, safety, security applications and systems
- Specialized internal and external models, simulations, forecasts and other computer-based tools
- Resource and supply-chain management, inventory control and user/customer response and support
    - Supplies and equipment for project operations
    - Water, food, fuel, medicine, shelter and other immediate/near-term needs for affected populations
    - EcOasis Pods (mobile life-support and energy modules) for use throughout affected regions
- Operational Continuity and Fault-Tolerant Asymmetric Threat Resilience
- Individualized, customized online workspaces (including teleconferencing) for project teams to use internally
- Real-time project alerts/needs/requests management and distribution
- Comprehensive project personnel contact and communication management including voice, SMS and email

In brief, if it is a task that needs to be performed or managed or reviewed, COPPER provides a way to do that.

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System Operating Environments

Server Requirements

COPPER is designed to operate on a variety of server hosts. The system can be configured to operate on a shared server, a dedicated server or server farm, or in a cloud-based computing environment. The standard environment, which can be rapidly changed to meet project requirements, requires Linux, PHP, Apache, and MySQL. Detailed tech-specs are available from the COPPER Master Operating Manual (MOM).

End-User Requirements

COPPER will operate on any PC, laptop, PDA or smartphone that is internet-enabled and equipped with a standard-industry browser. Disk-less network devices are supported, but optimally the end-user will have minimally a Windows XP laptop, an iPad, or an iPhone or Android class of handheld device.

COPPER has been designed to produce a "minimal IT footprint" in terms of computing, internet, and wireless communication demands. If something can be seen and edited in a standard browser window, then it can be incorporated as data or as an application into COER for a given project.

FUNCTIONS OVERVIEW

The following are examples of functions that are among the large and open-ended repertoire that COPPER can employ and deliver, using its collaborative and synergy-driven population of techniques and tools:

- RFID and GIS management of equipment, vehicles, supplies, personnel & situation data (e.g., assessments, hazards, risks, threats)
- Micro-helicopter (remote-operation, radio-controlled, wi-fi connected with the internet) or manned aerial surveillance and estimation of potential damage, debris concentrations and volumes, flooding, fire-threats, evacuation-route statuses, and more
- Bicycle-based performance of the same types of tasks (using both mountain-bikes and new wind-assisted "wikes")
- Automated and AI (artificial intelligence) assisted tracking and locating and estimating of future position and timing for people, vehicles, special equipment, supplies, including civilian population evacuation, emergency sheltering, and return
- Automated load calculation and verification of hauling-truck loads (debris and refuse, or material and supplies)
- Accurate and rapid field-tested deployments of sensors, detectors, monitors, and analytical instrumentation for identification and tracking of IDLH (immediate danger to life and health) chemicals, biological agents, and radioactive substances
- Effective suite of rapid-deployment shelters for emergency habitation, offices, storage of supplies including large machines and vehicles including oversize trucks and earth-moving equipment
- Seamless fault-tolerant messaging including fall-back and alternate team notifications, using SMS, voice, and video, for staff that need to be notified, redirected, placed out of danger, sent to new assignments
- AI-assisted real-time integration with public health, epidemiology, nutrition, CBRNE, public safety and security systems (internal and external to COPPER) for proactive, preventive, responsive, and counter-pandemic/panic action

Contact TETRADYN for additional information, for access to the operational hands-on environment and to discuss customization, implementation, data-collection/entry, training and support.

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