The Data Centers of the Future Are Here

Elliptical Mobile Solutions ®

The Global Leaders in Micro-Modular Data Centers ™

In today's rapidly changing information technology (IT) environment, businesses are looking for solutions to manage their infrastructure, reduce costs, and improve operational efficiencies.

Traditional "bricks and mortar" data centers have become overly complex, costly to build, and extremely inefficient. Even containerized data centers, which are an alternative, fail to adequately address space, cost, and energy inefficiencies.
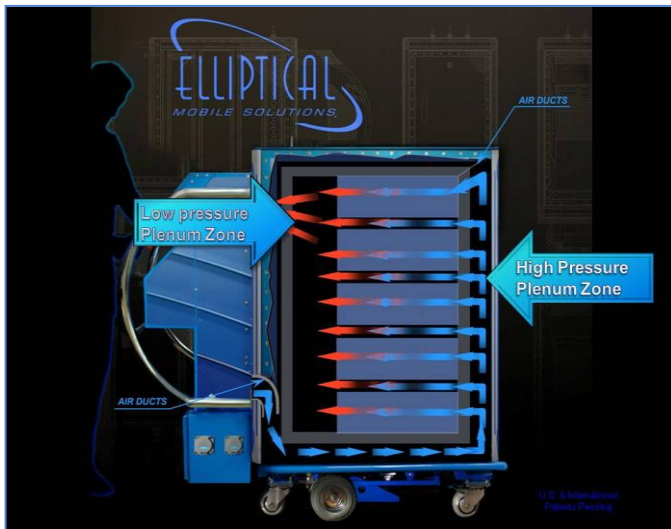
Elliptical Mobile Solutions' Micro-Modular Data Centers™ go to the next level in terms of implementation, management, mobility, energy-efficiency, and cost-effectiveness.

Our "data centers in a box" offer the most advanced IT solutions on the market today.

Is your business able to keep up with the rapidly changing Information Technology (IT) Environment?

Would you like to significantly reduce the costs to build, expand, or maintain your data center?

How about reducing the costs to cool your equipment by up to 80% while dramatically decreasing greenhouse gas emissions?

Elliptical Mobile Solutions has the answers.

ENERGY EFFICIENT

Skyrocketing electrical costs to cool and maintain data centers are among the most critical problems in today's IT world. Elliptical Mobile Solutions' (EMS) patented **closed loop cooling** confines the hot and cold aisle within the rack so that cooling is applied directly to the equipment.

- Manage power consumption, cooling delivery, and temperature set points at a rack level.
- Dramatically reduce your cooling costs by up to **80%,** and electrical costs by up to **50%,** compared to a traditional data center.
- Significantly reduce harmful greenhouse gas emissions.

HIGH-DENSITY = CAPEX, OPEX SAVINGS

If you plan to build a new data center or are in need of a data center retrofit, our Micro-Modular Data Centers offer a quick and cost-effective solution. Traditional data centers require that the majority of the infrastructure be built upfront and support not only current needs but future demands as well. Our enclosures can be designed, built, fully populated, and delivered within 8 weeks compared to 5 to 24 months for a traditional data center.

- Reduce the costs to plan, build, and implement your new facility by up to **80%.**
- Have a fully functional data center that is cost, space, and energy-efficient within weeks instead of months or years.

Our industry standard 19-inch racks are fully adjustable and allow you to utilize the latest high-density solutions including powerful blade servers, network, and Telco gear. A choice of customized options enables you to increase server capacity and take advantage of co-location, cloud computing, and virtualization technologies. Our airtight enclosures include onboard cooling, security, and fire-suppression.

- No need for the large room, big iron, and raised floors to run your equipment.
- Reduce the footprint of your facility by up to **75%.**
- Save up to **65%** in operating costs.

SCALABLE

Our Micro-Modular Data Centers are perfectly scalable, providing you with the building blocks to add computing capacity as needed.

- Eliminate the need for 10- to 20-year projections that result in "over" and "under" builds.
- Grow your data center horizontally – from 1 to100 units – without disrupting existing operations.
- Build as you need and pay as you grow.

DEPLOYABLE

Our Data Centers can be moved anywhere in the world very quickly and inexpensively. There's no need for the 20-foot shipping containers and cranes required to move containerized data centers. Our products can be managed and moved by one individual.

Our patented adaptive suspension uses In Motion Engineering™ to eliminate the harmful effects of motion, shock, and vibration.

- Have a data center where you want it, when you want it, and for however long you want it.
- Reduce the costs to pack, transport, and set-up your new facility by up to **50%.**
- Keep your equipment safe and wellprotected in any standard or mobile commuting environment.

MOBILE

Our S.P.E.A.R. and C^3-S.P.E.A.R. enclosures offer power-assisted mobility, allowing one individual to move up to 1,000 pounds of rack-mounted IT equipment at the push of a button.

- Micro-sized units can fit through any standard-sized door, be loaded onto and off of a standard elevator, and moved to any part of your office or relocated to new headquarters.
- Our R.A.S.E.R. can be moved with an ordinary pallet jack or forklift.
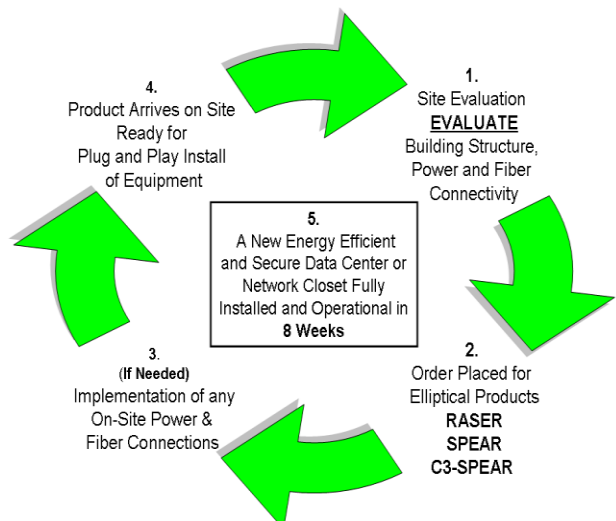
Power Assisted Mobility

SUPPORT

Our "First to Market" solutions, backed by our experienced, certified professionals, guarantee you unparalleled support and peace of mind.

- Products feature on-board security and can be remotely monitored.
- EMS enclosures have a one-year warranty and 24/7 technical support.
- Extended warranties are available.

INSTALLATION PROCESS

Our enclosures are easy to implement requiring: site survey, powered connectivity and installation.

1. Site Evaluation **EVALUATE** Building Structure, Power and Fiber Connectivity

2. Order Placed for Elliptical Products **RASER SPEAR C3-SPEAR**

3. (If Needed) Implementation of any On-Site Power & Fiber Connections

4. Product Arrives on Site Ready for Plug and Play Install of Equipment

5. A New Energy Efficient and Secure Data Center or Network Closet Fully Installed and Operational in **8 Weeks**

Relocatable **A**daptive **S**uspension **E**quipment **R**ack

R.A.S.E.R. is a full-height (42U) vendor neutral, high-density, Micro-Modular Data Center. These enclosures feature onboard cooling, security and fire suppression and can fully replace the building shell of a traditional data center.

Customers can add single modules or groups of modules as their requirements increase providing a perfectly scalable and cost-effective IT solution.

KEY FEATURES:

- Built-in closed loop cooling can support 12KW of IT air cooled or 16KW water cooled A/C

- Mission critical venting available

- Exterior welded steel shell and frame provides a rigid support allowing an equipment load of up to 1,500 lbs.

- Welded and sealed panels provide superior strength and create a NEMA 4R enclosure that protects equipment from the elements

- Industry standard 19" wide X 42" deep racks are fully adjustable for depth

- Environmental network monitoring available

- Dual power inlets for a true Tier IV data center

APPLICATIONS:

- New Data Center Build
- Data Center Retrofit or Expansion
- High-Density Zone
- Infrastructure Upgrade and Hardening
- Remote Office Support
- Cell Tower Replacement
- Offsite Data Replication
- Disaster Recovery
- Business Continuity

S.P.E.A.R.

Self-Propelled Electronic Armored Rack

S.P.E.A.R. is a 22U mobile, hardened, self-contained Micro-Modular Data Center. The unit is designed for agile, high-density applications where mobility, shielding, environmental protection, and disaster tolerance are priorities.

Customers can order a variety of options such as onboard power conditioning, remote monitoring, and integrated WI-FI.

This small, yet powerful (up to 6KW) data center can be installed, completely sealed, and connected for a broad range of indoor and outdoor computing scenarios.

KEY FEATURES:

- Single or dual onboard closed loop cooling

- Self-propelled platform allows one person to move up to 1,000 lbs of equipment up a 6% grade

- Patented In Motion Engineering™ suspension protects equipment from severe shock, motion, and vibration

- Threat Level 1 aluminum armored plate optional

- Industry standard 19" wide X 42" deep racks are fully adjustable for depth

- Hermetically sealed environment that protects all equipment from the elements

- Optional 4.0 kVA line conditioner

- I/O panel, front and rear doors, and motion systems can be secured by tamperproof CyberLock system

APPLICATIONS:

- Mobile Computing
- Mobile Command Center
- Military Communications
- Border Checkpoints
- Emergency Management
- Airport/Ports of Call
- Infrastructure Upgrade and Hardening
- High-Density Zone
- Disaster Recovery

C^3-S.P.E.A.R.

Climate-**C**ontrolled **C**ampus **S**elf-**P**ropelled **E**lectronic **A**daptable **R**ack

C^3-S.P.E.A.R. is a 24U micro-modular data center that provides 2.5KW and up to 6KW of closed loop cooling directly to the equipment.

The self-propelled feature creates a stable platform in which a user can move up to 1,000 pounds of rack-mounted electronic equipment.

The patented In Motion Engineering™ suspension protects sensitive equipment from vibration and shock sustained in a mobile environment.

C^3-S.P.E.A.R.'s small, scalable nature provides an inexpensive data center solution or co-location alternative.

ABOUT EMS

Founded in 2005, Elliptical Mobile Solutions has invested more than four years developing, testing, and patenting its equipment. Our goal is to provide businesses with the most advanced IT solutions on the market while improving energy, capital, and operational efficiencies.

The R.AS.E.R., S.P.E.A.R. and C^3-S.P.E.A.R. have been recognized for breakthroughs in rack-level density and rapid deployment, as well as space, power, and cooling efficiencies.

Headquartered in Chandler, Ariz., EMS has more than 100 associates in locations around the globe.

OUR GREEN MESSAGE

Energy consumption and cooling requirements by today's data centers have become critical considerations.

The data center industry is the fourth largest producer of carbon dioxide emissions, accounting for 3 percent of global pollution, according to the Department of Energy (DOE).

The DOE predicts that if the industry continues at its current pace, 14 new coal plants will need to be built by the year 2012 in order to support that growth.

Our technology offers the lowest cost per kilowatt of compute capacity in the market place today – as low as **$3,600/KW**.

Our goal is to move the data center industry from being a huge consumer of electricity to being a small consumer of clean energy.

OUR STRATEGIC PARTNERS

At EMS, we are committed to partnering with the world's leading technology and business solution providers whose products and services support and complement our own. We offer a program for a limited number of authorized partners who can provide value and loyalty to our customer base in locations throughout the globe. To view all of our partners, please visit our website at: **www.EllipticalMobileSolutions.com**.

"This can be seen as a breakthrough in constructing technology centers to store data in Vietnam… In regards to technology and equipment related to building data centers for Internet Service Providers (ISP), the EMS solution allows quick, efficient and flexible deployment." -- *Deputy Minister Le Nam Thang, Ministry of Information and Communication, ("MIC") Vietnam*

"The C-S.P.E.A.R. solution will enable the city to have a mobile disaster recovery facility with the ability to relocate it on a moment's notice in the event of an emergency (and) to get our critical applications on-line and operational in a different location." -- *Kevin Hinderleider, IT Director, City of Avondale, AZ.*

"The implementation of the large and expensive (containerized data center) solutions is still not possible for 90 percent of the business world. A rack-level solution that captures the advantages of containerized computing in a smaller, less expensive footprint is required. Micro (Modular) Containerized Data Centers are a viable answer." -– *The Uptime Institute's Green IT Symposium, 2009, New York City, NY.*

"Judicial Members liked the C^3-S.P.E.A.R. due to its small size and the fact that it's mobile. The Data Center will provide a secure platform for the Hopi Judicial Tribal Courts' e-mail database, scanning, digitization, and storage. It provides the perfect solution for our needs."
-- *Camelia Dewakuku, computer specialist, Hopi Judicial Tribal Courts, Keams Canyon, AZ.*

"Infrastructure systems are expected to represent about 90 percent of the energy use of IT equipment in 2011."
-- EPA Report to Congress 2007

"Without radical changes in operations, many companies with large data centers face reduced profitability." -– *McKinsey & Company Analysis*

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