# AI-ready infrastructure

Iron Mountain Data Centers (IMDC) has extensive experience in supporting both traditional Machine Learning (ML) and generative Artificial Intelligence (AI) applications for customers using High-Performance Compute (HPC) architectures in the data center.

Generative AI models are among the most powerful and compute-intensive applications, and require specialized infrastructure. Typically, AI applications require much higher-density power than standard customer equipment, with matching advanced cooling capability and more extensive backup resources to maintain uptime. They operate best with modular architectures which can be added to easily as more processing, memory, and power are needed.

Server architecture typically doubles year-on-year and new and more efficient chips are constantly being launched . This, and the exceptional power requirements of AI, makes the selection of efficient components combined with low-or-no-carbon power a critical factor, as well as effective equipment lifecycle management and recycling, particularly for high-value GPUs.

# AI: infrastructure requirements at IMDC

## Top 10 considerations when selecting AI-ready infrastructure are

### Power density
Ultra-high-density power of from 30-50 kW/rack

### Backup power
Robust backup power for 24/7 operation with a range of low-carbon fuel sources, including battery and hydrogen power.

### Modular design
elastic architecture for additional complexity, new datasets and exponential growth

### Advanced cooling
Advanced cooling for heat-intensive rendering and extended hardware lifespan

### Rich connectivity
High-bandwidth network ports for data upload during training phase

### Low latency
Low latency connectivity to inference points, particularly for real-time and immersive AI; this may require a distributed network of data centers

### Infrastructure efficiency
Optimized facility PUE and latest GPUs to minimize costs and waste

### Strong security
Certified protocols to safeguard generative models and proprietary data, combined with a global compliance program
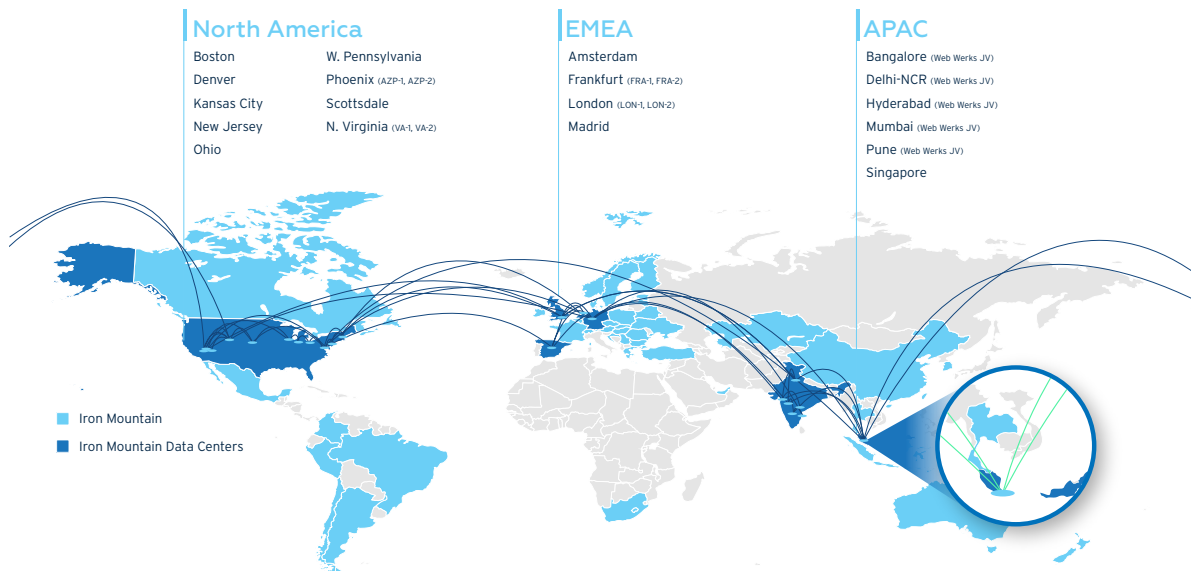
### Route to decarbonization
100% renewable power, with defined path to 24/7 Carbon Free Energy operations

### ALM
Asset Lifecycle Management for optimized compute performance and recycling/remarketing/resale of precious servers, CPUs and GPUs

---

**North America**

| | |
|---|---|
| Boston | W. Pennsylvania |
| Denver | Phoenix (AZP-1, AZP-2) |
| Kansas City | Scottsdale |
| New Jersey | N. Virginia (VA-1, VA-2) |
| Ohio | |

**EMEA**

Amsterdam
Frankfurt (FRA-1, FRA-2)
London (LON-1, LON-2)
Madrid

**APAC**

Bangalore (Web Werks JV)
Delhi-NCR (Web Werks JV)
Hyderabad (Web Werks JV)
Mumbai (Web Werks JV)
Pune (Web Werks JV)
Singapore

Iron Mountain
Iron Mountain Data Centers

---

## 833.IRM.COLO  |  ironmountain.com/data-centers

**About Iron Mountain Data Ceters**

Iron Mountain Data Centers operates a global colocation platform that enables customers to build tailored, sustainable, carrier and cloud-neutral data solutions. As a proud part of Iron Mountain Inc., a world leader in the secure management of data and assets trusted by 95% of the Fortune 1000, we are uniquely positioned to protect, connect and activate high-value customer data.  We lead the data center industry in highly regulated compliance, environmental sustainability, physical security and business continuity. We collaborate with our 1,300+ customers in order to build and support their long-term digital transformations within our 4M+ SF global footprint spanning 3 continents.  For more information, visit www.ironmountain.com/data-centers.