



# Supermicro Powers Mobile with CloudMosa

## Mobile Devices Enrich our Lives

Mobile devices are an increasingly important part of our daily lives. Specifically, users want and need web pages and video streams “on the go” that appear instantly and play seamlessly. This can present a problem for handheld devices with their limited processing power, memory capacity, and communications functionality due to constraints on cost, size, and weight. Therefore, applications which might make mobile devices more responsive and efficient are in huge demand.

## CloudMosa is #1 in Mobile

Enter CloudMosa, a startup offering users a desktop-class experience on their mobile devices ([www.puffinbrowser.com](http://www.puffinbrowser.com)). CloudMosa achieved this by developing technology to shift the workload from the mobile devices to cloud servers. By outsourcing computing-intensive tasks to the cloud, resource-demanding web applications can run smoothly on resource-limited devices.

CloudMosa’s Puffin Web Browser, for example, displays web pages on mobile devices faster and easier than other applications. Puffin has grown exponentially to become the #1 paid iPad utility in 50 countries, with 20M total users and 100M page views per day. It is also the #1 mobile browser in tens of countries, wicker fast and far superior to Safari and Chrome, growing at an incredible 40% per quarter. According to StatCounter, the Puffin Web Browser’s worldwide usage share-on-tablet was just 30% away from Firefox and 50% away from Opera (January 2014 data).

## CloudMosa and Supermicro- A Match Made in the Cloud

CloudMosa’s mission, then, is to accelerate the web experience of users on mobile devices through cloud computing. Initially, CloudMosa rented their server capacity from public cloud providers to allow rapid deployment of the Puffin web browser,

but costs grew too rapidly as service volume expanded. The next logical step, to purchase its own servers and install them within a collocation environment, was successful for a short time. But, again, the ability to squeeze the maximum value out of every co-to server soon lagged.

CloudMosa’s rapid growth made the decision to build its own cloud data centers from the ground up inevitable. CloudMosa’s approach of Supermicro, the leader in server technology, to help build and then rapidly grow its own cloud data centers.

Supermicro utilized its extensive experience in data center design and in optimizing server solutions from a wide variety of options to present several alternatives to CloudMosa. The need for highest density coupled with lowest cost eventually led CloudMosa to the Supermicro MicroCloud microserver.

## A Microserver Optimized for the Cloud

The energy-efficient 3U MicroCloud (SYS-5038ML-H24TRF) features 24 modular server nodes in 12 hot-swappable trays, each node supporting an Intel® Xeon® E3-1200 v3 product family processor, 32GB VLP DDR3-1600MHz UDIMM, 2x 2.5” SATA3 (6Gb/s) SSDs, dual Gigabit Ethernet LAN, and redundant 2000W Platinum Level Digital high-efficiency power supplies.



Supermicro SYS-5038ML-H24TRF  
MicroCloud Microserver

With 24 nodes in 3U, the MicroCloud offers 24 Intel® Xeon® E3-1240 v3 processors with 96 CPU cores running at 3.4GHz, and 768GB of DDR3-1600MHz DRAM. This provided CloudMosa with superb scalability to accommodate the rapid growth of its computing needs and to provide each of its users access to the “wicked fast” Puffin web browser economically. That, coupled with the Supermicro Platinum Level Digital high-efficiency power supplies, gave CloudMosa a substantial power savings.

“Our MicroCloud microservers from Supermicro have helped the Puffin web browser to become the world’s #1 mobile web browser,” said Shioupyn Shen, founder and CEO of CloudMosa. “With MicroCloud we have realized 5x cost savings and 30% power savings advantages over competitors’ systems based on the Intel® Xeon® processor E5-2600 product family, and a 40% cost savings over a similarly configured microserver from another Tier 1 supplier. This has made our data centers, one of the most critical elements of our business, highly productive and profitable.”



MicroCloud’s Rear Cabling Simplicity

**Microcloud Product Family**

CloudMosa selected its MicroCloud, optimized for data center applications, from a large and growing family of microservers.

MicroCloud comes in 24-, 12-, and 8-node versions. These are available with Intel Atom™, Xeon® E3-1200 v3, Xeon® E5-2600 v2, or AMD Opteron processor support, so customers can select the performance characteristics best suited for their applications. All models are available with up to 32GB of memory, while some models come with PCI-E expansion slots for additional functionality. All MicroCloud systems utilize Platinum Level power supplies for highest power efficiency. The MicroCloud is perfectly suited for Cloud Computing such as the CloudMosa Puffin application, Web Cache, CDN, Video Streaming, Web/ Collocation Service, and Social Networking and Download.

**Microcloud: Highly Scalable with Rapid Deployment**

CloudMosa found the MicroCloud perfectly suited for its new data centers. Because Supermicro offered the system as a high density rack mount server unit already populated with CPUs, memory, and SSD drives, and completely tested to ensure highest quality, integration costs were low and deployment was easy and rapid.

The simple cookie-cutter solution that Supermicro provided gave CloudMosa additional capacity in units of 288 x 2 CPU cores and 2,304GB x 2 of DRAM, well matched to its rapid business growth rate.

Deployment of the MicroCloud was likewise a breeze. Each rack unit took only 2 hours to install, with no requirement for additional KVM equipment and related cabling connections. Auto-everything (auto-detect, auto-configuration, auto-deployment) ensured that CloudMosa could bring its new MicroCloud systems into service in record installation-to-deployment time.

**CloudMosa Achieves Success with MicroCloud**

The Supermicro MicroCloud has been a commercial success for CloudMosa. Compared to renting Amazon cloud services at \$60K per month in rental and usage fees, the MicroCloud systems offer an \$80K one-time capital expense and a \$2K monthly fee. Thus, the MicroCloud pays for itself in less than 2 months. That translates to live vs. die for CloudMosa.

*For more information on the Supermicro MicroCloud, please contact your Supermicro Sales Representative or visit:*

**<http://www.supermicro.com/products/nfo/MicroCloud.cfm>**