



## AMD Powered Thin Clients are Ideal for:

HEALTHCARE  
FINANCE  
GOVERNMENT  
RETAIL  
EDUCATION

Estimate your total operating costs and energy savings enabled by AMD powered thin clients with our TCO Calculator.

## AMD Thin Client Solutions:

### **AMD Embedded SOCs**

AMD Embedded G-Series  
optimized for low power

AMD Embedded R-Series  
optimized for low power

AMD Ryzen™ Embedded V-Series  
optimized for ultra-high performance, with support for up to four independent 4K displays

### **AMD Discrete Graphics**

AMD Embedded Radeon™

AMD Radeon™ Pro

for enhanced graphics and compute

### *Application Brief: AMD Thin Client*

## Thin Client Solutions Drive Workflow and Cost Efficiencies, with Uncompromising Multimedia Processing Performance

The evolution to cloud computing and virtual desktop infrastructure (VDI) has transformed the way data is stored, managed and accessed, accelerating the transition from legacy desktop PCs to thin clients across a wide range of use cases spanning healthcare, finance, government, retail, education and beyond. With increasing amounts of data and applications now residing in the cloud, thin clients enable secure “anytime, anywhere” access flexibility, with management and cost efficiencies that are hard to achieve with individually administered desktop PCs.

Thin clients powered by AMD Embedded SOCs deliver high performance compute and graphics processing, multi-display configurability, enhanced power efficiency, and 4K HD video support. Delivering PC-caliber user experiences with an attractive total cost of ownership (TCO), AMD powered thin clients can increase workforce productivity for end users and IT administrators alike.

### **Thin Client Benefits:**

#### **Fast, Flexible Access**

Thin clients provide users with secure, credential-verified access to data and applications in the cloud, regardless of the system they’re using – ideal for environments where users share multiple systems.

#### **Ease of Management**

Centralized, cloud-based data storage and administration precludes the need to configure, manage and backup individual PCs – cumbersome processes that consume valuable IT resources.

#### **Energy Efficiency**

Thin clients can be more energy efficient than desktops due to lower system power footprints, conserving energy at the device level which then ripples throughout the thin client network.

#### **Security and Protection**

With thin clients, all data is stored and protected centrally, helping minimize the risk of data loss and/or malicious data tampering and theft at the device level.

#### **Regulatory Compliance**

Thin clients are inherently easier than PCs to configure and update as regulatory mandates evolve – patches and updates are applied directly to the cloud or other centralized infrastructure, and automatically propagated to virtual desktops.

**Reliability**

Thin clients are typically fanless and do not have local hard disk drives, thereby minimizing moving parts that can fail and cause additional maintenance costs – industry reports state that on average, thin clients can last 2-3X longer than conventional desktop PCs\*.

**The AMD Advantage:**

AMD Embedded SOCs set the standard for performance and energy efficiency for thin clients targeting healthcare, finance, government, retail, and education applications. Organizations of all sizes can take advantage of AMD powered thin clients to help optimize workflow efficiency, improve data security and lower their operational costs.

**Key AMD Benefits:****4K Multimedia Performance**

Full 4K support at 60Hz enables exceptional video and graphics quality, with hardware acceleration for 4K video leveraging video codecs like HEVC/H.265, VP9 and others<sup>1</sup>, with support for multiple video streams. Ultra-high-resolution graphics enable large amounts of data to be displayed onscreen without compromising visual clarity or straining the eyes.

**Optimal Performance and Power Profiles, in Small Form Factors**

AMD Embedded SOCs provide single-chip CPU, GPU and I/O controller integration, and are available in a wide range of performance and thermal design power (TDP) profiles, helping designers achieve optimal performance-per-watt and enabling myriad deployment and configuration possibilities that can reduce system hardware footprints.

**Multi-display Configurability**

AMD Embedded SOCs enable designers to create a wide range of display configurations, allowing the display of different content on separate screens or the spanning of content across multiple screens in a number of different configurations in formats including DisplayPort 1.2, HDMI™, DVI and LVDS. A single AMD Ryzen™ Embedded V-Series SOC can power up to four independent displays in brilliant 4K resolution.

**x86 Ecosystem Compatibility**

AMD Embedded SOCs enable broad software support spanning VMware, Citrix, Windows®, Linux® and other platforms. Multithread processing for VDI and cloud-based infrastructure helps ensure enhanced computing efficiency.

**Ease of Deployment**

Simplified, remotely-administered configuration and set up makes thin client deployment virtually effortless, and their compact form factors enable a wide range of configurations in space-constrained environments.

AMD Embedded SOCs are available in a wide range of performance, power and security profiles, and are renowned for their graphics processing capabilities. Supporting multi-display configurability, with 4K video support, AMD-based thin clients equip users with rich multimedia capabilities that rival conventional desktop PCs.

**Scalable Solutions**

AMD Embedded solutions enable a range of performance, power, and multi-display options for low-end, midrange, and high-end product designs, with pin compatible options and software stack compatibility for streamlined design cycles and low development costs.

**Expansive I/O Options**

AMD Embedded SOCs provide robust support for new and established interconnects, including PCIe®, GbE, USB-C, and NVMe.

**Advanced Security**

AMD Embedded SOCs feature an on-board AMD Secure Processor designed to enable secure Hardware Validated Boot capabilities, complemented by additional security features that help defend against unauthorized memory access, and partition and protect sensitive data sets. Advanced capabilities include Secure Memory Encryption (SME) for defending against unauthorized memory access, and Secure Encrypted Virtualization (SEV) for securely isolating hypervisors and virtual machines (VMs) – with no application code changes required. The AMD Ryzen™ Embedded V-Series provide additional security features with one-time programmability (OTP) allowing customers to manage their own encryption keys.

**AMD.com/embedded**

1. HEVC (H.265), H.264, and VP9 acceleration are subject to and not operable without inclusion/installation of compatible HEVC players. GD-81

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\* "Think green, think thin: Green IT saves energy and money" white paper. [https://static.acer.com/up/Resource/Acer/Professional/Vertical%20Segmentation/How%20We%20Can%20Help/Documents/20130425/government\\_HWCH\\_GreenIT\\_Whitepaper.pdf#\\_ga=1.160212541.1844607993.1488298907](https://static.acer.com/up/Resource/Acer/Professional/Vertical%20Segmentation/How%20We%20Can%20Help/Documents/20130425/government_HWCH_GreenIT_Whitepaper.pdf#_ga=1.160212541.1844607993.1488298907)

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