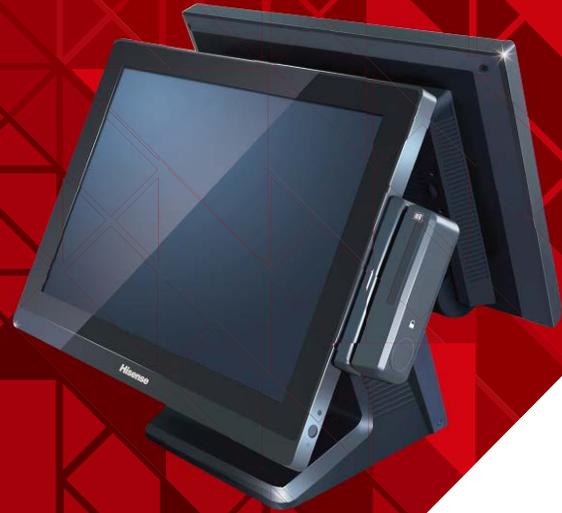


Intelligent remote management-enabled POS terminal solution

**Customer:**

Hisense Intelligent Commercial System Co., Ltd. (HICS)

Industry:

Commercial, retail

Solution:

The core of the HICS intelligent remote management-enabled POS terminal solution is the AMD Embedded G-Series SOC (System-on-Chip). Specifically, through the X86 processor platform built into the SoC, HICS is able to improve the efficiency of their management software development, thereby solving many of the remote management problems of commercial users (involving POS terminals). Through the high quality, reliability, energy efficiency and advanced design of embedded the SoC, it is possible for HICS to effectively reduce the TCO, thereby enhancing the IT operational level for commercial users.

Challenges:

Faced with increasingly fierce market competition in the commercial, retail cashier terminal system sector and the resulting development challenges, HICS chose to build a point-of-sale (POS) terminal platform solution supporting intelligent remote management, hoping to create new business value for their customers.

Results:

HICS has successfully enhanced market competitiveness, and consolidated its leadership in the market. The company's POS products have occupied 56% of China's top 100 commercial chains market. At the same time, their medium commercial and retail customers have enhanced their business management efficiency and IT operations management level, and obtained greater development momentum.

AMD Embedded G-Series SOC Helps Accelerate Development of Commercial and Retail POS Industry

HICS works with AMD to create an "intelligent remote management enabled-POS terminal platform" for stronger market leadership

Hisense Intelligent Commercial System Co., Ltd. (HICS) is a core subsidiary of Hisense Group in the information technology market. As a leading enterprise in the domestic POS terminal sector, HICS has been taking the lead in the POS market for many years. With 24-hour call service centers and one of the industry's most comprehensive, professional and extensive service network, HICS can provide commercial users with near-perfect support services. In the extensive practice of customer service, HICS has found many problems in the cashier management of commercial users, mainly in their business management, IT operations and future development.

First, non-transparent financial collection services management. Their finance and business management departments had no all-scenario visibility into checkout counter operations, increasing the time spent on sales invoice issuing, checkback, vouching, reduction and failure handling, and affecting services efficiency. Second, an irrational IT operation model. It was almost impossible to establish a failure alert mechanism for the POS machines. The IT staff was unable to update or maintain POS systems remotely and flexibly, and had to spend much more time on onsite handling of IT troubles. Lastly, factors that hindered scaling. For example, POS machines were limited by IO scalability and cannot access to new information receiver or other devices, onsite POS maintenance approach drove complexity and inefficiency into IT maintenance processes, and POS machines with their high energy consumption & short lifecycle also represented a black hole of investing.

Specifically, due to the non-transparent cashier service management, many customers' financial and business management departments could not conduct a complete, visual monitoring on the cashier desks, therefore, it took a long time to solve the problems in the sales bill generation, withdrawal, review and reduction, which seriously affected the cashier service. Because of inadequate IT operations, and lack of early warning against failure of a cashier POS machine, IT technicians could only conduct the maintenance work after a failure occurred. In the absence of remote POS system update and equipment maintenance, IT technicians had to solve IT failures on

site, which wasted a lot of time and energy. Additionally, there existed too many development restraints, including the failure of connecting new information input devices or other devices due to insufficient I/O expansion capacity of the cashier POS machines. The cumbersome and inefficient IT maintenance and the high energy consumption and short lifecycle of cashier POS machines, resulted in an investment blackhole.

As a result, HICS decided to design their next-generation POS around the AMD Embedded G-Series SOC to build an advanced, efficient and intensive "intelligent remote management enabled-POS terminal platform" to fundamentally solve the above industry challenges, and further consolidate its market leadership while improving the market competitiveness.

AMD Embedded G-Series SOC Solution is an Ideal Choice for Now and the Future

HICS chose the AMD AMD Embedded G-Series SOC solution, because they wanted to solve the current problems of many of their commercial and retail users and plan for the future. After a series of intensive testing and design, they achieved success.

The AMD Embedded G-Series SOC has an exquisite design which helps simplify the R&D of application management software and improve the efficiency of development through a standardized X86 processor platform that integrates the CPU, GPU, memory controller and I/O controller in a single chip. The SOC design helped HICS to streamline the R&D of related hardware and further shorten the R&D time. Additionally, the AMD Embedded G-series SOC platform can provide a dual-port high-quality visual experience and DirectX 11.1 graphics support to help remote monitoring staff obtain a clear image and ensure monitoring quality. Finally and most importantly, commercial users can rely on the solid design of the AMD Embedded G-Series SOC to help enhance IT operational levels. For example, the SoC adopts an advanced energy-saving design, has lower energy consumption, and dynamically adjusts the energy consumption according to the load; its fanless design can save more operating costs. The AMD G-Series SOC is very stable, not only supporting enterprise-level ECC memory, but also adopting an innovative, small packaging design which reduces its footprint by 33 %¹.

In terms of future development, the AMD Embedded G-Series SOC provides upgraded I/O architecture that supports four PCIe Gen2x1 slots, eight USB2.0 & two USB3.0 slots, two 6Gb/s SATA storage, an SD card reader and other I/O interfaces to lay a good foundation for future expansion. Additionally, AMD offers 5-10 years of practical technical support, which can help with platform upgradability, and the AMD Embedded G-Series SOC has a lifecycle up to 10 years², which significantly enhances the return on investment. It is also important to note that the AMD G-Series SOC can endure a temperature from -40 °C to +85 °C, thus helping to eliminate the impact of environmental fluctuations on the system, and further help users achieve long-term product use.

HICS Successfully Serves More than 300 Large-scale Retail Enterprises and 20,000 Small- and Medium-sized Commercial Business Customers

The technology partnership between HICS and AMD has successfully helped HICS quickly launch a number of high-performance, multi-configuration, low-power and ultra-stable intelligent remote management-enabled, new commercial cashier POS machines, which is expected to tremendously enhance their market competitiveness and expand their market leadership. The company's POS products have occupied 56%³ of the top 100 commercial chains market.

At present, HICS has sold more than 300,000 units of related hardware in the Chinese market, successfully served more than 300 large retail enterprises and more than 20,000 small- and medium-sized commercial business customers, and created remarkable commercial value in the business management, IT operation and future development of the POS industry.

"HICS' intelligent remote management enabled-POS terminal platform has been widely recognized by the market, and created remarkable commercial value for commercial enterprises in the business management, IT operation and future development. In particular, the scientific design of AMD Embedded SOC has played an important role. In the future, we will deepen the cooperation with AMD in the embedded sector to create more value for all types of commercial users."

Mr. Zhai Yongqing, Sales Manager of Hisense Intelligent Commercial System Co., Ltd.

About Hisense

Hisense Intelligent Commercial System Co., Ltd is a professional vendor of complete intelligent commercial system solutions, including hardware, software, consulting, operation & maintenance, as well as an array of endpoints. The company is now one of the most influential brands in China's commercial intelligent system industry with over 300,000 units sold to various business segments. 65% of China's 100 top chain companies are its customers. The company is also the only service provider that has its own service outlets across 28 provinces/municipal cities.

For more information, visit <http://www.hisense.cn>.

About AMD

AMD is a semiconductor design innovator leading the next era of vivid digital experiences with its groundbreaking AMD Accelerated Processing Units (APUs) that power a wide range of computing devices. AMD Embedded Solutions give designers ample flexibility to design scalable, x86- based, low-cost and feature-rich products, and drive energy conservation into their systems without compromising application performance or compatibility, graphics performance or features.

For more information, visit www.amd.com/embedded.



1. AMD G-series SOC is a small-size, low-energy-consumption solution that can reduce overall system cost. Compared to AMD G-series APU chipset platform 1, SOC design can reduce up to 33% of package by using less board layers and simplified power supply.
 2. AMD embedded G-series SOC can reduce TCO and deliver higher ROI without compromising its excellent features, performance and efficiency. It drives higher quality, reliability and energy efficiency into the system, helping reduce TCO. It also delivers extended usability and support (5-10 years) to maximize ROI.
 3. The data comes from Hisense official website, http://www.hisense.cn/kx/xwzx/201503/t20150330_92823.shtml
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