



#### CASE STUDY SUMMARY:

#### Customer:

BARCO

#### Industry:

Office Productivity and Collaboration

#### Challenges:

Legacy boardroom multimedia systems are cumbersome to use, and can sap valuable meeting time and limit team collaboration. Barco sought to overcome these problems with an enterprise-class wireless presentation solution that simplifies the user experience without compromising video and graphics performance.

#### Solution:

AMD Embedded R-Series SOCs provided Barco with a tightly integrated processing platform that delivers exceptional performance-per-watt, dual display configuration flexibility, and stunning 4K resolution.

#### Results:

With the click of a button, Barco's ClickShare CSE-800 enables meeting participants to wirelessly share their screens with ultra vivid 4K visual clarity and high-speed graphics processing to seamlessly support up to eight onscreen participants.

#### AMD Technology at a Glance:

AMD Embedded R-Series SOCs

#### AMD Case Study –

## Barco Simplifies Boardroom Multimedia Presentations and Interactive Collaboration with Help from High-Performance AMD Embedded R-Series SOCs

ClickShare CSE-800 wireless presentation solution delivers dual-screen 4K video and graphics, true collaboration, and supports up to eight simultaneous users onscreen.

“Time is money” is a familiar mantra in the offices and hallways of successful companies, and nowhere is this more true than in the in the large meeting rooms and boardrooms, where key decision makers gather together to plan company strategy. In these settings, wasted time translates into wasted opportunities to sharpen a company’s competitive edge, with downstream implications for corporate success and profitability.

Nevertheless, meetings are commonly plagued with technical difficulties during multimedia presentations, sapping valuable time and frustrating meeting participants. Too often, presenters find themselves fumbling with a jumble of cables that may or may not be compatible with their devices, and/or downloading and installing software on the fly to access the office conferencing portal – a troublesome situation that’s magnified every time a new presenter joins in. Most of us have experienced this phenomenon first hand, and studies have shown that it’s a rampant problem. Research confirms that 9 in 10 office workers across the United States, UK, France and Germany experience technology-related stress in meetings<sup>1</sup>

## SIMPLE SOLUTION, HARD DESIGN CHALLENGES

Barco ([www.barco.com](http://www.barco.com)) is meeting this challenge head on with its portfolio of ClickShare wireless presentation solutions. ClickShare was designed to enable meeting participants to wirelessly access a conference room's multimedia display with effortless, push-button ease, and allows multiple presenters to share the screen simultaneously. Users simply connect a ClickShare USB-powered button to their laptop, and click the button to display their screen. Tablet and smartphone users can access the display by pushing the button on their ClickShare mobile app. There are no cables or adaptors to connect, and no cumbersome software set-ups.

When it came time for Barco to design the new high-end, enterprise-class entry in the ClickShare product portfolio – the ClickShare CSE-800 – its engineering team had to navigate a host of design challenges to ensure that it met the exacting requirements for corporate boardroom implementations. Among the team's ambitious design goals, it envisioned a compact, yet rack mountable system that supported two displays in full 4K resolution, with connectivity for up to eight users on two displays and the ability to display eight users' screens simultaneously, complete with touch-panel blackboarding and annotation functions for interactive teamworking.

## AMD ADVANTAGES

AMD answered these design challenges with its AMD Embedded R-Series SOCs, ensuring that the ClickShare CSE-800's WiFi base unit packed the computing and graphics processing performance to deliver smooth, reliable 4K output with multi-display configurability and multi-user streaming flexibility. Delivering exceptional HD video and graphics processing abilities, AMD Embedded R-Series SOCs combine x86 CPU performance (3.4GHz)

and AMD Radeon™ graphics with an I/O controller on a single die, comprising a tightly integrated processing platform capable of powering Barco's enterprise-class ClickShare solution.

AMD Embedded R-Series SOCs provide HD and full 4K decode with onboard hardware acceleration, enabling the ClickShare CSE-800's dual HDMI video output at 4k resolution. Leveraging the AMD Embedded R-Series SOC's Universal Video Decode (UVD) technology, the onboard GPU supports the high-speed video and image composition required to support up to eight simultaneous on-screen meeting participants. The combination of these advanced capabilities differentiates the ClickShare CSE-800 as a true high-end multimedia device that corporate decision makers can depend upon for seamless, reliable multimedia collaboration.

The Platform Security Processor (PSP) on-board AMD Embedded R-Series SOCs enables the encryption of video and audio data to help protect against unauthorized access to sensitive company data, and was instrumental in enabling the ClickShare CSE-800's security solution.

The AMD Embedded R-Series SOC within the ClickShare CSE-800 features a 35W power profile, ensuring a favorable performance-per-watt balance and minimizing thermal emissions and cooling requirements. The single-die combination of CPU, GPU and I/O controller conserves valuable board space, thereby optimizing space utilization inside and outside the device and allowing for a sleek, compact system form factor.

## COLLABORATING FOR SUCCESS

Efficient, collaborative boardroom meetings are vital for office productivity and corporate success. When meetings are spent troubleshooting technical glitches with the multimedia system, time is wasted and the bottom line suffers.

Barco's ClickShare CSE-800 is an elegant, innovative solution to this age old problem, giving corporate decision makers newfound agility to quickly and easily present, share and collaborate with their colleagues, in stunning 4K resolution. High performance, tightly integrated AMD Embedded R-Series SOCs enable the ClickShare CSE-800 to deliver a superior, richly visual user experience, while helping to fulfill Barco's core design ethos: simplicity above all else.



ClickShare CSE-800 WiFi Media Hub

### About Barco

*Barco, a global technology company, designs and develops networked visualization products for the Entertainment, Enterprise and Healthcare markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and APAC. Barco (NYSE Euronext Brussels: BAR) is active in more than 90 countries with 3,500 employees worldwide. Barco posted sales of 1.102 billion euro in 2016. For more information, visit [www.barco.com](http://www.barco.com)*

### About AMD

*For more than 45 years AMD has driven innovation in high-performance computing, graphics, and visualization technologies—the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses, and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit [www.amd.com](http://www.amd.com)*

[AMD.com/Embedded](http://AMD.com/Embedded)

1. Vanson Bourne study commissioned by Barco, March 2016. "The Meeting Stress Test Study: The Business Impact of Technology Induced Meeting Stress. <https://az877327.vo.msecnd.net/~media/Downloads/Infographics/A-C/The%20Meeting%20Stress%20Test%20Report%20FINAL%20pdf.pdf?1a=en&v=1>

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