

FINANCIAL POWERHOUSE BANKS ON AMD RYZEN™ PRO

An Industry leader challenges status quo of desktop computing with Lenovo™ ThinkCentre® M715q Tiny powered by AMD Ryzen™ processor with Radeon™ Vega graphics



INDUSTRY

Investment banking and financial services

CHALLENGES

Deliver disruptive power and footprint in a corporate enterprise demanding reliable performance for workforce productivity, extensive graphics use and software development.

SOLUTION

Deploy Lenovo™ ThinkCentre® M715q Tiny desktops equipped with AMD Ryzen™ PRO processors with Radeon™ Vega graphics

RESULTS

Reduce TCO while improving user experiences by powering a wide range of desktop and corporate functionality with a single small footprint platform delivering powerful compute and graphics processing.

AT A GLANCE

AMD Ryzen PRO 2400GE processor with Radeon™ Vega graphics

PARTNER

In the stock market, following the herd seems like the safe course but often results in subpar performance and disappointing returns over the long term. One of the world's best-known and most successful investment banks has built its success by creating its own path and disrupting traditional investment models. The organization is taking that same approach to refreshing its end-user computer fleet, deploying Ryzen™ PRO processors with Radeon™ Vega graphics on Lenovo ThinkCentre® M715q Tiny desktops to 15,000-plus associates around the world.

"If you look at the computing ecosystem, the industry hasn't changed for the last twenty years. Everyone keeps making the same thing, day in, day out. If it's not a thin client or a desktop or a workstation or a laptop, then it doesn't have a place," said the bank's IT director of computing experience, who designs all of the hardware products the bank's employees interact with. "Then AMD came out with a disruptive product that breaks the mold, and Lenovo is able to package it and deliver it."

"That's why we've partnered with the two of them. It's a unique combination: both companies see the vision of compute fundamentally needs to change—the ecosystem needs to evolve," he said.

The bank's 30,000-plus users are 100%-based on the Lenovo Tiny platform, 80% of which are running AMD Ryzen PRO CPUs, including the Ryzen 5 PRO 2400GE. By yearend 2019, the executive expects all the Tinys will have transitioned away from Intel processors to Ryzen. "Our goal is always to be on the latest generation Ryzen platform and Tiny," the executive said.

TINY FORM FACTOR. HUGE RYZEN PROCESSOR-POWERED PERFORMANCE.

"The two big things that appeal to us about Ryzen is price for performance and feature set. The feature set is a night and day difference from the competition," he said. That versatility makes the AMD Ryzen-powered Tiny "a one-

size-fits-all solution for us. We can deploy that anywhere," he said.

The Ryzen PRO processor-powered Tiny desktops excel at meeting the heavy graphics demands the bank puts on them, the director said. The bank has been deploying 38-inch 21:9 curved displays and 49-inch 32:9 curved displays, to help brokers be more productive and have a better experience as they place trades, monitor the markets, scan news feeds, review financial documents and more.

"The competition can't even get those monitors to turn on," the executive said. "And most products would need a discrete GPU and a lot of horsepower to drive those monitors alone – not to mention web browsing, office productivity suites, video conferencing applications, and more. We didn't need any of that. The Radeon Vega GPU cores can drive four 4K displays at 60 Hz with HDR¹ and Radeon FreeSync™ technology. You get a super smooth, stutter-free experience, and that is very hard to do when you're driving that many pixels. That graphics feature set is unmatched."

The Tiny has two native display ports so a single unit may drive two monitors without requiring adaptors. With onboard Radeon Vega graphics, the Tiny powers the bank's digital signage and security video surveillance, with four 4K monitors with HDR at 60Hz, and executes video

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Global Investment Bank IT Executive

analytics. "The Vega onboard graphics can process over 18 individual megapixel video streams in real time so we don't need the added complexity and cost of a discrete GPU," the executive said.

GENERATING VALUE BEYOND THE DESKTOP

The fact the bank can “stick a Tiny anywhere” to deliver compute and graphics power, such as to the bank’s credentialing and biometrics applications, is a huge value generator, the executive said. “Operating and capital expenses have gone way down from a total cost of ownership (TCO) perspective while our value went way up. That’s the complete opposite of our previous experience,” he said.

The value delivered goes beyond what users see. Security is a major example, the executive said. The AMD Ryzen PRO APUs featuring Radeon Vega graphics architecture are not vulnerable to Spectre and Meltdown exploits in the same capacity that Intel chips are. When his peers at other banking and financial services firms asked the executive how he was containing those threats, he answered, “Our problem is nowhere near as large as yours because we buy AMD.”

He noted his organization also is taking full advantage of the cyber-security features built into the AMD processors, including hardware root of trust. The executive said that was critical to securely deploying Lenovo® A485 ThinkPad laptops equipped with the Ryzen PRO Mobile APU. Additional security features include Windows 10 Credential Guard, Device Guard, Secure Boot, Measured Boot, Discrete TPM 2.0 and DRAM encryption.

Other benefits he called out included the Tiny desktop’s MIL-STD testing confirmation, which offers him “peace of mind” about the hardware’s durability and lifespan, because in the bank’s lightening-paced trading

environment, any type of failure is unacceptable. The platform’s stingy energy consumption also helps the organization maintain its LEED certification.

BUILDING A DISRUPTIVE PARTNERSHIP

Tailoring all these benefits to the bank’s specifications—and deadlines—required AMD and Lenovo to shave 90 days off their production cycle even as they implemented a specific WiFi + Bluetooth module the bank required that was not part of their standard build process. “We worked with their engineering teams from the beginning to make sure everything was going the way it should. They genuinely cared about getting it right, not just selling us another computer,” the executive said.

“AMD and Lenovo recognize that we’re more of a partner than a customer, which is why we work so well together. They understand we want to change the game and make cool new stuff,” he said. “It’s very, very difficult to find someone willing to partner on disrupting the ecosystem. AMD and Lenovo are willing to go and make disruptive products that totally change the landscape.”

The executive frankly thinks more of his peers should act on his advice. “It’s dead simple: AMD has a market-disrupting product and Lenovo is the premier OEM that delivers it. You get lower TCO and reliable, game-changing, higher performance. What else is there to know?”

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*Global Investment Bank
IT Executive*



ABOUT THE CUSTOMER

The customer is a leading multinational firm that offers investment banking and investment management and securities services to a wide range of clients including corporations, financial institutions, governments and individuals. At 30,000-plus employees, the firm is headquartered in the U.S. and maintains offices in all major financial centers around the world. The customer wished to remain anonymous for the purposes of this case study.

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/ryzen.

1. HDR content requires that the system be configured with a fully HDR-ready content chain, including: graphics card, monitor/TV, graphics driver and application. Video content must be graded in HDR and viewed with an HDR-ready player. Windowed mode content requires operating system support. GD-96

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