

Centralizing IT Management By Hosting KVMs and Serial Consoles on a Single Platform



Vertiv™ Avocent® ADX Ecosystem Enables IT Teams to Manage Enterprise-to-Edge Networks More Easily



Overview

IT management is becoming ever more complex. Teams at hyperscalers, colocation facilities, enterprises, and other industry organizations oversee growing distributed networks that span cities, regions, or even the globe. These networks include sites that range from state-of-the-art enterprise data centers, where the latest IT technology and power and cooling equipment are controlled via best-practice automation, to edge sites as simple as an IT closet.

At all of these locations, integrated equipment from multiple vendors supports mission-critical workloads. While data center and IT teams use remote monitoring and management software to centralize visibility, they harness two different technologies to control and configure device fleets:

- **Keyboard, video and mouse (KVM) devices:** KVMs connect to video and mouse ports to control servers and manage service processors. They enable users to deploy and configure devices, control them remotely, and troubleshoot issues.
- **Serial consoles:** These devices connect to anything with a serial port, including switches, routers, firewalls, services, and rack power distribution units (rPDUs). Serial consoles enable users to automate and orchestrate processes, including backup power, to gain efficiencies and prevent outages.

Integrating Device Management on a Single Platform

KVMs provide easy, single-point access to IT devices, while enabling seamless and reliable switching among them. Serial consoles (also called console servers) facilitate remote and out-of-band cellular management but require scripting. IT teams launch sessions with text-based access to the command line of devices, typing in instructions to set up automation or initiate processes.

Now, data center and IT teams can manage KVM devices, serial consoles, and virtual machines on a single platform with Vertiv™ Avocent® ADX Ecosystem. Avocent ADX Ecosystem includes a management platform, a rack manager, interface modules, and Vertiv™ Avocent® Core Insight (ACI) embedded Linux firmware. This means that teams can use the interface modules of their choice, such as Vertiv™ Avocent® Mergepoint Unity™ KVM Switches and Vertiv™ Avocent® ACS Serial Consoles, to perform critical IT monitoring and management work on the same platform.

Here's what the Avocent ADX Ecosystem empowers IT and data center teams to do:

- **Provide secure access to mission-critical technology:** Since technology enables critical business processes, IT and data center teams want to securely control access to all of the devices they manage. They can use Avocent ADX Ecosystem to authorize who can launch virtual machine sessions and securely access devices, as well as control and audit what these users do. In addition, IP KVM devices such as the Avocent® ADX IPUHD and Avocent® ADX IPIQ provide end-to-end encryption of all session traffic, protecting it from prying eyes. Avocent ADX Ecosystem thus provides multiple layers of security to strengthen and protect IT management processes.
- **Centralize remote management of all devices:** Organizations now have hybrid workforces, and many individuals will not return to offices. Avocent ADX Ecosystem provides both site-based and remote workers with the fastest and most-feature rich KVM experience with 4K resolution and 24-bit color as well as serial console access to networking and power management devices. Hybrid teams can use Avocent ADX Ecosystem to seamlessly manage multi-vendor device fleets across locations, simplifying management requirements and reducing the need to visit remote edge sites to address device issues.
- **Simplify task management with automation:** IT and data center teams can learn multiple vendors' technology management platforms – or simply centralize those functions on Avocent ADX Ecosystem. The platform provides comprehensive open application programming interfaces (APIs) and a software development kit that enables teams to speed device deployment and automate routine configuration tasks. Teams can use the platform to push bulk firmware updates to IT devices, for example. Automation enables IT teams to focus on higher-level duties and also scale their team to manage their organization's fast-expanding network.
- **View integrated devices as a single entity:** Historically, devices that are connected, such as servers, power outlets, and rPDUs, are managed separately. This unnecessarily complicates management and troubleshooting. Now, with Avocent ADX Ecosystem, teams can view devices holistically and streamline processes, such as launching sessions or rebooting devices.

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- **Enable cross-functional troubleshooting:** Multiple teams are responsible for data center and edge equipment, including IT, networking, and more. With the Avocent® ADX Ecosystem, authorized users on cross-functional teams have the same view of sites, devices, and issues. They also have the same access to device alerts and data, enabling them to coordinate an effective response. For example, if a server fails, IT doesn't need to reach out to power management to recycle power, because those individuals likely already see the problem and are working on it.

Recently, a major technology company experienced a multi-hour outage due to a networking configuration issue. This incident shed a light on the fact that errors now have regional or global impact, harming the business of a firm and its customers and costing millions or billions of dollars over time. Better then, to bring the best minds of a firm together, to monitor, manage, and collaborate on troubleshooting, reducing the potential for disabling outages.

- **Harness out-of-band management for different use cases:** IT and data center teams rely on out-of-band management to access IT and networking devices via cellular networks when enterprise networks are down. However, cellular access can be used for other use cases, such as providing connectivity in areas that don't have reliable wireless networking access or which experience ongoing power issues.

Organizations can use Avocent ADX Ecosystem to connect devices at edge sites, as a first step for setting up local networks. Networking teams can then set up the network when they're free, using cellular access to connect to devices and begin work. Similarly, organizations that operate in areas with power outages due to fragile infrastructure, forest fires, or other issues can use Avocent ADX Ecosystem to reboot networking equipment remotely, rather than drive to the site to work on devices directly.

Conclusion

At many organizations today, technology networks are growing fast, as teams stand up new data centers and edge sites. Technology also enables digital business models, products, and services, increasing the pressure on teams to ensure high availability of IT and networking equipment. As a result, data center and IT teams are actively looking for solutions that can help them simplify and automate management processes and handle more responsibilities.

[Vertiv™ Avocent® ADX Ecosystem](#) is the one platform to manage them all, enabling teams to integrate solutions from multiple vendors, manage technology across sites, and access devices using IP KVMs and serial consoles. Teams can use Avocent ADX Ecosystem to bring new transparency to IT operations, increase their productivity and effectiveness, and provide the exceptional technology performance and reliability digital businesses require.

Learn more about the [Vertiv™ Avocent® ADX Ecosystem](#) today.