

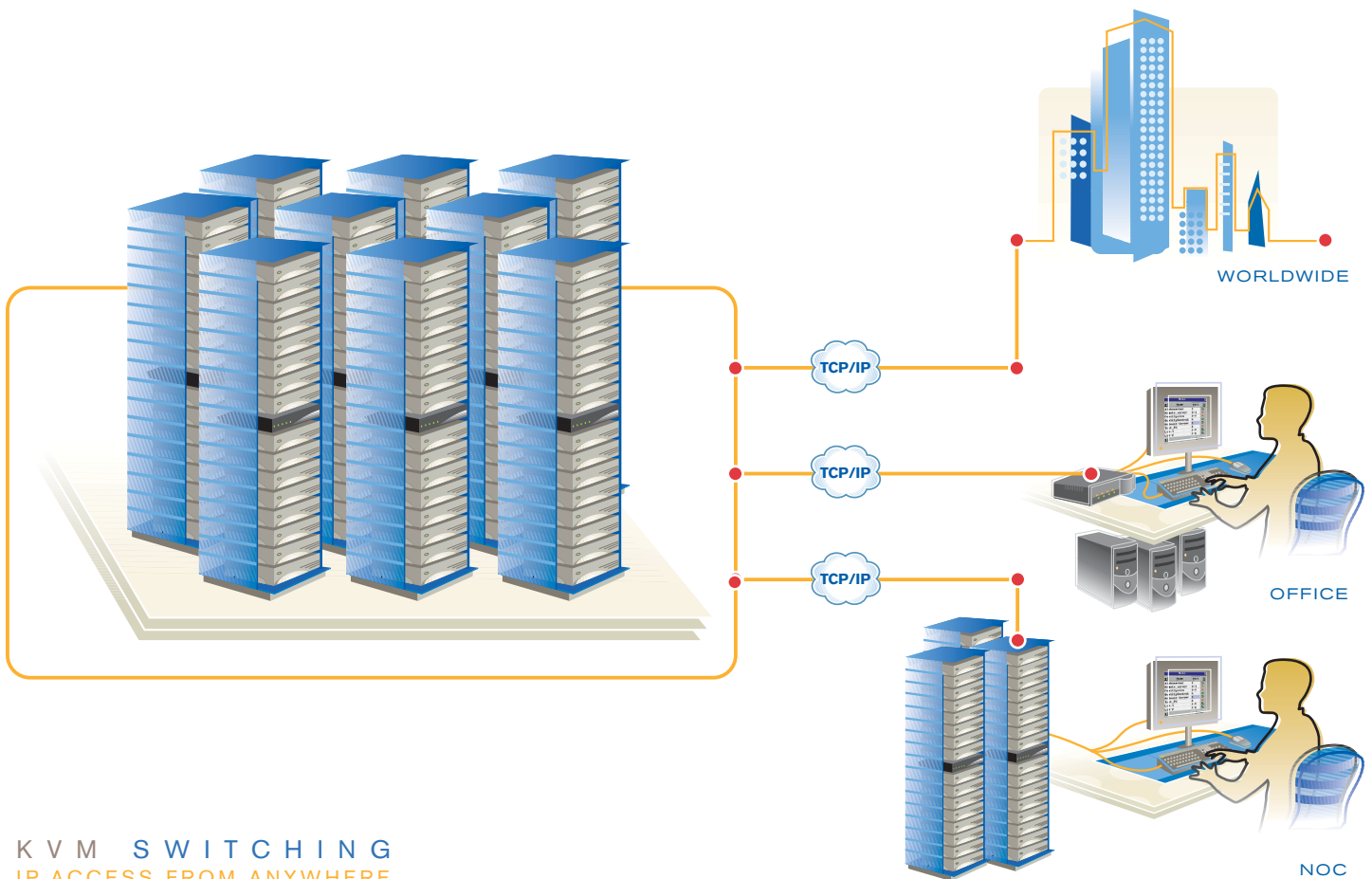


DS Series: Proven KVM over IP Switching

Securely control all of your data center devices from any location

AVOCENT The KVM Innovator

Avocent invented KVM over IP technology and is the undisputed leader in KVM switching solutions.¹



K V M S W I T C H I N G
IP ACCESS FROM ANYWHERE

H I S T O R Y O F K V M

KVM stands for **keyboard, video and mouse**. KVM switching systems provide access and control of multiple racks of servers from a single console, as well as control from remote locations. KVM switching systems eliminate the need for extra keyboards, monitors and mice and allow businesses to save critical space in their data centers. Avocent patented KVM over IP switching systems eliminate distance limitations and provide 24/7 access and control to any number of servers or serial devices in your data center. Avocent software management and IP-based switching systems allow IT administrators to sit at a single console and have secure, local and remote access and control of multiple servers and network data center devices including power and environmental systems.

¹Venture Development Corporation, *KVM Switch Solutions: Global Market Assessment*, October 2003

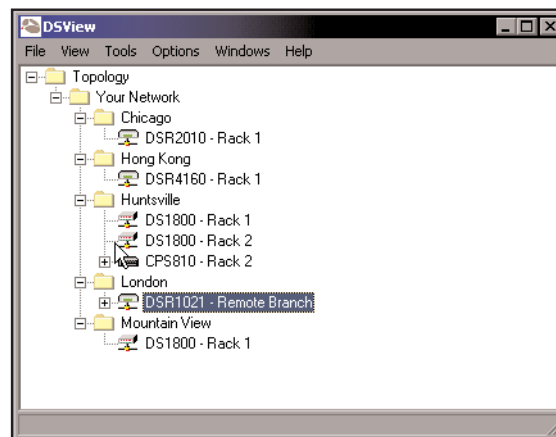


DSView • DS1800 • DSR • CPS • EVR • SPC

The Avocent DS Series products provide secure, remote KVM over IP, serial over IP, environmental over IP and power over IP solutions for data center access and control. The DS Series products are built on Avocent patented KVM over IP switching technology. Avocent DSView® software is the cornerstone of the DS management software suite. This secure software provides a centralized management system that controls each DS Series appliance and connected servers and network devices anywhere, anytime. The DS Series includes DS1800 and DSR™ KVM over IP switches, CPS serial over IP network appliances, EVR1500 environmental monitoring and control appliances and SPC power control devices. With the DSView software, IT administrators can take total control of any attached network device. Administrators can cycle power from any location, access headless servers, routers and switches and even control servers down to the BIOS level – all from a single screen.

DSView Management Software

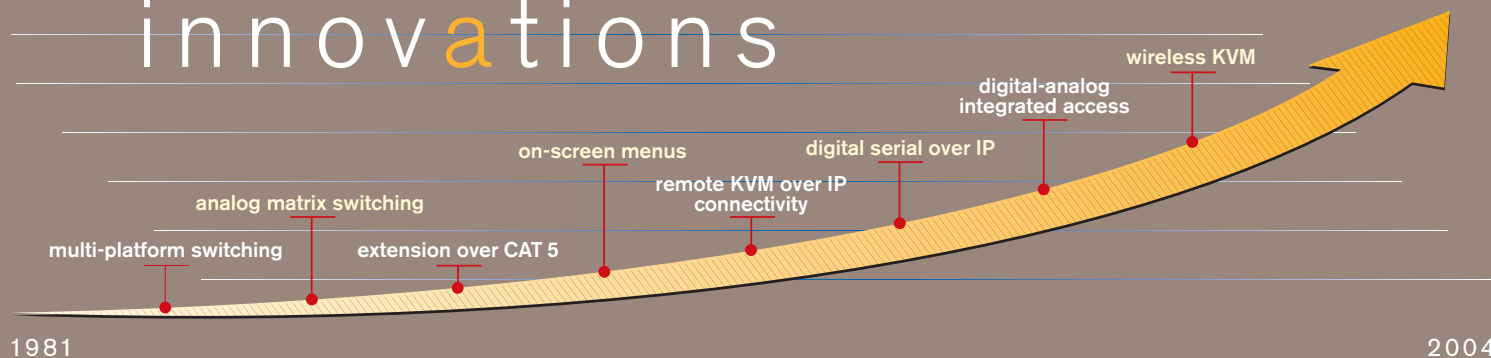
The Avocent DS software's security model is based on industry standards and manages a broad range of network devices in the data center over an IP connection. DSView software controls KVM over IP switching, serial over IP switching, environmental over IP switching and power control over IP switching – all from a single platform. Our patented KVM over IP switching solution features a secure central authority for access and control. DSView software leverages your network infrastructure, including **Active Directory**, **LDAP** and **LDAPS databases**, so you can validate the user permissions and control access to your data center devices.



Click, connect and control any server or data center device, all from a single screen.

OUR HISTORY OF

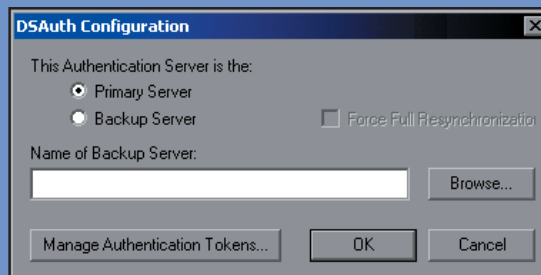
innovations



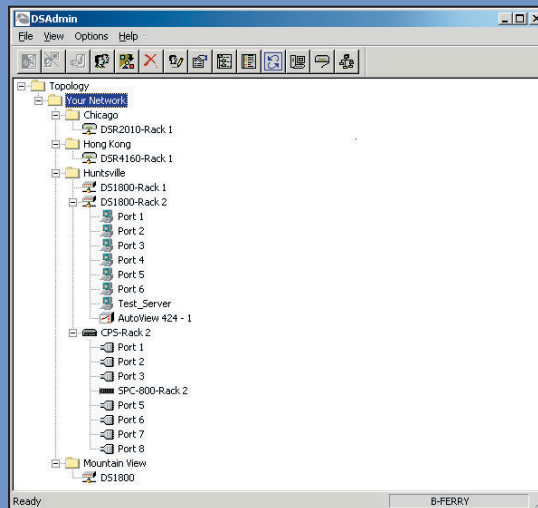
software

Avocent provides secure, centralized management of servers, headless servers, power control devices, environmental monitoring appliances and other network devices – **all from a single interface**. DS management software includes four components: DSAuth server software, DSAdmin management application software, DSView client-based software and DSWebview browser-based software.

THE CORNERSTONE OF THE DS SERIES

DSAuth

DSAuth software stores the topology, user permissions and per-device contact information and performs third party authentication during connection to the switch. DSAuth software serves as the gatekeeper for user permissions.

DSAdmin

DSAdmin software configures topology, user permissions and per-device contact information. With DSAdmin software, you can create and configure the type of access you want to provide to your network environment.

The DSAdmin and DSAuth software elements of the DS management suite give you powerful tools to administer your data center and authorize proper access by users. These tools provide audit log records with full details of user access and individual KVM switching activity.

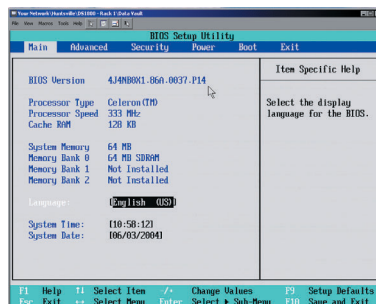
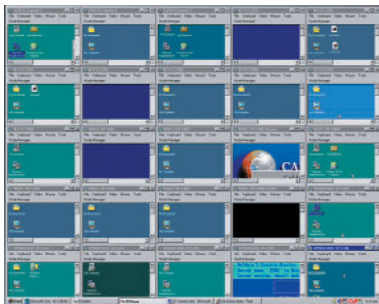
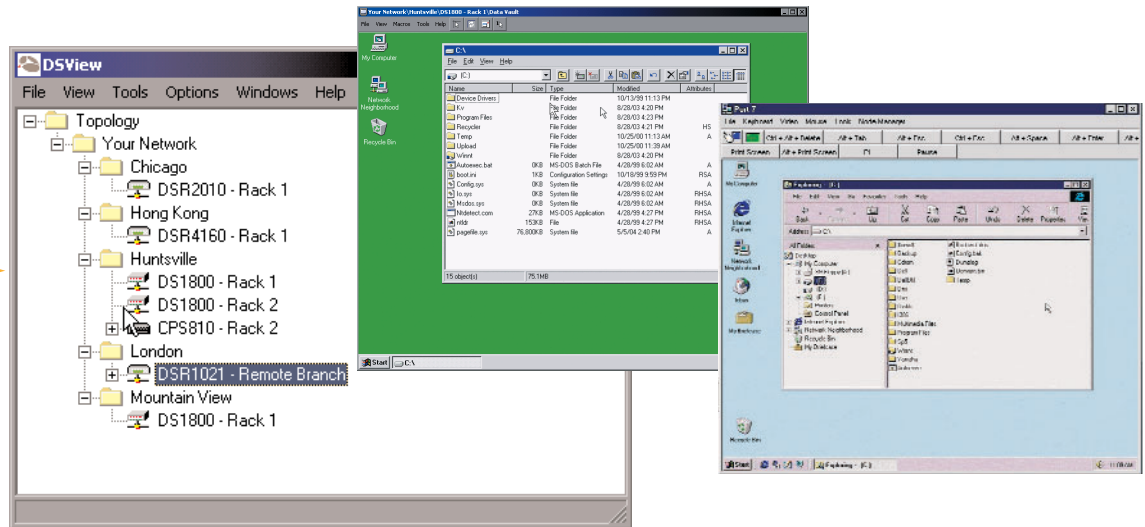
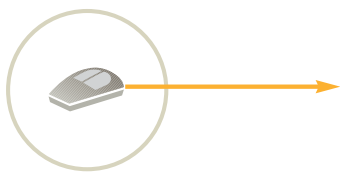
Once your DS network appliances are installed and configured, you are only a few mouse clicks away from total control. Simply select the device you want to control, and windows are created for each connected device. You have secure, centralized control of your entire data center over standard IP connections, from any location you choose.

You can view and manage all of your data center devices on one screen. It doesn't matter if they are a mix of multi-platform servers, routers or power devices. It doesn't matter where they are located. **You will see and control them all – just as if you were sitting in front of them in your data center.** With DS management software, you can troubleshoot. You can reboot. You can do it all at the rack, in an office or wherever you are located.

Centralized authentication and control differentiates the Avocent **field-proven KVM over IP** switching systems. Client-based or browser-based versions of DS management software provide secure centralized management – and that's what our IP-based systems are all about. **Total control.**

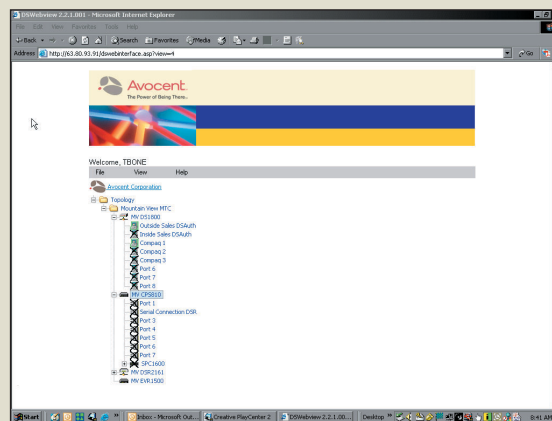
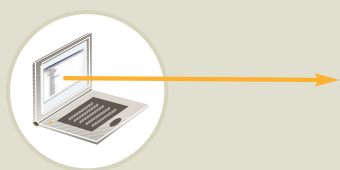
CLICK AND CONNECT ACCESS AND CONTROL

DSView



DSView software uses industry-standard IP connections so you have **CLICK AND CONNECT™** access to any connected device from a single screen. With DSView software, you have BIOS-level access to any DS Series appliance and connected network device.

DSWebview



DSWebview software provides secure, **browser-based** access to any data center device in the Avocent DS Series product suite.

DS series

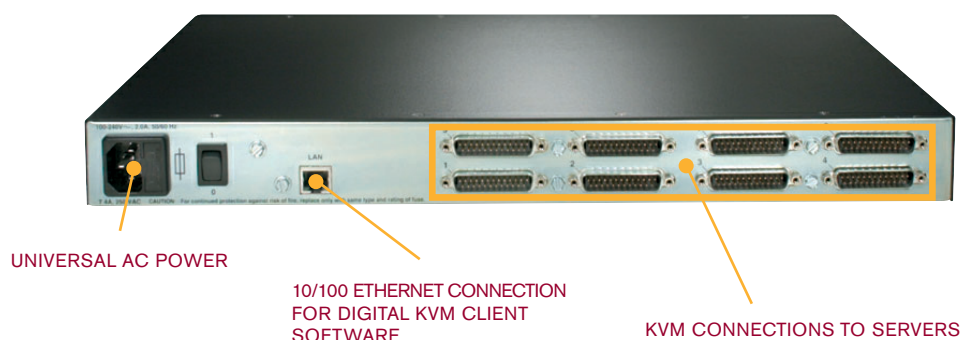
Securely control your entire data center from a single screen with DSView software and patented IP-based appliances.

DS1800

DS1800 KVM SWITCH

Provide secure, non-blocked access to as many as eight users who need to manage your business-critical servers. DSView software lets multiple administrators manage attached servers from any location.

With the DS1800 KVM switch, you can count on centralized access and control your of multi-platform servers, including PS/2, Sun and USB. You get full, non-blocked access and eight internal digital paths. And, you manage it all 24/7 using an IP connection and DSView software.

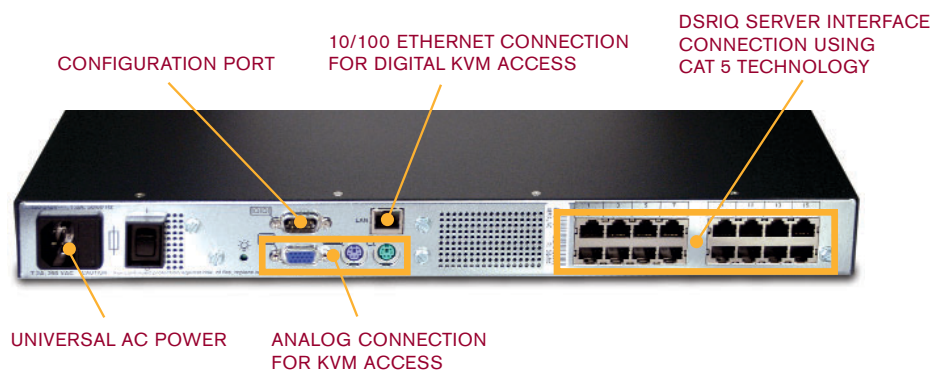


DSR

DSR KVM SWITCHES

Remote KVM over IP access for PS/2, USB, and Sun servers, and VT100 serial-based devices such as Ethernet switches. These 16-port KVM switches provide the added benefit of simultaneous access for up to four remote users. Manage it all with DSView software.

The **DSR** KVM switches offer you a choice of 8 or 16-port network appliances that combine analog and digital technology into one KVM solution. All models are controlled with DSView management software for remote IP access, and patented OSCAR® on-screen GUI for local access at the rack. The DSRIQ module, with a built-in server ID memory, allows servers and serial-based devices to be attached using standard CAT 5 cabling, which reduces cable clutter. The DSR KVM switching solutions are scalable, flash-upgradeable and require only 1U of valuable rack space.





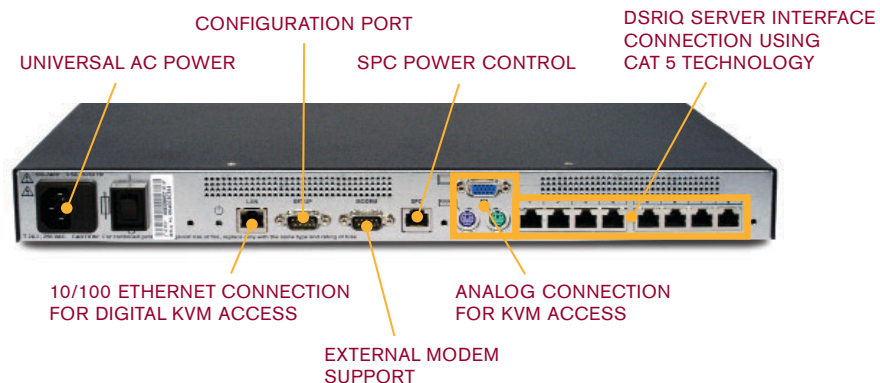
DSR1021

DSR1021 KVM SWITCH

Remotely troubleshoot, reboot or even power cycle servers or VT100 serial-based devices in branch offices with DSView software and the DSR1021 switch. You can control:

- SERVERS
- ROUTERS
- SWITCHES
- DSUs

The **DSR1021 KVM switch** is specifically designed for IT administrators who need to easily troubleshoot, reboot or even power cycle servers or serial devices in branch offices, avoiding the need for costly on-site service calls. The 8-port DSR1021 switch expands the DSR family of field-proven KVM over IP appliances with power control and external modem support – all in a single solution. External modem support offers the benefit of remote device management if the network is down.

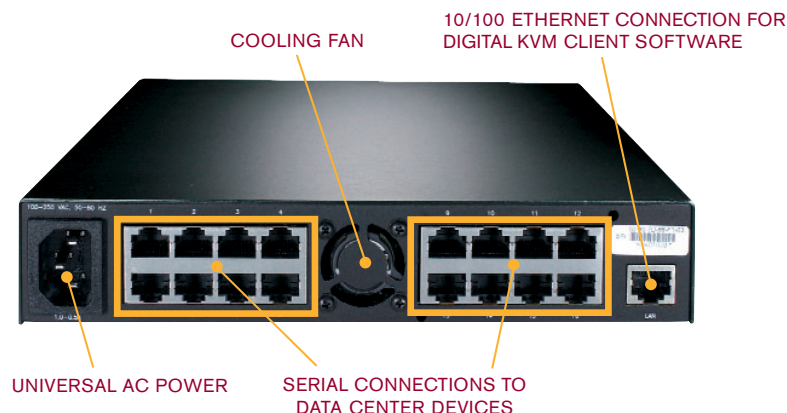


CPS

CPS SERIAL OVER IP APPLIANCES

The CPS network appliance provides convenient IP-based access to any serial device in your network. This console server lets you easily manage devices over IP connections using DSView software.

Using the same DS management software, you can control serial devices over IP, just as you control servers and other network devices. With **CPS** serial over IP network appliances, you have centralized access and control of major server environments, power management devices, routers and other serially-managed devices.



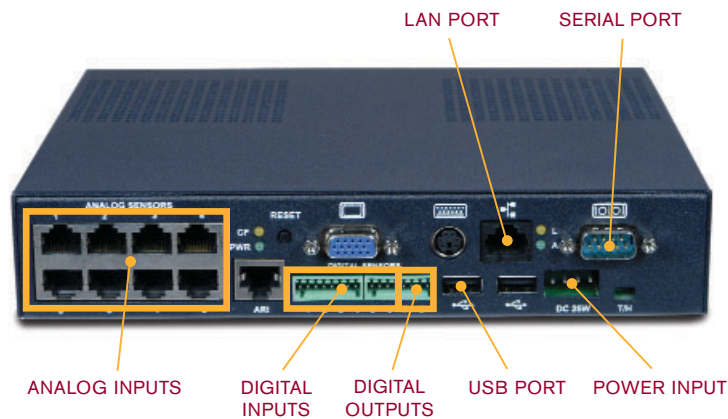


EVR

EVR1500 ENVIRONMENTAL MONITORING DEVICE

Remotely monitor conditions of servers in your rack and prevent problems before they happen. You can manage the EVR1500 monitor with DSView software.

The **EVR1500** environmental monitoring and control appliance monitors and detects environmental conditions that can adversely affect operation in the immediate vicinity of servers and other network devices. It alerts IT administrators when those conditions occur. Like other products in the DS Series, the EVR1500 monitor can be accessed over IP connections and can be controlled through the DS management software.



SPC

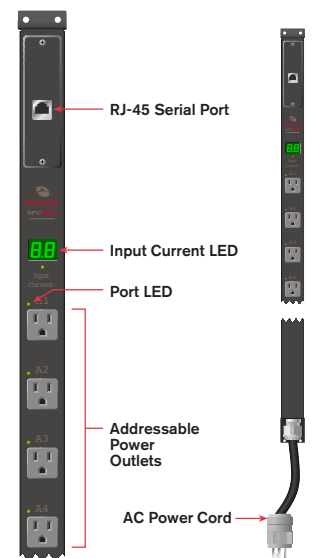
SPC POWER CONTROL DEVICES

Remotely reboot or power cycle servers from any location with DSView software. SPC devices provide power management for attached servers, routers and other network devices.

The **SPC** power control devices work in conjunction with the CPS appliances and allow you to easily perform remote reboots, power status monitoring and on/off commands.

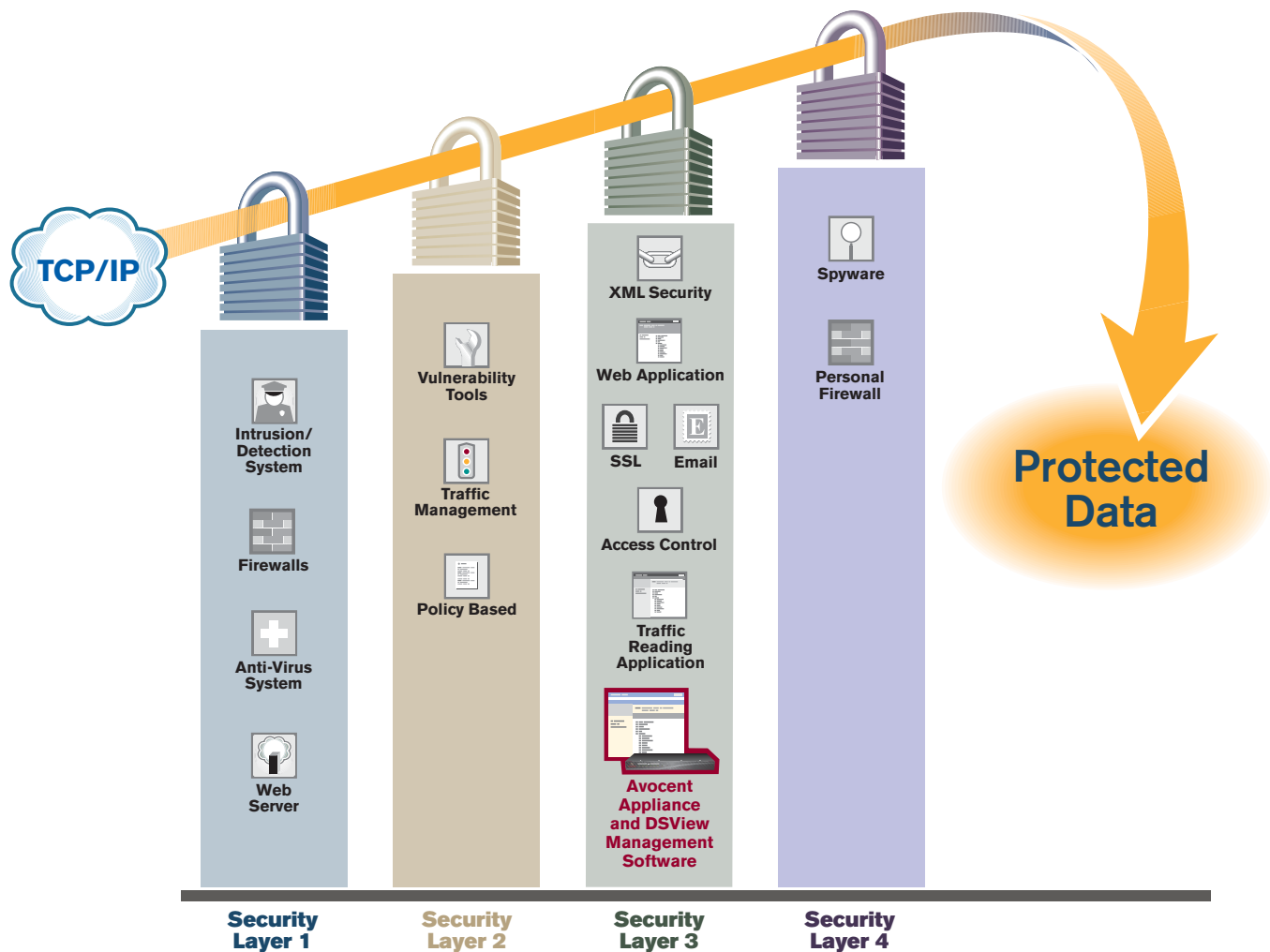
SPC POWER CONTROL DEVICE

The SPC800/SPC1600 power over IP devices offer 8 and 16-ports respectively that provide secure power management for all connected data center devices.



SPC Power Device

DS security MODEL



The Avocent DS security model is the industry's most reliable, field-proven system for protecting access to business-critical network devices. As shown in the illustration, the Avocent DS security model fits seamlessly into a data center's multi-layered security model – working within a network's existing security infrastructure. The Avocent DS system fits into a data center's layered security without exposing devices to intrusion by unauthorized access. The DS Series centralizes access and control in your data center. DSView software validates a user's authentication and access rights before allowing a connection to the data center device. The DS Series security model supports NT Domain, LDAP, LDAPS and RADIUS authentication protocols.

DSView software provides secure **CLICK AND CONNECT** access of any connected data center device world. The Avocent DS Series includes KVM over IP switching, environmental monitoring and serial over

DSR1021 Switch

Remotely troubleshoot, reboot or even power cycle servers or VT100 serial-based devices in branch offices with DSView software.

DSR4010 Switch

This device provides remote KVM over IP access in a 16-port KVM switch – with simultaneous access for up to four remote users. Manage it all with DSView software.

EVR1500 Environmental Monitoring Device

Remotely monitor environmental and security conditions of each server in the rack and prevent problems before they happen. You can manage the EVR1500 monitor with DSView software.

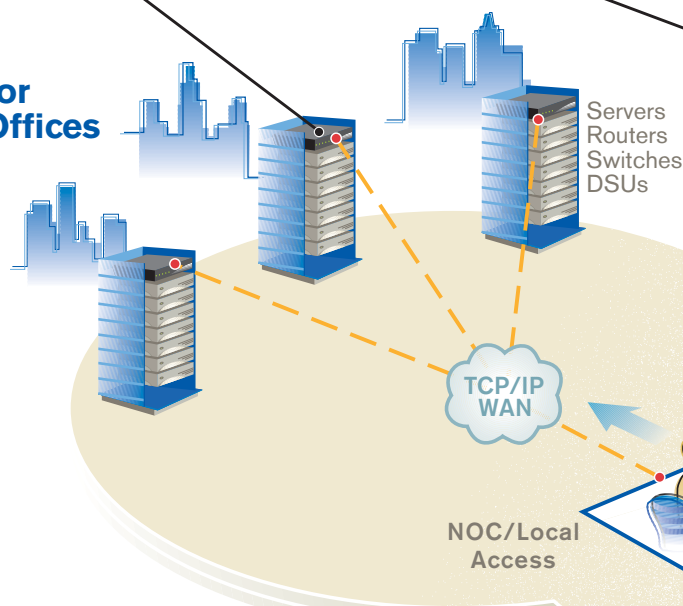
DS1800 Switch

Provide secure, unblocked access to as many as eight users who need to manage your business critical servers. DSView software lets multiple administrators manage attached servers, from any location.

SPC Power Control Device

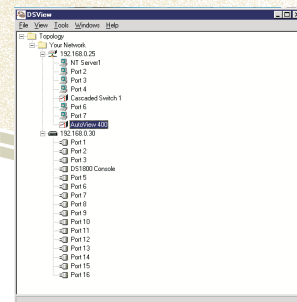
Remotely reboot or power cycle servers from any location with DSView software. SPC devices provide power management for attached servers, routers and other network devices.

Remote or Branch Offices



DSView Centralized Management Software

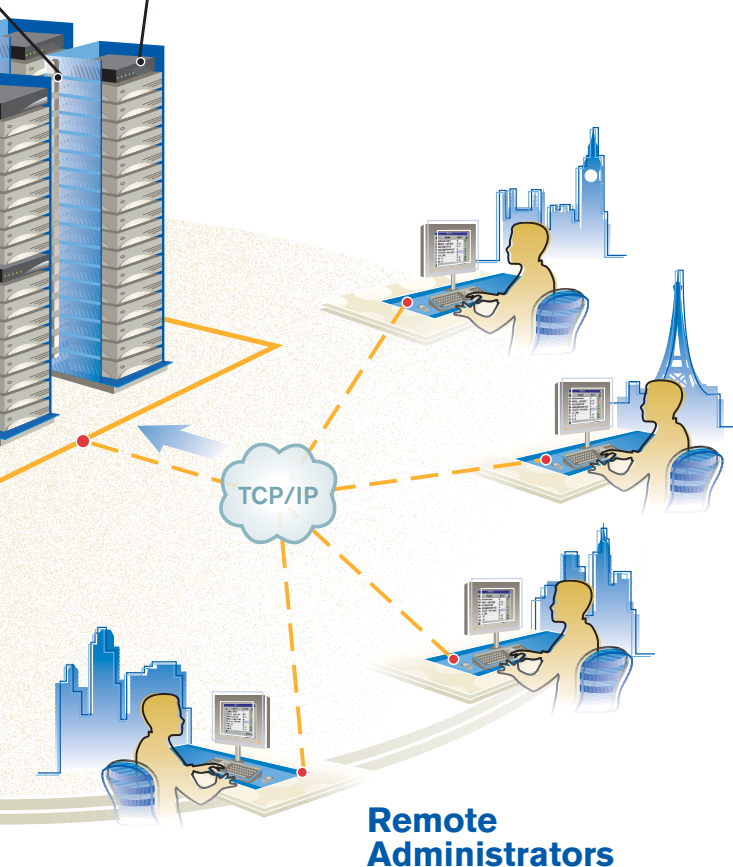
DSView software lets you securely access any device in your data center, control user permissions across diverse network appliances and view and export detailed event logs – all from a centrally-managed interface. Manage any connected DS Series appliance – from any location you choose, through a client or a browser interface.



from a single screen from anywhere in the IP, including power monitoring.

CPS Network Appliance

The CPS network appliance provides convenient IP-based access to any serial device in your network. This console server lets you easily manage devices over IP connections using DSView software.



DS SERIES BENEFITS AT A GLANCE

- CLICK AND CONNECT CONTROL OF SERVERS OR NETWORK DEVICES FROM ANY LOCATION
- ENTERPRISE-CLASS SECURITY WITH DES, 3DES AND 128bit SSL ENCRYPTION
- SUPPORTS NT DOMAIN, LDAP, LDAPS AND RADIUS AUTHENTICATION PROTOCOLS
- SECURE CENTRALIZED DS MANAGEMENT SOFTWARE, AVAILABLE IN CLIENT OR BROWSER-BASED VERSIONS
- BIOS-LEVEL SERVER CONTROL FROM ANY LOCATION
- A DETAILED REPORTING SYSTEM INCLUDES AUDIT LOGS, FAILED AUTHENTICATION ATTEMPTS AND SNMP ALERTS
- A LAYERED SECURITY MODEL BASED ON INDUSTRY STANDARDS
- PATENTED, FIELD-PROVEN KVM OVER IP TECHNOLOGY
- SERIAL OVER IP
- ENVIRONMENTAL OVER IP
- POWER MANAGEMENT OVER IP
- SMART CABLING WITH CAT 5 DESIGN INCLUDES BUILT-IN SERVER ID MEMORY AND REDUCES CABLING REQUIRED IN THE DATA CENTER
- SCALABLE AND FLEXIBLE TO GROW WITH YOUR BUSINESS



AVOCENT The KVM Innovator

Avocent is the leading innovator of KVM switching systems. For over two decades, Avocent has provided network administrators in every industry with access and control of their servers and network devices. With advanced solutions that allow network administrators to locate, access, monitor, control and manage servers, desktop computers and other network devices, Avocent offers one of the industry's broadest portfolios of connectivity solutions for the data center.

What Avocent Customers Are Saying.

TICKETMASTER

"We spent a lot of time analyzing different solutions and selecting the best one. With an Avocent KVM solution, everything is built-in to that single piece of hardware and is easy to manipulate and manage within our racks."

REUTERS

"The BIOS-level control saves us significant time. Network administrators can access, control and reboot servers without having to leave their offices. IT resources are better allocated, and downtime has been significantly decreased, benefiting our customer base."

MICROSOFT TECHNOLOGY CENTER – CHICAGO

"The development suites' networks are isolated for customer privacy. The Avocent solution is 'modularized' so we can set up an Avocent switch in each network. Then, from a secured, centralized server, we can get console access to every server in our data center."

SUMITOMO MITSUI BANKING CORPORATION (UK)

"The Avocent DSR solution has given us complete console management capabilities across the enterprise. We can now provide 24/7 support. When a server goes down, the server management team receives alerts by SMS text message. No matter where we are, one of us can then log in through DSView software, analyze the problem and, if necessary, reboot the faulty server."