Avocent® Universal Management Gateway

Product Positioning Guide

Value Propositions
• Recover capital expenses by converging infrastructure purchases into fewer multi-purpose devices up to 75% saved on rack space (4U to 1U).
• Reduce operational expenses by reducing the energy required (powering fewer devices) up to 30% less usage.
• Greatly reduce the complexity of deploying various hardware systems for alerts, telemetry, environmental sensors and device access and control.
• Enhance deployment flexibility and enable rapid connections for multiple functions with Auto-sensing ports
• Enhance Disaster Recovery (DR/BC) capabilities by maintaining data collection capabilities during network outages – each UMG can maintain its own data store.
• Enhance data center efficiency and responsiveness through real-time information across IT and Facilities.
• Future proof infrastructure investments with built in flexibility and heterogeneous vendor support.

Avocent® Universal Management Gateway

Top Level Description
The Avocent® Universal Management Gateway (UMG) is a multi-purpose appliance that offers consolidated access to facility and IT equipment, making it possible for data centers to execute a unified approach to infrastructure management resulting in greatly reduced cost and more efficient management and control. The gateway solves problems in the Data Center Infrastructure Management (DCIM) market by providing both real-time data and closed loop control to the Trellis™ platform solution. Within DCIM, Remote Data Center Management (RDCM) has been defined as IT access and control.

Fit in the Trellis platform architecture – DCIM
The UMG is the core component of the DCIM framework. The UMG is both the data collection engine for the Trellis platform applications as well as the closed loop control. Today, the closed loop control is supported through DSVIEW Software but in the future will be available in the Trellis Platform.

Fit in the Avocent solutions - RDCM
The UMG combines the functions of KVM over IP, serial console over IP, rack PDU, SP, and environmental management in a single chassis. When used in combination with DSVIEW™ Software, the solution provide remote access and control to any device that can be controlled by any of the consolidated functions.

RDCM – IT ACCESS AND CONTROL IS THE DRIVING FORCE

Single Source for IT Management
• Server, storage, networking equipment
• Sensors and Rack PDUs

Discovery
• Ports designed to auto sense connections
• Single appliance can support solutions for today and tomorrow

Heterogeneous Support
• Vendor agnostic
• Technology agnostic

Closed-Loop Control
• Access and control capabilities to DCIM
• Supported by DSVIEW 4 software today and Trellis platform tomorrow

DCIM – REAL-TIME MANAGEMENT AND MONITORING IS THE

Single Source for Management and Monitoring
• Facilities equipment
• IT equipment

Trellis intelligence engine
• Device discovery
• Real-time data collection
• Complex event processing
• Bi-directional communication Whole Solution

Design
• Hardware and software engineered together
• Processing resides at the edge for faster collection and performance
• Decisions based on real-time information
• Feedback to determine impact of decisions in seconds

Pain
• Lack of a single management tool prevents accounting of systems, creating virtual/logical server/asset sprawl.
• Managing a heterogeneous server requires additional resources and makes coordination of infrastructure challenging.
• Administrators are not located in the DC and must resolve issues remotely.
• Need to remotely access all IT and Facilities Systems in your production/DR site & comply with business Continuity policies.
• Data security mandates restrict access to facilities equipment and data, so I can’t reference real-time facilities information to make intelligent decisions.
• Need to get a holistic view of the infrastructure across IT and Facilities systems.

ROI Considerations
• How many appliances are you using today to manage servers and critical infrastructure equipment? What are the capital (equipment and network) and operational costs (administration, power and cooling) associated with these devices?
• How many remote access tools are you currently using? Does it work for you today? Is it effective?
• How often do you replace existing access devices? What is your estimated cost per port today?
• What is the length of time required to locate and begin managing new servers today?
• How many devices are you supporting today with the personnel you have, what are the costs per device?
• How are you gathering infrastructure data now (power/environmental)? How are you aggregating data for reporting? How much time is required to consolidate the information?
Discovery Questions
1. How are you controlling and managing access and control of the equipment in the data center today? Do you have multiple systems for connecting and managing equipment? What is the cost of maintaining these systems?
2. Do you have infrastructure consolidation initiatives?
3. Do you have problems managing systems to diagnose issues and then take actions to provide resolution? What if these functions were available in one platform?
4. Do you have “lights” out data centers or locations with restricted access?
5. Are you able to remotely connect to equipment if the network is offline?
6. What are your Business Continuity/Disaster Recovery plans and capabilities?
7. Are you upgrading to new server technologies and form factors? If so, which vendors and technologies?
8. What ITSM software capabilities do you have? What are the plans to extend that to the data center/DCIM?

Objection Handling
1. I only have one server vendor, why do I need this? Maybe you don’t right now, but what is the impact if you ever do switch or add another vendor’s equipment?
2. I use RDP/VNC/Telnet today why do I need any other remote access tool? If the network goes down, you have no access. With our tool you can use both.
3. What about managing virtual servers? How does this help with my virtual server deployment? The RDCM solution manages both physical and virtual servers.
4. I don’t even talk to my facilities guy, what do I care about his monitoring problem? You can install the UMG today with the option of monitoring without purchasing another appliance.
5. Why does this appliance cost so much more than the current KVM appliances? The UMG manages, KVM, serial, SP and sensors while providing a path to Trellis.
6. Doesn’t all that functionality in one appliance provide a single point of failure? The UMG has been designed to meet strict product quality (including redundancy) standards.
7. UMG is unproved technology. Actually, the technology inside the UMG is currently the industry leading KVM, Serial, SP and monitoring technology.

Product Selection Guidelines

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<thead>
<tr>
<th>Potential customer</th>
<th>UMG2000</th>
<th>UMG4000</th>
<th>UMG6000</th>
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<tbody>
<tr>
<td>• Existing SPM customers investing in new server technology</td>
<td>• Existing KVM customer that is migrating to embedded technology</td>
<td>• Existing DCP/Aperture® /SiteScan™ customer migrating to Trellis™</td>
<td></td>
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<tr>
<td>• Existing console customer that is planning to manage embedded server technology</td>
<td>• Existing KVM/Serial/SP customer that is</td>
<td>Data centers that are adopting the Trellis platform</td>
<td></td>
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<tr>
<td>• Customer using or desire to use embedded server tools</td>
<td>• Data centers that need DCIM tools</td>
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<tr>
<th>Important to the customer - RDCM</th>
<th>Low density embedded server management</th>
<th>Modern and legacy server management (KVM/Serial/SP)</th>
<th>High density embedded server management</th>
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<tbody>
<tr>
<td>Important to the customer - DCIM</td>
<td>Low volume data collection</td>
<td>Medium volume data collection</td>
<td>High volume data collection</td>
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Key Trigger Events for UMG Adoption
• Server technology refresh & upgrade cycles
• Switch and storage technology refresh & upgrade
• Shift from current access technology to embedded technology
• Data center architecture upgrade to support virtualization or cloud computing
• ITSM software initiative
• DCIM software Initiative

Key Differentiators of UMG
• Reduces complexity in your infrastructure by using less devices, less cables, less rack space, fewer management tools, easier to configure and provides great joy.
• KVM, serial console, SP and sensor management in a single appliance.
• Autosensing ports provide flexibility and protects against future data center technology changes.
• Real-time information across IT and facilities systems.