

# nodegrid manager

Vendor-Neutral Common Access Interface



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### **Open Infrastructure Management**

In modern day datacenters, significant effort is required to manage a variety of virtual and physical IT devices like servers, networking, storage, power, and cooling appliances from multiple vendors. These environments

typically require use of different tools in order to communicate, manage, configure and access each IT device.

The adoption of IT devices from multiple vendors requires an understanding of different sets of functionalities that very often do not align horizontally and/or vertically across vendors of the same market space or may use completely different ways of interacting with each IT device, creating a

gap in functionality and a complex user administration. Under this scenario, a system administrator would typically be forced to:

- · Adopt a single vendor source strategy as much as possible
- Handle multiple user interfaces and configuration managers from each IT vendor
- · Cope with feature gaps and feature limitations.



Each vendor solution of IT devices in Figure 1 has a different vertical feature set implementation (e.g. a virtual machine has connection requirements that are different from a physical serial port concentrator or rack servers with service processor) and very often vendors have different functionalities within the same market category (e.g. serial port concentrator vendors like Avocent, Digi, Raritan and Opengear may have common functionalities with different implementations and different user interfaces. Service processor vendors like Dell, HP and Cisco have unique ways of executing similar power cycle commands).

Rather than having an incomplete vertical feature set stack or having variations and discrepancies among horizontal features across IT devices, Nodegrid Manager leverages the ability to redefine those features via software in a homogenous way and presents a common functionality and access experience across all IT devices. Also, the feature stack can grow by adding new functionality which will automatically be extended to all devices. This allows system administrators to bridge feature gaps between vendors and even extend native features.

Moreover, Nodehrid Manager provides common functionality for multiple devices, normalizing console access across different vendors. Since Nodegrid Manager is a Software Defined Infrastructure (SDI) solution not bound to hardware limits of a regular appliance on the rack, it allows a wider concentration of managed devices while offering the same user experience and capabilities.

The scalability of Nodegrid Manager is the same as the ability to scale a virtual machine, which is much easier to implement than a physical hardware constraint that requires maintenance and/or hardware replacement.

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Technical Note



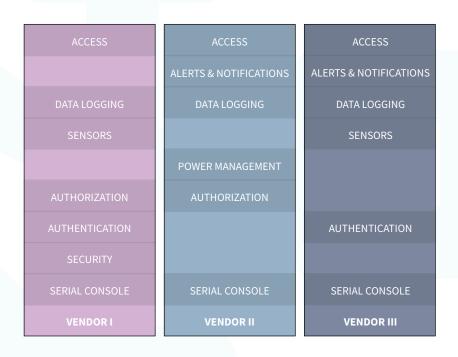
### Figure 1

Vendor-Neutral solution addressing vendor gaps and normalizes the overall user experience

### The Value of Software-Defined Infrastructure

VENDOR-NEUTRAL COMBINED FEATURES COMMON USER INTERFACE EXPERIENCE

### GAPS IN THE FEATURES OF INDIVIDUAL VENDOR'S STACK



# AUTO DISCOVERY HIGH MANAGED DEVICES COUNT CONSOLIDATION ACCESS ALERTS & NOTIFICATIONS DATA LOGGING SENSORS POWER MANAGEMENT AUTHORIZATION AUTHENTICATION SECURITY SERIAL CONSOLE SERIAL CONSOLE VENDOR I VENDOR II VENDOR III

### **Vendor-Neutral Common Feature Stack**

Consolidate functionality across multiple vendors addressing indivcidual solution gaps

**Nodegrid Manager** consolidates your devices' different user interfaces, network protocols, and bridges feature gaps into one elegant tool. NodeGrid Manager provides a common user experience utilizing the same commands across multiple vendors.

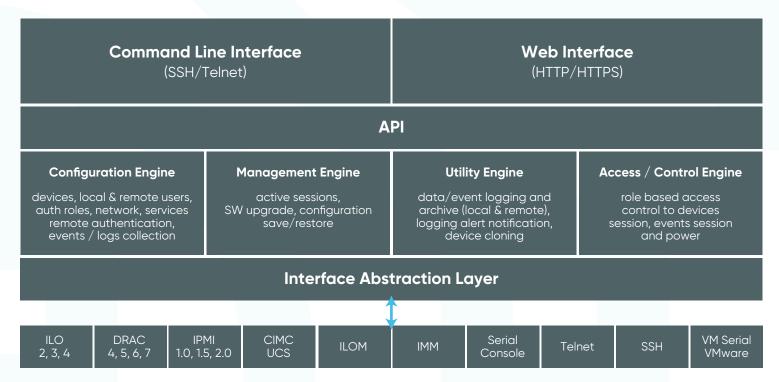
At the same time, network administrators have a more complete set of device control features, a reduction in time and resources spent on administrative task, and flexibility for choice of vendor and data center planning expansion/replacement.

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Figure 2
Shows a set of service providers that communicate with the IT devices on the network



### **Nodegrid Manager**

The world's first vendor-neutral Software-Defined Infrastructure solution for access and control across critical devices in all data center and test lab environments. Vendor-neutral software is the easiest way to manage the virtual and physical consoles the way customers want. Nodegrid Manager's core engine allows for policy-based automated discovery and configuration of asset consoles to minimize configuration and maintenance.

The core engine utilizes a complete interface abstraction layer to implement the many protocols and methods required to access and control consoles from multiple vendors. Nodegrid Manager is a flexible console server tool which offers complete Web access and scriptable CLI enabling full customization and integration of console ports and applications.

**Nodegrid Manager** automatically discovers physical and virtual IT devices in the network. Alternatively, the administrators can add IT devices manually via Web, Command Line or APIs.

Nodegrid Manager allows the user to access and control IT devices by providing a communication protocol to different vendor devices.

Examples of protocols and services implemented include: CIMC for Cisco devices, DRAC for Dell devices, ILO for HP devices, ILOM for Oracle servers, IPMI for generic devices, Telnet/SSH for generic devices and VM/MKS for VMware devices – among many other present and future vendors.

NodgGrid Manager offerssame access and control commands via Web, CLI and API interfaces for all IT devices in order to provide a common user experience irrespective of device type or brand.





### **About ZPE Systems:**

ZPE Systems is the industry's first provider of an "Open Infrastructure Management Solution™" for in-band and out-of-band access and control of Network, Compute, Storage and Power Devices in both physical and virtual IT Infrastructures. The company's NodeGrid® platform easily consolidates, organizes, and simplifies the need for a complete and highly secure remote access and control solution. ZPE's global headquarters is located in Fremont, California with offices throughout the US and globally in Ireland, India, Brazil and Japan.



### **Nodegrid Manager - Features**

- Secure console access and control
- · Console Data logging
- Service Processor Event Logging
- Service Processor Environment Sensors
- Event notification
- Shared access
- Power Management
- VM console discovery
- AD/LDAP integration
- · IPv4/IPv6
- · Scalable, 1000+ devices per software node



### **Sales Inquiries:**

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### **Nodegrid Manager - Advantages**

- Software-Defined Infrastructure lets each user manage the way that they want
- · Vendor-independent with all console protocols supported
- Policy-based discovery and management minimizes management overhead and save time.
- Automatic Event Tracking is another key benefit as it helps with notification of fault conditions and alerts
- Vendor-neutral management tool includes console access, data logging, environment sensors, notifications, power management, VM consoles and better consolidation of large numbers devices
- · Fast to deploy with automated maintenance
- · Single software solution installs from ISO with

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