

Eidola Application Note #2 - Eidola Value Propositions, Delivering Value at Every Stage of the System Integration Lifecycle

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Overview

This application note focuses on the capabilities and value of the Eidola platform and services in particular the functionality delivered by the Eidola devices. It is important to note that Eidola is a platform that consists of guidance, documentation as well as the technology and diagnostics in the EiBrick™ and EiPi™.

Infrastructure Mode

Eidola devices can be set up in either infrastructure or stand-alone mode. In infrastructure mode the device provides a full set of enterprise IT services including DNS, DHCP, NTP, SNMP and other services. This section runs through the value propositions and use cases for a device in infrastructure mode, and while the diagnostics are still available when a device is in this mode this section talks through the value specific to infrastructure mode.

Integration sandbox and test bench that can be used to simulate target IT environment

Infrastructure mode allows Eidola customers to simulate the target IT environment into which a system will be deployed. As an integration sandbox this allows the easy configuration of the target environment without the need to modify any of the existing IT services that might be in place in the integrator's network to support their ongoing business.

Benefits:

- Cost savings in reduced time to integrate.
- Bridge to customer IT departments and budgets
- Reduced internal IT overhead

Integration sandbox for testing, configuration and documentation of components

Besides being able to provide a target IT environment, an integration sandbox allows creation of a baseline system to then perform additional device testing and configuration. Ideally a fixed routine is established to put devices and subsystems into the environment. This is part of the Eidola value proposition of component and system lifecycle management.

Benefits:

- Puts in place repeatable time saving and secure processes.
- Greatly reduces or eliminates costly and time consuming field and customer configuration issues.
- Automates documentation and configuration processes.

Mobile network services

Besides being able to set up a target network as an integration sandbox there are also circumstances where there exists a need for network services in the case of deployment or troubleshooting. For example use of staged network services to bring an integrated system up. From a maintenance or service perspective, service calls can take place in a circumstance where networks are down, presenting challenges in trying to troubleshoot a system. Mobile network or "pop-up" services provides an "always have" network as back up to facilitate further debugging and remediation.

Benefits:

- Cost and time savings in field troubleshooting.
- Reduces dependencies and increases productive collaboration with customer information technology department. Bridge to customer IT departments and budgets.
- Makes advanced IT tools available to any service technician.
- Raises technical literacy of service technicians.

Public Key Infrastructure (PKI)

The Eidola platform includes the OpenSSL and other open source code bases that provide a number of PKI based capabilities. This includes an ability to handle certificate requests, issue certificates, provide a revocation endpoint and other capabilities typically found in a PKI. This capability is for test and integration purposes and is not intended to be used as a production PKI.

Benefits:

- Reduces dependencies and increases productive collaboration with customer information technology department. Bridge to customer IT departments and budgets.
- Makes advanced IT tools available to any service technician.
- Raises technical literacy of service technicians.
- Provides competitive advantage by mainstreaming use of PKI for physical security deployments previously beyond reach of many physical security departments and integrators.

Stand Among – Diagnostic Mode

Stand among is an alternative to infrastructure mode for the Eidola devices. And while an Eidola diagnostic (aka EiDiag™) can be executed in either mode it is easier to refer to these diagnostics as a separate set of capabilities apart from the infrastructure capabilities of the devices. The goal here is not to examine each of the diagnostics (additional application notes will look at the diagnostics in detail) but rather to discuss the value proposition of the diagnostic capabilities.

Configuration and Documentation

One of the primary uses of the Eidola toolbox is to provide detailed information about field devices. This uses a number of the diagnostic tools that include network mapping (NMAP), the simple network monitoring protocol (SNMP), the transport layer security (TLS) and open supervised device protocol (OSDP) tools. These tools provide network and device information including MAC addresses, fully qualified domain names (FQDN), IP addresses, ports, services, status of services, firmware and date of update, certificates and status among other information.

- Incoming component inspection
- Hardened configuration checking
- Development of as-built documentation
- System sign-off

System Troubleshooting

Eidola devices act like a 21st century multimeters making it easy to determine whether or not components and system are connected properly and allow technicians to develop information readily usable by the physical security organization and also by IT, compliance and audit teams..

- Device and system documentation during service calls.
 - Ability to determine problem causes and extent to which problems are covered under existing maintenance and service agreements. Eliminates finger pointing.
 - Recurring revenue for premium service agreements
 - Automating reporting of service calls

Compliance and Audit

Again, the Eidola tools make sure of industry standards as well as leverages guidance IDmachines has developed that has formed the basis for a number of manufacturers hardening guides. We are subject matter experts in security and privacy controls that cover the gambit from the simple to complex. The Eidola devices can be leveraged to perform test that meet compliance and audit needs.

- Provide system checks that address industry and internal audit requirements.
 - Recurring revenue stream and accountability
 - Provide unbiased reporting to streamline audit and other processes

Advanced Capabilities

For those wanting to push the envelope the Eidola devices can perform a wide range of advanced diagnostics. IDmachines provides tutorials and training on leveraging these system capabilities including detailed network tracing, integration with other open source tools such as Wireshark.