Technical White Paper
Product Line Overview

Overview

SBS360 APP Onsite: A data collection tool that automatically performs print assessments, monitors consumable levels and printer status. This application is installed at the customer site and can perform print assessments automatically on a scheduled basis without human intervention. The data captured is sent to the Central website using HTTPS or HTTP. A technician with minimal software and networking experience can quickly deploy to a customer site.

How It Works

The core engine, which is the heart of every SBS360 APP product, correctly identifies and extracts data from networked printers, copiers and MFPs utilizing the protocols the devices support such the Simple Network Management Protocol (SNMP). SNMP is a network protocol that facilitates the exchange of information between network devices; extracting data from the Management Information Base (MIB) and other locations within the print device. The MIB is basically an internal database that all network connected devices have, that contains information like the model name, toner levels and the current status of the device.

Requirements

Printers, copiers and MFP's must have the SNMP protocol (Port 161) enabled for discovery and extraction of information. The SNMP protocol is a standard part of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite. By default the "public" SNMP community name is used, but may be modified in the SBS360applications to support custom environment settings.

Manufacturer Support

The SBS360 APP products are manufacturer neutral. They support all of the major manufacturers and model families. Some devices have limitations that prevent extraction of certain information.

Virus Concerns

The SBS360 application files have been digitally signed to prevent execution if the file integrity is compromised. This ensures that any virus is not activated, and prevents spreading the virus from one network to another. For additional assurance, we recommend using antivirus software.

Security Concerns

The SBS360 applications only read from networked devices and do not write to devices.
The SBS360 APP Onsite communicates with the SBS360 Central be sending an encoded XML stream over port 80 or 443. Confidential data is not collected, viewed or saved by any SBS 360 application.

Network Discovery

The optional, patent pending, SBS360 APP Automatic Network Discovery Settings feature uses a mixture of algorithms to discover and communicate with the different network elements such as the current workstation or server, routers, hubs switches and other network hardware to identify the network ranges where print devices may be located.

Network Traffic

Audits use an intelligent system that extracts minimal information for each printer, copier or MFP. Unlike similar products that send a fixed set of queries (a superset of all possible queries) to every networked device, the SBS360 APP family of products only sends the relevant queries according to the fields the target device supports, with each device query being no more than a few kb of data. To further reduce the amount of network bandwidth used, the SBS360 core engine communicates with no more than 20 devices at a single time. Each IP within the configured ranges will be queried and if no response is received within the configured timeout period it will move onto the next IP address. A rule-of-thumb is that SBS360 APP will gather information on 65,000 devices in a little more than one hour.

HIPAA Regulations

HIPAA aims to protect all medical records and other individually identifiable health information used or disclosed by a covered entity in any form, whether electronically, on paper, or orally, are covered by the final rule. The SBS360 APP products are fully compliant with the HIPAA regulations as the SBS360 APP products do not store, process, monitor or manage any patient records or any records or information that is specific to any one patient or group of patients. The product engines communications are controlled, using limited access to contact a specific IP address and/or ranges. All communications must originate from the SBS360 APP's products, and there is no way to contact and access the products from outside the network. The communication outside of the network uses a proprietary, compressed data stream and sends using industry standard SSL over https.

The SBS360 APP products report the usage counts (meter readings) and status of print devices on the network. It does not communicate any information about any specific print jobs. While the devices might print out patient records, our products do not and cannot determine anything about the information being printed. It only performs audits, on a scheduled basis, the meter readings of the device, or in the case of a device problem, an alert.

The SBS360 APP's products cannot in any way be configured to perform a task beyond the ones for which it was designed. The transmission of data from the products to outside sources is tightly restricted. The products do not report any other details except for information of the equipment being monitored (i.e. type of equipment). No patient related information ever leaves the network via our products.

Frequently Asked Questions (FAQ's)

What are the Onsite minimum requirements?

 The Products, may be run on any modern Windows operating system (in 32 and 64 bit modes) including: Windows 2000, XP, Vista, 7, 8 and Server 2003, 2008, 2008 R2, 2012

Does the SBS360 APP Onsite require Microsoft Internet Information Services (IIS)?

No. Onsite includes its own server to display the web pages and is set up automatically during the installation.

Can you install Onsite on a computer which already hosts another IIS website?

Yes. Onsite uses port 33330 by default, but this may also be configured to use a different port if required.

How much ongoing maintenance does Onsite require?

Onsite is a service which runs in the background and performs audits and exports to configured destinations on predefined schedules. It's recommended to use subnets (IP ranges) instead of fixed IP's so that when adding new devices to the network, they will be discovered and included in the audit results, limiting manual intervention.

What versions of SNMP are supported?

The SBS360 APP supports SNMP versions v1 / v2c and 3

Why am I not seeing all of my networked print devices?

Firewalls and other network hardware may prevent or limit the discovery of the network configuration. Networks with multiple physical locations typically have firewalls in between each Local Area Network (LAN) and the public Internet that connects these locations via a Wide Area Network (WAN). The network IP ranges (segments) may be manually added to the products, with the minimum requirement that the target devices can be "pinged" from the originating location.

Depending on the amount of network traffic and the general network latency, the default timeout may need to be adjusted. Differences in the total number of devices from one audit to another within the same relative timeframe, is a good indicator the timeout setting needs to be increased.

JetDirect's & Compatibles

Our core engine supports HP JetDirects and compatible devices. During an SNMP query on the network, the SBS360 APP's core engine communicates with the JetDirect or compatible device and extracts the hardware reported life-time meters, serial number, toner coverage's, toner levels, service alerts and more.