



# Security

JetAdvice Manager installations provides a high degree of confidentiality and data security both when running on the server and when exchanging data over the network.

## Technical description

This section describes the technical details about the JetAdvice Server and JetAdvice Data Collector and how the communication between your network and the JetAdvice Server are performed.

## Network requirements

- Access to Internet
- SNMP-enabled network

## Data

JetAdvice uses HTTP port 80 (HyperText Transfer Protocol) for communication between the JetAdvice Data Collector and the JetAdvice Server. You can compare this to browsing the web with an Internet browser on a standard PC.

All data is exchanged in a compressed and encrypted way using HTTPS port 443 (HyperText Transfer Protocol Secure).

JetAdvice Data Collector is using Simple Network Management Protocol (SNMP) to collect MIB / OID data from the printers on your network.

This is done using as few network resources as possible.

Print jobs cannot be reproduced or replicated based on submitted data. Only accounting/status information (meta data) is transmitted. This ensures a high degree of confidentiality.

Please notice that data is encrypted and compressed when transmitted.

The data transmission (HTTP request) is usually below 100 Kb.

Data, by default, is scheduled to be transmitted every 120 minutes to the JetAdvice Server.

The JetAdvice Data Collector service is easily configured on the JetAdvice Server.

## Technologies used

The JetAdvice Server and JetAdvice Data Collector are building on the flexible and highly secure .NET platform that offers superior performance and scalability.

## Requirements

- Microsoft Windows Communication Foundation (WCF).
- Microsoft .Net 3.5 Framework SP1 (if not installed on the server it will require ~600MB).
- SNMP version 1.0 enabled on network and devices.
- Community default name: „Public“ . It is possible to set the community name for each range.

The JetAdvice Data Collector service takes only few resources on the computer it is installed on, and can run on all hardware that meets the .Net 3.5 requirements.



## The principal JetAdvice Data Collector functions

The program will contact the JetAdvice server for:

- Authentication
- List of network ranges
- List of MIBS
- Discover and Collect phases

The JetAdvice Data Collector will scan all defined network ranges searching for imaging devices (printers, MFPs, fax machines, etc.)

The flexibility of network scan is the ability to from one specific IP Address to a full IP range - e.g.: 192.168.99.1 to 192.168.99.254.

The JetAdvice Data Collector only performs SNMP reads and is not able to update or make any changes to the imaging device.

The JetAdvice Data Collector uses two phases to collect data from an Imaging device; Discover and Collect. Both phases use SNMP to look for specific OID's. From the server, it is possible to setup how often each phase can be executed.

### Discover phase

The Discover phase is used to look at all IP addresses specified using SNMP, to see if the specific IP address holds an image device.

First, one SNMP packet is sent to all IP addresses, if a reply is given, a unique set of OID's are sent to identify the image device.

Then the image device is found and stored in the database for the Collect phase.

### Collect phase

Depending on the imaging devices found in the Discover phase, the type of data requested can vary.

Small devices, like mono printers, are asked for very little information, whereas a large MFD could have a wider data set to collect.

Not all data is collected each time a Collect phase is completed. Some data is collected each time and other data is collected only once.

Its standard to collect the IP address, MAC and Hostname of each image device scanned to ensure the accurate identity and location information on each imaging device.

If a printer is found, it will be matched to a specific MIB and, via SNMP, asked for the specific information related to type and model.

Name	OID	Result
Model_Name	1.3.6.1.4.1.11.	HP Color LaserJet CM4730 MFP
DeviceIdentifier	1.3.6.1.2.1.25.	HP Color LaserJet CM4730 MFP
Model_Number	1.3.6.1.4.1.11.	CB481Q
SerialNumber	1.3.6.1.4.1.11.	JPC1H11795
Firmware_Date_Code	1.3.6.1.4.1.11.	20110829
Firmware_Version	1.3.6.1.4.1.11.	50.021.0
HostName	1.3.6.1.2.1.1.5	NP1870A6C
Printer_Display	1.3.6.1.2.1.43.	Ready
Device_Location	1.3.6.1.4.1.11.	Reception
Device_AssetNumber	1.3.6.1.4.1.11.	PRN-2011-A8743
Device_Total	1.3.6.1.4.1.11.	698265
Copy_Total	1.3.6.1.4.1.11.	12669
Print_Total	1.3.6.1.4.1.11.	684331
Fax_Total	1.3.6.1.4.1.11.	1265
Print_BW_Total	1.3.6.1.4.1.11.	558744
Print_Color_Count	1.3.6.1.4.1.11.	125587

« See example.

## About EuroForm..

EuroForm A/S is an independent software development company, based in Denmark. We are committed to adding true value to customers through providing second-to-none solutions that

optimize and enhance the use of laser printers and multifunction devices. EuroForm A/S is one of the first printer software developers to offer innovative solutions in the cloud.

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