



ROI Network Impact and Required Hardware

How will ROI affect your Network?

- ROI Print Manager is designed to have minimal impact on your network environment. It consists of agents that are remotely installed onto client machines that report back to a central database via a web service.
- The information is collected when a user prints a job and the information is sent to the web service which is located on one machine (the ROI Admin Console). The format of the data is XML and is sent using SOAP to the web service which is then handled by the web service and sent to the database.
- The default database that comes with ROI Print Manager is SQL 2005 Express. ROI recommends using a full version of SQL if you are deploying agents to 2000 workstations or more and are deploying in Print Management or Print Reporter Mode.
- For larger networks, Load Balancing within the software allows the agents to update within a scheduled time. This reduces both traffic on the network and load on the ROI server. Load Balancing is only recommended for environments of over 5000 workstations. Very large networks of over 5000 workstations may require more than one ROI Admin Console.
- ROI Admin Console software can reside on any workstation within your domain provided it meets required hardware specifications based on the size of the network. It does not have to be installed on a network server. It can be installed on a virtual machine.
- Data is collected from the Windows Print Spooler on the client workstation, so non-networked (local) print info can be collected and there is no affect on print server queues. The data is then sent to the ROI Print Admin Console.
- Server Services must be switched on and Admin \$ must be enabled on the client workstations to be able to use ROI's built in push technology. When deploying with ROI's built in deployment feature, domain admin rights are required. An alternative mode of deployment is to use a 3rd party deployment tool. ROI software includes an agent packager that creates an .msi package that can be deployed via SMS or most third party push utilities.

Size of installed Applications:

ROI Print Manager Application	33.5 mb
ROI Agent	7.49 mb

Size of .msi package for deployment: 8.41 mb

Average time for install/ Configuration / Deployment:

Installation of ROI Print Admin Software	1 hour
Agent deployment per workstation (Using ROI push)	20-30 sec

A typical deployment to 300 workstations at 15 seconds each would take approximately 1 hrs and 15 min.

Network Traffic:

Data is transmitted back to the ROI Print Admin Console in small XML packets each time a job is printed from a client workstation keeping network traffic minimal. The packets are no more than 1kb in size.

ROI Admin Console Minimum Hardware Specifications:

Intel Celeron 2.20GHz 1GB RAM 60GB HD with 20GB Free space

Larger networks may require more robust hardware for the Admin Console machine.

ROI Admin Console Requirements:

Microsoft Windows 2000, 2003, 2008 (32 and 64bit), Windows XP Pro, or Windows 7

Internet Information Server (IIS) with the following components

1. Common Files
2. FrontPage 2000 Extensions (Print Management Mode only)
3. Internet Information Services Snap-In
4. World Wide Web Server

If running Win 2003 server ASP.NET needs to be checked and Active server Pages must be allowed. Worker Processes should be limited to 5.

For 2008 IIS settings, contact ROI support for details.

ASP.NET state service should be started and set to automatic.

Ensure the ROI Webserver Application pool is set to integrated in 2008 server

SQL Server 2005 or newer (SQL 2005 Express is packaged with ROI software)

NET Framework v2.0.50727

ROI Print Manager Server Software

Client Agent Software Requirements:

- OS support: Windows NT, 2000, 2003, 2008, XP Pro, Vista, Windows 7, Mac OSX 10.4 and above (Home versions not supported) (32 and 64 bit versions are supported)
- Agent is 7.49 installed
- Internet Explorer 5.0 or higher is required.
- Windows NT 4.0 Service Pack 3 or higher is required.
- To guarantee accuracy of data recorded by the Agents, monitored applications must use the Standard Microsoft Windows printing subsystem.
- ROI Print Manager utilizes TCP/IP port 80 by default.

Notes:

The ROI Print Manager agents should be deployed to client workstations only. Agents are not to be deployed onto servers.

Domain Administrator rights are required for deployment of client.

The installer will need Domain access rights to be able to push the agent across the network if using ROI's internal push technology.

The communication requirements for the management application

ROI Agents use HTTP and XML over port 80 to communicate to the ROI Print Admin Console. The ROI Print Admin console should not have other applications that utilize Port 80 loaded.

Antivirus:

Antivirus software can be installed on the printer management console and Clients and should not effect the operation of ROI.

ROI software works fine with Antivirus software in most configurations. If the Antivirus software is at its most restrictive settings, it may try to block the Client Agent from installing. In this case, an exception can be created with the antivirus software if needed.

The specific files that should be excepted in a restrictive AV environment are: actrl.exe, tca.exe, and xcmd.exe in some very restrictive environments xcmdsvc.exe and tcalog.exe may need to be excepted as well.

Firewalls:

The ROI Print Admin console cannot have a personal firewall on until all agents are installed and reporting in.

Client Workstations must have their personal firewalls disabled if using ROI's internal push technology to deploy the agents. Once the agent is deployed and communicating, the firewall can then be raised and it will communicate through it fine.

If there are personal firewalls up throughout the network and they don't want to disable them, an .msi package can be created using ROI's Agent Packager and the agent can be deployed via login script, SMS, group policy or most 3rd party push utilities. These methods install the agent before the firewall is activated.

Permissions:

When deploying the agent, write permissions to the registry is required.

To deploy via ROI's built in push technology, domain admin rights are required on the ROI Admin Console for deployment.

Citrix: ROI Print Manager is a Citrix certified application. For Citrix installs, careful note should be taken for the hardware specs of the Citrix servers. I.E. HD space, processor, RAM and number of users logged into the server at one time (Load).



Large Networks:

In networks of 1000 workstations or greater, a Server OS should be used for the ROI Admin Console.

In networks of 2000 workstations or greater, a full version of MS SQL is required for PM mode and recommended for PA mode if over 10000 workstations.

In networks of over 5000 workstations, multiple ROI Admin Consoles may be required.

Large networks can utilize multiple ROI admin consoles as needed (I.E. multiple sites/cities). The data can be recombined into one report as needed. Alternatively, one ROI Admin Console can be used for multiple sites / Cities dependent on the hardware specification and network load.

ROI Network Diagram

