

Managing Enterprise-wide Printing: The IT Challenge

Presented by

PRINTRONIX®

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There is a way...

- To inject true efficiency into enterprise-wide printing
- To have enterprise-wide visibility, total control and remote presence
- To minimize printer downtime in mission-critical applications
- To remove real costs from your printing environment

Host Printing

Legacy systems represented by large, centralized printers are responsible for high-volume print jobs.

ERP Printing

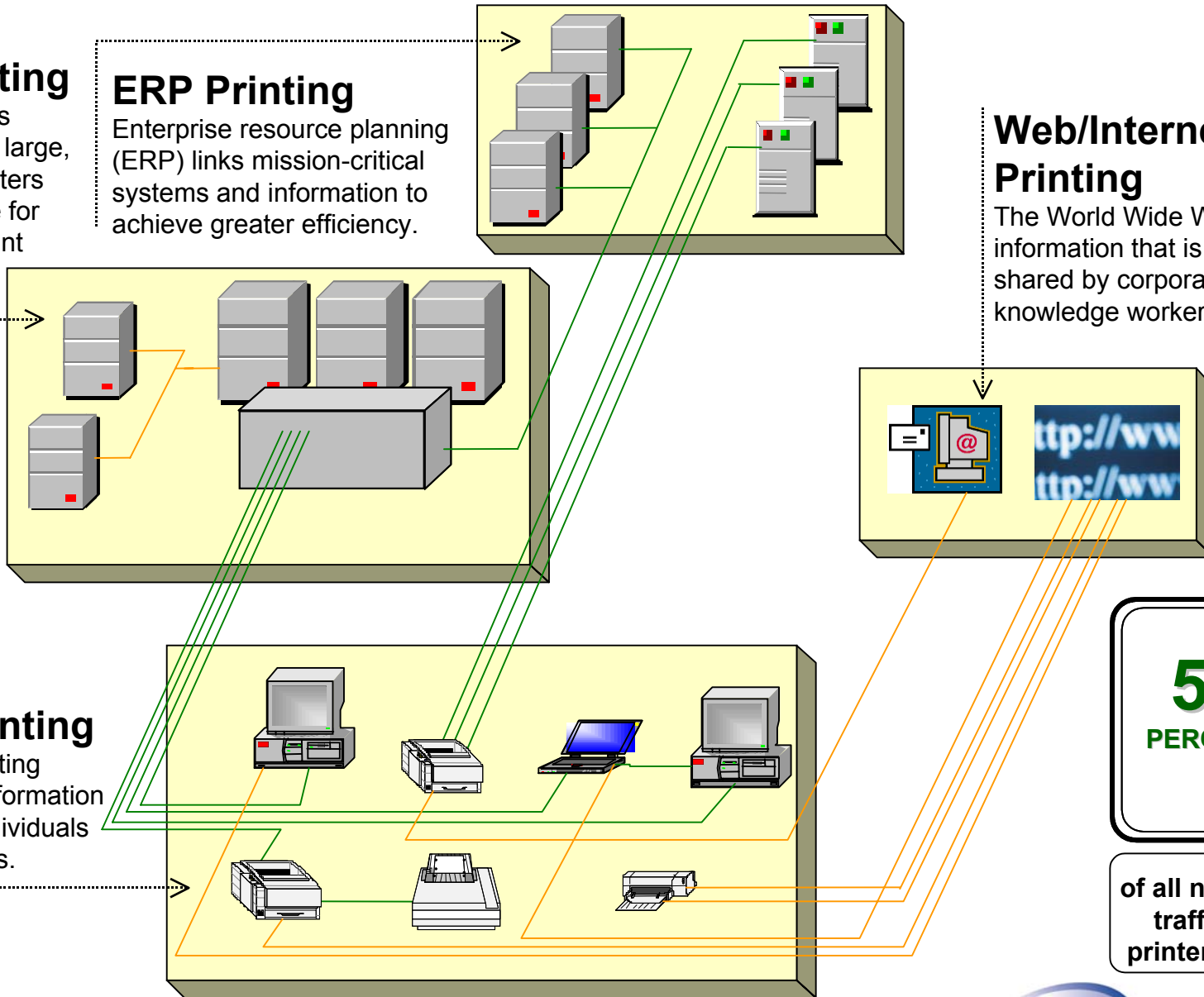
Enterprise resource planning (ERP) links mission-critical systems and information to achieve greater efficiency.

Web/Internet Printing

The World Wide Web delivers information that is printed and shared by corporate knowledge workers.

Office Printing

Distributed printing supports the information demands of individuals and workgroups.



55
PERCENT

of all network
traffic is
printer traffic

Today's Management Tools

- Generic Management Platforms
- Generic MIB Browser
- Generic low level SNMP tools
- Printer manufacturer's management tool
 - External application
 - Embedded web server
 - Telnet commands

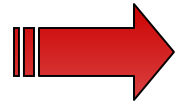
Print Management For the New Millennium

Enterprise Wide...

- Visibility
- Remote Access
- Total Management and Control
- Notification and Alerts

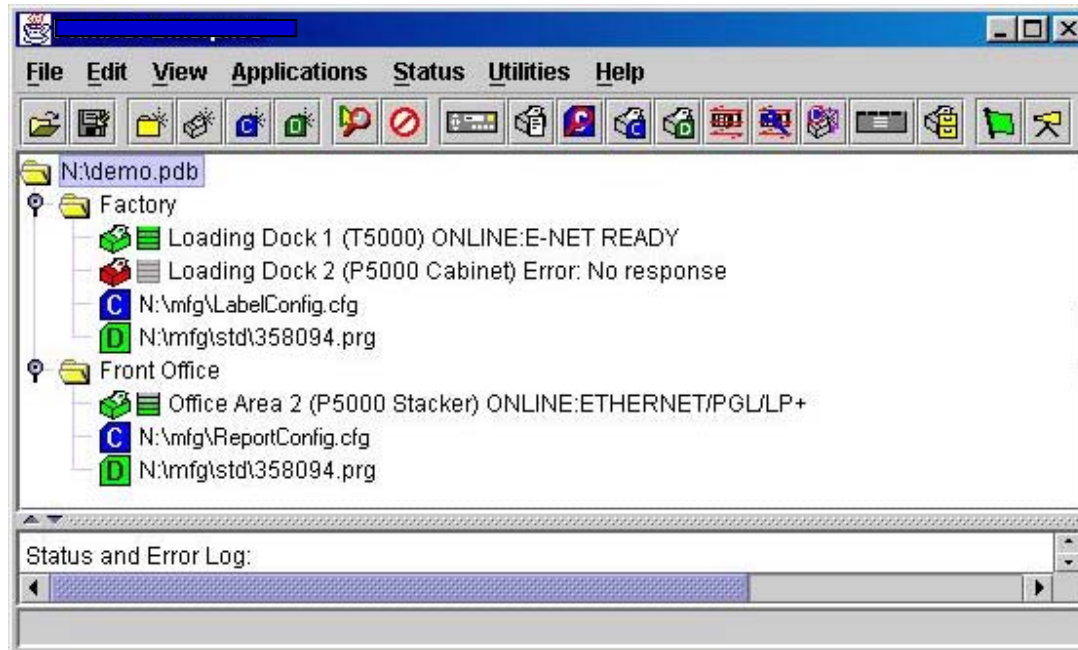
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Enterprise Wide...



- **Visibility**
- Remote Access
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Visibility

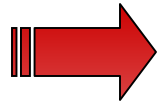


- **Status and selection in one**
- **More information in less time**
- **Provides managers complete visibility of their operations**

Print Management For the New Millennium

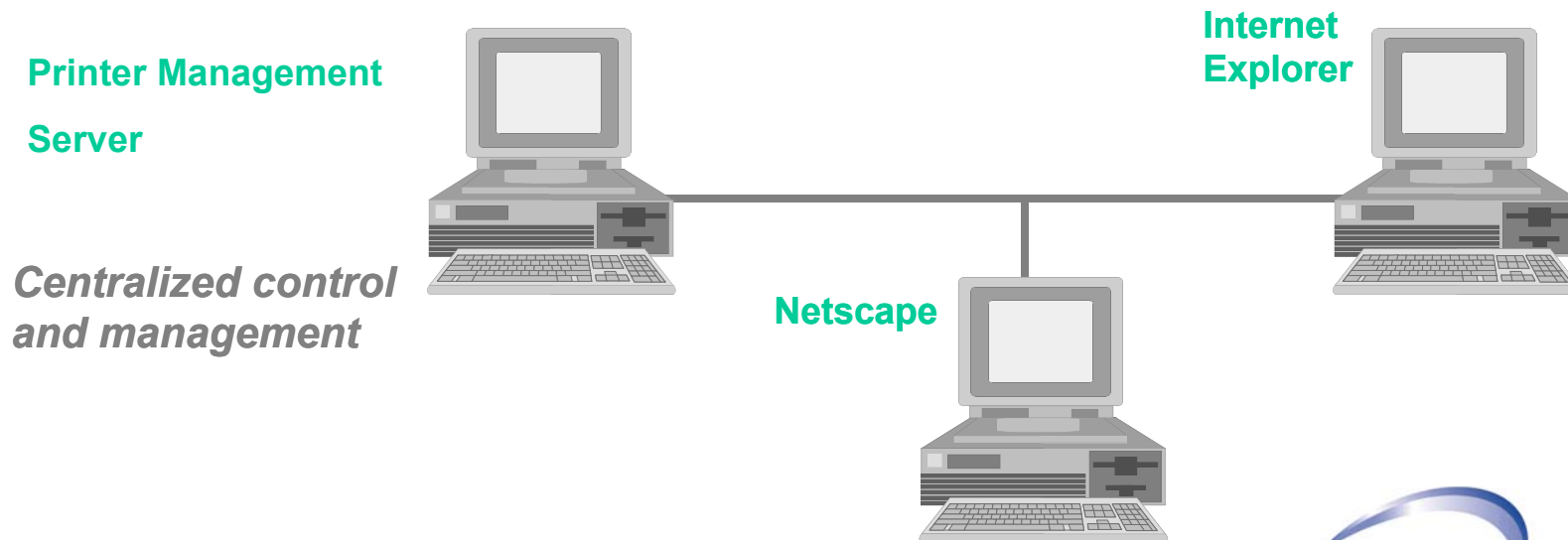
Enterprise Wide...

- Visibility
- **Remote Access**
- Total Control
- Notification and Alerts



Access over the web

- **Access to printer management features over web**
- **Eliminates need to install software at all sites or workstations**
- **Dramatically boosts user access**
- **Requirements for large enterprise**



Remote Presence

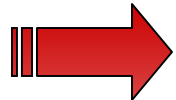
- **Works just like local panel**
- **Printer comes to user - not user to printer**
- **Lowers the number of “experts” required to support operations**
- **Allows user to see problem for themselves**
- **Works over web**



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Total Control

Program Once...Influence Many

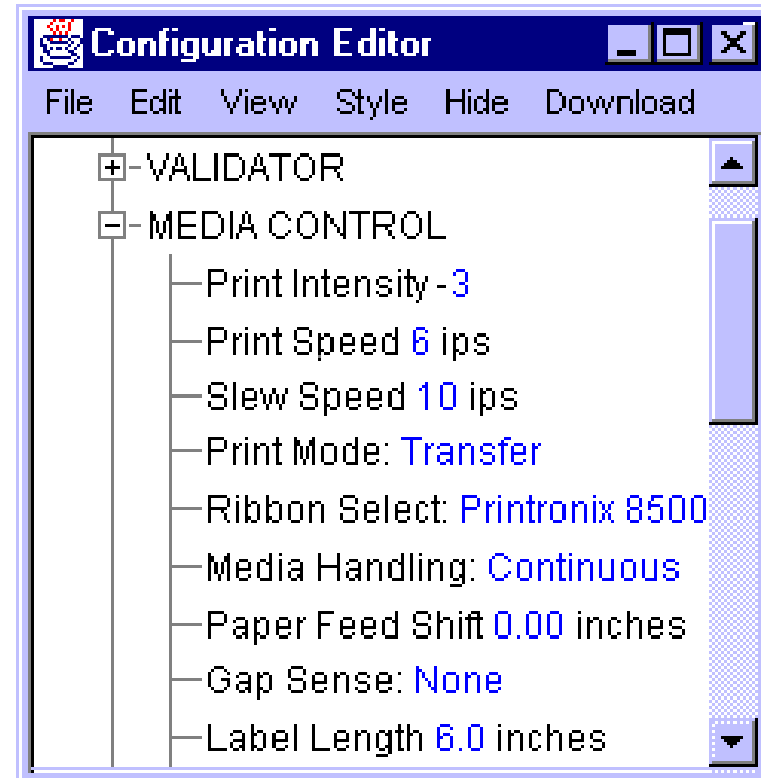
Ability to...

- Access files stored on the printer
- Manage a group of printers like a single printer
- Update the printer firmware
- Automatically discover newly installed printers
- Remotely capture print jobs
- Selectively modify print job data stream
- Manage printers directly attached to network, workstations or terminals
- Identify a subset of printers, and define how those printers are displayed
- **SAVE TIME AND MONEY!!!**

Total Control

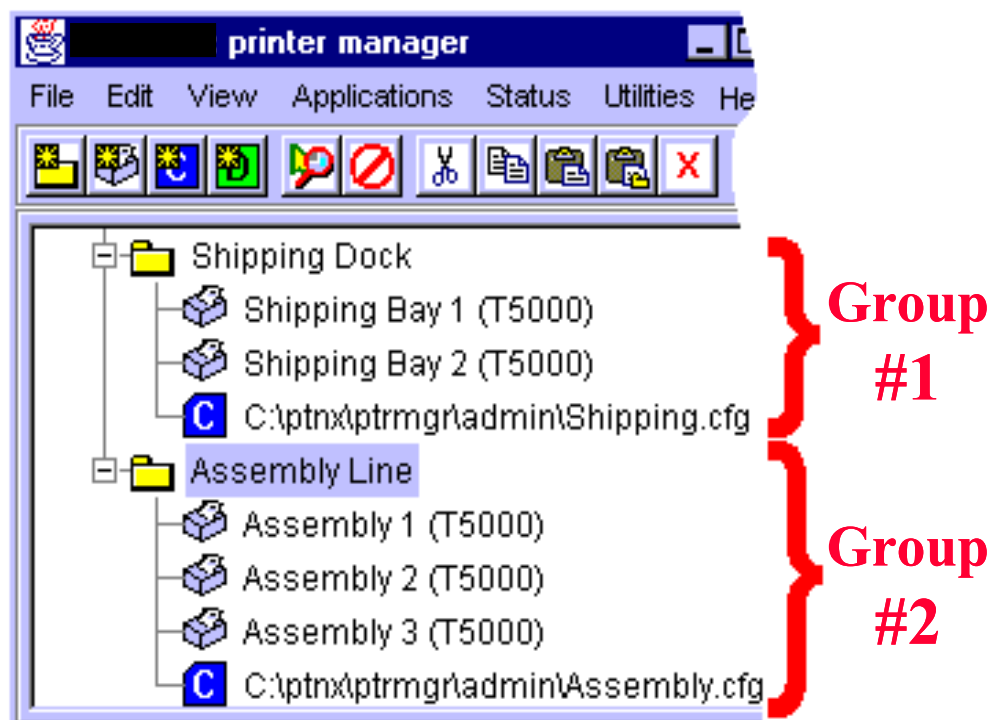
Program Once...Influence Many

- **Read, modify, store, and broadcast printer configurations**
- **Eliminate inconsistencies across all printers**
- **Reduce downtime and costs**
- **Simplify installation of new printers**



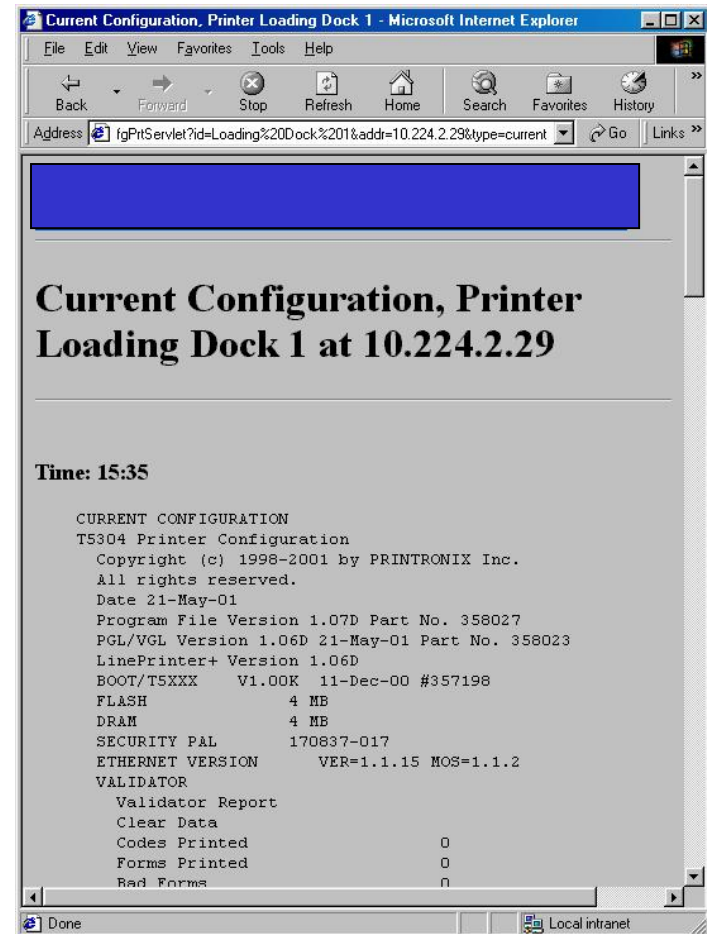
Program Once - Influence Many

- Printers used in different applications may require different programs, configurations...
- Lets you organize groups
- Insure consistency by broadcasting configurations and files to groups
- Saves time by not forcing user to change each printer individually



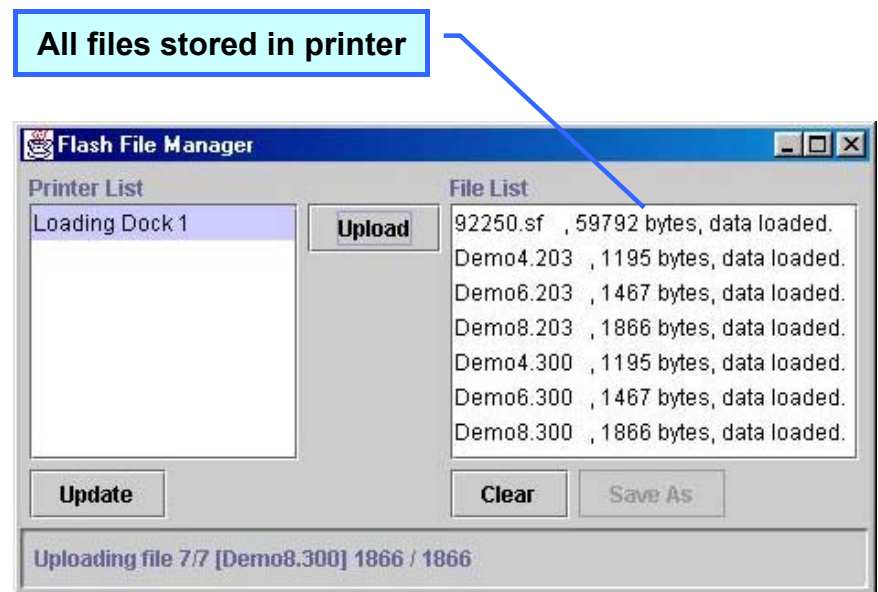
View Printer Configuration

- Complete visibility of detailed printer configuration
- From anywhere
- More information
- More places
- Saves time
- Boosts efficiency



Control Over Files Stored on the Printer

- See, read, and save files to printer's flash memory
- Makes it easier to support special configurations
- Special fonts, logos, label formats

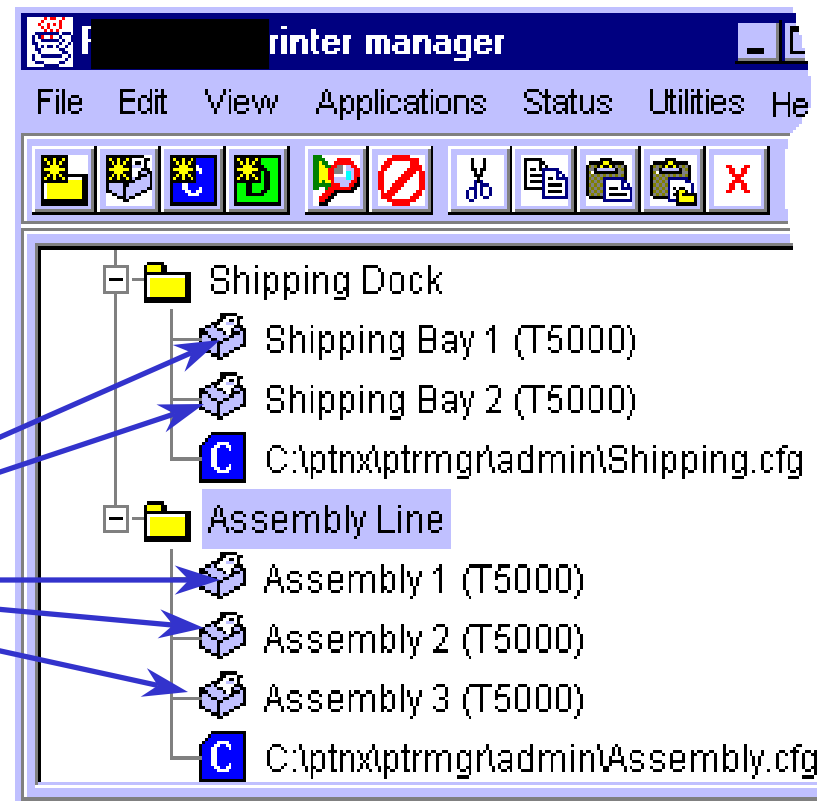


Firmware Updates the *right* Way

- Broadcast updates to groups of printers
- Automatically capture all configuration
- Restore configuration after download

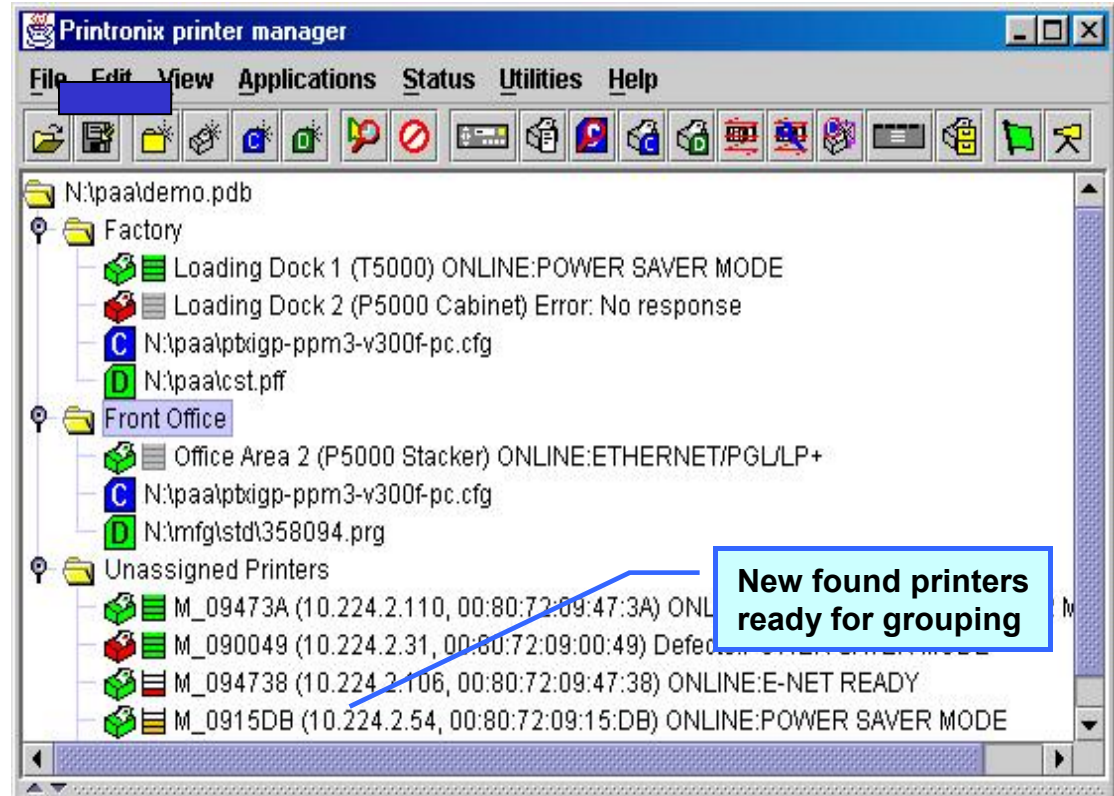


**Broadcast
Updates**

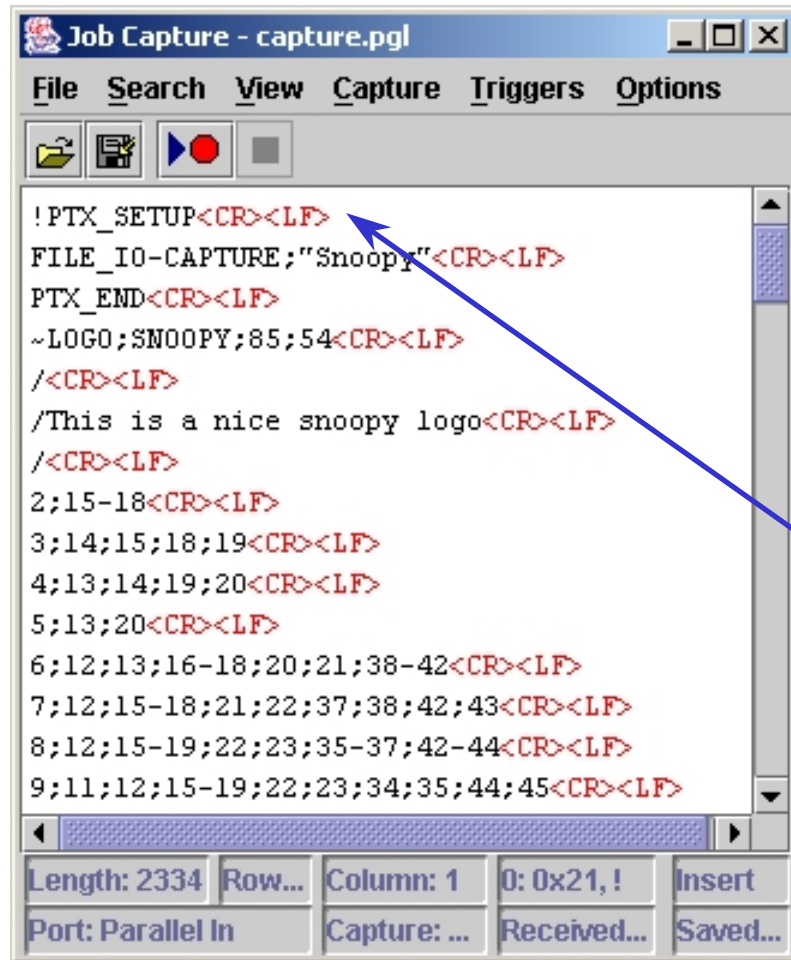


Automated Printer Discovery

- Find printers and automatically install them
- Use of remote tools increases efficiency



Capture Jobs to Identify Problems



```
!PTX_SETUP<CR><LF>
FILE_IO-CAPTURE;"Snoopy"<CR><LF>
PTX_END<CR><LF>
~LOGO;SNOOPY;85;54<CR><LF>
/<CR><LF>
/This is a nice snoopy logo<CR><LF>
/<CR><LF>
2;15-18<CR><LF>
3;14;15;18;19<CR><LF>
4;13;14;19;20<CR><LF>
5;13;20<CR><LF>
6;12;13;16-18;20;21;38-42<CR><LF>
7;12;15-18;21;22;37;38;42;43<CR><LF>
8;12;15-19;22;23;35-37;42-44<CR><LF>
9;11;12;15-19;22;23;34;35;44;45<CR><LF>
```

Length: 2334 Row... Column: 1 0: 0x21, ! Insert
Port: Parallel In Capture: ... Received... Saved...

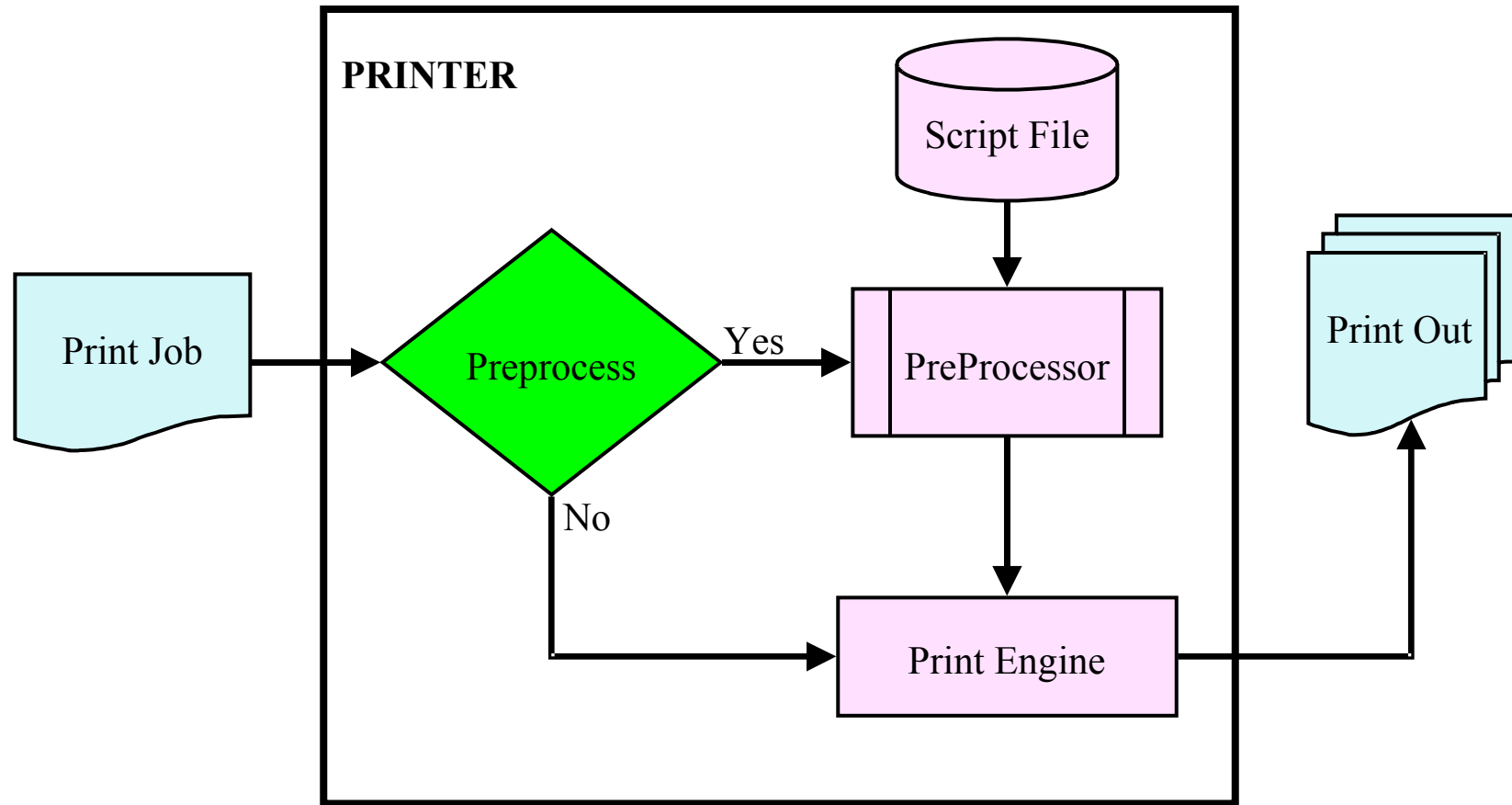
- Capture print jobs to find problems
- Fix problem and resend job to printer ... without resubmitting job



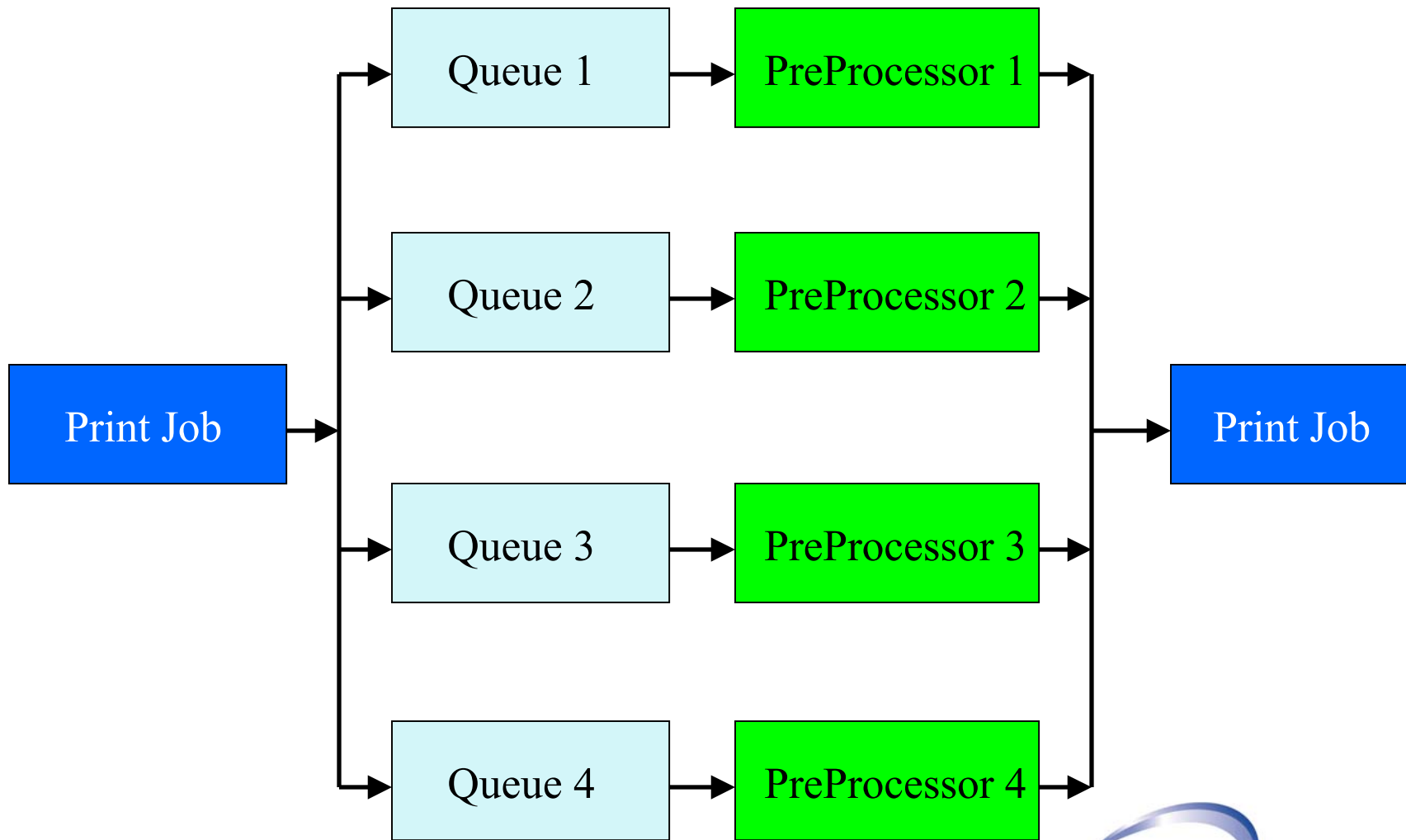
Preprocess Job Before Printing

- Use job preprocessing to fix the printing problems without touching the application generating the job
- Develop scripts to add, move, replace, or delete print data
- Download the script to the correct printer
- Associates the script with the proper print queue
- Enables and/or disable script usage
- All of the above can be done remotely

Preprocess Job Before Printing



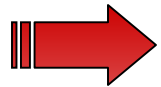
Logical Printer



Print Management For the New Millennium

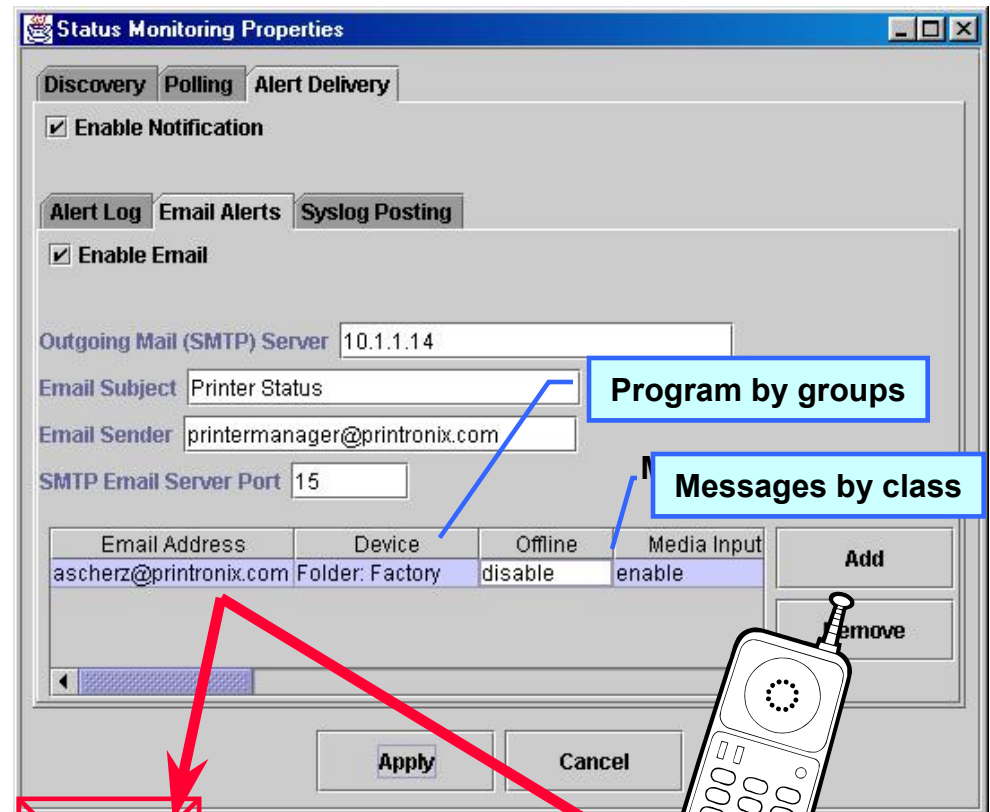
Enterprise Wide...

- Visibility
- Remote Access
- Total Control
- **Notification and Alerts**



Event Notification

- Proactive user notification via instant e-mail alerts
- Message must include detailed information
- Save time and cost
- Reduce downtime
- Improve efficiency of support personnel



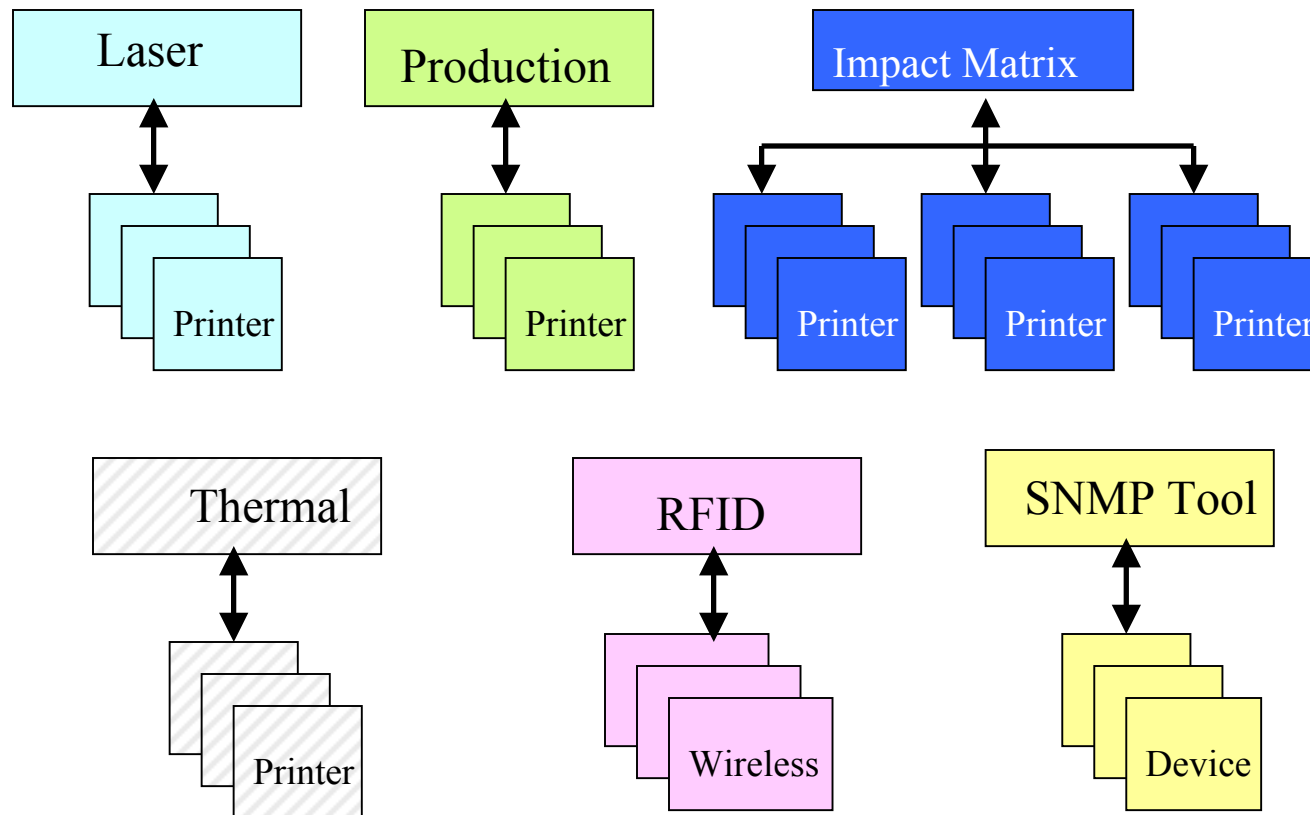
E-Mail Notification

Pager

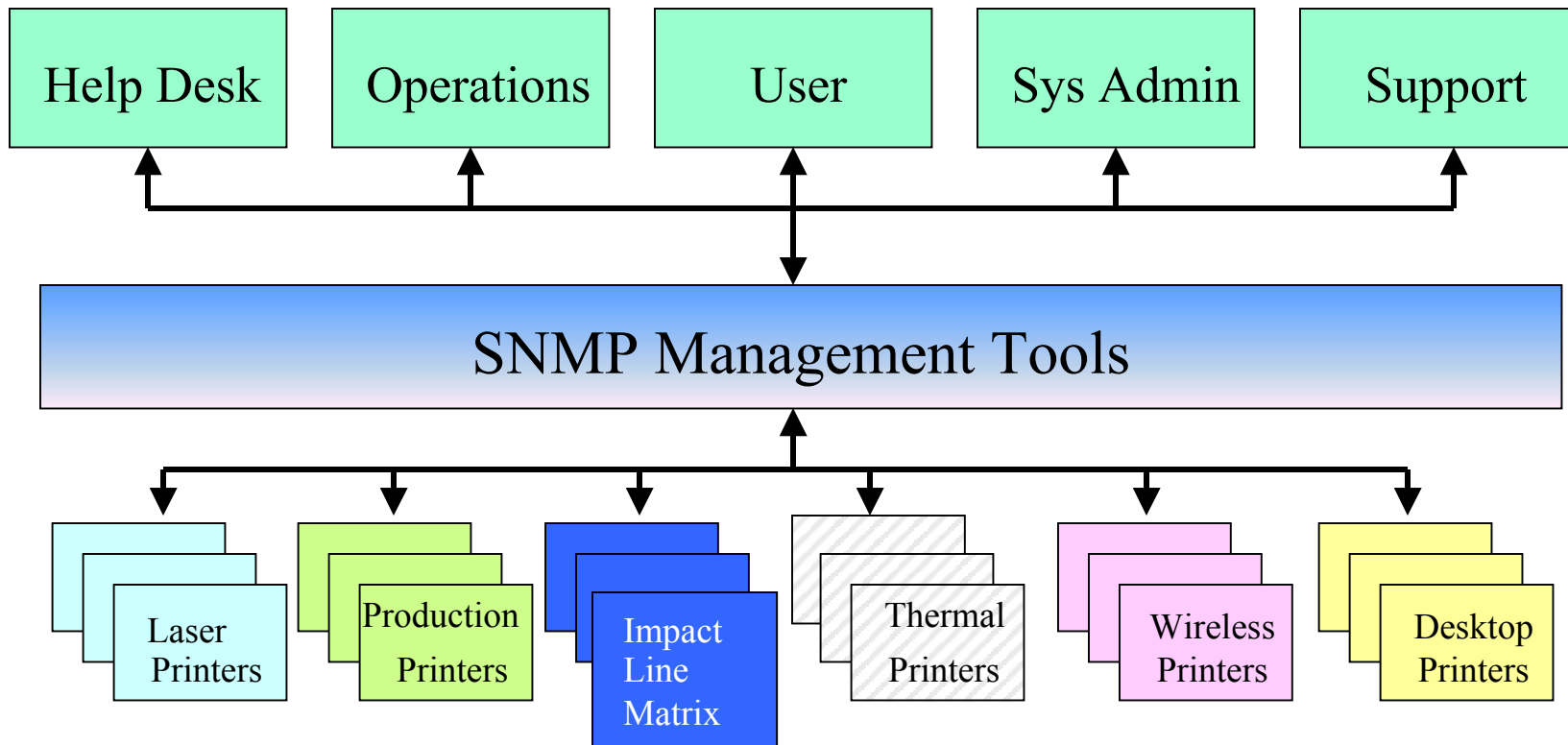
Moving Forward...

- Currently available printer management tools approach many of the requirements of best of breed printer management
- Most are limited in the number of printers and *types* of printers they can manage ... most are vendor specific
- Future direction is to expand printer technology coverage and enhance management of direct connect printers

Current Environment



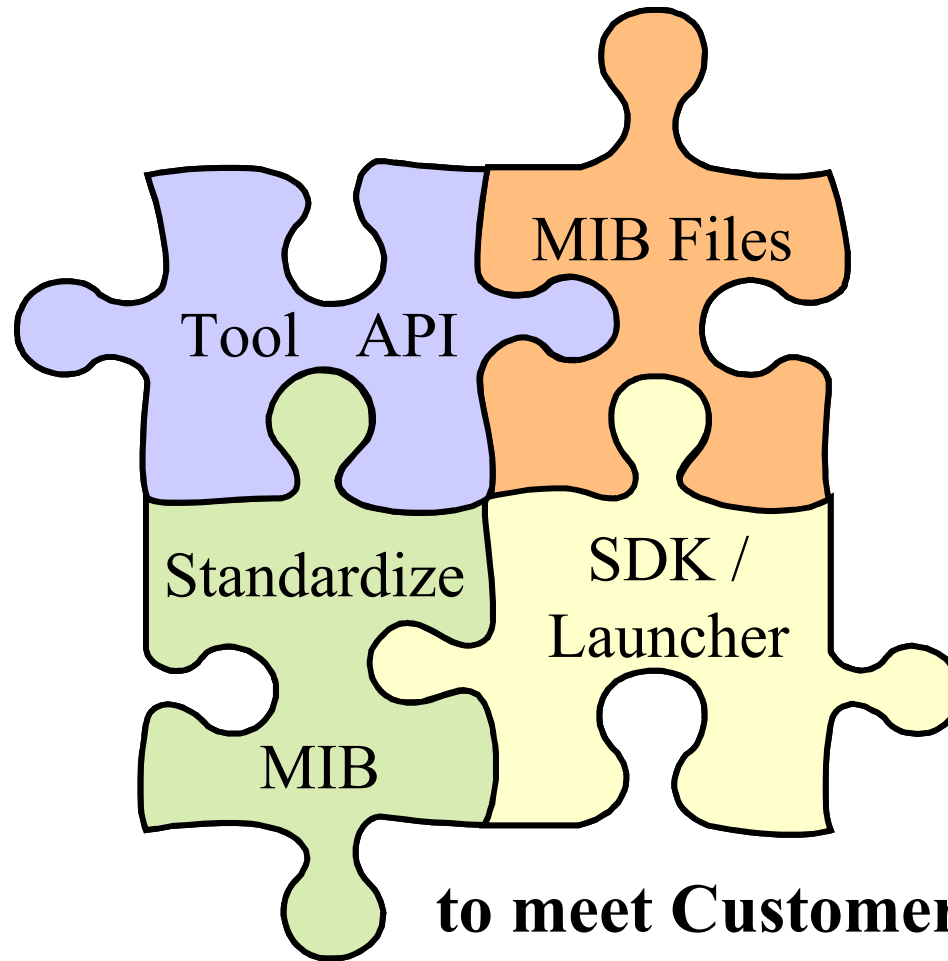
Desired Environment



Desired State

Employ a single management tool to meet all requirements of diverse user groups, printing devices and applications

Manufacturer's Strategy



Manufacturer's Strategy

- Add support for other manufacturer's device within their management tool
- Provide integration tools to integrate other management applications; or provide API for integration into other management applications
- Publish their private MIB so customers can use the management tool of their choice
- Support standardized MIB definitions such as the generic Printer MIB (RFC 1759)

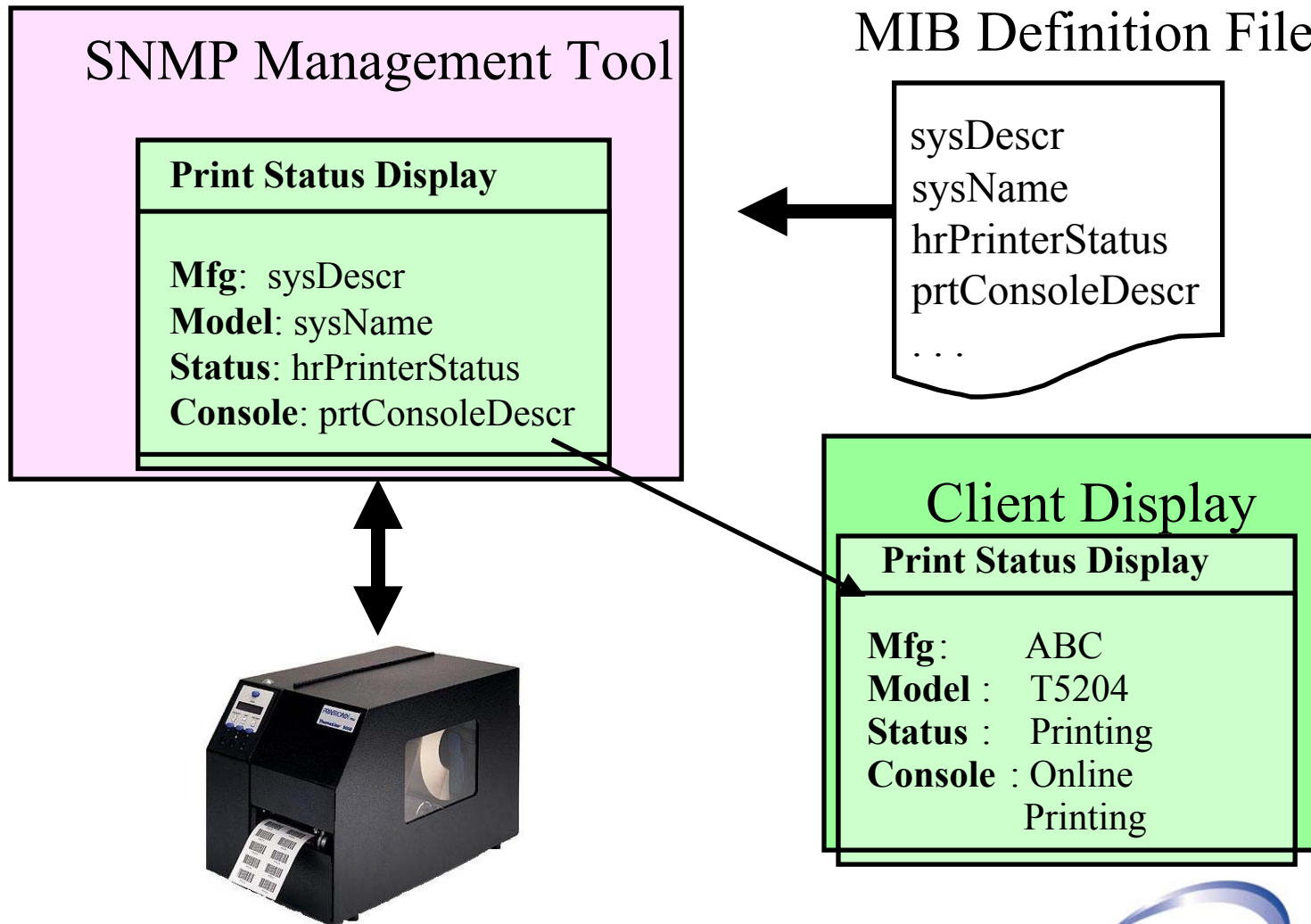
Manufacturer's Response

- **Hardware vendor**
 - Provide basic configuration tools to make device useful
 - Let customer select the management software
 - Provide MIB definition file so device will work with it
- **Solutions vendor**
 - Provide full featured management tools in addition to MIB definition files
 - Focus is to provide specific tools that focus on doing printer management and doing it right

Future Trends

- There is a need to support devices from other manufacturers
- Device manufactures need to open their private MIB so customers can use the management tool of their choice
- Device manufactures must support the generic Printer MIB (RFC 1759)

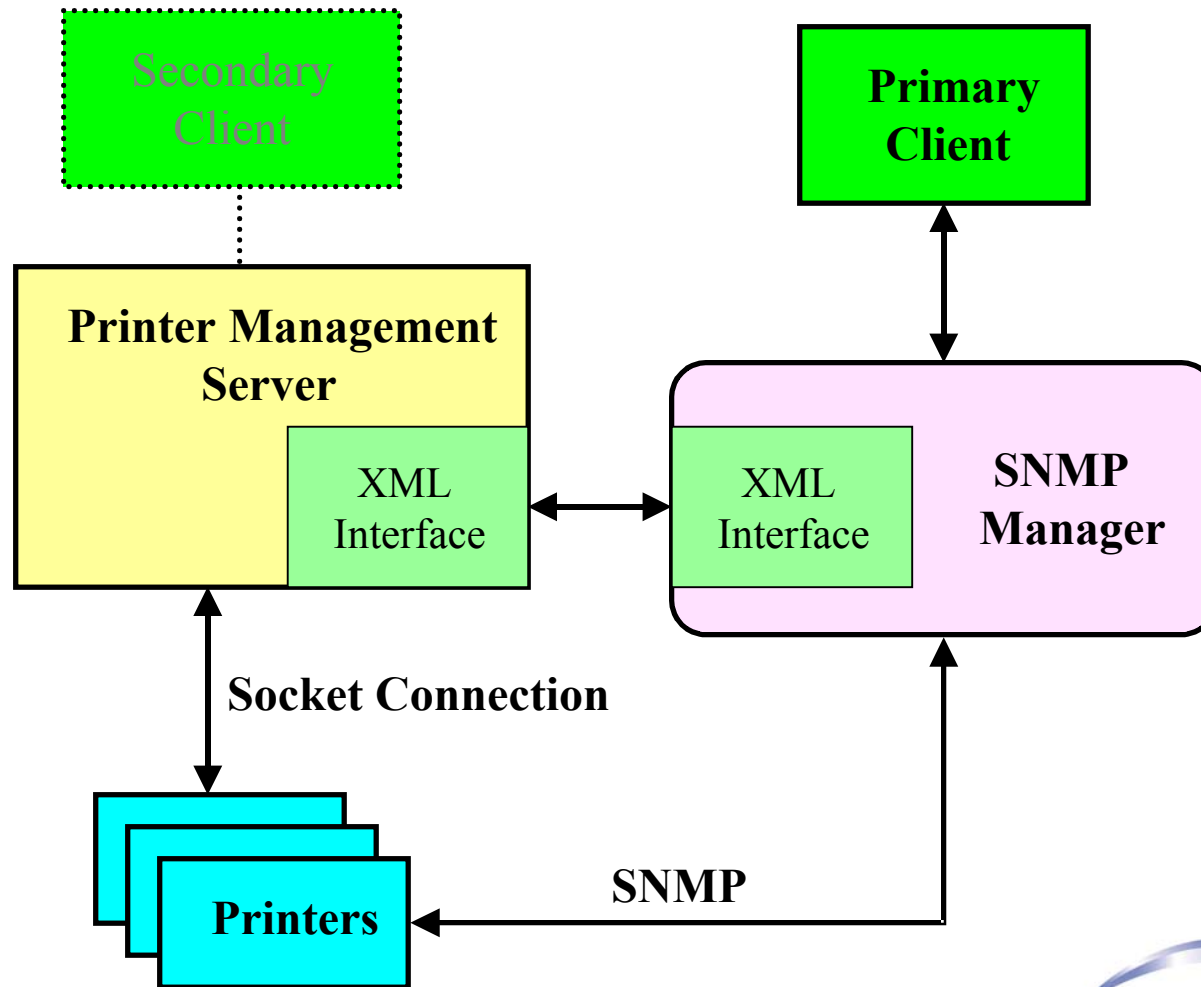
Providing MIB Definition



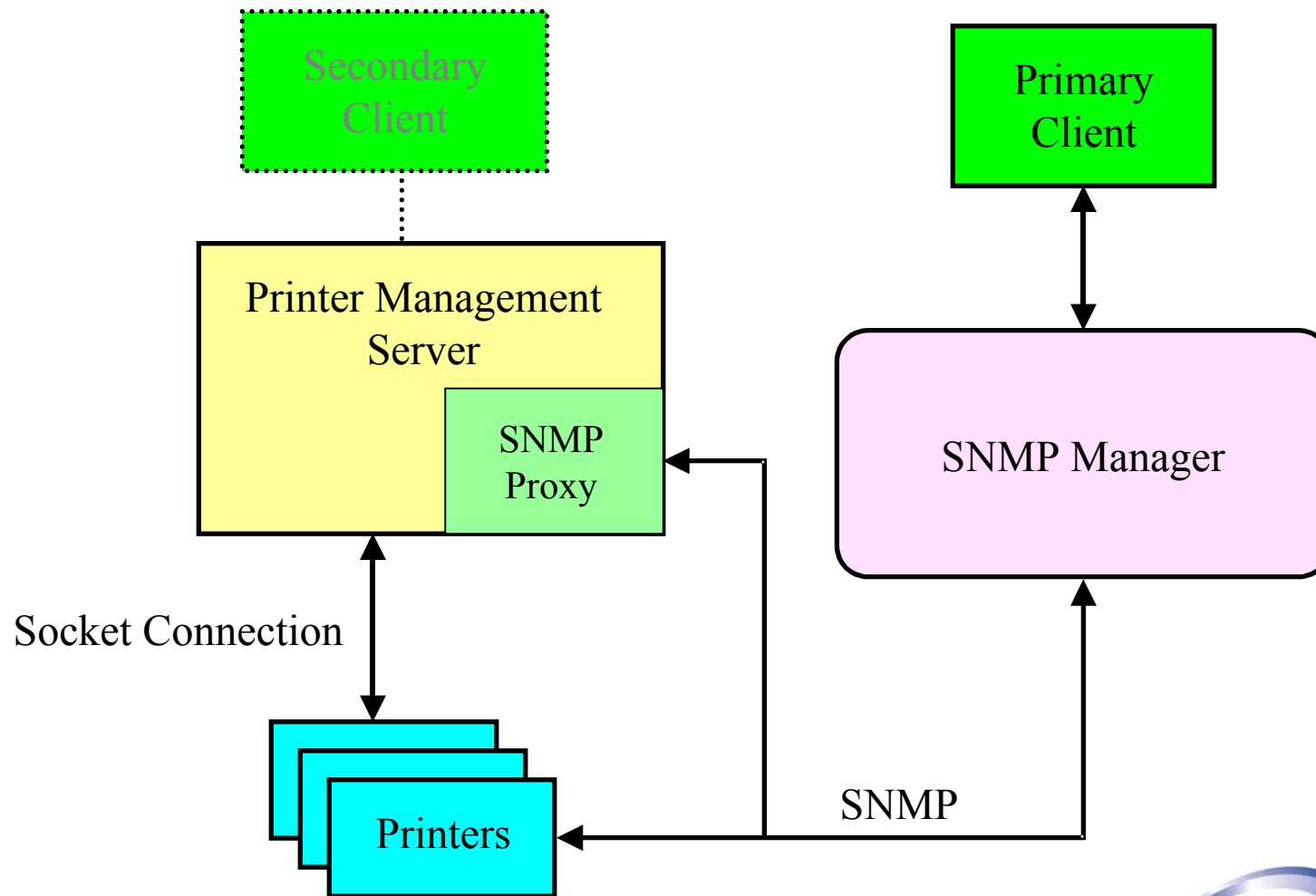
Future Trends

- Providing API to their management applications
 - XML based interface definition
 - SNMP agent based interface
- Web based management interface
- XML based device management
- Manage direct attached printers

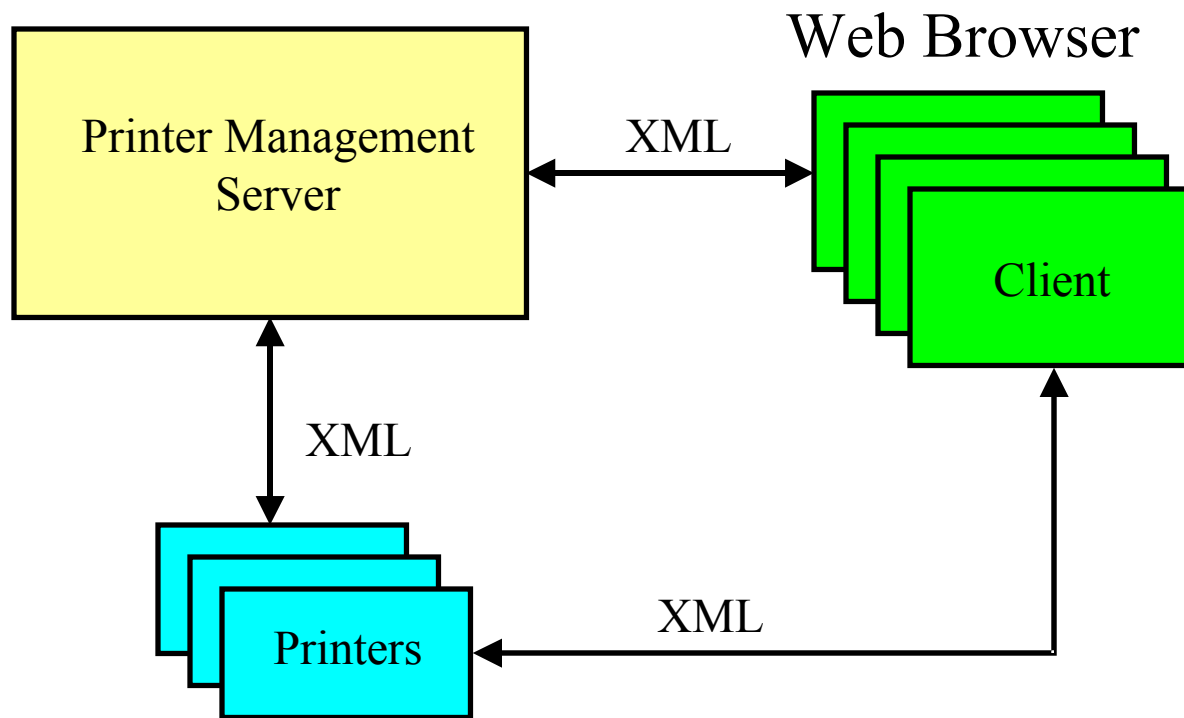
XML Interface



SNMP Proxy Interface



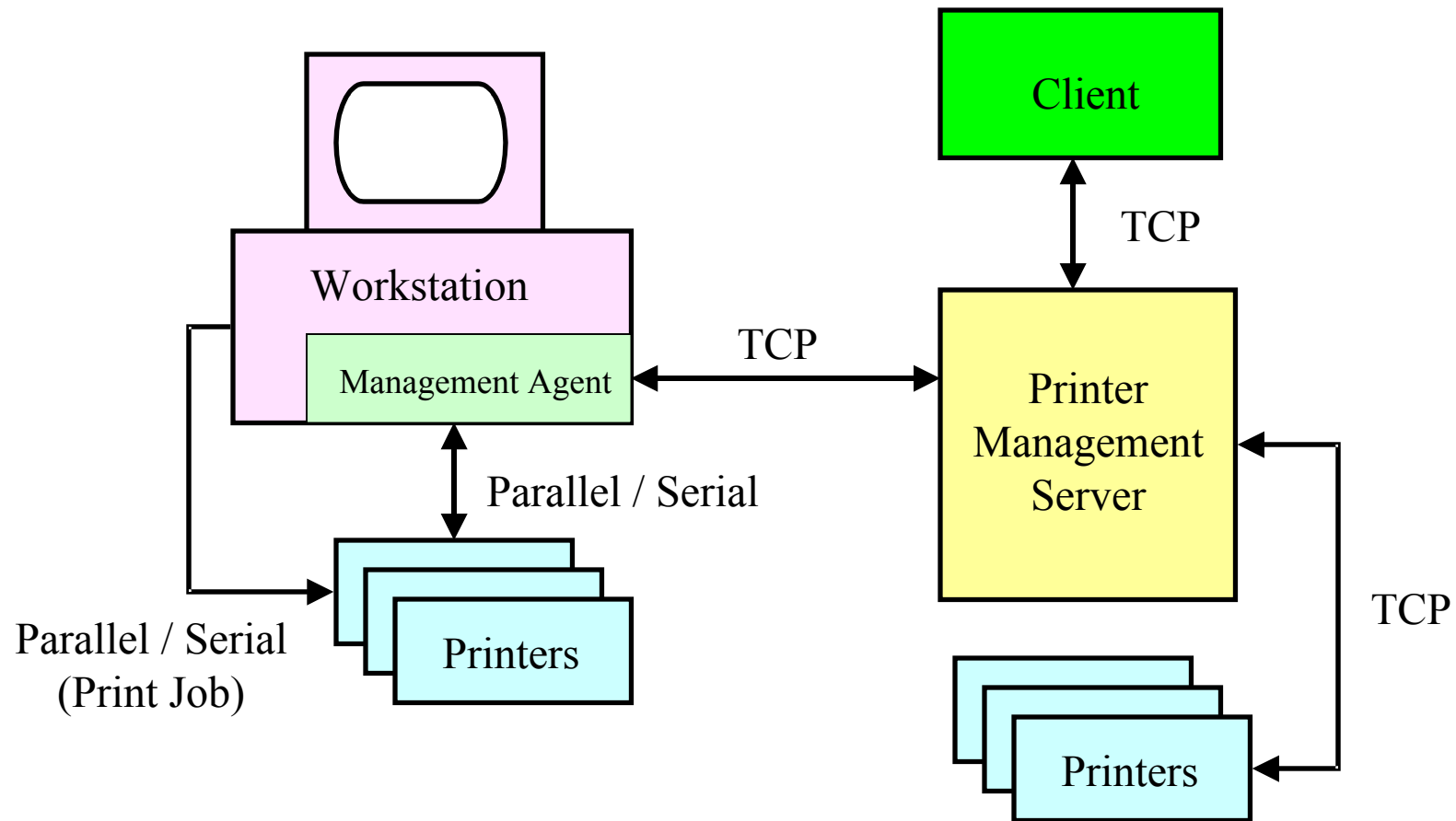
XML Management Protocol



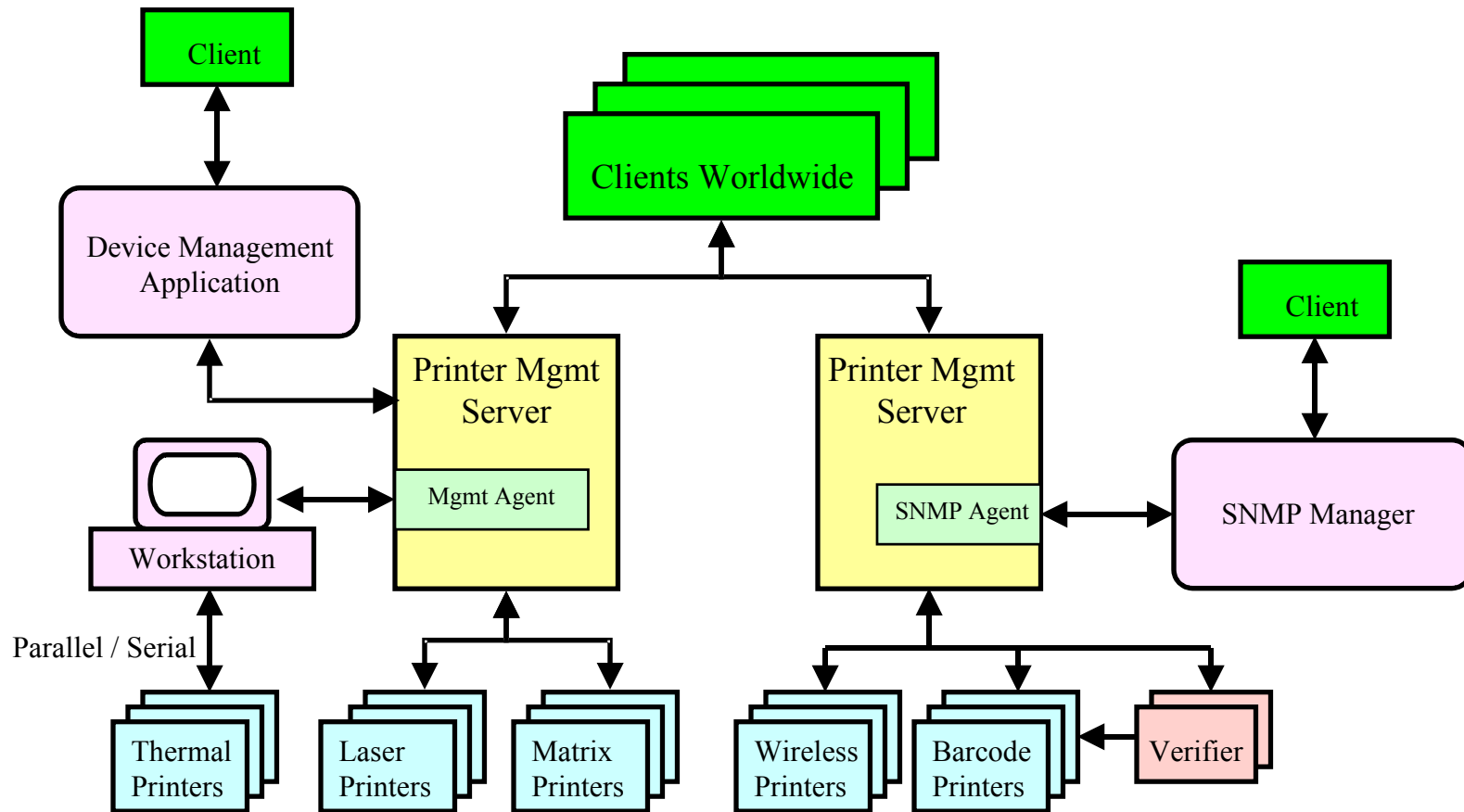
Manufacturer's Response

- Currently, SNMP management tools can only manage network attached devices
 - Limitation is application imposed, not technology imposed
 - Any electronic device that can be connected should be able to be managed
- Management of any electronically connected devices is the next frontier in device management

Manage Directly Connected Printers



Future of Printer Management



The Future of Printer Management

**Employ a single management tool
to meet all requirements of
diverse user groups, printing
devices and applications**

Questions?

THANK YOU!