

# Datatrend *IT Optimization Pro* Assessment Tool

## Highlights

Datatrend *IT Optimization Pro* provides rapid, accurate detection, inventory, warehousing, analysis and reporting of Windows, Novell and UNIX/Linux domain, server and application configuration and utilization data. Optional services include Health Checks and Periodic Reporting.

Relying on senior consultants and a proprietary methodology and toolset, *IT Optimization Pro* automates the difficult, time consuming and error-prone initial steps in performing distributed and open systems infrastructure planning, management, administration and support tasks by providing vital information for:

- Strategic technology planning
- Technical architecture and configuration design
- Performance analysis and tuning
- Capacity planning and budgeting
- Server and storage consolidation and centralization
- Data center relocation and consolidation

The current version of *IT Optimization Pro* supports the following host operating systems:

- Microsoft Windows servers: NT, 2000 and 2003
- UNIX and Linux: HP-UX, HPQ Tru64, IBM AIX, SGI Irix, Red Hat Linux, Sun Solaris
- Novell Netware: versions 4.x, 5.x and 6.x
- Microsoft Windows desktops and workstations: 98, Me, NT, 2000, and XP

## Benefits

Utilizing *IT Optimization Pro*, technology architects and managers can rapidly create accurate, up-to-the-minute inventories of technical infrastructure configurations; summarize, report, graph and analyze technical infrastructure configuration and utilization data; and provide configuration information to aid in analysis of performance issues

Datatrend's *IT Optimization Pro* service makes it possible to accurately gather in only a few hours or days technical infrastructure configuration and utilization data that historically IT executives cannot get from their own staff; information that vendors typically have to invest weeks of manual effort to obtain with results that are often incomplete and inaccurate. *IT Optimization Pro* enables technology managers, architects, engineers, and system administrators to change their focus from technical and operational data gathering and validation to concentrate on analysis, solution design, business cases and service level management.

Through the Datatrend *IT Optimization Pro*, we have found cost-savings through the discovery and correction of:

- Under-utilized processors
- Windows servers inadequately configured with memory
- Under-utilization of Microsoft Windows clustering
- Unnecessarily high licensing versions
- Lack of multiple IP network interfaces
- Lack of redundant SAN connectivity
- Servers running operating system versions nearing end of life
- Inconsistent service pack levels and hot-fixes applied to Windows servers
- Lack of Backup-restore software
- Servers without virus protection
- Windows servers without installed and/or running SNMP agents
- Unnecessary services running on servers
- Unnecessary application software
- Differing versions and maintenance release of database management systems
- Windows servers providing file services through file shares
- Critical infrastructure components running on legacy servers with outdated hardware configurations
- Unacceptably low storage utilization
- Windows infrastructures with many more domains than necessary, or workgroups rather than domains
- Little or no consistency in the UNIX security environment
- Hand-configured static IP addresses rather than the implementation of Dynamic Host Control Protocol for all workstations and servers
- Public IP addresses in an internal network

### **Rapid four-step delivery**

1. Planning teleconference to schedule on-site data gathering visit and arrange for required access to network and domain resources and system administration and support personnel.
2. Datatrend consultant travels to customer site(s) to run the *IT Optimization Pro* data collection tool.
3. Analysis and reporting is performed at Datatrend's Technology Lab; reports delivered as PDF files.
4. On-site presentation of findings, opportunities, recommendations and reports to customer's Infrastructure and Operations management team.

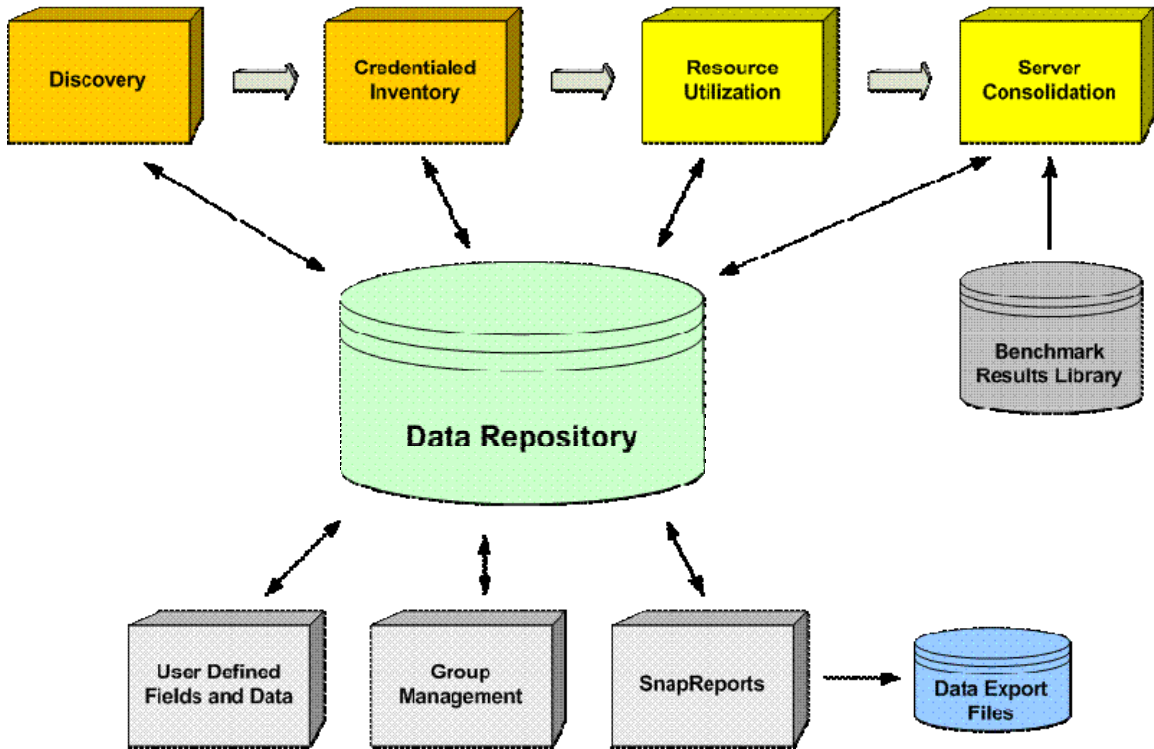
### **Datatrend *IT Optimization Pro* Process**

Through an IP network connection or a Virtual Private Network (VPN) connection, the Datatrend *IT Optimization Pro* inventories the technology infrastructure collecting and storing information in three stages;

- Discovery
- Credentialed Inventory
- Utilization



Once the inventory and utilization data collection is completed, the final step of Server Consolidation offers recommendations for reducing costs and resources through server/storage consolidation and optimization.



### **Discovery**

Datatrend *IT Optimization Pro* performs two functions, Fingerprinting and Simple Network Management Protocol. Fingerprinting provides the capability to scan IP address ranges, determine the IP addresses utilized by active devices, and provide one or more “educated guesses” regarding each device’s identity. From this data, we are able to locate and further define the function of each device.

Then through SNMP, *IT Optimization Pro* is configured to interrogate and gather high level information of one or more IP address ranges for active devices with SNMP agents. From this process, *IT Optimization Pro* gathers the following data elements:

1. Manufacturer description of the infrastructure object, including full name and version identification of the hardware type, operating system, and networking software
2. Vendor’s authoritative identification of the network management subsystem contained in the object
3. Time (in hundredths of a second) since the agent was last re-initialized.
4. Identification of the contact person for each managed node, together with information on how to contact this person.
5. Administratively-assigned name for this infrastructure object.
6. Physical location of the infrastructure object.
7. The set of services that this object may potentially offer

### **Credential Inventory**

Credentialed inventory is the capability to detect that an infrastructure object, with a specific IP Address, exists and to successfully present authorized administrative security



credentials, such as user name and password. *IT Optimization Pro* gathers credentialed inventory on both Host and Storage devices. Host credential inventories collect data detailing the physical assets of server, and software running on the server

In the storage credentialed inventory, we collect data on Storage Area Networks (SAN), SAN-attached "enterprise" storage arrays, and Network Attached Storage (NAS) devices. Collected data details disk drives that appear to be Host systems and various storage peripherals.

### **Utilization**

Through performance monitoring, *IT Optimization Pro* polls the Hosts and returns data including processes running, percentage of disk busy, IP network utilization, disk inputs / outputs (I/O), and performance counters over a period of time.

### **Server Consolidation**

Datatrend Consultants then analyze the inventory and utilization data to create recommended Consolidation Plans. These Consolidation Plans suggest different configurations to reduce costs and resources, such as man-hours, hardware, maintenance, and replication.

## **Deliverables**

After the *IT Optimization Pro* inventory tool has been run at the customer site(s) to discover, inventory, and warehouse distributed and open systems infrastructure configuration and utilization data, the following deliverables will be created.

- Printed bound reports and Adobe Acrobat (.pdf) files
- Observations and Recommendations letter briefly identifying elements of the customer's distributed and open systems infrastructure that may benefit from enhancement and improvement.
- Formatted reports:
  - Operating System/Service Pack Report
  - Host Summary Report
  - Hosts by Operating System Install Date
  - Logical Disk Summary Report
  - Logical/Physical Disks
  - Share Count Summary
  - Tape Device Summary
  - Applications/Packages Count Report
  - Host Detail
  - Host Services/Daemons
  - IP Address Reports

