



Keeping Applications in Business™

## RTO TScale® Advanced 4.0

### The next generation of performance optimization for terminal servers

TScale *Advanced* is performance management system software for Citrix® Presentation Server or Microsoft® Terminal Services environments that lets you improve your end-user experience and quality of service by automating performance efficiencies that control how applications run on your servers. Now you can support more concurrent users per server, which directly improves the Total Cost of Operation (TCO) from your Terminal Server Farm. For companies needing to extend the usefulness and value of their terminal server environment, RTO TScale *Advanced* provides capabilities beyond those previously available in TScale or Citrix Presentation Server to improve performance, stability and the capacity of thin-client servers.

TScale *Advanced* allows you to add more users and applications to handle peak loads on your existing Citrix Presentation Server or Microsoft Terminal Services running Windows NT®, Windows 2000® or Windows 2003® - without degrading application performance.

TScale *Advanced* gives you the system tools you need to overcome the challenges of delivering high levels of application reliability and performance while accommodating server scalability for peaks in application demand. As a result, TScale delivers consistent application performance that meets the business demands of your organization.

Installation is quick and easy on production servers without the need to reboot. Once installed, TScale *Advanced* begins to analyze the server. Performance and scalability improvements are immediate, and continuously improve over time.

### TScale *Advanced* improves performance, scalability and capacity

TScale's Application Optimization features continuously and automatically improve the performance of applications running on your terminal servers, improving response times during peak load periods.

#### *New! - Dynamic Affinity*

Many client applications work better on a single processor than on multiple processors. This is especially true in a published application/desktop environment. TScale's Dynamic Affinity performs CPU re-balancing and optimization, causing certain applications to operate efficiently on a single processor—and effectively load balancing processors. TScale allows applications which perform best on multiple processors to operate without change.

### Customer Success

*"TScale is the most effective optimization we have implemented for application servers/terminal servers."*

*Colin Durham, Electronic Healthcare Systems*

*"I will recommend your product to everyone I know who uses Terminal Services and/or Citrix Presentation Server. It's the best product I've ever used!"*

*Jeffrey Malczewski, MCSE, NAFS/Site!*

*"We scaled to approximately 25% more users and gained a 20% increase in performance."*

*David Bradshaw, Cargill (Excel Division)*

*"After evaluating the top technologies in this space, we selected RTO Software—a proven market and technical leader—in order to improve the performance and end-user experience for our Citrix Presentation Server customers."*

*Tony Marzulli, Senior VP of Marketing, Citrix Systems, Inc.*



### New! - Advanced VM Optimization

Would it surprise you to know that there may be hundreds of application components in memory on your terminal server *that are never used*? TScale <sup>Advanced</sup> dynamically loads resources into memory only when needed. This reduces the memory used for an application when resources are generally not needed, increasing capacity and improving performance.

### MT Performance and Registry Optimization

MT Performance Optimization improves execution of multi-threaded applications. TScale's Registry

TScale's Application Optimization features continuously and automatically improve the performance of applications running on your terminal servers.

Dynamic Affinity performs CPU re-balancing and optimization.

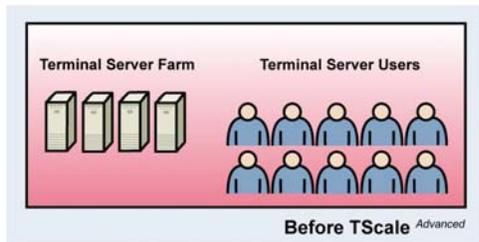
Advanced VM Optimization dynamically loads resources into memory only when needed.

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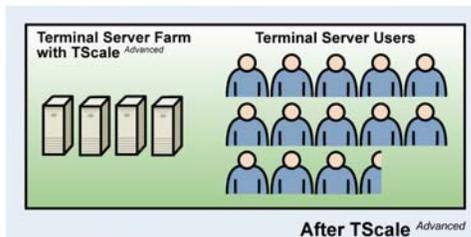
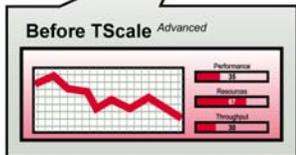
TScale's Registry Optimization frees up resources for more sessions, and reduces user login times.

### Application Shaping

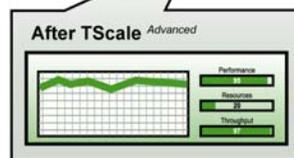
Technology eliminates freezes, spikes and sluggishness when applications consume more than their share of CPU cycles.



■ RTO TScale <sup>Advanced</sup> provides a cost-effective way to improve performance, stability and the capacity of thin-client servers



- With TScale's CPU, Registry and memory optimization, applications run more efficiently, use less virtual memory and generate less page file activity
- Servers support 33% more concurrent users - or the same number of users with 25% fewer servers



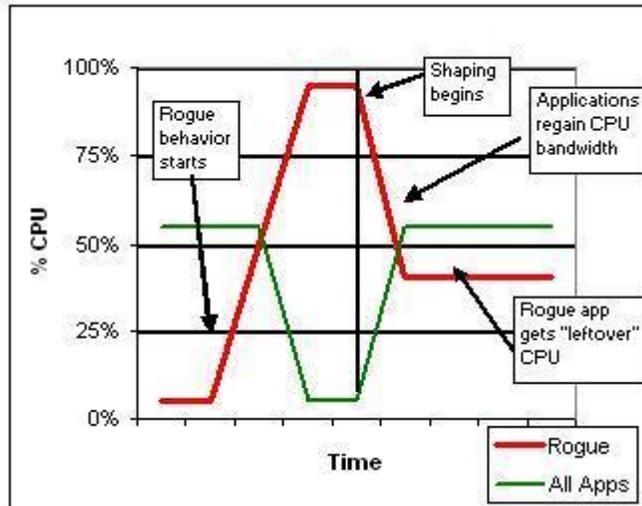
Optimization frees up resources for more sessions, and reduces user login times by reducing the size of user and system registry files.

### Application Shaping Technology prevents rogue application problems

TScale <sup>Advanced</sup> eliminates freezes, spikes and sluggishness due to applications hogging more than their share of CPU. Our **Application Shaping™** (see graphic) lets you easily eliminate negative impact on users of rogue applications, while still supporting high-CPU application peak needs.



TScale *Advanced* allows you to combine the rules-based setting of our **Application Priority™** and our **Application Affinity™** into a new, automated solution that eliminates time-consuming manual tasks and regains control of runaway applications. Application Affinity also designates which CPU seldom-used applications should run on, so you can isolate them from other processors with more critical applications.



*RTO TScale's Application Shaping Technology controls runaway application behavior, ensuring other application users get the CPU bandwidth and performance they need.*

### Advanced integration and administration

The TScale *Advanced* Console helps you quickly deploy TScale to all your servers. Easily configure it according to multi-server policies and then from one central location you can manage all aspects of reporting and maintenance. The TScale *Advanced* Console contains sophisticated features to ensure all your servers are current with the latest versions of TScale and with the most recently defined Optimization and Shaping Policies. If any server is not online when a policy update is sent to a group of servers, the console will cache the update and apply it automatically when the server comes back up. You can maintain security from one console by disabling the management of RTO optimization agents from local server consoles. This enables you to enforce policies, maintain consistency and avoid errors or malicious intent.

TScale *Advanced* now includes an option to export settings, schedules and optimization configuration from an existing production server to a newly created server. Also, TScale now optimizes applications managed by Softricity®.

### *New! - Citrix® Presentation Server 4.0 management and optimization*

In November 2004, Citrix licensed RTO Software's patented server performance optimization technology for incorporation into Citrix Presentation Server. The TScale *Advanced* Console is now integrated with CPS 4.0, and can be used to control CPS 4.0's Memory Optimization Management function on a locally installed server. This enables additional performance tuning and reporting not available in CPS 4.0 for Citrix Memory Optimization Management, such as collection of support data, VM exclusion list management, VM optimization history reporting, and VM optimization scheduling.

The TScale *Advanced* Optimization Console (formerly the PMC) is a multi-server, centralized management console that allows administrators to handle all installation, management, reporting and maintenance of TScale Advanced across large server farms. The TScale *Advanced* Optimization Console also provides CPS 4.0 Memory Optimization Management tuning and reporting across large server farms.

*With TScale *Advanced* Optimization Console, Citrix customers can enjoy enhanced memory performance tuning and reporting and achieve greater returns on their Citrix access investment.*

David Jones

Senior VP Corporate  
Development  
Citrix Systems, Inc.



### *New! - RTO PinPoint integration*

TScale *Advanced* is integrated with RTO Software's new product, RTO PinPoint <sup>TM</sup>. RTO PinPoint monitors mission-critical Windows<sup>®</sup> server applications in real-time to guide managers to specific performance issues before they degrade business operations.

### **Extended support for the next generation of Windows<sup>®</sup> Servers**

#### *New! - Microsoft<sup>®</sup> Windows Server 2003 x64 Editions support*

TScale *Advanced* is now available in 64-bit as well as 32-bit versions. Windows Server 2003 x64 Editions, the next-generation server operating systems from Microsoft, provide high performance for both 32-bit and 64-bit applications on the same system. TScale Advanced takes advantage of the greater functionality and performance improvements available from the Windows x64 platform.

#### *New! - .NET Client Application Optimization*

For companies that are building and deploying .NET clients, TScale *Advanced* provides the administrator with the ability to optimize .NET application performance by improving memory handling and application load times.

### **RTO TScale requires the following environment**

RTO TScale *Advanced* minimum requirements include Microsoft Windows 2000 or Windows 2003 operating system, Microsoft Management Console, Windows 32-bit and/or 64-bit applications and application components, and an ability to schedule a command line program on the server. The RTO TScale Console minimum requirements include Microsoft Windows NT 4.0 (with Service Pack 6a), 2000, XP or 2003 operating system, Microsoft Management Console (MMC) 1.1a, domain administration privileges for managed domains.

### **About RTO Software**

RTO Software, Inc. is an established provider of application-focused performance monitoring tools. As an innovative leader in this rapidly growing area, we provide software tools and consulting services to enterprises and software firms that want to improve the performance and capacity of applications operating in a Windows environment.

### *Customer Success*

*"We are using TScale to increase both the number of concurrent users that we can support on our Citrix servers running our healthcare applications, and to enhance end user responsiveness."*

*Larry Maurer, Director of IT,  
Somerset Medical Center*

*"TScale does what it says it will do!"*

*Jan Broucinek,  
Arthur Rutenberg Homes*

*"An \$8,000 investment in TScale is allowing us to avoid purchasing \$27,000 of extra server hardware for our farm."*

*Wayne Dodrill,  
Concentra Health Services*