

**Leveraging Your
Windows Server 2003
Management Capabilities
with**

ReliaTel®

White Paper



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General

Microsoft continues its push into the enterprise-class server realm, building in more resilience, performance, Internet capability and management methods in Windows 2003 to rival even the mature UNIX servers. Combined with Microsoft's server evolution is the fact that hardware vendors supporting Microsoft have added hardware and firmware-based capabilities to the Windows platform heretofore not seen in the Windows enterprise.

Also, Microsoft's recent enhancements to their Active Directory capabilities along with the .NET initiative is giving their products the "One to Many" centric management approach that they are striving for.

Tone Software Corporation's *ReliaTel* is ready to make the most use of this "One to Many" management-centric Windows Server 2003 environment, giving you total "One to Many" control of your new Windows server environment. Using *ReliaTel*, you can accomplish immediate *access, automation, alerting* and *notification* in your Windows server environment. *ReliaTel* GUI user views are tightly controlled and granular, giving you the ability to control "who sees what" in your Windows infrastructure.

Your new Windows Server 2003 operating system environment and the hardware it runs on supplies you with exciting new management capabilities. The following table summarizes these capabilities as well as how *ReliaTel* allows you to make the most of them.

Windows Server 2003 Management Capability	Hardware Platform Improvement	<i>ReliaTel's</i> Added Value
	BIOS-level serial console support	Secure Out Of Band (OOB) access to the server at the BIOS level and above, directly from <i>ReliaTel</i> GUI while storing all access-time text. Also, you can automate any task using <i>ReliaTel's</i> Automation features.
	BIOS-level Power On Self Tests (POST) output to serial console.	<i>ReliaTel</i> can alert you to any POST exceptions to ensure that you are aware of any failures at this low-level.

System recovery using Emergency Management Service (EMS) (over serial console)		In addition to the BIOS-level access mentioned above, you now have full OOB access to the EMS Command Line and admin console applications. As always, <i>ReliaTel</i> stores all activity that occurs on the connection. Also, you can automate any task using <i>ReliaTel</i> 's Automation features.
Extended Command Line Interface (now over 180 commands).		Perform any of the newly extended commands available on your Windows server with <i>ReliaTel</i> Scheduled, Response
Automated Installations		Use <i>ReliaTel</i> 's access or automations to invoke your automated installations on your RIS servers, while your scripts' output monitored by <i>ReliaTel</i> for exceptions. All activity is logged in the <i>ReliaTel</i> database. With the upcoming release of Windows Automated Deployment Services, <i>ReliaTel</i> acts as your single-point of invoking your hands-off installation scripts.
Kernel "panic" Stop messages. Previously only seen on VGA console as "blue screen of death".		During such catastrophic failures, agents and other operating system-level reporting are useless. <i>ReliaTel</i> will detect, alert you of these catastrophic failures and perform any automation you define in response to the particular Stop message as it appears on the serial console.

Remote Desktop		Full GUI access to an operational Windows Server 2003 (or 2000 server) can be accomplished with a click of a button on your <i>ReliaTel</i> GUI, providing you with a quick access to investigate a <i>ReliaTel</i> alarm or just to perform maintenance.
Windows Management Interface (WMI)		By using <i>ReliaTel</i> scripted automations, you can use the WMI scripting language to access any of the tens of thousands of system objects that WMI has access to.

***ReliaTel* Access**

Access using the *ReliaTel* GUI interface is as easy as a mouse click. Once you've selected a Windows host, a terminal session is immediately initiated, giving you access to Windows Server 2003's command line interface. All command and message traffic is stored in the *ReliaTel* database, giving you excellent historical references to activity on your Windows systems. Also, with *ReliaTel*'s Playback option, you can play back your terminal sessions with a simple click of the GUI Playback icons. This can help you in training sessions where the students can see the exact keystrokes and subsequent output of your session.

Windows Goes "Headless"

You can now minimize your Microsoft infrastructure hardware by making use of Windows Server 2003 Out Of Band serial console connections to *ReliaTel*. This means no more bulky KVM hardware is required in your Windows enterprise, since BIOS-level and low-level Windows administration functions are available over your *ReliaTel* GUI interface.

On some platforms, telnet-over-IP can be used, thus eliminating even the need for terminal access hardware (serial-to-IP converters). Note that full "headless" configurations require that the server hardware support BIOS-level console redirection to the serial communications port, as almost all modern server motherboards do.

As you transition to your new "KVM-less" infrastructure with new servers, *ReliaTel* can be there along the way, since it presently supports many KVM vendors. This will give you a seamless integration into your new access configuration.

***ReliaTel* Automation**

Today, as well as in the future, as Microsoft will continue to expand their Command Line Management and scripting languages, you can depend on *ReliaTel*'s automation capabilities to run your Scheduled or Response-based automations. Manual execution of Windows commands are available to your Windows server through a simple click on the *ReliaTel* GUI. In all cases, *ReliaTel* retains all activity in its database while also notifying you of any exceptions that occur during script or command execution.

You can easily import any existing scripts into *ReliaTel* where they will be executed on either a response or scheduled basis. This means that with *ReliaTel*, you now have a central location where all automations and their results are housed.

***ReliaTel* Alerting**

ReliaTel is designed to give you the “One to Many” view of exceptions that occur in your Windows server environment, including kernel panic “Stop” message alerts, POST exception alerts and BIOS-level exceptions, previously unavailable to you in the Windows environment. Before the release of Windows Server 2003, your Windows servers or desktops displayed kernel panics (the “blue screen of death”) only on the local VGA monitor. Now, using *ReliaTel*, you will not only be immediately alerted of these catastrophic conditions on your server, but also be notified when POST or any other BIOS-level exceptions happen.

Threshold and Event Log Exceptions During Production-Time

You already know that *ReliaTel* will provide you with easy Out Of Band access to your Windows Server 2003 serial console while also performing automations and alert notifications, but what about system, security or application exceptions that occur during normal production time?

Getting a handle on your Windows server's event log, SNMP and threshold alerting can be a complex task. Building SNMP trap lists from the hundreds of possible events, which vary from host to host, can be very time consuming and difficult to maintain.

Tone Software Corporation's *ReliaTel* simplifies this process by using a very small, thin agent to forward your production-time Windows server event log and threshold alerts. By simplifying your management by using the *ReliaTel* Windows Manager Foundation Kit, you will:

- Help ensure that no exceptions are missed, which can happen if you are manually selecting individual objects-to-monitor on your Windows servers. *ReliaTel* does this by forwarding *all* event log messages- Security, Application and Events to the *ReliaTel* server. Then, you can easily alter the *ReliaTel* Foundation Kit to filter out lower-severity exceptions.

- Simplifies Windows management because you do not have to select amongst the thousands of possible events to monitor. Instead, you simply set the Audit levels you wish to use, install the small *ReliaTel* Windows Manager Foundation Kit agent and *ReliaTel* does the rest.
- Threshold alerts are just as easily handled because once you define the thresholds you wish to monitor on your Windows server (if you haven't done so already), the *ReliaTel* Windows Manager Foundation Kit agent forwards the exceptions to the *ReliaTel* just as for Security, Event and Application log events.

SNMP Trap Support

If you presently already use your Windows server's event trap features and prefer that method of exception notification, *ReliaTel* is preconfigured to process any SNMP traps that are pointed to it.

Notification

ReliaTel provides the robust notification features that are critical to the management of your Windows environment.

- Java GUI Client (and shell command line equivalents)
- Email and paging
- Extensive phone, pager and Integrated Voice Response when the *CompuVoice* option is installed.

Summary

The following diagram summarizes *ReliaTel*'s physical positioning in your Microsoft enterprise. For more information regarding Tone Software Corporation's *ReliaTel* and how it also manages the rest of your environment, from PBXs to Unix systems to environmental subsystems and network appliances, please contact Tone Software Corporation.

