

Commentary

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WysDM Software Enables Your Wisdom to Make a Difference

Flying blind is no way to fly a plane — or manage. Whether you are managing a backup/restore or large fileserver environment, WysDM Software gives you the "instruments" to manage those environments proactively rather than just reactively. Sensing (i.e., collecting) the necessary data is fundamental. Having the analytical capabilities to turn that data into useful information is crucial. Having the navigational ability to derive the right actionable information from the useful information is critical. WysDM combines all three into the necessary instrumentation; you supply the judgment (i.e., wisdom) to make it work.

Reactive Management Alone Is Not Enough

As an IT professional, are you tired of trying to having to spend too much time pinpointing what went wrong, such as a failed backup job, in order to figure out how not only how to correct it, but also prevent it from happening again? Are you tired of experiencing a real-time problem, such as a performance issue, and not either having the necessary information or the analysis tools to help you solve it? Are you tired of holding a fire drill to solve a problem that was, in retrospect, entirely predictable and easily preventable, such as running out of pieces of tape media or trying to resolve a problem caused by a configuration error?

For those IT professionals charged with responsibility for maintaining and operating the backup/restore environment or managing a large fileserver

environment, help is now available from a software partner — WysDM Software.

That help comes in the form of making management proactive rather than reactive. Mind-numbing complexity from increased scale and interactions among the various resources (such as servers, networks, and storage) has made real-world resource management typically reactive, and therefore less effective. WysDM Software's products help cut the Gordian complexity knot to make management more proactive by:

- Collecting the information from whatever source in the IT environment (such as servers, networks, etc.) that will be necessary to help in decision-making
- Providing the necessary analytical capabilities, such as a predictive analysis engine, to enable administrators to make sense of the ocean of collected information

- Delivering the navigational tools to enable exploration of the information ocean to find exactly the right information for decision making.

All this is not just a “nice to have.” The resulting benefits are that end users receive the service that they expect under their service level agreements, that IT professionals get to use their judgment and analysis skills (wisdom) to become more productive (and therefore even more valuable), and that cost avoidance and cost savings through better utilization and performance of assets already bought puts a twinkle in the CFO’s eye.

Understanding Is the Beginning of WysDM

WysDM offers two software products — WysDM for Backups and WysDM for Fileservers. WysDM for Backups delivers consolidated reporting and analysis to help improve reliability, performance, and compliance for backup and recovery environments.

WysDM for Backups is a data protection management product. Data protection management (DPM) is not about doing data protection itself; that is left up to other software, such as a backup/restore product. No, DPM is, as its name says, about managing data protection; that is delivering the reporting, monitoring, troubleshooting, performance management, and capacity planning capabilities that enable an IT professional to manage proactively and more effectively.

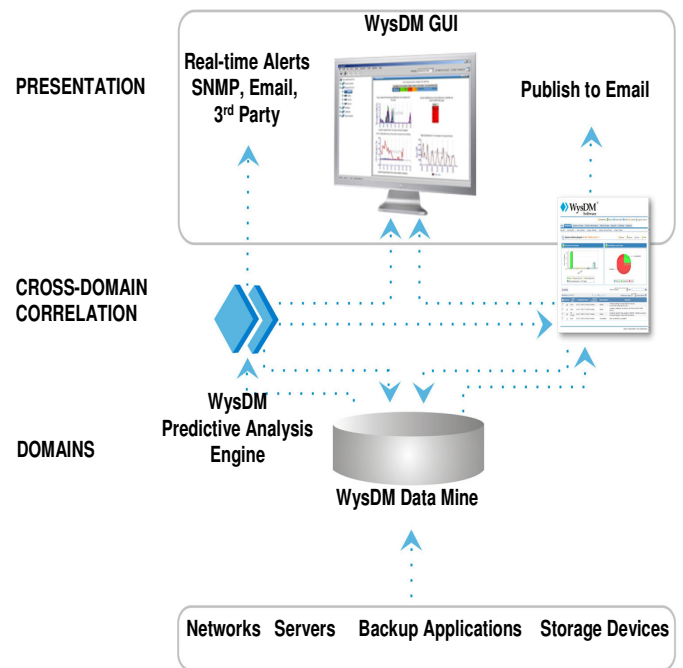
WysDM for Fileservers enables IT administrators to deal with the challenge of managing a much larger number of file servers than had been originally anticipated. New challenges

arise to ease of management as the number of file servers scales rapidly — and WysDM for Fileservers meets these challenges. For example, keeping performance high is not only maintained by tracking a number of different metrics on each file server, but also by cross-correlating metrics with other domains of the IT environment, such as switches.

Overview of the WysDM Architecture

Even though each product addresses a different IT environmental problem, they use the same fundamental principles (Figure 1):

Figure 1: WysDM Architecture



1. First, collect the right data from different domains, such as networks and servers.
2. Then provide the cross-domain correlation capabilities, including

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predictive analysis, to turn that data into information (i.e., data that is capable of interpretation).

3. Finally, provide the right presentation tools so that the IT professional can find and interpret the right information for decision-making.

Having WysDM Helps You Manage The Past, Present, and Future

Management must deal with all three aspects of the time continuum — past, present, and future.

- *Past* — this relates to *what happened* (such as an unpreventable tape media or fileserver failure that has to be corrected after the fact) *and why* (to see what can be done about preventing future occurrences)
- *Present* — this relates to being alerted to *what is happening* real-time (such as unacceptable performance of a backup job or file-server) *and why* (what can be changed in the future)
- *Future* — this relates to *what will happen* (such as running out of space) *and why* if the proper corrective action is not taken in time.

All the Information, All the Time

WysDM's software gathers data continuously rather than on a scheduled or event basis. Scheduled sweeps may be too late to catch relevant data in time to prevent or stem further service impacts. Event-driven traps means that a trigger based upon a threshold sets up an interrupt and a real-time alert. Real-time alerting is good (and WysDM does that), but continuously collecting

seemingly innocuous pieces of data may also be useful (such as for trying to catch performance degradation before it becomes service-impacting). Collecting data continuously means that information is available for real-time (i.e., now) action and “historical” data is available for investigating what happened (past) and for trending to predict what would happen and when if no action is taken (such as running out of pieces of tape media).

Surprisingly, collecting data continually is not a drain upon performance, nor does it require oceans of storage. The data is already available, only changed data is significant, and data that is no longer relevant can be purged from disk.

WysDM takes the sensible approach that agents should only be used when necessary. WysDM central data collector is simply a non-intrusive receiver of data that is already being collected. Distributed data collectors are used as agents only when an agent is needed to collect otherwise-unavailable necessary data.

Organizing Collected Information into Useful Knowledge

WysDM turns the streams of data (bits) that are collected continually into information (data is capable of being understood) and then into knowledge. Knowledge is the body of information that is accumulated over time to which judgment (i.e., wisdom) can be applied.

Key to that process is the ability to do cross-domain correlation. For example, a backup job in the backup application domain may not complete on time because an unrelated process unexpectedly chewed up so much server memory that there were not enough available CPU cycles for the backup job.

Also key is the predictive analysis engine that trends resource usage against resource availability to determine when a service-impacting event might occur, for example, running out of space on either storage or snapshots.

Making It Perfectly Clear

Through the presentation layer in the WysDM architecture, an IT professional has greater visibility into the backup or fileserver environments. Makes things visible means making them apparent or obvious, but that is possible only because the necessary analytical capabilities have been applied to the necessary information.

That visibility starts with, but does not end with, reporting. Getting an e-mail alert on a problem tells the user that action may be required, but does not necessarily say what action has to be taken. The ability to use a powerful analytical tool to drill down to find the right piece or pieces of information necessary to take action is essential.

Flexibility is also essential in meeting differing needs. Operations staff is responsible for keeping the IT ship sailing and dealing with problems as they come up during the course of the day. Technical support deals with larger trends, configuration type information, and understanding what will be backed up in six months

(in addition to helping operations in fighting problem “fires”).

A Show of Support

WysDM gathers information from Solaris, Linux, AIX, HP/UX and Windows server platforms as well as gathering information from a wide variety of switches, tape libraries, and other components of the IT infrastructure. WysDM supports key backup application platforms such as EMC/Legato NetWorker, IBM Tivoli Storage Manager, and Veritas (i.e., Symantec) Backup Exec/NetBackup. The fileserver product supports NetApp products.

Conclusion

No software is a magic bullet or panacea, but software to make possible more proactive — i.e., more effective — managerial control is available. Attribute that management capability to collecting all of the right information, to having the right analytical capabilities to extract value from that information, and to having the ability to apply the necessary navigational tools. Those responsible for a backup/restore or large fileserver environment should look more closely into whether or not WysDM can enable your wisdom to make a difference.

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