

Security management solutions
To support your IT objectives



Tivoli software

Learn how 10 reports can help you address the most pressing privileged user monitoring and auditing challenges.





While most organizations have concentrated their network security initiatives on neutralizing outside hackers and intruders, the fact is that threats from inside may represent a more significant source of damage.

Even if it isn't practical to deny privileged users access, monitoring their activities is critical — because both accidental and malicious violations by “insiders” can cause considerable harm to your enterprise. IBM Tivoli® Compliance Insight Manager includes powerful tools for fighting insider threats, including the top 10 best-practice reports for monitoring and auditing privileged user activity in your enterprise.

By providing acute visibility into insider threat activity, the Tivoli Compliance Insight Manager reporting engine for audit and compliance initiatives could be an invaluable asset in maintaining network security.



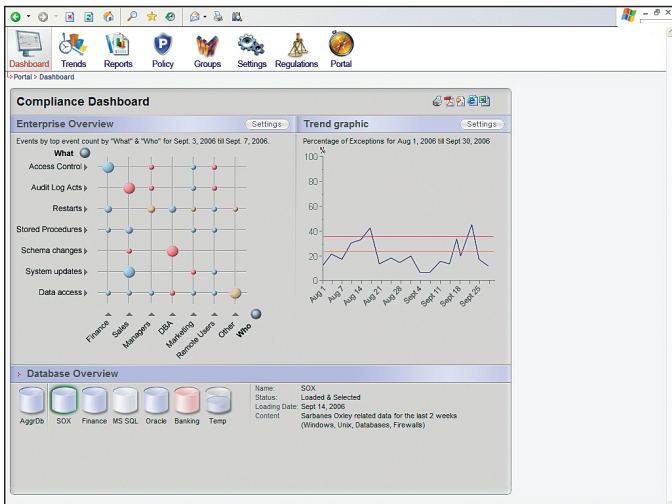
Who is more likely to damage your network — an outside hacker, or an authorized employee, customer, partner or outsourcer? The answer is, perhaps surprisingly, the latter. Regulatory and auditing requirements make it clear that existing security technology's emphasis on network-level, externally oriented threats is misplaced. The far more likely suspects are the privileged users inside your enterprise — who are on your network every day and may cause damage not only of a malicious nature but also accidentally.

In addition, Payment Card Industry Data Security Standard (PCI DSS), Sarbanes-Oxley (SOX), Gramm-Leach-Bliley Act (GLBA) and Health Insurance Portability and Accountability Act (HIPAA) audits make it clear that the activities of privileged users (such as administrators and network managers) are a legitimate concern.

Regulations and auditors are both likely to raise these questions, for which you must have ready answers:

- **What are administrators, database administrators and root users doing on your network?**
- **Were system changes authorized?**
- **Was privileged access used to violate separation of duties?**
- **Did a disgruntled administrator make an attempt at identity theft?**
- **Has confidential or regulated data been viewed by administrators?**

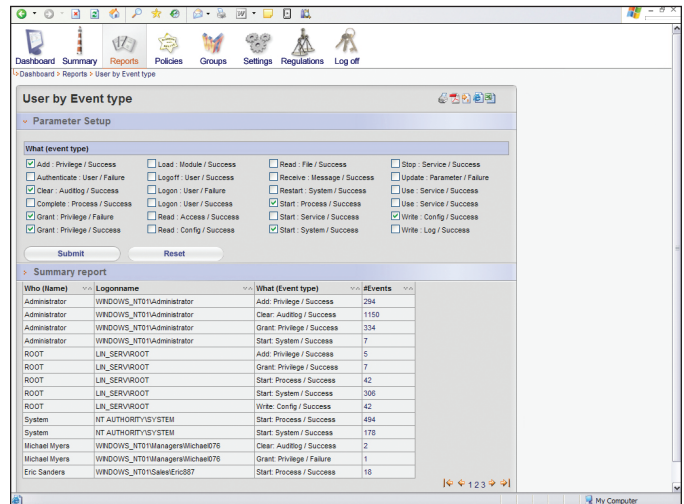
Turn the page to see how the top 10 reports for privileged user activity monitoring in Tivoli Compliance Insight Manager can help ensure that you have quick and suitable answers to all these questions — and more.



The enterprise dashboard gives you insight into all activities on the system. In this case, someone classified as a manager is performing audit log actions and administrators are accessing data — both clear violations of acceptable use guidelines.

1. Enterprise dashboard

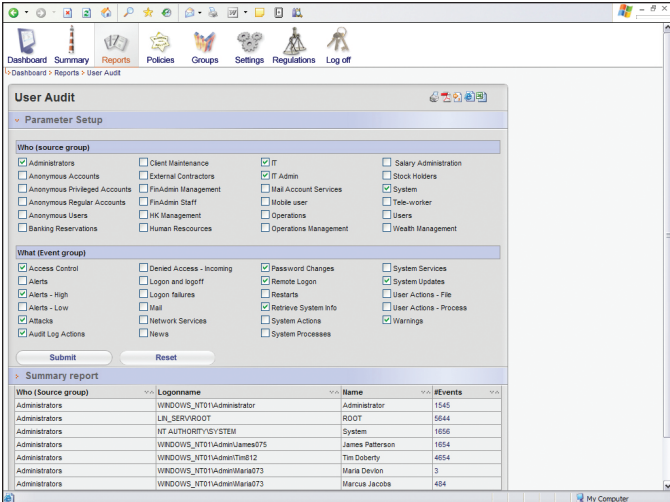
The Tivoli Compliance Insight Manager enterprise dashboard allows you to view all activities on the system, including people, activities and objects. The size of each circle correlates to the amount of activity it represents, while color indicates the level of compliance. Red circles indicate areas of particular risk — cases in which your acceptable use policy is being violated. The lower portion of the screen juxtaposes people and activities, highlighting potential violations.



The user by event type report gives you a quick, comprehensive view of administrative activities across your enterprise and who is performing them. Here you can quickly ascertain if any nonadministrators made privileged changes on the system — a topic your auditor will surely be interested in.

2. User by event type

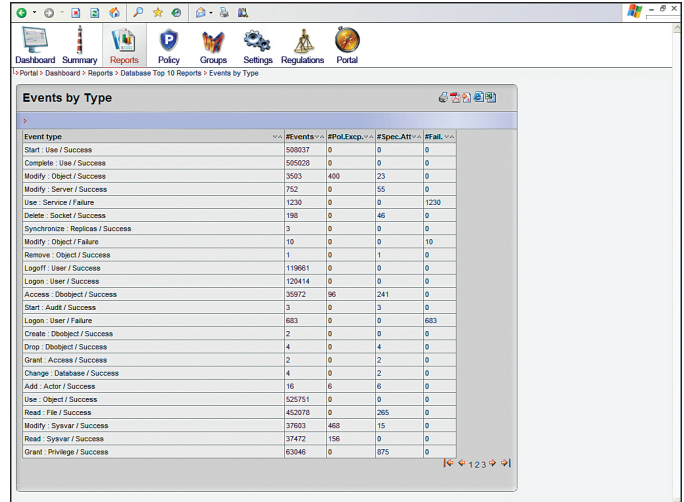
It's important to be able to home in on all administrative activities across your enterprise and see who performed them. The user by event type report in Tivoli Compliance Insight Manager allows you to do just that, by showing each person who conducted an activity and the types of activities conducted. Greater detail on the activities in question is just a click away.



The user audit report shows who is conducting administrative activities and how often.

3. Overview of select users and their activities

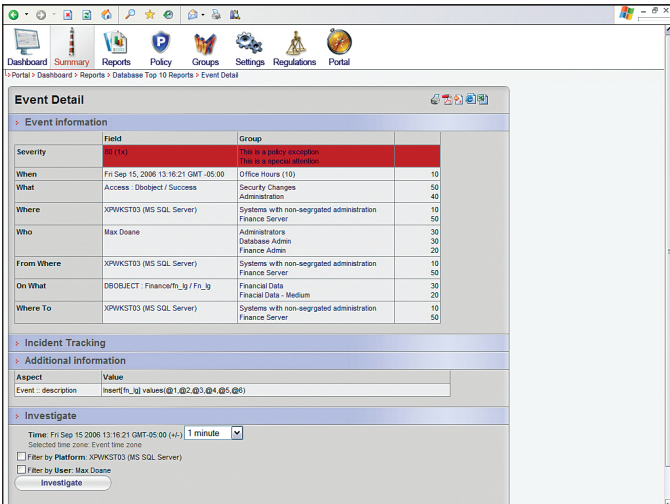
The user audit report in Tivoli Compliance Insight Manager is the ideal report for use in a PCI, HIPAA or ISO compliance audit. This report allows you to select administrators, then select specific activities that are of the most concern.



The events by type report lets you examine how many events have occurred, how many violated your security policies and how many sets of attention alerts and actions failed.

4. Events by type

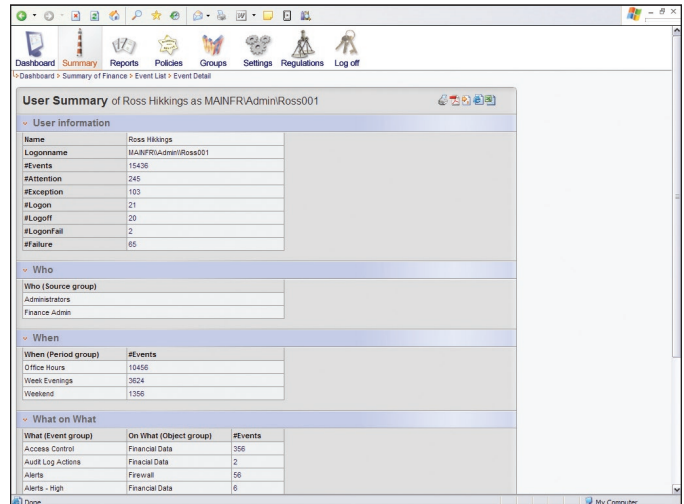
The Tivoli Compliance Insight Manager events by type report provides a focused view of activities on your network, and helps demonstrate to auditors that you have sufficient insight into them.



The event detail report allows you to "zoom in" on every detail of an incident, escalate it to a workflow system through tracking and continue your investigation in even greater detail.

5. Detailed incident investigation

The event detail report in Tivoli Compliance Insight Manager provides all the documentation available on any incident, up to and including details such as the time and origin of the incident. In fact, the detailed incident investigation report provides all the details, at a field level and with the policy groups.



The user summary report allows you to "zoom in" to analyze a suspected user and his or her recent actions.

6. User investigation

When an incident occurs and a privileged user's activities are suspect, it's critical to be able to view the details of that user's recent actions. The Tivoli Compliance Insight Manager user summary report gives you a close-up view into how many events that user created, when they occurred, how many were policy violations, attention alerts or failures and what groups the user belongs to.

#	What	Where	Who	from Where	on What	Where to
5	15:34:18 GMT-5	1	Start: Process / Success	Finance Server	Administrator	Finance Server
5	15:34:18 GMT-5	1	Clear: Auditlog / Success	Finance Server	ROOT	Finance Server
5	15:34:21 GMT-5	1	Complete: Process / Success	Finance Server	ROOT	Finance Server
5	15:34:28 GMT-5	1	Start: Process / Success	Mainframe FN	Administrator	Mainframe FN
5	15:35:02 GMT-5	1	Complete: Process / Success	HR Server	ROOT	HR Server
5	15:35:02 GMT-5	2	Read: File / Success	Finance Server	Administrator	Finance Server
5	15:35:24 GMT-5	1	Start: Process / Success	Mainframe FN	James Patterson	Mainframe FN
5	15:35:24 GMT-5	1	Start: Process / Success	Mainframe FN	Administrator	Mainframe FN
5	15:35:24 GMT-5	1	Complete: Process / Success	Mainframe FN	Administrator	Mainframe FN
5	15:37:34 GMT-5	1	Start: Process / Success	Web Server	ROOT	Web Server
5	15:37:35 GMT-5	1	Grant: Privilege / Success	Web Server	Tim Doherty	Web Server
5	15:37:41 GMT-5	1	Grant: Privilege / Success	Web Server	Administrator	Web Server
5	15:37:48 GMT-5	1	Grant: Privilege / Success	Web Server	Marcus Jacobs	Web Server
5	15:38:21 GMT-5	1	Grant: Privilege / Success	Web Server	Ross Hinkings	Web Server
5	15:38:28 GMT-5	1	Grant: Privilege / Success	Finance Server	Marcy Hoover	Finance Server
5	15:38:28 GMT-5	1	Read: Access / Success	Finance Server	ROOT	Finance Server
5	15:38:28 GMT-5	2	Read: File / Success	Finance Server	Administrator	Finance Server
5	15:38:28 GMT-5	7	Read: Access / Success	Finance Server	ROOT	Finance Server

With the events by rule report you can conduct investigations more efficiently, simply by selecting only the user groups you want to view. For example, to investigate a privileged user, you simply select the "Administrators" group and begin.

7. Events by rule

Being able to sift quickly through complex information is an attribute of any good report. The Tivoli Compliance Insight Manager events by rule report facilitates a quick understanding of specific events, by letting you select only the groups you want to view.

Severity	When	What	Where	Who	from Where	on What	Where to
0	Fri Nov 25, 2005 15:34:18 GMT	Clear: Auditlog / Success	Finance Server	ROOT	Finance Server	AUDITLOG : / -	Finance Server
0	Fri Nov 25, 2005 15:34:21 GMT	Complete: Process / Success	Finance Server	ROOT	Finance Server	PROCESS : / Notepad.exe	Finance Server
0	Fri Nov 25, 2005 15:34:28 GMT	Start: Process / Success	Mainframe FN	Administrator	Mainframe FN	PROCESS : / Notepad.exe	Mainframe FN
0	Fri Nov 25, 2005 15:35:02 GMT	Complete: Process / Success	HR Server	ROOT	HR Server	PROCESS : / Process2212024768	Mainframe FN
0	Fri Nov 25, 2005 15:35:02 GMT	Read: File / Success	Finance Server	Administrator	Finance Server	FILE : DataSmartinvest /	Finance Server
0	Fri Nov 25, 2005 15:35:24 GMT	Start: Process / Success	Mainframe FN	Administrator	Mainframe FN	PROCESS : / Runemac.exe	Mainframe FN
0	Fri Nov 25, 2005 15:35:24 GMT	Complete: Process / Success	Mainframe FN	Administrator	Mainframe FN	PROCESS : / Runemac.exe	Mainframe FN
0	Fri Nov 25, 2005 15:35:24 GMT	Start: Process / Success	Web Server	ROOT	Web Server	PROCESS : / Eventvwr.exe	Web Server
0	Fri Nov 25, 2005 15:35:24 GMT	Grant: Privilege / Success	Web Server	Administrator	Web Server	OBJECT : / Hand0	Web Server
0	Fri Nov 25, 2005 15:37:34 GMT	Grant: Privilege / Success	Web Server	Administrator	Web Server	OBJECT : / Hand0	Web Server
0	Fri Nov 25, 2005 15:37:35 GMT	Grant: Privilege / Success	Web Server	Marcy Hoover	Finance Server	OBJECT : / Hand0	Finance Server
0	Fri Nov 25, 2005 15:37:41 GMT	Grant: Privilege / Success	Web Server	Administrator	Web Server	OBJECT : / Hand0	Web Server
0	Fri Nov 25, 2005 15:37:48 GMT	Grant: Privilege / Success	Web Server	Marcy Hoover	Finance Server	OBJECT : / Hand0	Finance Server
0	Fri Nov 25, 2005 15:38:21 GMT	Read: Access / Success	Finance Server	ROOT	Finance Server	FILE : DataSmartinvest / Default.ctg	Finance Server
0	Fri Nov 25, 2005 15:38:28 GMT-5	Read: File / Success	Finance Server	Administrator	Finance Server	FILE : DataSmartinvest /	Finance Server
0	Fri Nov 25, 2005 15:38:28 GMT-5	Read: Access / Success	Finance Server	ROOT	Finance Server	FILE : DataSmartinvest / admin /	Finance Server

The all events report with search filter allows you to narrow your search for violations. Here, a search for administrators tampering with audit settings has uncovered an instance of the audit log being cleared — a clear policy violation.

8. All events with search filter

Tivoli Compliance Insight Manager includes this report to allow you to truly narrow your search while you investigate privileged user activities. The search filter in the all events report uses Boolean search capabilities to eliminate millions of events from your view, retaining only those you are concerned about.



Suspect by Object Group

Parameter Setup

On What (Object group)

- Customer Data
- Financial Data
- General
- HR
- Non-Public Data
- Organizational Data
- Programs
- Proprietary
- Publicly Published Data
- Salary Files
- Sensitive
- Source Code
- System Documentation
- System Files
- System Test Data
- System Utilities

What (Event group)

- Access Control
- Alerts
- Alerts - High
- Alerts - Low
- Attacks
- Audit Log Actions
- Denied Access - Incoming
- Logon and logoff
- Logon failures
- Mail
- Network Services
- News
- Password Changes
- Remote Logon
- Remarks
- Retrieve System Info
- System Actions
- System Processes
- System Services
- System Updates
- User Actions - File
- User Actions - Process
- Warnings

Summary report

Where (Platform)	On What (Object group)	What (Event group)	Logonname	name	#Events
Finance Server	Financial Data	Access Control	Maria Devlin	WINDOWS_ITO1Admin\Maria073	154
Finance Server	Financial Data	Password Change	System	NT AUTHORITY\SYSTEM	15
Finance Server	Programs	System Update	Administrator	WINDOWS_ITO1\Administrator	485
Finance Server	Sensitive	System Update	Tim Doherty	WINDOWS_ITO1\Admin\TimD12	566
Finance Server	Source Code	Alerts - High	Ross Hinkings	MANFRAAdmin\Ross01	45
HR Server	Sensitive	Alerts - High	Tim Doherty	WINDOWS_ITO1\Admin\TimD12	15
HR Server	Sensitive	System Update	Tim Doherty	WINDOWS_ITO1\Admin\TimD12	464
Mainframe FNI	Financial Data	Audit Log Actions	Marcy Hoover	WINDOWS_ITO1Admin\Marcy007	1

Who is tampering with your protected data? The suspect by object group report will answer that question and facilitate further investigation.

9. Sensitive data tampering

The suspect by object group report in Tivoli Compliance Insight Manager provides information on who may be tampering with protected data, such as the data associated with SOX, PCI, HIPAA or GLBA. Simply by selecting the data you want to investigate, then narrowing the search to privileged activities, you can uncover such activity occurring on financial, credit, patient or customer data.

Operational Change Control of SOX database

Time period setup

Month: October, Day: 1, Year: 2005, Hour: 0, Min: 40
 End time: November, Day: 28, Year: 2005, Hour: 14, Min: 40

Summary report

Who group	What group	On What group	Where to group	#Events	#Pot.Exp.	#Spec.Att	#Fail.
Administrators	System Administration	General Data	Finance Server	1256	15	145	12
Administrators	System Operations	Sensitive Data	Finance Server	1352	89	156	0
Administrators	System Updates	Financial Data	Finance Server	1543	154	456	48
FinAdmin Staff	System Updates	Sensitive Data	Finance Server	5544	16	155	0
IT	System Actions	Financial Data	Finance Server	5466	126	14	0
IT	System Operations	Sensitive Data	Mainframe FNI	8836	91	4	0
IT	System Updates	General Data	Mainframe FNI	4875	4	46	2
IT Admin	System Actions	Financial Data	HR Server	56	88	16	23
IT Admin	System Operations	Sensitive Data	Mainframe FNI	546	189	16	0
IT Admin	System Updates	General Data	Mainframe FNI	5165	45	54	0
Sales	System Actions	Financial Data	Finance Server	78	78	78	0
System	System Actions	Financial Data	Finance Server	15654	6	15	0
System	System Administration	Sensitive Data	Finance Server	546	15	45	0

The operational change control report monitors administrative changes across platforms, reports on administrative activities and allows for "click-through" investigation.

10. Operational change management

Monitoring administrative changes is critical, and the operational change control report lets you get a handle on such changes. This part of Tivoli Compliance Insight Manager follows best-practice advice from ISO, providing an overview of changes made. It also allows you and the auditor to verify that those changes adhere to policy.



Use these 10 ways to achieve network security

Tivoli Compliance Insight Manager and its top 10 reports for privileged user activity monitoring provide a better view of what these users are doing on your enterprise network. By using Tivoli Compliance Insight Manager to monitor and neutralize insider threats to your network, you help significantly enhance network security, while confidently meeting auditor requirements.

For more information

To learn more about how Tivoli Compliance Insight Manager can help your organization monitor and audit privileged user activity, contact your IBM representative or IBM Business Partner, or visit ibm.com/tivoli

About Tivoli software from IBM

Tivoli software provides a set of offerings and capabilities in support of IBM Service Management, a scalable, modular approach used to deliver more efficient and effective services to your business. Helping meet the needs of any size business, Tivoli software enables you to deliver service excellence in support of your business objectives through integration and automation of processes, workflows and tasks. The security-rich, open standards-based Tivoli service management platform is complemented by proactive operational management solutions that provide end-to-end visibility and control. It is also backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli customers and business partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world — visit www.tivoli-ug.org

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Software Group
Route 100
Somers, NY 10589
U.S.A.

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