TRIPWIRE ENTERPRISE SERVER

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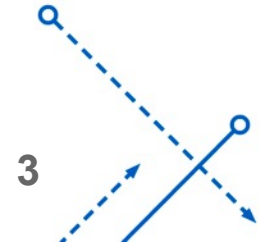
Information Technology

What is Tripwire?

- Enterprise Security Configuration Management (SCM) tool
- Standards Compliance software
- File Integrity Management (FIM)
- Client/Server agent based change detection software
- https://www.tripwire.com/

What can be monitored?

- Most major OSes: Windows, Red Hat, CentOS, Ubuntu, SUSE and Debian
- Many vendor-specific OSes: AIX, Solaris, HP-UX, etc.
- Directory Services: Active Directory, LDAP, etc.
- Network Devices: Firewall, IPS and IDS configurations, routers, etc
- Databases: Oracle, MS SQL, DB2 and PostgreSQL
- Virtual and Cloud Environments
- Tripwire's list of supported platforms



How does Tripwire monitor hosts?

Agentless

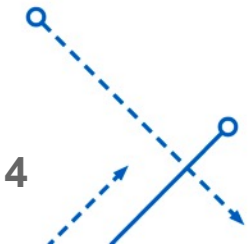
- Polled monitoring over standard protocols

Tripwire Agent client

- software downloaded from Tripwire.com
- installed on hosts
- real time monitoring

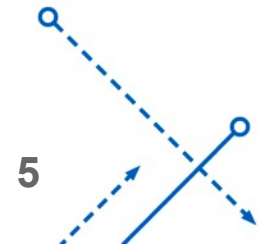
Tripwire Axon agent

- newer, lighter weight agent software



Who is using Tripwire at UB?

- **Enterprise Infrastructure Services**
- **School of Public Health and Health Professionals**
- **School of Social Work**
- **College of Arts and Sciences**
- **School of Dental Medicine**
- **Center for Computational Research**

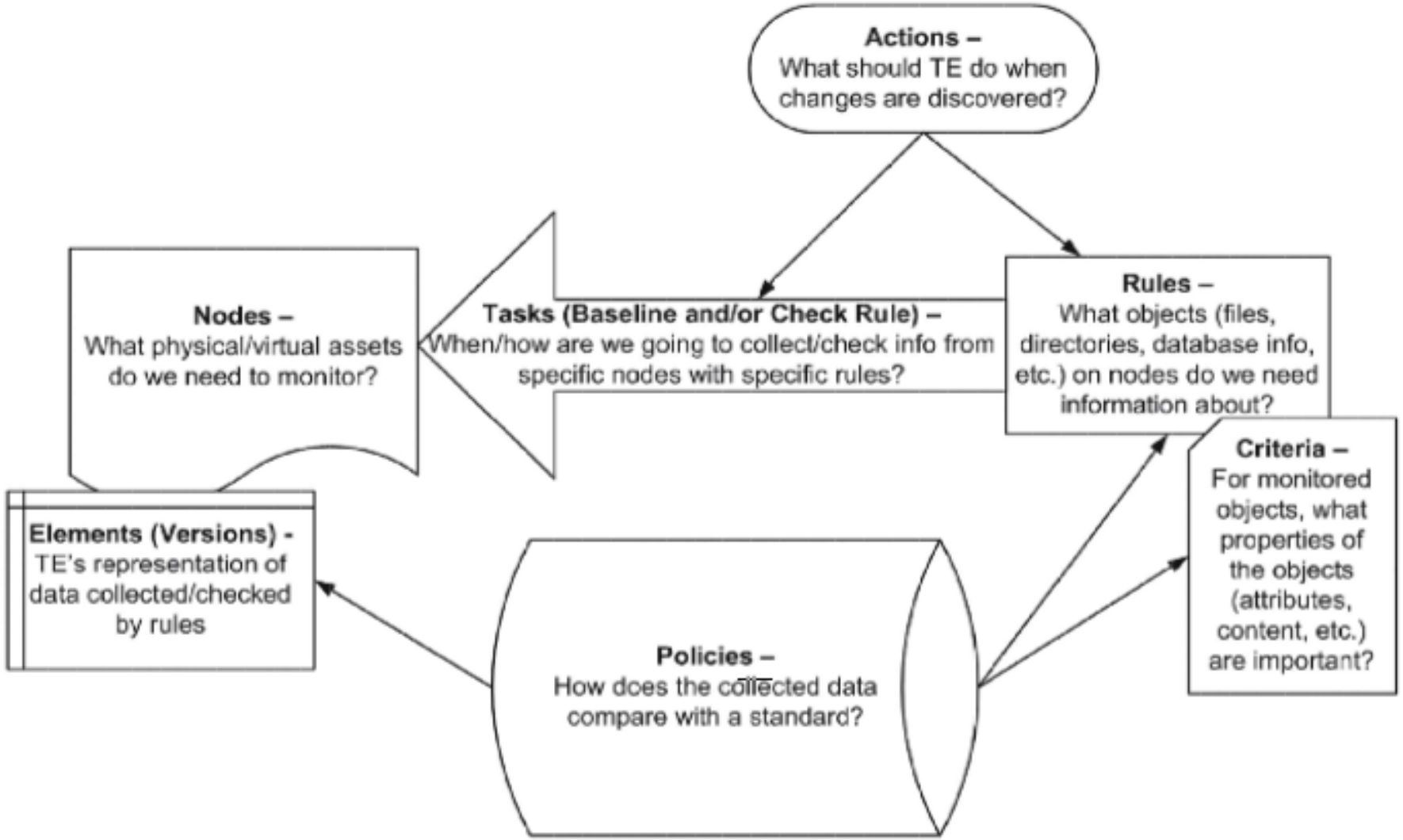


How does EIS use Tripwire?

- EIS has a number of security tools that complement and overlap
- We have been using it since 2006
- Our focus is File Integrity Management
- 2 Tripwire Enterprise Servers for different groups
- We have a Campus Licensing Agreement based on student population which covers the entire campus for as many servers and nodes as we need

EIS Tripwire Process

- An agent is installed on all our hosts (nodes)
- Initial server baseline of a known good state of all monitored objects (elements)
- The server runs tasks that collect information from the agents about system changes outside the baseline
- The changes are parsed through rules defined on any number of criteria (O/S, Application, Role, etc.)
- Reports are generated and sent to the system administrators about the changes
- The system administrators log on to the Tripwire server to review and approve changes (adding them to the systems baseline)


Actions –
What should TE do when changes are discovered?
Nodes –
What physical/virtual assets do we need to monitor?
Tasks (Baseline and/or Check Rule) –
When/how are we going to collect/check info from specific nodes with specific rules?
Rules –
What objects (files, directories, database info, etc.) on nodes do we need information about?
Criteria –
For monitored objects, what properties of the objects (attributes, content, etc.) are important?
Elements (Versions) -
TE's representation of data collected/checked by rules
Policies –
How does the collected data compare with a standard?

Tripwire Enterprise Server for your group

You can run your own Tripwire Enterprise Server in 10 easy steps!

Full requirements can be found on the UBIT Information Security site

http://www.buffalo.edu/ubit/information-for-it-staff/information-security/tripwire.html

Basic requirements:

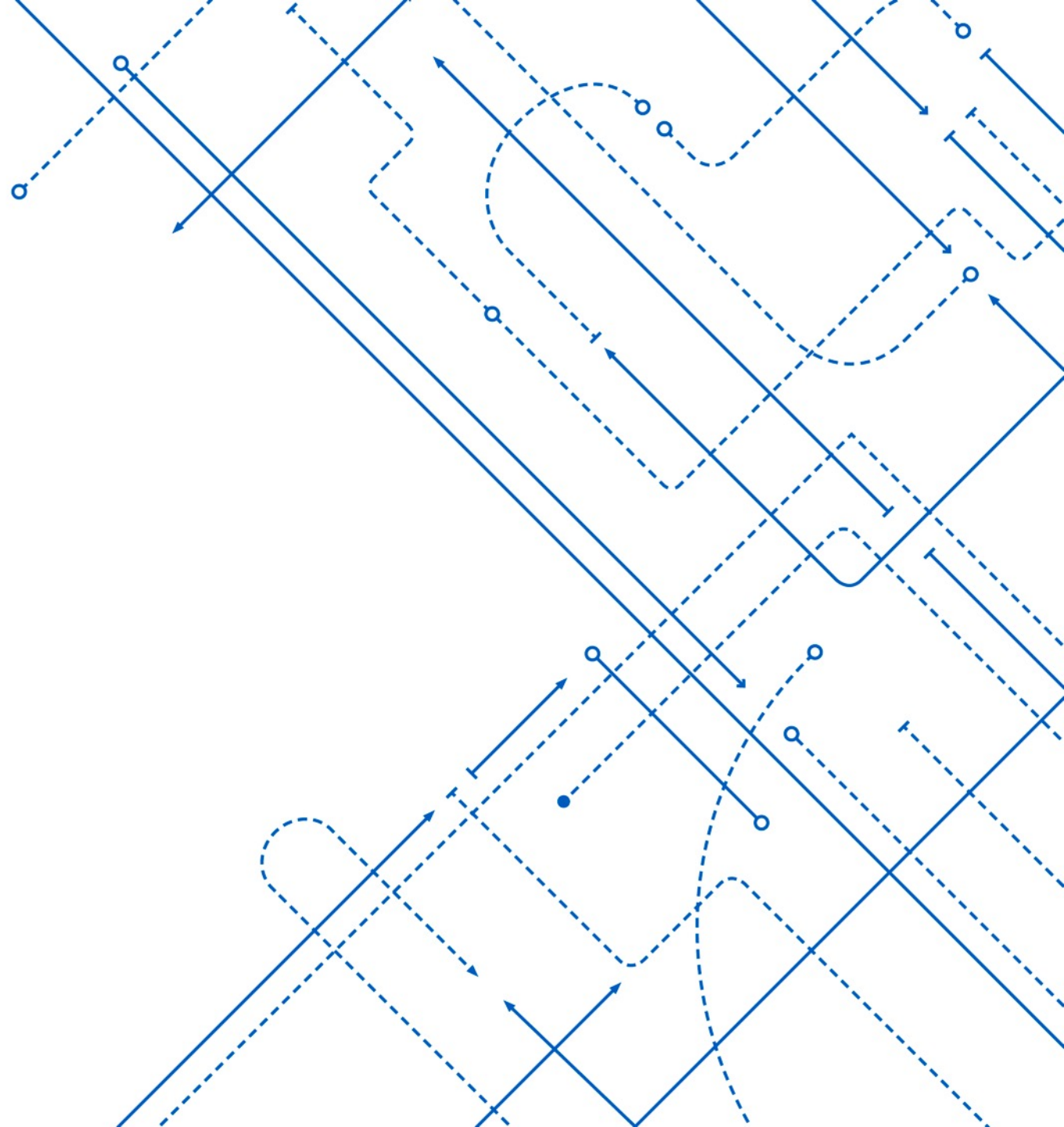
- Server (Windows or Linux)
- Certificate
- External Database instance
- List of Tripwire administrators

Support and Training

The EIS Tripwire team can answer basic questions, but….

- As part of the onboarding process - names and emails for the support staff will be added to the Tripwire support portal
- Full documentation for the product is available at the customer support portal
- Tripwire offers training both in classroom and on line
- Tripwire has virtual user groups a couple times a year - which are valuable sessions where they talk about the state of their products, have the experts give demonstrations for features, and take customer questions and feedback

QUESTIONS?



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