Tivoli® software

IBM Tivoli Directory Integrator

Highlights

- Synchronizes identity data residing in heterogeneous directories, databases, collaborative systems and applications

- Enables the automation of real-time updates to your identity stores

- Provides an open synchronization architecture that supports multivendor IT infrastructures and does not require a central, proprietary data store

- Allows owners of security data sources to manage the local data they know best with the tools that make them most productive

- Helps accelerate deployment of IBM Tivoli security management software such as IBM Tivoli Identity Manager, IBM Tivoli Identity Manager Express, IBM Tivoli Access Manager, IBM Tivoli Federated Identity Manager and other IBM infrastructure software, including IBM WebSphere and IBM Workplace middleware

- Eases the development, deployment and maintenance of synchronization rules by providing an intuitive graphical user interface

- Provides scalable operations monitoring with a Web-based administrative management console

- Takes advantage of broad platform support for Microsoft Windows, IBM @server™, IBM System z, UNIX® and Linux environments

- Offers ease of use, deployability and rapid time to value, while flexibly scaling from small to very large deployments

Maintain an authoritative infrastructure of trusted data

Most organizations today have no single authoritative directory. Instead, companies deploy department-specific applications at all levels of the enterprise, which results in dozens of application-specific directories. With accounts spread across heterogeneous applications and services, it can be difficult to identify and resolve conflicts among all the sources of identity data — such as when a user's job title (and attendant permissions) is changed in one application but not in others. Inconsistencies like these — when an employee leaves, for example — can increase the potential for security breaches and audit failures.

Maintaining data consistency across all these multiple identity repositories requires the ability to synchronize user information quickly and efficiently. If an employee's name changes, for

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example, changing the status in one information store should initiate the same change in all other stores across your organization.

IBM Tivoli® Directory Integrator offers small and large organizations a cost-effective way to synchronize heterogeneous identity data sources and build an automated, authoritative identity data infrastructure. By enabling you to maintain consistent, trusted data across multiple identity resources, Tivoli Directory Integrator can help you leverage emerging on demand business models.

Automate and integrate identity data to help reduce costs
Tivoli Directory Integrator builds the authoritative identity data infrastructure that helps optimize security and provides the trustworthy data required for cost-saving IT automation. With Tivoli Directory Integrator in place, the user identity data that applications require is updated automatically when the authoritative data sources are updated — even if a source is managed by another application in

a different repository. Tivoli Directory Integrator has the flexibility to deploy as both a *meta-directory* that synchronizes data from disparate sources and a *virtual directory* that provides a single access point to multiple data systems. You can easily migrate between the two implementations — with just one toolkit and one skill set to manage.

As a meta-directory, Tivoli Directory Integrator ties together data that resides across IBM and non-IBM directories, databases, password stores, collaborative systems and applications. Consequently, it helps you maximize the accuracy of the data you maintain and reduce the costs associated with manual updates. When a change is made to a definitive data store (such as a human resources application or telephone directory/PBX) by an authorized user, Tivoli Directory Integrator automatically detects the change and pushes the modification out to all the other databases and applications that store and use the same data.
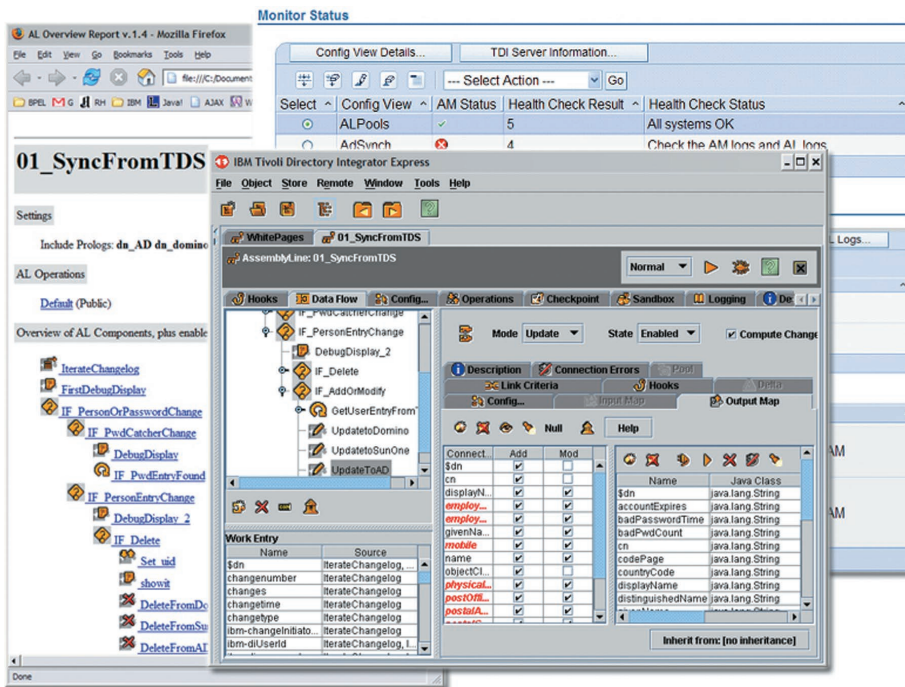
As a virtual directory, Tivoli Directory Integrator provides a front end to any

number of back-end data repositories. Clients can access the real-time integration capabilities of Tivoli Directory Integrator through Lightweight Directory Access Protocol (LDAP), HTTP, Java™ Message Service (JMS), Web services and even the available Java API. A compound data operation across multiple back-end systems can then be performed, and the result can be returned to the client as though all of the data was located in one system.

In both cases, the decentralized architecture enables your local departments to manage the data they know best — and use the tools that make them most productive — while eliminating the expense of deploying and maintaining a centralized, proprietary data store.

Connect resources and respond to changes with great flexibility
Tivoli Directory Integrator relies on a flexible, open architecture that allows you to synchronize the data sources you already have in place. A dynamic synchronization layer between the identity structure and the applications creates flexibility because it eliminates

Rapid integration development

the need for an intermediate propri-etary data store. If the firm requires a centralized "meta-view," Tivoli Directory Integrator can synchronize to any IBM or non-IBM data store — unlike other vendors that require their own propri-etary architecture. For those companies that choose to deploy an enterprise directory solution, Tivoli Directory Integrator helps ease the process by connecting to the identity data from the various repositories throughout the organization.

To enable rapid deployment and easy extension, Tivoli Directory Integrator uses intelligent, multidirectional data flows called "AssemblyLines," which are based on an incremental, component-based methodology. AssemblyLines can be shared, pooled and reused across all Tivoli Directory Integrator solutions deployed within the company. Tivoli Directory Integrator solutions can dynamically alter their configuration and behavior at run time

based on external properties and provide asynchronous communications that can drive work between multiple AssemblyLines — and across multiple servers. Built-in connectors and parsers allow you to integrate a wide range of systems. Tivoli Directory Integrator supports most standard protocols, transports, APIs and formats, including:

- XML.
- Java Database Connectivity (JDBC).
- LDAP.
- JMS.
- Java Naming and Directory Interface (JNDI).
- HTTP.
- Web services.

To flexibly respond to changes in a system, the event-driven engine enables real-time change detection, transformation and modified data propagation to other systems. Events can include arriving e-mails, records updated in databases or directo-ries, incoming HTML pages from a Web server or browser, arriving Web services–based Simple Object Access Protocol (SOAP) messages and other types of events your users define.

Changes can be detected and extracted from:

- Files (XML, LDIF, CSV or custom formats).
- Microsoft® Active Directory®.
- IBM Lotus® Domino®/IBM Lotus Notes®.
- IBM Tivoli Directory Server.
- Sun Java System Directory Server.
- IBM z/OS® LDAP Server.
- Relational database management system (RDBMS), including IBM DB2®, Oracle, Microsoft SQL and custom.
- Custom data sources using the built-in delta-detection services.

Take advantage of fast, simplified installation and maintenance

Tivoli Directory Integrator provides an easy-to-use graphical development tool and Web-based management console. The administrative management console simplifies monitoring of AssemblyLines, unifying even complex deployments with multiple servers into a single, customizable view. A library of prebuilt components (connectors, parsers, password interceptors and event-handling mechanisms) allow Tivoli Directory Integrator to integrate into a wide variety of environments with

Tivoli Directory Integrator at a glance

Supported platforms
- Microsoft Windows® 2000 Server and Advanced Server, Server 2003 Standard and Enterprise Editions (IA32 and AMD64/EM64T)   - IBM AIX® 5L 5.2 with Recommended Maintenance package 5200-80 and 5.3 with Recommended Maintenance package 5300-03 (32- and 64-bit)   - Sun Solaris 9 and 10 (32- and 64-bit SPARC)   - HP-UX 11i, Version 2 (11.23) (32- and 64-bit PA-RISC)   - Linux®: – Red Hat Enterprise Linux ES/AS 3.0 on Intel® IA32 and 4.0 on Intel (IA32 and AMD64/EM64T), System z™ and IBM POWER™ (IBM pSeries®, IBM iSeries™, IBM OpenPower™ and JS20 Blades) – SuSE SLES 8/UL 1.0 on Intel IA32 and 9 on Intel (IA32 and AMD64/EM64T), System z and POWER – Red Flag Data Center 5.0 SP1/Asianix 2.0 SP1 on Intel IA32   - z/OS 1.5, 1.6 and 1.7 (available August 2006)

minimal disruptions. The plug-and-play functionality helps to drive quick time to value as the components facilitate rapid prototyping and implementation.

Additionally, the open, Java technology–based framework enables you to extend virtually all of the integration components and provides easy access to a range of management tools that enable administrators to perform system configuration and send real-time notifications to external applications. The Action Manager (integrated with the

administrative management console) enables high-availability deployments by monitoring Tivoli Directory Integrator solutions and triggering customized actions, allowing you to quickly add failure detection and response features to your solutions, as well as customized health monitoring.

Implement a key component in an infrastructure management strategy

Tivoli Directory Integrator is easy to use, easy to deploy and generates a rapid return on your investment.

Tivoli Directory Integrator is designed to complement solutions like Tivoli Identity Manager and Tivoli Identity Manager Express for user provisioning, delegated administration and self-service. Through tight integration with other IBM infrastructure software, including IBM WebSphere® and IBM Workplace™ middleware and other Tivoli security management products, Tivoli Directory Integrator can help you build the real-time, authoritative identity data foundation you require for on demand services.

About Tivoli software from IBM

Tivoli software from IBM helps organizations efficiently and effectively manage information technology (IT) resources, tasks and processes in order to meet ever-shifting business requirements and deliver flexible and responsive IT service management, while helping to reduce costs. The Tivoli portfolio spans software for security, compliance, storage, performance, availability, configuration, operations and IT lifecycle management, and is backed by world-class IBM services, support and research.

For more information

To learn more about Tivoli Directory Integrator and other identity management solutions from IBM, contact your IBM representative or IBM Business Partner, or visit **ibm.com**/tivoli/solutions/security

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