Tivoli® software

IBM Tivoli Directory Integrator

Highlights

■ *Transforms, moves and syn-chronizes generic as well as identity data residing in hetero-geneous directories, databases, files, collaborative systems and applications, with real-time automated updates to the authoritative data source*

■ *Helps accelerate deployment of IBM Tivoli® security manage-ment software such as IBM Tivoli Identity Manager, IBM Tivoli Access Manager and IBM Tivoli Federated Identity Manager, and other IBM infra-structure software, including IBM Tivoli Change and Configuration Management Database (CCMDB), IBM Tivoli Service Request Manager, IBM WebSphere®, IBM Lotus® Domino® and IBM Lotus Connections middleware*

■ *Provides an intuitive graphical user interface for development, deployment and maintenance of synchronization rules, as well as a scalable, Web-based oper-ations monitoring administra-tive management console*

■ *Provides an open synchroniza-tion architecture that supports multivendor IT infrastructures with ease of use, ease of deployment, and rapid time to value, while flexibly scaling from small to very large deployments*

■ *Supports a broad set of plat-forms, including IBM AIX®, IBM System z®, Microsoft® Windows®, UNIX® and Linux® environments*

Maintain an authoritative infrastructure of trusted data

Many organizations today have no sin-gle authoritative directory. Instead, com-panies deploy department-specific applications at all levels of the enter-prise, resulting in dozens of application-specific directories that may contain related though not identical data. With accounts spread across heterogeneous applications and services, it can be diffi-cult to identify and resolve conflicts among all the sources of identity or generic data—such as when a user's job title (and related permissions) is changed in one application but not in others, or when a data file is modified on a distributed server in a complex environment. Inconsistencies like these—when an employee leaves, for example—can increase the potential for security breaches and audit failures.

Maintaining data consistency across these multiple data repositories requires the ability to synchronize information quickly and efficiently. If an employee's name changes, for 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 and generic data sources and build an automated, authoritative data infrastructure. By enabling you to maintain consistent and trusted data across multiple identity or generic 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 – Identity Edition helps organizations build an authoritative identity data infrastructure that helps optimize security and provide the trustworthy data required for cost-saving IT automation. With Tivoli Directory Integrator – Identity Edition in place, the user identity data that applications require is updated automatically when the authoritative data sources are updated—even if that source is managed by another application in a different repository.

The flexible architecture enables both meta-directory as well as point-to-point deployments. As a meta-directory, Tivoli Directory Integrator – Identity Edition synchronizes 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.

When the software is deployed as a point-to-point solution, no new repository is required; identity data is merely copied and synchronized between existing systems with the necessary transformation occurring on the fly.

Synchronize generic data to improve data integrity in your infrastructure

As a synchronizer for diverse data from disparate sources, Tivoli Directory Integrator – General Purpose Edition provides the same deployment flexibility

as Tivoli Directory Integrator – Identity Edition. This version is provided for non-identity scenarios, where information must be copied and synchronized between two or more systems. This generic data integration tool is well-suited to handle a wide range of problems that might otherwise require custom coding and significantly more resources to address. Tivoli Directory Integrator – General Purpose Edition can synchronize and transform data between widely different systems (such as files, databases, directories, message queues and Web services), and respond to infrastructure events including e-mail, HTTP/REST, SNMP, TCP, message queues, Web services and more.

For example, Tivoli Directory Integrator – General Purpose Edition is useful for migrating data between systems, or for synchronizing legacy data where systems cannot be replaced or shut down. Additionally, Tivoli Directory Integrator can automatically transform files from one format to another. It can also react to changes to data (such as modifications, additions and deletions) in the infrastructure and drive this information to systems that need to know about it. Ensuring that your data is consistent across the enterprise improves the integrity of the information.

In both editions, 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 data structure and the applications creates flexibility because it eliminates the need for an intermediate proprietary 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 proprietary architecture. For those companies that choose to deploy an enterprise directory solution, Tivoli Directory Integrator helps ease the process by connecting to the identity or generic 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
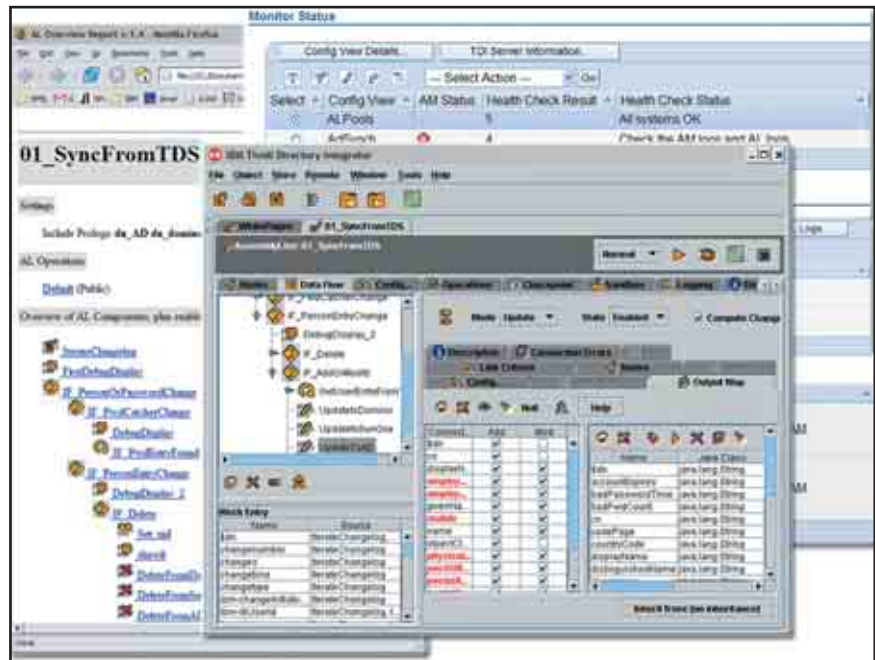
IBM Tivoli Directory Integrator enables rapid integration development using intelligent, multidirectional data flows across multiple information stores.

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).*
- *Lightweight Directory Access Protocol (LDAP).*
- *Java Message Service (JMS).*
- *Java Naming and Directory Interface (JNDI).*
- *HTTP/REST.*
- *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 directories, 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).*
- *IBM Lotus Domino/IBM Lotus Notes®.*
- *IBM Tivoli Directory Server.*
- *Microsoft Active Directory.*
- *Sun Java System Directory Server.*
- *IBM Tivoli Directory Server for IBM z/OS® on System z.*
- *Relational database management system (RDBMS), including IBM DB2®, Oracle, Microsoft SQL and custom systems.*
- *Custom data sources using the built-in delta-detection services.*

Take advantage of fast, simplified installation and management

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) allows Tivoli Directory Integrator to integrate into a wide variety of environments with 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. Whether using the Identity Edition to manage user data or the General Purpose Edition for generic data, Tivoli Directory Integrator provides the flexibility to scale from small to very large deployments.

Tivoli Directory Integrator is designed to complement security solutions like Tivoli Identity Manager and Tivoli Federated Identity Manager for user provisioning, delegated administration and federation. Through tight integration with other IBM infrastructure software, including IBM WebSphere, IBM Lotus Domino and IBM Lotus Connections middleware, and Tivoli management products such as CCMDB and Tivoli Service Request Manager, Tivoli Directory Integrator can help you build the real-time, authoritative data foundation you require for on-demand services.

IBM Tivoli Directory Integrator at a glance

Supported platforms:

- IBM AIX 5.3 and 6.1
- IBM i5/OS® v5.4
- IBM z/OS 1.7, 1.8 and 1.9
- Microsoft Windows Server 2003 Standard and Enterprise Editions (IA32 and AMD64/EM64T)
- Sun Solaris 9 and 10 (32- and 64-bit SPARC)
- HP-UX 11i, Version 2 (11.23) and 3 (32- and 64-bit PA-RISC, 64-bit Itanium)
- Linux:
    - Red Hat Enterprise Linux ES/AS 3.0 on Intel® IA32 and 4.0 and 5.0 on Intel (IA32 and AMD64/EM64T), System z and IBM POWER™
    - SUSE Linux Enterprise Server 9 and 10 on Intel (IA32 and AMD64/EM64T), System z and POWER
    - Red Flag Data Center 5.0 SP1/Asianix 2.0 SP1 on Intel IA32

For more information

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

About Tivoli software from IBM

Tivoli software offers a service management platform for organizations to deliver quality service by providing visibility, control and automation—visibility to see and understand the workings of their business; control to effectively manage their business, help minimize risk and protect their brand; and automation to help optimize their business, reduce the cost of operations and deliver new services more rapidly. Unlike IT-centric service management, Tivoli software delivers a common foundation for managing, integrating and aligning both business and technology requirements. Tivoli software is designed to quickly address an organization's most pressing service management needs and help proactively respond to changing business demands. The Tivoli portfolio is backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli clients 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

IBM®

TAKE BACK CONTROL WITH   Tivoli.

Recyclable, please recycle.

TID14028-USEN-00