RadiantOne: Identity and Context Virtualization Platform

How do you solve the challenges of identity integration?

Achieving the full benefits of web access management, identity management, and services provisioning as well as portal deployments have been elusive for many enterprises due to the complexity of the identity integration effort.

▲ How do you integrate your access management package with the scores of user directories, databases and applications?
▲ How do you create and maintain consistent identities?
▲ How can you leverage your existing data sources to deliver the different identity and resource views needed by security, provisioning, profile management and portal applications?

Successful portal and identity management projects start with a flexible, scalable identity infrastructure. Over time, integration requirements evolve, and choosing a platform that can adapt to change is the key to cost-effective deployment.

The solution is to virtualize the infrastructure.

Build a common identity infrastructure based on virtualization that leverages your existing data sources

With RadiantOne VDS (Virtual Directory Server) use your existing data sources without having to modify them. Design and deliver different views to your IdM initiatives based on their security contexts (Authentication, Authorization, Policies). Applications share this common identity service using standard protocols such as LDAP, Web Services and SQL.

Correlate all your identities and synchronize data across your existing systems to enable different views and security contexts

With RadiantOne ICS (Identity Correlation and Synchronization Server) you create a global identity out of the different identification systems supported by various applications. ICS synchronizes, aggregates and correlates those different identifiers and creates a global identity. Leveraging RadiantOne connectors and virtualization, ICS manages the whole life-cycle of an identity in real time.

ICS + VDS Deliver a Global Identity

When you combine ICS with VDS, you get a global identity that can be enriched with all kinds of attributes to deliver rich, dynamic profiles to your applications.
RadiantOne: Full Spectrum Solution for Identity Integration

RadiantOne VDS (Virtual Directory Server) or RadiantOne VDS Context Edition, and RadiantOne ICS (Identity Correlation and Synchronization Server) provide a complete solution for all your identity integration initiatives. VDS is the flexible and secure virtual directory service of RadiantOne which simplifies the authentication and authorization process of all your Web Access Management, Federation and other IdM services. ICS creates a common identity and a global profile by aggregating, correlating and synchronizing all the identity data from disparate data sources.

RadiantOne VDS supports different virtualization methods. Depending on the size and complexity of your enterprise, either VDS or VDS Context Edition can provide you with design tools that allow you to create and deploy views matching your specific application requirements. VDS is appropriate for enterprises with fewer than 200,000 entries in fairly homogenous data sources. Organizations with more than 200,000 users, or an extremely heterogeneous data environment, would benefit from VDS Context Edition. Your applications access the virtual directory using standard protocols (LDAP, Web services, SQL).

RadiantOne VDS caching technology guarantees high speed and high availability of your identity data. Regardless of the speed and availability of the underlying source, VDS offers performance levels equivalent to the best LDAP V3 directory. In VDS Context Edition, real-time cache refresh by event notification ensures that the most current and accurate information is always available.

RadiantOne ICS creates a virtualized platform based on XML messaging. These messages are transported by Enterprise Service Bus (JMS) for guaranteed accuracy and delivery.

The ICS Eclipse plug-in supports the design of synchronization services based on many topology patterns such as point to point and/or publisher-subscriber.

RadiantOne ICS centralizes your identity data along with contextual information so that groups, roles, and other existing business logic and/or policies do not have to be recreated.

Identity data is compared and correlated into common profiles. Rogue identities and enterprise policy violations are identified and indexed appropriately.
RadiantOne: Full Spectrum Solution for Identity Integration

RadiantOne easily integrates into your architecture using your existing resources

Global Architecture

Application Layer
Applications access VDS using standard LDAP v3 protocol, SQL (JDBC), or Web services (DSML or SPML). To applications, the Virtual Directory looks like a standard directory tree.

Identity Correlation and Synchronization
ICS synchronizes, aggregates and correlates identifiers to establish a Global Identity. ICS design and administration tools are based on Eclipse. It includes a sleek GUI, easy to use Wizards and auto-generated transformation scripts for correlation, look-up and data-scrubbing. Connectors virtualize the data sources, detect changes and publish them as XML messages. Wizards generate data transformations that allow you to map source to destination. JMS (Java Messaging Service) or an ESB (enterprise service bus) provides guaranteed message delivery.

First Level: User Directory Integration (VDS Proxy, Context, ICS)
You face two major obstacles when integrating user directories: their siloed nature, and the politics of data ownership and security. Often these user directories cannot be centralized. This dilemma creates the first step towards virtualization of the identity infrastructure, the federation of queries. Virtualization creates a single logical view of disparate sources, enabling the federation of queries where calls are routed to the correct distributed silos, based on their context.

Second Level: Identity Correlation (VDS Context, ICS)
Once a common namespace is created, it becomes necessary to detect and disambiguate same-users that exist in multiple data sources. This second level of virtualization involves the correlation of identity profiles, establishing a link between existing profiles that can be navigated to build a global profile of all users.

Third Level: Identity Integration/Interoperability Between Applications and Heterogeneous Data Silos
With a common namespace and the ability to correlate user-accounts, you now have the opportunity to develop new initiatives and services—each with its own specific requirements. To enable these new services, you often need a new view of identities. These new views need to be built around the newly-defined context, preserving the current relationships between objects—and requiring a data model that understands the semantics and existing contexts.

Virtual Directory Server
VDS exposes different contextual views of your identity data. Join data across different sources based on common attributes. VDS allows you to create new hierarchies based on existing attributes, as well as to update those attributes. VDS can access underlying data source using standard LDAP, JDBC/ODBC or Web Services. VDS supports change notification and cache synchronization for high availability configurations.

Common Abstraction Layer
A common abstraction layer based on XML virtualizes all data objects and their relationships. This provides seamless interoperability between very different identity systems.
Specifications

System Requirements and Platform Support

Operating System Environments
- Sun Solaris™ B, 9 or 10 (Sparc and x86)
- Red Hat Enterprise Linux v3+
- CentOS v5.3
- SUSE Linux Enterprise v10
- IBM AIX 4.3 or later
- Hewlett Packard HP/UX 11.00
- Hewlett Packard NonStop Kernel release of G06.00

Disk and Memory
- Memory: 3 GB (minimum)
- Disk Space: 5 GB (minimum)
- CPU: Intel Pentium 2.4GHz or AMD Opteron or equivalent (minimum)

Java Runtime Environment
- JRE 1.6

Supported Application Server/JMS
- Glassfish Application Server v2.1/Open Message Queue

Connectivity

Client Access Protocols
- LDAP v3, SQL (JDBC/ODBC), Web Services via DSML, SPML, SAML, SOAP
- Directory Servers
- Active Directory Lightweight Directory Service (AD-LDS)
- Active Directory Application Mode (ADAM)
- SunONE Directory Server 4.x, 5.x
- IBM Directory Server 5+
- Novell eDirectory v8+
- Lotus Notes/Domino
- Oracle Internet Directory v9 & v10
- CA Directory r12.x
- Any LDAP v3 Service

Applications
- PeopleSoft v8
- SAP
- Siebel v7.5
- Oracle Financials v12
- J2EE Connector Architecture
- Salesforce
- Google Applications

Other
- Web Services
- RACF
- ACF2
- Top Secret
- Microsoft NT Domain

Databases
- Oracle 8i, 9i, and 10g, 11g
- IBM DB2 (UDB) v7+
- Sybase v12 and 12.5
- Any JDBC/ODBC-accessible database