VIEWDS

DISCOVERY TECHNOLOGY

Considerations for Deployments of ViewDS (and View500) as Enterprise Directories and Identity Repositories: Unique Functionality

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Introduction

ViewDS (and View500) is a unique discovery server technology, and simply the world's best product for searching and matching of identity and services data.

These should be key considerations for organisations evaluating products for their directory requirements where human interaction is involved. The corollary is a warning signal for organisations that may be under pressure to replace ViewDS with products of inferior functionality. (for instance, as part of a proprietary vendor architecture deployment).

This paper summarises these considerations.

Key Functionalities

Powerful and Unique Searching and Matching for Information

***No other product comes close to matching ViewDS's capability in this capability*.**

Human users won't always be precise in searching for information, for instance: names can be mis-heard, transcribed incorrectly, shortened or mis-spelt; a user may not be familiar with the conventional function or service keywords; an acronym or abbreviation could have been used rather than the full title; different cultures have different naming conventions and pronunciation emphasis.

Users constantly complain about not being able to locate a person or service because most directories and databases have inadequate or no capability. Users who have experienced ViewDS search functions do not want to give them up.

ViewDS has a comprehensive searching and approximate matching technology. It supports a range of approximate matching strategies to better support searches by human users. These include:

- phonetic matching - e.g. "pane" will match "payne"; fisiotherapy will find physiotherapy
- typing correction - compensates for missing and transposed characters
- stem matching - e.g. "optics" will match "optical"
- synonym matching - e.g. "Bob" will match "Robert", "road" will match "street"
- abbreviation matching - e.g. "NSW" will match "New South Wales"
- word matching, including word synonyms, word phonetic matching and word typing correction
- fuzzy logic used to rank and return the best results
- specialized indexes for rapid evaluation of approximate matches on large databases

These functions are **intrinsic** to ViewDS and do not have to be written or coded for each deployment. This can mean drastically lower deployment costs, time and risk.

There are several instances where organisations have attempted to replace View500 with another product, the outcome being a reversion back to View500 because alternate suppliers cannot supply this functionality, and users have refused to accept a downgrade to the usefulness of the directory.

User Presentation and Interface

Presentation and user interaction are critical to the success of applications such as White Page and Yellow Page searches, yet most "standard" directories do not address this requirement at all, or at best provide an inflexible interface. ViewDS's optional **WebDUA** provides a "presentation" or "visualisation" layer by enabling data fields to be embedded and displayed in an html format of the users' choice and design.

This provides the mechanism to optimise the human interface. It also cuts the cost of implementation by providing built-in ready-made functionality, configurable for specific customer requirements.

Such functionality includes the user interface for:
- Organisation charts
- Self-service capability (from strong, fine grained authentication)

- Alternative Hierarchy management
- Reporting
- Certificate Management
- Chinese (and other non-Latin) Language presentation and approximate matching
- XACML Security Policy Administration.
- Role Based Access Control Administration Interface

User Self Service

The use of authorised self service by users, administrators and roles, is critical to reducing the costs of maintaining data, and to improving the accuracy of information. ViewDS has powerful "fine-grained" access control mechanisms to facilitate controlled and secure User Self Service

Representing Real-life Organisational Structure

Entries in a directory are arranged in a hierarchy called the directory information tree (DIT). The directory is most useful when the DIT mirrors a real-world hierarchy e.g. the organizational structure of a company or government.

However, real world hierarchies can be quite volatile as organizational units within an enterprise are continually formed, dissolved, moved, merged or split. To deal with this, directory administrators are often forced to flatten and simplify the DIT to cope with such volatility. In doing so, the directory becomes little more than a simple list of entries, limiting its value to assist managers and staff understanding of the internal organization and operations of the enterprise.

ViewDS is specifically designed to support real-world hierarchies, and enables simple and rapid "machinery of government" changes (the ability to move whole branches of a structure) to cater for such volatile environments. This makes ViewDS an excellent choice for complex hierarchical organisations, for example, Governments, Defence Departments, Large Corporations and Health establishments.

Dynamic Organisation Charts & Alternate Hierarchies

ViewDS's unique architecture enables the dynamic building of Organization Charts from the directory entries, and the use of Alternative Hierarchies to manage personnel involved in multiple roles.

An Alternate Hierarchy offers a number of different views from a single set of data, such as temporary teams, projects, or taskforces that "cut across" formal organizational structures.

Small Footprint

ViewDS is capable of delivering a high level of performance on minimal hardware platforms, with resultant environmental and cost benefits

Additional Uses of a ViewDS-based Enterprise Directory

Many users have implemented ViewDS (or View500) as a simple searchable enterprise directory (or "phone book") for the above reasons, and in doing so have established accurate identity and/or services information. It is then a logical step to extend the use of this information to other applications. The following is a sample of uses to which ViewDS (View500) is put.

Services Searching ("yellow pages")

Most organisations have difficulty in providing an accurate and searchable directory of their services. This can be particularly aggravating for customers seeking information. Most rely on static html pages with primitive searching that frustrates customers, are costly to maintain, and reflect badly on the organisation.

ViewDS is ideal technology for implementing a superior directory of services

By combining the WebDUA for graphical presentation, with a powerful easy-to-use search capability incorporating phonetic and approximate matching, an organisation can deliver maximum search effectiveness for services offered to customers.

Physical Location Discovery Services

A major issue for organizations is the management and visualization of resources and their physical location. Typically organizations will maintain information about assets, people and location specific data in separate systems.

Such a disjointed approach leads to data inconsistency and inaccuracy, coupled with an increased cost of maintaining the information. Organizations find it very difficult to identify who is sitting at particular locations, or the occupants of a particular floor or quadrant.

ViewDS's flexible storage capabilities allow practically any type of information to be stored, searched and cross referenced. ViewDS can not only store information that represents real world objects, but can allow them to be arranged within sensible hierarchies. People, are typically organized within units that make up the organizational hierarchy. This can be coupled with locality information, such as building, floors, wings and cubicles to create an easily traversable hierarchy.

Portal Searching Engine

It is often surprising how primitive is the search capability on even the most expensive of websites. Many have html pages with multi-click searches that frustrate users, or text searches that provide poorly targeted and unprioritised output.

ViewDS' powerful search capabilities are very effective when harnessed as a search engine empowering websites to provide fast accurate access to people and services. An example of this is the Federal Government portal, www.directory.gov.au where all searches for people, organizations and services are powered by View500.

Fit to Other Vendors' architectures

ViewDS adheres strictly to international standards, and therefore will integrate as a component into major IT architectures, and enhance them in the functions described above.

Interaction with other systems

ViewDS can be synchronized with multiple data repositories including Active Directory, various databases, HR systems, financial systems, PABX, etc. without having to implement expensive over-arching vendor proprietary architectures.

The optional ViewDS SyncServer can synchronize data from virtually any repository into ViewDS without intrusion into the ownership or configuration of those repositories. Its purpose is to solve the data integrity problem of having identity or other sensitive data spread over multiple repositories, by working with those repositories rather than ignoring or replacing them. Use of SyncServer with ViewDS can be an elegant solution for implementing a Trusted Identity Repository (or Source of Truth) by solving the significant technical and political problems of legacy systems, data ownership, acquisitions, access security, etc

EDIAD

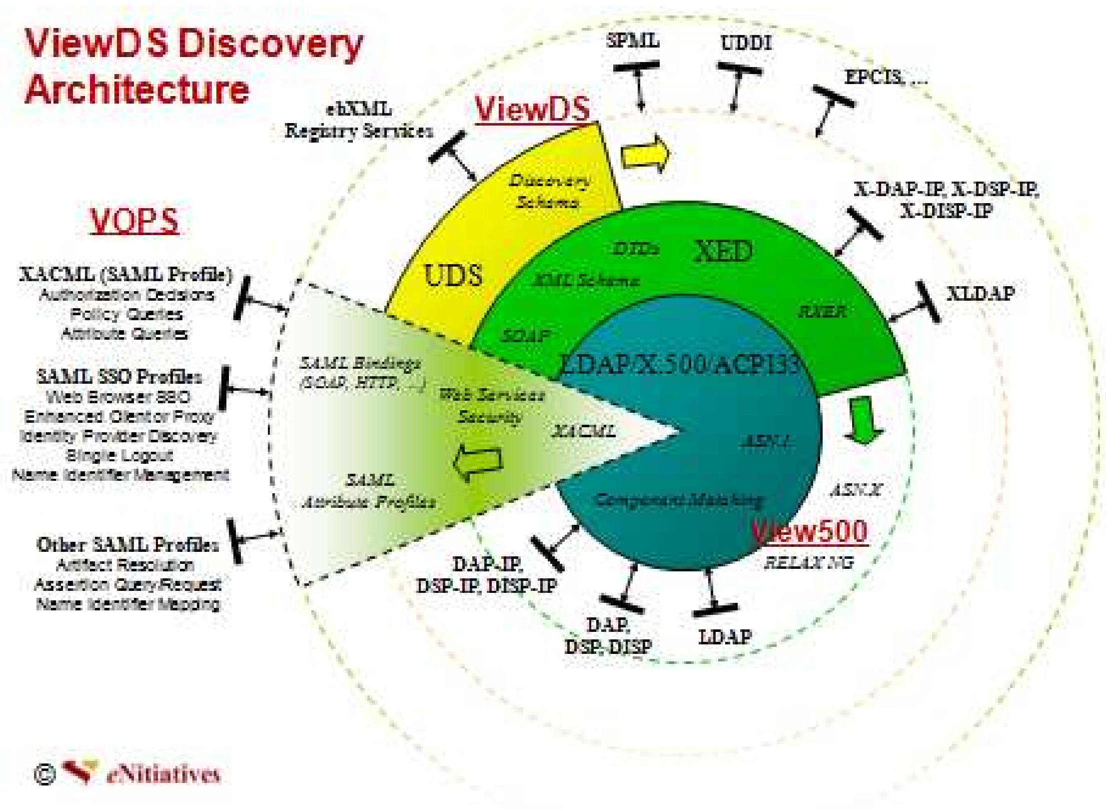
ViewDS as "Enterprise Directory Integrated with Active Directory". The ideal combination for obtaining the benefits listed above by using ViewDS as an Enterprise Directory, with seamless integration with Microsoft Active Directory including using SSO.

"OViD"

For providing ViewDS presentation and searching functions as a "visualisation" component for Oracle Identity Management implementations, complementing Oracle deployments.

Discovery Server Architecture

ViewDS is much more than a “directory” and can provide multiple applications and protocols using common data with the consequent benefits of efficiency, performance, data integrity, environmental benefits, etc.



Further Information

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