Cisco Access Registrar: What's New in Release 5.1

Cisco Access Registrar Overview

Cisco® Access Registrar is a carrier class RADIUS/Diameter solution that provides scalable, flexible, intelligent authentication, authorization, and accounting (AAA) services.

The solution offers:

- Single AAA platform for a broad range of wireless and wireline access technologies for operational and capital expense savings while providing flexibility to the service provider regarding choice in AAA.
- Extensive external user data store support: Includes Oracle, MySQL, Microsoft Active Directory (AD), and OpenLDAP (Lightweight Directory Access Protocol) through connectivity mechanisms like Open Database Connectivity (ODBC), OCI (Oracle Call Interface), LDAP, and Java Database Connectivity (JDBC). Support is schema independent, providing maximum flexibility to service providers for simplified deployment and day-to-day operations, operational expense (OpEx) savings (by using existing infrastructure), and enablement of networks with tens of millions of subscribers.
- Session and resource management: Real-time session manager tracks user/group sessions and dynamically allocates resources like IP addresses (to support centralized IP address assignment) or user/group session limits (to support enforcement across access devices, network access types, and multiple servers).
- Extensibility: Extension point scripting (EPS) allows the solution to be extended with custom written (in C/C++/Tool Command Language [Tcl]/Java) AAA services to meet unique business, regulatory, and technical requirements.
- Broad integration capabilities: Reduces operational costs and speeds service rollout by supporting integration with provisioning, billing, and other service-management components.

Benefits

Cisco Access Registrar offers comprehensive RADIUS/Diameter access control services with the following key benefits:

- Industry-leading RADIUS performance/transaction rate to handle the busiest networks.
- Scalable: An external session manager allows up to 50 million simultaneous active sessions. Additionally, the multithreaded architecture provides performance that scales with additional CPUs.
- Easy to manage: Replication of the internal databases allows multiple servers to be similarly configured for centralized management and ease of use and corresponding OpEx savings.

New in Release 5.1

Cisco Access Registrar 5.1 introduces a number of new features and enhancements that can benefit current and potential customers of Cisco Access Registrar.

- **Extension of WLAN authentication mechanisms to Home Subscriber Servers (HSSs) for WiFi and wireless data offload:** Cisco Access Registrar now supports subscriber identity module (SIM) and universal SIM (USIM) authentication for data access against the newer generation subscriber database HSSs through a Diameter interface. This support adds to existing authentication support against Home Location Register (HLR) and external databases including Oracle, MySQL, OpenLDAP, and AD.
- **Extended Oracle support:** Includes native Oracle database interface support through an Oracle driver replacement.
- **Support for the Solaris ZFS file system:** Provides data integrity, support for high storage capacities, and more.
- **Support for stored procedures:** Cisco Access Registrar now supports calling stored procedures on an Oracle server.
- **New platform support:** Red Hat Enterprise Linux 5.5 and VMware ESXi 4.1.
- **Femtocell support:** Cisco Access Registrar offers a comprehensive AAA solution for femtocells in conjunction with Cisco Broadband Access Controller and Cisco Network Registrar.
- **Cisco Access Registrar Jumpstart:** Cisco Access Registrar is available as a virtualized hardware appliance, providing an easy to install, easy to use, and easy to buy solution for AAA services.

See Table 1 for a detailed listing of new features and enhancements of Cisco Access Registrar.

Table 1.   Enhancements and New Features of Cisco Access Registrar

Enhancements and New Features	Description	Benefits
Extending WLAN authentication mechanisms to HSS		
Wx interface support for HSS lookup	Cisco Access Registrar now supports SIM and USIM authentication for data access against the newer generation subscriber database HSS through the Diameter interface Wx.	Helps enable service providers to effectively provide WLAN and wireless data offload functionality.
Extended Oracle support		
Native Oracle database interface support	Cisco Access Registrar has had support for a wide variety of subscriber data stores including Oracle through interface mechanisms such as ODBC, LDAP, JDBC. Cisco Access Registrar 5.1 now supports a direct interface mechanism to Oracle client libraries through the Oracle Call Interface (OCI) API.	Easy, improved access method to support the latest and upcoming versions of Oracle. Improves performance with an Oracle data store.
Solaris ZFS file system support		
Solaris ZFS file system support	ZFS is a combined file system and logical volume manager with features including data integrity (for example, protection against bit rot), support for high storage capacities, integration of the concepts of files system and volume management, snapshots and copy-on-write clones, continuous integrity checking and automatic repair, RAID-Z and native NFSv4 access control lists (ACLs).	Meets the needs of many customers who look for support of ZFS in their mission-critical applications.

Enhancements and New Features	Description	Benefits
Support for stored procedures		
Support for stored procedures	A stored procedure is a group of SQL statements that form a logical unit and perform a particular task or set of queries, representing a powerful way to code application logic that can be stored on the server. Cisco Access Registrar now supports calling stored procedures with IN/OUT parameters that are already stored in an Oracle server.	Helps service providers to accommodate and achieve complex logic pertaining to subscriber data management and accounting.
New platform support		
New platform support	Platform support includes Red Hat Enterprise Linux 5.5 and VMware ESXi 4.1.	• Greater customer choice regarding operating systems. • The ability to be deployed in the latest virtualized VMware environment allows for lower total cost of ownership (TCO), ease of deployment, and greater flexibility in migration and backup.
Femtocell support		
Femtocell support	Cisco Access Registrar now supports femtocell network rollouts in conjunction with Cisco Broadband Access Center and Cisco Network Registrar. Cisco Access Registrar acts as the RADIUS headend to authenticate and authorize a third-generation (3G) femtocell.	For a mobile operator, femtocells provide improvements to both coverage and capacity, especially indoors where access would otherwise be limited or unavailable. Consumers benefit from improved coverage and potentially better voice quality and battery life.
Cisco Access Registrar Jumpstart		
Hardware appliance	Scalable virtualized appliance for delivering AAA services. Includes: • Cisco Access Registrar. • Cisco Unified Computing System™ (Cisco UCS™) C200 M2: High-density, two-socket, one rack-unit (RU) rack-mount server built for production-level network infrastructure, web services, and mainstream data center, branch, and remote-office applications. • VMware ESXi v4.1.	Provides an easy to install, easy to use and easy to buy experience for service providers.

More Information

For more information about Cisco Access Registrar, visit http://www.cisco.com/go/car, contact your local Cisco account representative, or send an email to ar-tme@cisco.com for presales/business queries or cs-ar@cisco.com for technical queries.

Integration information can be found at http://developer.cisco.com/web/car/home.

To place an order, contact your local Cisco account representative or visit the Cisco Ordering Homepage.

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Printed in USA

C78-687551-02 12/12