MDACA
Medical Data Aggregation And Collection Application

Product Data Sheet

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Overview

As the amount of data grows, organizations struggle to collect and aggregate data from dispersed and siloed data sources across the IT infrastructure. Traditional batch-oriented data migration approaches fail to meet today’s real-time information delivery demands of ‘right data at the right place at the right time’.

MDACA is designed to move data quickly across all major source and target platforms through a simple and secure interface that completely automates end-to-end data replication and consolidation.

MDACA accelerates analytics projects by bringing data to a single location, enabling timely insights and improving project ROI.

Key features

- Low latency data transfer
- Database migration and synchronization
- Real-time and batch queries
- Remote query administration
- DIACAP certified
- Cloud ready

SpinSys MDACA Solution
Product Features

**Secure and high speed data transfer**
MDACA compresses, encrypts and transfers data in parallel streams into, across and out of data sources. Both real-time and batch modes of operation are supported that take full advantage of MDACA’s multi-threaded data processor.

**Broad data platform and data type coverage**
All major data source and target systems for data replication, including relational databases, data warehouse systems, file systems, cloud targets are supported by MDACA. MDACA is agnostic to the data format and effortlessly moves both structured and unstructured data including log files and images.

**Low-footprint architecture**
MDACA components consume minimal amount of disk, memory and CPU resources on the host system. A configuration-driven design enables system administrators to fully control MDACA’s resource consumption.

**Instant updates with enterprise-class data capture**
Transactions on the source systems can be moved over in order and in real time by MDACA. Since MDACA updates the targets with just the information that has actually changed at the source, the data synchronization process is fast and efficient.

**Elastic scalability and built-in fault-tolerance**
MDACA uses Red Hat’s enterprise-ready, open source middleware for processing transactions on the target system. MDACA guarantees required response times by elastically scaling out to meet the increased demand by adding additional processing nodes to the middleware cluster. The cluster’s built-in load-balancing and fail-over features ensure that processing remains distributed and is performed without disruption.

**Remote management and security**
MDACA Agents installed on remote source systems respond to instructions from the central command control server. Remote administrative capabilities and real-time alert notifications significantly reduce the burden of configuration, control and monitoring of the data transfer process.

**Enhanced security**
Ensuring transport level security during data transfer between systems is of critical importance to any organization. Additional security measures are required when working with healthcare or financial data.

MDACA offers secure data exchange with the use of FIPS 140-2 compliant encryption modules over 2-Way SSL/TLS connections. In addition, MDACA can encrypt and decrypt content and use shared-keys and other access mechanisms. MDACA meets DoD’s strict DITSCAP / DIACAP security certification requirements and has received an ATO from SPAWAR for enclave MIDSES solutions.

**Extensibility and integration**
MDACA’s modular design and use of open source technologies ensures that new plug-and-play capabilities can be added quickly to the solution. The solution can also leverage RedHat JBoss product suite’s capabilities including JBoss Fuse, JBoss Business Process Management (JBPM) and JBoss.

Benefits

- Accelerate project schedules with faster execution of migration and replication tasks
- Cut the complexity, cost and skillset requirements for data migration
- Move data across heterogeneous environments including hybrid cloud environments
- Enable real-time analytics support
Primary Use Cases

**Acquisition of structured data across sources**
MDACA collects over 1.5 billion clinical transactions on a daily basis from 100+ Military Treatment Facilities (MTFs) across the globe and stores them on a central operational database.

**Collection of unstructured data from server farms**
MDACA collects application and access log data across SharePoint server farms for supporting real-time web analytics.

**Database migration**
MDACA Agents installed on a Microsoft SQL-Server database cluster can migrate data over to a Linux Oracle RAC cluster.

**Data transfer and synchronization**
MDACA Agents installed on laptops can store and forward data to a central data store under low bandwidth or a disconnected network setting. MDACA automatically synchronizes local source data when connectivity is restored.

Data migration in a hybrid cloud setting
MDACA solution provides a cost-effective alternative for transferring data securely between an on-premise datacenter and public cloud.

Data Collection From Global MTFs since 2004

Data Sets
- Files/Images, statistics, hazards
- PCR Devices, web services

Transactions Volume
- Approximately 1.5 Billion Daily Load (updates/inserts)

Database/Repositories
- Managed Enterprise Database

Hardware
- Virtual Technology
- All-Redundant Processing
- Multi-Processors Servers

Storage
- Managed Storage Area
- Networks

Global Locations
- Near real-time access to global military bases
About SpinSys
SpinSys is the premier small business systems integrator for cloud-based solutions, specializing in sustainment and modernization for the enterprise.

Contract Vehicles

- Dun and Bradstreet Number (DUNS): 82-908-8116
- CAGE Code: 3ED90
- NAICS Classifications: 541512, 511210, 518210, 541330, 541511, 541513, 541519, 541611, 541990, 611420
- SIC Classifications: 737, 7373, 7379

JITC (DoD)
Subcontractor to Smartronix, Inc.
Contract #: HT001-12-D-0003
Period of Performance: 6/2012 - 6/2019

T4 (VA)
Subcontractor to ASM Research, Inc.
Contract #: VA118-11-D-1011

CIO-SP3 (NIH)
Subcontractor to LGS Innovations, Inc.
Contract #: HHSN316201200033W
Period of Performance: 6/2012 – 6/2022

TEAMS (MHS)
Subcontractor to Booz Allen Hamilton, Inc.
Contract #: W81XWH-08-D-0025
Period of Performance: 1/2012 – 1/2018

CATS (USAF)
Subcontractor to Booz Allen Hamilton
Contract #: FA8053-12-D-0002
Period of Performance: 2/2012 – 2/2017

ITSS-4 (DOJ)
Subcontractor to QinetiQ, Inc.
Contract #: DJJ11-C-2165
Period of Performance: September 30, 2017