

**VS Moves Toward New Data Collection Strategy**

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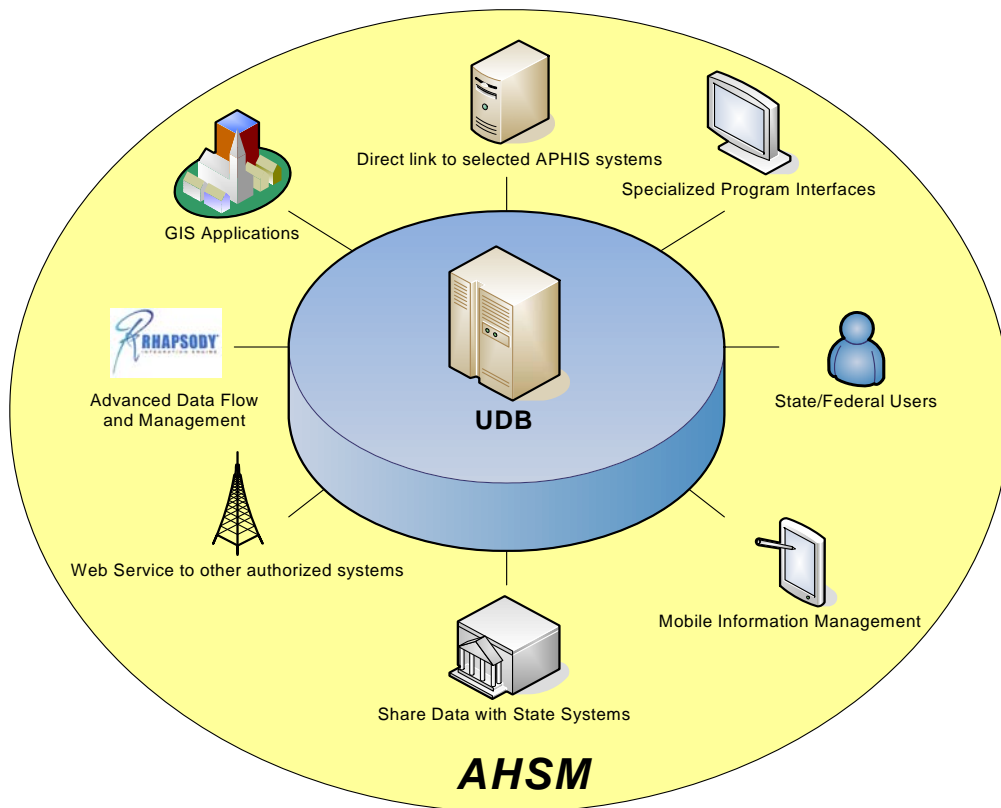
When I first started working for Veterinary Services (VS) as a field Veterinary Medical Officer (VMO) in the New England Area Office 19 years ago, I booted up the new AT&T 8086 PC on my desktop with a 400-baud modem. This system enabled me to communicate with the Brucellosis Information System (BIS) to view my section's brucellosis data. Today, I query a variety of systems through a high-speed Internet connection. The data systems developed to cope with our changing program needs and evolving technology throughout 19 years have mostly achieved their objectives. Any technological achievement, however, is basically obsolete the day it is released for general use. Over time, strategies are developed to move our data into that next generation of technology. VS is now moving to establish its newest data system, the Animal Health and Surveillance Management (AHSM) system.

To truly assess a system like AHSM requires an understanding of the constraints placed on information technology (IT) in the Federal government today. With many high-profile cases of data corruption and sensitive data falling into inappropriate hands, data security has become the overarching concern throughout Federal IT systems. VS is required to adapt and develop systems proven to be secure and reliable by established industry standards. This kind of assurance takes time and resources. In the Federal government today, 20 cents of every dollar spent on IT development is used for this kind of certification. Additionally, the demands that our program activity places on a data system make it necessary for VS to develop those systems, rather than purchase off-the-shelf applications. This type of development is costly and takes time. Therefore,

such a system requires an eye toward the future, so that newer technologies can be effectively integrated when they become available.

The AHSM is the system designed to replace the Generic Database (GDB). The GDB was developed as a system to be distributed to all the VS Areas, with the potential to hold data from most VS programs. The GDB had a universal interface to which the VS programs needed to adapt. The GDB was developed with a high degree of flexibility, and, over time, the data collected in many areas could not be combined into national data sets without extensive manipulation. Despite its limitations, the GDB system has proven to be a valuable tool for collecting VS program data. However, changes in government security requirements and the need for standard data sets for analysis prompted VS to develop the next generation of data system.

The AHSM system is being developed as more than just a database. At its core is an Oracle database based on the GDB design, enhanced to meet our latest program requirements and standardized to a strict set of data requirements. This allows for accurate analysis of the data entering the system. AHSM refers to the complex interaction of specialized program interface designs, geographic information technology, mobile information management, and data flow management, creating a complex interaction of technologies and not just a simple database structure. Figure 1 below shows the scope of AHSM, with the central database called the Unified Database (UDB).



**Figure 1: The Scope of AHSM**

The UDB will consolidate all of our segmented systems into one powerful database, providing the ability for secure national data analysis. Inherent flexibility is also built into the system, as well as the ability to adapt new disease programs into the model with shortened development times/costs.

Development of the AHSM system requires support for two differing objectives. Government standards and stakeholder groups demand an increased need for data security, while animal health program areas demand greater flexibility for VS reporting requirements and data analysis. AHSM is being designed as a modular Web-based system in order to assist animal health officials to more easily manage their animal health programs. It will also focus on data integrity and strict data standards so that

information from external systems can be easily imported into the UDB and UDB data can be easily merged with cooperating State and Federal systems.

The AHSM system is not the GDB with more bells and whistles attached. It is an entirely new system that uses the lessons that VS has learned through decades of developing animal health data systems to create a system that addresses the requirements of the program, the field force, and the analyst. A good example of the direction of AHSM is the classical swine fever (CSF) system. The positive response to this system from program managers and users alike bodes well for the future of AHSM. As an epidemiologist who tries to use the data from our systems on a regular basis, but also as a former field VMO who collected the data that feeds our systems, I see AHSM as a major step forward for our agency, and one that will positively affect us all.