

AE IV&V Test Case TO8_8005

Revision History

Rev. No.	Date	By	Description of Changes
1.0	4/17/08	Tom Kretz	Initial Release.

1. TEST CASE IDENTIFIER

TO8_8005

2. NARRATIVE

Test the throughput and latency for ingesting and storing messages/products for the current WFO data volume and twice this load for the KOAX canned data set.

3. REFERENCES

AWIPS II TO8 Software Installation instructions and Quick Start Admin Guide (NWS)

4. FEATURES TO BE TESTED

Performance of the ESB layer

5. SETUP INSTRUCTIONS

Assumptions about the system configuration and status: The baseline TO8 software is installed as described in the TO8 Software Installation procedures for standalone workstation, the canned KOAX test data collected by NWS/OST/SEC is used for the tests, and the system is operational as shown in the TO8 Quick Start Admin Guide.

Step	Setup Procedure	Result
1	TO8 software configured for normal system	
2	ingestData.sh installed	
3	Canned test data available on system	
4	Purge metadata and hdf5 repositories	

6. ACCEPTANCE CRITERIA

The tests are intended to document the performance of the TO8 release running in Linux for normal and twice the normal data volumes. These tests are not meant to be an indication of the AWIPS II performance, but to identify and track the performance of standard tests across the ESB.

7. TESTING PROCEDURE

With the normal EDEX configuration, run the ingestData.sh script to load a normal volume of KOAX data into the EDEX server. In the mule log file note the time required to ingest the canned data set at a normal volume. Next rerun the test at twice the normal data ingest rate.

The ActiveMQ Broker, Mule ESB and Tomcat servers were shutdown and restarted before each test, so any memory caches and queues were cleared between tests. This is about as close to the same initial conditions that we can get for each test.

The following statistics are captured in the mule log file:

Start Time: The time when the first product is ingested by the stagingSrv service

End Time: The time when the last product is stored by the indexSrv service.

Calculate the total time to process the products.

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Step	Procedure	Expected Result	Actual Result
1	Restart edex_activemq, edex_mule, and edex_tomcat services	Services stop and restart	
2	Run the ingestData.sh script at normal rate		
3	Note the time for stagingSrv to ingest the first product		
4	Note the time after last product is stored by indexSrv		
5	Calculate the total time start time – end time		
6	Purge the repositories	Products are purged from metadata and hdf5 repositories	
7	Stop the edex_activemq and edex_mule services	Services stop	
8	Clear the mule log file		
9	Repeat step # 1	Services restart	
10	Run the ingestData.sh script at twice the normal rate		
11	Note the time for stagingSrv to ingest the first product		
12	Note the time after last product is stored by indexSrv		
13	Calculate the total time start time – end time		
	End of test		