MultiSpeak Version 4.0 Interoperability Assertion

Statement of Interoperable Functionality Between:

Vendor(s)	Product	Product Version	Role	Web Client Interfaces	Web Server Interfaces
NexTraq	MARCUS	8.9	AVL	GV→AVL	AVL→GV
Milsoft Utility Solutions	Milsoft Web Server	8.1	GV	AVL→GV	GV→AVL

Summary:

Milsoft's DisSPatch OMS product is capable of receiving AVL data from NexTraq's MARCUS platform using MultiSpeak web services. NexTraq's MARCUS platform serves as the central receiver for GPS and vehicle telemetry data coming from mobile devices. The Milsoft Web Server accepts real-time location update information on behalf of Milsoft DisSPatch OMS. It then prepares/stores the AVL data for display and interaction within DisSPatch clients.
Assuming initial configuration parameters are defined, DisSPatch clients can display an icon on the screen representing the AVL data source. They are also capable of viewing the history of any single AVL data source both in tabular form and as breadcrumb icons on the DisSPatch client map.

Prerequisites:

The Enhanced Crew Management & AVL add-ons for DisSPatch must be installed and configured for proper integration. The MARCUS account vehicle number must match the AVLID in DisSPatch Enhanced Crew Management. Additionally, both NexTraq' s MARCUS platform and the Milsoft Web Server must be accessible to each other and configured for communication. The maximum historical data that can be obtained from NexTraq is not to exceed the customer's quota.

Specific Vendor Assertions:

1. **The Milsoft Web Server will obtain a requested backlog of AVL data upon initial setup as well as attempt to recover any AVL data that may have been lost due to server downtime.**

   - **Importance to user:** The user may want to bring in historical data from a pre-existing MARCUS installation for DisSPatch to use as part of its vehicle history. The user also wants to have a reasonable guarantee that any downtime the Milsoft Web Server may incur will not result in any gaps for AVL data used by DisSPatch.

   - **How Achieved:** The Milsoft Web Server contains a configuration setting that enables it to request AVL data on server start up. This enables the option for the Milsoft Web Server to obtain any available historical AVL data the first time it is started as well as request any AVL data missed during any server downtime. A request for AVL data over a window of time is issued from the Milsoft Web Server to the NexTraq MARCUS platform via the GetAVLMessages method.

2. **DisSPatch will update defined vehicle location icons as real-time AVL information arrives.**

   - **Importance to user:** The user will be able to centrally view where their trucks are within DisSPatch so dispatchers can judge how to best utilize resources and provide increased safety to mobile workers.

   - **How Achieved:** Milsoft's Web Server will serve as a receiver for incoming AVLChangedNotifications being sent from NexTraq's MARCUS platform. The DisSPatch clients pull information from the Milsoft datastore as new data is being translated by the MultiSpeak AVL interface of the Milsoft Web Server and update defined vehicle icons with a new map location.

3. **DisSPatch will allow users to view historical AVL data**

   - **Importance to user:** The user will be able to view from within DisSPatch where a vehicle has been using the data collected from NexTraq.

   - **How Achieved:** By clicking on a vehicle in DisSPatch you can open a window that displays a grid of where that vehicle has been over a specified time period. This also puts new icons on the map to represent where that vehicle has been. When a record is selected in the vehicle info grid, the historical icons change size to represent selection.

Products: Milsoft Web Server and NexTraq's MARCUS
Summary of Interoperability Test Results (GV→AVL)

Table 1
MultiSpeak Methods (GV)

Method Name	GV-AVL	Importance to User	Supported by Server[1] (GV)	Supported by Client[2] (AVL)	Verified Inter-operable[3]
AVLChangedNotification	REC	Publisher notifies GV of new AVL events by sending an AVLMessage object.	X	X	X
GetDomainMembers	OPT	The client requests from the server the members of a specific domain of information, identified by the domainName parameter, which are supported by the server.	X		
GetDomainNames	OPT	The client requests from the server a list of names of domains supported by the server.	X		
GetMethods	REQ	Requester requests list of methods supported by GV.	X	X	X
PingURL	REQ	Requester Pings URL of GV to see if it is alive. Returns errorObject(s) as necessary to communicate application status.	X	X	X

REQ – Inclusion is required for this interface.
REC – Inclusion is recommended for this interface.
OPT – Inclusion is optional for this interface.

[1]Supported by Server means that the server has demonstrated in some interoperability test (not necessarily with this client) that it can support the method.

[2]Supported by Client means that the client has demonstrated in some interoperability test (not necessarily with this server) that it can call the method.

[3]Verified Interoperable means that both the client and server have demonstrated in this interoperability test that they can usefully transfer data using this method.

Products: Milsoft Web Server and NexTraq's MARCUS
Summary of Interoperability Test Results (AVL → GV)

Table 2
MultiSpeak Methods (AVL)

Method Name	AVL-GV	Importance to User	Supported by Server[1] (AVL)	Supported by Client[2] (GV)	Verified Inter-operable[3]
<u>GetAVL</u>Messages	REC	Returns stored events (AVLLogs) for all vehicles that are equipped with AVL, within a specified date/time range.	**X**	**X**	X
GetAVLMessagesByAVLID	REC	Returns events (AVLLogs) for a vehicle that is equipped with AVL, for a specified date range, given the vehicle's AVLID.	**X**		
GetAVLMessagesByVehicleName	REC	Returns events (AVLLogs) for a vehicle that is equipped with AVL, for a specified date range, given the vehicle's name.			
GetAVLPositionByAVLID	REC	Returns all positions for a vehicle that is equipped with AVL, within a specified date/time range, given the AVLID.			
GetAVLPositionByVehicleName	REC	Returns all positions for a vehicle that is equipped with AVL, within a specified date/time range, given the vehicle name.			
GetAVLSupportedVehicles	REC	Returns all vehicles that are equipped with AVL.			
GetDomainMembers	OPT	The client requests from the server the members of a specific domain of information, identified by the domainName parameter, which are supported by the server.		**X**	
GetDomainNames	OPT	The client requests from the server a list of names of domains supported by the server.		**X**	
GetLastAVLMessages	REC	Returns the most recent stored events (AVLLogs) for all vehicles that are equipped with AVL.			
GetLastAVLPositionByAVLID	REC	Returns the most recent stored position for a vehicle that is equipped with AVL, given the vehicle name.			
GetLastAVLPositions	REC	Returns the most recent stored position for all vehicles that are equipped with AVL.			

| GetMethods | REQ | Requester requests list of methods supported by AVL. | **X** | **X** | X |
| PingURL | REQ | Requester pings URL of AVL to see if it is alive. | **X** | **X** | X |

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Certified by:

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Disclaimer:
The assertions made in this document are statements of the vendors offering the two products listed above. The Testing Agent has observed the software performing the tasks described in these vendor assertions.

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