



BridgeLink Message Trends User Guide

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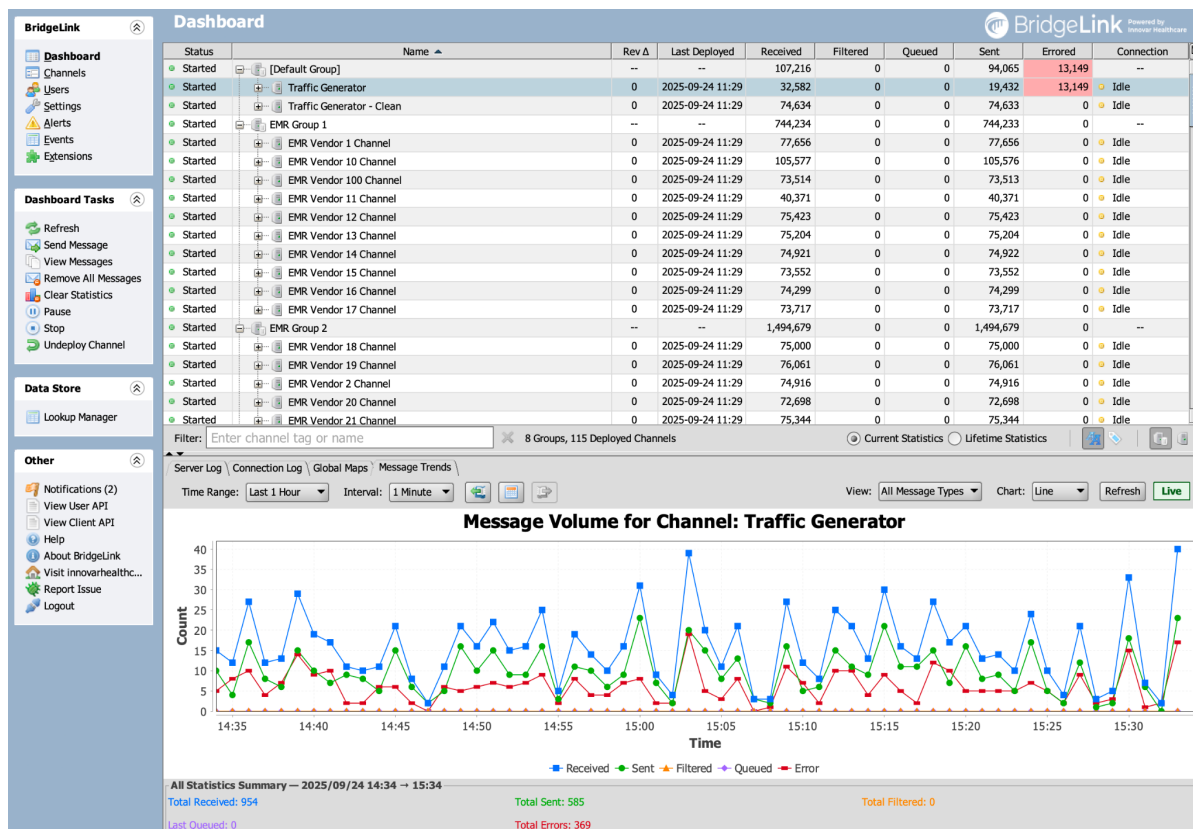
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Message Trends

Introduction

Message Trends: A powerful new addition to BridgeLink 4.6-Beta that provides time-series analytics and visualization of message traffic. This feature delivers critical insight into message volumes, processing patterns, and system performance, previously unavailable in the platform.



Product Perspective

MessageTrends integrates with the existing BridgeLink platform as a core enhancement. It extends current statistics capabilities by adding time-dimension tracking while maintaining compatibility with existing features. The feature appears as a new dashboard panel and is accessible through REST API endpoints.

1. Product Features

- Time-bucketed message statistics tracking (received, filtered, queued, sent, error)
- Configurable time resolution (1-minute, 5-minute, 15-minute, hourly, daily)
- Historical data retention with tiered storage policies
- Dashboard visualization with interactive charts
- Comprehensive REST API for external access
- Support for channel-level, connector-level, and server-level statistics

2. User Classes and Characteristics

- System Administrators: For monitoring overall system health and usage patterns
- Integration Specialists: For troubleshooting and optimizing channel performance
- Operations Teams: For capacity planning and SLA monitoring
- Developers: For integrating statistics into external monitoring systems

3. Operating Environment

The feature operates within the existing BridgeLink environment and utilizes the same database technology already in use (e.g., Derby, MySQL, SQL Server, PostgreSQL). It is compatible with all supported operating systems.

4. Message Trends Retention

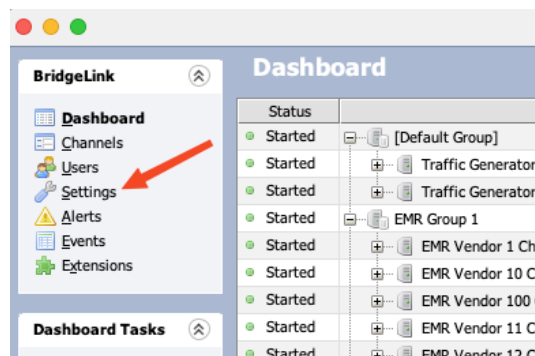
The following table details the retention and purge policies for each bucket.

Time	Retention Days	Purge Schedule
1 minute	1 day	Hourly
5 minutes	7 days	Hourly
15 minutes	30 days	Hourly
60 minutes	90 days	Hourly
1440 minutes (daily)	3 years	Hourly

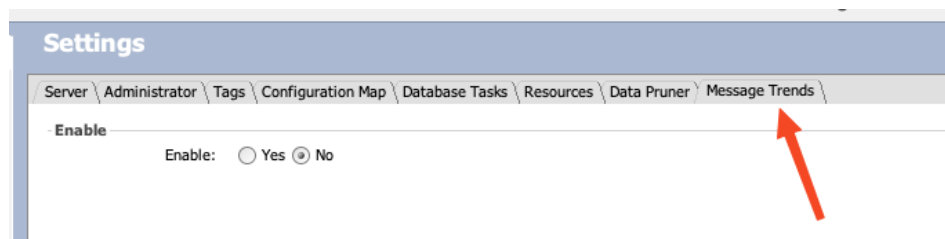
How to enable Message Trends

Message trends is disabled when initially installed.

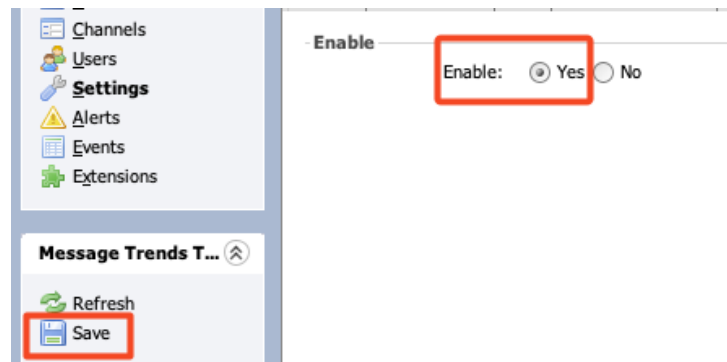
1. To enable Message Trends on your BridgeLink server, go to Settings.



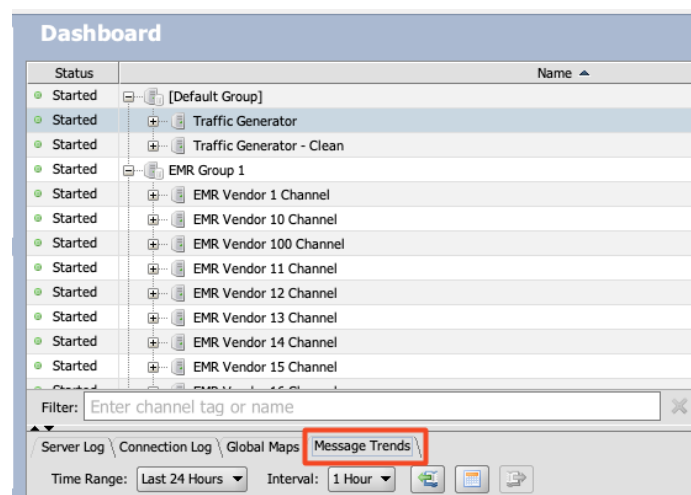
2. Go to the Message Trends tab and you will see that the feature is disabled.



3. Select Enable **Yes** and **Save** it.



4. Message Trends can be found on the same tab as your Server Log, Connection Log, and Global Maps.



If Message Trends is disabled, no data is collected, which explains any discrepancies between dashboard channel statistics and expected data. These inconsistencies do not indicate a system error but rather reflect the lack of data collection when the feature is off. To ensure complete data collection for Message Trends, the feature must be consistently enabled.

All Statistics Summary — 2025/06/26 19:00 → 2025/09/24 19:00				
Total Received: 35,557	Total Sent: 21,247	Total Filtered: 0		
Last Queued: 0	Total Errors: 14,310			

Message Trends Configurations

To view Message Trends, first select a channel from the Dashboard. The dashboard will then display the features for the selected channel, as demonstrated in the image below, where "Traffic Generator" is the chosen channel.

Dashboard									
Status	Name	Rev Δ	Last Deployed	Received	Filtered	Queued	Sent	Errored	Connection
Started	[Default Group]	--	--	159,168	0	0	139,751	19,415	--
Started	Traffic Generator	0	2025-09-24 11:29	48,192	0	0	28,776	19,415	Idle
Started	Traffic Generator - Clean	0	2025-09-24 11:29	110,976	0	0	110,975	0	Idle
Started	EMR Group 1	--	--	1,104,868	0	0	1,104,867	0	--
Started	EMR Vendor 1 Channel	0	2025-09-24 11:29	115,899	0	0	115,899	0	Idle
Started	EMR Vendor 10 Channel	0	2025-09-24 11:29	156,049	0	0	156,048	0	Idle
Started	EMR Vendor 100 Channel	0	2025-09-24 11:29	108,643	0	0	108,642	0	Idle
Started	EMR Vendor 11 Channel	0	2025-09-24 11:29	60,161	0	0	60,161	0	Idle
Started	EMR Vendor 12 Channel	0	2025-09-24 11:29	112,421	0	0	112,421	0	Idle
Started	EMR Vendor 13 Channel	0	2025-09-24 11:29	110,936	0	0	110,936	0	Idle
Started	EMR Vendor 14 Channel	0	2025-09-24 11:29	110,709	0	0	110,710	0	Idle
Started	EMR Vendor 15 Channel	0	2025-09-24 11:29	109,524	0	0	109,524	0	Idle
Started	EMR Vendor 16 Channel	0	2025-09-24 11:29	110,489	0	0	110,489	0	Idle

Filter: Enter channel tag or name 8 Groups, 115 Deployed Channels

Server Log | Connection Log | Global Maps | Message Trends

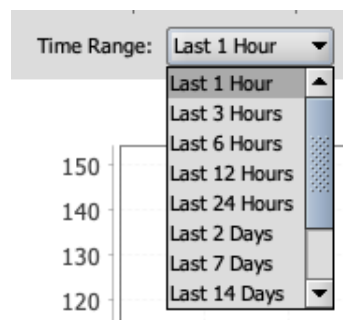
Time Range: Last 1 Hour Interval: 1 Minute

View: All Message Types Chart: Line Refresh Live

Message Volume for Channel: Traffic Generator

Time Range Setting

You can select a Time Range of up to three months to display on the dashboard.



Interval Setting

The Interval options automatically adjust based on the selected Time Range. Refer to the table below for available Interval settings for each Time Range.

Time Range	Interval
→ Last 1 hour	→ 1 Minute → 5 Minutes
→ Last 3 Hours → Last 6 hours	→ 5 Minutes → 15 Minutes
→ Last 12 Hours	→ 15 Minutes → 1 Hour
→ Last 24 Hours → Last 2 Days	→ 1 Hour
→ Last 7 Days → Last 14 Days → Last Month → Last 2 Months → Last 3 Months	→ 1 Day

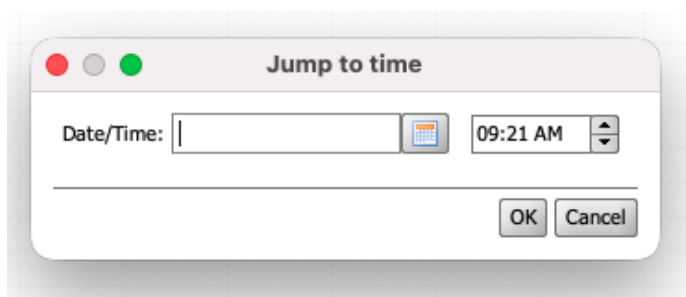
Date Setting

You can adjust the displayed data using the following three buttons:

- **Date Shift:** Move the selected time range backward or forward in time.



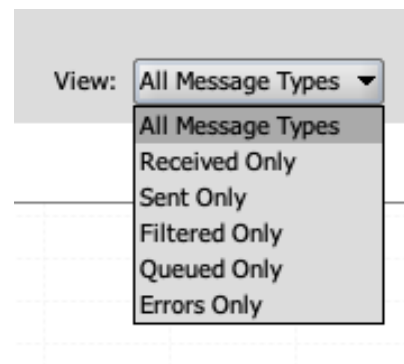
- **Date Select:** Choose a specific start and end date for your data visualization. When you click on it, it will open a Jump to time window and you can select the specific date and time you want to display there.



View Setting

Message Trends provides various view options to focus on specific message types:

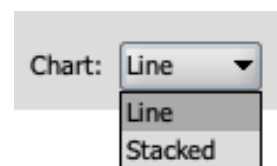
- **All Message Types:** Displays statistics for all message activities (received, filtered, queued, sent, and error).
- **Received Only:** Shows only messages that have been received by the system.
- **Sent Only:** Displays only messages that have been successfully sent from the system.
- **Filtered Only:** Focuses on messages that have been filtered based on defined rules.



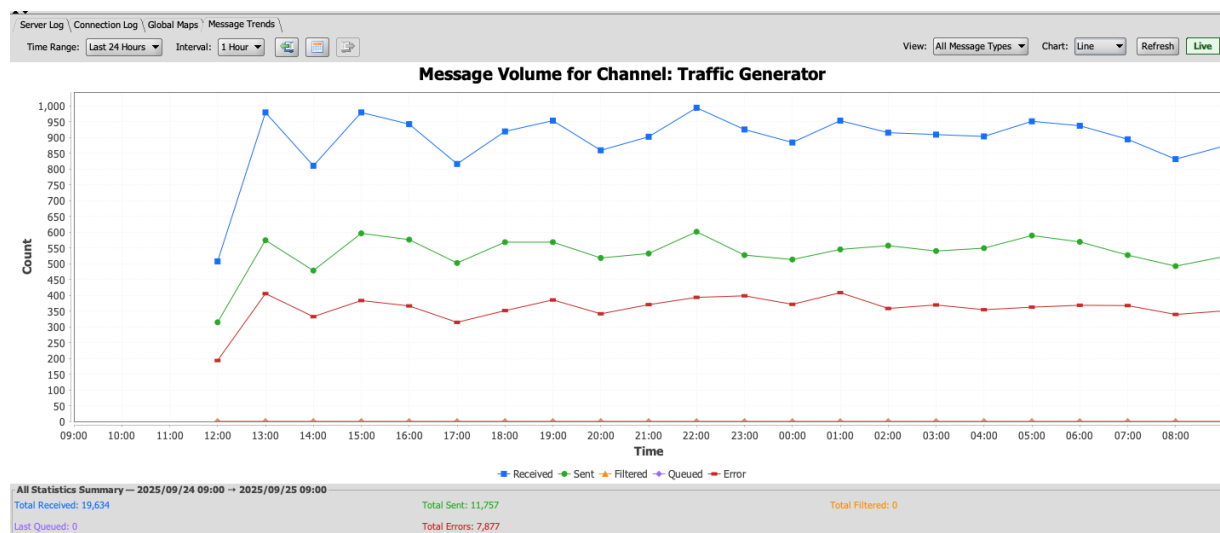
- **Queued Only:** Shows messages that are currently in the message queue, awaiting processing.
- **Errors Only:** Displays only messages that have resulted in an error during processing.

Chart Type Setting

Message Trends offers two distinct chart types to visualize your message data:



- **Line Chart:** Displays message statistics as a continuous line, ideal for observing trends and changes over time.



- **Stacked Area Chart:** Shows message statistics as stacked areas, useful for understanding the composition of message types within a given time frame.

