ICMI LEARNING

Understanding the Message Structure with MTI, Bitmaps, and Data Elements

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ISO 8583

Messaging standard used in the card payment industry to facilitate communication between different systems involved in a transaction

*Defines the **structure of the message** that is transmitted between the different parties , including*

- Message type indicator (MTI)
- Bitmaps
- Data elements

A standardized message format ensures that information is transmitted accurately and securely

Understanding the Message Structure with MTI, Bitmaps, and Data Elements

Message type indicator (MTI)	*First field in the ISO 8583* *Determine how to process the incoming message*

0	1	0	0
Indicates version of the message	*Class of the message*	*Function of the message*	*Originator of the transaction*
1987 version	*Authorization class*	*Request message*	*By acquirer*

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Bitmaps	*Binary representations of data elements present in the message*

Primary bitmap	*Secondary bitmap*
Presence or absence of the first 64 data elements	*Presence or absence of the remaining 64 data elements*

The use of bitmaps helps reduce the message size and speeds up the transmission process

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Receiving system of Bitmap	*Which data elements are present in the message ?* *How to process the data ?*

The data elements carry transaction-related information

Card number	Expiration date	Transaction amount

Data element	*Organized into a fixed format and* *Numbered sequentially from **2 to 128***
Specific purpose and length	Identified by its corresponding number

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Most common data elements financial transactions

Cardholder's name	Card number	Expiration date	Transaction amount

There are many more data elements that can be included in the message, depending on the specific transaction type and requirements