

FREQUENTIS

FOR A SAFER WORLD



Bidirectional AMHS/AMQP interface

ACSICG-10 – 24th May 2023, Bangkok

Bidirectional AMQP interface

AMHS

Information flow:

Messages routed based on addresses and static routing tables

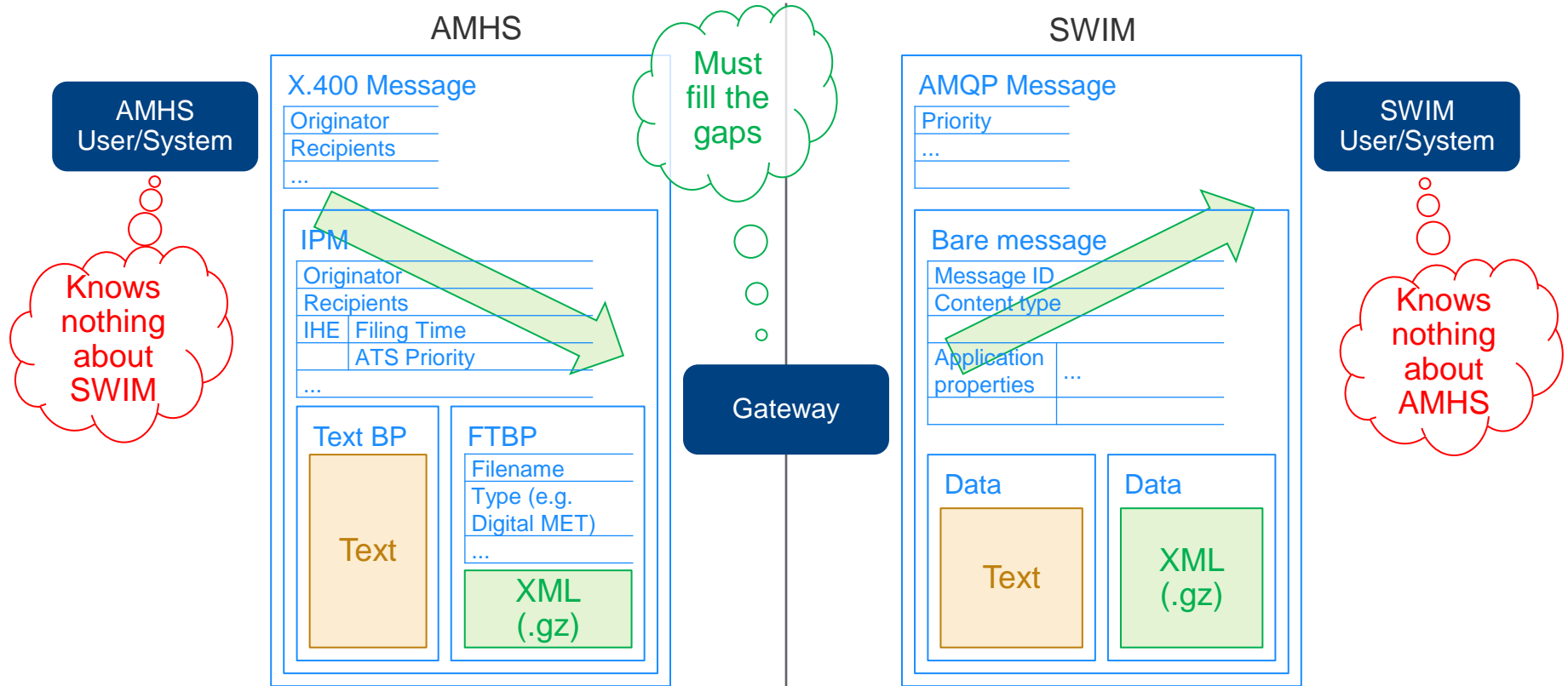
Message format:
X.400

Same principle as AFTN

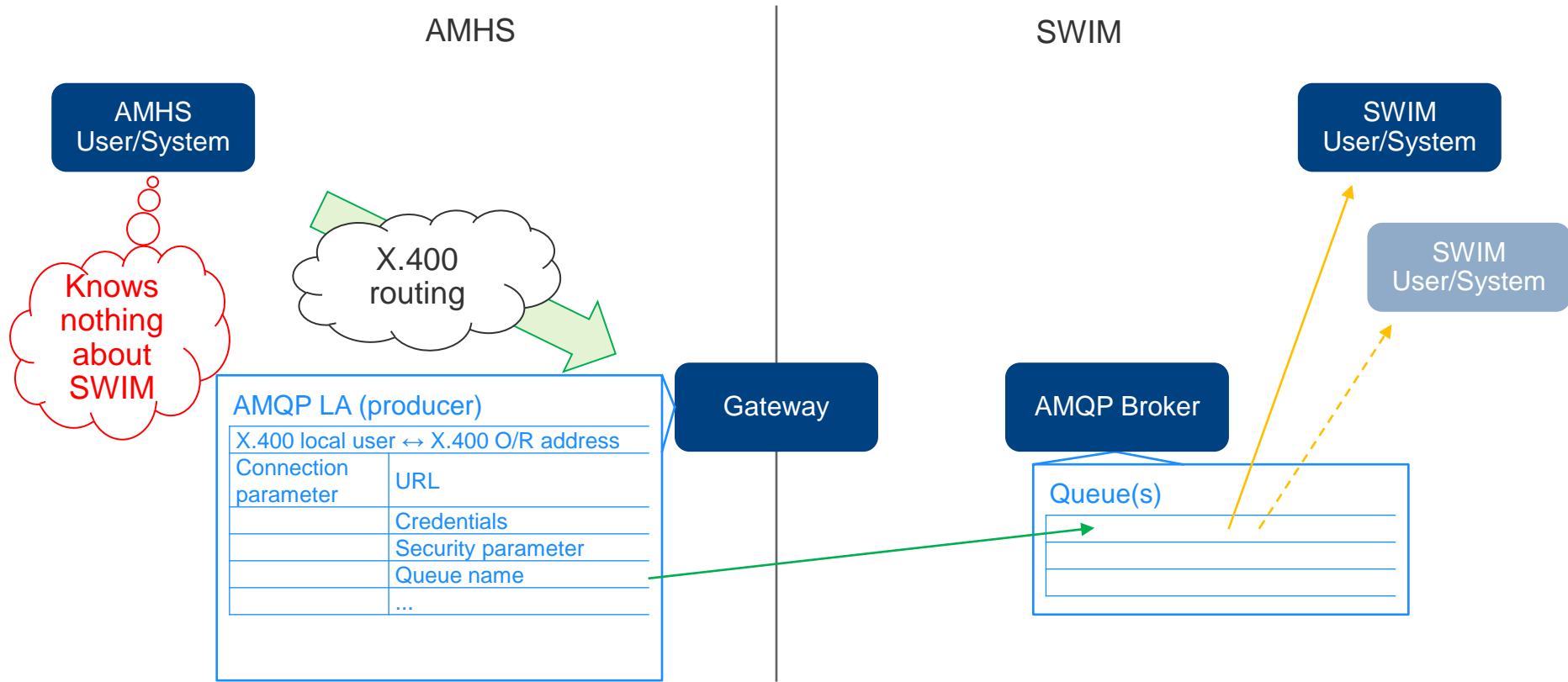
SWIM

- ✓ Standardized information exchange models, e.g. IWXXM
- ✓ EUROCONTROL Yellow Profile for the SWIM technical infrastructure:
 - Specifies different interface bindings (amongst others: AMQP)
- A lot of details not yet specified
- Different concepts of information flow!
- Not “just another protocol”!

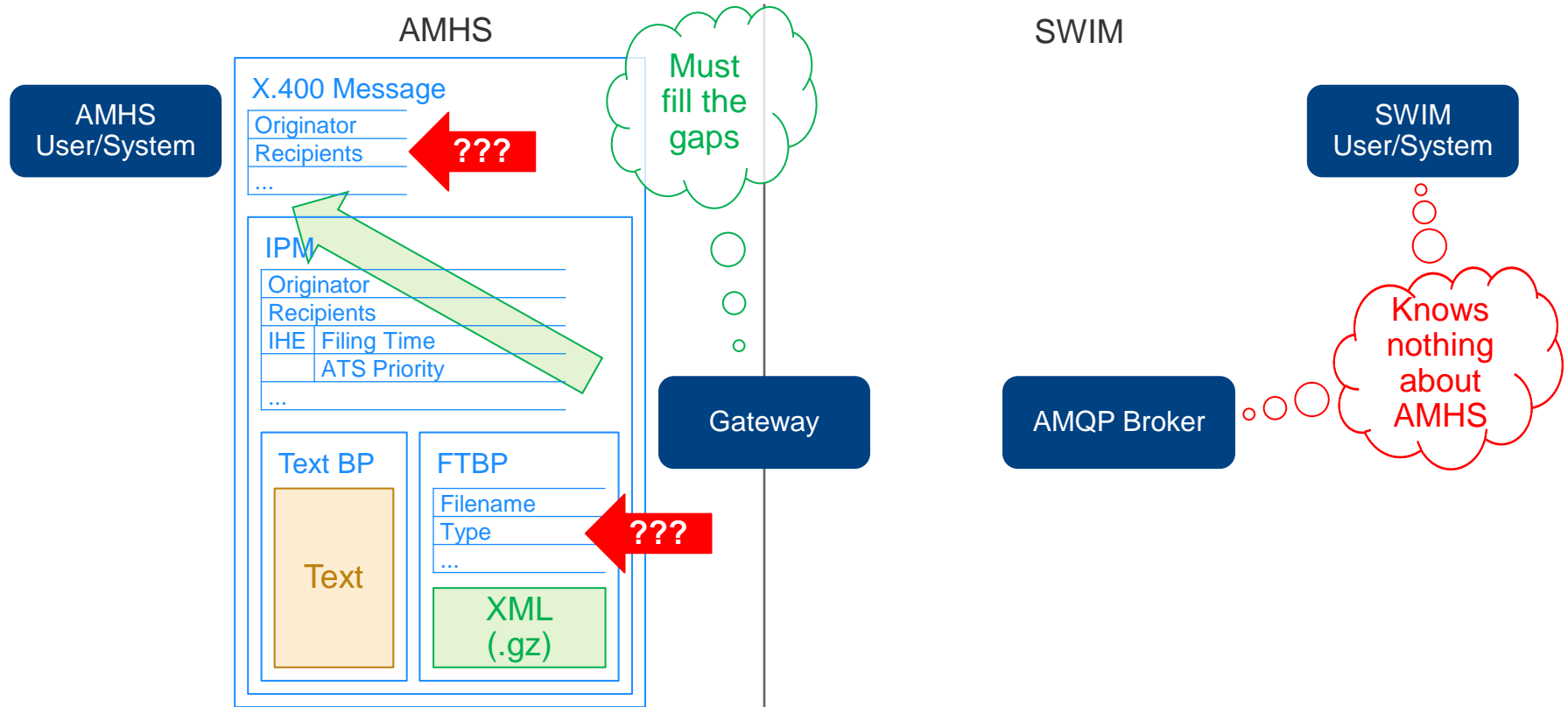
Bidirectional AMQP interface



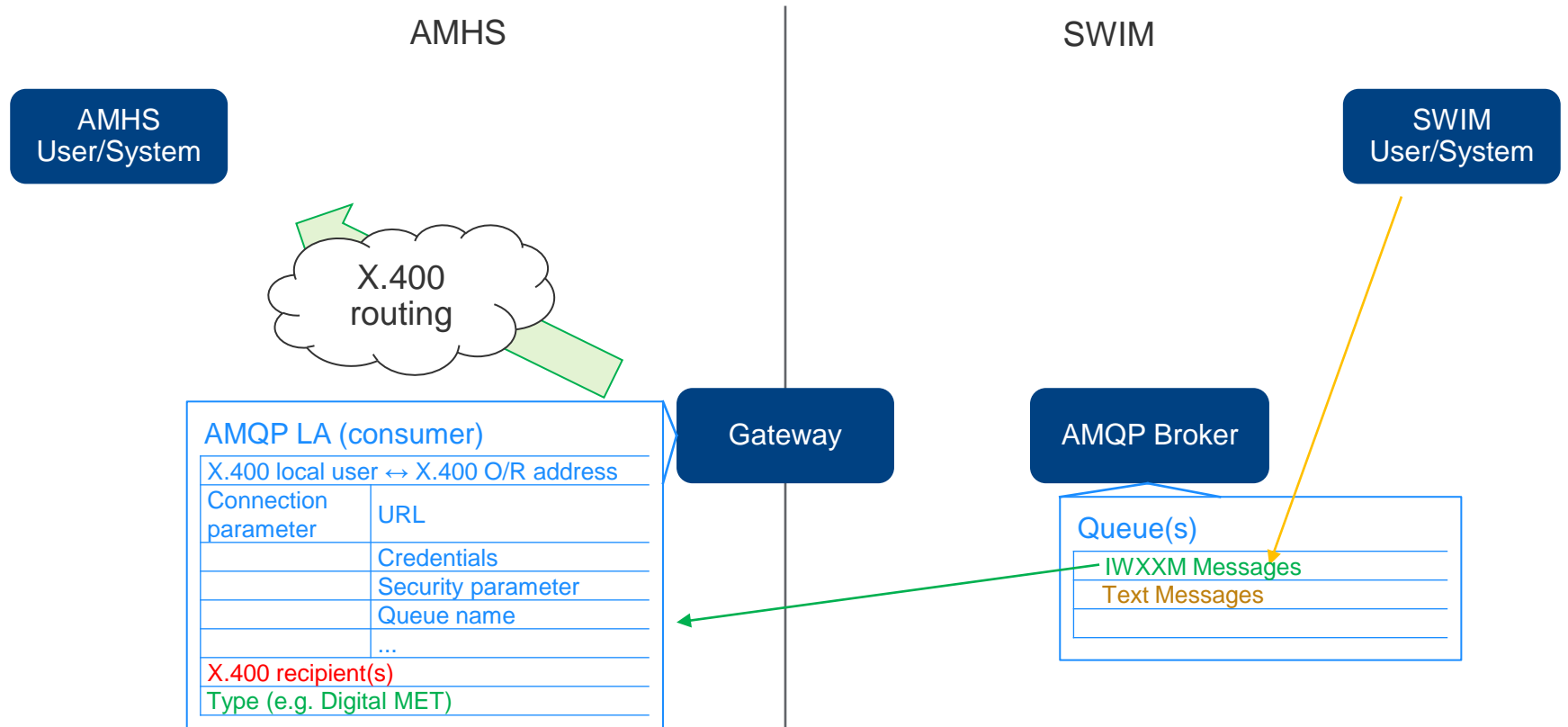
Bidirectional AMQP interface



Bidirectional AMQP interface



Bidirectional AMQP interface



Bidirectional AMQP interface

■ AMHS → SWIM

- Convey aeronautical information from any AMHS originator to dedicated AMQP queues
- Distribution within SWIM out of scope
- Messages to be conveyed are selected by routing to the local gateway address

■ SWIM → AMHS

- Convey aeronautical information from dedicated AMQP queues to dedicated AMHS recipients
- All messages in the input queue must contain the same type of information
- Design for operation of multiple queues

AMHS to SWIM supported by Frequentis Comsoft

- AIDA-NG can act as gateway between AMHS and SWIM
 - Direction AMHS → SWIM already available since 2021 (release 20.1)
 - Direction SWIM → AMHS upcoming August 2023 (release 21.3)

- Additionally content converters available (AIDA-NG & CADAS)
 - TAC to IWXXM 3.0
 - FPL to FIXM 4.1



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