Message Profiles are Contracts for Implementation

• Static Profiles
  – Define structure and content of profile
    – Segment cardinality (m…n)
    – No optional fields or sub-fields (R,RE,C,CE,X)
    – All codes defined for fields and sub-fields

• Dynamic Profiles
  – Define interaction between source and receiver
    – Acknowledgement modes (Accept, Application)
    – Acknowledgement condition (AL, NE, SU, ER)
Example of Static Profile

Fields/Components:
- Field Usage (Optionality) (R, RE, C, CE, X)
- Cardinality (max repeats)
- Value Sets/Coding system
- Descriptions

Segments/Segment Groups:
- Cardinality (min, max)

HL7 Message Structure

AWG Message Profile

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Progress on Profiles

• Profile Specification
  - Rev A
  - Rev B
  - Rev C

  V0.1R2
  V0.1R3
  V0.1R4

  1998
  1999

• Profile Content
  - HL7 Version 2.3
  - Patient Administration (A/D/T)
  - Orders/Observations

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Progress on Profiles

• Profile Tools

- Web Proto 1
- Web Proto 2
- RoboHelp Orion Proto 1

1998

AWG
HL7
AHC

• Profile Process

- Each profile has a unique identifier
- Organizations register profiles (AWG, AHC, HL7...)
- Tools support entry, searching, and comparison
- Organizations register use of profiles (vendor, provider...)
- Market determines utility of profiles

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Message Profile Example

ADT^A01, ACK^A01

Message Profile Specification
Patient Administration (A/D/T)

ADT^A01

{ iso(1) org(3) dod(6) internet(1) private(4) enterprises(1) hp(11) hpMPG(3) profiles(3) awg(1) hl7(1) v2-3(5) static-profile(1) adt(3) a01(1) null(0) null(0) v1(1) }

ACK^A01

{ iso(1) org(3) dod(6) internet(1) private(4) enterprises(1) hp(11) hpMPG(3) profiles(3) awg(1) hl7(1) v2-3(5) static-profile(1) ack(1) a01(1) null(0) null(0) v1(1) }

HP Enterprise Communication Framework —

April 02, 1999 (DRAFT)
1.1 Use Case: Admit/Visit Notification

Description: A patient is admitted to the healthcare facility.

**Actors:**
1. Patient - is the recipient of healthcare services. It is the subject of the admission to a healthcare facility.
2. Physician – is legally responsible for admitting a patient to a healthcare facility.
3. Registrar – is responsible for processing an admission request.
4. ADT System – is responsible for sending a notification to interested subscribers when a patient is admitted to a healthcare facility.
5. ADT Notification Recipient – is responsible for receiving notification of patient admissions.

**Pre-conditions:**
1. A Patient is presented to the healthcare facility.
2. ADT Notification Recipients have subscribed for patient admission/visit event notifications.
3. The Physician authorizes the Patient for admission to the healthcare facility.
4. The Registrar processes the admission request.

**Flow of events:**
1. The ADT System sends notification of the patient admission to all subscribers of this event.
2. Upon receipt of a patient admit/visit notification, the ADT Notification Recipient acknowledges that the event notification was received.
3. The ADT System receives the acknowledgement. If no acknowledgement is received or the acknowledgement indicates that the notification was not received, then the ADT System logs an error.

**Post-conditions:**
1. All ADT Notification Recipients are aware that the Patient has been admitted.

**Derives events**
1. ADT^A01 - { awg(1) hl7(1) v2-3(5) static-profile(1) adt(3) fnl(1) null(0) null(0) v1(1) }
2. ACK^A01 - { awg(1) hl7(1) v2-3(5) static-profile(1) ack(1) fnl(1) null(0) null(0) v1(1) }
Message Profile Example (cont)
Profile Registry Supports Integration

- Registry Supports “Yellow Pages” and “White Pages” Lookup
  - Each profile has a unique identifier
  - Organizations register profiles (AWG, AHC, HL7…)
  - Organizations register use of profiles (vendor, provider…)
  - Integrator uses tools for searching, and comparison
  - Market determines utility of profiles
- Example of Profile Identifier (ASN.1)
  - \{ iso(1) org(3) dod(6) internet(1) private(4) enterprises(1) hp(11) hpMPG(3) profiles(3) awg(1) hl7(1) v2-3(5) static-profile(1) adt(3) a01(1) null(0) null(0) v1(1) \}
  - \{ iso(1) org(3) dod(6) internet(1) private(4) enterprises(1) hp(11) hpMPG(3) profiles(3) awg(1) hl7(1) v2-3(5) dynamic-profile(2) accAL-appNE(5) \}