



Putting Your Ideas to Work



**UYS, Inc -
Integration Solutions**



Mission

To provide the quality of service through process, design, and implementation essential to the delivery of practical solutions — these must meet or exceed our customer's needs. The ideas our customers bring forward serve as key leverage points to the overall success and quality of our service.



HIT Challenges - History

- **Past**
 - **Model**
 - **Financial**
 - **Technology**
 - **Proprietary**
 - **5-10 yr lag**
 - **Cost**
 - **Specialized personnel, location, and support**
 - **Intensive customization effort**



HIT Challenges - History

- **Present**
 - **Model**
 - Hybridized “financial”; vendor specializations of “clinical”
 - **Technology**
 - Markedly more open; proprietary remnants
 - 2-5 yr lag
 - **Cost**
 - “Replacement” technology
 - Misplaced technology (vendor)



HIT Challenges - History

- **Future**
 - **Model**
 - **Clinical core supporting financial process**
 - **Health and wellness**
 - **Technology**
 - **Cross-market deployment; <1 yr lag**
 - **Cost**
 - **Process/technology harmonization & certification**
 - **Security & Regulations**



Integration Conduits - History

From Interfaces to Integration

- **Past**
 - “end-to-end” queues
 - “backend” reconciliation
- **Present**
 - multi-point “end-to-end” processing
 - scattered reconciliation
- **Future**
 - consolidated “side-to-side” trading
 - profile-managed reconciliation (min)



Linchpin Technology

The single area in most organizations which represents the “most complex, yet quickest win toward integration is the incorporation of interface engine technology.”

- **It also represents the area where:**
 - **vendor-specific issues are encountered**
 - **poor implementation equates to failure**
 - **product education and ownership come last**

UYS, Inc. provides design, customization, implementation, and functional support of the value-added OpenHUB™ (STC Datagate™) Interface Engine and Data Access Retrieval Tool (DART) products.



Integration Service Areas

- **Multi-point processing (interfaces)**
 - enhancement, implementation, and customization
 - incorporation of the HL7 standard
 - data-information-knowledge methods
- **Techno-process assimilation**
 - enterprise focused approach
 - supportable solutions
- **Investment impact**
 - preserve, protect, & point
 - migration over replacement



What Makes UYS 'Different'

- **Quality Service**
 - which meets/exceeds your needs
- **Commitment to Success by:**
 - preserving your investment
 - complementing technology with process
 - identifying costly maintenance factors
- **Vendor Knowledge / Sales Neutrality**
 - service niche employs objective, real world approaches to integrating vendor offerings
 - quality & commitment to success are based on solutions, not short term fixes



Key Integration Points

UYS target areas for integration:

- **Identification - Person/Entity**
- **Data**
- **Application/Setting**
- **Transport & Reconciliation**
- **Process**



Identification - Person/Entity

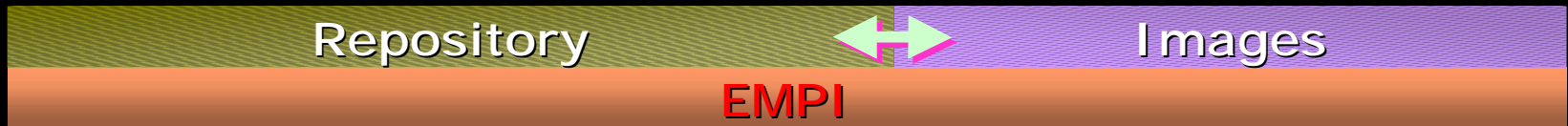
EMPI

Enterprise ID

- Public & Shared
- Medical Record Numbers
- Account Numbers
- Corporate Numbers
- Visit Numbers
- Internal Numbers



Data

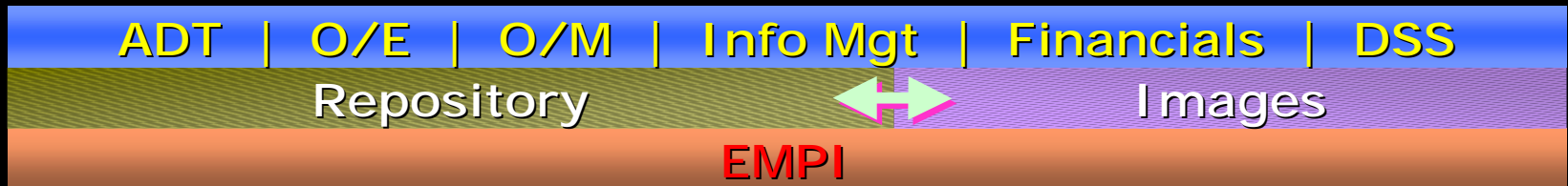


Data Stores

- Discrete data
- Historical events are 'referencable'
- Images are linked to an 'event'
- Image storage is separate, but accessible



Application/Setting



Applications

- Generic vs. Highly specialized
- Generally, present due to "best of breed"
- "Best of fit" - technology & vendor dependent
- Areas of specialization = increased political factors
- Business process is primary indicator

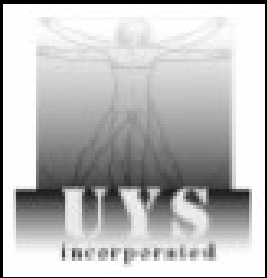


Transport & Reconciliation

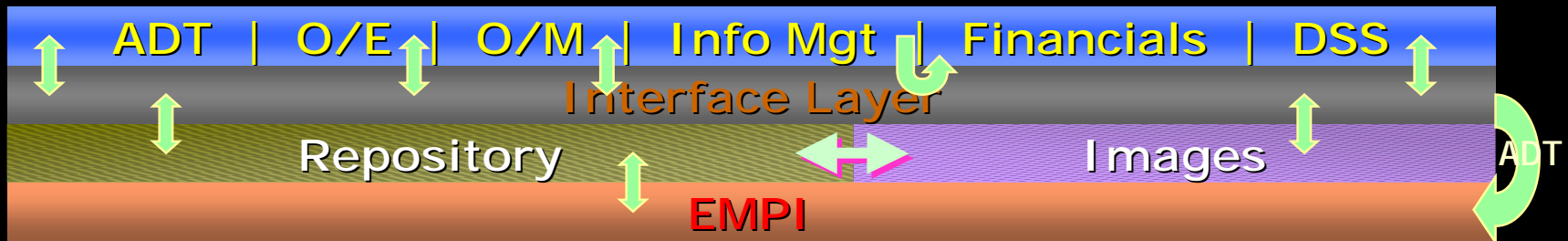
Interface Layer

Interface Technology

- Widely deployed; mature products
- The “glue” for multi-point processing
- Engine (hub); Processing logic (spokes);
Event constructs (spoke pattern)
- HL7 as *de facto* standard for event and data
- Context Mgt - access route to EMPI, images, etc.
- External reference sources

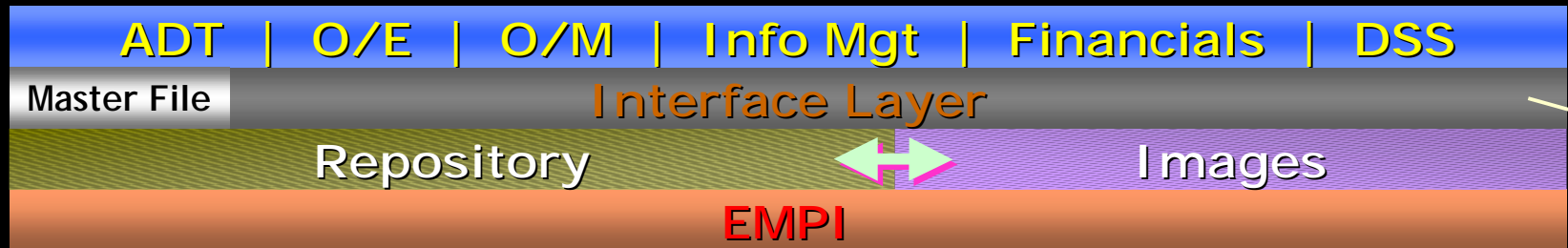


Transport



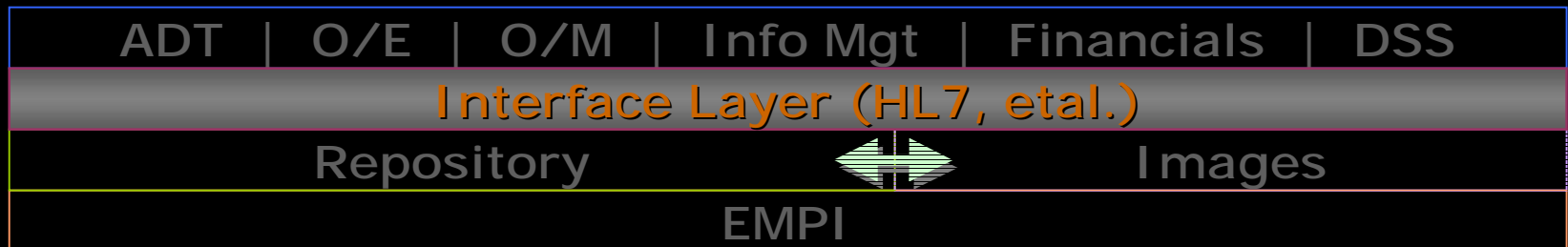


Reconciliation





I/F Service Layer



HL7 "de facto"

- Message constructs
- Event logic
- Data attributes
- Industry buy-in
- Enterprise ready
- A set of HIT domains



Critical Shift

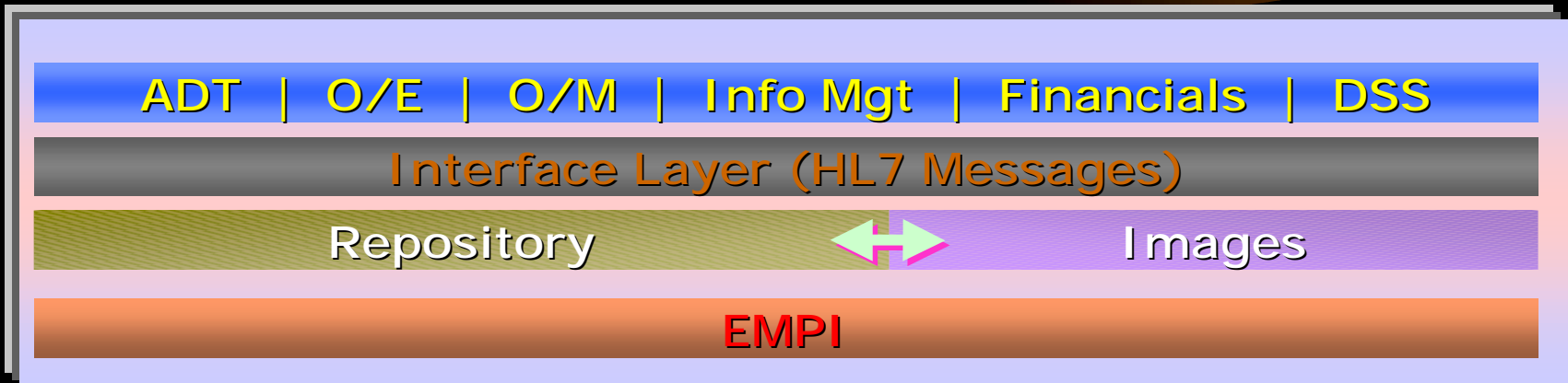
I/F Service Layer

I/F Expansion

- From simple routing and translation to complex business logic and processing
- Application extensions
- Becomes the "glue" for data level integration
- Requires careful analysis of what it is that is trying to be accomplished



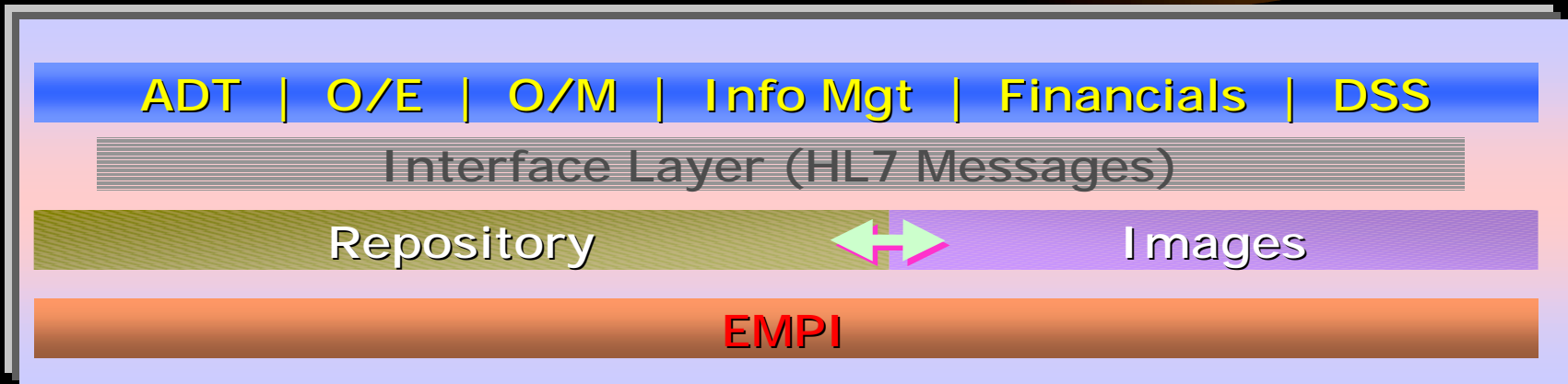
Provides an Extensible Matrix



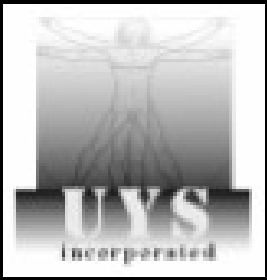
Critical evaluation



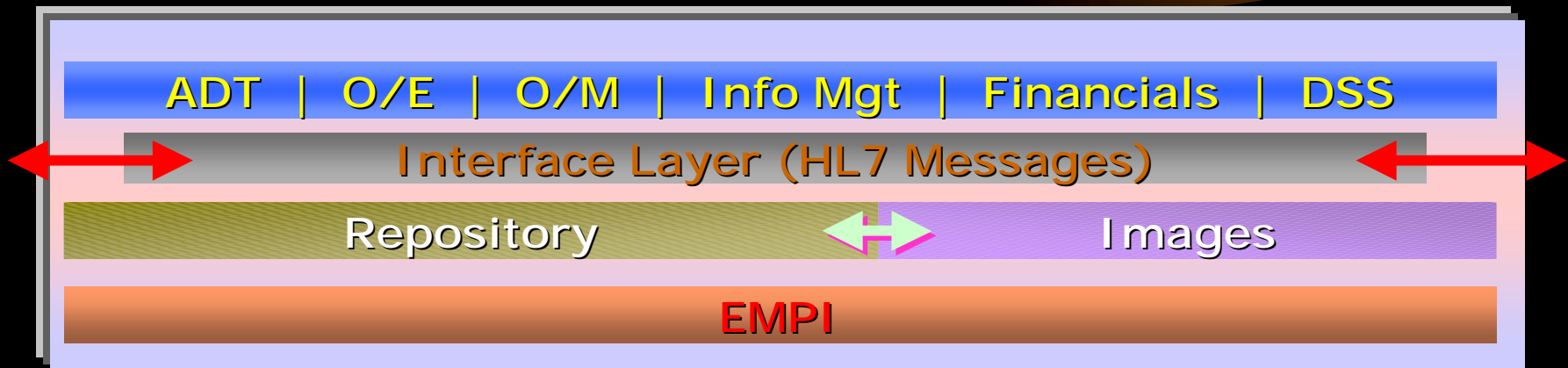
Distinct Layer Diminishes



This service layer becomes less distinct over time as the integration process evolves



Data Exchange - more coming



Exchange routes with external or non-integrated systems are maintained and indicate active growth across application base in an enterprise environment



The Approach

- **EMPI**
 - highly recommend use of **Enterprise ID's**
 - hierarchically, most **important ID**
 - points to the other identifiers
 - each identifier must have an **ID type, assigning authority, and originating facility/organization**
 - attributes should follow **HL7 v2.3 or higher**
 - support both active and **passive message**
- **Data stores**
 - discrete data secured in the **repository**
 - images should be secured in an **imaging subsystem**
 - image references or “stubs” **found in the repository**
 - logical database schema should be documented in a **reference information model (RIM)**
 - definition of ‘visit’, ‘episode’, etc., and which id's are **associated**



The Approach

- **Applications**

- **main areas focused on are:**
 - **the tasks being performed and the volume**
 - **setting-specific reqmt's**
 - **providing the technology for outcomes-based care, n.b., timely delivery of accurate and secure information**
 - **translation services that are trusted and available (24x7)**
 - **data revision and ownership issues**

- **I/F Services**

- **parallel application areas as well**
- **the timely, reliable, and accurate routing and manipulation of data between applications and data stores forms the basis for having an i/f layer**
- **#1 Priority is to preserve the present technology and people investment — while promoting the “best” solution for the enterprise**



The Approach

- **Process**
 - **blending art and science to achieve the intended goals**
 - **often dubbed as being an “academic” exercise — it might be depending on the parties involved**
- ***“Sounds like...”***
 - **we are**



Other Domain Areas

- **Training/Support**
- **Vendor selection**
- **Vocabulary & Nomenclature gateways**
- **Practical application of the HL7 Standard**
 - **v2.x messages**
 - **v3 RIM (repository impact)**
 - **Image Mgt**
 - **XML/SGML prospects**
- **Outcomes/Benefits (*validation*)**
- **Integration of new STC eGate products**