**Introduction**

Today’s health plans are still facing a daunting challenge of interoperability in an increasingly competitive consumer market. This has spiked the adoption of FHIR standards but many are still behind the curve due to other priorities or budget constraints.

Several trends are driving the adoption of the FHIR. There is a significant demand for real-time access to clinical data via application programming interfaces (APIs), especially with the increase in the amount, type, and sources of data. In addition, the move to consumerization of healthcare, as patients take on more responsibility for their care, requires that we enable patients’ access to their personal data anytime from anywhere. Payers need to look ahead and do the preparations ahead of time to win the competition in the consumer market.

“We are recommending that health plans jump in and implement FHIR standards across their organizations – those that do will benefit from a substantial competitive advantage in both the consumer and health plan marketplaces,” said Sunny Singh, President and CEO of Edifecs.

**Why a FHIR Bridge**

This out-of-the-box solution ensures rapid development, minimal training requirements, and, for existing Edifecs partners, reduction of the total cost of ownership of Edifecs Smart Trading platform.

The FHIR Bridge is a jump-start into FHIR, with new zero investment for health plans, with the following benefits:

- Rapid adoption of FHIR standards
- Pre-built maps to new FHIR resources
- Reference orchestrations for business scenarios
- Out-of-the-box guidelines for integration
Four Key Use Cases

FHIR Bridge allows integration between FHIR and a health plan’s existing back-end system, including adjudication, membership, clinical and other types of data sources.

1. Eligibility Verification  
[FHIR Track 1: Existing EDI Back-End]

   Consumer Self-Service: A patient using a member portal could use exposed FHIR interface to query their current eligibility data. The FHIR request is transformed to EDI 270, and a 271 EDI is returned as a FHIR eligibility response.

   Value: Members using this self-service capability can quickly assess coverage for medical procedures and reduce in-bound calls to plan. Plans with consumer-friendly interfaces win the competition among the self-insured members (HIX).

2. On-Demand Claim Processing  
[FHIR Track 2: Existing EDI Back-End]

   Financial Management: A plan could schedule a pull from the FHIR server to collect claims, transform to EDI, then submit to the adjudication system.

   Value: This can replace an inefficient claims submission process, reduce errors and claims requests, and put the plan in control of data pulls.

3. Quality Measures  
[FHIR Track 3: FHIR-Enabled Back-End]

   Collecting Quality Measure: A plan can collect the patient-related resources (demographics, encounters, procedures, etc.) in the real-time to perform accurate up-to-date quality measures against a given provider.

   Value: This would reduce chart reviews and HEDIS projects for calculating patient outcomes. In addition, this is leveraging existing FHIR infrastructure vs buying or building expensive Quality Measure Engines.

4. Care Coordination  
[FHIR Track 4: FHIR-Enabled Back-End]

   Care Coordination: A care coordination team could use a FHIR query to query a payer EMR for missing patient data to fill in the care gaps.

   Value: Proactive care managers can prevent expensive ER visits.

FHIR Bridge Components

The FHIR Bridge, a Smart Trading module, is a complete FHIR integration toolkit that includes all the necessary components (including a FHIR server if needed) for the novice programmer to the seasoned expert who already configured a FHIR server.

<table>
<thead>
<tr>
<th>Packaged Solutions</th>
<th>Comes as an installable package, including all necessary components to jump-start FHIR development.</th>
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<tbody>
<tr>
<td>Includes cloud option</td>
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<tr>
<td>Pre-Built Maps</td>
<td>Set of pre-built maps between commonly used financial and clinical transactions and FHIR for easy to use integration of the existing back-end EDI and proprietary systems.</td>
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<tr>
<td>Industry standards (HIPAA, HL7, CCD and FHIR)</td>
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<tr>
<td>Orchestration</td>
<td>Reference implementation of all typical payer-centric use-cases: Attachments, Prior-Auth, Quality, Financial, etc.</td>
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<tr>
<td>Edifecs XEServer Routes</td>
<td></td>
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<tr>
<td>Standards Database</td>
<td>Full set of XML, Schema and JSON-based guidelines that allow for building maps, validation, integration routines.</td>
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<tr>
<td>Edifecs Standards DB Format</td>
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Benefits of the FHIR Bridge

Edifecs has worked with many commercial health plans and EMR vendors to demonstrate firsthand this tool’s benefits and features, including:

<table>
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<tr>
<th>Benefits</th>
<th>Features</th>
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| Saves Time and Money              | • Rapid adoption of FHIR standards for organizations with basic or no prior experience, as the solution comes as an easily installable package.  
• FHIR standards database with out-of-the-box guidelines for the recent HL7 FHIR standards that allow for building maps, validation and integration routines.  
• Jump-start the development of FHIR-based projects or use cases with proven technology. |
| Competitive Advantage             | • By offering early consumer products leveraging flexibility and ease of the FHIR standard.  
• Extend the capacity of existing FHIR servers or patient repositories to any partner. |
| Integrate Existing Workflows      | • FHIR standards database with out-of-the-box guidelines for the recent HL7 FHIR standards that allow for building maps, validation and integration routines.  
• Pre-built maps between industry standards (HIPAA, HL7, CCD) and FHIR resources.  
• Integrate with current back-end systems with pre-configured maps and routes.  
• Integration between FHIR and existing back-end systems (Adjudication, Membership, etc.) in a productized fashion. |
| Drive Value-Based Initiatives     | • Reference orchestrations for business scenarios, such as quality measures, care coordination, attachments and others. |

Patient Data

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<tr>
<th>Components</th>
<th>Use Cases</th>
<th>Systems</th>
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| Reference Orchestrations          | Claims Attachments  
Claims/Payments  
Care Coordination  
Quality Measures  
FHIR Server  
Smart Trading |
| Pre-built Maps                     | Proprietary Clinical Repository  
Proprietary Quality Engine  
Care Coordination and Financial Systems |
| Standards Database                 | FHIR Bridge Module  
<XML> (JSON)  
HL7  
CCD  
CDA  
PFF  
CSV |

SB Solution Brief | FHIR Bridge
Summary

As health plans move toward alternative payment methods, FHIR standards help to achieve interoperability and implement quality measures using clinical and financial data. Coupled with the right technology, FHIR standards are capable of resolving several of the healthcare industry’s main business problems, including care coordination, quality measures and attachments. This is a hot topic and remains one of the healthcare industry’s challenges even after years of various government and private industry efforts to accelerate the ubiquitous exchange of clinical data. Clinical data exchange is fundamental for value-based initiatives and driving patient-centered programs.

Key concepts for health plans adopting FHIR:

<table>
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<tr>
<th>Health Plan Challenge</th>
<th>Value of FHIR Bridge</th>
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<td>• FHIR is a new standard from HL7 and it will soon become mandated. Health plans need to look ahead and build knowledge on FHIR tracks and appropriate use cases.</td>
<td>• Ability to get up to speed quickly with almost zero people/time investment.</td>
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<td>• How with their current EDI co-exist with FHIR to gain the most benefits of both.</td>
<td>• Work with an experienced partner to ensure your competitive advantage in this market.</td>
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<td>• Several existing unresolved (or not resolved to a full extent) business problems such as Care Coordination, Quality Measures, Attachments can be easily resolved with FHIR technology, but many health plans don’t have the skills or resources to use it.</td>
<td>• Out-of-the-box module with the reference implementation for those problems in an easy to use form.</td>
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<td>• Must decide which technology currently invested will easily support FHIR and current workflows.</td>
<td>• Brings all those benefits for plans to use to implement the business problems faster.</td>
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<td>• Find a partner that has reference implementations out-of-box for quicker development.</td>
<td>• This reduces the cost of owning the Smart Trading platform, by allowing to save on similar implementations, which would cost times more when implemented on non-FHIR base.</td>
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<td>• Consumer market becomes the place of the severe competition among the Payers, since it now brings a significant money share (up to $10,000 per person per year).</td>
<td>• HL7 FHIR gives a perfect tool for rapid development of the customer-facing products. FHIR module unboxes these capabilities to Payers and brings them in front of the line.</td>
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<td>• Payers, who do not engage in FHIR are at risk of losing customers via not providing them enough features. In addition, they will be losing to those Payers, who leverage FHIR technology to cut their costs and be able to offer better terms through reduced cost of production.</td>
<td>• FHIR Bridge is based on APIs (web-services) perfect for consumer-facing products. This will simplify mapping for integration that could save significant time and money.</td>
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Edifecs invites you to join us as we work to bridge data exchanges to increase healthcare partnerships to improve outcomes and reduce costs. Edifecs delivers an industry leading integration engine tailor made to broker standards-based information exchange. We offer a free testing environment to help your organization explore FHIR resources. Contact us at info@edifecs.com.