Patterson’s long and cooperative relationship with OpenEdge began in 2006. This white paper describes the integration of Eaglesoft Practice Management software with OpenEdge payment processing technology and how this solution benefits dental practices. With the release of Eaglesoft 18 the integration now offers and supports EMV® and near-field communication (NFC).

We asked a number of dental practices to share their experiences and views and their responses are shared in this document.

**EMV Update**

EMV is an acronym for Eurocard, MasterCard® and Visa®. It is a fraud-reducing technology that has been in place in Europe for many years and has been recently adopted in the U.S. EMV first surfaced in the U.S. in October 2015 - when the card brands instituted a liability shift for card-present fraudulent transactions.

EMV cards use an embedded chip that interacts with payment devices and processing networks to prevent the use of counterfeit cards. This additional security complements other payment security measures that OpenEdge has provided to its customers for many years, including point-to-point encryption and tokenization. EMV decreases fraud in a card-present situation only – when a patient pays while visiting the practice. It does not affect the transaction when a patient is paying over the Internet or by phone.

Adoption of EMV is not mandatory, but instead a shift in liability. In the simplest terms, if a counterfeit magstripe card is used at the point of sale, the party in the payments chain which did not implement the chip-card technology is liable.

The rollout of EMV has been slower than most experts anticipated. Many businesses took a wait and see approach, delaying hardware and software updates until they knew for sure that consumers were interested in EMV. There were also industry-wide shortages of EMV devices which contributed to delays.

However, with operational backlogs clearing and more cardholders receiving the new chip cards, analysts predict that over 70% of merchants will be EMV-enabled by end of 2016.

For more information on EMV, visit the OpenEdge web site at [https://www.openedgepayment.com/en/emv-resources/emv-resources](https://www.openedgepayment.com/en/emv-resources/emv-resources)

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1 In July 2016, both Visa and American Express announced updates to their EMV chargeback policies to give merchants additional time to upgrade. Further details on these changes can be found at: [https://openedgepayments.com/emv/update.html](https://openedgepayments.com/emv/update.html).
About NFC

Near-field communication (NFC) is a communication protocol that enables two electronic devices to establish communication by bringing them within about 4 cm (approximately 2 inches) of each other. Typically, one of these devices is a portable device such as a smartphone and the other is a card-reading device.

NFC technology is used for contactless payments and has been used by Apple Pay™, Android Pay™, Samsung Pay® and other contactless cards and devices. It facilitates the exchange of payment card data wirelessly, without the need to dip or swipe a card. Payments using NFC are secure and fast and are expected to grow at a rate of 80% a year.
The OpenEdge EMV Solution.
This fraud-reduction technology protects card issuers, businesses and consumers from losses due to the use of counterfeit payment cards at the point-of-sale – in dental offices.

The OpenEdge EMV solution delivers an integrated, certified and secure payment processing solution that helps dental practices minimize risks associated with accepting card payments. The solution supports multiple EMV-capable device options and complies with issuer, card brand and processor requirements.

OpenEdge offers several EMV terminals to provide practices with desired EMV card acceptance functionality. The terminals are available for purchase or can be rented as an option to help manage the expense of new devices. EMV and magnetic stripe technologies will co-exist for some time and the devices provide support for both.

OpenEdge EMV technology and EMV terminals include support for contactless payments such as Apple Pay and Android Pay, giving patients another way of paying swiftly and securely using their phones. This also allows dental practices to offer another convenient form of payment to patients.

EdgeShield from OpenEdge
An Important Component of Merchant’s Processing Security
Edge Shield is the OpenEdge collection of security-enhancing components designed to eliminate vulnerabilities within the payments chain. This bundle of security technologies and products helps protect credit card data while in transit (during payment transactions).

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Edge Shield is the OpenEdge collection of security-enhancing components designed to eliminate vulnerabilities within the payments chain. This bundle of security technologies and products helps protect credit card data while in transit (during payment transactions).
**Point-To-Point Encryption (P2PE).** OpenEdge’s proprietary encryption is designed to render cardholder data virtually unreadable once encrypted at the device.

**QIR™ ASSIST.** OpenEdge’s Qualified Integrator and Reseller assistance program ensures all merchant payment applications are installed and maintained by someone qualified and approved to do the job, including OpenEdge’s in-house QIR-certified installers.

**Token Vault Tokenization.** Cardholder data is replaced by digital “tokens” in Eaglesoft software. Actual sensitive card data is stored in the secure OpenEdge vault and not within Eaglesoft.

**PCI ASSURE®.** Practices can simplify PCI compliance with online access to security self-assessment questionnaires, network scans and custom security profiles generated from their processing activity. OpenEdge’s PCI ASSURE program includes a breach protection program to help merchants protect their businesses.
Why Should a Dental Practice Care About EMV?

While EMV impacts only face-to-face payments (also known as card-present transactions), we learned that 85% of the dental practices we surveyed charge their patients at the time of the service.

<table>
<thead>
<tr>
<th>Please indicate when you typically charge your customers</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Time of Service – we determine patient’s due amount (copay, deductible, etc.)</td>
<td>85.6%</td>
</tr>
<tr>
<td>After we get paid by insurance and know patient’s amount due</td>
<td>10.2%</td>
</tr>
<tr>
<td>Later in the day or week – by mailing the bill once we determine patient’s due amount (copay, deductible, etc.)</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Despite the fact the use of counterfeit cards by patients is very low, only 35% of practices believe that EMV does not impact them.

Benefits for Practices Using EMV

1. **Limit chargeback risk from face-to-face (card-present) counterfeit transactions**
   The liability shift instituted by payment networks Visa®, MasterCard®, Discover® and American Express® makes the party not supporting EMV responsible for counterfeit card fraud.

2. **Deliver a consistent patient experience**
   As EMV becomes a standard that everybody uses, patients will expect the same from your practice – the ability to “dip” the card rather than swiping it.

3. **Maintain customer trust**
   EMV cards are difficult and costly to duplicate and can significantly decrease in-person counterfeit card fraud transactions. Patients commonly hear and see in media reports that EMV is a safer technology. Supporting it will indicate your awareness and support of card safety best practices and the latest in card processing technology.
OpenEdge Integrated Processing Advantage

OpenEdge payment card processing is closely integrated with Patterson’s Eaglesoft Practice Management software and maintains sensitive card data security to comply with industry PCI 3.0 and card security requirements.

That integration means your practice can charge your customers directly from Eaglesoft, you can see transaction results when they happen and have all historical payment information and reports in Eaglesoft, right within the patient account.

Transaction data is immediately available within the software and there is no need for separate reconciliation of the due and paid fees. That simplifies the process of charging patients, makes patient experience with the provider better, saves the cost and effort of reconciling payments, helps manage the financial portion of the practice and virtually removes billing and charging errors like double-charging for the same treatment or forgetting to charge a customer. In short, it makes running a dental practice simpler and easier.

Compare this with a non-integrated payment service where the patient’s data is in Eaglesoft but a standalone device is used to process payments. In order to take a payment, the patient payment data needs to be reentered into the device. Then the payment data that comes from the non-integrated processor has to be reconciled with the expected charges stored in the Eaglesoft software.

About half of the practices we asked have had experience with stand-alone, non-integrated payments. Of those, many have spent 10-20 hours a month and up to 40 hours or more just to reconcile the payment data. This is time that can be better used to manage their practice or follow up with patients. At the higher end, it may mean having to assign a person, (minimally part-time) to just handle reconciliations. In some cases, this reconciliation is done by the doctor himself/herself or by an external accountant which adds to the direct costs of the practice.

It’s not just the financial cost incurred but also the patient’s experience that is impacted when practice personnel cannot easily respond to patient’s inquiry about payments due/paid or duplicate charges. The lack of readily-available reporting data can also result in a doctor or practice owner who does not have all the required financial data in time for cash flow reporting and analysis.
We asked dental practices what they think the top benefits they’ve seen from using integrated payments:

<table>
<thead>
<tr>
<th>What are the top benefits associated with Eaglesoft + OpenEdge integrated payment processing?</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved patient experience – quicker handling of payments during the office visit</td>
<td>77.5%</td>
</tr>
<tr>
<td>Having all data and reports in one place</td>
<td>67.6%</td>
</tr>
<tr>
<td>Accuracy of payments (copay, deductible, etc.)</td>
<td>57.5%</td>
</tr>
<tr>
<td>Improved staff productivity / saving time taking payments and reconciling them</td>
<td>53.9%</td>
</tr>
<tr>
<td>Prevents double-charging or forgetting to charge a patient</td>
<td>46.4%</td>
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</tbody>
</table>

Payment Gateways as a Means of Processing Payments

Payment industry representatives and companies sometimes partner with payment gateway providers who can connect to multiple processors. These providers specialize in one part of processing payments and can switch transaction requests to various processors instead of just one processor. This adds to processing cost in the form of gateway fees – both monthly and per-transaction – charged by the gateway provider. This also means that, in the case of a payment processing issue, you may have to deal with both the gateway provider and the payment processor which makes locating the problem and finding a resolution more difficult and time-consuming.

With Eaglesoft and OpenEdge, all your payment processing is handled by OpenEdge and there is only one customer service number to call. Eaglesoft customers have access to a dedicated Patterson Dental Customer Care team by calling (888) 414-7495.

OpenEdge Vision

OpenEdge strives to provide the best payment processing and value-added products and services available to its customers. It employs the newest, most secure payment technologies that can help protect dental practices and their patients from the escalating threat of fraud and card breaches. The integrated payments functionality – within Eaglesoft - makes running practices simpler and easier so you can focus on serving your patients better and growing your business.

The OpenEdge integrated payments solution delivers a contemporary and simplified method of accepting payments while providing the information you need in your practice today. You made the investment in Eaglesoft as the best choice for your business – maximize the impact of that investment by using the integrated payments feature backed by OpenEdge.