# Sharpen® DTX Epic Integration

## Technical Handbook for IT Teams

*A detailed integration specification along with an implementation timeline.*

Resiliency Technologies has created Sharpen® DTX to integrate with Epic via a SMART on FHIR middleware, enabling clinicians to prescribe evidence-based mental health interventions directly from electronic health records (EHR). The integration leverages standard FHIR R4 APIs for patient/practitioner data and OAuth 2.0 for secure authentication.

Implementation typically takes 4-6 weeks from initial configuration to production go-live, following a four-phase approach: Integration, QA Testing Training & Go-Live.

### Phase 1: Epic Integration (2-3 weeks)

Configure SMART on FHIR connection between Epic and Sharpen® DTX middleware in both Preview (staging) and Production environments.

- Configure OAuth 2.0 authentication and FHIR endpoint connections (and Connection Hub app download request)
- Configure network access: Steps include whitelisting the app domains on the hospital network + within the Epic instance (typically, done by Epic).
- Add SMART launch button to Epic user interface (specify the Epic view(s) that will have the SMART launch button). We typically recommend embedding the application in the patient chart (as opposed to a sidebar or a report display, or an external browser). The button to launch the application can be: a Menu Button, a Hyperlink in user's navigators, a Hyperlink in a report display, or, could be launched automatically when the patient chart is opened. More generic documentation is available here: https://fhir.epic.com/Documentation?docId=implementing

### Phase 2: Quality Assurance Testing (1-2 weeks)

Validate integration functionality, data integrity, security compliance, and user experience through comprehensive testing.

- API connectivity and FHIR data exchange validation
- Clinical workflow testing (patient search, intervention assignment, progress monitoring)
- Data mapping verification (patient demographics, practitioner details)
- Security and privacy protocol compliance
- System Usability Scale (SUS) assessment and user acceptance testing

©Resiliency Technologies, Inc. 2014-2026. All rights reserved.

### Phase 3: Training & Production Go-Live (1 week)

Deploy to production environment, train clinical staff, and support initial usage with rapid iteration based on real-world feedback.

- Repeat Phase 1 configuration steps for Production Epic instance
- Conduct production environment smoke testing
- Deliver clinician training sessions
- Monitor initial usage and gather feedback for optimization

### Phase 4: Post Go-Live Support & Optimization

Following production deployment, Resiliency Technologies provides ongoing technical and clinical support as a core component of the partnership. This ensures optimal system performance, addresses emerging issues, and continuously improves platform effectiveness based on real-world usage data and evolving clinical needs.

Support Duration: Ongoing support throughout the partnership, with intensive hands-on support during the first 3-6 months post go-live as clinical teams ramp adoption. Support intensity is adjusted based on patient volume, intervention uptake, and organizational needs.

### Support Components

*Hands-On Technical Support*

- Dedicated support channel for IT teams via email, Slack, or ticketing system
- Response time SLA: Critical issues (system down) within 2 hours, high priority within 4 hours, standard within 24 hours
- Integration troubleshooting: FHIR API connectivity, authentication issues, session management
- Epic-specific configuration support in coordination with EMRAY middleware team
- User access management and credential support

*Continued Module Customization*

- Clinical content optimization based on provider feedback and patient engagement metrics
- Adjustment of intervention pathways, screening frequencies, and module sequencing
- Customization of patient communication templates (email/SMS messaging)
- Configuration of organization-specific resources and crisis support contacts

*Monthly Data Review with Sharpen® Team*

- Scheduled monthly meetings with IT and clinical leadership to review platform analytics
- Usage metrics: Provider adoption rates, patient enrollment, intervention completion rates, engagement trends
- Technical performance metrics: System uptime, API response times, error rates, session analytics

©Resiliency Technologies, Inc. 2014-2026. All rights reserved.

- Clinical outcomes data (where applicable): Screening results, symptom improvement, referral patterns
- Actionable recommendations for optimization based on data insights

*Updates Tested via Epic Test Environments*

- All platform updates, feature releases, and bug fixes tested in Epic Preview environment before production deployment
- Change management process: RT notifies IT team of pending updates with release notes and technical specifications
- Coordinated testing window: IT team validates integration functionality in Preview environment
- Production deployment only after IT approval and scheduled maintenance window
- Post-deployment smoke testing and validation in Production

*Additional Standard Support Services*

- Documentation updates: Maintenance of technical integration guides, API documentation, and user manuals
- Clinician refresher training: On-demand webinars and office hours for new staff onboarding
- Compliance support: Assistance with HIPAA, SOC 2, and healthcare regulatory requirements
- Performance monitoring: Proactive system health checks and capacity planning recommendations
- Security updates: Patching, vulnerability management, and security advisory notifications
- Escalation path: Direct access to RT engineering team for complex technical issues
- Quarterly business reviews: Strategic planning sessions to align platform capabilities with organizational goals

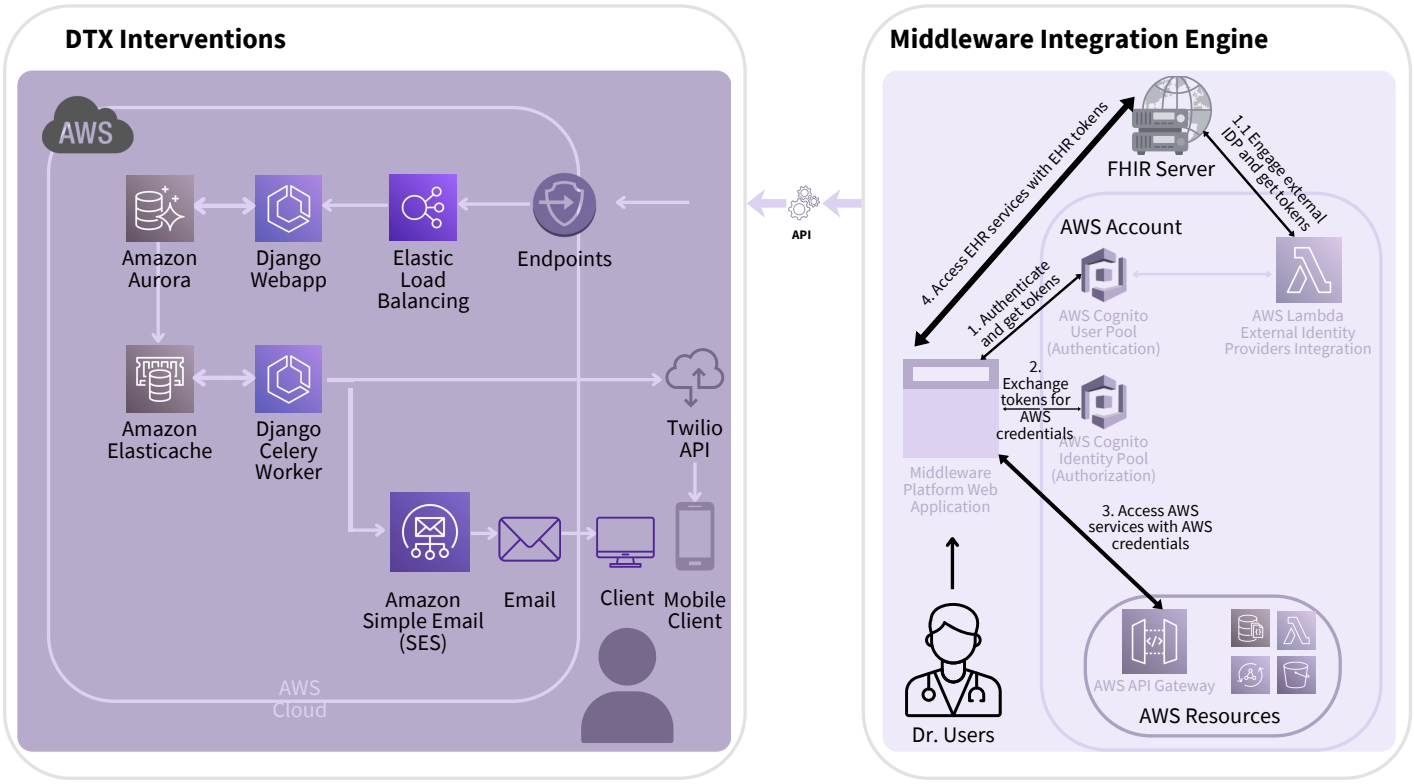
## Support Escalation Matrix

| Issue Type | Priority | Response Time | Escalation Contact |
|---|---|---|---|
| System outage / unavailable | Critical | 2 hours | RT Engineering + Emray |
| Authentication failures | High | 4 hours | RT Support + Emray |
| Data sync / mapping issues | High | 4 hours | RT Support |
| Module customization request | Standard | 24 hours | RT Clinical Team |
| General questions / training | Standard | 24 hours | RT Support |

©Resiliency Technologies, Inc. 2014-2026. All rights reserved.

Sharpen DTX

**Cloud EHR Security Integration Diagram**




## FHIR API Requirements

| API Resource | Purpose | FHIR Specification |
|---|---|---|
| Patient Search | Search and display patient records in provider portal | Patient.Search (R4) |
| Patient Demographics | Retrieve patient details (name, DOB, contact info) | Patient.Read (R4) |
| Practitioner Details | Display logged-in provider and assignment history | Practitioner.Read (R4) |

## Authentication & Security

- OAuth 2.0 / OpenID Connect (OIDC): Enables provider login using Epic credentials
- SMART on FHIR Launch: Seamless context-aware launch from Epic interface
- Session Management: Configurable to match Epic session timeout settings (default: 15 min inactivity)

## Network Configuration

**Firewall Rules:**

- IT team provides IP address ranges or network restrictions
- Middleware configures firewall to allow access only from whitelisted networks

©Resiliency Technologies, Inc. 2014-2026. All rights reserved.

Domain Whitelisting (Required Domains):

- dataplane.rum.us-east-1.amazonaws.com
- cognito-identity.us-east-1.amazonaws.com
- emray-sharpendtx-prod.auth.us-east-1.amazoncognito.com
- sharpendtx.emray.health
- api.sharpendtx.emray.health
- api2.sharpendtx.emray.health
- patient.sharpendtx.emray.health
- admin.sharpendtx.emray.health

## Responsibility Matrix

| Activity | Primary Owner |
|---|---|
| Provide Epic FHIR endpoint URLs | Healthcare Organization IT / Epic Team |
| Register and configure EMRAY application | EMRAY (Middleware Provider) |
| Approve application download in Epic | Healthcare Organization IT / Epic Team |
| Configure firewall and network access | Healthcare Organization IT (settings) + EMRAY (implementation) |
| Add SMART launch button to Epic interface | Healthcare Organization IT / Epic Team |
| Provide Sharpen Organization ID and API keys | Resiliency Technologies (Sharpen® DTX) |
| Provide provider login credentials for testing | Healthcare Organization IT |
| Conduct QA testing and validation | Resiliency Technologies + Healthcare Organization |
| Deliver clinician training | Resiliency Technologies |

## Success Criteria.

Before transitioning to production, the following must be validated:

1. **API Connectivity:** Successful FHIR API connections between Epic and Sharpen® middleware: EMRAY
2. **Authentication:** Provider login via Epic credentials functioning correctly
3. **Data Integrity:** Patient and practitioner data mapping validated
4. **Clinical Workflows:** Patient search, intervention assignment, and progress monitoring tested end-to-end
5. **Security Compliance:** Network access controls, session management, and privacy protocols verified
6. **User Acceptance:** System Usability Scale (SUS) assessment completed with satisfactory results
7. **Training Completion:** Clinicians trained on Sharpen® DTX workflows and ready for patient deployment

©Resiliency Technologies, Inc. 2014-2026. All rights reserved.