

Segment Insights

Clinical Communications Interoperability 2024

How Does Interoperability Enhance Communication among Deep Adopters?

March 2024



Table of Contents

- 2 Executive Insights
- **10** Vendor Insights
 - 11 Baxter
 - 12 PerfectServe
 - 13 PerfectServe Telmediq
 - 14 symplr
 - 15 TigerConnect
 - 16 Vocera



Executive Insights

Clinical Communications Interoperability 2024

How Does Interoperability Enhance Communication among Deep Adopters?

Provider organizations are seeking communication tools that enable interoperability with a diverse set of solutions, ultimately ensuring the right clinician gets the right information at the right time. This report looks at the interoperability capabilities of communication solutions through the lens of deeply adopting provider organizations and whether they are able to break down silos between different departments and organizations through enhanced integration. These experiences are not typical of all customers and represent the hard work of vendors and providers deeply engaged in interoperability.

Framework for Interoperability Vendor Measurement

Click to learn more

Interoperability-Enabled Outcomes

Is the vendor's interoperability support helping healthcare organizations be more efficient and effective?





Information Sharing Is the vendor efficiently supporting connections that allow data liquidity among thirdparty applications and EHRs?

Connectivity for Health

Utility for Healthcare Stakeholders/Partners

Is the vendor displaying shared data in a way that empowers healthcare organizations to effectively use it?



Interoperability-Enabled Use Cases

Note: This framework was developed at the 2022 Interoperability Summit. See summit overview for more information.

Is the vendor's interoperability support positively impacting important use cases for the care settings?



Breadth of Adoption

Is the vendor's interoperability technology validated at enough organizations to indicate that their capabilities are real and available to all customers?

Market Insights

Deep Adopters Are Enabling More Integrated Communication; IT Lift and Deployment Complexity Can Be Barriers to Consistent Adoption

Overview of Vendor Interoperability

Vendors ordered by overall grade, then alphabetically

	Overall grade	Outcomes	Connectivity	Utility	Use cases	Breadth
Baxter (n=10)	B-	В	B-	В	В	\checkmark
PerfectServe (n=13)	B-	B-	B-	B-	B-	
Vocera (n=19)	C+	В	B-	B-	C-	
*Limited data					- 1	
PerfectServe Telmediq (n=9)	B*	B*	B+*	C*	C*	
TigerConnect (n=8)	B-*	A-*	C+*	B-*	B-*	
symplr (n=9)	C*	C+*	C-*	С*	C*	

A note about breadth of

adoption: To qualify for this report, vendors had to provide a list of at least 30 unique organizations identified by the vendor as deep adopters. As PerfectServe Telmediq, symplr, and TigerConnect have fewer than 10 respondents, they are marked as limited data throughout the report.

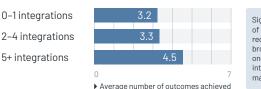
Grading scale

A note about grades: For each question in the survey, respondents were asked to rate their agreement or satisfaction on a Likert scale, with each option on the Likert scale receiving a point value. The grades are based on the percentage of possible points earned.

Across the board, the level of integration that respondents report varies widely, even among the most deeply engaged customers. Most respondents note at least one key interoperability challenge with their communications tools that especially impacts their use cases and outcomes, and as a result, no vendor measured in this report receives an A grade. Almost all vendors have some deep adopters reporting their progress in connectivity has outpaced their ability to impactfully use the information. Responding deep adopters feel there is tremendous change management required on their end to train on and broadly implement integrated communication tools; this leads many to limit their integrations or underutilize the integrations they have in place. Alarm management is a particularly big challenge for those interfacing with patient monitoring and other nurse-based workflow solutions.

Despite these challenges, a few deep adopters are pushing forward and prioritizing broad enterprise connectivity; they frequently mention the importance of a strong vendor partnership in driving next-level adoption. Deep adopters often see immediate outcomes postimplementation because of the improved access to and responsiveness of clinicians. However, to continue driving more significant outcomes (e.g., improving throughput), provider organizations must keep building integrations and expand access to a broader range of team members (clinical and non-clinical). While many respondents have made fewer connections than they initially hoped, they plan to continue to expand interoperability to achieve their outcomes goals.

Average Reported Outcomes-by Number of Integrations



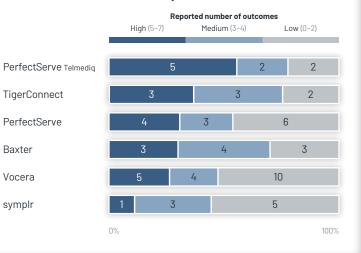
Significant expansion of integrations is required to achieve broader outcomes; one or two additional integrations may not make much difference.

PerfectServe Telmediq* Has Highest Portion of Respondents Achieving Many Outcomes

All vendors in this report have responding deep adopters who have realized many of the seven measured outcomes. Still, there remains high variation in how well respondents feel vendors have helped them connect to third parties to realize targeted outcomes. **PerfectServe Telmediq*** has made consistent efforts with their customer base to spend time during implementations to understand key goals, work through technology barriers, and provide necessary training. **symplr** and **Vocera** respondents feel their vendor struggles to align with customers and thus deploy integrations that would allow for more outcomes.

*Limited data

Distribution of Number of Reported Outcomes



Which Integrations Are Most Crucial to Desired Outcomes?

Trends in deep adopters' responses show that some integrations drive better or more immediate outcomes than others. Below are common strategies and integrations deployed among 21 deep adopters who have realized five or more desired outcomes.

Top Integration Strategies for Realizing Outcomes



Outcomes: TigerConnect* Customers Value the Ease of Adoption & Efficiency of Messaging

Many provider organizations are prioritizing the outcomes of improved emergency response time and improved response time to patient needs—and across the board, vendors are driving these outcomes. Still, there is room for vendors to better help their organizations realize outcomes, especially around decreasing alert fatigue. **TigerConnect*** shows the most consistency, with respondents saying their key outcome is efficient communication for providers with the broader care team. They also value easy implementation for both patient and physician communications. Because TigerConnect has fewer customers connecting to middleware solutions, there are fewer complaints around alarm fatigue. Respondents highlight **Baxter**, **PerfectServe** (their native solution and Telmediq*), and **Vocera** for their ability to integrate with third-party solutions to enhance efficient communication. Still, customers want to be able to tie in more alerts, and many want guidance around appropriately managing alert volume. Interviewed **symplr*** customers likewise report alert fatigue and also note less confidence with the solution's ability to enhance efficient communication. They cite two factors: insufficient EHR connections and not rolling out the tool broadly enough (i.e., to enough departments) to effectively track patients.

*Limited data

Outcomes

Vendors ordered by outcomes grade, then alphabetically

Strength (B and above) Average (C- to B-) Weakness (D+ and below)	Outcomes grade	Improved transitions- of-care safety	Improved response time to patients' needs	Decreased alert fatigue	Reduced # disparate solutions	Improved patient throughput	Improved staff safety
Baxter (n=10)	В						
Vocera (n=19)	В						
PerfectServe (n=13) *Limited data	B-						
TigerConnect (n=8)	A-*						
PerfectServe Telmediq (n=9)	B *						
symplr (n=9)	C+*						
rading scale ↓ = 92.0%+ B+ = 84.0%-87 ↓- = 88.0%-91.9% B = 80.0%-83 B- = 76.0%-79	.9% C = 68	2.0%-75.9% D+ = 60.0 8.0%-71.9% D = 56.0 9.0%-67.9% D- = 52.0)%				

Connectivity: PerfectServe Telmediq* Supports Third-Party Connectivity without Excessive Costs

To justify the cost of interface setup and maintenance, provider organizations need to ensure connections are valuable and actually driving improved communication. **PerfectServe Telmediq*** respondents report being able to make more third-party API connections due to the vendor's efforts to listen and develop meaningful connections without excessive charges. Other vendors have seen increased adoption of connections by offering proprietary tools—evidenced through **Baxter's** and **Vocera's** offerings of middleware and **PerfectServe's** offering of Lightning Bolt Scheduling. **symplr*** and **TigerConnect*** respondents report their vendor's pricing model has historically been a barrier to increased connections; symplr does include an integrated scheduling solution, but several deep adopters have yet to leverage or optimize their use of the tool.

Connectivity

Vendors ordered by connectivity grade, then alphabetically

Strength (B and above)												
Average (C- to B-) Weakness (D+ and below)	Connectivity grade	EHR API standards	Third-party APIs	Middleware	VoIP/PBX	Scheduling	Radiology	Nurse call	Patient monitoring	Lab	Appropriate cost	Timely fixes
Baxter (n=10)	B-											
PerfectServe (n=13)	B-											
Vocera (n=19)	B-											
*Limited data												
PerfectServe Telmediq (n=9)	B+*											
TigerConnect (n=8)	C+*											
symplr (n=9)	C-*											
Grading scale												
A = 92.0%+ B+ = 84.0%-87 A- = 88.0%-91.9% B = 80.0%-83 B- = 76.0%-79	3.9% C = 68.	0%-71.9%	D+ = 60.0%-63. D = 56.0%-59. D- = 52.0%-55.	9%	.0%							

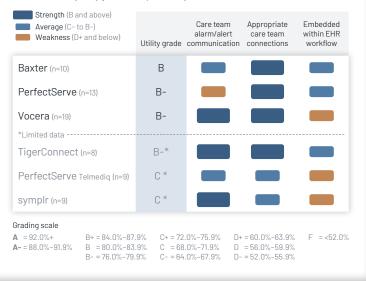
Utility: symplr*, PerfectServe Telmediq & Vocera Often Not Embedded in the EHR Workflow

Physicians want messages from clinical communications tools to be embedded in the EHR workflow to remove the need to move between multiple systems, which ultimately increases their response time to patient needs. PerfectServe, TigerConnect*, and Baxter respondents most consistently report the use of the communications tool within the EHR. Interviewed symplr* customers feel the vendor has improved their alerts/alarms but could better integrate the tool within the EHR. Vocera and PerfectServe Telmedig* respondents report integrated workflows, but some weren't aware of the capability. On top of EHR integration, respondents also prioritize messages getting to the right clinician, and scheduling is key to making that process less manual. Interviewed PerfectServe deep adopters often leverage Lightning Bolt, the vendor's Dynamic Intelligent Routing technology, or an interfaced third-party scheduling solution to automatically connect with the right care team member. Baxter respondents feel the vendor gets messages to the correct users by investing in end-user training and utilizing nurses for quick corrections.

*Limited data

Utility

Vendors ordered by utility grade, then alphabetically



Use Cases: No Vendor Consistently Connecting across All Use Cases, But Some Deep Adopters Starting to Unify Their Communications

Many interviewed deep adopters purchased their solutions for a specific communication workflow rather than as a comprehensive, interoperable communication platform. As a result, few respondents have broadly connected their vendor's solutions to maximize use cases while minimizing disparate systems. Still, vendors have varying strengths (in specific functionality or product offerings) that support more optimized connection. **PerfectServe** and **TigerConnect*** offer proprietary scheduling platforms, and as a result, many of their responding customers see fewer barriers to integration and have successfully navigated connectivity hurdles in sending messages to care team members. These vendors also offer after-hours call-center products with native integration. **Baxter** and **Vocera** have proprietary middleware technology, so nurse workflow technology is often a key component of customer contracts. Respondents also note Vocera's badges are a cost-efficient way to connect with dietary teams.

*Limited data

Use Cases

Vendors ordered by use cases grade, then alphabetically

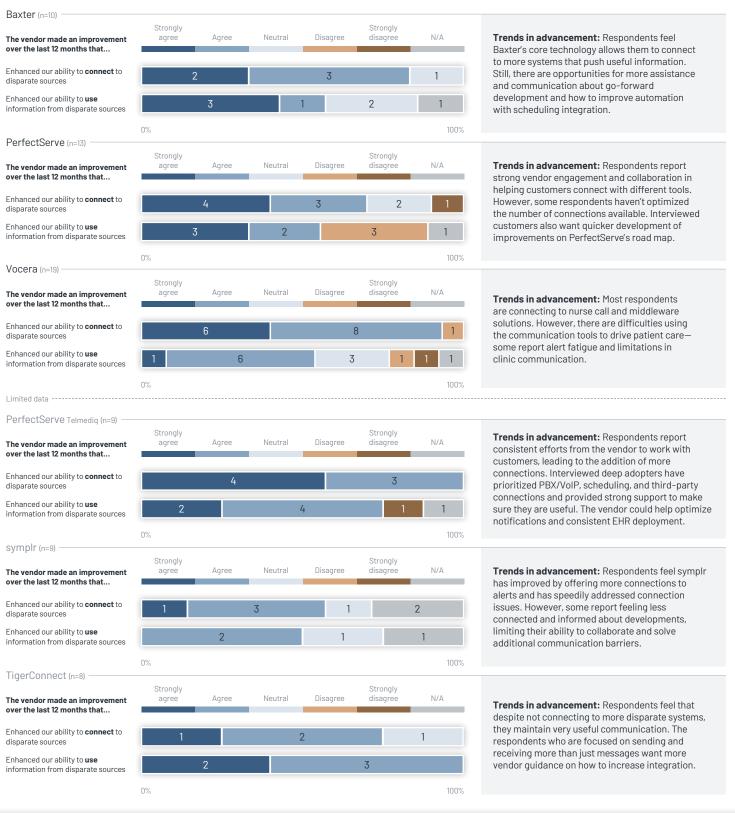
Strength (B and above) Average (C- to B-) Weakness (D+ and below)	Use cases grade	Communication with outside physicians	Connecting scheduling for care team communication	Timely routing of alerts and alarms	Communication with EHR about patient needs	Communication for dietary order changes	Communication of transport/ housekeeping needs	Communication of after-hour needs
Baxter (n=10)	В							
PerfectServe (n=13)	B-							
Vocera (n=19)	C-							
*Limited data								
TigerConnect (n=8)	B-*							
PerfectServe Telmediq (n=9)	C*							
symplr (n=9)	C*							
Grading scale ↓ = 92.0%+ B+ = 84.0%-87. ↓ = 88.0%-91.9% B = 80.0%-83. B- = 76.0%-79.	.9% C = 68		1%-63.9% F =<52.0% 1%-59.9% 1%-55.9%	6				

Interoperability Advancements in the Last 12 Months

Below are additional insights on how much providers feel their vendor has enhanced their capabilities in the last 12 months, including the overall push toward more advanced technology.

Customer Perceptions of Vendor Improvements

Vendors ordered alphabetically





Report Information

Share your experience with peers. Take a short survey about your communication platform.

About This Report

The question set used for this report was developed by healthcare leaders at the KLAS 2022 Interoperability Summit as a means for assessing EHR vendors' progress toward enabling interoperability (read the summit overview here). For this report, KLAS conducted deep interviews with leaders from organizations who were identified by their vendors as deep adopters from March 2023 to December 2023. The findings showcase what is possible today in real care settings but may not reflect customer bases as a whole.

Respondents were asked questions about four aspects of interoperability: (1) outcomes, (2) connectivity, (3) utility, and (4) use cases. For each question in the survey, respondents were asked to rate their agreement or satisfaction on a Likert scale, with the options being Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, and N/A. Each option on the Likert scale received a point value: Strongly Agree/Agree=1, Neutral=0, Disagree/Strongly Disagree=-1. N/A responses were removed from the denominator for the questions. Based on the percentage of possible points earned, vendors received a grade in each area as well as an overall grade that represents an average of the four areas.

Grading scale

To qualify for this report, vendors had to provide a list of at least 30 unique organizations identified by the vendor as deep adopters.

Sample Sizes

Unless otherwise noted, sample sizes displayed throughout this report (e.g., n=16) represent the total number of *unique customer organizations* interviewed for a given vendor or solution. However, it should be noted that to allow for the representation of differing perspectives within any one customer organization, samples may include surveys from different individuals at the same organization. The table below shows the total number of unique organizations interviewed for each vendor or solution.

Some respondents choose not to answer particular questions, meaning the sample size for any given vendor or solution can change from question to question. When the number of *unique organization* responses for a particular question is less than 10, the score for that question is marked with an asterisk (*) or otherwise designated as "limited data." Where textual content relies on limited data, the vendor name is marked with an asterisk. Note that when a vendor has a low number of reporting sites, the possibility exists for KLAS scores to change significantly as new surveys are collected.

Note: Some organizations	Standard	Evaluations
may have rated more than one product.	# of unique organizations	# of unique advanced customers shared with KLAS
Baxter	10	30+
PerfectServe	13	30+
PerfectServe Telmediq	9	30+
symplr	9	30+
TigerConnect	8	30+
Vocera	19	30+

Reader Responsibility

KLAS data and reports are a compilation of research gathered from websites, healthcare industry reports, interviews with healthcare, payer, and employer organization executives and managers, and interviews with vendor and consultant organizations. Data gathered from these sources includes strong opinions (which should not be interpreted as actual facts) reflecting the emotion of exceptional success and, at times, failure. The information is intended solely as a catalyst for a more meaningful and effective investigation on your organization's part and is not intended, nor should it be used, to replace your organization's due diligence.

KLAS data and reports represent the combined candid opinions of actual people from healthcare, payer, and employer organizations regarding how their vendors, products, and/or services perform against their organization's objectives and expectations. The findings presented are not meant to be conclusive data for an entire client base. Significant variables—including a respondent's role within their organization as well as the organization's type (rural, teaching, specialty, etc.), size, objectives, depth/breadth of software use, software version, and system infrastructure/network—impact opinions and preclude an exact apples-to-apples comparison or a finely tuned statistical analysis.

KLAS makes significant effort to identify all organizations within a vendor's customer base so that KLAS scores are based on a representative random sample. However, since not all vendors share complete customer lists and some customers decline to participate, KLAS cannot claim a random representative sample for each solution. Therefore, while KLAS scores should be interpreted as KLAS' best effort to quantify the customer experience for each solution measured, they may contain both quantifiable and unidentifiable variation.

We encourage our clients, friends, and partners using KLAS research data to take into account these variables as they include KLAS data with their own due diligence. For frequently asked questions about KLAS methodology, please refer to klasresearch.com/fag.

Copyright Infringement Warning

This report and its contents are copyright-protected works and are intended solely for your organization. Any other organization, consultant, investment company, or vendor enabling or obtaining unauthorized access to this report will be liable for all damages associated with copyright infringement, which may include the full price of the report and/ or attorney fees. For information regarding your specific obligations, please refer to klasresearch. com/data-use-policy.

Note

Performance scores may change significantly when additional organizations are interviewed, especially when the existing sample size is limited, as in an emerging market with a small number of live clients.



CO-AUTHOR Andy Paulsen andy.paulsen@KLASresearch.com



WRITER Carlisa Cramer



CO-AUTHOR Coray Tate



DESIGNER Jess Wallace-Simpson



CO-AUTHOR Paul Warburton paul.warburton@KLASresearch.com



PROJECT MANAGER Drew Wright



Our Mission

Improving the world's healthcare through collaboration, insights, and transparency.

365 S. Garden Grove Lane, Suite 300 Pleasant Grove, UT 84062

Ph: (800) 920-4109

For more information about KLAS, please visit our website: **www.KLASresearch.com**

Cover image: © peopleimages.com / Adobe Stock

Vendor Insights

	Grading scale			
Overall Grade: B-		B+ = 84.0%-87.9% B = 80.0%-83.9% B- = 76.0%-79.9%	 D = 56.0%-59.9%	F =<52.0%

Figure 1 **Clinical Communications Interoperability Ratings**

Figure 1 Clinical Communications Interoperability Ratings	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
Vendor effectively						
Enables EHR connections through APIs		2		3		1
Enables third-party connections through APIs	_	2	1	1		2
Enables middleware connections for alerts/notifications	_		4			2
Enables VoIP/PBX connections	-		4			2
Enables scheduling connections	1	1	1	1		2
Enables radiology connections	1		2	1		2
Enables nurse call connections			4		1	1
Enables patient monitoring connections		2		3		1
Enables lab connections	1	1	1		3	
Supports interoperability needs at reasonable cost	1		2		2	1
Responds to challenges in timely manner		3			2	1
Vendor incorporates & presents information from disparate sources	0%					100%
To communicate alerts and alarms		Ĺ	, +	1	1	1
To connect appropriate care team members		L	, t		3	
Embedded within the EHR workflow	1	1	2		3	
Vendor's ability to share/receive information from disparate sources provides an ideal state for	0%					100%
Communication with outside physicians	2	2	2	1		2
Using scheduling solution to communicate with care team	1	1	1		4	
Sending alerts/alarms from third-party technology		3		3		1
Using EHR information to communicate changes in patient conditions or needs	1	2	2	1	3	
Communication with staff for dietary order changes	1		3	1		2
Communication of transport and housekeeping needs	2	2	2	1		2
Communication of after-hour needs	2	2	1	1	3	
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%					100%
Improved patient safety at transitions of care		L	, H		3	
Improved response time to time-sensitive emergencies (stroke, STEMI, sepsis, etc	.)	3		2	1	1
Improved response time to address patients' needs		3		3		1
Decreased alert fatigue	2	2	2	1		2
Reduced number of disparate solutions for communication		2		3		2
Improved patient throughput (ED, acute room turnover, etc.)		3		2	1	1
Improved staff safety	1		4		1	1
Over the last 12 months, vendor has	0%					100%
Enhanced our ability to connect to disparate sources in our clinical communication efforts		2		3		1
Noticeably enhanced our ability to use information from disparate sources in our clinical communications efforts	0%	3		1	2	1

PerfectServe (n=13) Grading scale **A** = 92.0%+ **A-** = 88.0%-91.9% **Overall Grade:** B-

Figure 2 **Clinical Communications Interoperability Ratings**

Figure 2 Clinical Communications Interoperability Ratin	gs Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
Vendor effectively						
Enables EHR connections through APIs		5			4	1
Enables third-party connections through APIs	1	2			6	
Enables middleware connections for alerts/notifications	1	3			6	
Enables VoIP/PBX connections		5			5	
Enables scheduling connections			6		3	;
Enables radiology connections	1	1	2		4	
Enables nurse call connections	2	1	1		4	
Enables patient monitoring connections	1			7		
Enables lab connections	2	1			5	
Supports interoperability needs at reasonable cost	3			6		2
Responds to challenges in timely manner	3			8		
Vendor incorporates & presents information from disparate sources	0%					100%
To communicate alerts and alarms	2	1			5	
To connect appropriate care team members		6			3	1
Embedded within the EHR workflow		3		2	1	2
Vendor's ability to share/receive information from disparate sources prov an ideal state for	ides ^{0%}					100%
Communication with outside physicians		4		1 1	1	2
Using scheduling solution to communicate with care team		5			4	1
Sending alerts/alarms from third-party technology		4		1	3	
Using EHR information to communicate changes in patient conditions or need	s	4		1 1	1	2
Communication with staff for dietary order changes	1	2	1	1	4	
Communication of transport and housekeeping needs	2	2	1		4	
Communication of after-hour needs		3		3	3	i
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%					100%
Improved patient safety at transitions of care		4		2	1	2
Improved response time to time-sensitive emergencies (stroke, STEMI, sepsis	etc.)	4			4	1
Improved response time to address patients' needs		6			3	1
Decreased alert fatigue	2	1	1	2	3	i
Reduced number of disparate solutions for communication		3		3	2	1
Improved patient throughput (ED, acute room turnover, etc.)	2		3		4	1
Improved staff safety	2		4		2	1
Over the last 12 months, vendor has	0%					100%
Enhanced our ability to connect to disparate sources in our clinical communication efforts		4		3	2	1
Noticeably enhanced our ability to use information from disparate sources in o clinical communications efforts	o%	3	2		3	1

PerfectServe Telmediq (n=3)

Overall Grade: B* *Limited data

Grading scale

 A
 =92.0%+
 B+ = 84.0%-87.9%
 C+ = 72.0%-75.9%
 D+ = 60.0%-63.9%
 F
 = <52.0%</th>

 A- = 88.0%-91.9%
 B
 = 80.0%-83.9%
 C
 = 68.0%-71.9%
 D
 = 56.0%-59.9%

 B- = 76.0%-79.9%
 C- = 64.0%-67.9%
 D- = 52.0%-55.9%

Figure 3 **Clinical Communications Interoperability Ratings**

Figure 3 Clinical Communications Interoperability Ratings	Strongly agree	Agree	Neutral	Disagr	Strong ee disagr		N/A
Vendor effectively	49.00	, igroo	Hoddad	biodgi	diody		
Enables EHR connections through APIs		4			1	2	
Enables third-party connections through APIs		4			1	2	
Enables middleware connections for alerts/notifications		3		1		3	
Enables VoIP/PBX connections			5			2	
Enables scheduling connections			5			1	1
Enables radiology connections	1	2			4		
Enables nurse call connections		4			1	2	
Enables patient monitoring connections	1	1			5		
Enables lab connections		3			4		
Supports interoperability needs at reasonable cost		4				3	
Responds to challenges in timely manner	2				5		
Vendor incorporates & presents information from disparate sources	0%						100
To communicate alerts and alarms		3		1		3	
To connect appropriate care team members		3		2		1	1
Embedded within the EHR workflow		3		2		2	
Vendor's ability to share/receive information from disparate sources provides an ideal state for	0%						100'
Communication with outside physicians	2		2		1	2	
Using scheduling solution to communicate with care team		4			2		1
Sending alerts/alarms from third-party technology		3		1	1	1	1
Using EHR information to communicate changes in patient conditions or needs	2		2		1	1	1
Communication with staff for dietary order changes		2	1		3		
Communication of transport and housekeeping needs		2	1		3		
Communication of after-hour needs		3			3		1
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%						100'
mproved patient safety at transitions of care		4			3		1
mproved response time to time-sensitive emergencies (stroke, STEMI, sepsis, etc.)		4			2		1
mproved response time to address patients' needs		3			3		1
Decreased alert fatigue	1	2			3		1
Reduced number of disparate solutions for communication			5			1	1
mproved patient throughput (ED, acute room turnover, etc.)	1			5			1
mproved staff safety	1			5			1
Over the last 12 months, vendor has	0%						100
Enhanced our ability to connect to disparate sources in our clinical communication efforts		4				3	
Noticeably enhanced our ability to use information from disparate sources in our clinical communications efforts	2 0%			4		1	1 100%

symplr (n=9) **Overall Grade:** C* *Limited data Grading scale

Figure 4 **Clinical Communications Interoperability Ratings**

Figure 4 Clinical Communications Interoperability Ratings	Strongly agree	Agree	Neuti	ral Disagr	Strong ree disagre	·
Vendor effectively						
Enables EHR connections through APIs	1	2	-	1		3
Enables third-party connections through APIs		L	F			3
Enables middleware connections for alerts/notifications	1	2	-	1		3
Enables VoIP/PBX connections	1	1			5	
Enables scheduling connections	1	2	-	2		2
Enables radiology connections	1	1			5	
Enables nurse call connections		2	1		4	
Enables patient monitoring connections		3		1		3
Enables lab connections		2	1	1		3
Supports interoperability needs at reasonable cost		2		4		1
Responds to challenges in timely manner		3			3	
Vendor incorporates & presents information from disparate sources	0%					1
To communicate alerts and alarms			3			2
To connect appropriate care team members	1		1		3	
Embedded within the EHR workflow		2		1		2
Vendor's ability to share/receive information from disparate sources provides an ideal state for	0%					1
Communication with outside physicians			3		1	1
Using scheduling solution to communicate with care team	1		2			2
Sending alerts/alarms from third-party technology	1		1	1		2
Using EHR information to communicate changes in patient conditions or needs			3		1	1
Communication with staff for dietary order changes	1		1		3	
Communication of transport and housekeeping needs	1			2	4	
Communication of after-hour needs	1		2		1	1
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%					1
mproved patient safety at transitions of care		2		4	2	1
mproved response time to time-sensitive emergencies (stroke, STEMI, sepsis, etc.)	1		2		1	1
Improved response time to address patients' needs	1			3		1
Decreased alert fatigue	1			3		1
Reduced number of disparate solutions for communication			4			2
Improved patient throughput (ED, acute room turnover, etc.)		2		2		2
Improved staff safety		3			2	1
Over the last 12 months, vendor has	0%					1
Enhanced our ability to connect to disparate sources in our clinical communication efforts	1		3		1	2
Noticeably enhanced our ability to use information from disparate sources in our clinical communications efforts	0%	2			1	1

TigerConnect (n=8) Overall Grade: B-* *Limited data

Figure 5 **Clinical Communications Interoperability Ratings**

Figure 5 Clinical Communications Interoperability Ratings	Strongly	A	Mandard	Diaman	Strongly	
Vendor effectively	agree	Agree	Neutral	Disagree	disagree	N/A
Enables EHR connections through APIs	1			3		
Enables third-party connections through APIs	1			3		
Enables middleware connections for alerts/notifications		2		Ŭ	2	
Enables VolP/PBX connections		2		1	_	1
Enables scheduling connections	1			2		1
Enables radiology connections			4			
Enables nurse call connections	1		, ,			1
Enables patient monitoring connections	1			- 3		
Enables lab connections	1			3		
Supports interoperability needs at reasonable cost	1		:	2		1
Responds to challenges in timely manner	1			- 3		
Vendor incorporates & presents information from disparate sources	0%					1005
To communicate alerts and alarms	1		2		1	1
To connect appropriate care team members	1		Ţ	3		1
Embedded within the EHR workflow		2		1		2
Vendor's ability to share/receive information from disparate sources provides an ideal state for	0%					100'
Communication with outside physicians		2		1	1	2
Using scheduling solution to communicate with care team		2		2		1
Sending alerts/alarms from third-party technology	1	1		2		1
Using EHR information to communicate changes in patient conditions or needs		2		1	1	1
Communication with staff for dietary order changes	1	1		1	1	1
Communication of transport and housekeeping needs		3			1	1
Communication of after-hour needs			4			1
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%					1005
Improved patient safety at transitions of care		3			2	1
Improved response time to time-sensitive emergencies (stroke, STEMI, sepsis, etc.)		3			3	
Improved response time to address patients' needs		Ĺ	ŧ			2
Decreased alert fatigue	1		3		1	1
Reduced number of disparate solutions for communication			3			1
Improved patient throughput (ED, acute room turnover, etc.)		2			2	
Improved staff safety			3			1
Over the last 12 months, vendor has	0%					100
Enhanced our ability to connect to disparate sources in our clinical communication efforts	1		2	2		1
Noticeably enhanced our ability to use information from disparate sources in our clinical communications efforts	0%	2			3	1009

	Grading scale			
Overall Grade: C+		B = 80.0%-83.9%	C+ = 72.0%-75.9% C = 68.0%-71.9% C- = 64.0%-67.9%	F =<52.0%

Figure 6 Clinical Communications Interoperability Ratings

Figure 6 Clinical Communications Interoperability Ratings	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N	I/A
Vendor effectively				-			
Enables EHR connections through APIs	4		5		(6	
Enables third-party connections through APIs	5		3	1	(6	
Enables middleware connections for alerts/notifications		8			6		1
Enables VoIP/PBX connections		6		6		3	
Enables scheduling connections	4		2		9		
Enables radiology connections	1 2	1		11			
Enables nurse call connections		9			5		1
Enables patient monitoring connections		6	1	1	7		
Enables lab connections	2	2 1			10		
Supports interoperability needs at reasonable cost	3		5		4	2	1
Responds to challenges in timely manner		6		7		1	1
Vendor incorporates & presents information from disparate sources	0%						100%
To communicate alerts and alarms		6			5		2
To connect appropriate care team members	3			7		1	2
Embedded within the EHR workflow	4		1 1		7		
Vendor's ability to share/receive information from disparate sources provides an ideal state for	0%						100%
Communication with outside physicians	1 1		5		6		
Using scheduling solution to communicate with care team	4		1		8		
Sending alerts/alarms from third-party technology		6		4		3	
Using EHR information to communicate changes in patient conditions or needs	1	3	2		7		
Communication with staff for dietary order changes	1	3			9		
Communication of transport and housekeeping needs	3		5			5	
Communication of after-hour needs	4		4		1	4	
Vendor's ability to share/receive information from disparate sources significantly contributes to	0%						100%
Improved patient safety at transitions of care	1		9			1 1	1
Improved response time to time-sensitive emergencies (stroke, STEMI, sepsis, etc.)	ļ	5		6		1	1
Improved response time to address patients' needs	ļ	5			7		1
Decreased alert fatigue	1	5		2	4		1
Reduced number of disparate solutions for communication	1		4		1	1	1
Improved patient throughput (ED, acute room turnover, etc.)		4		2		1	1
Improved staff safety	2	3		3		2	
Over the last 12 months, vendor has	0%						100%
Enhanced our ability to connect to disparate sources in our clinical communication efforts		6			8		1
Noticeably enhanced our ability to use information from disparate sources in our clinical communications efforts	0%	6			3	1 1	1