



Date: April 10, 2017

To: Stephen Williamson, President and CEO
Kent Torrence, CFO

From: Frank Gresh, CIO

Re: Infor/Cloverleaf Recommendation and Sole Source

The rapidly changing healthcare landscape requires us to be fairly nimble when it comes to moving our data within the health IT ecosystem. This is true both from an operations and reimbursement perspective. Presently we share data with the MyHealth Health Information Exchange, but in the course of meeting with our partners in healthcare locally, and conversing with our peers nationally, it is becoming increasingly apparent that we will need to have multiple strategies for connecting our operational and patient care data with our partners.

The need for data sharing will clearly be bi-directional. We have already had conversations with our receiving facilities about sending discreet data from our patient care report (PCR) as an alternative to printing PCRs and leaving them in the emergency department. This current process is fraught with issues that range from lost reports to inclusion on the wrong chart, not to mention the hospitals having to deal with the mountain of paper we leave them for each patient. Operationally for us, managing printers, toner supply, and paper at each facility has been burdensome and at times problematic. Our current one-way data “pushing” via the printed PCR does not help us capture outcome information to assist in our quality improvement efforts nor does it allow us to efficiently get data for the Office of the Medical Director’s cardiac arrest registry.

In order to solve these challenges moving forward, it has become increasingly apparent that we need to employ new technologies to help us integrate and exchange our data. After reviewing the landscape of health data integration technologies, it became very clear to me that there really was only one product that would meet our needs. The Cloverleaf Integration and Information Exchange Suite of products from Infor was clearly the standout in the field. This product is installed in over 72% of hospitals with more than 150 beds nationwide and over

4,000 healthcare organizations worldwide use Cloverleaf for solving their interoperability challenges. Locally, Cloverleaf is deployed with healthcare systems such as OSU Medical Center, St. Francis Hospital, St. John Healthcare System, and the OU Board of Regents. For several years (2011 – 2016), Core Health Technologies (a healthcare data integration consultancy) has completed a survey amongst hundreds of healthcare entities that shows the Cloverleaf as the dominant player in the market, and has also shown Cloverleaf as the market leader in healthcare data integration technologies for the next 2-5 years. Additionally, Cloverleaf is the technology employed by MedStar in Ft. Worth to integrate their electronic PCR with local hospitals there. After speaking with their IT Director, I understand that MedStar is very pleased with how well the product functions, and how easy it is to work with.

It is clear that Cloverleaf is the market leader in this space and is presently the only HL7 integration company actively working with EMS agencies such as EMSA; and now with their EMS experience in Ft. Worth they are ideally suited to be our choice for data integration moving forward. The other aspect of this decision is whether to deploy this technology installed locally on our servers or in Infor's cloud environment. Presently, across the entire suite of Infor's product line they have over 7,000 customers using their cloud services. Their cloud systems have achieved an impressive 99.9% historical uptime and have been audited by customers over 120 times each year. As you know, EMSA is no stranger to having mission critical technology such as Cloverleaf; some of which is deployed in the cloud (Office365 Email, Mimecast Email Protection, Geosafe mobile data systems, etc.). While EMSA's IT department is certainly capable of managing critical infrastructure, there is no one better suited to manage their own software than the vendor itself. Therefore, I am recommending we utilize Infor's cloud service for our deployment of the Cloverleaf Integration and Information Exchange Suite.

As explained above, I am recommending that EMSA contract for technology and professional services with Infor, as a sole source, to deploy its' Cloverleaf Integration and Information Exchange Suite in a Software as a Service (SaaS) or cloud based model.



Infor Proposal to EMSA

Infor Cloverleaf Integration Suite

Submitted by Jerry Malone
Cloverleaf Account Executive – Public Sector
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Please note that this proposal is based upon our current, initial understanding of your business. Our response has not been drafted as a legal document and, as such, should not be construed as constituting a binding contractual commitment. We would be pleased to meet with knowledgeable representatives of EMSA for the purposes of further defining your requirements and entering into binding contracts between our companies for the licensing and implementation of Infor software



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Cover Letter

March 23, 2017

Frank Gresh, CIO
EMSA
1417 N Lansing Ave
Tulsa, OK 73106

Dear Frank:

Infor Public Sector, Inc. (Infor) appreciates the opportunity to offer our proposal for the Infor Cloverleaf Integration Suite. With the power of Infor's integration experience combined with your dedicated service to Northeastern Oklahoma and OKC, I believe you have the capabilities to see a marked improvement in patient care.

Our dedicated team is committed to serving you the same way you strive to serve the public in a personal, responsive and cost-effective fashion. Take comfort in knowing that Infor can help you meet these ever important criteria, as Infor Public Sector solutions are used by over 50% of the residents of North America.

On behalf of Infor, we look forward to working with you as you use the Cloverleaf Integration Suite. In the following pages, we hope to illustrate how we can deliver a solution that exceeds the expectations of EMSA.

Sincerely,

Jerry Malone, Account Executive
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CC:

Section 1 – Executive Summary

Executive Summary

Infor delivers end-to-end solutions for the Public Sector that produces fast, far reaching results.

Infor is fundamentally changing the way information is published and consumed in the enterprise. We help 90,000 customers in more than 200 countries and territories improve operations, drive growth, and quickly adapt to changes in business demands. In doing so, Infor offers deep industry-specific applications and suites, engineered for speed, and with an innovative user experience design that is simple, transparent and elegant.

We also provide flexible deployment options that give customers a choice to run their businesses in the cloud or on-premises. Infor proudly combines focused, hands-on industry experience with global breadth to help customers deal with today's challenges and prepare for tomorrow's opportunities. These capabilities are exceptionally well-suited to support our partners in government.

Modernizing Interoperability

A New Focus

The new strategic initiatives for government are propelling agencies forward in a new direction. A key component behind this vision is technology integrating business processes to create a collaborative foundation with traditional and non-traditional systems. And this strategy towards platform modernization could not be more timely. Infor is the recognized and distinguished leader in information exchange, providing government customers with an unprecedented breadth of application functionality using modern, fully-integrated technology.

Infor's Integrated solutions promote collaboration, consistency and control. We transform business processes through standardization, automation and secure integration. Infor solutions will mitigate business constraints, empowering agencies to substantially improve operational efficiencies to deliver on a new integration vision. Infor solutions incorporate best business practices, comply with industry security standards and requirements and facilitate a systemic approach to standardization and modernization. Technology modernization under the judicious approach of Infor and our partners will help eliminate information silos and facilitate collaboration between the agencies.

Simply put, we are one team with one goal: transforming and modernizing operations through a comprehensive and pragmatic approach to system implementation, adoption, and ongoing support for your Infor solution. Infor has an exceptionally high degree of experience in helping government and other tax funded organizations implement Off-the-Shelf (OTS) software. By design, these applications are carefully engineered for flexibility and configurability. This means fewer customizations, which, in turn, accelerates value, improves quality service delivery, and lowers complexity. Plus, end users adopt our applications more readily which translates into quicker time-to-value and a higher return on investment value for EMSA.

Perfect for Today, Ready for Tomorrow

Infor understands the uniqueness of public sector requirements, and what it takes to be successful moving forward. With over 31 years of experience in the public sector, Infor has provided fast, far-reaching results and provides system-wide transparency for over 4,100 public sector customers. Our experience includes work with 18 of the 20 largest states, 16 of the top 20 largest US cities and 350+ federal government organizations. We maintain a 93% retention rate for customers, one of the highest in the business. Unlike many of our competitors, we have maintained a keen focus on innovation and transformation – beginning with ourselves. In 2010, Infor initiated a company-wide transformation process – redefining our approach to development and delivery of enterprise software. Our transformation resulted in a strategy to lower our customers' total cost of ownership with applications that are:

- built on an industry standard technology platform;
- designed uniquely for the micro-vertical markets we serve;
- created with beauty your users will love.

Infor's new strategy benefits agencies in three ways. First, since Infor's solution adopts the latest technology standards; it is truly a next-generation platform. Additionally, Infor's underlying architecture is standards-

based, not proprietary. Proprietary technology drives the cost of software administration and support up. Instead, our approach to integrating the disparate systems, frequently used by our customers, is based on industry standards, as opposed to the monolithic approach of the past or the proprietary approach of our competitors. The Infor approach simplifies implementations, minimizes the disruption and complexity of upgrades, and helps increase overall time-to-value. Infor also provides flexible deployment options, giving our customers a choice to run their business in the cloud, on premise, or hybrid, with the ability to move from one model to the other when and if business needs change.

Second, by providing unique micro-vertical suites of software, our public sector customers are empowered with functionality tailored to the unique needs of government. This eliminates customizations for EMSA and lowers the total cost of ownership. And our micro-vertical approach to application development saves time and resources during implementation and reduces the time to upgrade.

Third, by creating beautiful software, end users enjoy their work experience more and that leads to higher productivity. Prior to Infor, enterprise software, including even some of the newer solutions on the market, earned a reputation for being difficult to use, counter-intuitive, and unable to provide the consumer-grade experience that one expects from personal applications. Infor has changed the game. We have made significant investments in delivering software that is beautiful, elegant and easy to use. Infor ensures this with our internal design agency – the largest in New York City – called Hook & Loop (H&L). The professional creators and designers of H&L are charged with the singular mandate to make Infor software the easiest enterprise software to use on the planet. This results in better employee adoption, quicker implementation time, and a lower total cost of ownership.

Infor expends 17% of our total revenue each year into research and development. Feedback garnered from our customers through user groups and requests, as well as latest technology advancements, help drive our product development.

The Infor Value proposition is transformation enabled by providing EMSA with innovative technology, public sector-specific functionality, and a beautiful user experience that makes work predictive, efficient and enjoyable for core processes EMSA is focused on now and in the future.

Visibility Across EMSA

Infor's Cloverleaf Integration Suite provides a platform for managing information and securely exchanging data. Our technology will bring together data drawn from each of the disparate systems, regardless of technology, and provide this data to the correct department. It will also provide tools for analyzing that aggregated data, helping agencies gain insights about their operations to support better decisions.

To enable effective collaboration and integration, we also understand that security is cornerstone of your interoperability strategy. Our solution ensures this so you can focus on delivering quality services. Core components of the Cloverleaf Integration Suite that are highly focused on security are:

- Secure Courier—provides a lightweight, secure, bi-directional link between your Infor Cloverleaf installation and remote locations, which may include other agencies, state registries or other facilities.
- Secure Messenger—enables Secure Socket Layer (SSL) connections with other SSL-compliant application servers. SSL connections encrypt and/or decrypt data messages, while also providing the capability to authenticate the client or server. These types of connections may be configured in the Cloverleaf Integration Engine using TCP/IP, FTP, or HTTP protocols.
- Message Warehouse—quickly and efficiently captures message information for analysis without affecting message routing.
- Global Monitor—provides a web-based interface that can access multiple Infor Cloverleaf environments from browsers and mobile devices.
- Web Services Adapter— allows you to easily build web services using out-of-the-box support for web service security, SOAP wrapper handling, RESTful web services, WSDL creation, and parsing.

In sum, by choosing a proven, secure integration technology, EMSA has the opportunity to make the entire system more cost-effective and collaborative.

Ultimate Control of Your Solution

We understand that many jurisdictions are implementing a “cloud first” initiative. This means that whether deployed on premise, or as a true SaaS solution, EMSA will have access to the same, deep public sector specific functionality regardless of deployment methodology – the same proven functionality that has helped over 4,100 public organizations operate more efficiently and cost-effectively, including federal, County, local, transit, utilities, and public safety agencies. With our SaaS solution, the infrastructure is fully managed by Infor, with Amazon Web Services (AWS), the leaders in cloud and big data management, providing secure, reliable data centers that are compliant with relevant industry regulations. This will result in a faster time to value with minimal upfront investment, reductions in labor costs, and quicker adoption by users.

- Increased agility: Automatic upgrades and new technologies adopted easily, at your discretion.
- Reduced your total cost of ownership: Because data is no longer stored on-site, expensive servers and hardware can be eliminated. EMSA will have to devote fewer resources to hardware and software upgrades and fixes, and can instead allow support personnel to focus their efforts on activities that have a more direct positive impact on the community.
- Greater security and reliability: With data managed and protected by AWS, a global leader in cloud computing, EMSA will receive best-practice protocols in application, network, physical, and operational security, as well as monitoring services to make sure your data is safe. Through 24/7/365 uptime, EMSA will be able to ensure compliance with pertinent regulations and guidelines.
- Ultimately, EMSA can feel confident that it will be deploying a secure set of solutions on a highly flexible hosting platform that is currently serving more than 25 million users worldwide.

Conclusion

A new transformational integration technology strategy is key to meeting the goal of EMSA. We work closely with our clients to attain value by delivering on the following:

- Dependability: Over 20 years of data integration
- Reliability: Many installation has been running continuously for years
- Scalability: Single system with over 750 active connections and 30M daily messages
- Interoperability: Connects to vendor system via native protocols
- Compatibility: Support for the latest guidelines and standards
- Capability: Manage complex multi-threaded interfaces
- Visibility: Centralized connection monitoring and management
- Responsibility: Manage clinical integration in over 40% of US market

Infor is uniquely qualified and committed to provide agencies with a complete and sustainable integration solution. Our deep domain experience and proven delivery methodologies offers you a low-risk, high-return investment on a long and productive partnership in which we look forward to building. A partnership for today, tomorrow and into the future.

Section 2 – Infor Cloverleaf

Mobile Integrated Healthcare Today

The expectations of EMS agencies are higher now than ever before. Advanced treatments, expanded protocols, and extended participation in specialized clinical research, along with a population that has a growing reliance on emergency services is taxing an industry already at capacity. Combined with tighter budgets, and diminishing financial resources, EMS agencies must find new ways to enhance their efficiency and effectiveness, increase revenue, and maintain compliance with privacy laws, all while continuing to focus on the most important piece of the healthcare equation – the patient.

Traditional healthcare providers are looking for ways to deliver high patient value in unconventional ways to control costs and improve the coordination of care. As trusted members of the community that are relied upon by all when people are at their worst, EMS agencies have a tremendous opportunity to deliver that value and create positive, lasting change throughout the healthcare system.

To be that change agent, agencies must be equipped with technology that enables collaboration and coordination with hospitals and physicians, while also making it easier for paramedics and emergency medical technicians to focus on providing patient care by affording them real-time access to the right information, in the right context, at the right time. As a leader in exchanging health information technology, Infor is proposing a solution that will enable just that.

Emergency Medical Services Today

EMS care ranges from minor injury and calls for welfare assistance to immediate medical intervention of life-threatening situations. To provide the best emergency care service possible, EMSA uniformed staff provide ambulance service to more than 1.1 million residents in central and northeast Oklahoma.

EMSA has a need to provide area hospitals with patient information. This information is currently being input into an electronic patient care reporting tool. This information is in the National Emergency Medical Services Information Standard (NEMSIS) 3.0 format. This information will need to be converted and properly associated with fields in HL7 format, the format used by healthcare facilities to transfer patient information.

Additionally, in order to provide more advanced assistance with the continued treatment of patients discharged from medical facilities, EMSA has a need to receive patient information upon discharge of that patient from a local medical facility. This information will be provided to EMSA in HL7 format. Upon receiving this information, EMSA will query the medical facility for an aggregated continuity of care document (CCDA) for the complete medical history of the patient.

The Infor® Cloverleaf Integration platform is the market leader for transmitting and receiving patient information, allowing hospitals and providers to exchange historical patient data, giving them a full picture of a patient's healthcare record and allowing them to make better decisions for the patient. Infor Cloverleaf Integration tools were developed exclusively for the healthcare industry to facilitate high-performance, high-capacity integration and information exchange.

With Infor Cloverleaf Integration tools, EMSA will gain a full, integrated view of their EMS agency, including costs and patient information that spans the entire continuum of care. Hospitals and providers can now receive patient care information from first responders, and first responders, in the near future, can receive pertinent information from hospitals and providers during the episode of care, facilitating better decisions during an emergency event.

The Infor Cloverleaf Integration Suite, provided in a Software-as-a-Service (SaaS) model, will provide EMSA with the ability to meet their immediate requirements for patient information exchange, both from the ambulance to the emergency department and from the hospital to the agency upon discharge.

Infor Cloverleaf provides full support for market standard protocols and message formats. The following pages outline the:

- Benefits of the solution that we are proposing;
- Details about the components of the solution suite;
- Architecture and underlying components;

- Key features of the technology, and;
- Pricing estimates for both licenses and services to install the solution.

Solution Benefits

EMSA currently uses an ePCR from Zoll. This ePCR solution uses a national EMS standard (NEMSIS 3.0) for sending and receiving messages to external systems. By using the Infor Cloverleaf Suite, this EMS centric information will be converted from NEMSIS 3.0 to the hospital electronic medical record specific HL7 message format, and then provide this message to a port designated by the receiving hospital. The receiving hospital receives these messages without hospital interface changes. When information is exchanged in this manner, both the receiving hospital and EMSA benefit.

Positive Impact on EMSA

Infor's Cloverleaf Suite can help EMSA be the "Best 911 Provider" possible by:

- Creating a better workflow environment;
- Eliminating the need for Bluetooth enabled printers at receiving hospitals;
- Matching transported patients to hospital medical record treatment history;
- Improving the way patient outcomes are tracked across care environments, and;
- Enabling the ability receive discharge order for patients in efforts to reduce avoidable readmissions.

Positive Impact on Local Hospitals

In addition to the tangible benefits outlined above for EMSA, each of the hospitals to which EMSA transports also benefit by:

- Incorporating paramedic findings and notes into patient records, including allergies, medications, previous medical events, and chronic illnesses
- Reducing manual re-entry into the patient's medical record by electronically receiving the medical record, thus maintaining workflows and reducing data entry errors and duplication
- Eliminating required hospital interface development work by providing the specifications for HL7 messages currently used by the hospital

Future Impact

Systems change, and with that, the way systems exchange information will also change. One key benefit to both EMSA and to the connected hospitals is that, with the Infor Cloverleaf Suite, any change on one system only effects the connection to that system, leaving the other systems unaffected and continuing to exchange data.

Solution Components

The Infor Cloverleaf Integration Engine lies at the heart of the Infor Cloverleaf Integration Suite. This market-leading, enterprise integration engine facilitates the movement of secure data between disparate systems within and outside your agency. It is a proven, reliable integration technology platform that has been used for over twenty years.

As the cornerstone of your interoperability strategy, the Infor Cloverleaf Integration Engine can help you streamline processes —so you can focus on delivering quality care. Additional components of the Infor Cloverleaf Integration Suite include:

- **Secure Courier**—Provides a lightweight, secure, bi-directional link between your Infor Cloverleaf installation and remote locations, which may include hospitals, other agencies, state registries or other facilities.
- **Secure Messenger**—Enables Secure Socket Layer (SSL) connections with other SSL-compliant application servers. SSL connections encrypt and/or decrypt data messages, while also providing the capability to authenticate the client or server. These types of connections may be configured in the Cloverleaf Integration Engine using TCP/IP, FTP, or HTTP protocols.

- Message Warehouse—Quickly and efficiently captures message information for analysis without affecting message routing.
- Global Monitor—Provides a web-based interface that can access multiple Infor Cloverleaf environments from browsers and mobile devices.
- Web Services Adapter— Allows you to easily build web services using out-of-the-box support for web service security, SOAP wrapper handling, RESTful web services, WSDL creation, and parsing.

Architecture

The Infor Cloverleaf Integration Engine runs on a variety of Windows and UNIX platforms. This engine receives messages from external systems through protocols such as TCP/IP, FTP, and Fileset, performs transformations on the messages, and sends the messages to their destination through the same set of supported protocols.

The Infor Cloverleaf Integration Engine records statistics to shared memory, where a separate monitor daemon process can access it. This daemon makes these statistics available to host server through TCP/IP and ultimately available to users running the Infor Cloverleaf Interface Developer Environment (IDE) through a host server. The daemon also provides an alert mechanism, which can alert the user when user-defined trigger conditions occur.

The Infor Cloverleaf host server acts as a bridge between any number of Infor Cloverleaf IDEs (client GUIs) and the engine and monitor daemon. This allows an Infor Cloverleaf instance running on any platform to make it accessible to users running the Infor Cloverleaf IDE on a Windows machine. The host server interacts with the Infor Cloverleaf IDE through Java RMI (remote method invocation) and accesses the Infor Cloverleaf Integration Engine through the local file system and monitor daemon through TCP/IP.

In addition to the Infor Cloverleaf IDE, Infor Cloverleaf Global Monitor is a web-based application tool that provides a way to monitor Infor Cloverleaf instances through any web browser, as well as through an app for the iPhone. Global Monitor accesses the host server through RMI and monitor daemon through TCP/IP, and contains a Tomcat custom servlet to interact with client browsers through http or https.

Advanced security can be configured through Infor Cloverleaf Security Server. Residing on a separate machine from any host servers accessing it, Infor Cloverleaf Security Server keeps access control lists (ACLs) on an embedded derby database. When a user attempts to perform a task, the host server will query Infor Cloverleaf Security Server through RMI to determine whether the user is allowed to perform the task.

When the agency needs connectivity to a remote location, such as a hospital Emergency Department, Infor Cloverleaf Secure Courier provides a lightweight solution to send and receive messages. The Secure Courier server resides in the agency, where it sends and receives messages to and from the Infor Cloverleaf Integration Engine directly through the local file system. It uses a Tomcat-based web service to exchange encrypted messages using https with Secure Courier clients in remote locations. Secure Courier clients can exchange data with external applications using file and TCP/IP protocols.

The power of Infor Cloverleaf can also be extended by interfacing it with web services through the Infor Cloverleaf Web Services Adapter, which allows Infor Cloverleaf to act as a web services client or server. The Web Services Adapter provides an API that allows Infor Cloverleaf to access web services through SOAP.

Core Components

Raima embedded databases—All messages passing through Infor Cloverleaf are stored in queues between any actions that are undergone in the engine. These queues are backed by an embedded high-performance Raima network-model recovery database to ensure message continuity and integrity can be recovered in the event of an unexpected shutdown by simply repopulating the queues from the database. Messages that encounter errors are also stored in a similarly designed error database; from there they can be modified and re-sent to various points in the engine. A third embedded database acts as a cache for Infor Cloverleaf Message Warehouse, where messages are stored until they are flushed out to an external relational database.

Threading Module—All inbound and outbound protocols, as well as translations (message transformations), are run in their own threads. These threads communicate and pass messages to one another through an interthread communications library. A single command thread handles external events and schedules the protocol and translation threads to run. To utilize parallel processing potential, the translation threads can be configured to run concurrently.

Data logging—A Saved Message Archive Tool (SMAT) allows all messages coming into and going out of the Cloverleaf engine to be written to files. Message content and metadata are written to separate files, where they can be kept for historical purposes, viewed in the IDE, edited, and resent to any threads in the Infor Cloverleaf site.

Routing—Routing is the way Infor Cloverleaf determines which messages go where. In practice, this is done by creating routes from inbound protocol threads to outbound protocol threads. A transaction ID based on the message's content is defined by the user, which is used to determine which routes a message takes. Translations can be configured to occur during these routes. An intersite routing tool is also provided so that Infor Cloverleaf sites on different hosts can route messages to one another directly using the interthread communications library.

Translations—Infor Cloverleaf offers a number of built-in tools to transform messages through mathematical, logical, and iterative operations or lookup tables. The user can define how these tools are used in the IDE's translation configurator and save a particular translation into a translation file. These files can be tested in the testing tool to determine whether they work as designed before deploying in a production environment. When these tools alone are insufficient, the user can write scripts in TCL or Java to transform messages as they wish.

Scripting—Embedded TCL interpreters and Java Virtual Machines (JVMs) allow users to run scripts that control message flow as well as transform message content at various points in the Infor Cloverleaf engine. The user can write these scripts in an external text editor and import them to Infor Cloverleaf, or use the built-in editor.

Database integration—Infor Cloverleaf Data Integrator provides ODBC drivers that allow Cloverleaf to archive inbound and outbound messages to an external database. Support for reading and writing messages directly to and from Oracle and SQL Server databases by SQL statements and stored procedures through JDBC is supported in Infor Cloverleaf version 6.0.

Access control—Infor Cloverleaf Security Server stores ACLs in an embedded derby database. Whenever a user attempts to carry out an action, the host server will query the ACLs through RMI to determine whether the user has permission to carry out that particular action. Users can be granted full read/write or read-only access to various areas.

Monitoring—As the Infor Cloverleaf Integration Engine records statistics in shared memory, a separate monitor daemon process accesses shared memory to report these statistics to the user. The user can configure alerts to have the daemon send an email, pop up a window, or run a script when trigger conditions are met. These trigger conditions can be based on system statistics such as CPU and disk usage, or based on Infor Cloverleaf variables such as queue depth and protocol thread status. The monitor daemon communicates with the host server or directly with Infor Cloverleaf Global Monitor through TCP/IP.

Encryption— Infor Cloverleaf Secure Courier uses AES 256-bit encryption and transports messages between the client and server using TLS v1 HTTPS.

Tomcat—Tomcat serves as the web services container for both Infor Cloverleaf Secure Courier and the Infor Cloverleaf Web Services Adapter.

Section 4 – Cloverleaf Licensing & Pricing

ON PREMISE

New Licenses	Units	Cost	Maintenance
<i>Cloverleaf Integration Bundle Includes Test/Development</i> 30 Threads	1	\$50,000	\$11,000
Cloverleaf Integration Platform			
Security Server License			
Web Services			
Secure Messenger			
Secure Courier	4	20,000	4,400
License Total:		\$70,000	
Annual Maintenance & Support:			\$15,400

Software-as-a-Service (SaaS)

New Licenses	Units	Annual Subscription	Maintenance
<i>Cloverleaf Integration Bundle Includes Test/Development</i> 30 Threads	1	\$77,705.62	Included
Cloverleaf Integration Platform			
Security Server License			
Web Services			
Secure Messenger			
Secure Courier	4		
License Total:		\$77,705.62	
Annual Maintenance & Support:			Included

Services

Services are scoped based on the configuration. Please see the attached files for service quotes for both On-Premise and Cloud.

Education

Please refer to page 3 of the enclosed education brochure. The cost per student is \$3000 plus travel.

This proposal expires on 6/23/2017



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Integration Objectives

Cloverleaf professional services to provide a Customer's Virtual Private Cloud (VPC); and activate the following Cloverleaf-based services

Cloud Service DeliverablesOnboarding Services *(Customer specific services in addition to standard Cloud Provisioning)*

Enablement of Cloverleaf Cloud Services - Virtual Private Cloud (single-tenant)

Cloverleaf Services	(Test and Production)
Cloverleaf Web Services	(Test and Production)
Global Monitor / Security Server Services	(Production)
Networking connectivity to/from customer via VPN	(Test and Production)
Highly-Available (HA) and Disaster-Recovery (DR) Services	(Test and Production)
Cloverleaf Secure Courier	(Test and Production)

Cloverleaf Subscription Services

Provided by Infor Cloud Services

Application Management	(All Cloverleaf Cloud components licensed)
Cloud Augmented Support Services	(Best Practice Review and Support)
Quarterly Performance Review	

Cloverleaf Scoped Services

Provided by Infor Services

Additional Integration services as requested by customer

Billable tasks

(All customer specific integration tasks)

Project Management

Provide Project Coordination services including Status Calls, Infor Resources and Issue Tracking

Interface Development and Best Practices**Cloverleaf Interfaces**

(1) HL7v2 interfaces using mllp-tcp/ip protocol

Includes: Design / Development of each HL7 Interface
Unit Testing / Availability for User Acceptance Testing
Knowledge Transfer / Documentation

Cloverleaf Secure Couriers

(1) Couriers Deployed

Includes: Registration, Approval, Testing, Knowledge Transfer

Global Monitor and Security Server Services

Global Monitor services Basic configuration and training
Security Server services Basic configuration and training

General Integration Services

Provide General Cloverleaf services as requested

Cloverleaf Support Services

Provided by Infor Services (US Integration and COE resources)

Escalated Support Services

Includes: Tier-2 support services as escalated
 Escalation may be from Infor Extreme support, customer, or Cloverleaf alerts

Assumes: Standard Cloverleaf Cloud Package
 Not to exceed 30 Cloverleaf threads

Customer Responsibilities

Customer shall collaborate to establish a persistent VPN with Infor's Virtual Private Cloud
 Customer shall provide all network access to connected applications
 Customer shall provide any Vendor required documentation
 Customer shall determine and provide any clinical mapping requirements
 Customer shall provide initial point of contact for support services prior to contacting Infor support

Assumptions

Installation of subscription software needed to support this project will be performed by Infor's Cloud Operations team or hosting partner. These installation activities are out of scope for work to be performed by ICS on this project
 Infor Cloud Services, or Infor designee will provide all cloud infrastructure and operating system updates
 Infor Cloud Services, or Infor designee will provide all security, and intrusion monitoring
 No specific interfaces have been scoped
 General Integration Services is limited to 10 hours
 Travel is not required for services, but may occur if mutually agreed upon
 Project Management is limited to 6 hours

Cloverleaf Managed Services

Includes: All Cloverleaf Cloud infrastructure support and upgrades for the hosted Cloverleaf services
 All Cloverleaf Cloud operating system upgrades and patches
 All Cloverleaf Cloud security and intrusion monitoring
 Performing all Cloverleaf Cloud application level patches and version upgrade services
 Maintaining Cloverleaf Cloud as a highly-available and disaster recovery environment
 Quarterly Management Reports, including current interface metrics, and resource capacity

Comments

This project is not a dedicated resource project and some deliverables are classified as a T&M project, whereby the resources assigned may have other T&M projects to coordinate in parallel. Communication with critical path dates, travel, and other expectations needs to be clearly documented to insure that any and all assigned resources are available as best supports this project deliverables.

Infor Resources and Rates

\$245 /hr	ICS/US/SR	Cloverleaf, Sr Integration	CL Level 3 Certified/Trainer
\$265 /hr	ICS/US/PM	Project Manager/Coordinator	Cloverleaf, PMP Certified
\$140 /hr	BA/COE/SR	Business Analyst / Project Coordinator and Cloverleaf, Integration	CL Level 2 Certified

Total Cloud Costs

<u>Onboarding Services</u> <i>(Provided for by Infor Services)</i>	one-time	\$ 10,780	(fixed fee)
<u>Cloverleaf Subscription Services</u>	annual	\$ -	(fixed fee)

(Provided for from Cloud Services via Subscription)

Cloverleaf Scoped Services as scoped \$ 17,270 (t&m)
(Provided for by Infor Services)
(Specific to all billable tasks as scoped above)

Cloverleaf Support Services annual \$ - (fixed fee)
(Providing Tier-2 support)
(Only required for fully managed Infor Cloud customers)

\$ 28,050