

**THE AMICUS GROUP**

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**FRIENDS OF THE COURT**

**TOOLKIT**

### TAG TOOLKIT

*The TAG Toolkit is the “Best of Breed”*

The Amicus Group provides a unique opportunity for clients to develop and own a world class integrated justice system without the traditional expense of license fees and perpetual support and maintenance charges.

The case management software market is struggling to define and deliver the next generation of software applications. The question of whether this is a custom market or Commercial off-the-Shelf (COTS) market is open for discussion and warrants careful examination.

Historical analysis indicates that the initial short-term cost of implementing enterprise packaged software based solutions is often significantly more than a custom solution. However, a COTS package will usually provide the best return on investment over the long term:

- If it is aligned with your organization's business and technology strategy.
- If it can meet most of the core business requirements and a custom solution can accommodate unsupported core business requirements without modifying the product's software modules.
- If it is anticipated that most of the COTS product functionality will be used in the next three to five years.
- If Information Technology (IT) resources with the proper skill sets are not available to the organization.

Large courts, therapeutic courts and courts with complex processes or high volume data entry requirements have had to compromise in order to accommodate COTS solutions. The expected advantage of buying a solution rapidly evaporates when extensive modifications are required to “shoehorn” a system that really doesn't fit the court's needs. More importantly, the CMS industry has not enjoyed the long -term stability that has been realized from more mature and stable commercial application vendors offering products such as Enterprise Resource Planning and financial package applications.

With The Amicus Group, the rules for delivering custom 21st century case management systems have changed. A strategic alliance with TAG solves the Buy vs. Build dilemma.

Strategic alliances are agreements between partners in which each commits resources to achieve a common set of objectives. We understand how important it is to meet the court's needs and provide the best solutions available in the market. That's why a partnership with TAG will enable you to develop and deliver world-class solutions. Our strategic alliances are long-term relationships where we both invest people and resources to meet your objectives.

#### **The TAG Toolkit**

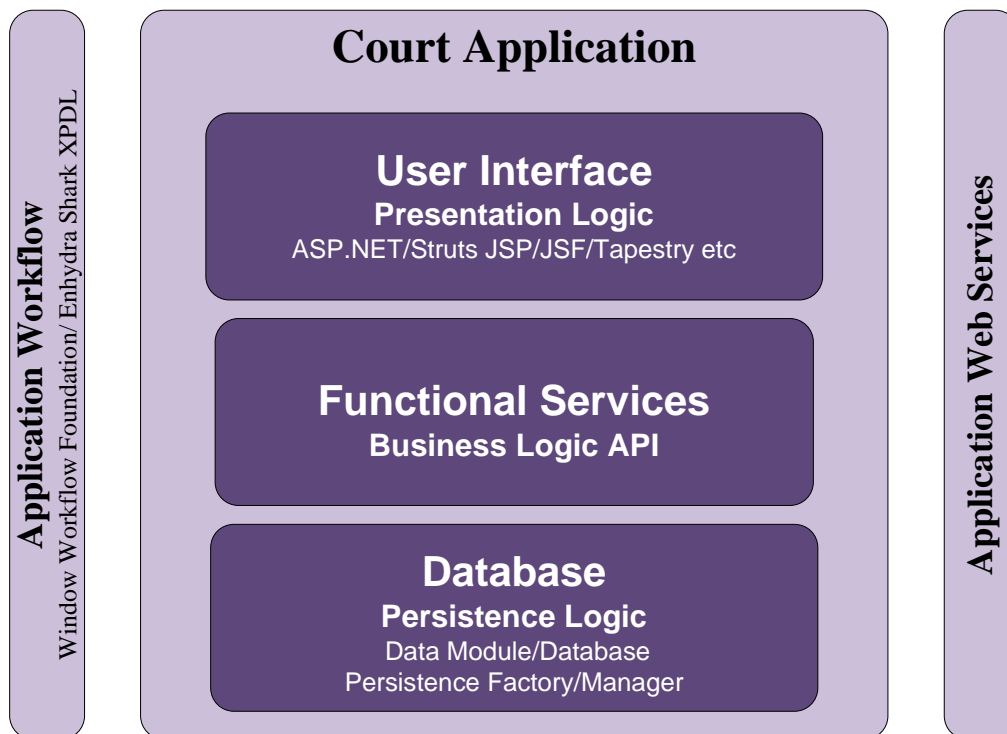
Our solution begins with the TAG Toolkit which is built in collaboration with the court.

The solution consists of a set of business libraries, services and an extendable application data model that are the basis for the development of National Information Exchange Model-(NIEM) compliant enterprise case management architecture. This framework constitutes a repository of business functions and services. These business libraries and their individual classes may be

extended, overridden and expanded based on the context and requirements of the implementation.

The application architecture is developed following a standard tier or layered approach. This provides for better scalability and support of the overall service-oriented architecture (SOA). The application is developed following a standard three-tier structure made up of a presentation layer, a business layer and a persistence or database layer. The development of the various layers will also follow design patterns for session, state management serialization, and for support of a clustered deployment of the application.

## Amicus ToolKit “CMS Meets Open Source”



The Toolkit's Web-based application architecture includes the following layers:

### Presentation Layer

The presentation layer will be developed as a browser-based solution following standard design practices of using style sheets for managing the presentation elements of the application. Along with a published application style guide, this approach insures that the XHTML/HTML will contain content only. This method provides for a consistent presentation and provides for support for multiple media methods (i.e. browser, handheld devices, etc). This also allows for management of the network bandwidth requirement based on limited page size of the markup and cache of artifacts.

### **Business Layer**

The business layer contains all the relevant business logic for the application and shall be developed as a set of core object libraries, implementing the Toolkit. This set of core functions may constitute the business layer of the overall application architecture. This approach promotes code reuse and insures that the same application business logic is available to the various layers of the application, including the presentation layer and web services.

### **Persistence/Database Layer**

The persistence or database layer is essentially the application database. This contains the relevant application data stored within the relational data model defined for the application. The persistence interaction performs the create, read, update, and delete (CRUD) functions within the database. The object relational road mapping from the object module of the application to the relational module of the application is performed within this layer.

### Supported Toolkit Infrastructure Components

<b>Database</b>	<ul style="list-style-type: none"><li>• Oracle</li><li>• MS SQL Server</li><li>• IBM DB2</li></ul>
<b>Application Servers</b>	<ul style="list-style-type: none"><li>• JBoss 4.2</li><li>• Weblogic 10</li><li>• Websphere 6.1</li><li>• .NET Framework</li></ul>
<b>UI Framework</b>	<ul style="list-style-type: none"><li>• ASP.NET</li><li>• JSF</li><li>• Struts JSP</li><li>• Tapestry</li></ul>
<b>Web Server</b>	<ul style="list-style-type: none"><li>• IIS</li><li>• Apache</li></ul>
<b>Document Capture, Imaging and Workflow</b>	<ul style="list-style-type: none"><li>• Hyland Software OnBase</li><li>• FileNet</li><li>• Documentum</li></ul>
<b>Reporting Tools</b>	<ul style="list-style-type: none"><li>• Crystal Reports</li><li>• Business Intelligence and Reporting Tools</li></ul>
<b>Form Server</b>	<ul style="list-style-type: none"><li>• Adobe Form Server</li><li>• MS Word</li></ul>
<b>Information Exchange</b>	<ul style="list-style-type: none"><li>• Metatomix</li><li>• Progress SonicMQ Product Family</li></ul>
<b>Security and Authentication</b>	<ul style="list-style-type: none"><li>• Open LDAP</li><li>• Active Directory</li><li>• IBM Tivoli</li></ul>

### Application Development Methodology

Since the 1990s, TAG engineers have embraced an eclectic design methodology incorporating select concepts ranging from rapid application development to Agile and Scrum, complemented with our extensive experience in developing case management solutions. The incorporation of Agile techniques into our development methodology improves collaboration between the various stakeholders of the application and the development/scrum team members.

Key Principles of the TAG development methodology include:

- Simplicity.
- A frequent and continuous delivery of useful software.
- Accommodating software changes throughout the development lifecycle.
- Professional relationships between stakeholders and developers nurtured through co-location.
- Face-to-face conversation is the best form of communication (Co-location).
- The creation of motivated project teams.
- The continuous attention to technical excellence and good design.
- Self-organizing teams.
- Regular adaptation to changing circumstances.
- Reusable solutions.

This incremental development approach focuses on presenting maturing software through an iterative process. It incorporates test-driven development where the tests are written before the code and a unit-testing framework supports the direction of continuous and automated testing. This process maintains software quality through the maintenance and life cycle of the application.

### **Application Design/Development Strategy**

The strategy is based on supporting a common development platform of either Java or .NET. The business libraries and related services are to be provided and supported for both a Java/J2EE and a .NET platform. The various business methods and/or functions contained within the business libraries are developed following standard object oriented design patterns and common interfaces so that they may be extended and/or adapted based on the requirements of the implementation. The business objects contained within these libraries are intended to be used as the basis for building the business layer of the case management application with the various services in support of an overall service oriented architecture.

## **BUILDING WITH THE TOOLKIT – THE IMPLEMENTATION PROCESS**

Each component is designed, developed and configured in a truly collaborative environment.

The Toolkit enables rapid development and implementation of a case management system that blends the best business and technological architecture available. Our build process begins with the deployment and configuration of a fully developed ubiquitous database which serves as the foundation of your new system.

Working with our subject matter experts (SME), we undertake a comprehensive analysis of your existing work process, focusing on preserving efficient practices and incorporating new approaches to create an optimum balance where process and technology are blended to yield the most efficient and cost effective environment.

Following the development of specifications for the future work processes, our staff reviews the inventory of existing Toolkit SOA case services to configure an initial functional prototype. The prototype is evaluated during collaborative review sessions. At your direction, subsequent iterations are prototyped until you, your project team, and end users are completely satisfied. Rather than forcing a solution, this process enables you to decide when it is appropriate to commission a programmed modification or alter a non-critical business process to match the existing function of the Toolkit SOA case service.

The final phase of the build process focuses on the user interface, arguably the most critical component of the application. The user interface has been defined as the component that separates the human that is operating the machine from the machine itself.

In our experience, we have found that the user interface, more than any other single component, seems to continually frustrate users who found the interfaces of whatever CMS product they were working with difficult to understand. We discovered that the developers of those products, in most cases, seemed to spend most of their time describing the functional requirements of the new system and then programming the underlying structure. The interface was a last minute affair, tacked on at the end of the process with little or no thought given to understanding their users and how the users worked.

We believe that effective interfaces came through observing and talking to your users as they work and using that knowledge throughout the design and development lifecycle. Working closely with the end users, your development team and our analysts, we will create a user interface that reflects the needs of your staff and provides an efficient and elegant technology bridge.

The following sections provide additional detail of the Toolkit components and the three phased implementation process.

## **TOOLKIT DATABASE**

The database model is a relational model designed to work with the major relational database management systems (RDBMS) such as Oracle, Microsoft SQL Server and DB2. The design of the database model is based on TAG's 10 years of experience in over 200 courts throughout the United States with continual updates based on the GJXDM and now the core NIEM and other selected NIEM namespaces such as the Justice Namespace. The model includes data elements related to areas such as case, parties, identities, metrics/statistics, financials, journals, scheduling, jury management, etc. Your new database model will manage cases and data from each jurisdiction and agency in your site in a centralized or distributed environment.

### **Database Package**

The Amicus Toolkit database package will contain the necessary documentation and components for your database administrator to build and configure your CMS database. The package will include the following artifacts:

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Artifact	Benefit and usage
Entity Relationship Diagram (ERD) and Conceptual Schema documents	<i>Database entities and model relationship documentation containing detailed attributes for each entity. This documentation is used by database administrators (DBA) and users for information about the database and its contents.</i>
Configuration guidelines for database parameters	<i>Guidelines for database administrators in the initial installation and configuration of the TAG Toolkit database.</i>
Configurations guidelines for database sizing and partitioning	<i>Guidelines for database administrators in the initial size and future growth of the database as well suggestions on database partitioning based on data volume.</i>
Creation scripts for database tables	<i>Native SQL scripts for the specific RDBMS selected by the customer and used by the DBA to create all the core tables in a database environment.</i>
Creation scripts for database views	<i>Native SQL scripts for the specific RDBMS selected by the customer and used by the DBA to create all core database views. The core views are predefined by TAG but can be modified at any time to meet the needs and requirements of the users.</i>
Creation scripts for database triggers and stored procedures	<i>Native SQL scripts for the specific RDBMS selected by the customer and used by the DBA to create all core database triggers and stored procedures. TAG triggers and database procedures are designed to perform backend business logic and to take advantage of the database performance.</i>
Creation scripts for indexes on tables	<i>Native SQL scripts for the specific RDBMS used by the DBA to create all core table indexes to enhance database performance. Table indexes can be modified and new ones created based on the data distribution and data retrieval patterns.</i>
Creation scripts for database access and privileges	<i>Native SQL scripts for the specific RDBMS used by the DBA to grant access and CRUD privileges to users and groups. These scripts will provide backend database security to sensitive data.</i>
Creation scripts for constrains and referential integrity	<i>Native SQL scripts for the specific RDBMS used by the DBA to build database constrains and enforce referential integrity within the data elements.</i>

### **Database Services**

TAG understands that there is more than creating the database to have success. An integral part of the Toolkit database package is the services provided to assist the customer in the creation of the database and the implementation of the project. TAG technical staff will perform reviews and audits along side with your database administrator and selected users to certify the configuration, creation, loading of data and tuning in your CMS database. The artifacts created will assist the database and system administrators in the implementation and beyond.

### **Data Element Review**

TAG staff will review and audit data from the customers current and legacy systems. The outcome of this review is to assist the customer in mapping data elements to the TAG Toolkit database. Any element gap between the legacy and TAG databases will be defined and documented. The core database model can be adjusted or modified at this time.

### **Data Performance Analysis**

With the assistance of the customer, TAG will review the potential data load (amount of data) and the fit of that data into the TAG database. After this analysis is performed, the indexes, triggers and database views can be adjusted to ensure optimal performance. New database partition strategies can be developed as well.

### **Data Conversion**

TAG staff will develop or assist in a collaborative approach with the customer in developing conversion procedures to migrate the legacy data and load it into the TAG database. We will assist in the set up of a conversion environment to perform the data migration and certification at a future date.

## **SERVICE ORIENTED ARCHITECTURE CASE SERVICES**

The courts and justice community are faced with continuous changes in gathering and reporting critical information. Information requirements are driven by internal and external forces including state and federal legislation, state and local court rules, national security interests, as well as the informational needs of attorneys, litigants, and the press. In order to meet this challenge, the courts must leverage diverse technologies into both their day-to-day operations and their long-term strategy. Given the rate at which the information demands are evolving, efficient solutions must focus on innovation, greater flexibility and lower costs.

The Toolkit provides a foundation for delivering essential CMS functions in a flexible, easily composed, and highly reusable fashion. Facilitated through adoption of a SOA, the Toolkit enables the implementation of a services platform consisting of functional process elements that can be combined and supplemented to support the ever changing requirements of the justice community.

SOA focuses on value which is achieved by breaking down the business and information systems into components, providing reusability and modularity. Implementing a CMS with the Toolkit results in a business transformation process across the whole enterprise.

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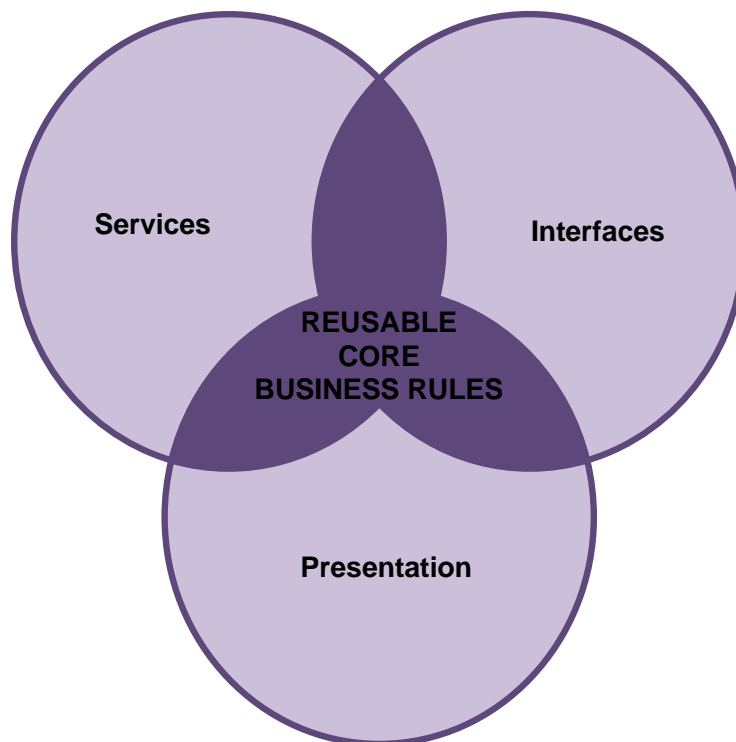
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To accomplish this objective, Amicus will work with you to create a roadmap to guide the strategy for your SOA adoption. Individuals from all offices, as well as contributing cross-business-units, will form teams to define:

- What to do,
- How to do it,
- Who should do it, and
- How success is measured.

The objective of this initiative is to define the common core processes and business components involved in the project and the core set of TAG business libraries and SOA case services that will be used. The goal is to maximize reuse, promote common functionality, and compose new business-relevant functions as reusable services which will augment the Toolkit's SOA service and business library.

### SOA Case Services



*SOA case service promotes continual reuse resulting in efficiency and cost savings.*

Set forth below is a partial listing of the TAG SOA case services:

### **Case Initiation**

- Paper Filing
- E-filing
- Pro Se
- Service of Process

### **Case Processing**

- Judge Assignment
- Event Scheduling
- Arraignment
- Magistration
- Pretrial
- Motion Hearing
- Trial
- Bench
- Jury
- Referee
- Magistrate
- Arbitration
- Notice/Forms Processing

### **Disposition/Judgment**

- Criminal Sentencing
- Jail
- Fine
- Cost
- Probation
- Sentence Templates
- Reporting Obligations  
(NCIC, TCIC, BMV)
- Civil Judgment
- Recording
- Execution
- Expiration
- Calculation
- Interest
- Transfer
- Revival
- Lis Pendis
- Reporting Obligations  
(AOC, BMV)

### USER INTERFACE

The user interface (UI) is the system gateway. It is the heart, soul, and personality of the application and is the strongest single influence on the success of the project. The user interface truly validates the critical nature of first impressions.

The TAG Toolkit encourages and facilitates the design and development of a custom user interface that is created by the most important stakeholders - the users. Working independently, or with the assistance of our design team, the court can create system screens that reflect the needs and preferences of all of your constituents.

Over the course of 200 CMS implementations, TAG practitioners have learned that a system's user interface is a critical factor in determining the overall success of a project.

The interface controls the interaction between the user and the product and must let the users accomplish their goals and tasks effectively and efficiently. The UI is instrumental in determining the overall acceptance and long-term satisfaction with the application.

We believe that effective interfaces have the following characteristics in common:

- They reflect actual workflows.
- They are easy to learn.
- They are compatible with the working environment.
- They are familiar to the users.
- They are consistent.

We also know that effective UI's are not an accident. They are the result of analysis, observation, and a thorough understanding of the process and work which is intended to be accomplished through automation.

Unfortunately, CMS applications do not provide the opportunity to modify the UI to meet the unique requirements of your users or your business processes. They are commodities subject to traditional business constraints which limit the UI's flexibility and hamper the overall efficiency of the system. To the extent that CMS vendors do provide the opportunity to modify the application UI, the process adds time, cost and risk to your project.

Amicus provides you with the unique opportunity to design and develop a UI that meets your users' needs. Working with our SME team, we will apply a comprehensive methodology to user and task analysis.

While we employ specific formal methodologies and tools such as flowcharts and hierarchy diagrams, we primarily rely upon informal methods of watching, listening carefully, and probing for more understanding.

User and task analysis focuses on gaining an in-depth understanding of how users perform their tasks. The process focuses on answering some of the following questions:

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- What are the users' goals?
- What do the users do to achieve those goals?
- What personal and cultural characteristics the users bring to the tasks?
- How are users influenced by their physical environment?
- What do users value most: speed, accuracy, flexibility, flow, color, touch, or contact?

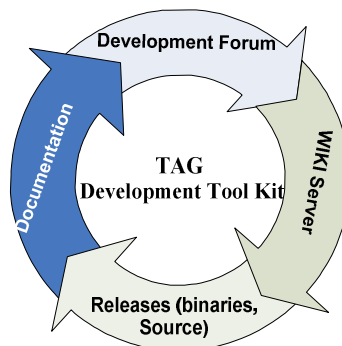
Following our user and task analysis, we will evaluate the existing UIs available from the Toolkit library to guide our development efforts.

### TOOLKIT DOCUMENTATION DEVELOPMENT SUPPORT AND COLLABORATION

The approach for providing support, documentation and the overall management of the TAG Toolkit is to follow a collaboration and subscription model. The intent of this approach is to facilitate collaboration between Amicus and the various partners with regards to managing, supporting and further developing the Toolkit. This approach is to provide a mechanism for the various partners and overall implementers of the Toolkit to provide input and assist in the overall direction and road map of features and functionality contained within the Toolkit and application data model. The information provided by TAG partners is important to the continuing growth and future expansion of the development Toolkit.

A subscription is made available to all customers and/or partners purchasing the TAG development Toolkit and application data model. The partner subscription provides access the following documentation and services:

- Development Forum
- Application Development Wiki Server
- Design and Coding Standards Documentation
- Toolkit SDK / API Documentation (.NET and Java)
- Toolkit releases (binaries and source code)
- Code Samples (.NET and Java)



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Toolkit documentation (i.e. design and coding standards, API documentation, code samples, etc.) will be available to Amicus partners through a subscription service hosted from the Amicus web site. Additionally, a development forum will be provided to allow for development questions to be posted for response by the Amicus development staff. Items posted to the forum will be managed and categorized by Amicus staff to better facilitate finding problem resolutions and for partner participation in the various discussion threads. Finally, to aide and better facilitate collaboration and the sharing of knowledge, a Wiki Server is to be hosted by Amicus and will be available through an overall subscription service. The Wiki Server will provide an additional mechanism for presenting, searching and sharing various development, business rules and processing information. This also allows for contributions and sharing of business rules and terminology documentation as well as development considerations and examples by the various partners.

## TOOLKIT TERMS AND CONDITIONS

The Amicus Group is committed to creating an open environment where communication, collaboration, and open access support the efficiency, durability, and scalability of CMS solutions which are built with the Toolkit.

To reach this objective we have abandoned the current CMS business model and eliminated traditional license and source code restrictions. We are committed to open source solutions and supporting an active user community dedicated to sharing new ideas, knowledge transfers and a continuous improvement to our application service and business library.

The Toolkit includes the database, functional services and business libraries, as well as existing user interface components. Access to the functional services and business libraries requires the purchase of the Amicus database package which includes the database model and related services (i.e., element review, conversion, and performance tuning).

The Amicus database is subject to a single restriction which prohibits copying, redistribution, or transfer to any user who is not an existing agency or division of the political entity which originally acquires the Toolkit.

Existing functional services, business libraries, and user interface component libraries are available without charge and subject to the terms of The Amicus General Public License.

Services for initial deployment, configuration, and customized development, as well as project implementation services, will be available on a restrictive and exclusive basis from Amicus at competitive professional rates.

Amicus does not require any long-term support and maintenance contracts. Our objective is to create a learning environment during the implementation phase and transfer a working knowledge of the system to enable the client to maintain and service the system with internal resources.

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Toolkit users can enjoy access to application source code, documentation, new releases and an active development forum through an annual subscription to the Amicus sponsored Wiki. Traditional helpdesk and support services are also available at competitive professional rates.

## CONTACT US

With The Amicus Group the rules for delivering custom 21st century case management systems have changed. A strategic alliance with TAG solves the Buy vs. Build dilemma. Our full range of services provides you with the freedom to choose the right solution for your short- term and long-term CMS initiatives. TAG strategic solutions provide flexibility, scalability, durability and most importantly, vendor independence.

Our mission is to improve the efficiency, quality, and return on investment of court technology initiatives. Changing needs, new requirements and new technologies demand innovative solutions and new approaches to managing complex system implementations.

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