Healthcare Challenges

Reduce Cost

- **Total Cost of Ownership** - applications, infrastructure, and skilled resources
- **Budget** pressures to reduce the cost of IT to the health system
- **Access to Capital** – competition with operational / growth investments, bricks and mortar, medical devices, and business expansion

Simplify IT

- **Making IT easier** to manage, support and leverage IT Assets
- **Agility** to support the business and attract and retain key skills
- **Industry Consolidation** – ability to absorb hospital and physician practice mergers/acquisitions (Governance, Staffing, Applications and Technology, Service Delivery)

Regulatory Innovation

- **Meaningful Use, Payment Reform, ICD-10 conversion**
- **HIPAA requirements** securing and protecting personal health information
- **Innovations** – Social media, patient/consumer engagement, BYOD, cloud, etc.
Application Challenges

There is a need to re-balance the equation

Organizations are spending up to 80% of their IT budget “just to keep the lights on” and are unable to invest where they need to:

- Grow the business
- Improve operations
- Attract and retain new customers
- Attract and retain IT skills and maintain certifications
- Innovate and create new products and services
- Expand into new markets and geographies

Typical Investment Structure

- Reactive / essential maintenance
- Proactive maintenance upgrades
- Grow the business
- Improve operations
- Attract & retain new customers
- Innovate and create new products & services
- Expand into new markets & geographies

Typical Desired Investment Focus

Refocus IT spend from maintenance to investment to meet business priorities
Application Management

**Shape**

UNLOCK BUSINESS VALUE

- Business Process Modernization
- Business-IT Alignment
- Portfolio State Review
- Roadmap & Business Case

**Transform**

REALIZE BUSINESS VALUE

- Retain
- Rehost
- Convert
- Refactor
- Revise
- Rebuild
- Service Enable
- Consolidate
- Upgrade
- Replace
- Retire

**Manage**

OPTIMIZE BUSINESS VALUE

- Outsourcing
- As a Service
- Asset
- Growth
- Business Process Services
- Staff Augmentation
- Cost
- Service

Ongoing Portfolio Roadmap & Governance

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Portfolio Rationalization

• **Objectives:**
  – Align the application portfolio and functionality to the business strategy/value, reduce duplication and complexity, and overall costs
  – Find the best fit answer to modernize legacy applications and execute that strategy at an affordable rate

• **Outcome:**
  – Applications Roadmap outlining the strategy, approach and timing

• **Options:**

  - **Refactor / Revise**
    - Alter the application’s design and develop new functionality

  - **Rebuild**
    - Rediscover and redevelop the application from the ground up

  - **Retain**
    - Continue as is

  - **Convert or Rehost**
    - Change of language or move from one technical environment to another e.g. Cloud

  - **Retire or Replace**
    - Replace, upgrade or discontinue use
Quick Transformation Engine (QTE)

- QTE transforms legacy systems into independent, contemporary technology platforms, without the use of middleware
- Incorporates automation capability in the Refactor and Convert treatments
- Builds metadata during each iteration, uses metadata to interpret the source language, label it, and transform it to target language
A. **Start Simple, Low Risk** – select low risk applications that can run in a virtual environment as a proof of concept

B. **Implement into the Cloud** to demonstrate availability, reliability, and security

C. **Grow and expand incrementally**

**Public**
- Leveraged
- At CSC data centers
- Capacity: virtually unlimited

**Private**
- Behind client firewall
- Capacity: projection-based
- Minimum capacity commitment and annual term
- Pay per use above minimum

**Virtual Private**
- Dedicated VPN and VLAN
- Dedicated virtual capacity
- At CSC data centers
- Capacity: projection-based
- Requires minimum commitment for 3 months

**Typical Health System Application Footprint**

- **EHR**
  - Low to High Costs
  - High to Low Risk

- **Finance/HR Payroll**
  - Low to High Costs

**Departmental Systems**

- Business Intelligence/Data Warehouses
- Supply Chain

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Custom Application Development as a Service (CADS)

- An industrialized, as-a-service global offering for the creation and revision of custom applications
- Supporting traditional, cloud and mobile platforms
- Including extending/integrating existing applications
- Employs automation, tools, re-use and standard methodologies

SHAPE

CADS

Traditional Platforms - Java, .NET, SharePoint
Cloud Platforms - Azure, vFabric, Force.com, Cordys
Mobile Platforms (MEAP) – Kony, Titanium, Appcelerator, PhoneGap

CSC GPMF, CSC Catalyst, CMMI, ITIL

On demand Development & Test Platform
Application Maintenance and Support is broadly defined as providing day-to-day 24 x 7 x 365 application services, including maintenance, enhancements, vendor fixes and patches, and taking corrective action to application-specific production problems via Tier II and Tier III support calls. Delivering exceptional service while freeing client IT staff to focus on strategic initiatives.

- **Service Management Framework**
  - Incident Management
  - Problem Management
  - Change Management
  - Project Management
  - Performance Management

- **Development and Support Centers**
  - Built to global quality standards (CMM-I Level 5 certified)
  - All centers have the security required to protect confidential information
  - All centers have the infrastructure in place to support customer needs, support communication and scale for growth
  - All resources are CSC employees
Three-phased approach to successfully manage the Legacy Applications thru Decommissioning

**Phase 1: Transition and Set-up**
- Transition
  - Planning, set-up, staffing, knowledge acquisition, job shadowing and cut-over
  - Baseline volume validation, process adoption and service transition completed
  - Client staff transition to new system project teams

**Phase 2: “Active” Legacy Support during New System Implementation with Step Down Decommissioning**
- Active Legacy Support
  - On-going support in place with expected volumes of work stepping down month over month as the new system is implemented
  - Governance model in place
    - monitor and manage prioritization of work activities and expenditures on the Legacy Application
    - monthly service performance reporting
    - joint discussion on forecasted volumes/trends

**Phase 3: “Inactive” Legacy Support during Run-Out**
- Run-Out
  - Post implementation of the new system, it is normal to retain a small staff for historical data reporting and accounts receivables run-out
  - Data archival for non-converted historical data
CSC utilizes a combination of onsite, offsite and offshore resources. All client interactions are with CSC’s U.S. based teams.
Example Service Levels

- **Time to Respond and Resolve**
  - The service level is designed to manage responsiveness and timely resolution of application incidents and problems
    - **Critical**
    - **High or Urgent**
    - **Important**
    - **Low**
  - Root Cause Analysis (RCA) is performed on each problem to analyze cause, effect and modifications required to eliminate problems from re-occurring

- **Modification Quality**
  - To assure that requests for application support-related modifications, in both the application development and maintenance environments, are implemented into production successfully

*We have never missed a service level!*
### Transition Model

#### Transition Planning

<table>
<thead>
<tr>
<th>Duration — Week(s)</th>
<th>Location — Client Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants — Onsite:</strong></td>
<td></td>
</tr>
<tr>
<td>Client Managers/Team Leads</td>
<td></td>
</tr>
<tr>
<td>CSC Application Manager and Key Leads</td>
<td></td>
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<tr>
<td><strong>Key Activities:</strong></td>
<td></td>
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<tr>
<td>Volume due diligence</td>
<td></td>
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<tr>
<td>Transition plan and timeline</td>
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<tr>
<td>Resource and meeting schedules</td>
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<tr>
<td>Status and progress reporting</td>
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<tr>
<td>Access and connectivity requirements/set-up</td>
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<tr>
<td>E-mail</td>
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<tr>
<td>Staff accommodations</td>
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<tr>
<td>Training Plan</td>
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<tr>
<td>Client processes</td>
<td></td>
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<tr>
<td>Help Desk Software</td>
<td></td>
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<tr>
<td>HD software set-up requirements</td>
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<tr>
<td>Application documentation</td>
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<tr>
<td>Process/procedure documentation</td>
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<tr>
<td><strong>Deliverable</strong></td>
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<tr>
<td>Completed plan</td>
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<tr>
<td>Access set-up</td>
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<tr>
<td>Seating arrangements</td>
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<tr>
<td>Volume baselines established</td>
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#### Knowledge Acquisition

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<td>CSC Application Manager and Team</td>
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</tr>
<tr>
<td><strong>Key Activities:</strong></td>
<td></td>
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<tr>
<td>Meet with client team member to:</td>
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<tr>
<td>– Learn and document the operational process and procedures</td>
<td></td>
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<tr>
<td>– Learn and document the application systems and nuances/set-up, configuration, specific to client</td>
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<tr>
<td>Test access and connectivity</td>
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<tr>
<td>Train on HD software procedures</td>
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<tr>
<td>Set-up Help Desk queues</td>
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<tr>
<td>Review in-flight initiatives, trouble tickets, maintenance, etc.</td>
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<tr>
<td><strong>Deliverable</strong></td>
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</tr>
<tr>
<td>Team acclimated to client process and application systems</td>
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<tr>
<td>Validate CSC’s understanding of the acquired knowledge</td>
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</tbody>
</table>

#### Job Shadow

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<tr>
<td><strong>Key Activities:</strong></td>
<td></td>
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<tr>
<td>Updated knowledge management documents and Standard Operating Document</td>
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<tr>
<td>Ticket Resolution documents — Typical problems, Typical solutions</td>
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<tr>
<td>Fine tune offshore process framework</td>
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<tr>
<td>Knowledge transfer to offshore</td>
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<tr>
<td>Review risks and update mitigation plan</td>
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<tr>
<td><strong>Deliverable</strong></td>
<td></td>
</tr>
<tr>
<td>CSC team consistently resolving tickets handling maintenance activities, etc.</td>
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</tr>
<tr>
<td>Ability of CSC team to interact with cross-functional teams</td>
<td></td>
</tr>
</tbody>
</table>
THANK YOU
Contact: Dale Mitchell | dmitchell39@csc.com