Executive Summary

Carestream Health is a worldwide provider of dental and medical imaging systems and IS solutions, x-ray and medical printing film, and advanced materials for the precision films and electronics markets. It was formed in 2007 when Onex Corporation purchased Kodak’s Health Group. As a part of Kodak, Carestream’s IS infrastructure had been designed to align with a large and complex parent organization. The company inherited 150 locations worldwide, a variety of global network services contracts to support them, and 300 IS people in 44 locations around the world. The full article describes how Carestream’s IS organization was transformed to become more lean, agile and cost-effective, while making a valuable strategic contribution to the business.

The transformation took five years, the last four under a new CIO appointed to lead the transformation. The changes have been evolutionary, but constant, putting significant pressure on the IS organization in every area. The CIO identified seven primary areas of change: IS strategy, relationship management, enterprise architecture, governance and the project management office (PMO), application development and support, global IS operations and infrastructure, and people management.

**IS Transformation at Carestream Health, 2007-2012**

<table>
<thead>
<tr>
<th>Primary Area</th>
<th>Initial State</th>
<th>Interim State</th>
<th>Transformed State</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS Strategy</td>
<td>Non-existent</td>
<td>Engagement and visioning</td>
<td>Strategic framework for IS</td>
</tr>
<tr>
<td>Relationship Management</td>
<td>IS as order-taker</td>
<td>IS as solution provider</td>
<td>IS as strategic partner</td>
</tr>
<tr>
<td>Enterprise Architecture</td>
<td>Non-existent</td>
<td>Technology standards</td>
<td>Comprehensive architecture governance</td>
</tr>
<tr>
<td>Governance and the PMO</td>
<td>Limited and overly complex</td>
<td>New PMO and new IS organization design</td>
<td>Comprehensive governance framework</td>
</tr>
<tr>
<td>Application Development and Support</td>
<td>Too many disjointed, inappropriate systems</td>
<td>Consolidated development and streamlined systems</td>
<td>Standardized processes, clear responsibilities and development strategies</td>
</tr>
<tr>
<td>Global IS Operations and Infrastructure</td>
<td>Expensive, complex and unreliable</td>
<td>Simplified, predictable costs and improved service</td>
<td>Costs below industry benchmarks; high customer satisfaction</td>
</tr>
<tr>
<td>People Management</td>
<td>Too many people, many with the wrong skills</td>
<td>Upgraded IS skills and improved productivity</td>
<td>Talent management</td>
</tr>
</tbody>
</table>

*Shaded cells indicate transformations still in progress in 2012.

1 The full article is published in the September 2013 issue of MIS Quarterly Executive, available online at www.misqe.org.
IS Strategy
Initially, there was no IS strategy. After the transformation, the strategic framework had three major components: 1) strategy development for both business and technology; 2) execution, including an improved PMO and applications development activities; 3) ongoing operations to manage service levels, infrastructure and operations.

Relationship Management
To further strengthen business relationships and better understand business strategy and direction, the CIO appointed both a Director of IT Relationship Management and relationship managers for each of the business units and functions.

Enterprise Architecture
The CIO created an IT Architecture Council staffed by senior IS leaders who collaboratively developed guiding architectural principles for the organization.

Governance and the PMO
The CIO created four core IS governance forums for policy deployment, IS architecture, change advisory and supplier management. The PMO has been improved with dedicated and certified project managers, and new methodologies have been introduced to streamline project delivery and enhance quality.

Application Development and Support
IS developers were consolidated into three locations worldwide (from 36), and sourcing contracts and insourced application support were re-evaluated to give staff more incentives to resolve the root causes of problems. The 700 systems inherited from Kodak have been reduced to 400.

Global IS Operations and Infrastructure
Inherited operations in 44 locations worldwide have been consolidated into four centers. The networking budget has been reduced from $8 million to $3 million. Overall, by the end of 2011, IS operations expenses had been reduced from 3.0% of revenue to 1.5%.

People Management
Working with HR, the CIO developed a comprehensive talent-management strategy, including a formal process for specifying new job requirements, skill sets and competencies for each job, and a new performance-management system. Between 2007 and 2012, the number of IS staff was reduced from 300 to 170.

Three Critical Success Factors for Post-Divestiture Transformation
Three critical success factors underlie the success of the transformation of IS at Carestream:

- **Integrated vision, strategy, roadmap and execution.** The CIO and his team created a roadmap outlining specific new governance initiatives for several years against which progress could be monitored and reported.

- **Strong, effective governance.** Carestream’s IS processes are now widely regarded as important components of the IS organization’s ability to deliver value to the company. In particular, the processes associated with the three foundational components of the PMO (governance, standards and best practices, and coaching, mentoring and training) have been transformed.

- **Leadership.** Successful post-divestment transformation requires a CIO who has depth and breadth in leadership experience and ability.

Carestream’s CEO knew he needed an experienced and proven CIO to formulate a vision for a transformed IS function. Now that the transformation has been largely accomplished, there is considerable optimism about IS’s future at Carestream and a strong desire to ramp up its strategic use.