NETWORK TRANSFORMATION: Are Governments On the Right Path?
Network convergence — the co-existence of telephone, video and data communication in one IP network — can transform government operations and efficiency. Converged networks simplify network management, increase employee productivity, improve citizen service delivery and enhance continuity of operations. Despite these benefits, some government agencies still operate outdated network architectures composed of siloed technologies and systems. Network transformation is a priority, but it can be difficult to make a reality.

In July 2016, the Center for Digital Government surveyed 386 state and local government, public safety and education decision-makers to gauge the status of network convergence and transformation. This report highlights the perceived benefits and challenges of network convergence.

Respondent Demographics
While the results of this survey cannot be projected to the entire population, they are reflective of those who subscribe to the GovTech Exchange communities.

What level of government do you work for?

**Government and Public Safety**
- 36% State
- 24% County
- 3% Special District
- 2% Consolidated County/City

**Education**
- 54% Higher Education
- 46% K-12
- 35% City/Town
- 24% State
- 20% City/Town
- 3% Consolidated County/City

What is your job role?

- 50% Operations/Administration
- 15% Teacher or Professor
- 21% CIO/CTO/IT Director
- 7% Public Safety Officer
- 3% Finance/Procurement/Budget
- 3% Human Resources/Workforce/Training
- 1% Elected Official/Legislative

Respondent Demographics
Network Shortfalls

Forty percent of all respondents say their current network is not meeting their needs. Reasons for this include lack of funding to modernize — 53 percent of IT respondents say their network receives 20 percent or less of the total IT budget. Additionally, experienced staff may be retiring faster than new employees can be trained on legacy systems, leaving a gap in skills to maintain the network — only 18 percent of IT respondents have formed a concrete plan for network infrastructure in the wake of mass retirements. Security continues to be a concern as well, with more than half of all respondents identifying data and system security as a key motivator for improving their existing networks.

Is your current network fully meeting your needs?

- **K-12**
  - Yes: 45%
  - No: 46%
- **Higher Education**
  - Yes: 59%
  - No: 32%
- **State and Local Government**
  - Yes: 55%
  - No: 40%
- **Public Safety**
  - Yes: 48%
  - No: 41%

What is your agency’s level of readiness for addressing the retirement of older and experienced IT workers in relation to your network? *(Graph is indicative of IT respondents only.)*

- **We have formed concrete plans for our network infrastructure**
  - 18%
- **We are planning our network infrastructure**
  - 20%
- **We are more than a year away from having the right plans in place**
  - 15%
- **We are unprepared for the retirement of IT workers**
  - 15%
- **We do not believe retirement will affect our network**
  - 17%
Drivers and Challenges

Thirty-seven percent of government and public safety respondents say increased cost savings is the primary benefit of a converged network, while 42 percent of education respondents note improved capacity and reliability to support online or remote learning as the primary benefit. Improved security is a top-three benefit for all respondents. However, there are a number of challenges that stand in the way of a converged network. Insufficient funding (60%), organizational resistance to change (38%) and other competing priorities (32%) are common barriers.

What are the benefits of a converged network?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Government and Public Safety</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased cost savings</td>
<td>37%</td>
<td>29%</td>
</tr>
<tr>
<td>Ability to observe how systems are serving applications</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Ability to recruit and retain IT employees</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Increased mobility capabilities</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Improved return on investment</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Alignment with IT plans</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Improved security</td>
<td>50%</td>
<td>41%</td>
</tr>
<tr>
<td>Reduced downtime</td>
<td>29%</td>
<td>24%</td>
</tr>
<tr>
<td>Increased capacity for online learning</td>
<td>0%</td>
<td>42%</td>
</tr>
<tr>
<td>No perceived benefits</td>
<td>8%</td>
<td>4%</td>
</tr>
</tbody>
</table>

*This response was not available to government/public safety participants.*
Key Steps to Convergence

Government organizations are working to overcome many of these challenges by:

• **Incorporating network transformation into strategic planning activities.** Fifty-eight percent of all respondents currently include or plan to include network transformation in their agency’s IT planning.

• **Pursuing service-based models.** The majority of IT decision-makers expressed moderate to high levels of interest in service-based models.

• **Seeking opportunities to partner with vendors.** Respondents see vendors as experts in convergence — 43 percent rely on vendors for networking information while 54 percent say they’d like to see more communication and consultation with providers.

Is network transformation part of your strategic IT planning?

- **YES** 46%
- **NO** 23%
- **NO, BUT IT IS GOING TO BE** 19%
- **DO NOT KNOW** 12%

Where do you get information about IT networking and telecommunications?

- **Vendors** 43%
- **Industry Events** 36%
- **White Papers** 36%
- **CIO Office** 30%
- **Media Reports** 29%
- **Agency Leaders** 23%
- **Oversight Committee** 16%
- **Advocacy Groups** 8%
- **Do Not Know** 15%
Now and in the Future

Government, public safety and education institutions can benefit from a converged network. As the survey indicates, these agencies are aware of the efficiencies that an improved, reliable network can bring. However, 62 percent of all respondents say there is room for growth around network convergence. While many organizations are making efforts to plan for or implement a converged network, there is still uncertainty or a lack of understanding around the technological benefits of convergence. With the right vendor in place, agencies can glean additional information about the benefits and technical requirements of converged networks.

What is the status of network convergence in your agency?

The Center for Digital Government, a division of e.Republic, is a national research and advisory institute on information technology policies and best practices in state and local government. Through its diverse and dynamic programs and services, the Center provides public and private sector leaders with decision support, knowledge and opportunities to help them effectively incorporate new technologies in the 21st century.


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