Technology Trends & Implications on Construction, Expansion, and Update Projects

Proceedings of the CAST Commission Meeting
March 13, 2016
Washington, DC

REPORT

LeadingAge™ CAST
center for aging services technologies

TECHNOLOGY TRENDS & IMPLICATIONS ON CONSTRUCTION, EXPANSION, AND UPDATE PROJECTS

A program of LeadingAge
2519 Connecticut Ave., NW
Washington, DC 20008-1520
Phone (202) 783-2242
Fax (202) 783-2255
Web site: LeadingAge.org/CAST
© Copyright 2015 LeadingAge

LeadingAge Center for Aging Services Technologies:

The LeadingAge Center for Aging Services Technologies (CAST) is focused on accelerating the development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 6,000 not-for-profit organizations dedicated to expanding the world of possibilities for aging.

For more information, please visit LeadingAge.org/CAST

Table of Contents

Executive Summary **4**
List of Participants **5**
Part 1: Introductions, Exciting Initiatives, and Challenges 9
Part 2: Technology Trends to Watch in Aging Services 10
Part 3: Campus Development/ Expansion/ Upgrade: Preparing the Infrastructure for Technology 14
Part 4: Generative Discussions about Technology Trends and Future Planning 21
Appendices **26**
Appendix 1: Agenda and Outcomes 26
Appendix 2: Introductions, Exciting Initiatives 29
Appendix 3: Major CAST Accomplishments for Oct. 2015-Mar. 2016 32
Appendix 4: CAST Research Update - March 2, 2016 33
Appendix 5: LeadingAge Legislative Update: January 28, 2016 34
Appendix 6: CAST State Technology Update March 2015 40
Appendix 7: Standards & Interoperability Reports, February 2, 2016 41
Appendix 8: Center for Aging Services Technologies: Technology Trends 42
Appendix 9: CAST Commissioners and Guests Bios 44
Appendix 10: Aging Services Technology Issue Brief 67

Executive Summary

Majd Alwan
Executive Director
Center for Aging Services Technologies
LeadingAge
Washington, DC

At the March 2016 CAST Commissioners meeting, a key theme was the importance of focusing on business models over technology. Thinking like a business leader and figuring how technology can support a sustainable business plan is the wisest, most-efficient approach in today's world, when technology is changing rapidly and its integration is becoming critically important.

Here are some thoughts from the day to support a successful aging-services business:

- Providers should concentrate on what they do best—to make their secret sauce—and outsource their technology development and tasks to trusted partners.
- Engagement models should be part of your mix, as they allow you to learn about your customers' needs in detail—and to craft a business model in response.
- In building construction and renovation, you can't start early enough to plan for technology. The physical structure of the building will affect the technology inside it; for example, a thick concrete basement blocks wireless signals. By the same token, technology has implications on the infrastructure that the building needs to accommodate, like space for equipment and wiring conduits. Otherwise, the drywall will need to be removed to install equipment or networks if the proper planning isn't done up front.
- Chief Information Officers (CIOs) remain a rarity in this industry but the play an important role to ensure proper Information Technology (IT) planning and plan execution. In their absence, decisions about technology are often made by a Chief Executive Officer (CEO) or a Chief Financial Officer (CFO) who may not understand the value of technology—and are driven by budget or by a fast-moving buying process. Injecting technology strategy into the conversation early in strategic planning, and keeping it front and center in construction projects, is essential.

CAST Commissioner Peter Kress, Chief Information Officer and Vice President of ACTS Retirement Living, presented important technology trends and outlined four technology categories he felt were key:

1. Service and engagement engines.
2. The Internet of Persons, Places & Things.
3. Advanced analytics.
4. The new collaboration technologies that are emerging and converging.

These technologies, he said, are making a new platform for business in aging services today.

List of Participants

Commissioners

Alan Bugos
Head of Technology and Innovation
Philips Healthcare - Home Monitoring
Boston, Massachusetts

Alan Sadowsky, Ph.D.
Senior VP of Home & Community-Based Services
MorseLife
West Palm Beach, Florida

Candace LaRochelle, JD, MHA
Director of Business Operations
eHealth Data Solutions
Beachwood, Ohio

Carl Goodfriend
CIO
ProviNET Solutions
Tinley Park, Illinois

Cathy Guttman
Senior Director, Business Opportunities Senior Market
Medocity
Morristown, New Jersey

Chip Ross
Chief Talent Officer, Chief Human Resources Officer
Highland Park, New Jersey

Dave Wessinger
Co-Founder and Chief Technology Officer
PointClickCare
Mississauga, Ontario

David Finkelstein
Chief Information Officer
Hebrew Home at Riverdale
Bronx, NY

Debi Sampsel
Chief Officer of Innovation and Entrepreneurship
University of Cincinnati
Cincinnati, Ohio

Dusanka Delovska-Trajkova
Chief Information Officer
Westminster Ingleside
Rockville, Maryland

Gail Gibson Hunt
President and CEO
National Alliance for Caregiving
Bethesda, Maryland

Jack York
Chief Evangelist
It's Never 2 Late
Centennial, Colorado

Jeremy J. Nobel, MD, MPH
Dept. of Global Health and Social Medicine
Harvard Medical School
Boston, Massachusetts

John DiMaggio
Chief Executive Officer and Co-Founder
BlueOrange Compliance
Dublin, Ohio

John Mabry
Chief Technology Officer & Senior Vice President
Align
Wausau, Wisconsin

John Rydzewski
General Manager
Direct Supply Inc.
Milwaukee, Wisconsin

Rear Admiral Kathy Martin
Chief Executive Officer
Vinson Hall Retirement Community
McLean, Virginia

Larry Jorgensen
Chief Information Officer and Vice President of Information Technology
Ecumen
Shoreview, Minnesota

Mary Senesac
Director of Health Systems
HealthMEDX
Ozark, Missouri

Michael Rambarose
President & Chief Executive Officer
Whitney Center
Hamden, Connecticut

Michelle Parent
Sales Solutions and Strategy Lead
DIRECTV - Hospitality and Institutions
El Segundo, California

Patrick Clark
IT Director for Continuing Care
St. Peters Health Partners, The Eddy
Albany, New York

Peter Kress
Vice President and Chief Information Officer
ACTS Retirement-Life Communities
Ambler, Pennsylvania

Richard Hoherz
Chief Information Officer
Westminster-Canterbury Chesapeake Bay
Virginia Beach, Virginia

Sneha Patel
Chief Information Officer
Covenant Retirement Communities, Inc.
Skokie, Illinois

Thom Hosinski
Vice President of Healthcare and Housing Services for Evangelical Homes of Michigan
Farmington, Michigan

Guests

Alex Kubec
Demand Generation Specialist
eHealth Data Solutions
Beachwood, Ohio

Brandy Stefanco
Chief Financial Officer
Jewish Family Home
Rockleigh, New Jersey

Cathy Schweiger
Senior Consultant
CliftonLarsonAllen LLP
Philadelphia, Pennsylvania

Celeste Golonski
Corporate Compliance Officer
Presbyterian SeniorCare
Oakmont, Pennsylvania

Charlie Hillman
Founder/Chief Executive Officer
GrandCare Systems
West Bend, Wisconsin

Craig Bushby
Manager
LCS Technology Consulting
Des Moines, Iowa

Dayna Kully
Marketing Consultant
DIRECTV - Hospitality and Institutions
El Segundo, California

David Knight
Director of Development and Strategy
Presbyterian Retirement Communities Northwest (PRCN)
Greater Seattle, Washington

Denise Rabidoux
President and Chief Executive Officer
Evangelical Homes of Michigan
LifeChoice Solutions(TM)
Saline, Michigan

Derek Holt
President
K4Connect
Raleigh-Durham, North Carolina

Jay Gormley
Chief Strategy & Planning Officer
Metropolitan Jewish Health System
Brooklyn, New York

James Bodine
Executive Vice President
HJ Sims Senior Living
Philadelphia, Pennsylvania

Judy Collett-Miller
Director of Planning and Administration
Parker Home
Piscataway, New Jersey

Karen Jordan
Vice President
Aon Affinity's Healthcare Division
New York, New York

Kevin Murphy
National Sales Manager
Combined Worksite Solutions
Clifton Park, New York

Michael Catlett
President and Principal
Advanced Project Management, Inc.
Washington, DC

Michael Freedman
Client Development
BlueOrange Compliance
Dublin, Ohio

Regina Melly
Senior Vice President of Business Development
The New Jewish Home
Brooklyn, New York

Ricardo Meirelles
Market Intelligence Manager
PointClickCare
Mississauga, Ontario

Robert George Buckingham, Jr.
Senior Director of Information Services
Presbyterian SeniorCare®
Oakmont, Pennsylvania

Sandrine Sauvage-Mack
Chief Executive Officer
LV Health Solutions Inc.
Alpharetta, Georgia

Shelley Kalfas
Vice President Marketing
Sodexo Seniors in North America
Tampa, St. Petersburg, Florida

Tanya K. Hahn
Chief Financial Officer
National Church Residences
Columbus, Ohio

Tye Campbell, PE
Chief Executive Officer
SFCS
Roanoke, Virginia

Virginia Depies
Senior Technology Designer
Direct Supply
Milwaukee, Wisconsin

CAST Staff

Majd Alwan, PhD
LeadingAge Senior Vice President of Technology
CAST Executive Director

Scott Code
CAST Aging Services Technologies Manager

Zohra Sirat
CAST Projects Manager

Suman Halthore
CAST Administrator

Part 1

Introductions and Exciting Initiatives

CAST Commissioners started their meeting by introducing themselves and sharing the aging services technology initiatives that excite them the most.

Those include CAST tools, including a recent update of functional assessment and activity monitoring tools, with new vendors and new interactive guide; the forthcoming CAST toolkit on care planning and coordination; and a CAST issue brief focusing on technology policies.

Other frequent themes focused on how technology promoted quality of life. They include using technology to expand the narrative of aging from beyond the health care spectrum to the whole life; the ability of technology to connect older people socially and improve the health of those who are isolated; research and in-person experiences with technology as a way to re-engage people who have dementia; creating sustainable new business models; and technologies related to smart homes and the Internet of Things that are improving life for older adults.

For more details, please see section 2 of the Appendix.

Part 2

Technology Trends to Watch in Aging Services

Peter Kress
Vice President and Chief Information Officer
ACTS Retirement-Life Communities
Ambler, Pennsylvania

In his overview of technology trends, CAST Commissioner Peter Kress discussed the importance not only of investing in technology, but also of thinking like a business leader. To be most effective in aging services technology, he said, it's best to outsource technology development and management whenever possible so that you can focus your efforts on your own "secret sauce."

Kress also advised fellow Commissioners and guests to consolidate and integrate technology as much as possible and to ride the curves of technology's constant change. Finally, Peter discussed the potential of voice-enabled assistance to make the interaction between human and machine more personal. The following is a summary of his remarks:

An Ecosystem of New Technologies and New Business Models

We are on the edge of radical change, said Mark Anderson of Strategic News Service, who is a good technology expert to follow. (Information on where to find Anderson's report "The ERaCha Era: Living on the Edge of Radical Change" is included in section 8 of the Appendix.)

This year in his annual predictions, Anderson said we are moving from the trivial to the heroic in technology—away from Facebook and towards the "real medicine." This encompasses autonomous cars, which can be important to aging services providers; leveraging genomics for deeper understanding of individuals and populations; understanding the nutritional components of our food system; and benchmarking wellness.

Over the last 10-15 years, technology has evolved until it now is dramatically changing the wellness experience of our residents. There is not a unique siloed technology that is going to make a difference, but an ecosystem of technologies that can scale across our business model and lead to new opportunities and business models.

Here are some things to keep in mind as this change happens:

Information and technology investments will enable almost all meaningful advance and innovation in aging services.

- **Be business leaders, not technology developers**. **Outsource.** Whether you're a provider or a solution provider, you don't have time to be a technology center. Likewise, we in this room need to run from management structure. We need to outsource those types of tasks. Instead of trying to develop technology or worry about things like disaster recovery, we need to be business leaders, creating ways for organizations to execute new business models.

We're trying to achieve a shift in the business model, which translates to a shift in the technology model, which will create improvement. As a result, our job is increasingly to partner with our businesses, to envision tomorrow, and to make change happen. That shift is saying, "I can't think about services unless I'm thinking about them from the point of view of the business model. How do I partner with someone who can?"

Unless you can deliver something that nobody else can, you should be pushing innovation back to the platforms that enable change. If you do have a truly unique technology, then you should be spending your time developing your secret sauce.

If you lock in a technology, you're not riding a curve.

- **Platforms win**. Software vendors are trying to sell platforms, and they may not have the scale to sell platforms. These vendors should be selling secret sauce instead, rather than platforms that are competing with other platforms. I want to consolidate my resident engagement in a platform, not to do it through 15 different tools, and I want your secret sauce to be part of it.
- **Ride curves**. Technology and products are changing rapidly. You must keep moving with technology as it evolves. If you lock in a technology, you're not riding a curve. You're on a plateau, which doesn't work. You don't have to be the first person on the curve—but the first mover gets the most value. The second gets second-most value. The third mover is playing catchup. Even if you get on the curve too soon, make sure you have a structure in place to learn from the experience and mitigate your risks. (Example: Google's online personal health record was slightly too early.)
- **APIs are what matter for business**. Businesses partner through APIs, through standard interfaces. We don't do that in aging; it's how we're behind the eight ball. Technology and business have become one and the same. As you develop a technology model that delivers secret sauce and standardize a way to share and monetize that model widely, your business model wraps around like an API. Hound is next generation of voice-enabled internet assistance. They are competing with Apple's Siri and Amazon's Alexa because their technology is an API that allows any app around the world to integrate voice recognition into their services. We in aging services need to recognize that API is how we assemble partnerships around better care for our residents.

There's a new infrastructure/services stack.

- **Goodbye, datacenters and disaster recovery; hello, business continuity**: The main applications are cloud-based or hosted models. SaaS models are on a very different curve from hosted modules, which are plateaus; the move from Version X to Version Y distracts you from changing your business. SaaS models are high improvements in the system. How to engage in new capability in SaaS models becomes a business question. All of us are going to have a long tail of things that we can't figure out how to get out of our technology infrastructure. One of priorities as technology leaders should be to shorten the tail, to minimize the distraction.
- **AORTA—Always On Real Time Access—is a reality.** It is still a little chaotic and is moving quickly. DirecTV must be able to beam content into a TV, over wired/wireless strategies. Now, instead of aging services providers building out proprietary connectivity, we are partnering and running DirecTV over non-proprietary connectivity, which changes the ballgame. Three tiers are changing the way we think about connectivity:

- You need to deliver 1 GBPS to your residents.
- You also need as connectivity across your campus—maybe shared 1GBPS or 10 GBPS.
- A residential gateway (RG) is going to deliver 1 GB of wireless every second. In your homes and public spaces, you switch between wired and wireless now. The next generation of connectivity is now starting to fill in the holes. Low-power connectivity is beginning to fill in the gaps between access points. It's already here, unevenly.

When you're building your campus, commoditize and outsource the connectivity as fast as you can. Assume everyone will always be connected, but have a business continuity plan. The issue today isn't the lack of cell towers, but how to manage the user experience and even out the space. AORTA is a reality for most of us; we don't have time to build backwards.

Commoditize and outsource the connectivity as fast as you can.

- **Security depends on one platform**. Identity, access, device, and security are now the same platform. Networks don't deliver security to anyone, because people access information through multiple networks. Otherwise, people are restricted to a network that is a proprietary, narrow point that undermines available technology.

  Now, security happens at the merging of the device and person levels. The back-end must be consolidated into a single platform, to know who is accessing what info, where, from what device, and when. You need to control each of those five things and to know every way someone is accessing your system. It's one platform; you can't invest separately in identity access. You only win when you manage across all these environments.

It's all about customers.

- **Service and engagement engines are overtaking silos**. Uber's effect is significant. Uber challenged taxis because it built a real-time hyper dispatch service platform—it only worked because of GPS, and everyone carrying a mobile device. The quality of that experience and service dramatically shifted how consumers wanted to be transported, which changed how taxicabs are run.

  You should ride the curve that will allow you to transition platforms and deliver new services and models—finding new ways to monetize, etc. Your service engine needs to be unified and link to your customers' service engine platform. Right now we are the taxi driver.

- **Internet of Persons, Places, and Things**. With the Internet of Things (IoT), every person and everything is connected and every context fully mapped. We can control the speed, apply intelligence to identify patterns from it, and coordinate it. Now we can do this according to open standards.

There are three generations:

1. First, there were 12 different wired, proprietary systems.
2. Then we built a proprietary coordination of sensor types, which created new silos.
3. Now, we need an IoT platform. It needs to be secure and integrated, with standard, monetized components, and linked.

- **Actionable analytics:** Analytics is increasingly about customers and populations, personalized all the way to the individual level. Solutions are API-based open solutions that affect how customers think about your business. For example, Office 365 works on every device—it's a standard platform.

The wall can say, "We already knew your light was out."

The new productivity is an intelligent assistant.

- **Voice-enabled assistance lowers the human/machine barrier**. Voice internet assistants are more important than you can imagine, and it's not because of voice. An example is Amazon's Alexa, which is getting news because it snuck on us from nowhere and is now seen as an IoT engine because it is integrated.

  Today, we can interact with devices through voice and natural language, hands-free, with nothing that looks like a computer. In aging services, a resident can start saying "I think my lightbulb..." and the wall can say back, "We already knew your light was out, and somebody is on the way to replace it."

  The voice interface creates a dramatic drop in the human/machine barrier. We now have the APIs and toolsets to harness this capability.

One message to leave with: Delegate what's not secret sauce. Let somebody else deliver the platform. You create the secret sauce.

Part 3

Campus Development/ Expansion/ Upgrade: Preparing the Infrastructure for Technology

Construction Expert Panel:
Tye Campbell, SFCS
Virginia Depies, Direct Supply
Michael S. Catlett, Advanced Project Management
Moderated by Kathy Martin and Majd Alwan

This panel discussion centered on the ideal state for integrating technology into campus construction, expansion and upgrade projects, budgeting adequately for technology over time, and raising awareness among CEOs of the benefits of technology—and helping them better plan for it.

The Ideal State for Integrating Technology

Kathy Martin: As providers who are developing new communities, expanding, or renovating, we often bring in technology too late or not at all, or don't know what we're asking for. What is the ideal state, she asked? How would you look at it from the design, technology, and project management perspective?

Tye Campbell: It's hard to create an ideal state in a world that changes daily. Clients are very hesitant to actively integrate technology systems in a building; they are afraid it'll be obsolete the day it's put in. What we're building today isn't all that different from 20-30 years ago. We still have emergency call systems. They might be wireless, but not all are. It's time to change.

We need to plan for a building that's a smart piece of technology itself.

We need to start planning not for a building that houses technology, but for a building that will be a smart piece of technology itself. This is where the building construction industry is going, quickly.

As an example, there are now separate systems for nurse call systems, lighting, and HVAC. In the future, everything in the building will be smart, including the materials and how it's built. We'll begin designing buildings with virtual reality, using information in the cloud to construct it. Now, we start by identifying a need and putting together a team to meet a schedule and a budget. This process will not work much longer. Ideally, we'll start to think of a building as a smart unit, and plan by wrapping around that idea.

Virginia Depies: How do we grow technology into the construction process? Today, we often see technology as an afterthought in the construction process. We must be able to get infrastructure into building before drywall is put into place and decide what's needed for that technology to operate. How do we plan for the technology vision of tomorrow?

Each kind of community—CCRC, assisted living, independent living—has different needs and functionality.

From a phasing perspective, we, as technology consultants, want to come in as soon as the idea is a concept. We want to engage from start to finish, not from the endpoint when we have to try to fit in technology. What allows systems to integrate may need to be hardwired into the ceiling—and is better to be put in during construction. We'd like to help build a vision for technology and deploy it.

Mike Catlett: Most organizations don't have a Chief Information or Technology Officer (CIO or CTO) or anybody empowered to bring technology to that organization and its construction projects. As a program manager, we lead a technology program that:

1. Identifies the technology needed,
2. Establishes an initial budget, and
3. Provides clear direction to the consultants and other team members.

We build a program management group—project manager, architect, technology consultant, owner. Usually the Chief Financial Officer (CFO) doubles up as the CTO and is an accountant, not a technology person. The CTO is charged with affordability of the system and usually has an IT director who maintains the system and a director of nursing who knows how care and use play in.

Most teams have all of these players at table every time. All have perspectives to offer—and competing objectives. We publish a detailed technology program at the end, a quality document with enough information for everyone to do their job. We add complementary services, such as a budgeting process to anticipate what and when costs are involved, and commission services so that all technology is rolled out together and everything operates correctly.

What's wrong? We only know what we know, which limits the technology solution. The better solution is for the organization to have a technology committee—made of people from food service, nursing, facility management, hospitality—that can report to CFO. This group shares the task of pulling together information about technology needs for their operations. This approach empowers employees and enables a continuous improvement process for technology. Then renovating is just one part of developing the technology asset you've planned over time.

Technology should be considered as part of strategic planning for the next five to 10 years.

Majd Alwan: If you're thinking of technology while planning an expansion or new building, it's already too late. Technology should be considered as part of strategic planning for the next five to 10 years. That indicates types of construction projects plus future services and operations. If you have a CIO or CTO, you can ensure that technology is factored in. You can identify implications that the construction team needs to consider, even if you're not ready to select specific tech products.

If you don't have a CIO, as the Strategic Planning Workbook from CAST says, consider engaging a part-time CIO during construction projects to work with special equipment consultants and to be the liaison between the owner and design team.

Budgeting Adequately for Technology

Kathy: Single-site communities rarely have a CIO, CTO, or IT strategic plan. Instead, they want emergency pull cords, a nurse call system, home equipment warning systems, wireless, TV, and phone jacks—what they've always done. They rarely hire anyone to help with planning during the design or construction phase. The owners' rep or project manager usually is the one to tell them what else they need. They usually look at what they can afford and do "value engineering." The things Virginia just mentioned are usually cut because they don't fit the budget. What can we do?

Tye: In senior living, we're rarely building a smart building, but one not set up to advance with technology. Typically we are starting way too late in the construction process, partly because we have the same people at the table. If you had a strategic technology or infrastructure plan, you'd look at it as often as you look at your market or your competition.

Here's what should be integrated into your technology plan:

- Lighting that helps your residents stay independent longer and supports memory care programs by adjusting light level and quality.
- Building automation that saves money in utilities.
- Energy management, as living well means living in a good environment with fresh air, controlled drafts, humidity control.

Let's stop thinking in terms of telehealth, medical records. There's a bigger world out there.

We have the technology to do this, but many senior living buildings lack the capability. We have advanced technology to detect leaks, plus fire alarm/fire suppression systems that have active compartmentalization. Through virtual reality, we can help clients envision what they're going to get. Examples include smart appliances, such as walls that can understand voice, refrigerators that can inventory when it's time to go grocery shopping. Comprehensive technology thinking is where we need to go. Let's stop thinking in terms of telehealth, medical records. There's a bigger world out there. China and Japan are doing it.

Virginia: With big data, we try to capture as much as we can. For example, a smart refrigerator can attach to wireless sensors. If a resident has a medication change, you can track behavior changes such as getting up more at night that can predict fall risk.

We need to educate clients and users and residents. We need to find a balance between technologies that can save lives and interaction and social engagement that brings quality of life. There are different systems on the market and different regulations in different states that hinder us. Codes will be updated in the future as well. We need to take those into consideration for the coming years.

Mike: Identifying the technology and cost early is the most important thing. Outlining the cost prompts a change in mentality. The technology must be treated as a high priority to stay off the chopping block. The best approach is to identify technologies that have a return on investment—and convey what technology can do for you and your residents and facilities.

Make sure you have a champion on the board who sees technology as enabling the strategic plan.

Majd: One of the recommendations in the CAST Strategic Planning Workbook is to ensure you have a tech champion on the board who embraces the strategic plan and sees importance of technology as an overarching strategy and an enabling element of other strategies, including building a new campus, expanding and/or updating existing ones. If we treat technology as such, it won't be on the chopping board.

Kathy: Many times you must plan a field trip so that people can see and touch the technology—and buy into it. The challenge is finding a building or organization to visit that has the ideal technologies. State regulations and codes also are very difficult to overcome.

Where do things stand in terms of interoperability on technology side between solutions, companies that have the secret sauce or multiple areas (platforms)? What experience are people having in implementing this?

Majd: A lot of solution providers are creating APIs. We are no longer waiting for standards organizations to list the holy grail of standards, as that will take too long. From CAST's perspective, in 2016 we will be asking questions about each API category in every technology selection tool we update or create, starting with EHR tool.

Interoperability is great in certain applications, such as EHRs. But in the IoT, data is coming from devices and wearables. We need a strategy on how to take advantage of these data pieces now, without waiting for standards, and how to incorporate them in our operations and drive efficiencies in our work flows.

If you're building new or renovating and you're cutting out technology, that's a false economy.

Participant: In aging buildings, the struggle is retrofitting cost and expense. If you're building new or renovating and you're cutting out technology, that's a false economy. It will cost two to three times more money down the road. To add items like visual signage, AV services, environmental controls, etc. requires ripping out drywall.

Tye: A lot comes back to your annual capital budget. Too many of our clients have the same budget each year or might need to spend their funds in two and one-half years because the funding is written into bond offering. That scenario leaves little time for planning. The issue is not only getting capital but getting it at the right time.

Majd: Today, we are moving away from capital expenditure, with the IT budget getting bigger on the operations side as a service and less and less spent on the capital funding. When thinking of the strategic plan and strategic IT plan, we need to project how our budget will be shifting from capital to the operational side.

Participant: Our company looks at things through an engagement prism. In the past, if a company committed to technology dollars, they would put engagement on the side. Now, memory care organizations embrace the technology from a marketing standpoint. If the perspective is younger people looking at how to keep mom and dad engaged, technology expenditures start to be seen as important.

Virginia: On the front end, we have software-based components and can promote the ability to keep residents engaged from a marketing standpoint. But then where does it go in the budget? Are they building or longevity costs? With managed systems in the building, ongoing subscription costs might be easier to absorb. What bucket does it go in?

Participant: With construction and other buckets, it's hard to understand the technology budget. We need help from architects, construction, and from integration standpoint to understand how complex it is.

Majd: In 2012 and 2014, CAST looked to Ziegler to track the percentage of technology spending. We will be doing a fresh study in 2016.

A building may be built differently if technology is considered.

Peter Kress: Every time I'm involved a building infrastructure, I feel like I'm participating in a plateau, embedding short-lived technology into a long-range building. How do we start moving to a more versatile way of thinking about technology infrastructure that is part of a curve? How do we intersect two very different planning processes with each other? I like teams to build the building with as little technology as possible, because if they build technology in, they tie me down and hinder what I'm trying to accomplish. I advise the construction team to build the building as naked as possible.

Tye: Many clients do build the building as naked as possible, which may not be a bad strategy. A building behaves differently if it's concrete or wood—for example, there is no cell phone reception in basements. It may be built differently if technology is considered. How do we make it accessible to come back in and retrofit it?

Participant: Technology is not in the vernacular of our leadership. It's not a strategy. How do we get there? How do we measure ROI and demonstrate the impact in terms of cost and mission? How do we improve someone's life through an investment in technology and understand how that plays into the construction budget? What are we trying to achieve in overall impact and long-term strategy for our businesses?

Raising Awareness among CEOs

Kathy: Majd and his team put out fabulous breakout sessions and workshops at LeadingAge conferences, and no CEOs come. How do we educate our leaders?

Tye: We have brought programmable robots to conferences and have shown technology in virtual reality, and CEOs love it.

Participant: Then it becomes a novelty, as opposed to be in the vernacular of our business. How do we build a core discipline in leadership?

Majd: ROI is one of the toughest things. In every CAST white paper around specific tech applications there is a section that talks about potential ROI. But when it comes to a building, there are very few use cases that attribute ROI specifically to the technology aspect separate from all the other factors like the design itself and the building's amenities, location, and attractiveness.

The technology is going to be the infrastructure. It has implications on multiple areas and multiple types of ROI, including efficiency on the business side to care quality and quality of life and marketing. So far there is no magic formula for that.

We need to emphasize growing technology in the HCBS market, which is much harder.

Participant: We have apps that we give to board chairs to help them experience the technology. Talking about embedding technology in a building is just one unit. In our world, the real growth is in home and community-based services (HCBS). That means thousands of potential customers. We need to emphasize growing technology in the HCBS market, which is much harder.

Tye: We're beginning to see clients measure wellness and health span outcomes, in wellness programs and in HCBS. We need to document these better so that we can go to the board with proof that it helps better people's lives.

Participant: A lot of nonprofits are built through buying process. Your technology moves have to be worked in all the time, well ahead of architecture. Designs have to be ready to hand over to people like Tye when he gets involved, and we can't stop the train.

Participant: Once the bond package is ready, you're off and running, and what can be worked into design gets mitigated greatly. Grand Care for over a decade provided full-service API. Protocol (HTTP) built the internet and allowed it to grow. Whether it's EMR or smart buildings, how the packets and information look should be protocol-driven. CAST should be a force to push that as well.

Video: http://bit.ly/1TJ2Btr

To conclude the session, a brief video discussed findings from a study that used technology to re-engage people with dementia—and that garnered impressive results.

Nonprofit faith-based organizations and academic partners, with funding from philanthropies, tested the impact of reengagement through technology on cognitive function, use of drugs to calm people down, and stress hormones. They now have scientific evidence to validate these positive outcomes.

The goal is that, in 10 years, bedside technology to engage people will be an expected part of a facility, so that people enjoy life better and stay connected to the world.

But engagement can unlock the memories of someone with dementia, through movement and music. This knowledge will change way dementia is managed. It can decrease use of medication and caregiver stress and increase quality and length of life for patients.

One daughter felt pure joy watching her mother be so engaged with the technology. In fact, they had to turn it off because her mother never tired of it. She sees it as wonderful for everyone who might be there one day, and our children.

This study may soon be featured in a CAST case study.

Part 4

Generative Discussion:

a. What are members doing with regards to new technology trends?

b. How can we ensure that new development, expansion, and upgrade projects cater for organizations' needs from an IT infrastructure stand-point?

c. What are the implications on CAST's Future Initiatives?

Facilitated by Peter Kress
Moderated by Kathy Martin

Facilitator Peter Kress kicked off the discussion by underscoring the relationship he sees between service engines and engagement engines. Commissioners and guests then shared their questions and thoughts on how technologies are changing at their organizations—including interoperability and Health Information Exchange (HIE), social engagement, and security and liability concerns—and how best to ensure that technology is included in an organization's strategic planning.

Engagement Engines and Service Engines

Peter Kress: There is a deep connection between service engines and engagement engines. These engagement engines are the ones that leverage the full impact of advertising, behavioral monitoring, documentation, prediction—the systems that get to know and interact with and engage a customer. These engines are evolving rapidly. They are what made Google what it is. Monitoring the five top companies in this space—Amazon, Apple, Facebook, Google, and Microsoft— is a key part of understanding the world of today's technology.

Engagement technologies, which build social workflows, are evolving. They serve as a metaphor for the broader customer engagement space. They have the ability to capture huge amounts of information about our residents and customers, so that we can get to know the people we're serving, to seek preferences and outcomes and goals that we believe will thrill them, and to construct services models and business models to respond to that.

The engagement engine builds out the connection/purpose layer. The service engine builds our ability to respond. These are the crown jewels of the next stage of technology investment in our space. They will define the business models we'll see over the next five years.

What Technologies Are Changing At Your Organization?

In the broader conversation, we'd like to know what are you doing or considering or challenged with as you're watching technology change at your organization?

Interoperability and HIE

Participant: The integration of facility electronic medical records (EMR) and hospital electronic health records (EHR) are not only to receive data but to give back to be shared interactively—so if resident has to go back to the hospital, it's easy to share information—but not all systems speak the same language. Which ones are and aren't projected to carry out integration?

Participant: They are part of the health information exchange (HIE). When our resident goes to hospital we get an alert, and when the documentation is done, we get that as well—lab results and the like.

Peter: The Centers for Medicare & Medicaid Services (CMS) issued a rule last week, funding states to build out e-capabilities to support Medicaid care providers in the states. The rules specifically said it can support non-Medicaid providers as long as it allowed Medicaid providers to show enhanced results. So Medicaid hospital provider should be able to exchange with a non-Medicaid long-term post-acute care facility. We see possibility of HIE to follow the pacesetters.

Majd: The importance of this rule is that unlike previous HITECH Act funding, which mostly focused on the acute care side, hospital and physicians, this HIE funding allows states to get 90 percent matching and to put in 10 percent to build HIE capabilities for all types of Medicaid providers. The range of Medicaid providers explicitly includes long-term post-acute care and behavioral health care providers, which were previously specifically excluded from the CMS incentive program.

Peter: The rock of long-term standards and interoperability is now rolling down the hill, but there is huge acceleration because more and more vendors know they need to provide tools to allow providers to interoperate. Individual providers rarely drive this. The vendors are of every stripe, not just EMR vendors but engagement vendors. HIEs and other initiatives are tiny steps forward. EMRs are a tactical working out of the process, not a future challenge. Other areas are the frontiers.

Social Engagement

Majd: What about social interaction, support, and engagement and potentially tapping into all staff, not just clinical staff, to record daily observations of residents, which could enrich information and help us deliver better services?

Mike: Part of the richness of community is we care for one another. Through it, we feel that we matter. So a big part of it is our stories. How can we better learn every elder's story and leverage it and contribute to their fulfillment and engagement? That is the premise.

We are looking for way to learn, share, and contribute to that story. We are considering an app to provide a protected, Facebook-like experience where we could provide information for each resident—some protected, some open—and they could share letters and stories. "Mr. Smith's gait is slightly different." "Mrs. Jones' apartment is slightly more disheveled." It could be social change. How can we use this to build a sense of real community over hundreds of lives served by hundreds of other lives?

Peter: How many people have at least 30 percent of employees carrying a connected device at all times? That is one of biggest transitions to enable the innovation we're talking about. A huge barrier for building these kinds of engines is a significant layer of workforce that obstructs information flow, with no means to connect. The first step needs to be frontline connectivity. Resident centeredness needs to be part of it.

Doing so escalates the human role. Now, the human layer is consumed with tasks. It's fascinating to watch the transitions as the impact on the residents around them becomes the task.

Participant: We have 30 communities who've implemented a social engagement tool directed toward independent living. It started out similar to Facebook and evolved across the team of care. We can track all activities and create graphs of where residents have participated, then present it to family members in an assisted living or memory care setting, securely. It's one of biggest new things to drive resident satisfaction.

Participant: What drove us to create the app is we have someone who looks at every resident's story across all

our services. We can get a stream of healthcare events that result in decreased quality of life and higher use of institutional services.

So how do we get involved sooner? If we're going to engage with their story and something happens with their healthcare, it will have an impact. We want to learn their story well ahead of time so that we can serve them better when they need it. But we are actually forestalling the need.

Majd: In the early days, members brought in high school students and started building profiles for residents, interviewing families, etc., especially for dementia residents. They did the same for Certified Nursing Assistants (CNAs) to help residents get to know their caregiver, to see them as a person and understand their culture and likes and dislikes.

Participant: We opened to professional and nonprofessional caregivers by doing an assessment and being able to prevent decline from a physical standpoint. Some of the caregivers, which could be a neighbor or family members, live very far from aging parents and may not have time or money to visit with them as often as they want. Now, they can chat and participate in their care, work on care plans with professional caregivers. It's all about prevention.

The future challenge will be competition and collaboration among you in this room and how you think about customer engagement.

Peter: There are seven or eight vendors here who can tell stories that parallel this interest in customer engagement—integration of care planning and transition of care, or brain health, or way to enhance relationships between staff or extend resident satisfaction around culinary function or event management.

In the next several years, the challenge will be competition and collaboration among you in this room and how you think about customer engagement and how open, able, and willing you are to exchange that information.

The power is not in the introduction of new technology, it's in leveraging it to build a deeper understanding of this person across many behaviors and many interactions and how I craft my business model as a direct provider to this resident.

Security and Liability Concerns

Participant: What are the legal risks of having applications running rampant on the HIPPA side—such as things that caregivers might miss because there aren't systems that tee that up?

Peter: My opinion is choosing not to insure so that I don't have to be accountable is becoming riskier and riskier. We're now delivering richer and richer care engagement in nonregulated settings. I may not promise you I'm going to prevent your falls, but to create a great environment for you to age well. That reduces risk. Other engines will continue to evolve with a continual acuity and you'll need to build your risk models to match. Sticking your head in the sand is probably the riskiest approach.

Majd: In previous research with passive monitoring systems, a CNA claimed she was delivering services to a monitored resident at a particular time, but monitoring data indicated otherwise. It's a two-edged sword. It boils down to 1) the level of regulation of the setting, 2) the education and training of staff and how well they are following internal policies and procedures, and 3) your policies and procedures and what you are promising in that service contract.

Peter: Every year, we assess if we need cyber-liability insurance. Until last year, I didn't think it was an assessment you needed to make, that the risk was modest, but now I do.

Participant: You're paying for the services that help you respond to a breach if you have one, and they will be beneficial to you in the end.

How Do We Insert Technology in Strategic Planning?

Peter: How do we make sure technology and its ability to support business model change are included in an organization's strategic planning discussions?

Majd: About half of the room has used CAST's Strategic Planning and Strategic IT Planning tools.

Participant: The larger piece about regulation is that we should foster the rise of alternative payment models, so you need less face-to-face contact and there are other restrictions that go away in various states. Technologies can be cheaper as caregiver extenders.

Majd: In every CAST white paper, we focus on ROI, which often comes from innovative care and payment models.

CFOs may understand the costs of non-planning.

Participant: The Chief Financial Officer can be a good path to IT strategic planning by showing them there is a cost to non-planning. It's not just saving money, but managing risks strategically.

Peter: When it comes to planning for technology, there are two different conversations:

1. Defensive and incrementally offensive uses of technology: ROI or projects narrowly defined. This will be the conversation in many organizations.
2. Who are Ubers to my taxi business? Or the AirBnB to my hotel? This conversation is really important. That is not a CEO conversation or a technology discussion. It's a team discussion—a business model discussion. When vendors sell a point solution, they are part of the incremental conversation. If you and your organization instead seek partnerships that can empower a new business model, you'll have a far better future.

Majd: Who has heard of Honor? CareLinx? They are starting to become the Uber of the home care/home health industry. They are still certain regional markets but will become national shortly. Do you want to compete head to head? Or do you already have your alternative strategy and a strategic partnership that leverages your staff and community relationships and helps you expand?

Participant: We decided to pull technology out of the financial box. We need it at a level where it shapes decisions day to day. Get out of the financial prism through which you view technology.

Participant: I'm struck by how many IT departments report to the CFO. In the industry, it's often a very reactive tech department working for the CFO who's trying to manage costs.

Participant: That speaks to role of financing within an organization. More and more, we need to develop a financial planning strategy.

Majd: Zohra and I are working to build a network and are seeing a five-fold increase in the number of people who have title of VP of Technology or Chief Information Officer in just past couple of years. The LeadingAge Ziegler 150 is another indicator, as it shows the percentage of those reporting to CFO rather than CEO.

Peter: The role of technology leadership as making the PC work is done. What matters is not as much who's at the table as that the table conversation is rich in technology and strategy and finance.

Participant: In a decade at IBM, I saw the same challenges in banks and insurance companies: silos, etc. It changed. All the remaining companies see technology as a way to empower business. It's happening here now, too. Also, we now sell technology solutions rather than point software.

Participant: What role does consumer technology play in senior living?

Peter: Economies of scale happen in consumer technology. We need to look at it hard.

Takeaway

To conclude, here's a takeaway: Service engine plus engagement engine; plus Internet of Persons, Places & Things; plus advanced analytics; plus the new collaboration technologies that are converging and emerging are making a new platform for business for aging services today.

Appendices

Appendix 1: Agenda and Outcomes

Outcomes of the CAST Commission Meeting:

1. Introductions and meaningful networking with other CAST Commissioners and Guests where attendees will share not only who they are, but also their most exciting technology initiative.
2. Receive updates on CAST most important accomplishments and brief updates on CAST work.
3. Commissioners will hear a presentation from Peter Kress, VP & CIO, ACTS Retirement-Life, on Technology Trends to Watch in Aging Services, geared to the executive suite.
4. Commissioners will engage in a discussion with a construction expert panel of individuals involved in construction projects (Tye Cambell (SFCS) designer & architect; Virginia Depies (Direct Supply), special equipment consultant; Michael S. Catlett (APM), construction manager; and Kathy Martin (Vinson Hall), representing providers) on the process of campus development, expansion, and upgrade projects from the technology infrastructure perspective.
5. Commissioners will engage in a Generative Discussion aimed at understanding:
    a. What members are doing with regards to new technology trends,
    b. How we can ensure that new development, expansion, and upgrade projects cater for organization's needs from an IT infrastructure stand-point: wiring, panels, materials, outlets, etc.
    c. Implications on CAST's Future Initiatives.
6. Commissioners will receive written updates on progress in the areas of Research, Federal Policy, State Policy, and Health IT Standards. **Note: written updates will be provided in meeting book.**

2:30-2:35 PM	Welcome to DC Meeting Overview, Objectives and Desired Outcomes	Kathy Martin
2:35-3:35 PM	Introductions and a round of rapid fire Name, Title, Affiliation Most Exciting Aging Services Technologies Initiative *(1.5 minutes per Commissioner/ Guest)*	All
3:35-4:05 PM	Technology Trends to Watch in Aging Services	Peter Kress
4:05-5:05 PM	Campus Development/ Expansion/ Upgrade: Preparing the Infrastructure for Technology.	Construction Expert Panel: Tye Campbell,SFCS Virginia Depies, Direct Supply Michael S. Catlett, Advanced Project Management Moderated by Kathy Martin
5:05-5:15 PM	BREAK	All
5:15-6:25 PM	Generative Discussion: What are members doing with regards to new technology trends? How can we ensure that new development, expansion, and upgrade projects cater for organizations needs from an IT infrastructure stand-point? What are the implications on CAST's Future Initiatives?	All Facilitated by Peter Kress Moderated by Kathy Martin

6:25-6:30 PM 6:30 PM	Closing Remarks and Next Steps Adjourn to **CAST Commission Dinner (Room: Virginia B)** Next Commission Meeting: **2:30-6:30 p.m. Saturday October 29, 2016, Indianapolis, IN**	Kathy Martin

Appendix 2: Introductions, Exciting Initiatives

As a welcome to the meeting, CAST Commissioners and guests introduced themselves and shared something about aging services technology that excited them. Here is a summary of responses:

- The tools CAST has produced: a recent update of functional assessment and activity monitoring tools, with new vendors and new interactive guide.
- A CAST issue brief focusing on technology policies; the advocacy focus of this conference, which is are asking members to advocate for those policies and participate in the Hill visits.
- Having hired a new development director.
- Outsourcing all security monitoring to a third party.
- Offering transition tools for skilled nursing facilities to prepare patients to go home and make their return successful.
- Research on the impact of telehealth on aging in place and independent living.
- Expanding: Purchasing a hospital and creating a center for technology innovation and education for local schools, teleproviders, and anyone interested.
- Hearing about new solutions and consulting with providers doing creative things.
- Expanding the narrative of aging from beyond the health care spectrum to the whole life and how technology can enable the expansion of that narrative.
- Seeing how we can implement technology in communities; developing and building to support the technology of today and the future.
- Recently launching the technology innovation center on the Milwaukee School of Engineering campus, where we are building technology applications for social products.
- Developing and expanding a PACE program in Palm Beach County, FL, and looking at technology solutions in the field from an operational point of view.
- Looking at ways technology can reduce isolation and loneliness and the resulting cardiovascular risk; using these technologies to psychosocial endpoints and the emergence of a sustainable business model.
- From an investment standpoint, looking at sustainable business models that link tech capabilities with good use and productivity and good outcomes.
- Figuring out how to monetize our intellectual property and spread it beyond one nursing home.
- Learning how baby boomers feel about aging in place and supporting senior living communities in health care reform through value-based payments and bundled payments.
- Using sensors to prevent falls in personal care settings with persons with dementia and to improve the efficacy of rehabilitation services in a dementia program.
- Taking better advantage of technologies in place to improve performance of caregivers and residents.

- Rolling out wifi at 50 locations and giving caregivers wifi-connected devices; implementing a new platform for skilled nursing and in-home care; launching a new intranet to be a resource and repository for caregivers.
- Completing a study that looked at bedside touchscreen technology for people with dementia and Alzheimer's related disorders; through use of this technology, patients' COPD scores went up, behavior episodes and need for drugs went down, and caregiver stress decreased.
- Bringing to market innovative solutions that improve efficiency for caregivers through documentation; moving into population health platforms that allow effective insights to data across post-acute care.
- Evolving strategy around the Internet of Aging Well Things and recent innovations around mobile GoSafe technology, creating a mobile hub that allows personal sensors to connect to back-end systems that connect with analytics.
- Creative solutions using smart homes and IoT technologies to enhance the lives of older adults and those with disabilities, including those aging at home who can't afford a certain level of care.
- Social connectivity: moving past the novelty to the utility of IoT so that residents live simpler, healthier lives; leveraging analytics to get family members better engaged.
- An assessment tool for affordable housing to assess residents' health and help them get health care and services in their community.
- Creating virtual clinical calls to deliver care at a patient's bedside.
- Helping business to really understand managed care transitions and using technology to track and report and manage that information.
- Putting sound and visuals of beach waves in front of an agitated 92-year-old who grew up in Virginia Beach and watching him calm down; fulfilling a long-held passion to make people's lives better, especially those with dementia; talking partnerships to change millions of lives.
- Having information at physicians' fingertips in a mobile platform.
- Providing quality of life services at client sites.
- A dashboard that relates to privacy and security to see where people are in clinical organizations on a real-time basis.
- Seeing emerging technologies and ensuring the liabilities of them are covered.
- Understanding how technology can play a bigger, more influential role in our organization and how we can partner and play a leadership role in technology development.
- Research we've just finished with Rutgers University on gaming technology focused on people with early onset dementia; in the beginning, they didn't function much at all, and at the end, they did things they hadn't done in years.
- A resident concierge service that deployed iPod touches to all workers so they can act as concierges to residents, putting in requests immediately and using the device to track the request.
- The new CAST toolkit on care coordination and care planning.

- Understanding trends and needs and how they relate to entertainment solutions in senior living communities.
- Bringing the benefits direct TV has in residential and hospitality to senior living and planning growth that makes sense for the market.
- Working with physician practices, acute care EMRs, and labs to make sure providers and clients receive resident info on a timely basis to reduce readmissions and labor costs and confusion.
- Be a CEO at a CAST gathering.

Provide benefit communications to explain to employees what true costs of benefits are and analyze employees' individual needs, since the days of the insurance salesman sitting at dining room table are long gone.

Appendix 3: Major CAST Accomplishments for Oct. 2015-Mar. 2016:

- CAST has partnered with PointClickCare to conduct research with 3 LeadingAge listserv groups. The data was released Oct. 2015. Please see our article and related assets: http://www.leadingage.org/PointClickCare_and_CAST_Release_Joint_Market_Assessment.aspx.
- CAST updated its Functional Assessment & Activity Monitoring portfolio of tools. The update added 6 new vendors to its easy-to-use online selection tool and the selection matrix (comparing a total of 20 products from 19 vendors across 320 functionalities and feature), an interactive guide to help providers navigate the whitepaper, and 2 new provider case studies. Please see: http://www.leadingage.org/FunctionalAssessment.aspx.
- CAST partnered with Ziegler on the third survey of Technology Adoption among the largest 150 members of LeadingAge. Please see the full report: http://www.leadingage.org/2015_LeadingAge_Ziegler_150_Profiles_Growth_and_Change.aspx.
- CAST leadership continues to be recognized by think tank and policymaking bodies to help and inform technology policy. In Dec. 2015, CAST submitted suggestions and input to the President's Council of Science and Technology Advisors (PCAST) to be considered for incorporation into a PCAST report on Technology & Aging. The input was based on CAST's Technology Policy Priorities identified by CAST Commissioners (please see: http://www.leadingage.org/Federal_Policy_Issues_and_Initiatives.aspx).
- CAST published the CAST Commission Proceedings entitled "Understanding Market Drivers and Preparing for the Next Wave of Reforms" (please see: http://www.leadingage.org/uploadedFiles/Content/Centers/CAST/CAST_Commission_Report_October_2016.pdf).
- CAST and the LeadingAge Policy Team created a legislative-focused Technology Policy Issue Brief to help LeadingAge and CAST Members advocate for CAST's Technology Policy Priorities during the PEAK Leadership Summit. The Issue Brief will be distributed during PEAK at the CAST Commission Meeting and the CAST booth.
- Continued to advocate for including long-term and post-acute care providers as active participants in health Information exchange activities and potentially other ARRA funded activities including state-designated Health Information Exchanges entities and Beacon Communities.
- Continued to provide guidance and successfully influence LeadingAge state-affiliates and members in different states to become actively engaged in state HITECH Act initiatives.
- Continued to support LeadingAge state-affiliates on technology education, technology surveys aimed at gauging technology adoption, and other technology-related activities, including technology policy and advocacy efforts.

Appendix 4: CAST Research Update- March 2, 2016:

CAST continues its efforts to encourage and actively engage in outcome oriented evaluation of aging-services technologies as an essential element to more informed decision-making and wider adoption. Here is an overview of the new opportunities and on-going research initiatives:

- CAST has partnered with PointClickCare to conduct research with 3 LeadingAge listserv groups. The data was released Oct. 2015. Please see our article and related assets: http://www.leadingage.org/PointClickCare_and_CAST_Release_Joint_Market_Assessment.aspx.
- CAST updated its Functional Assessment & Activity Monitoring portfolio of tools, which help providers better understand, plan for, select, and implement functional assessment and activity monitoring technologies. The update added:
    - 6 new vendors to its easy-to-use online selection tool and the selection matrix, comparing a total of 20 products from 19 vendors across 320 functionalities and feature;
    - an interactive guide to help providers navigate the whitepaper; and
    - 2 new provider case studies.

  Please see: http://www.leadingage.org/FunctionalAssessment.aspx.

- CAST partnered with Ziegler on the third survey of Technology Adoption among the largest 150 members of LeadingAge. The report revealed that:
    - Roughly 77% of the largest 150 not-for-profit senior living communities have adopted electronic point of care or point of service documentation systems. A similar percentage (74.7%) of senior living communities have adopted electronic medical records and/or electronic health records (EMR/EHR).
    - The majority of LZ 150 organizations, 75% and 73% respectively, reported using User-Activated Emergency Response Systems and Access Control/Wander Management Systems. A smaller percentage of LZ 150 organizations had implemented automatic fall detectors (24%).
    - In the area of health and wellness technologies, almost 60% of LZ 150 organizations reported having physical exercise and rehabilitation technologies.
    - LZ 150 organizations have the greatest opportunity for enhanced technological capacity in 3 areas where adoption is lowest:
        - Teleheath/remote patient monitoring (6.8%).
        - Telecare/telemonitoring/behavioral monitoring (7.3%).
        - Medication monitoring technologies (39%).

Please see the full report: https://www.leadingage.org/uploadedFiles/Content/Members/Member_Services/LZ_100/LZ150_2015_Ziegler_FINAL.pdf.

Appendix 5: LeadingAge Legislative Update: January 28, 2016

Congressional outlook:

The 114th Congress has just begun its second session.

Although the budget deal Congress passed in October set total appropriations levels for fiscal 2017, Congress will still have to allocate the available funds among the various federal programs under spending bills to be passed this year. This process will involve senior housing and home- and community-based services. The President will kick off next year's spending cycle with the budget he submits February 9.

We expect fiscal 2017 appropriations bills to be the main order of congressional business for this year. Congress will be in recess for much of the year because of the elections, including a long summer break when the party conventions take place. Republicans likely will hold off on any major legislation this year in the hope that a Republican president will be in office next year to sign measures into law. Democrats will want to avoid any major controversy that would interfere with their goal of retaining the White House and potentially retaking the Senate.

As discussed below, we will work with legislators from both parties on our own agenda for a healthy, ethical and affordable system of aging services.

Legislative successes in 2015

- **Senior housing and aging services funding for 2016:** The Bipartisan Budget Act, P.L. 114-74, which we strongly supported, lifted spending caps imposed on these programs and allowed for funding increases in fiscal 2016.
- The Consolidated Appropriations Act, P.L. 114-113, subsequently passed by Congress contained the following funding for programs serving seniors:
    - Section 202 housing will receive $432.7 million, a $12.7 million increase over 2015 funding. This amount includes $77 million for service coordinators and existing congregate services grants.
    - With carryover balances and residual receipts, the funding should be sufficient for all renewals and amendments of project-based rental assistance contracts, senior preservation rental assistance contracts, and existing congregate services grants. We worked hard to make sure 2016 funding would be available for all of these accounts, as appropriations legislation drafted earlier this year would have been insufficient.
- The omnibus spending bill also continues the Housing Trust Fund and restores funding for the HOME Investment Partnerships Program to $950 million, a $50 million increase over 2015. States use these programs to increase the supply of affordable housing.
- **Home- and community-based services:** While spending legislation drafted earlier in the year threatened cuts in these programs, the final omnibus appropriations bill provides level spending or slight increases for Older Americans Act and other programs serving seniors.
    - Older Americans Act congregate meal programs receive $448.3 million, a $10.1 million increase over fiscal 2015.
    - Home delivered meals will get $226.3 million, a $9.9 million increase over 2015.

- Chronic disease self-management and falls prevention initiatives will be level-funded, receiving $8 million and $5 million respectively.
    - Alzheimer's Disease demonstration programs will get a $1 million increase, to $19.1 million.
    - Lifespan Respite Care also will get another $1 million for a total of $3.4 million.
    - LIHEAP, the Low-Income Home Energy Assistance program will be level-funded, receiving $3.39 billion.
    - Social Services Block Grants, which many states use for services to seniors, also will be level-funded, at $1.7 billion.
- **Low-income housing tax credit:** Tax "extenders" provisions incorporated into the omnibus fiscal 2016 spending bill made permanent the minimum 9% credit rate for new development. We strongly advocated for this provision to give developers a predictable source of funding.
- **Tax incentives for charitable giving:** The extenders section also made permanent the IRA rollover to charitable organizations, a potential source of fundraising for LeadingAge members.
- **Permanent Medicare "doc fix" – P.L. 114-10:** This measure, which permanently reformed the Medicare physician payment schedule, extended the therapy caps exceptions process for two more years, through December 31, 2017, and made the medical review process less onerous.
- **International trade legislation:** We succeeded in removing provisions of this measure, now law, which would have extended the 2% cut in the Medicare payment update through the end of 2024 to offset the cost of trade adjustment assistance benefits. Our advocacy included contact with every member of Congress and a strong grassroots initiative by LeadingAge members.
- **PACE Innovation Act:** this measure, now law, allows the Centers for Medicare and Medicaid Services (CMS) to test different models of the Program of All-inclusive Care for the Elderly (PACE), including those serving high-need individuals aged 55 and under. P.L. 114-85.

Issues to carry over into 2016

Medicare Observation Days

Rep. Joe Courtney (D-CT) has introduced H.R. 1571, to require all time a Medicare beneficiary spends in the hospital to be counted toward the three-day stay requirement. The bill has 112 cosponsors, bipartisan. The comparable Senate bill is S. 843, introduced by Sen. Sherrod Brown (D-OH), with 20 cosponsors, also bipartisan. We strongly support this legislation.

Congress has passed and the President has signed into law H.R. 876, the Notice of Observation Treatment and Implication for Care Eligibility, or NOTICE Act. The bill requires hospitals that hold any Medicare beneficiaries for longer than 24 hours under observation to provide the beneficiaries with oral and written notification of their outpatient status and its potential implications for eligibility for Medicare coverage of subsequent post-acute care, beginning in 2016.

We strongly support the Courtney/Brown legislation as a more adequate solution to the observation days problem.

Medicare Value-Based Purchasing

HR 3298, introduced by Ways & Means Health sub-committee chair Kevin Brady (R-TX) and Rep. Ron Kind (D-WI) creates a new value-based purchasing program for the post-acute sector, repealing the current VBP initiative already in effect for SNFs. The Brady-Kind legislation bases the VBP on resource measures from IMPACT Act, and has a withhold that goes from 3% to 8% over the life of the program. Providers would be able to "earn back" around 50% based on their scores. VBP would be assessed by provider type and across providers.

We are concerned about this legislation because of the larger payment withhold, the measures used for determining payment and the replacement of an initiative already being rolled out. We are working with other provider organizations, consumers and professional associations to address the problems with the legislation. No similar bill has been introduced in the Senate as yet.

Technology

We strongly support S. 1916/H.R. 4111, the Rural Health Care Connectivity Act, which would give skilled nursing facilities in rural areas access to the Universal Service Fund's Rural Health Care Program. The RHCP provides funding for telecommunications and broadband services used to provide health care in rural communities.

The connectivity provided under the bill would support a wide array of potential technology-enabled services, including telehealth, medication management, remote monitoring, health information exchange, care coordination, and social connectedness.

Another bill recently introduced is S. 2343, which authorizes the Centers for Medicare and Medicaid Innovation (CMMI) to test the use of telehealth services in the various Medicare delivery system reform models (ACO, bundled payment, etc.). The bill authorizes a new model that incorporates telehealth services, eliminating various restrictions currently in place (e.g., geographic location). While this legislation is directed at primary care and hospital services, it could serve as a model for expanding telehealth in long-term care settings.

A third bill that we are following is S. 2484, introduced in February by a bi-partisan group of Senators. This bill, entitled "Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act" authorizes HHS to create telehealth or remote patient monitoring services 'bridge' demonstration waivers to eligible applicants who are furnishing telehealth or remote patient monitoring services to individuals consistent with the goals of the Merit-based Incentive Payment System including the goals of quality, resource utilization, and clinical practice improvement (including care coordination and patient engagement), or the incentive payments for participation in eligible alternative payment models. The bill authorizes the Secretary to waive such requirements as any limitation on what qualifies as an originating site, any geographic limitation (subject to State licensing requirements), any limitation on the use of store-and-forward technologies, or any limitation on the type of health care provider who may furnish such services (provided the provider is a Medicare enrolled provider). Most of this bill relates to physicians and alternative payment models, so we will be monitoring to see if there are ways to include LTSS providers. This bill was introduced with great fanfare and is backed by a large number of interest groups and high profile lobbyists like former Senators Tom Daschle, Trent Lott and John Breaux, so it will be interesting to see if it "moves".

Adult Day Services Act – H.R. 1383

Allows for Medicare coverage of home health services provided in a certified adult day services center. Increases reimbursement for these services by 3% in rural areas. Now in committee with 15 cosponsors. We strongly support.

Home Health Planning Improvement Act – H.R. 1342/S. 578

Allows nurse practitioners, clinical nurse specialists and physician assistants to write orders for home health care services to be covered by Medicare. In committee in both the House and Senate, with 168 House cosponsors and 42 in the Senate. We strongly support.

Medicare Home Health Flexibility Act – S. 2364

Would allow occupational therapists to conduct the initial home health assessment when neither skilled nursing nor other kinds of therapy services are needed. We support.

Older Americans Act [home- and community-based services]

Older Americans Act programs continue to operate without official authorization.

On July 16, 2015 the Senate passed S. 192, to reauthorize the Older Americans Act. We strongly support the legislation.

There is as yet no House bill. We have drafted legislative language that would add some of our high priorities to the final version of the legislation:

- Improve consumer information on adult day providers, strengthening the provisions of S. 192
- Improve access to adult day services programs under Titles IIIB and E
- Improve the quality of and access to transportation services for older adults, adding to the provisions of S. 192.

Senate Finance Committee's Bipartisan Chronic Care Working Group

LeadingAge submitted comments to the Senate chronic care working group, focusing on those issues that affect LTSS (including hospice, expanding the Independence at Home program, expanding supplemental benefits for Medicare Advantage beneficiaries, and telehealth). We will work with the Committee as it develops legislation to improve coordination of care for Medicare beneficiaries with chronic conditions.

Our telehealth comments follow:

Expanding Innovation and Technology

Increasing Convenience for Medicare Advantage Enrollees through Telehealth

LeadingAge strongly supports permitting MA plans to include certain telehealth services in their annual bid amount. The use of these technologies should not be a substitute for network adequacy requirements.

The working group solicited feedback on whether the telehealth services provided by the plan should be limited to those allowed under the traditional Medicare program.

The working group also solicited feedback on whether additional telehealth services should be permitted and, if so, which ones.

LeadingAge firmly believes that telehealth services provided by the plan should not be limited to those allowed under the traditional Medicare program. The following barriers to the use of telehealth services must be removed:

- the restrictions on originating site to include the homes of patients, regardless of geography (i.e., not limited to rural areas);
- the restrictions on real-time two-way video conferencing communications, to include asynchronous biometric as well as behavioral/ activity remote monitoring technologies;
- the restricion of the eligible provider to physicians or physician assistants. Eligible providers should include home health/ home care agencies, nurses, and care/case managers.

The working group solicited input on whether safeguards should be put in place so that the offering of new supplemental benefits does not lead to abusive practices and/or inappropriate enrollment. LeadingAge believes that such safeguards should include:

- Eligibility criteria, such as number and types of chronic conditions, hospitalization history, and provider competency.
- Certain requirements such as physician/plan authorization, and periodic review and re-authorization
- Quality measures, such as hospitalizations, hospital readmissions, outcome measures, and patient satisfaction.

Providing ACOs the Ability to Expand Use of Telehealth

LeadingAge strongly supports lifting the originating site requirement entirely for ACOs AND specifying additional eligible providers.

LeadingAge firmly believes that the following barriers should be removed:

- the restrictions on the originating site to include the homes of patients, regardless of geography (i.e., not limited to rural areas);
- the restrictions on real-time two-way video conferencing communications, to include asynchronous biometric as well as behavioral/activity remote monitoring technologies;
- the restriction of the eligible provider to physicians or physician assistants. Eligible providers should include home health/home care agencies, nurses, and care/case managers, who play a significant role and reduce the burden and cost of chronic care management.

LeadingAge believes that lifting these restrictions only for two-sided risk ACOs will protect against the risks of abuse and over utilization. We recommend considering this for all ACO types and suggest considering the following potential safeguards to prevent abuse:

Instituting eligibility criteria, such as number and types of chronic conditions, hospitalization history, and provider competency. Certain requirements such as physician authorization, and periodic review and re-authorization.

Quality measures, such as hospitalizations, hospital readmissions, outcome measures, utilization cost, and patient satisfaction.

Expanding Use of Telehealth for Individuals with Stroke

LeadingAge also strongly supports eliminating originating site geographic restriction for the narrow purpose of promptly identifying and diagnosing strokes. This would provide every Medicare beneficiary the ability to

receive an evaluation critical to diagnosis of an acute stroke via telehealth from a neurologist not on-site.

Medicare Payment Advisory Commission (MedPAC)

In their January 14 - 15 meeting, the commissioners reached consensus on recommending that Congress cancel annual Medicare payment updates to skilled nursing facilities for 2017 and 2018, and that the prospective payment system be reformed. The commission will recommend that Congress eliminate the 2017 payment update to home health care providers in 2017 and begin a two-year payment rebasing in 2018. The recommendations likely will be formally submitted to Congress in March.

We agree with MedPAC's recommendations on reforming the SNF payment system to better reimburse for complex care and deemphasize high-cost therapy. However, we continue to oppose the recommendation for denying the yearly payment update. While MedPAC consistently finds high average Medicare margins, its reports also indicate that margins among not-for-profits are far lower. In addition, the reports show margins for all nursing homes from all payment sources at 2% or less.

Long-term services and supports financing

LeadingAge is finalizing the work done by the Pathways financing project, and will be publishing our recommendations shortly. Of critical importance, LeadingAge, AARP, and the SCAN Foundation underwrote a modeling study by the Urban Institute (Urban) and Milliman, Inc. about financing long-term services and supports (LTSS). The results of this study show that financing long-term care will likely require a public/private solution to help people plan for and meet their LTSS needs, honor the critical role of families without financially crippling them, and safeguard governmental resources by curbing reliance on Medicaid. This study will continue to inform our work on creative policy solutions to the long-term services and supports financing crisis.

Appendix 6: CAST State Technology Update March 2015:

State-level technology activities

In its continuing effort to track technology activities in the states, CAST held two conference calls prior to preparing this update. One conference call featured a presentation titled “Market Assessment Survey Results” by Mark Keating, Director Product Marketing, PointClickCare. The presentation focused on a joint project in partnership with CAST Partner PointClickCare in which we surveyed members of LeadingAge’s participating Life Plan Community (formerly known as CCRC), assisted living, and nursing home listservs. The survey was designed to help us understand how these providers are using technology, including electronic health records (EHR), the value EHRs offer to LTPAC organizations, the biggest challenges these organizations face, and how they are preparing for the future. The second conference call featured a presentation titled “Technology Policy Priorities Update” by Peter Notarstefano, Director, Home & Community-Based Services, LeadingAge. This presentation focused on the current CAST Technology Policy Priorities and the aging technology bills as discussed in Technology Issues Brief.

State Updates

No updates from the States.

Appendix 7: Standards & Interoperability Reports, February 2, 2016

LTPAC HIT Summit

The annual LTPAC HIT Summit will convene in Reston, Virginia June 26-28, 2016. The conference will continue to address interoperability but will consider this within broader context of business and clinical innovation, customer engagement, and partnership strategies.

Meaningful Use and Regulatory HIT

It will be important to continue to monitor policy making activity in regards to the IMPACT act and standards development activity in conjunction with the Testing Experience and Functional Tools (TEFT) demonstration grants focused on defining standard electronic Long Term Services and Supports record and personal health records with particular focus on functional assessments.

ONC has released an RFI "Certification Frequency and Requirements for the Reporting of Quality Measures under CMS programs". CAST is working with the LTPAC HIT Collaborative to provide responses from an LTPAC perspective.

HL7 is undertaking to develop a version 2 of an LTPAC EHR functional model and establishing a work team. We will monitor these efforts and determine whether there is benefit for participation in the process. LTPAC development of a version 1 EHR functional model was important for demonstrating our sector's commitment to being at the table in the national conversation regarding EHR, but it is important to note that even with those efforts we were not included in meaningful use funding. Real opportunities for interoperability

Interoperability on the Ground

LTPAC EHR Vendors continue to accelerate release of health information integration between their systems and ancillary providers (labs, images, etc.), pharmacies, physicians, quality and analytics vendors. App and service providers continue to expand offerings that support person (patient), provider, family communications. Entrepreneurial activity in the space is increasing. More health information exchanges are developing models and services that could include LTPAC in their scope. There is a significant need to develop use cases and best practices for facilitating LTPAC involvement in HIE.

Appendix 8: Center for Aging Services Technologies: Technology Trends

Presentation By Peter Kress on 3/13/16

CIO, ACTS Retirement-Life Communities, Inc.   kress@actslife.org

1. ERaCha Era: Mark Anderson "from the trivial to the heroic"

2. Almost all meaningful advance & innovation in aging services (hospitality & wellness) will be primarily enabled by Information (&) Technology investments.
   - ➔ Technology Leadership: Business partnership enabling strategy, innovation & change execution. [Enable new business models]
   - ➔ You don't have time to manage infrastructure & apps: outsource to rapidly improving services.
   - ➔ Platforms Win
   - ➔ Ride curves: early or late, but ride them. [salesforce.com example]
   - ➔ Business as API

3. The New Infrastructure/Services Stack
   - ➔ Goodbye datacenter (and disaster recovery), hello business continuity
   - ➔ AORTA: Rapidly evolving connectivity moving under the hood :: infrastructure/service plays [1GB-10GB, plus purpose based [low power] supplements. [commodity]
   - ➔ Identity, Access, Device Management, Security: One platform. [Encryption+]

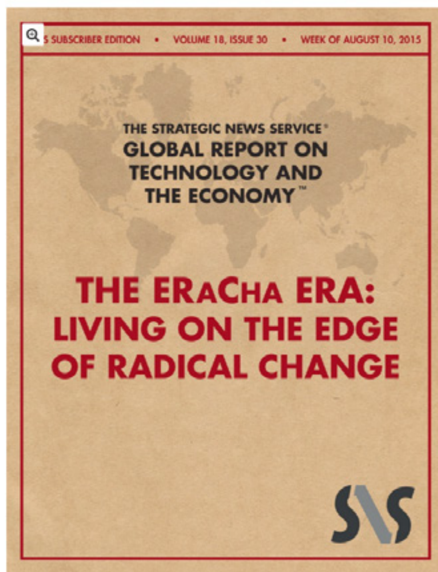
4. It's all about customers
   - ➔ Service Engines & engagement engines: [vs siloes)
   - ➔ Internet of Persons, Places & Things (IOT +)   [3 Generations] [Connect, Feed, Control, Coordinate]
   - ➔ Advanced! Actionable Analytics [Information Scale, Pattern Discovery/Machine Learning, Visualization][Real-time, self service, intelligence]

5. The New Productivity :: Intelligent Assistant
   - ➔ Workplace :: Tools for Teams
   - ➔ Service Models :: Service Engines
   - ➔ Engaging Algorithms :: Hound/Alexa/Jibo

6. Here come the robots [algorithms]
   - ➔ Autonomous Cars pave the way
   - ➔ Human :: Evolving Roles: "humanization"

7. Thinking about Wellness: Holy Grail → Cognitive
   - ➔ Genetics & Personalization
   - ➔ Nutrition
   - ➔ Benchmarking Wellness

SNS: The ERaCha Era: Living on the Edge of Radical Change



$9.95

1 + Add to shopping bag

Description

SNS Subscriber Edition
Volume 18, Issue 30
Week of August 10, 2015

In This Issue

Feature: The ERaCha Era: Living On The Edge Of Radical Change

Robots Everywhere
Internet Assistants
AORTA At Last
Pattern Recognition
Instant Translation
Augmented Reality
Natural Navigation
MALT
Driverless Cars
Solar World
Ubiquitous Surveillance
Real Medicine

Quotes of the Week

Takeout Window

A Map of What the Chinese Deny Doing
A New Theory of Network Effects: Percolation Explosions

Upgrades And Numbers

- Robots Everywhere
- Internet Assistants
- AORTA At Last. “Always on Real-Time Access”
- Pattern Recognition
- Instant Translation
- Augmented Reality
- Natural Navigation
- MALT “Mapping, Advertising, Location Services, and Transactions”
- Driverless Cars
- Solar World
- Ubiquitous Surveillance
- Real Medicine

Appendix 9: CAST Commissioners and Guests Bios

Commissioners

Alan Bugos, Head of Technology and Innovation, Philips Healthcare - Home Monitoring (Boston, MA)

Mr. Bugos is responsible for designing and implementing technology for next-generation devices, products and managed solutions for connected alerting, monitoring and health informatics for Philips' global customer base. Alan brings to Philips Home Monitoring over 25 years of hands-on engineering and IT leadership experience in telecommunications, mobile and Internet technologies, data solutions, IoT (the Internet of Things), software and hardware development and systems integration, and held executive management roles at Vonage, iBasis, Inc., MIT Lincoln Laboratory, and GTE Laboratories (now Verizon Laboratories). He was the recipient of GTE's highest technical merit award the Warner Award for Technical Achievement for pioneering DSL data networks in 1997, has published over 45 technical papers, and is a member of Eta Kappa Nu, Sigma Xi, and the Institute of Electrical and Electronic Engineers (IEEE). Mr. Bugos received a B.S. degree in Engineering Physics and an M.S. degree in Electrical Engineering both from the University of Tennessee-Knoxville and continued postgraduate study at Tufts University.

Alan Sadowsky, Ph.D., Senior VP of Home & Community-Based Services, MorseLife (West Palm Beach, FL)

Dr. Alan D. Sadowsky joined the campus staff in October 2000 and serves as Senior VP of MorseLife, including Palm Beach PACE, Home Care (Medicare and Private) Care Management, Day Care and a host of programs designed to help seniors age at home while avoiding institutional care. Dr. Sadowsky received his Bachelor of Arts at the University of Pennsylvania, and his Master's and Doctorate at the University of California, Los Angeles (UCLA). He served as the Presdient of the Area Agency on Aging of Palm Beach and the Treasure Coast from 2016-2012. Alan has lived in Palm Beach County since 1985 and was previously the Executive Director of St. Mary's Rehabilitation Center (1985-1997), a multi-disciplinary outpatient rehabilitation center campus located in the Intracoastal Health Systems complex.

Candace LaRochelle, JD, MHA, Director of Business Operations, eHealth Data Solutions (Beachwood, OH)

Candace LaRochelle provides oversight for accounts receivable, sales and marketing at eHealth Data Solutions, a leading innovator in data analytics in the long term care profession. Her responsibilities include regulatory oversight and she has extensive knowledge of HIPAA and HITECH regulations, with a primary focus on the role of the business associate. Ms. LaRochelle has a background in both commercial litigation and commercial underwriting. She earned a B.S. in Business Administration from Winston-Salem State University, Master's in Health Administration from Pfeiffer University at Charlotte, and a Juris Doctorate from University of Dayton School of Law. Candace is from the upstate area of South Carolina and now resides in Cleveland, OH with her husband and daughter.

Carl Goodfriend, CIO, ProviNET Solutions (Tinley Park, IL)

Mr. Goodfriend has 35 years of experience in long-term care operations, including 25+ years in technology and Information Systems. Carl serves a dual role as CIO for ProviNET Solutions and Providence Life Services. In this dual role, Carl continues to advance technology adoption and Information Systems use. He participates in a variety of software and technology advisory boards and is active in national and state associations including Leading Age Illinois, Centers for Aging Services and Technology (CAST), and Leading Age. In his role with ProviNET, he has developed a technology collaborative in the long-term care provider network that allows companies to share ideas and work together to create an integrated system for the next generation of healthcare. As part of this collaborative effort, Carl has developed a network of providers, software

vendors, technology companies and consultants who collaborate, share ideas, and actively participate in the advancement of technology for long-term care. Carl utilizes his experience by providing strategic planning and providing technology solutions for providers throughout the country and oversees a team of dedicated technology professionals who share the same vision.

Casey Blumenthal, DNP, MHSA, RN, CAE, Vice President, MHA...An Association of Montana Health Care Providers (Helena, MT)

Casey Blumenthal, DNP, MHSA, RN, CAE is a Vice President with MHA...An Association of Montana Health Care Providers. Originally hired in 2002 to provide services to MHA's Extended Care members, her role now encompasses the entire membership as she offers a clinical perspective to advocacy, regulatory and practice issues, along with oversight of MHA's Education programs. Prior to coming to MHA, she was the director of Flathead County Home Health Agency for twelve years, and was President of the Montana Association of Home Health Agencies. A licensed RN in Montana since 1979, Casey has served in a variety of clinical nursing positions including OB, ICU, ER, Med-Surg, and supervisory positions. Ms. Blumenthal obtained her Bachelor of Science in Nursing from University of Portland (Oregon), and Masters in Health Services Administration at St. Joseph's College of Maine. In 2008, she became a Certified Association Executive, and recently completed her Doctor of Nursing Practice, Executive Leadership degree from American Sentinel University in Colorado. Blumenthal is the co-lead for the Montana Action Coalition with the Robert Wood Johnson Foundation/AARP Future of Nursing Campaign for Action and is the state executive for Montana's LeadingAge affiliate.

Cathy Guttman Senior Director, Business Opportunities Senior Market, Medocity (Morristown, NJ)

Cathy joins Medocity after 25+ years working in both health care and the senior living industry. Prior to joining Medocity team, Cathy was a Vice President with Erickson Living and served as the Executive Director of Cedar Crest Village. Cathy was on the leadership team for Sunrise Senior Living where she was the Senior Area Manager of Operations. She also served as the Regional Director of Human Resources for both Sunrise Senior Living and Marriott Senior Living. Cathy was also a General Manager overseeing the operational leadership of assisted living communities and continuing care retirement communities during her tenure at Marriott. Her earlier career was at Kessler Institute for Rehabilitation where she was the Director of Food and Nutritional Services for the organization. Cathy attended the University of Maryland, New Jersey City University, Montclair University and Rutgers University (formally University of Medicine and Dentistry of New Jersey). She is a member of the National Association of Professional Women and serves as a volunteer for the Susan G. Kolman North Jersey Chapter.

Charlie Hillman, Founder/CTO, GrandCare Systems (West Bend, WI)

Charlie Hillman has spent most of his career as an entrepreneur involved in disruptive technologies, including computer cartography in the 70's, computer aided design in the 80's, and internet in the 90's. His latest effort, GrandCare Systems, is designed to allow the aged to live longer in their own home with greater security and less social isolation. The system, using a combination of smarthome technologies, ADL monitoring, internet communications, and telehealth features, is intended to support the full continuum of care by involving both professional and familial caregivers. Mr. Hillman is a professional engineer with a BS from MIT and a Masters in Engineering from the University of Wisconsin-Milwaukee. He is a commissioner of CAST (Center for Aging Services Technologies) and a frequent speaker at national and international conferences. In his spare time, he is involved in local economic development, heads up the local school board, and enjoys spending time with his four grandchildren.

Chip Burns, President, The Asbury Group-Integrated Technologies, LLC (Asbury-IT) (Germantown, MD)

With over 40 years of experience in the Information Technology (IT) field, Chip Burns is responsible for the strategic planning and leadership of technology initiatives and programs for The Asbury Group-Integrated Technologies and the Asbury Communities system. Mr. Burns manages a highly-skilled team of over 50 professionals that offer technology solutions to senior-living organizations. Mr. Burns serves as a commissioner for the Center for Aging Technologies (CAST), and is a founder of the CAST HackFest program. In the area of Healthcare Information Exchange (HIE), Mr. Burns has worked with state agencies such as CRISP (MD) and Keystone (PA), as well as Shady Grove Adventist Hospital in Maryland to facilitate integration and interoperability. He is a regular guest speaker at several senior living conferences, including the American Association of Homes and Services for the Aging (LeadingAge), LeadingAge Maryland and LeadingAge Pennsylvania. Mr. Burns has a Bachelor of Science degree in Information Systems Management from the University of Maryland University College.

Chip Ross, Chief Talent Officer, Chief Human Resources Officer, (Highland Park, NJ)

Chip was an independent human resources consultant supporting mid to large-size for-profit and non-profit organizations in the areas of talent management, organizational design and development, change management, HR effectiveness, organizational culture, communications and training/development. His experience includes leadership of several high-impact, people-centric initiatives in support of his clients' organizational strategies, and he has overseen the full complement of HR functions including benefits, compensation, payroll, training/development, employee/labor relations and program management. In addition, Chip was Vice President of Human Resources and Shared Services with Bowne, Director of Human Resources with Medco Health Solutions, and he has held positions of various responsibility with Captive Plastics and Macy's. He was also an English teacher in New York City, a teacher of ESL/bi-lingual students, and a coach of several student teams. Chip holds a Bachelor's degree in English from West Chester University as well as a Masters of Teaching degree from Fordham University. He is also a certified Hogan assessor and DDI trainer. He lives with his family in Woodridge, New Jersey.

Craig Lehmann, PhD, Dean, School of Health Technology and Management, State University of New York at Stony Brook (Stony Brook, NY)

Craig Lehmann, PhD, CC (NRCC), FACB is the Dean of The School of Health Technology and Management, Professor of Clinical Laboratory Sciences and Director for the Center of Public Health Education at Stony Brook University, Medicine. He is a registered clinical chemist with the National Registry of Clinical Chemistry and a Fellow in the National Academy of Clinical Biochemistry. In addition to his more than 75 journal articles, He has edited and co-edited 5 clinical laboratory science textbooks and 14 book chapters. He is the editor and author "Saunders Manual of Clinical Laboratory Science" published by W.B. Saunders. He has made more than 130 presentations nationally and internationally on a variety of health care topics. He served on the editorial board for American Association for Clinical Chemistry "Strategies" (1993-2003) and presently serves on the editorial board of Clinical Laboratory Sciences since 1987. Some of the more distinguished honors that have been bestowed upon him over the years have been; "President's Award for Excellence in Teaching" Stony Brook University as well as the State University of New York "Chancellor's Award for Excellence in Teaching". In 2007 received the American Association for Clinical Chemistry's Award for Outstanding Contributions in Education. Sample presentations: "E-Participation: Empowering People through Information Communication Technologies (ICTs)", United Nations, International Telecommunications Union Headquarters, Geneva, Switzerland, July 24-25, 2013.

David Finkelstein, Chief Information Officer, Hebrew Home at Riverdale (Bronx, NY)

David Finkelstein is the Chief Information Officer at Hebrew Home at Riverdale, an internationally recognized non-profit geriatric service organization offering a full continuum of care ranging from modern apartments for independent seniors to the most intense level of nursing care. The Home serves more than 10,000 older adults in the greater New York area. As CIO, he is responsible for the oversight of all enterprise wide IT and Telecommunications functions. David is a seasoned IT professional with close to 30 years of healthcare IT experience, primarily in long-term care. He brings a unique combination of experience in IT strategic planning, IT infrastructure, desktop and application support, project management, and vendor selection, strategic outsourcing, and team building. David most recently served as CIO for CareOne Management, LLC, a privately held post-acute care provider serving nine states, 9,000 beds of SNF/ALF services, 30,000 beds for pharmacy, homecare, and hospice services. Prior to Care One, David spent over 15 years as CIO for Village Care, and one of the co-founders of the 6N Systems, Inc. a leading long term care information system. He has a BBA in Computer Information Systems from Hofstra University. David often presents at industry conferences and is an active board member and Technology Co-Chair for CCITI-NY as well as a member of the Healthcare Information Management Systems Society (HIMSS), where he served as long-term care special interest group chairperson.

David Gehm, President and CEO, Wellspring Lutheran Services, (Frankenmuth, MI)

David M. Gehm has served as the President and Chief Executive Officer of Lutheran Homes of Michigan since January, 1994. In this role, Mr. Gehm is responsible for administrative and executive leadership for the organization, which is governed by a not-for-profit Board of Directors. Lutheran Homes of Michigan serves thousands of seniors and caregivers each year through various programs including home health and hospice, housing, skilled nursing and rehab, assisted living and memory loss programs. Mr. Gehm graduated from Wayne State University, Detroit, Michigan in 1984 with a Bachelor of Science degree in Pharmacy. While continuing his pharmacy licensure, Mr. Gehm is also a licensed nursing home administrator. Mr. Gehm has served as a member of the Board of Directors of the American Association of Homes and Services for the Aging, Washington, DC, including two terms as its Treasurer. In addition he has led various committees and currently serves as the Vice Chair of the Center for Aging Services Technologies, also in Washington, DC. He is past Chair of the Board of Directors of the Michigan Association of Homes and Services for the Aging, Lansing, MI.

Dave Wessinger, Co-Founder and CTO, PointClickCare, (Mississauga ON)

Dave is responsible for Strategy, Engineering and Corporate Development at PointClickCare. Dave has worked in the Senior Care Information Technology industry for 20 years and is actively involved in many industry associations and advocacy efforts, including CPAC, NASL, AHCA IT, CAST and ONC. Prior to co-founding PointClickCare, Dave was a Manager of IT for a multi-site provider and focused on software implementation and adoption. His unique blend of senior care provider knowledge and technical expertise proved invaluable in the creation of the PointClickCare solution, and the design decision to leverage Software-as-a-Service as the delivery platform in 1999. Dave continues his passion for the industry and is committed to helping providers improve outcomes through the use of Health Information Technology.

Debi Sampsel, Chief Officer of Innovation and Entrepreneurship, University of Cincinnati, (Cincinnati, OH)

Dr. Debi Sampsel, DNP, MSN, BA, RN**,** is the Chief Officer of Innovation and Entrepreneurship at the University of Cincinnati, College of Nursing in Ohio and director of research and innovation at Daniel Drake Center Post-Acute Services. Dr. Sampsel serves as the Chief Officer of Innovation and Entrepreneurship in the College of Nursing (CON) at the University of Cincinnati (UC) as well as the director of research and innovation at Daniel Drake Center Post-Acute Services in Cincinnati. Dr. Sampsel is a researcher, simulation coordinator,

and co-chair of the nursing research committee at the Dayton Veterans Affair Medical Center. Dr. Sampsel is a visionary leader, researcher, educator, and clinician in a variety of clinical settings, including geriatrics. Many of her activities are multidisciplinary and collaborative, involving patients, healthcare professionals, and students. In her role at the UC CON, she oversees the development of new innovative teaching initiatives that incorporate technologies and groundbreaking approaches in education, research and clinical practice and does consulting work for the University's Research Institute. Over Dr. Sampsel's career, she has been involved in a variety of initiatives including the integration and utilization of telehealth and telemedicine technologies, robotic systems, simulators, sensor tracking systems, creative learning environmental space design, and computer programming. Before coming to UC, Dr. Sampsel designed the Living Laboratory Smart Technology House at Wright State University. At UC she has used this same knowledge and experience to establish the Interprofessional Innovation Collaboratory Smart House, located on a Continuum Care Retirement center property which is home to over eight hundred thirty five older adults. Her latest workforce readiness bridging environment is the creation of a newly renovated Interprofessional Telehealth and Clinical Translation Innovation Center. Dr. Sampsel holds a doctorate in nursing practice from Union University in Jackson, TN and a Master of Science from the Medical College of Ohio, and a Bachelor of Arts in Anthropology and Associate Degree in Nursing from the University of Toledo. These diverse academic credentials have provided a unique opportunity for developing technologies and systems to enable better healthcare for older adults. Several opportunities of note include a 2013 US Patent for a home remote telehealth system, an extension of her pioneering "Home Stabilization" program in 1988, designing an in the home and community-based case management computer system, and integrating robotic systems for patient monitoring, engagement and student education. She has received numerous accolades and accomplishments for her pioneering work such as a being named an honorary commander of the Wright Patterson Air Force Base 188th Medical Center, chair of the Midwest Nurse Researchers' Society's Gerontology Research section, a member of the LeadingAge Center for Aging Services Technology Commission, a member of Sigma Theta Tau International Nursing Honor Society, a member of the Junior League of Cincinnati, and a board member on the Senior Independence Home Care and Hospice Corporation in Columbus, OH. In addition, she has written scholarly articles that have been published in peer-reviewed journals and text books. She has been highlighted in the "Developing Successful Health Care Education Simulation Centers" by Pamela Jefferies.

Dusanka Delovska-Trajkova, CIO at Westminster Ingleside, (Rockville, MD)

Delovska-Trajekova has more than 25 years' experience in computer science and automation in variety of environments, corporate, government, educational and nonprofit in Macedonia and USA. Macedonian by birth, Ms. Delovska-Trajekova spent her formative years in Prague then returned to her native country for university. Dusanka attended Saints Cyril and Methodius University in Macedonia and graduated with an electrical engineering degree back in the time when computer science and automation were described as part of the electrical engineering programs. While in Macedonia she worked in a chemical factory and the Department of Defense. Dusanka came to the United States in 2000 after the war in Kosovo. Once in the States, she worked for the Council on Foundations. She returned to Macedonia in 2006 to accept a position as counselor to the President of Saints Cyril, working to consolidate the IT system between 23 schools. After that, Dusanka returned to America and was working at the Pew Research Center when she heard about a position at a start-up in Rockville, Maryland. She had always worked for established organizations, and the idea of building something from the ground up was exciting. As IT Director, Dusanka was instrumental in helping to build Ingleside at King Farm into the successful community it is today. She was promoted to Chief Information Officer at Westminster Ingleside, where she brings her vision and energy to developing technologies that will be a part of the business and life strategies for the organization, all Westminster Ingleside communities, the Foundation, Service Corporation, home and community-based services, their staff and residents. Her focus is to help each community adapt to new organizational innovations and to develop and execute new business strategies.

Eli S. Feldman, CEO Emeritus of Metropolitan Jewish Health System (MJHS), (Brooklyn, NY)

Eli S. Feldman became CEO Emeritus of Metropolitan Jewish Health System (MJHS) and its participating agencies and programs in January 2015, having been its President and CEO for more than 36 years. The System includes a range of Continuing Care Programs and health insurance products. These include a 420 bed nursing and rehabilitation facility; post-acute home care; a licensed home care agency; advanced illness programs, including a palliative care program, hospice program for children and adults, an Institute for Innovation in Palliative Care, and a Center for Jewish End of Life Care; a special needs Medicare Advantage plan (Elderplan) with special coordinated community care services for at risk individuals; a FIDA SNP (fully integrated dual advantage special need plan); a Medicaid managed long-term care plan (HomeFirst SM); an Institutional Special Needs plan; senior housing; and a center for the development of assistive technology. MJHS is a recognized leader in the field of integrated care for frail, at risk and chronically impaired individuals. Its participating agencies and programs have more than a century of health care experience, and serve more than 50,000 individuals and their families in the Greater Metropolitan New York area and 27 counties upstate. Mr. Feldman graduated cum laude, with a bachelor of science in business administration from C. W. Post College of Long Island University. He also holds a master's of business administration in hospital administration from Wagner College.

Frances A. Walls-Ayalasomayajula, MPH, MSMIS, PMP, Healthcare Global Senior Manager, HP (Palo Alto, CA)

Frances Ayalasomayajula, is an executive healthcare technology strategist. With over 20 years in health and life sciences, Frances's experience spans both the US and overseas markets including Latin America, Europe, and Asia Pacific, leading megaprojects in clinical research, public health administration, and digital health solution adoption. Currently the Global Healthcare Solutions Senior Manager for HP Company, Print and Personal Systems, Frances devises strategies and product innovations designed to aid in advancing discovery, diagnosis, treatment and adherence for improved clinical outcomes, better population health, and increased patient engagement. Prior to HP, Frances worked for World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Bristol Myers Squibb, and United Healthcare Group. She holds Master's degrees in public health and information systems, and is certified in project and clinical trial management.

Gail Gibson Hunt, President and CEO, National Alliance for Caregiving (Bethesda, MD)

Gail Hunt is President and Chief Executive Officer of the National Alliance for Caregiving, a non-profit coalition dedicated to conducting research and developing national programs for family caregivers and the professionals who serve them. Prior to heading NAC, Ms. Hunt was President of her own aging services consulting firm for 14 years. She conducted corporate eldercare research for the National Institute on Aging and the Social Security Administration, developed training for caregivers with AARP and the American Occupational Therapy Association, and designed a corporate eldercare program for EAPs with the Employee Assistance Professional Association. Prior to having her own firm, she was Senior Manager in charge of human services for the Washington, DC, office of KPMG Peat Marwick. Ms. Hunt attended Vassar College and graduated from Columbia University. As a national expert in family caregiving and long-term care, Ms. Hunt served on the Policy Committee for the 2005 White House Conference on Aging, as well as on the CMS Advisory Panel on Medicare Education. She is chair of the National Center on Senior Transportation. Ms. Hunt is also a commissioner for the Center for Aging Services Technology (CAST) and on the Board of the Long-Term Quality Alliance. Ms. Hunt is a member of the Multiple Chronic Conditions Workforce Technical Expert Workgroup. She co-chairs the NQF MAP Person and Family-Centered Care task force. Additionally, Ms. Hunt is on the Governing Board of the Patient-Centered Outcomes Research Institute (PCORI).

Howard Wactlar, Vice Provost for Research Computing and Alumni Research Professor of Computer Science, Carnegie Mellon University, (Pittsburg, PA)

Howard D. Wactlar is Vice Provost for Research Computing and Alumni Research Professor of Computer Science at Carnegie Mellon University. He also serves as scientific director of the recently established NSF-funded Quality of Life Technology Engineering Research Center. He received his advanced degrees in physics from the University of Maryland and the Massachusetts Institute of Technology. He was primary architect and remains project director of the CareMedia and Digital Human Memory Machine projects, both seminal contributions to the machine understanding of aspects of human behavior. He founded the Informedia Digital Video Library, one of the first U.S. Digital Library Initiative research systems, aimed at automated understanding of video with applications in education, entertainment and national security He was a co-founder of the DoD-funded national Software Engineering Institute (SEI), an FFRDC dedicated to improving the process of software development and promulgating software engineering technology to government and industry.

Jack York, CEO, It's Never 2 Late (Centennial, CO)

Jack York is co-founder of It's Never 2 Late (iN2L), a company dedicated to helping older adults realize the full benefits of adaptive technology. Originally, Jack did not envision iN2L as a business; the impetus for what became the company was a philanthropic idea—to donate computers to assisted living communities and nursing homes in southern California. With a 15 year background in the Silicon Valley, he saw a vast potential in fostering these connections, but also saw that conventional technology was too difficult for virtually all of the residents to use in a meaningful way. As a result, in 1999, Jack retired as vice president of strategic sales for Vishay Intertechnology and started what has become a successful gerontechnology company. As of 2015, the company has a customer base of over 1500 communities spread out across all 50 states. He is a sought after national and international speaker on technology as a means to create personalized experiences that engage and connect residents to their loved ones and the world at large, specifically individuals with dementia. iN2L's work has been recognized by the Wall Street Journal, NPR, and dozens of senior living publications.

Jeffery Kaye, Director, Oregon Center for Aging and Technology (ORCATECH) and Director, Layton Aging and Alzheimer's Disease Center (Portland, OR)

Jeffrey Kaye is the Director of the Oregon Center for Aging and Technology (ORCATECH), a NIA supported Roybal Center, and Director of the Layton Aging and Alzheimer's Disease Center, a NIA supported Alzheimer's Research Center both based in Portland, Oregon. He is Professor of Neurology and Biomedical Engineering at Oregon Health and Science University (OHSU). He also directs the Geriatric Neurology program at the Portland Veteran's Affairs Medical Center. Dr. Kaye's research has focused over the past two decades on the question of why some individuals remain protected from frailty and dementia at advanced ages while others succumb at much younger ages. This work has relied on a number of biomarker techniques ranging across several fields of inquiry including neuroimaging, genetics and continuous activity monitoring. A centerpiece of his studies has been the ongoing Oregon Brain Aging Study, established in 1989. He currently leads a longitudinal NIH study, "Intelligent Systems for Detection of Aging Changes (ISAAC)" using ubiquitous, unobtrusive technologies for automated assessment of seniors in their homes to detect changes signaling imminent decline of function. Dr. Kaye has received the Charles Dolan Hatfield Research Award for his work. He is listed in Best Doctors in America. He serves on many national and international panels and review boards in the field of geriatrics, neurology and technology including as a commissioner for the Center for Aging Services and Technology (CAST), chair of the Professional Interest Area Working Group on Technology for the national Alzheimer's Association and on the Advisory Council of the International Society to Advance Alzheimer Research and Treatment (ISTAART). He is an author on over 200 scientific publications and holds several major grant awards from federal agencies, national foundations and industrial sponsors.

Jeremy J. Nobel, MD, MPH, Dept. of Global Health and Social Medicine, Harvard Medical School (Boston, MA)

Dr. Nobel is on the adjunct faculty of the Harvard School of Public Health where he does research on emerging information technologies and health care delivery processes. An important aspect of Nobel's work includes active engagement with the payer and purchaser world, including advisory liaisons with large self-insured employers, insurers, foundations, government, and healthcare business coalitions. He has done extensive work in the effective application of emerging information technologies in Senior Care scenarios, including programs to manage environmental risks, improve health and wellness and reduce the burden of social isolation in seniors at home and in assisted living situations. Dr. Nobel is Board Certified in Internal Medicine and Preventive Medicine with Master's Degrees in both Epidemiology and Health Policy from the Harvard School of Public Health. He is on the faculty of Harvard Medical School in the Department of Global Health and Social Medicine, and also is Medical Director of the Northeast Business Group on Health.

Jim Osborn, Executive Director and a Co-Founder of the Quality of Life Technology Center (Pittsburgh, PA)

Jim Osborn is the Executive Director and a co-founder of the Quality of Life Technology Center, a collaboration of Carnegie Mellon and the University of Pittsburgh funded by the National Science Foundation as one of its Engineering Research Centers since 2006. He is also the Coordinator of University Life Science Initiatives for Carnegie Mellon. From 2001 to 2006 he was Executive Director of the Carnegie Mellon's Medical Robotics Technology Center, as well as MERITS of Pittsburgh, a program to stimulate collaborations between clinical and technological researchers. Previously, he founded a regional economic development group, the Pittsburgh Robotics Initiative. From 1985 through 1999, he held research and management positions in Carnegie Mellon's Robotics Institute and led several multi-$M robotics R&D projects sponsored by the US DOE, NASA and industry, including the first robot to explore an active volcano and robots for investigation of the Chernobyl and Three Mile Island nuclear accidents. He has served as a board member of several professional society robotics divisions, chaired two technical conferences. He holds a Bachelor's degree in Electrical and Biomedical Engineering and a Master's degree in Civil and Biomedical Engineering, both from Carnegie Mellon University.

JJ Johnson, CEO, Cornell Communications, Inc. (Milwaukee, Wisconsin)

With a BS in Industrial Engineering and an MBA, his career began with seventeen years at GE. He then managed three small manufacturing companies purchasing CORNELL in 1993. JJ was the former Chairman of the National Electrical Manufacturers' Group (NEMA) overseeing Building Codes for Healthcare facilities. He currently is on the Advisory councils of the ACHCA, AHCA, Argentum, Leading Age and NCAL Senior Living Trade Associations. Living in Wisconsin he is married to Barbara with three children and six grandchildren.

Joe Gerardi, Senior VP and CIO, American Baptist Homes of the West (ABHOW) (Pleasanton, CA)

Joe Gerardi is the IT Vice President/CIO of American Baptist Homes of the West, a non-profit who operates 10 CCRCs and over 32 affordable housing communities in 4 western states. Joe and his extended IT team of 19 plan, install and support all IT activities for the company including classic business applications, resident health and safety applications and operate a network with over 1000 nodes. In his nine years at ABHOW Joe has overseen the deployment of a new HRMS system, a new clinical system, a new time and attendance system, a brain fitness program, resident wireless, and has developed standards for Nurse Call, telephone systems, and premise wiring. Prior to joining ABHOW Joe had a 26 year career with Hewlett-Packard where he did everything IT from repairing customer computers, to managing global networks, to owning strategy and support for company's 110,000 PCs. Joe has a BA in Management from the University of Maryland, and has completed graduate work at the University of Phoenix. Joe was born in Brooklyn, NY and now lives in Dublin, California

with his lovely wife, daughter, and assorted pets.

John DiMaggio, CEO and Co-Founder, BlueOrange Compliance, (Dublin, OH)

John is a recognized healthcare information compliance speaker to State Bar associations, technology working groups, and several acute care and long-term care associations. Mr. DiMaggio's extensive long term and post-acute care experience includes Chief Information Officer with NCS Healthcare and Omnicare; senior operations roles with NeighborCare, and general consulting to the industry. John began his career as a key expert in Price Waterhouse's Advanced Technologies Group and served on several national and international standards organizations including the American National Standards Institute (ANSI) and the International Standards Organization (ISO). John is the named inventor for multiple healthcare technology and process patents. He holds an MBA in Finance from Katz Graduate School of Business and a BS in Computer Science from the University of Pittsburgh.

John Mabry, Chief Technology Officer & Senior Vice President, Align (Wausau, WI)

John has over 35 years of experience in the senior healthcare field. He has extensive knowledge in healthcare information and management and has held senior care leadership positions including Senior Vice President, CIO of Avalon Healthcare and Senior Vice President and Chief Strategy Officer for My InnerView. John received his bachelor of science degree from the University of Houston as well as his master degree in public health – health information systems from the University of Texas.

John Rydzewski, General Manager, Direct Supply Inc. (Milwaukee, WI)

A dynamic, growth-oriented thought leader, John Rydzewski has spent the past 12 years serving the Senior Living industry, with a passionate focus on innovation and technology to help drive Senior Living forward. He is committed to building and integrating technology and seeks to create partnerships that foster innovation. As General Manager, he has led the Technology Solutions business by providing outrageous customer service, delivering innovative solutions and streamlining operations. John enjoys working with the world-class team at Direct Supply every day. He has a strong track record of delivering high-growth results, and has robust experience in launching new offerings, new businesses, new technology and new process improvements. John has had full P&L responsibility within the large matrix organization of Direct Supply, overseeing Sales, Product Management, Project Management, Operations, Customer Service, Strategic Marketing and Supply Chain teams and strategies to drive long-term growth. He has experience leading the organization through short- and long-term strategic planning. John serves as a member of Direct Supply's Executive Working Group. In his current role, John is responsible for helping Direct Supply bring new technologies into the Senior Living space. He focuses on resident monitoring systems, wireless technology, the Internet of Things, telehealth, wearables and other new, cutting-edge technologies. John has previously led the creation and implementation of Operations & Supply Chain strategies where he implemented new systems, services and technologies inside Direct Supply and in the Senior Living industry. As a leader in change and innovation, John's expertise can be found in several areas, including technology, supply chain, operations and business development. John is a graduate of the University of Wisconsin-Madison and has been with Direct Supply since 2002.

Jon Sanford, Director, Center for Assistive Technology and Environmental Access/Adjunct Assoc. Prof of Architecture, Georgia Tech (Atlanta, GA)

Jon Sanford, M. Arch, is the Director of the Center for Assistive Technology and Environmental Access and an

Associate Professor of Industrial Design at Georgia Tech. He is also a Research Architect at the Rehab R&D Center at the Atlanta Veterans Affairs Medical Center. Mr. Sanford is one of the few architecturally-trained researchers engaged in design and usability of products, technologies and environments for older adults and people with disabilities and he is the lead PI on the Rehabilitation Engineering Research Center on Technologies for Successful Aging with Disability (RERC TechSAge), which is a 5 year grant from the National Institute on Disability and Rehabilitation Research (NIDRR) in the Dept of Education. He is internationally-recognized for his expertise in universal design and home modifications and the development of several environmental assessment instruments to help clinicians and designers meet the needs of older adults for aging in place. His current work focuses on use of integrating digital technologies into physical products and use of remote interactive technologies to provide home modifications to improve health of older adults and facilitate aging in place. He has over 300 presentations and publications and recently authored the book: Design for the Ages: Universal Design as a Rehabilitation Strategy from Springer Publishing.

Kari Olson, Chief Information Officer, Front Porch (Burbank, CA)

Kari Olson, Chief Information Officer, leads all of the business and resident technology initiatives for Front Porch and its partners. Prior to joining Front Porch, Kari led major technology initiatives in the health care and social services sectors and worked as a technology consultant to a variety of national clients. In addition, Kari also served as the product manager for AMS International Data Systems. Kari is actively involved in the Center for Aging Services Technologies where she serves as a commissioner, steering committee member and task group chair for Boomer Technology Needs Research. She is also a member of the Dakim scientific advisory board. Kari holds a BA in economics from University of California, Los Angeles and has completed graduate course work in education at California State University, Los Angeles.

Rear Admiral Kathy Martin, CEO, Vinson Hall Retirement Community (McLean, VA)

Kathy Martin became the CEO of Vinson Hall LLC in McLean, VA, and the executive director, Navy Marine Coast Guard Residence Foundation in September 2005, upon retiring from active duty in the United States Navy. In her tenure at Vinson Hall, she has overseen the construction of a multi-million dollar expansion which included a parking garage, 75 unit independent living residence with underground parking and a community building with a state of the art rehabilitation center. She has partnered with industry to pilot several technologies, including a wearable fall detection system and robotic pet therapy. Additionally, partnerships with University researchers have explored fall prevention strategies and various aspects of senior health. Kathy was commissioned an Ensign in May 1973 after graduating from Boston University. After serving at several Navy health care facilities, in 1992 she earned a Master of Science Degree in both nursing administration and as a family health nurse specialist. She assumed her first command in 1993 as commanding officer of Naval Medical Clinic, Port Hueneme, CA. Subsequently, she served as commanding officer, Naval Hospital, Charleston, SC, from July 1995 to June 1998. She was promoted to the rank of Rear Admiral and assigned as the Medical Inspector General from August 1998 to October 1999. From November 1999 to October 2002, she served as commander, National Naval Medical Center, Bethesda, MD. She served as deputy surgeon general of the Navy/vice chief, Bureau of Medicine and Surgery from October 2002 until her retirement in September 2005. She also held the position as the 19th director of the Navy Nurse Corps from August 1998 to August 2001. Her military decorations include the Distinguished Service Medal (2 awards), Legion of Merit (3 awards), the Defense Meritorious Service Medal, Meritorious Service Medal and the Navy Commendation Medal. Rear Admiral Martin also proudly wears the anchors of an honorary Master Chief Petty officer.

Larry Hickman, Senior VP of Administrative Services & CIO, Bethesda Health Group (St. Louis, MO)

Larry Hickman, is an innovative and motivational executive with a strong record of success building high

performing technology groups that enable business efficiency and growth. Larry brings nineteen years of experience in Strategic Visionary Thinking and Leadership, Team Building, Process Assessment and Improvement, Change and Project Management, and Budgeting and Cost Control. Larry has been the Chief Information Officer with Bethesda since 2008 and is responsible for setting the strategic direction and providing technology enabled solutions that provide better health outcomes. Larry's role has expanded over his tenure to include; Facilities and Construction Management, Project Management, Grounds, Purchasing, Housekeeping, Laundry, Security and Property Renovations. Prior to joining Bethesda, Larry was a Technology Risk Consultant with Arthur Andersen as he guided Fortune 500 companies to drive efficiency through the use of technology, led Centene's Information Technology group as the company grew 600% in 5 years and solidified a world-wide PMO for Reinsurance Group of America.

Larry Jorgensen, CIO and Vice President of Information Technology, Ecumen (Shoreview, MN)

Larry has for over 10 years lead a team that develops and supports all Information Systems activities as well as provides project management support for a variety of company initiatives and has maintained a continuous focus on assessing and implementing practical technology that can help individuals age in place. Among the innovative projects he has led for Ecumen is implementing mobile devices across the organization, putting technology in the hands of the frontline caregivers where it can be most impactful, implemented the use of sensor technology when it was still very new to the industry and have tested and implemented the first phases of Health Information Exchanges with some of Ecumen's partners. Some other accomplishments include graduating from Concordia University with a degree in Organizational Management and Communications and receiving a certification in computer programming. Prior to his career with Ecumen he worked for Green Tree Finance in the financial services industry and Safetran Systems in manufacturing where he held a number of IT leadership roles, including VP of Application Development and Support, AVP of Sales and Marketing support and AVP of shared services. He has also served as an elected official, board member, and on many different city commissions and committees. Most notably, he was elected three times as a member of the Coon Rapids City Council and was appointed by the League of Minnesota cities to the National League of Cities Transportation and Communications Policy Committee. Larry's personal interests are quite varied, he was a volunteer youth sports coach for 25 years, and served as the president of the Blaine High School Boys Basketball booster club. He loves spending time in the outdoors, including harvesting and making maple syrup. Larry has been happily married for more than 36 years, and has three children and three grandchildren and enjoys spending time with his growing family.

Linda Spokane, VP of Research & Analytics, LeadingAge New York (Albany, NY)

Linda Spokane, as Director of Analytics and Technical Services at NYAHSA, Linda oversees the EQUIP for Quality software product, a web-based MDS analytics tool used by over 350 nursing homes around the country to monitor and improve outcomes, manage risk, and assist with care planning. In addition, Linda is on NYAHSA's executive team and has recently become involved with helping the association set its technology agenda. Before becoming Director, Linda worked as a project manager/analyst for several EQUIP research projects that focused on using health information technology to improve the quality of life for dementia residents. She has extensive experience researching and identifying potential risk factors that lead to negative outcomes in long term care settings such as falls, pain, incontinence and pressure ulcers, and incorporating this information into quality improvement software used by direct care staff to improve resident care. Linda has a Master's degree in Health Policy and Management from the University at Albany's School of Public Health and has worked in the health care field for over 10 years.

Mark McClellan, MD, PhD, Director of the Duke-Robert J. Margolis, MD, Center for Health Policy, Robert J. Margolis MD Professor of Business, Medicine and Health Policy (Durham, NC)

Mark B. McClellan is director of the Health Care Innovation and Value Initiative and senior fellow at the Brookings Institution. His work at Brookings focuses on promoting quality and value in patient centered health care. A doctor and economist by training, McClellan also has a highly distinguished record in public service and in academic research. He is a former administrator of the Centers for Medicare & Medicaid Services (CMS) and former commissioner of the U.S. Food and Drug Administration (FDA), where he developed and implemented major reforms in health policy. These include the Medicare prescription drug benefit, the FDA's Critical Path Initiative, and public-private initiatives to develop better information on the quality and cost of care. Dr. McClellan chairs the FDA's Reagan-Udall Foundation, is co-chair of the Quality Alliance Steering Committee, sits on the National Quality Forum's Board of Directors, is a member of the Institute of Medicine, and is a research associate at the National Bureau of Economic Research. He previously served as a member of the President's Council of Economic Advisers and senior director for health care policy at the White House. He was also an associate professor of economics and medicine at Stanford University. McClellan holds an MD and an MPA from Harvard University and a PhD in economics from MIT.

Mary Senesac, Director of Health Systems, HealthMEDX (Ozark, MO)

Mary is the Director of Health Systems for HealthMEDX. Mary's experience in healthcare spans more than 25 years. Her early healthcare career began as a Medical Technologist working in academic health systems and national laboratories as a clinician, lab director and sales leadership. Prior to joining HealthMEDX Mary held leadership roles with McKesson IT. Mary's work with complex health systems deploying electronic medical records and driving connectivity to ambulatory settings including physician EMRs and Health Information Exchanges bring a unique perspective to the Long-Term Post-Acute Care continuum. As a trusted advisor Mary's experience and work with her clients help to formulate strategic plans. Mary is passionate for continued improvement in healthcare technology and driving customer success. Mary holds a Bachelor of Science in Healthcare Administration.

Michael Rambarose, President & CEO, Whitney Center (Hamden, CT)

Since 2005, Mike has served residents and staff of Whitney Center, a Hamden, Connecticut not-for-profit senior living community founded in 1979 comprising independent living, assisted living and skilled nursing amenities and services with annual budgeted revenues of approximately $20 million and a workforce of 280 people. Before assuming his current role as President & CEO in 2012, Mike was Whitney Center's Senior Vice President for Administration, primarily responsible as project manager for campus repositioning and expansion initiatives from concept through design, financing, construction and marketing. Throughout his 18 years in the aging services field, Mike has served senior living and healthcare communities of New York and Connecticut in myriad capacities, including community education & outreach, marketing & public relations, business development, operations management and executive leadership. He values personal respect, collaboration and continual learning as underpinnings of his servant leadership philosophy. As an alumnus of the Leading Age Leadership Academy, current member of the Leading Age Board, current co-facilitator in the Leading Age CT Leadership Academy and active CARF-CCAC aging services surveyor, Mike is keenly interested in helping advance the aging services field for the betterment of elders and those who serve them. Mike also serves on the board of Chapel Haven, a not-for-profit education and residential program for young adults with developmental challenges, focusing on Autism Spectrum Disorder and Asperger Syndrome.

Michelle Parent, Sales Solutions and Strategy Lead, DIRECTV - Hospitality and Institutions, (El Segundo, CA)

Michelle has 19 years sales and business management experience for satellite video, banking, telecommunication/data service and equipment companies, with over 7 years at DIRECTV managing national partners and go-to-market strategy and business development. Currently manage the Sales Strategy team of 3 Sr. Managers and 2 Consultants and directly responsible for our go-to-market sales solutions and strategy development for the DIRECTV Hospitality and Institutions business; including Hospitality, Sr. Living, HealthCare, Higher Ed, amongst other Commercial Institutions. Michelle's team works side by side with our sales and distribution team led by Pam Lawler, Director of Sales. That team consists of 5 Area Sales Managers and over 300 3rd party service providers. One of Michelle's primary roles this year is spearheading efforts to bring to market a forward-thinking, home-like entertainment solution for the progressively evolving consumer demands within Sr. Living and Healthcare verticals.

Mike Matteo, CIO, CenterLight Health System (Bronx, NY)

Mike is the CIO of CenterLight Health System, a leading non-profit provider of rehabilitation and long-term healthcare services in the New York metropolitan area. CenterLight offers a wide range of programs and services, including managed Care, Certified Home Health Agency (CHHA), Home Care (LHCSA), Long Term Care (Skilled Nursing Facilities), Medical Services (PACE), and other supportive services. Speaking 75 languages and dialects, the organizations's 4,000 employees serve 14,000 patients each day. As CIO, Mr. Matteo has led the deployment of new technology solutions that empower care providers to carry out CenterLight's mission of providing high quality care. Prior to joining CenterLight, Matteo served as Senior Vice President & Regional COO at Bridgeline Digital, which provides technology products and solutions in variety of industries, including Healthcare, Financial Services, Manufacturing and Retail. Matteo joined Bridgeline through the acquisition of Lead Dog Digital (LDD), where he was a founding partner, Mike also served as the CEO and CTO of LDD< where he oversaw 600% growth within a three-year period. Prior to joining LDD, Mike served in a variety of roles for AT&T in the areas of technology strategy, development, and deployment. His final assignment was based in Amsterdam, The Netherlands, where he led the technology build out for a successful joint venture with four European telecom providers to establish business communication product offerings in 17 European countries. Mike holds a dual Bachelor's degree in Computer Science and Management Science from the State University of New York at Oswego and an MBA from The Wharton School at The University of Pennsylvania.

Neil Borg, Managing Director - Corporate Finance, Zeigler, (Bethesda, MD)

Neil is responsible for the management of the firm's corporate finance practice focusing on healthcare services and information technology. Neil also focuses his time on building out Ziegler's for-profit strategic advisory and principal investing efforts and is a managing partner of the Ziegler Linkage Longevity Fund. Prior to joining Ziegler, Neil was in the Healthcare Services Investment Banking divisions of J.P. Morgan (previously Chase H&Q and Hambrecht & Quist) and Friedman, Billings, Ramsey & Co. While at Hambrecht & Quist, Neil was a partner in an affiliated venture capital fund, H&Q Serv*s Ventures, focused on early stage healthcare investments on behalf of Hambrecht & Quist and Johnson & Johnson. Over his career, Neil has completed over 65 transactions including strategic advisory assignments, public and private equity financings and equity investments principally for emerging growth, middle market companies in the healthcare services and healthcare information technology sectors. In addition, Neil currently sits on the Board of Directors of Auditz, LLC and was most recently on the Board of Directors of Certify Data Systems, Inc. prior to its sale to Humana Inc. in 2012.

Patrick Clark, IT Director for Continuing Care, St. Peters Health Partners, The Eddy (Albany, NY)

Patrick is the Director of Information Technology/Continuing Care for St. Peters Health Partners Eddy system.

The Eddy is a comprehensive continuum of healthcare, supportive housing and community services that reaches 22 counties and serves more than 40,000 people yearly in the capital region of New York State. Eddy services help maximize independence, quality of life and dignity of individuals, and help prevent the premature institutionalization of chronically ill, frail or disabled seniors. Mr. Clarks responsibilities encompass the entire Eddy system, Housing, Long Term Care, Acute and Sub-Acute Rehabilitation, PACE, and Home Care (VNA). Prior to his tenure at St. Peters Health Partners Mr. Clark served as the Director of Information Services for Bassett Healthcare in Cooperstown New York. Mr. Clark is a member of HIMSS and a past board member of the Health Information Exchange of New York (HIXNY), the capital regions Regional Healthcare Information Organization (RHIO). Patrick is also a LEAN Facilitator for St. Peters Health Partners and applies the principles of the Toyota Production System (TPS) to solving issues facing St. Peters Health Partners affiliates.

Peter Kress, Vice President and Chief Information Officer, ACTS Retirement-Life Communities (Ambler, PA)

Peter has led Information Technology enabled change initiatives at ACTS Retirement-Life Communities, Inc. for nineteen years, the last fifteen as Vice President and Chief Information Officer. Peter serves on the commission of the Center for Aging Services Technologies (CAST) and leads their standards and Electronic Health Record/ Personal Health Record efforts including participation on the Long Term and Post-Acute Care (LTPAC) Health IT Collaborative and co-planning the Collaborative's annual summit. He also serves on the Florida Health Information Exchange Coordinating Committee. Peter previously served as chair of the advisory board of the Coalition for Leadership in Aging Services. He has a master's degree in Gerontology from the University of Southern California and has completed graduate work in religious studies. Peter is passionate about exploring the future of the intersection between aging services, consumerism, healthcare, demographics, and technology. Prior to working for ACTS, Peter led an independent information technology consulting business for twelve years. He has been invited to present at regional, national and international aging services and IT conferences. Peter Kress lives in Ambler, PA.

Richard Hoherz, Chief Information Officer, Westminster-Canterbury Chesapeake Bay (Virginia Beach, Virginia)

As the Chief Information Officer, he is focused on finding and implementing leading edge technologies for all areas of the continuing care retirement community, including healthcare. Current initiatives include implementing a controlled research study on the use of computer technology to enhance the lives of seniors, moving general ledger and other back office functions to the cloud and modernizing and streamlining human capital management. Rich has over 18 years in the information technology field as a consultant and services manager, leading large scale integration and business transition projects for well over a hundred organizations in such diverse fields as engineering, pharmaceuticals, securities, law, medicine, insurance and healthcare.

Rich Schutt, President, Providence Management and Development Co. (Tinley Park, IL)

Rich has been with the organization over 30 years. He has the responsibility for overseeing operations, finance, marketing, development, and administrative divisions of Providence Life Services. Mr. Schutt was the past-chair of the American Association of Homes & Services for the Aging ("LeadingAge") Board of Directors and has served on his local church and school boards. He is also the past-chair of the State LeadingAge affiliate in Illinois, which is known as "LeadingAge Illinois". He is President of Providence Management, which owns a Technology Company and Development Company. In addition, Mr. Schutt is the past-chair of an alliance of long term care agencies in Chicago, known as Symbria, formerly "Health Resources Alliance". Mr. Schutt has a Masters in Health Administration from Governors State University where he has taught courses in Nursing Home Administration and Concepts of Long-Term Care. During his tenure as Chair of LeadingAge the Center for Aging Services Technology (CAST) was established. Mr. Schutt and Providence Life Services have continued

to participate in the leadership of the CAST Commission.

Rustan Williams, Chief Information Officer, Evangelical Lutheran Good Samaritan Society (Sioux Falls, SD)

Rustan is the Vice President for Information Services/Technology Systems and Chief Information Officer for The Evangelical Lutheran Good Samaritan Society whose corporate headquarters is in Sioux Falls, South Dakota. Williams coordinates all software, technology and related services for the 22,350 employees in 23 states where the Society provides services as the largest not-for-profit long-term care provider in the United States. He has served the Society in this capacity for thirteen years. Williams has been essential in the development of the Society technology that is focused on providing the greatest amount of functionality at the lowest possible cost. Williams and the Society have been pioneers in the use of thin clients and network centric computing and this work has been referenced in several publications. Williams received his Master's Degree in Business and Administration from Colorado Technical University and his Bachelor of Business Administration and Associate's of Art Degree in Computer Science from Southeast Missouri State University. He has received numerous certificates for management and technology specialized training including being a certified nursing assistant. Previous to joining the Society Williams was a Divisional Chief Information Officer for the Adventist Healthcare System, a major acute care provider in the Midwest and Southeast.

Sneha Patel, CIO, Covenant Retirement Communities, Inc. (Skokie, IL)

Sneha joined Covenant Retirement Communities (CRC) as Chief Information Officer in 2001. CRC is a church affiliated, not-for-profit leader in the long term care industry. CRC's 3200 employees operate 14 retirement communities across 8 states and serve more than 5000 residents. The IT needs for all CRC locations are centrally managed by CRC's Information Services department. Prior to joining CRC, Ms Patel worked for 15 years as a consultant in various roles at EDS, Platinum and Computer Associates (CA). In her last position before joining CRC, she worked as Project Director for the consulting practice of Computer Associates. When CRC hired CA in 1999 to setup and staff an IT Help Desk, Sneha became CA's onsite senior consultant and functioned as CRC's Help Desk project manager. She is a graduate of University of Illinois at Chicago, with a degree in Operational Research and Statistics.

Stuart Kaplan, CEO, Selfhelp Community Services, Inc. (New York, NY)

A forward thinking executive with extensive experience in health care administration, Stuart C. Kaplan provides strategic, analytical, and operational stewardship for social service, health care, long term care and managed care organizations. Under his leadership, Selfhelp Community Services, Inc., a leading provider health and human services, home care and affordable housing for aging New Yorkers, has strengthened its financial position, improved program efficiency and preserved its compassionate delivery of care. Selfhelp is also the largest provider of comprehensive services to Holocaust survivors in North America. As a transformative leader, Mr. Kaplan led Selfhelp in the formation of a care management joint venture with FEGS Health and Human Services to serve chronically ill populations. Mr. Kaplan's commitment to the wider New York community is evidenced by his committee and board participation in many service organizations. Mr. Kaplan serves on the Board of Directors of LeadingAge New York, where he is President of the statewide Housing Cabinet. Mr. Kaplan is also active in the national LeadingAge association in the areas of aging services technology and housing with services. Locally, Mr. Kaplan serves on policy and program development committees at UJA-Federation of New York and served as Co-chair of UJA's Communal Service Division Campaign. Mr. Kaplan served as an officer of the Board of the Elizabeth Seton Pediatric Center in New York City. Prior to Selfhelp, Mr. Kaplan was executive vice president at St. Mary's Healthcare System for Children serving children with special health care needs and terminal illnesses. He has written and presented on the subject of gerontechnology and subacute care for adults and children. Mr. Kaplan is a licensed Nursing Home

Administrator in New York State and holds a Masters Degree in Business Administration from Bernard M. Baruch College. He is a past President of Bernard M. Baruch College/Mount Sinai School of Medicine Health Care Administration Alumni Association.

Thom Hosinski, Vice President of Healthcare and Housing Services for Evangelical Homes of Michigan (Farmington, MI)

Thom brings 25+ years of senior service experience, including skilled nursing, assisted living, independent living, congregate senior housing, CCRC without walls and also home and community-based services. Hosinski has a Master's Degree in Health Services Administration and a Bachelor's in Psychology, both from the University of Detroit-Mercy. Thom also holds a nursing home administrator license in the State of Michigan.

Guest Bios

Brandy Stefanco, CFO, Jewish Family Home (Rockleigh, NJ)

Brandy received her M.B.A from Northeastern University and holds a dual specialization in Healthcare and Finance. She is in her thirteenth year at the Jewish Home Family, a leading provider of post- acute and long term home and community based services, and serves as their Chief Financial Officer. In addition to her role as CFO, Brandy is also involved with the oversight of the information and technology needs for her organization. She is a member of the Finance and Investment committee as well as serving as advisor to the Jewish Home Family and its sister organization boards. Brandy currently holds a board position with Care Associates, is a member of the Leading Age NJ Finance Committee, and a participant in the Berrie Professional Excellence Fellowship. She is a three time finalist for the NJBIZ CFO of the Year in the large non-profit and healthcare division. In addition, NJBIZ is currently writing an article on Top Women in Healthcare Finance; in which Brandy is being profiled.

Cathy Schweiger, Senior Consultant, CliftonLarsonAllen LLP (Philadelphia, PA)

Cathy brings over 25 years of diverse management and management consulting experience in the healthcare and hospitality industries. At CliftonLarsonAllen LLP, Ms. Schweiger has focused on market research, strategic planning, program development and operations management for home and community based services, and focus groups for facility and program development and implementation. Ms. Schweiger has assisted both campus-based organizations and social service providers to expand their mission through development of creative and impactful programming. Ms. Schweiger is a graduate of Cornell University's School of Hotel Administrations and holds a Pennsylvania Teaching Certificate.

Craig Bushby, Manager/LCS Technology Consulting

Craig began his career with LCS in 1999 and is currently the Manager/LCS Technology Consultant. He offers a wide-range of experience in technology consulting, operational and financial auditing, treasurer and controller, manufacturing operational management, and the establishment of desktop technology for cloud based sub-acute software products. Craig works with clients to analyze current process and capabilities to determine the effectiveness in meeting current and projected needs, and he also creates roadmaps for improvements identified that improve their internal capabilities and processes. Craig is a graduate of the University of Northern Iowa.

Dan Hermann, Senior Managing Director, Head of Investment Banking, Ziegler (Chicago, IL)

Daniel joined Ziegler in 1987. He has recently been named as head of Ziegler's investment banking practice

and a member of the Board of Directors. During his tenure he has become a leading investment banker in the senior living industry. He has far-ranging experience in the management, structuring and financial analysis of every type of senior living financing. Dan is directly responsible for managing Ziegler's senior living finance offices nationwide. In his 25 years with Ziegler, Dan has structured and managed more than 185 senior living financings exceeding $5.0 billion. He has utilized his expertise to create financing structures fro a large clientele- from stand-alone nursing homes to multi-facility, multi-state systems, including start-up campuses undergoing major renovation projects. His particular emphasis in recent years has been to provide resources for key decision-makers in an organization to effectuate sound financial and strategic planning initiatives,. To that end, Dan has assisted numerous multi-facility systems in their corporate planning efforts. When appropriate, he assists these and other organizations in the structuring of their financings and has developed financing alternatives using the broadest range of financing structures available to maximize yields and flexibility for his clients: traditional fixed rate issues, credit enhanced variable rate structures, extendable rate unenhanced issues, derivative applications, and off-balance sheet financings. Prior to joining Ziegler, he worked for a "Big Four" public accounting firm. In his 25 years with Ziegler, Dan has structured and managed more than 185 senior living financings exceeding $5.0 billion. He has utilized his expertise to create financing structures for a large clientele — from stand-alone nursing homes to multi-facility, multi-state systems, including start-up campuses and campuses undergoing major renovation projects. His particular emphasis in recent years has been to provide resources for key decision-makers in an organization to effectuate sound financial and strategic planning initiatives. To that end, Dan has assisted numerous multi-facility systems in their corporate planning efforts. When appropriate, he assists these and other organizations in the structuring of their financings and has developed financing alternatives using the broadest range of financing structures available to maximize yields and flexibility for his clients: traditional fixed rate issues, credit enhanced variable rate structures, extendable rate unenhanced issues, derivative applications, and off-balance sheet financings. Prior to joining Ziegler, he worked for a "Big Four" public accounting firm.

David Dring, Executive Director, Selfhelp Innovations, (New York, NY)

2012 marks the twentieth year David Dring has served the Aging Network. Originally as a special consultant to the NYC Department for the Aging and their non-profit venture, the Fund for Aging Services, David's career spans program development within local, small, community-based service organizations to national associations to international philanthropies and government agencies. Throughout, his focus is on the strategic mechanisms in which services to older adults and their caregivers can be delivered with quality and at a scale that can support the Aging Tsunami. David served as an Executive at the National Council on Aging where he led the development of a decision-support software system that became VitalAging, LLC, an $8 million venture with NY Life. He later led the team that created the award winning, BenefitsCheckUp.org Initiative – an online decision support system to help older adults and their caregivers identify the benefits they are eligible to receive. As Executive Director of the Interactive Aging Network, he led the team that launched A2B.org.uk (Access 2 Benefits) in collaboration with Northern Ireland NGOs and the Northern Ireland government, which in its first year of operation assisted older Irish to receive $12.5 million dollars in benefits. Through these experiences, David developed an expertise in the creation of social enterprises which creatively maximize philanthropic and impact investor resources to achieve positive social impact. David currently serves as the Executive Director of Selfhelp Innovations where he is devoted to leveraging technology to enhance the tools that staff use to deliver care and the services that clients use to enrich the quality of their lives. In this role, he provides strategic advice on how the organization can align business requirements with innovative technologies and practices to expand service opportunities. An example is Selfhelp's Virtual Senior Center, which David helped refine the business model, raise funding and upgraded the interface to enable Selfhelp to grow this program from 20 users to over 200 before the end of 2013. David continues to manage Selfhelp's infrastructure (450 desktop computers, server farm and telco operations). He also serves on as a Commissioner

of CAST (Center for Aging Services Technology) at LeadingAge, on the board of Older Adult Technology Services (OATS), as a member of the Age-Friendly NY taskforce, and frequently is asked to present on the role and use of technology to enhance and expand programs for older adults.

Dayna Kully, Co-Founder, DirecTV, (El Segundo, CA)

Dayna is the co-founder and partner in 5thGenWireless, a consultancy specializing in technology and strategic investment planning for in-room entertainment and everything wireless. Ms Kully has over 35 years of experience in sales, channel development, marketing and senior level management, specializing in technology for various vertical markets including hospitality, healthcare and education. Ms Kully has held leadership roles in numerous companies including Enseo, a digital media solutions firm; Corning MobileAccess, a distributed antenna system provider; Everest Broadband and Mitel Networks in-building broadband providers; Brautovich/Kully, strategic product marketing; GE/RCA and Williams Communications telecommunications firms; and Nortel Networks optical and access group. Ms. Kully is current engaged with DIRECTV on a Senior Living project to evaluate market needs, product roadmap and go-to-market strategy. Ms. Kully holds a Bachelor's degree with honors in Economics from the University of California at Berkeley.

James Bodine, Executive Vice President, HJ Sims Senior Living (Philadelphia, PA)

James specializes in senior living and healthcare finance. Jim Bodine brings 30 years of investment banking experience to the HJ Sims senior living finance team. Jim has a wealth of expertise in providing financing and advisory services for the acquisition, development, expansion, refinancing/recapitalization and corporate affiliation of senior living and healthcare services providers. During the course of his career, Jim has completed over 100 transactions totaling more than $2.5 billion in tax-exempt and taxable debt financing under a range of structures and credit profiles. Jim has managed private and public equity financing, as well as mergers and acquisitions advisory assignments for not-for-profit and for-profit providers. Prior to joining HJ Sims in 2014, Jim spent eight years at BB&T Capital Markets, eight years at Janney Montgomery Scott and 11 years at Wheat First Butcher, as a Managing Director at each firm. Jim serves on the Board of Directors and Fiscal Oversight Committee of The Philadelphia Protestant Home, a not-for-profit senior living provider of services to individuals with intellectual, behavioral, physical and developmental disabilities based in Media, PA. He was invited to serve as a member of the Board of Directors of each organization following successful completion of tax-exempt financings as each organization's investment banker. Jim was the Co-Founding Chairman of Run to Remember, a running team conducting fund raising and other activities in support of the Alzheimer's Association Delaware Valley Chapter. Jim received his B.S. in Economics and M.B.A from the Wharton School at the University of Pennsylvania.

Jay Gormley, Chief Strategy & Planning Officer, Metropolitan Jewish Health System (Brooklyn, NY)

Jay is responsible for oversight of Metropolitan Jewish Health System's (MJHS) research and planning departments. A direct report to the President and CEO, Gormley has a range of responsibilities including strategic planning, development of new programs and products, as well as community need assessment. Throughout the year, Gormley leads a number of planning initiatives including grant and Certificate of Need (CON) applications. Between 2007 and 2010, Gormley has helped the system secure more than $3 million in grant funding. In addition, he has led all phases of planning and regulatory approval for the development of an innovative new 16-suite hospice inpatient unit. Gormley also has health care consulting experience in strategic planning, tactical planning, RHCF rate appeals and budgeting. Prior to joining MJHS, he worked for Cicero Consulting Associates, William J. Gormley, LLC and Xpdiate Consulting. He also was Director of Health Care Products Group for Brightfound, Inc. in Washington D.C. Gormley currently serves as Co-Chair of the Continuum of Care Improvement Through Information of New York (CCITI NY), a HEAL funded Community

Health Information Technology Adoption Collaboration. The group focuses on care transitions between acute and post acute care and includes more than 50 providers and payers in the New York City and Long Island areas. Gormely also currently serves on the board of directors of GeronTech—The Israeli Center for Assistive Technology. He holds a master's in health services administration from Sage Graduate School and a Bachelor of Arts degree in neuroscience from Hamilton College.

John Polatz, CEO, PS Lifestyle (Indianola, IA)

John Polatz, co-founder of PS Lifestyle, brings two decades of executive leadership and corporate financial experience within multi-national corporations. As a strategic leader, John has brought together a team of passionate professionals whose collective efforts are changing the way senior communities define and deliver amenity services to their resident and family populations. John has developed hundreds of successful local, regional, and national relationships with senior community customers. He has cultivated many industry-first partnerships with various for-profit, non-profit, and commercial retail organizations. John is a graduate of Duke University in Durham, NC.

Joseph A. Wenger, CPA/NHASenior Vice President and Chief Financial Officer Presbyterian SeniorCare® (Oakmont, PA)

Joseph has served more than 24 years in various positions at Presbyterian SeniorCare®, a faith-based nonprofit and the largest eldercare provider in western Pennsylvania, Joseph A. Wenger assumed the role of Senior Vice President and Chief Financial Officer in July 2008. In addition to overseeing the finance and budget departments for the entire organization, Wenger also is responsible for information systems at all of the Presbyterian SeniorCare campuses and over 30 supportive housing sites. Under his direction and leadership, Presbyterian SeniorCare implemented a significant installation of a new clinical computer system. Additionally, Wenger spearheaded multiple projects that unified and expanded the information systems for the organization. He also served an integral role in identifying, coordinating and implementing their consolidated purchasing and inventory management systems. Wenger's career with Presbyterian SeniorCare® began in 1992, when he joined as Director of Business Services for the development and opening of its premiere continuing care retirement community (CCRC), Longwood at Oakmont. In 1994, he was promoted to Associate Executive Director of the CCRC. From 2001 to 2008, he maintained the dual positions of Associate Executive Director of Longwood and Vice President of Finance and System Support for Presbyterian SeniorCare and led the Longwood campus through its first accreditation process with the Continuing Care Accreditation Commission (CCAC). In his role as Vice President of Finance and System Support, he has maintained financial responsibility for all CCRCs, including the initial development, expansion and refinancing of bond issues in excess of $200 million. Prior to joining Presbyterian SeniorCare, the Pittsburgh native served as Director of Accounting at Suburban General Hospital and as a Senior Accountant at UPMC Shadyside. He began his career as a Staff Accountant for the public accounting firm of Hosack, Specht, Muetzel and Wood. Wenger is a 1984 graduate of Slippery Rock University with a Bachelor of Science degree in Business Administration. He is a licensed Certified Public Accountant and a Nursing Home Administrator in the Commonwealth of Pennsylvania.

Judy Collett-Miller, Director of Planning and Administration, Parker Home (Piscataway, NJ)

Judy joined Parker in 2015 as Director of Planning and Administration. In her role Judy acts as project manager in support of Parker's overall Strategic Redesign initiative and other organization-wide projects. She supports and facilitates the development and execution of the organization's CEO/Board work stream and serves as liaison to Parker's Governance and Nominating Committee. Prior, Judy served as Executive Vice President of LeadingAge New Jersey, with strategic and operational responsibility for membership initiatives, including educational programming, marketing, public relations and communications, to ensure programmatic excellence

in all member services. Judy previously was the Director of Development at Greenwood House, responsible for the planning and implementation of a comprehensive development program and marketing strategies to identify, cultivate and solicit gifts for annual, planned giving and capital campaigns.

Karen Jordan, Vice President of Aon Affinity's Healthcare Division, (New York, New York)

Karen has management responsibilities for various healthcare programs including the LeadingAge Insurance Program. She is an accomplished Insurance Executive with a broad based knowledge of underwriting, sales, marketing and operations and a specific expertise in strategic planning and national account growth. For the past 25 years she has managed underwriting teams who specialize in multi-lines insurance products designed for medical risk markets on a national basis. Prior to joining Aon, Karen worked for Ace where she was responsible for managing the profitability and distribution of multiple classes of medical risk business including long term care, assisted living, home health and hospice accounts. While managing a national territory she maintained the underwriting of individual accounts in certain states. In addition, she was instrumental in building a Brokerage network of Healthcare specialists. Karen attended Elizabethtown College studying Business Administration. She is a member of the Professional Liability Underwriting Society and holds her P&C and Surplus lines licenses in many states.

Kevin Murphy, National Sales Manager, Combined Worksite Solutions (Saratoga Springs, NY)

Kevin has spent his entire career in the insurance industry. From 1997 to 2009, Kevin was the Executive Director of LeadingAge NY Services, formerly NYAHSA Services. During his tenure, LeadingAge NY Services grew to one of the largest healthcare insurance agencies in New York providing all lines of insurance to LeadingAge members. Kevin brings a unique knowledge to the challenges faced by the members of LeadingAge and has developed solutions to meet those challenges. Kevin lives with his wife of 28 years, Linda. He has two adult children, Ryan and Kyle, and a daughter, Taylor, who is a freshman in college.

Michael Catlett, President and Principal of Advanced Project Management, Inc. (Washington, DC)

Michael is the President and Principal of Advanced Project Management, Inc.; a Program, Project, and Construction Management firm located in the Washington D.C. Metropolitan area now in its 22nd year. Mr. Catlett, a Certified Construction Manager brings to bear over 35 years of experience in design, general contracting, construction, and project management. His projects include office buildings, senior living facilities, interior build outs, industrial projects, and numerous institutional & educational facilities of various types. Having delivered a number of Life Plan Communities, Mr. Catlett's firm places a large emphasis on sustaining the quality of life for residents and staff during construction, believing that construction should be an exciting time, and one of minimal negative impact of those who reside in these communities. Mr. Catlett's team also takes the lead in integrating much of the infrastructure needed to support todays smart buildings, and the behind the walls systems that support modern healthcare technologies that are changing the ageing in place environment. Every APM project has a Commissioning Manager who is charged with working with the Owner, the Design Team and the Technology Community to create and deliver effective spaces that are complimented and supported by technology. Mr. Catlett is also an Accredited Green Roof Professional and a LEED Accredited Professional employing sustainability to all APM projects.

Michael Freedman, Client Development at BlueOrange Compliance (Dublin, OH)

Mike has over 35 years of experience in the healthcare arena. He is responsible for client development at

BlueOrange Compliance, specializing in assisting healthcare organizations navigate the HIPAA and HITECH Privacy and Security requirements. Prior to joining BlueOrange Compliance, Mike was a Sales Manager at Artromick International (now Capsa Solutions) and at AmerisourceBergen Technology Group. He holds a Bachelor of Science degree from Penn State University in Health Planning Administration. Mike resides in Ambler, Pa.

Raj Agarwal, Chief Executive Officer and President, Medocity (Morristown, NJ)

Raj founded Medocity with a vision of enriching patient's care at home and reducing health care costs through innovative offerings, like the company's flagship product, iCancerHealth. Raj has 20 years in global P/L management, operational, transactional, finance and strategy experience in pharmaceutical and healthcare industry including 8 years of experience in the Oncology space. Previously, Raj was Chief Financial Officer and Global Head of Strategy and Operations for Novartis Biologics division where he was instrumental in managing Novartis' critical initiative to establish and build global business with a pipeline of over $10 billion in sales potential. At Medco Health as Vice President of Corporate Development, he was responsible for new growth initiative and expansion strategy, including oncology payers and physician based innovative solutions. He has also held key senior roles in Corporate/Business Development, M&A, Strategy, and Finance at Novartis Oncology, Pharmacia, and Warner Lambert, and has closed over 30 transactions with $10 billion in value. He was also the founder/CEO of LogonHealth, an HCIT company focused on electronic prescribing. Raj holds an MBA in Finance from NYU's Stern School of Business and BS in Electrical Engineering.

Ricardo Meirelles, Market Intelligence Manager, PointClickCare, (Mississauga ON, CA)

Ricardo, Market Intelligence Manager, leads the enterprise-wide market and competitive intelligence area for PointClickCare. Drawing on 12 years' experience in the Healthcare Technology industry, he commands a deep understanding of industry players, emerging technology trends and market activities. Ricardo is actively involved with industry associations including serving as the Chair, Healthcare Committee at the Brazil Canada Chamber of Commerce.Prior to joining PointClickCare, Ricardo worked for large multi-national technology companies in the areas of strategic planning and market intelligence specializing in the healthcare sector. The combination of his extensive experience and international flare provides a unique blend of skills to advise senior executives with their strategic, data-driven decision making.Ricardo holds a Master of Business Administration (MBA) from the University of Florida, a Master's of Finance, from Brazilian Institute of Stock Market, Brazil and a Bachelor's in Engineering from Catholic University, Brazil.

Robert George Buckingham, Jr. Senior Director, Information Services Presbyterian SeniorCare® (Oakmont, PA)

With three decades of experience in all facets of information technology, Robert joined Presbyterian SeniorCare in October 2015 as Senior Director of Information Services. Presbyterian SeniorCare is the largest aging services network in western Pennsylvania, which provides a continuum of services from independent living and home health to rehabilitation, personal care and skilled nursing. Robert's leadership experience includes extensive work in security, project management, global security and privacy regulations (e.g. HIPAA, Sarbanes Oxley, HITECH). He has successfully managed teams and projects, while directing large-scale applications and infrastructure implementations and maintaining a high degree of team productivity. At Presbyterian SeniorCare, Robert leads the information technology team which supports approximately 2,000 employees at 48 locations across 10 counties. In addition to serving on the senior leadership "core" teams for strategy and operations for the aging services network, Robert oversees systems and network design and management, data security, messaging/data/voice, disaster recovery, as well as the management of vendors, policies/procedures, and budgets related to information systems planning and implementation.

Prior to Presbyterian SeniorCare, Robert was at Millennium Pharmacy where he held the dual roles of Director of Infrastructure and IT Security & Privacy Officer. Other prior positions include Senior Data Center/Security Specialist and Senior Network Engineer for LANtek Computer Services, Senior Consulting Manager at Systems Technology Management, and Senior Network Consultant at Apptis, Inc. Robert is a graduate of Washington & Jefferson University. He holds many certifications including Certified Information Security Professional and Project Management Professional. He expects to complete his Masters in Information Systems Management from Robert Morris University in 2016.

Russell Lusak, LNHA, Vice President, Administration, Selfhelp Community Services, Inc. (New York, NY)

Russell, Licensed Nursing Home Administration has over 18 years of experience in the health care field. He brings unparalleled experience as an Administrator, with a strong knowledge of organization dynamics, Regulatory Home Care landscape and systems analysis; he has also proven to successfully reengineer programs with exceptional results. Mr. Lusak has been at Selfhelp Community Services, Inc. for over seven years. He serves on the Home Care Association of New York State Board of Directors, where he served on the Executive Committee and currently on Finance and chairs the Nominating Committee. He was also appointed by The New York State Department of Health to serve as a member of the New York State Transparency, Evaluation, and HIT Workgroup. Under his leadership he implemented several operational changes as well as developed new business opportunities within the home care programs that maintained Selfhelp's operating margins. He currently leads the organization's managed care transformation through staff education sessions and developing relationships with several managed care contracts. Among his other accomplishments, he led the successful implementation of a new corporate information systems network, negotiated the lease for the corporate office, and led two construction projects; one for the community based office space in Brooklyn and the other for the 520 8th Avenue corporate office. Prior to joining Selfhelp, Mr. Lusak served as Director of Marketing for Jefferson's Ferry Lifecare Retirement Community, where in addition to his many accomplishments, his coordination of marketing efforts for the continuing care retirement community led to a 5% census increase and yielded a sustained 99% occupancy rate. Mr. Lusak spent four years as Assistant Vice President of Administration for Parker Jewish Institute for Health Care and Rehabilitation overseeing Food Services, Information Services, Medical Records and Quality Management. As a result of his leadership a $3M Information Technology strategic plan was developed and implemented. Mr. Lusak has also administered a Long Term Home Health Care Program, Medical Model Adult Day Care, Social Model Adult Day Care, Hospice Care, and a Diagnostic and Treatment Center. While much of his career has been in service to the elderly, Mr. Lusak's background also includes service to children with disabilities and special health care needs as well as acute care. Mr. Lusak holds a Masters Degree in Public Administration from Long Island University; a Bachelor's of Business Administration from St. Bonaventure University and he is Licensed Nursing Home Administrator in New York State.

Sandrine Sauvage-Mack, CEO, LV Health Solutions Inc., (Alpharetta, GA)

Sandrine has extensive knowledge in all aspects of healthcare and well aging innovation. She possesses great expertise when it comes to sourcing innovative solutions especially for safety, security, monitoring, communication and engagement as well as solutions created to prevent or delay consequences from neurological aging. For over a decade, she has exceled at facilitating complex innovative solution integrations for renowned technology companies expanding their operations worldwide. She is now leading North American operations to continue these endeavors and to further accelerate the products and services of LV Health Solutions Inc. into the North American markets.

Shelley Kalfas, Vice President Marketing, Sodexo Seniors in North America (Tampa, St. Petersburg, FL)

Shelley leads marketing for Sodexo Seniors in North America, and is focused on understanding client and

consumer needs in identifying products and services that enhance the quality of life for residents, their families, and employees, including technology solutions that support the consumer experience and operational efficiency. With over 35 years of experience in serving the health care market, Shelley has provided leadership in both operations and staff functions. Prior to her current marketing role, she served as Senior Vice President of Food and Nutrition Brand Management, leading teams responsible for development of dining and nutritional care concepts for the health care market. She also previously held the position of Senior Vice President of Operations for Sodexo's senior living operations in the western United States.

Tye Campbell, PE , CEO at SFCS, (Roanoke, VA)

Mr. Campbell specializes in the design of senior living communities. He earned a Bachelor of Architectural Engineering from The Pennsylvania State University (1982) and completed a graduate study in Civil Engineering at the University of Virginia (1986). He has served as project principal and project manager, and has lead the architectural and engineering design and planning for more than 100 life plan communities across the country. Mr. Campbell has dedicated the past 31 years of his professional career to the design of innovative environments for seniors that support independence and provide a high quality of life. Mr. Campbell has spoken at conferences sponsored by LeadingAge, LeadingAge Virginia, LeadingAge Pennsylvania, LeadingAge North Carolina, LeadingAge Ohio, LeadingAge New Jersey, LeadingAge New York, LeadingAge Florida, Environments for Aging, Retirement Dynamics, Herbert J. Sims, Ziegler, Pioneer Network and SFCS's annual By Design conference. He has served as an expert panelist on such topics as "The Retirement Living Community of 2020," "New Direction for Person-Centered Care," and "Upgrading Your Community is Not Just Construction." He has also given presentations on Culture Change, Construction and Development, Post Occupancy Evaluations, Affordable Housing for Seniors, and Technology.

Tye has also authored and co-authored articles for LeadingAge's "White Paper" on varying topics related to seniors design, in areas such as technology, culture change, university sponsored Life Plan Communities', and post occupancy evaluations of environments for residents with dementia to list a few. He is a member of the American Society of Civil Engineers, the National Society of Professional Engineers, the American Concrete Institute, the American Institute of Steel Construction, the Southwest Virginia Quality Council.

Virginia Depies, Senior Technology Designer, Direct Supply (Milwaukee, WI)

Virginia's personal Philosophy on Design is "With a focus on healthcare communities, it is her personal strength to create problem-solving solutions for the rapid evolution of integrated technologies. Through the development and understanding of how quickly technology changes and the importance of its provisions, she addresses technology with a forward-thinking approach while consistently creating solutions that focus on the enhancement of the lives of residents."

As a successful technology Designer she has the ability to support increasingly sophisticated products, including consolidating functionality, reliability and security. As a Senior Technology Designer, Virginia develops solutions to support the vision of technology with an understanding of the benefits of rapid connectivity to increase health monitoring, safety and social engagement. Virginia designs low-voltage solutions for clients, from access control and security to life- enhancing technologies. She serves as a resource to deliver experience and knowledge of complex systems, and she's able to break down the features and functionality of state of the art solutions with a cost-effective approach.

Appendix 10: Aging Services Technology Issue Brief

LeadingAge is a community of 6,000+ members representing the entire field of aging services, which includes not-for-profit organizations, state partners, and hundreds of businesses, consumer groups, foundations, and research partners. We serve 4.5 million seniors annually, employing more than one million people and hundreds of thousands of volunteers.

Technology-enabled services and supports are essential tools for long-term and post-acute care (LTPAC) providers to participate in the reform of the nation's health care system. Electronic Health Records, Telehealth, Telemedicine and other technologies can help LTPAC providers deliver integrated and person-centered care and services that support the health and wellness of older adults across the continuum, and are essential to strategic partnerships with physicians, hospitals and Accountable Care Organizations as well as other coordinated care delivery models that will improve the quality of care and quality of life, while easing the burdens and cost of care.

Issue 1: Financial Support for LTPAC Providers to Adopt and Use Interoperable EHRs

LTPAC providers are important partners for acute care providers. However, the success of these partnerships will depend on LTPAC providers a) having interoperable Electronic Health records (EHRs); and b) their ability to use EHRs to exchange relevant health information electronically with other care partners, either directly or through a health information exchange (HIE) entity. LTPAC providers with these capabilities will be able to participate more fully in facilitating smooth transitions of care and in planning and implementing shared care.

FACT 1: Small stand-alone, especially rural LTPAC providers, have much lower EHR adoption rates than larger chain-affiliated and urban counterparts, let alone hospitals, physicians and eligible professionals.

SOLUTION 1: LeadingAge urges Congress to authorize additional funding to accelerate EHR adoption for LTPAC providers, particularly those in rural areas, who do not have the resources to invest in this foundational technology. New sources of financial assistance—including grants, and low-interest loans—would go a long way toward helping LTPAC providers make the initial investment in interoperable EHR systems.

FACT 2: LTPAC providers that have interoperable EHRs are not effectively engaging in electronic health information exchange activities with hospitals and other eligible professionals.

SOLUTION 2: LeadingAge urges Congress to include LTPAC settings in national health IT initiatives, including the development, adoption and use of interoperability standards, the certification of IT products, and the engagement of LTPAC providers in EHR incentive programs, as well as ONC's technical assistance programs, and health information exchange activities. Additional ongoing incentive payments (similar to those offered to hospitals and eligible professionals and recently extended to certain Behavioral Health Providers in the President's 2017 Budget Proposal) tied to quality measures relevant to LTPAC settings would ensure the full participation of LTPAC providers who have interoperable EHRs, or have the resources to invest in such systems, in health information exchange activities with other care partners including hospitals, behavioral health providers, and other health care professionals.

Such investments can reduce unnecessary hospitalizations, hospital readmissions, and can improve the quality of care in shared care as well as transitions of care.

Issue 2: Support for Internet Connectivity

Basic Internet connectivity is an essential requirement for delivering a broad array of technology-enabled services to older adults in various LTPAC settings, including telemedicine and health information exchange in skilled nursing facilities. Moreover, it is also essential for applications that support health and wellness (including telehealth, chronic disease management and remote monitoring (RPM), reduce loneliness and isolation, increase quality of life and, ultimately, enhance independence among community dwelling and senior housing residents.

Fact: Rural LTPAC providers do not have access to affordable broadband connectivity.

SOLUTION: LeadingAge urges Congress to pass the bipartisan **Rural Health Care Connectivity Act (S. 1916/ HR 4111)** which would allow skilled nursing facilities to request services from telecommunications carriers through the USF to receive telecom services at comparable rates to those charged for similar services in less-costly urban areas.

Issue 3: Telehealth and Telemedicine Demonstration Projects Engaging LTPAC Providers

Telehealth and telemedicine are important technology solutions that can help LTPAC providers carry out their mission to deliver integrated and person-centered care and services, including chronic care management, that support the health and wellness of residents and clients across the continuum.

FACT: The current limitations on the definition of telehealth, eligible originating sites, geography, eligible clinicians, etc. in the Social Security Act are significantly hampering the delivery of much needed efficacious services to older adults in different care settings and preventing providers participating in innovative care delivery systems from demonstrating the cost-effectiveness of these services.

SOLUTION 1: LeadingAge supports **The Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act S.2484 / H.R.4442** which creates a "bridge" program waiving the Medicare requirement that telehealth services occur at a qualified site, and requires providers to report annually on how telehealth technologies could reduce Medicare spending under the Merit-Based Incentive Payment System (MIPS). We recommend ensuring that LTPAC providers can participate in these demonstrations.

SOLUTION 2: LeadingAge supports the **Telehealth Innovation and Improvement Act of 2015 (S. 2343/HR 4155)** which allows CMI testing of coverage of expanded telehealth services, certified enhanced telehealth service, and no limitations on geographic areas or location of the patient. We are pleased that LTC PAC providers are eligible to participate in these models.