Wi-Fi Opportunities in the Senior Housing and Care Markets

Targeting High-Growth Revenue Opportunities in the Hybrid Hospitality / Healthcare Segment

What is the Opportunity?

Ruckus has seen a burgeoning opportunity in the senior housing and care sector as populations age and the growing elderly populations can no longer live alone. Similar changes are evolving globally, particularly in EMEA, as elder and nursing care living become culturally accepted and mainstream. Many of these facilities need Wi-Fi as driven by applications such as mandated electronic medical records, guest access, resident access particularly with tech savvy growth in elderly populations, and other technology applications such as VoIP and location services. This market is relatively new to the use of Wi-Fi; therefore, it constitutes a new opportunity.

What Constitutes Senior Housing and Care?

The senior housing market comprises two segments: independent living and assisted living. These differ from nursing care in that nursing care residences are for fully dependent individuals who need regular medical care and monitoring. There are some facilities that are independent of the others, and there are some that encompass the entire continuum of each; for example, a resident starts in independent living with options in the same community for more assistance as time goes on.

In the senior housing segment, assisted living facilities are a relatively new type of residence for senior needing help with some basic living activities such as cooking, dressing, bathing, doing laundry, or taking medications. The senior residing at these facilities are not seriously disabled and do not require constant medical care. Independent living residences are for senior needing even less care. See Figure 1 for a summary of these markets.
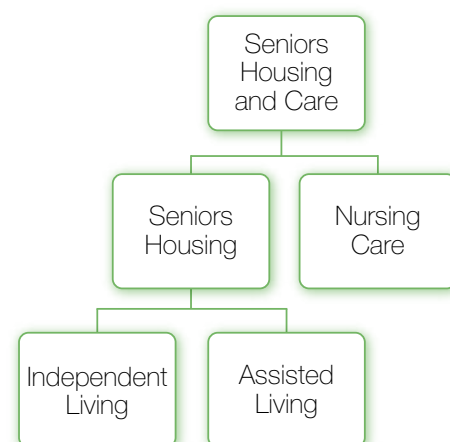
The burgeoning growth in the aging population has driven the growth in these facilities, especially as it has become common

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1 http://www.aha.org/research/rc/stat-studies/fast-facts.shtml

FIGURE 1: Senior Housing and Care Market Overview

Ruckus
Simply Better Wireless.

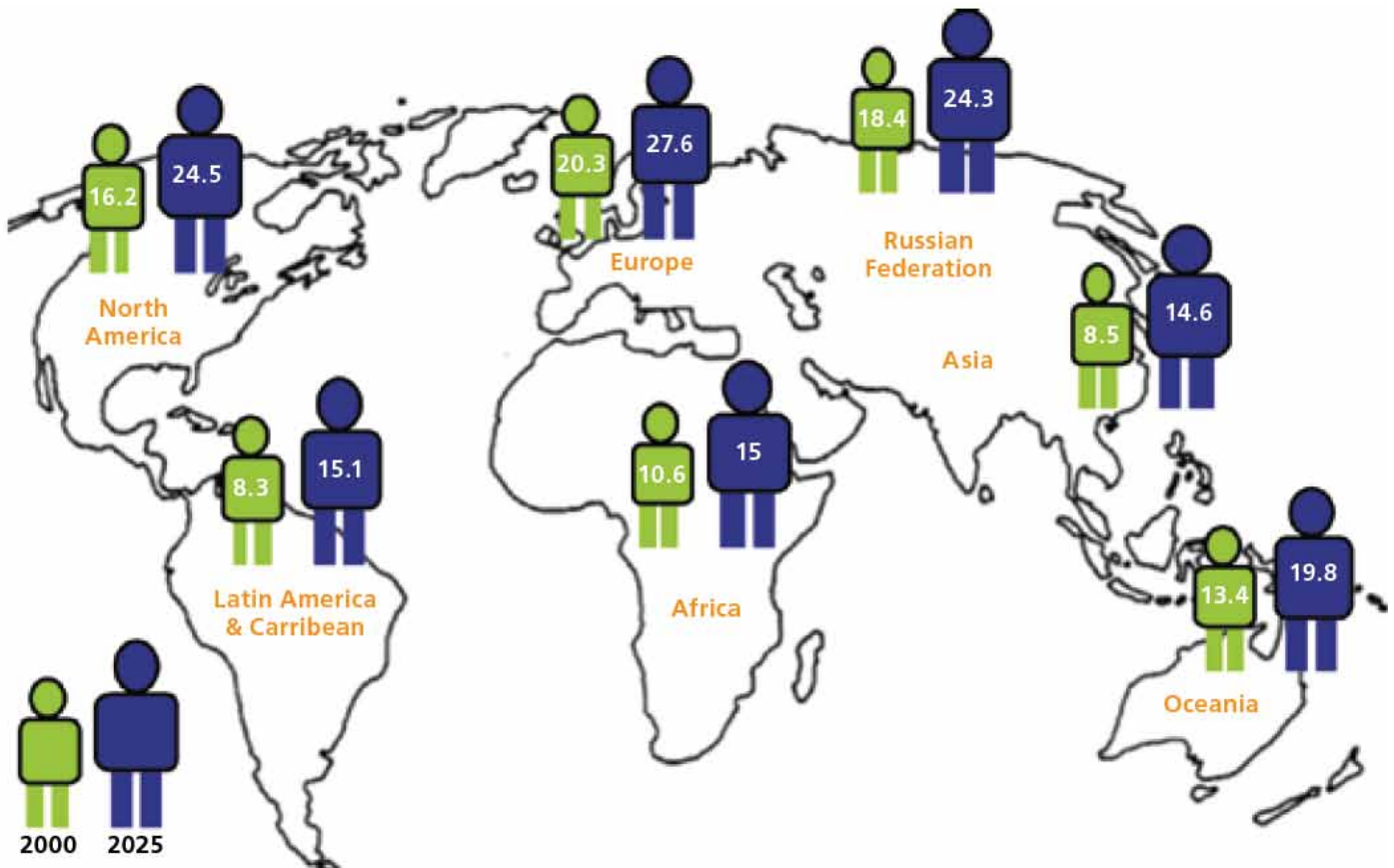**FIGURE 2:** Percent of population aged 60 and over, 2000-2025 (Source: United Nations)

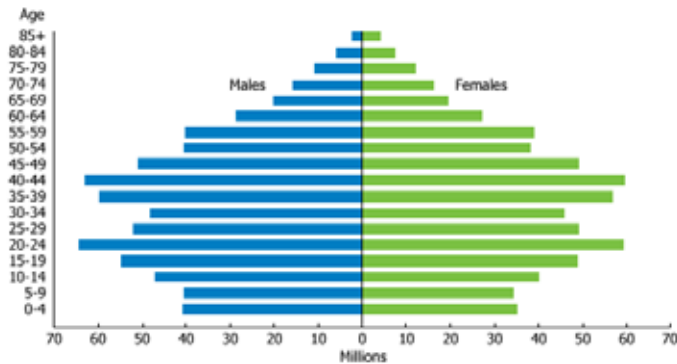**FIGURE 3:** Attractive and growing market

Population of US Seniors Rising
MM of US Population

— 75 and over   65 and over
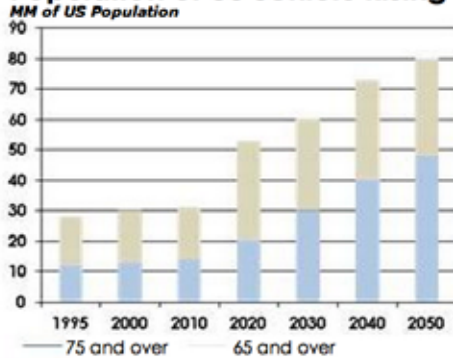
Assistance Increases with Age
% Requiring Assistance with ADLs

Men   Women
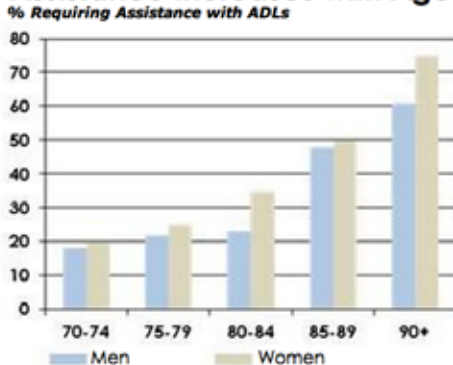
Growing Senior Population
- Over 70MM seniors 65+ by 2040, making up 20% of the total US population
- 85+ population projected to grow 3% annually over the next 40 years

Need for Care Increases with Age
- Today's seniors are healthier than in the past, but many still have difficulty with Activities of Daily Living (ADLs)
- 19% of 70-74 year olds and 50% of 85+ year olds require assistance with ADLs

Rising Net Worth of Seniors
- Today's elderly have more wealth than in the past (~$163K, up 42% since 1995)
- Dramatic increase in residential net equity over the past decade

Increasing Popularity of Senior Housing
- According to a recent NIC survey, 60+ population living in age-qualified housing increased from 7% to 12% from 1998 – 2007
- Consumer awareness has increased ~14% over that same time period

Consistent Occupancy / Rental Rate Growth
- Median occupancy has remained above 90% since 1994
- Rents have grown 5% annually for ALF and 4% for ILF since 2000

Sources: US Census Bureau, Joint Center of Housing Studies, NIC
National Housing Survey, Federal Reserve Board and ASHA

FIGURE 4: China Population Pyramid

FIGURE 5: Worldwide Market Opportunities

US & Europe Opportunities				
	Number of Properties	Total Size (sf)	Number AP's	Revenue Opportunity $M
US	26,255	2.6 B sf	260,000	285,740,000
Germany	11,634	175 M sf	17,500	19,232,500
France	9,200	134 M sf	13,400	14,726,600
UK	8,800	128 M sf	12,800	14,067,200
UK	8,800	128 M sf	12,800	14,067,200
Spain	6,500	89 M sf	8,900	9,781,100
Italy	8,500	117 M sf	11,700	12,858,300
Assumption: 1 AP per 10,000 sf with costs of $1,099 + 14% support*				356,405,700
				49,896,798*
				~$400 M USD

Sources: www.housingcare.org; www.ec.europa.eu; www.gbe-bund.de; http://www.ahcancal.org/research_data/trends_statistics/Documents/CongressionalDistricts2010.pdf ; http://www.csa.us/docs/StateoftheSeniorHousingIndustryReport.pdf ; http://www.ilusa.com/links/ilcenters.htm ; http://www.ncbcapitalimpact.org/documents/aalmktanalsample_000.pdf

knowledge in the elder care community that improved social interaction and safety at these facilities provides for a better quality of life and ultimately better health as well. It is anticipated that these facilities will continue to grow as the growing elder population ages.

What is the Market Size?

In the US alone, there are several million rooms, well over 25,000 properties, with each community comprising 45 to 50,000 square feet of building space. This translates into an opportunity much larger than the US healthcare market.[2] See Figure 5 for more detail.

The opportunity globally is just as great. See Figure 6 for the top property owners geographically.

How does the Senior care opportunity apply to you and Ruckus?

There is an implicit relationship between the adoption of electronic health record systems and the existence of a fast, reliable, and secure wireless network. Senor care facilities need to provide these wireless networks mainly to provide real time access to EMRs but also to support improved asset management, and administration of medications and digitized records. These facilities are relying more on wireless enabled equipment and practitioners are already relying on smart handheld devices of which there are thousands of applications that providers user everyday.

Further, in the competitive Senior living and care market,

2 http://www.aha.org/research/rc/stat-studies/fast-facts.shtml

FIGURE 6: Top Senior Care Groups by Country

	Number of properties	Address	Options
Northern America			
Brookdale senior living	646 communities	brookdaleliving.com	Independent living; Assisted living; Nursing living
Emeritus	483 communities	emeritus.com	Independent living; Assisted living; Nursing living
Sunrise senior living	311 communities	sunriseseniorliving.com	Independent living; Assisted living; Nursing living
Holiday retirement	300 communites	holidaytouch.com	Independent living
Golden living	256 communities	goldenliving.com	Nursing living
Europe			
Hanover	609 communities	hanover.org.uk	Independent living; Assisted living; Nursing living
Anchor	998 communities	anchor.org.uk	Independent living; Assisted living; Nursing living
Asklepios group	150 communities	asklepios.com	Independent living; Assisted living; Nursing living
Australia & New Zealand			
Stockland	63 communities	stockland.com.au	Independent living; Assisted living; Nursing living
Australian unity	55 communities	australianunityrl.com	Independent living; Assisted living; Nursing living
Retire Australia	25 communities	retireaustralia.com.au	Independent living; Assisted living; Nursing living

FIGURE 7: Smartphone users over 55 continues to grow[3]

Percent Composition of Smartphone Users by Age
Source: comScore MobiLens, 3 mon. avg. Dec-2011, U.S. and EU5

	U.S.	EU5
MALE	51.3%	55.7%
FEMALE	48.7%	44.3%
AGE 13-17	6.3%	7.6%
AGE 18-24	17.2%	14.4%
AGE 25-34	25.6%	22.0%
AGE 35-44	20.7%	21.1%
AGE 45-54	15.6%	16.0%
AGE 55+	14.6%	18.9%
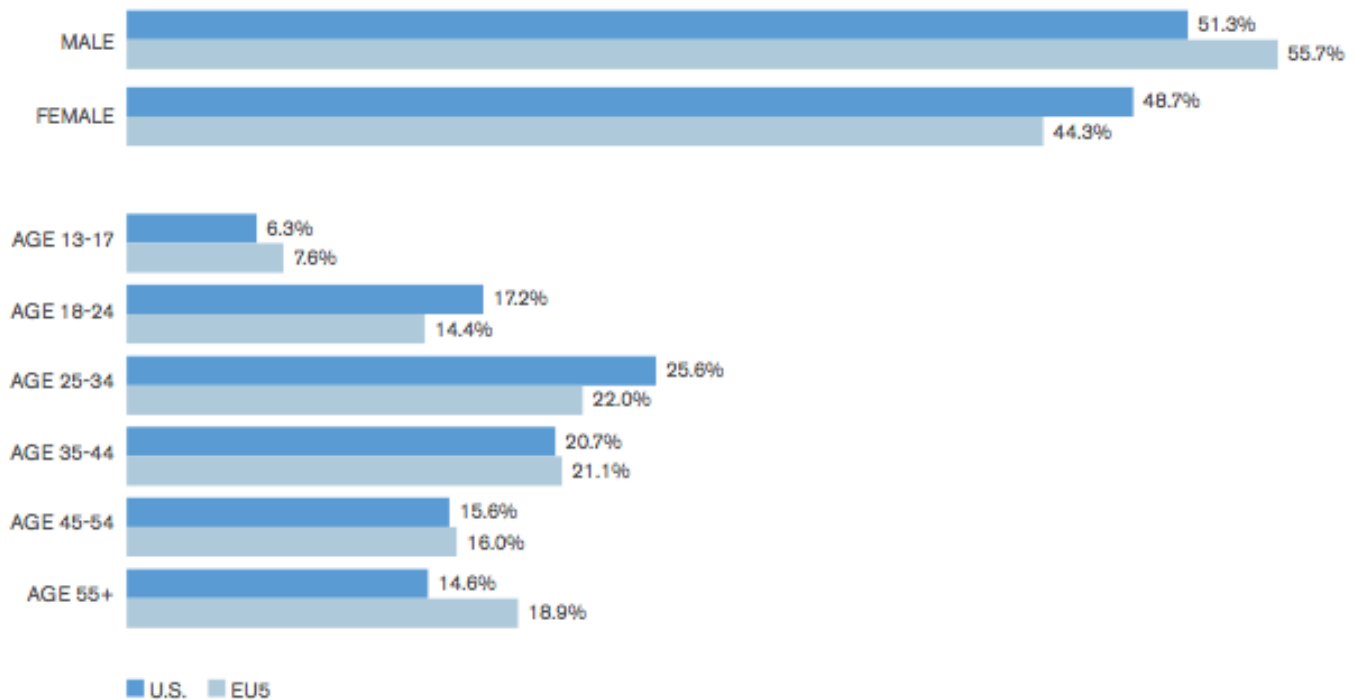
3 http://www.rjionline.org/sites/default/files/2011_summer-fall_rji_tablet_survey_results.pdf

FIGURE 8: Kindle user demographics are over 1/3 users 55 and over

KINDLE USER DEMOGRAPHICS BY AGE
(SOURCE: AMAZON.COM BOARDS)

- 55 and older 37.3%
- 17 or younger 2.3%
- 18 - 34 22%
- 35 - 54 38.4%

NEXT STEPS

1. Research and target the top seniors residence owners in your geography — they have facilities scattered across many states and countries; start with the list on Figure 6

2. Ensure a proper site survey for each unique physical location and usage criteria

* Keep in mind that the window is now open to take advantage of this opportunity as many owners are building and upgrading properties, and Wi-Fi access is no longer a "nice to have" amenity

owners are seeing Wi-Fi as an important differentiator for their customers. One of many requirements from tech savvy senior and their children is reliable Wi-Fi access. The 55+ age group in the EU is almost 20 percent of the overall Smartphone user market and growing, and almost 15 percent and growing in the US (See Figure 7). Kindle usage is even higher for those 55 and older at over a third of that market (See Figure 8)

In many markets outside the US, residence buildings are made of cement or stone, unlike the US which mainly relies on wood frame construction. The material challenges is where Ruckus shines on performance as most wireless vendors do not have the ability to negotiate obstacles and adapt to the client location as Ruckus' BeamFlex does.

Why Ruckus?

The value proposition is particularly beneficial to this market:

1. Simple security with ZeroIT and Dynamic PSK for the privacy requirements in the healthcare environment.

2. Advance RF with Adaptive Antenna Technology and ChannelFly allowing for better performance for more devices using less APs

3. Overall lower total cost of ownership with less APs required and lower maintenance costs resulting in lower CAPEX and OPEX.

4. Simple installation and zero maintenance for environments where there are limited IT staff.

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