

How Smart Devices Will Change Hospitality Technology

By Les Spielman

Over the past 25 + years of attending the Consumer Electronics Show (CES) I have witnessed the birth, and sometimes the quick demise of many new technology innovations. One item that I recall fondly was the first showing of an item called "Bluetooth". I was so struck with the possibilities of this new technology that I spent most of that CES show at the Ericsson booth. I could see its potential for use in numerous areas outside of just mobile phones, and I was lucky enough to get in touch with my stock broker to buy a lot of Ericsson stock. The rest is history.

The reason for this recollection is that even though we were "only" looking at CES for what we could use in the hospitality industry, we became aware of how many more items have cross platform uses. As an example, several years ago we spotted a new product alliance group that specializes in another type of wireless technology called "ZigBee". This technology now opens a new era in wireless capabilities that crosses all boundaries. I first used ZigBee about three years ago. Today you will find it in many enterprise applications and even more applications from cable content providers.

Companies such as Comcast are converting set-top boxes and remotes to RF wireless to form the "next generation of home networking" that can control security, energy, health monitoring, home entertainment and other environmental systems.

ZigBee uses 2.4 GHz, which can penetrate walls, cabinets, furniture, floors and even humans. Other benefits on the



horizon include the elimination of batteries for remote control devices, plus a broader broadcast range and a "find" button that will make a remote control beep so it can't get lost as easily.

Continued on Page 5

In This Issue (Click 🗢 for Individual Page Access)		
Smart Devices and Hospitality Technology	1	٢
STC Membership Update	2	•
Legal and Regulatory Update	3	•
STC Members at Enterprise Connect	4	٢
Getting to Know You	6	•
Welcome New Members	7	•

Page 2

1 *Return to Page 1*

STC Membership Update

By Richard Longview, CMC - Membership Committee Co-chair

It is only February, and there is already so much activity at the STC. In North America...

New Membership Portal

January saw Membership Committee members busy at work helping to co-host several webinars on how to best use the new STC website for both consultants and VAC members. Now that the new website is up we are focusing on growth of both consultant and VAC members with Randi

bout Us • Members	hip • News & Events	• Find a Member	• 2012 Renewal •	Groups •
Community Cal	endar			•
All Categories 💌 🖳 U	lpcoming 🚚 Past 🏢 Month Vi	ew		5
	pcoming events and view photo event name to view more details		me events may allow for on	line registration a
Upcoming Events				
Thursday, March 01, 20	912			
STC European Meetin 3/1/2012	ng			
Export to Your Calendar	📝 Register			
Monday, March 26, 201	2			
Enterprise Connect - 3/26/2012 » 3/29/2012	Orlando			
🟥 Export to Your Calendar				
Tuesday, April 10, 2012				
CTCA 2012 Conferent	ce			

Smaldone leading mentoring efforts for new and existing members.

Enterprise Connect Consultant Mixer

Byron Battles is leading efforts to promote the upcoming STC sponsored Consultant Mixer at Enterprise Connect on March 27th. This will be a great opportunity to introduce prospective consultants to the STC. If you're attending the conference swing by and enjoy the refreshments. Help get the word out on the event. Even if you can't make the conference your clients can still use the special STC \$1,000 discount off the full conference package price.

European Membership and Conference

Ken Krupp has been leading efforts to build the European Chapter of the STC. Ken has been working with our other international members to hold a kick off meeting at the Mobile World Congress in Barcelona on March 1. After that the group will hold a meeting in the UK in the next step to build awareness and STC membership in Europe.

Member Renewals and New members

Over 80% of the consultant members had renewed by the end of January on the new website. For those remaining folks, remember time is running out and our goal is to complete all renewals by the end of February. Don't forget! Consultant members must complete the Survey to accept the Code of Ethics and provide their contribution to the annual STC Industry Impact report in order to complete the renewal. Committee members Chris Beck, Cheryl Graber, Randi Smaldone, David Stein and Jim O'Gorman have assisted with renewal reminder calls as we push to get renewals wrapped up quickly.

We already have several new VAC and Consultant member to start 2012 off. A special thanks to Rick Hathaway for providing over 15 referrals in the last month as part of his speaking at ITEXPO in Miami.

Keep those referrals coming, everyone!

STC & VAC Boards

STC Board of Directors 2011-2012

President James O'Gorman

Executive Vice President Melissa Swartz

Senior Vice President Tom Brannen

Vice President Richard Longview

Vice President **Pat Pittmon**

Agustin Argelich Ken Krupp **Denise Munro Garrett Myers** J.R. Simmons **Chris Vitek**

> Vendor Advisory Council **Board of Directors** 2011-2012

President Maggie McAuliffe, Siemens

Executive Vice President Fran Blackburn, Cisco

Senior Vice President Joe Rubio, Echopass

Vice President Secretary Marsha Bailey, **Interactive Intelligence**

Dave Brown. **Plantronics** Lou Person. brightstack Steven Fair, Phybridge Terri Edmunds, Alcatel-Lucent

STC LINES - February 2012



Legal and Regulatory Update

By Martha Buyer Law Offices of Martha Buyer, PLLC

As the STC's Regulatory Attorney, Martha is available to STC consultant members for consultations of up to 15 minutes, at no charge. She can be reached at 716-652-4413, or at martha@marthabuyer.com

In the past two weeks, two significant cases relating to telecommunications consumers were decided—the first by the U.S. Supreme Court, and the second by the less revered but no less significant Court of Appeals of Louisiana, Third Circuit.

Only one of the decisions is truly about telecommunications, but it is important for consultants to at least have heard of both and understand the ramifications. The first, Mims v. Arrow Financial Services, LLC, was decided by the Supreme Court on January 18, 2012

(for the full text of the opinion see http://www.supremecourt.gov/ opinions/11pdf/10-1195.pdf), and the second, Gremillion v. Bellsouth Telecommunications, Inc., was decided in Louisiana on February 1, 2012 (full text available at http://www.leagle.com/xmlResult.aspx? xmldoc=In%20LACO% 2020120201294.xml&docbase=CSLWAR3-2007-CURR).

In Mims, the Supreme Court resolved an issue that had spawned different answers from different lower courts. The question is an important procedural one—specifically, whether or not, under the Telephone Protection Act (TCPA), consumers have the right to bring cases in federal courts as well as state courts. Don't glaze over...this is actually relevant. The TCPA, which is administered by the FCC, regulates telemarketing and other commercial calling practices. The Act, which was enacted in 1991, is, among other things, the basis for the Do-Not-Call and junk fax rules. It also forbids prerecorded or "robo calls" to wireless devices in the absence of express consent of the consumer. The statute also specifically requires that claims for violations of these rules can be brought in the courts of "the various states."

In some cases, this language was viewed as an indication that suits could be brought strictly in state courts (where damages are limited), while in other jurisdictions, this phrase was not thought to exclude federal courts as forums for these grievances.

if AT&T had properly removed the charge once it was notified of the error, it would not have been at fault ...because it was aware of the billing error...AT&T was responsible for damages amounting to \$30,000.

Ultimately, the Supreme Court decided UNANIMOUSLY, in an opinion written by Justice Ginsburg, that cases based upon a violation of TCPA can be brought in federal as well as state courts throughout the country. The impact of this on violators—particularly repeated violators of these rules—is that the cost of fighting such claims, as well as dealing with awarded damages has potentially increased significantly.

Many cases brought under TCPA are class actions, and the ability to file such claims in federal court allows lesser claims to meet a minimum threshold, creating more opportunities for aggrieved consumers to be heard in a much larger forum than many had believed possible.

The second case is much more of a David and Goliath story than the previously mentioned case. In April, 2010, Ms. Eleanor Gremillion, an 87 year old resident of Avoyelles Parish in Louisiana, received her phone bill from AT&T. On it was an unauthorized and unwarranted charge for \$74.00 from Dish Network satellite services, which Ms. Gremillion neither ordered nor received. Ms. Gremillion called AT&T immediately to cancel the charges.

The Dish Network charges remained on her bill, and while Ms. Gremillion paid the charges that she thought were correct, she did not pay the amounts attributable to Dish Network, for whom AT&T was acting as a billing agent. It turned out that Dish Network should have been billing someone with a similar but different phone number, and that it had somehow input the information incorrectly.

AT&T, however, continued to bill for the Dish Services, and threatened to disconnect Ms. Gremillion's service for failure to pay. Ms. Gremillion had numerous conversations directly with AT&T and, by September, 2010, with an attorney regarding the ongoing billing problems with AT&T. After much back and forth and significant frustration, AT&T terminated Ms. Gremillion's service on November 30, 2010, the same day that it received her payment.

The court found that if AT&T had properly removed the charge once it was notified of the error, it would not have been at fault. However, because it was aware of the billing error and failed to remove it month after month after month (7 months, actually), AT&T was responsible for damages amounting to \$30,000.

It doesn't happen often, but occasionally small but unintimidated consumers can prevail. Sometimes small victories are the sweetest!!

STC Members Attending, Speaking and Blogging at Enterprise Connect

By Chris Vitek

If you are considering enterprise infrastructure changes or researching how to leverage mobile technology, communications and collaboration, then Enterprise Connect is the place to be on March 26 to 28.

Enterprise Connect takes place at the Gaylord Palms resort in Orlando, FL. At this conference vou will have access to premier vendors and to the most knowledgeable and experienced consultants in the enterprise communications and collaboration industry. The STC (Society of **Telecommunications** Consultants) has a long history of involvement with Enterprise Connect. This year STC consultants are more involved than ever, sharing their experience and insights into unified communications, SIP, enterprise mobility, Mobile UC, BYOD, tablet tactics, RFP workshops and much more.

For the second consecutive year, the STC will host a reception exclusively for any telecommunications consultants attending the conference and expo, along with STC Members and VAC Representatives. And for the first time, this year the STC will be liveblogging (or as close to live as possible) for much of the conference.

Below is an overview of sessions and events at the conference with STC participation:

STC is hosting a casual mixer with light refreshments on Tuesday, March 27, from 5:00 -6:00 PM in Sun C Ballroom. We have invited consultants to come, meet STC consultants, and find out about the STC.

STC member Michael Finneran of DBrn Associates, Inc. is presenting a whole track of sessions



Michael Finneran moderating panel session at Enterprise Connect 2011

related to mobility, wireless and the BYOD (Bring Your Own Device) phenomenon. Beginning at 9:00 AM on March 26, the session Developing an Enterprise Mobility Strategy will bring IT and mobility managers up to speed on the major issues involved in enterprise mobility today, and will discuss current best practices for addressing each of these areas. Later in the day, Michael will reveal "What's Next for the Mobile Enterprise?" Then at 2:30 on Tuesday March 27, Michael will take a detailed look at "UC Mobile Devices in Age of Smartphones, Tablets"

Wake up early on Wednesday March 28 to catch Michael's "Putting Mobility to Work: Case Studies" which includes enterprises with examples of leverages mobile technology. At 2:30 the same day, find out whether "To BYOD or Not BYOD" as Michael discusses the support, policy and security issues an enterprise should address when considering allowing employee devices. Later in the afternoon at 3:45, Michael discusses enterprise tablets with Avaya and Cisco in the session "Tablet Tactics: What We've Learned about Tablets in the Enterprise".

Continued on Page 7

STC LINES

The Quarterly Publication of The Society of Telecommunications Consultants

ROBERT LEE HARRIS, Communications Advantage, Inc. - EDITOR MELISSA SWARTZ, Swartz Consulting, LLC - ASSOCIATE EDITOR THOMAS BRANNEN, Wassaw Consulting - ASSOCIATE EDITOR CATHY CIMAGLIA, STC Administrator - DISTRIBUTION

About the STC

The Society of Telecommunications Consultants is an international organization of information and communications technology professionals who serve clients in business, industry, service organizations and government. For over 30 years STC consultants have delivered independent and ethical telecommunications expertise. This objective guidance and support enables clients of STC consultants to benefit from the efficient and effective use of information and communications technologies.

© 2012 The Society of Telecommunications Consultants, Inc.

Page 5

• Return to Page 1

Smart Devices & Hospitality Technology (Cont'd from Page 1)

ZigBee technology is just one new piece of a giant puzzle. Imagine that you are on a business trip with your WiFi device(s) of choice. You log onto your home security system and notice that your garage door is open. With one touch on your WiFi device you can close that door. New security systems for both home and businesses have video cameras you can activate, or they can activate automatically if something trips the system. But wait-the same system also monitors your thermostat, burglar alarm, lights, and any room in your house. It is able to phone the police, fire department, or paramedics. It makes no difference where in the world you are; as long as you have internet connectivity, you have control over everything.

In the hospitality industry, "Near Field Communications" (NFC) has an even more secure network that assists with the utilization of total hotel security, individual room monitoring for the HVAC system, more bedside controls for lights, electronic drapes, door monitoring, fire and smoke security, and excessive electrical usage, all centrally monitored by management and individual guests from network controlled smart devices that we all carry.

Imagine a typical hotel (which already exists today). Your smart device is already registered with the hotel or hotel chain. Sensors by the entrance detect your device as you walk into the hotel. You press the hotel's "app" that is on your mobile device, and you have now checked into the hotel without going to the front desk. The hotel's system sends your smart device an arrival confirmation along with your new room number. When you reach your room, the app opens the door using NFC. Look ma! No keys needed. The door security device registers your arrival time along with the device's ID info. In the meantime, the HVAC system sets the temperature of your assigned room to the temperature from your profile. Housekeeping and the concierge are notified. Your profile's request for beverages, fruit, etc. are in the process of being delivered. The special bedding, bathrobe, etc. arrives. The HDTV set has been turned on to your favorite channel and all of the TV channels have been changed to the lineup of your specifications.

Next, you touch a low voltage switch and the shower/ bath is set to run the water at your pre-requested temperature. But you change your mind; the hotel's spa has sent a message to your HDTV, the room's IP phone, or your smart device that they are running a special on a massage of your choice. On that device, you accept the invitation of a one hour massage. The spa is immediately notified and the proper attendants are sent to their stations. Simultaneously, a message is sent to the shower/ bathtub to stop the water. Behind the scene, the offer was sent out because the spa had a lull in business and scheduled for the "sale" to begin when bookings reached a preset amount of vacant time. No human intervention was needed. The system just "pushed" the message out via the IP enabled HDTV, the IP enabled room phone and all IP enabled smartphones that are on the property.

You finish your massage and go back to your room with your smartphone (which is now your room key, charge card, ID, etc. for the hotel), and you dress for dinner. You made the dinner reservation from the hotel IP phone, interactive HDTV, or your smart device.



Touchscreen Tablet for customer beverage orders

Upon your arrival at the restaurant you are handed an interactive tablet, like an iPad. The menu on the tablet was just switched from lunch to dinner in one fell swoop from a master terminal. Oh yes, they also adjusted some pricing on several items due to today's market conditions and when seasons change there is a new menu that reflects the tone of the new season. The restaurant incurs no printing charges, and is assured from the master terminal that all prices and menus are correct. If you want to see what the meal will look like, simply tap the tablet and drill down to the desired level. You can see the actual colors and side dishes of each menu item, so if you are interested in a steak, you can be sure that the restaurant's idea of medium rare is the same as yours. (No worries vegans, we have you covered too.) You can choose all of the modifiers that you wish.

Instead of giving the order verbally to the server, you just click on the items that you have chosen and everything is sent directly to each preparation section, along with your table number, table position, name, and verified room number. You can always change it to a cash sale through the tablet.

While waiting for your food, you are so enthralled with all of this that you must twitter and post it on Facebook, which is easy since Facebook and Twitter icons were

• Return to Page 1

STC LINES - February 2012

Getting to Know You



Randi Smaldone

Company Name:

TRAK Communications, Inc. (It stands for Tony, Randi, Anthony & Katie) *Where are you located?*

Central / South New Jersey *Short description of your*

practice (elevator speech):

Our Company provides telecom bill audits which reduces the client's ongoing telecom expenses without affecting the quality of service as well as obtaining substantial refunds for historical refunds. We are vendor neutral and offer totally unbiased opinions on services since we are not affiliated with any vendors, and do not accept vendor commissions. We offer cost saving alternatives to reduce the annual telecom budget by 20 to 35% and we typically utilize all of the existing vendors! We provide physical inventories of the customer sites as part of our audit service and provide an extensive inventory at no charge at the end of our audits.

Do you have any nicknames?

Unfortunately it is SNOOKIE because of my vertically challenged height and my proximity to the Jersey Shore.

How did you spend your first paycheck?

I actually recall purchasing a cell phone, a wallet for my Mom and a Guess outfit for my nephew. One of my first large commission checks for a refund actually went to starting my own company.

If you knew could you try anything and not fail, what dream would you attempt?

I would love to sky dive but I'm terrified that I'll end up in an Alligator Swamp or my chute won't open. If I knew I wouldn't die (fail) then I would LOVE to try it.

David Brown

Company Name: Plantronics Where are you located? Troy, MI Short description of your practice (elevator speech): Plantronics Unified Communications (UC) strategy includes a



major focus on establishing strategic relationships with technology consultants. The Global Consultant Alliance mission is to provide consultants with a comprehensive support program to ensure a value proposition that includes world class Plantronics audio devices, services and support.

Plantronics audio devices add significantly to the UC value proposition for your clients. Research shows that the pace of adoption and success of UC implementation is directly correlated to user satisfaction. With a reliable, crystal clear voice in the last three feet of communication, user confidence and usage rates improve dramatically. In addition, Plantronics' enterprise software platform, Spokes, enables your customer's' audio devices to stay in sync with changing technology from major UC providers Alcatel-Lucent, Avaya, Cisco, IBM and Microsoft. *Have you ever lived in another country*?

Have you ever lived in another co No Would you like to be famous? No Cats or dogs? No

What activities do you enjoy? I an avid golfer, love to travel and have a wine cellar.



STC European Meeting

Join us in Barcelona on 01 March 2012 for the first meeting of the STC Europe. It will be held during the week of the Mobile World Congress (MWC), February 27 – March 1. Visit http://www.mobileworldcongress.com/ for more information on the Congress.

For the STC meeting, Register/RSVP or contact me directly (ken.krupp@ipnetconsult.com) to be put on the guest list for current and potential members. This will be a great opportunity to meet our colleagues in the telecommunications industry in Europe. We also expect to be meeting officials of the Catalonian government. More details and the agenda will follow shortly. • Return to Page 1

STC LINES - February 2012

Welcome New Members

New Consultant Members: Elizabeth Corgatelli COMgroup, Inc.

4040 Lake Washington Blvd. #205 Kirkland, Washington 98033 elizabethc@comgroup-inc.com (425) 284-6575

COMgroup is an independent technology consulting firm providing client services in telecommunications systems planning and communications infrastructure design. Our services include strategic planning, needs analysis, design, RFP creation, weighted evaluations, expense management, data center design, and project management. Our clients range from small single site companies to multilocation international companies.

New Vendor Advisory Council (VAC) Representatives:

Active Business Network

101 California Street, Suite 2450 San Francisco, California 94111 Devin McKinney 866 476-1697

devin.mckinney@activebiznet.com

www.activebiznet.com

Company Information Company Information: Active Business Network provides an online telecom expense management and optimization service. Our customers receive their phone bills electronically, consolidated in TelecomXpress, our easy-to-use web portal. Instead of scanning their paper bills, or spending days rekeying data into Excel, they can immediately spot errors and overcharges, manage departmental approvals, and forward them for payment.

RedSky Technologies

925 W Chicago Avenue, Suite 300 Chicago, Illinois 60642 Ken Rosko (312) 432-5935 krosko@redskytech.com

www.redskye911.com

Company Information: RedSky is the leading provider of E911 solutions to the enterprise market with more customers, more technology, and more experience than any other provider. More than a million workers, students, guests and visitors rely on RedSky E911 protection.

Enterprise Connect (Continued from Page 4)

Finally, Michael joins other panelists, including STC member Robert Lee Harris for the summit "BYOD, Consumerization of IT: How to Cope?". STC Member Marty Parker of UniComm Consulting covers the Unified Communications track beginning on Monday, March 26 at 9:00 AM with the session, Implementation Options for Unified Communications. This session will help attendees organize their thinking and planning for UC. Marty will deliver the RFP session, "UC Without Buying a New PBX" on Wednesday at 2:30 PM. He will be joined by RFP respondents from Cisco Systems, NEC Corporation, Siemens Enterprise Communications, Avaya, RIM, Microsoft Corporation, IBM and ESNA.



Gaylord Palms Hotel and Convention Center

Join STC Member Dave Stein of Stein Consulting Group for his Enterprise Communications Platform IP Telephony/UC RFP on Monday, March 26 at 2:00 PM, which will include respondents from Cisco, Siemens, NEC and Microsoft. At 3:15 PM you can catch STC Member and Past STC President Stephen Leaden of Leaden Associates presenting "Case Studies: Hosted Communications Apps". Find out what communications applications are really feasible for an enterprise to move into the cloud today. Stephen will be back on Wednesday, March 28 at 2:30 PM to tell us "What's New in Desktop Phones?" along with snom, Polycom, Aastra and NEC.

Enterprise Connect will end with a locknote at 11:00 AM on Thursday, March 29. STC Member Don Van Doren of UniComm Consulting will join other analysts and co-chairs Fred Knight and Eric Krapf for a conversation, analysis and debate over the major issues covered during the Conference.

Best of all, Enterprise Connect offers a \$1,000 discount off the full conference price for both STC consultants and their clients. Log into the STC consultant portal for the code. In addition to all of these STC Member supported events, the conference is full of other keynotes, sessions, exhibits and receptions. Come on out and join us at the end of March at this industry leading conference!

Page 8**O** Return to Page 1

STC LINES - February 2012

How Smart Devices Will Change Hospitality Technology (from page 5)

"pushed" to the tablets. Of course you just "Friended" this hotel and restaurant, and you are sharing all of this fantastic food and attention with all of your friends and business associates. The hotel awards you "points" for sharing your experience and since you are now a "friend" on Facebook, you get a special desert or a percentage off your next meal at that restaurant.

We don't have to wait for this to come in the year 2020. It is NOW! In the past two years we have installed all of this technology in several five star hotels, with several more already on the books. *For an example, see: http://www.hotelmanagement.com.au/2012/02/08/exclusive-video-world-first-smartphone-technology-rolled-out-at-aloft-bangkok.*

Most consultants don't specialize in hospitality, but consider how these technologies could impact your vertical industry. For example, consider how these capabilities could impact the healthcare industry. It could impact medical treatment, patient identity, and ensure that proper medication is delivered to the correct patient. It would be so easy for patients to point to a picture in a tablet. The list is endless.

Something of Interest for the Future

The following is an item that I saw that really intrigued me. At this point I can't find a straight hospitality application for it; therefore I am just throwing it out for readers to think about and to start your thought processes working. What do you think will become of computer mice? No, not the ones that may have crawled into your system, but the ones that you navigate with. Boy, do I have a surprise for you!

Imagine a Web page or Word document on the screen before you, and the page scrolls automatically, smoothly and effortlessly as you proceed through the article. The system knows where your eyes are and how fast you are going, so it keeps your place centered on the screen, scrolling automatically as you go, even if you jump back to reread something. This is how reading on a computer screen was always meant to be. There is no need to use your mouse as it is no longer connected to your computer.

Now, computer eye tracking is not new. It is available in the military, in specialized industries, for the disabled, etc. but these cost millions of dollars. To have it on your laptop is just fantastic. The task of training the system is quite easy and fast. All that it takes is a ten second calibration process. You look at a dot on the screen as it moves around, the laptop's video camera follows your eyes, and the software takes it from there. That's it.

I witnessed this at CES. I was totally blown away by a company called "Tobii". The demo that really rocked



Tablet Kiosks in hotel lobby areas offer everything from check-in to local area information.

my boat was the Google Earth demo. The software automatically focuses and zooms to wherever you are staring which is a very weird and exciting experience. But how do you click on something? No problem. In an architecture-design program, you could effortlessly move around a large blueprint with your eyes. Want to zoom in at any point? Just stare at the area, just like Google Earth. For disabled access, Tobii even makes a kit that lets you "click the mouse" by blinking or staring.

Tobii is not a new company. It is quite a large Swedish company that has been around for some time. Are you wondering why I put this in this article? It's simple; as consultants we need to stay creative. Smart devices are here and are already impacting hospitality. This technology began at the multi-million dollar range, but now has been programmed to work with older laptop computers at an affordable price.

What will this technology will mean for your industry? Can you imagine the potential, or will we have to wait and see?

Please note that the mention of specific products in this article does not imply endorsement by Hospitality Automation Consultants, Ltd.

Les Spielman is CEO of Hospitality Automation Consultants Ltd.(HACL), an independent consulting firm. With more than 32 years of experience in the lodging technology business, he provides assistance with automation tasks on a personalized basis. Hospitality Automation Consultants Ltd. has successfully completed over 3,200 consulting projects throughout the world. His practice is global. Les is an active member of HTNG, www.htng.org, and the Society of Telecommunications Consultants, http://

www.stcconsultants.org for the past 20 years. Spielman welcomes inquiries at: www.hacl.net. Email: les@hacl.net