



**By Sue Langlois**  
Digi-Notice



**Sanjay Madgal**  
CTO, Cyber Architect  
Digi-Notice



Technology

# The Wild West of Condo Technology

Digi-Notice’s Cyber Architect, Sanjay Madgal is interviewed by Sue Langlois

Over the years, the installation of digital displays in condo elevators and lobbies has often meant accompanying various IT providers to the site so that they can connect everything to the building’s existing internet. Most condo boards do not want to incur a separate monthly internet fee for their communication system and on the “quest to connect”, there can be a lot of (mostly undocumented) things going on.

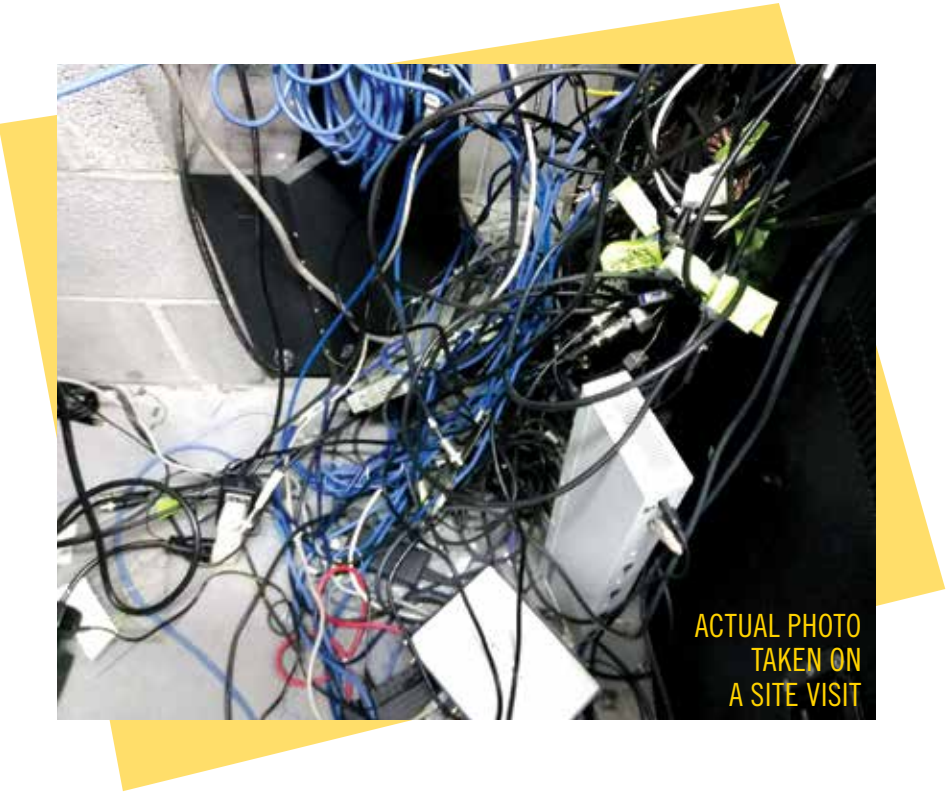
Recently, my business partner and CTO Sanjay Madgal and I were called to a downtown high-rise to determine the cause of a network outage, and the technical “wild west” that we saw there (and that we have seen at numerous other properties) is what inspired this article.

**Sue Langlois:** Sanjay, without naming names, can you describe what we found when we went onsite?

**Sanjay Madgal:** It was what we didn’t find that really concerned me. It was shocking to realize that the building’s security system was co-mingled with other

non-critical systems and could easily be compromised by a faulty circuit breaker that tripped every time someone used the building’s car wash facility.

What we didn’t find is any semblance of documentation or labeling that could help identify what devices are interconnected and what functions they perform - a key



ACTUAL PHOTO  
TAKEN ON  
A SITE VISIT

## Attention Condo Board Members

Question: How many

**"Condo Management Companies"**  
are out there, looking for your business?

Answer: **OVER 200!!!**

- Which one are you going to choose?
- Do you know what to ask them?
- Can you verify how good they really are?

With **40 years experience** assisting  
condo directors administer their communities,  
**I can help YOU.**

I provide an intensive program that assures the most suitable  
management available for your condominium community.

I teach directors what to look for, how to choose the best  
management company, and how to assess their performance.

I've assisted condominiums all over the GTA. (References available)

**INTRODUCTORY MEETING WITH ME IS FREE!**

Call Alan at **A. R. Consulting**

**416-932-9510**

Fax: 416-932-9769 E-mail: ar@condominiumconsulting.ca

Website: www.condominiumconsulting.ca



## **Green Leaf** Landscaping and Maintenance Ltd.



*Specialized in providing  
professional year-round  
landscaping & snow plowing  
services, exclusively for condominium  
properties since 1980.*

**Tel: (416) 717-2215**

**www.greenleaflimited.ca**

**Award Winning Landscape Contractors**

## **A New Cleaning Solution for Your Condominium**

ICS brings over 25 years of janitorial, cleaning, sanitization,  
and environmental services to the GTA Condominium Sector.  
We pay attention to the smallest of details with the highest  
"White Glove" standards.

- Environmentally Friendly
- Janitorial Services
- Window Cleaning
- Garage Cleaning (Sweeping & Power Washing)
- Carpet Cleaning
- Floor Polishing and Natural Stone Restoration
- Superintendent Services (Full-Time, Part-Time,  
Emergency, Live-In, Live-Out)
- Building Maintenance
- 24/7 Disaster Recovery Services
- Environmental Remediation

Our award winning premier, cost effective janitorial and  
building maintenance services are second to none. We are  
confident that you will have an outstanding ICS Experience  
as you are our #1 Priority and your satisfaction is our goal!



Tel: **1-877-ICS-1-ICS**

(1-877-427-1427)

Web: **www.I-C-Solutions.ca**

ICS Is Fully Insured, Bonded and Certified





requirement for successful troubleshooting and repair.

**Sue Langlois:** When it comes to condos, what are the basics that a Property Manager should know about their network? How does it work?

**Sanjay Madgal:** I think it's important for a PM to know what services they subscribe to, who the service providers are, when the subscriptions expire, and also what packages or service levels they have subscribed to.

For example, a building may have subscribed to the "Gold Internet" package from an Internet Service Provider (ISP) that guarantees up to 10 Mbps download speed and 2 Mbps upload speed. Most PMs would believe their Internet connectivity is 10/2 Mbps consistently. Au contraire, they are only getting 10/2 Mbps during lean periods; during peak hours, they are lucky if they get 5/1 Mbps. It is important for PMs to read the fine print and note that the phrasing "up to 10 Mbps" means that their Internet download speed will never exceed 10 Mbps. My advice to PMs - know what you are paying for and confirm what you are getting is commensurate with what you are paying for. Know how to measure and log your Internet speed so you can challenge your ISP when the

need arises.

Last but not the least, a PM should be able to identify the devices (modem, router, etc.) that provide Internet connectivity to the building and know the passwords for logging in to these devices. A vast majority of Internet connectivity related issues can be resolved by restarting the modem or router, but you do need to know which modem or which router to restart!

## What we didn't find was any semblance of documentation or labeling that could help identify what devices are interconnected and what functions they perform - a key requirement for successful troubleshooting and repair

**Sue Langlois:** Can everything run off the same network?

**Sanjay Madgal:** Yes and no - let me explain what I mean by that. Yes, a single Internet connection can be shared among multiple systems i.e. building security system, communication system, computers in the PM's office, etc. However, each group of related devices should be isolated on their own network - therefore, an outage in the communication system will not impact the security system and vice versa. The details of network partitioning and isolation are beyond the scope of this article.

This principle of partitioning and isolation should be extended to the power sources for these devices. They shouldn't all be connected to power outlets on the same electrical circuit, least of all, the same electrical circuit as the car wash!

**Sue Langlois:** What is the minimum speed required?

**Sanjay Madgal:** That is the million dollar question! My answer is - it really depends on usage. If you have more than 25 devices sharing the same 25 Mbps Internet connection, you may notice a significant degradation in performance especially if multiple users are streaming video at the same time. However, if you have less

than 15 devices sharing the same 10 Mbps Internet connection, and most users are only browsing the Internet or using email, performance may be more than acceptable.

Almost all users (even some tech savvy ones) ignore the more important upload speed. Upload speed is important for systems such as VoIP and digital displays. These systems upload data to servers in the cloud - a poor upload speed creates a bottleneck that impacts voice quality (for VoIP) and causes blank screens or stale (outdated) content in digital displays.

Greater Toronto • Golden Horseshoe • Kitchener-Waterloo • Niagara

**ACMO** ACMO2000

16 Four Seasons Place, Suite 206  
Toronto, Ontario M9B 6E5  
(416) 642-2807 • 1-866-642-2807  
www.wilsonblanchard.com

*Condominium Management with Experience and Integrity*



# W A T E R M A T R I X

THE FUTURE OF WATER CONSERVATION



FREE WATER AUDITS  
FOR CONDOS

**REDUCE WATER  
CONSUMPTION  
BY 20% - 50%**

CONDOS@WATERMATRIX.COM 1-800-668-4420

SERVING MULTI-RES COMMUNITIES FOR 28 YEARS

**Sue Langlois:** What about consistency?

**Sanjay Madgal:** Thanks to the oligopolistic nature of the Canadian telecom industry, consistency in download and upload speeds throughout the day is the Holy Grail of Internet connectivity. However, an informed customer can challenge an ISP and demand better service.

Before signing up with your ISP, ask all the pertinent questions about upload speed and consistency. Can the ISP guarantee a consistent download and upload speed throughout the day? If not, what is the minimum download / upload speed they can guarantee? Ask about the Service Level Agreement (SLA) i.e. how quickly will they resolve an outage? Shop around and don't always go with the "big brands". Smaller firms often provide much better customer service since their very survival depends on growing and retaining their small market share.

**Sue Langlois:** Explain the schematics for us.

**Sanjay Madgal:** A network schematic is a pictorial representation of the network, identifying all devices that comprise the network and how they are interconnected.

For example, a simple home network would show the following:

1. The demarcation (demark) point: this is where the Internet connection from the ISP "enters" the home.
2. The cable / DSL modem: This is the device that communicates with the ISP's infrastructure and provisions Internet connectivity to your home.
3. The wireless (WiFi) router: This device provides wireless access to your Internet connection and performs the "sharing" function that makes it possible for multiple devices to use a single Internet connection.
4. Switches: Not all devices support wireless access. "Wired" devices are connected to switches.
5. The devices on the network: These could be your PCs, tablets, smartphones, printers, VoIP phones and webcams. It is important to have an inventory of all devices that connect to a router or switch.

In addition to showing devices and their inter-connectivity, the schematic must be date-stamped and updated every time there is a change to the network configuration.


**Sue Langlois:** Sanjay, over the years you've done some important technical work for companies like TD Bank, RSA insurance, Co-Operators, etc. These large firms no doubt demand proper documentation when it comes to anything tech related. What are some of the best practices

from these big corporations that can be adopted by the condo industry?

**Sanjay Madgal:** Documentation, Documentation, Documentation. A picture is worth a thousand words! Need I say more?

I've seen detailed floor plans from building architects, electrical wiring and HVAC drawings from the engineers, and detailed manuals from elevator companies. Why is it that we don't expect the same level of documentation from our IT service providers? Perhaps it is because technology is perceived as being a commodity rather than an essential service. That mindset's got to change. Condo corporations should insist that their IT consultants provide network diagrams that are date stamped. Documentation is only good if it is maintained and updated on a periodic basis.

**Sue Langlois:** One last question – What should a PM do if he/she suspects has an IT "wild west" going on at his/her condo?

**Sanjay Madgal:** Call in the troops! A technical audit can be conducted to inventory network devices, trace their inter-connectivity and produce the network schematic that should have been provided at the time of the job! An analysis of the network schematic could help identify bottlenecks or problem areas that need to be addressed. 



Specializing in Condominium Corporation Management in the GTA, Hamilton and Southwestern Ontario

*Bringing passion, people, properties and technology together...*

TOLL FREE: 888-602-6860 | WWW.LIONHEARTPM.CA  
info@lionheartpm.ca

