Mission Statement

The mission of Communication-IT Committee is to ensure that accurate information is provided, in a timely fashion, to the various Treviso Bay information user groups using TB computer facilities, communications channels, and communication media.

I. Analysis Phase

First, the Communication-IT Committee conducted an extensive analysis of the information technology currently used at Treviso Bay. In this phase our goal was to find answers to the following questions:

- What IT hardware and software technology is being use at Treviso Bay?
- What are the subsystems of the IT facilities at Treviso Bay?
- What is the function of each IT component within each IT subsystem?
- Who are the users of each IT subsystem?

Treviso Bay IT Subsystems

Food & Bev/Retail Subsystem:

1. IBS POS System: A network of computer software, hardware, communications lines and devices located at Treviso Bay's commercial centers (the Villa Rilassare and the Clubhouse).
This system is used by management and staff for sale of food, beverage, goods, and services provided at the Restaurants, Golf Shop, Tennis Shop, and Fitness Center located at these two TB commercial centers.

Club Management and Accounting Subsystems

2. TOPS: A web-based client/server CM (club management) software used by ICON management team at their office in the Clubhouse.
3. StrongRoom: A web-based client/server accounting software used by ICON management team at their office in the Clubhouse.

Web Presence Subsystem:

4. www.trevisobayhoa.com: A website created and maintained by ICON for use by Treviso Bay homeowners, residents, and the public.
5. www.tpctrevisobay.com: A website created and maintained by ICON for use by Treviso Bay Golf Club members and the public.

Security, Web links, Apps Subsystems:

6. Ramco: A security management software to manage front gate access. The software includes an app used by TB homeowners and residents.
7. Web Links and Apps: A set of third party software accessed via the web and mobile devices. They are used by TB residents for golf, Tennis, restaurant reservations.

Communications Subsystems:

8. Comcast: A set of WAN (Wide Area Network) communications devices and lines to connect TB computing facilities to the Internet.
9. LAN (Local Area Network): A set of wires, connectors, hubs, etc. used to connect computer devices together and facilitate their connections to the Internet.
Both the networks are used by Treviso Bay management team, homeowners, and residents.

II. Evaluation Phase

The one of the goals of this phase was to determine the operating cost of the IT facilities at Treviso Bay in order to measure its cost/effectiveness. The effectiveness of an IT facility is dependent upon factors such as system availability, response time, functionality, user satisfaction, etc. Another goal of this phase was to determine the IT components which contribute the most to the lowering of the performance and user satisfaction of the IT facilities at Treviso Bay.

A. Cost of Each IT Subsystems and IT Support:

Our study showed that the operating cost of the current TB IT facilities, (**all** the subsystems listed above), well as the IT support, is estimated to be about $1.6M to $1.7M annually, which is about 133K to 141K monthly. Our studies also, showed that the cost of the Communications subsystem, **alone**, is over 75% of the total annual TB IT facilities cost.

B. Performance, Functionality, Reliability:

Our analysis showed that the current Websites, the Club Management, and the Accounting subsystems seemed to be functioning pretty well, although they all need much improvements in terms of functionality. For example the websites have limited functionality since they provide no web access to HOA member accounts, no integrated reservations/booking/payment mobile apps, no emails, etc.

Our analysis also showed that the current IBS F&B, Retail subsystem, and the Communications subsystem, both have serious problems:

- **Response Time:** Long
- **System Availability:** Low
- **Users Satisfaction:** Very Low
- **Functionality:** Very Limited
- **Hardware & Software Technology:** Not Up-to-date

C. Identification of the Causes of the IT Problems

1. IBS Server Problem:

- It is about 5 years old
- It is a local server (limited capacity) rather than a cloud-based server (expandable)
- A computerized performance analysis showed that the server is at its 90% capacity (Recommended = 60% - 65% max)
- The sever is performing database functions as well as network functions

2. Data transmission Problem:

- No direct/dedicated communication channel between the VR area and the Clubhouse.
- Modems far and hidden from the nodes
- Communication channel between the VR area and the Clubhouse is shared and has low bandwidth/capacity

3. Physical location

Sever and network equipment are keep in dusty and damp areas.

III. Recommendation/Design Phase

The goal of this phase was to recommendation IT solution(s) to improve the performance and functionality of the IT facilities at TB while lowering their operating cost. Normally, this Phase includes a short term recommendation in order extend the life of the current system while a longer term solution is being implemented to replace the current one. All the recommendations are aimed to increase user satisfaction of the IT facilities.

A. Immediate/Short-Term Recommendation:

1. Additional Server:
- Add an additional server (Microsoft Terminal Server) dedicated for networking functions
- Use the IBS main server (Microsoft SQL) for the database functions
- **Cost:** $300/Month **+ One-time installation fee:** $550

2. Dedicated Transmission Channel:
- Use a router/modem and Wi-Fi Pro (Business) solution to connect the IBS nodes at the VR to the server at the Clubhouse
- **Cost:** $185/Month + **One-time fee** (Not provided yet by Comcast)

B. Longer Term Recommendation: Option 1: Gradual Upgrade
Phase 1: Two Systems (IBS+ ClubEssential)

No	Subsystem	Reoccurring Cost		One-Time Cost	Comments
		Annual	Monthly		
1	F&B, Retail (Current IBS)	$21,000	$1,750		**The costs are based on**
2	Web (New ClubEssential)	$18,000	$1,500		**close estimates and not**
3	CE Web Sub-System Setup (New)			$14,500	**based on precise figures**
4	Total	$39,000	$3,250	$14,500	

Advantages: This option will allow the cost of the TB computing facilities upgrades to be spread over two phases, since the current IBS F&B/Retail subsystem will be used with a new CE Web subsystem.

The new Web subsystem will be all cloud-based, many less third party software, web-accessed members accounts, web-accessed food and sports reservations & payments, emails, emergency texting, 24/7 customer support, etc.

Also, a **CE cloud-based TB web server** will be copying the information contained in the IBS database almost instantaneously. This feature will provide us with a full backup of our IBS system, in the case of a serious IBS server crash.

Phase 2: ClubEssentiaL WEB + ClubEssential POS/ACCT

No	Subsystem	Reoccurring Cost		One-Time Cost	Comments
		Annual	Monthly		
1	CE POS/Accounting (new)	$12,000	$1,000		
2	CE Web (new):	$18,000	$1,500		**The costs are based on close**
3	CE POS/Acct Subsystem Setup (New)			$20,000	**estimates and not based on precise figures**
4	POS/Retail Management Hardware (New)			$25,000-$28,000	For about 20 nodes, including two POS tablets.
5	Total	$30,000	$2,500	$45,000-48,000	

Advantages: Fully integrated cloud based system, one software company rather than about 10, or more reliable and available, less computer support cost, etc.

C. Longer Term Recommendation/Solution Option 2: Complete Upgrade
Jonas Encore (POS, CM ACCT, Web Software and Hardware)

No	Subsystem	Reoccurring Cost		One-Time Cost	Comments
		Annual	Monthly		
1	Jonas Encore POS and Web Subsystems, (F&B, Retail, Acct, CM, Web) Software and Setup	$24,000	$2,000	$55,000	**The costs are based on close estimates and not based on precise figures**
2	POS/Retail Management Hardware			$25,000-$28,00	For about 20 nodes, including two POS tablets.
3	Total	$24,000	$2,000	$80,000-$83,000	

Advantages: Fully integrated, all brand new, cloud-based servers, will last about 6-7 years, more reliable and available, less computer support, one software company, rather than 10, etc. However, the Web subsystem will not be as enhanced as the CE Web subsystem.

D. TB Communications Recommendations/Options

Currently TB Comcast communications facilities costs the homeowners bout $1.5M annually, monthly=$125K. It is strongly believed that this cost can be substantially decreased while increasing the reliability, availability and the performance of this IT subsystem, using a more up-to-date communications facilities and/or Communications provider.

a. Immediate/Short-Term Recommendation:

The current IBS server crashes frequently during the system's peak time (high season) due to the increase in the number of transactions being transmitted from the VR IBS POS nodes to the IBS Server located in the Clubhouse. In order to reduce the number of IBS server crashes it is highly recommended that every TB LAN equipment and the line, connecting the VR to The Clubhouse to be checked/tested to ensure it is functioning properly. The malfunctioning LAN devices and lines must be repaired, or replaced immediately in order to secure the data flow between the IBS POS nodes and the IBS Server.

b. Longer Term Recommendation:

- Provide the TB business centers (the VR and the Clubhouse) with a business/commercial type communications services
- Provide the TB homes with a residential type communications service
- Connect the TB business centers using a direct fiber optics connections.
- Provide fiber connections to each home at TB

It is recommended that the current Comcast contract, which is to be expired in 2020, not to be renewed unless Comcast is willing to provide the above listed features at a much lower annual cost than their current contracts. It is also recommended that proposals form Comcast and two other communications companies to compared before a final decision is made about providing the TB Community with an up-to-date Communications facilities at a competitive price.

IV. Implementation Phase

This phase will take place after the current Treviso Bay Master HOA has been completely turned over to a TB Master HOA Board, governed by board members who are TB home-owners, whom have been elected by the TB home owners.