

Tahoe Donner Information Technology

2020 Strategic Plan

Version 1.7

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TABLE OF CONTENTS

1. Executive Summary.....	4
2. Vision, Values and Goal	6
3. System Priorities.....	6
4. Current objectives and initiatives.....	10
5. Customer Support	12
6. Organization and Staffing	13
7. Cyber Threats.....	15

I.T. Strategic Core Philosophy Questions

- Will this improve member experience?
- Will this increase operational efficiencies?
- Will this enhance revenue?
- Will this lower risk?

1. EXECUTIVE SUMMARY

As part of Tahoe Donner's (TD) mission to provide our homeowners with regular operation and long-term maintenance of programs, it is the Information Technology (IT) Department's duty to ensure that every department in the has the necessary infrastructure to meet leading standards.

Almost everything we do today at TD is facilitated by multiple tiers of information technology, touching nearly every aspect of operations. Its pervasiveness allows us to take labor and time saving technologies for granted, but a great deal of effort must be invested in planning, designing, and implementing IT systems that maintain and improve our underlying business operations. It is vital for the IT department to provide TD homeowners with a world class experience while simultaneously fostering a collaborative relationship with staff and the greater Truckee community.

As TD continues to be among the best managed homeowners associations in the nation, it is important to provide ongoing support to ensure a continued excellence in an environment of growing business complexity, advancements in technology, and meeting evolving member expectations – while ensuring to meet cost-conscious expectations and a return on investment to members. Secure access to information is vital, and the role of IT is critical to the success of any modern organization. To realize this vision, TD must optimize IT investments, drawing on our skilled and innovative employees to meet head on emerging and expanding requirements.

Our information technology assets are the foundation for nearly all current and future strategic goals. Delivering high-quality IT to amenities and services is more complex and less apparent than the physical operational requirements such as spinning ski lifts and charging golf carts. TD's future financial performance depends heavily on its ability to provide first-rate customer service, operate a modern and efficient service delivery organization, secure and optimize resources, and employ a skilled technical workforce capable of delivering on future needs that serve and protect our members.

The following IT Strategic Plan outlines the IT roadmap for TD. It demonstrates the significant contribution of technology in the way we operate our business and service our members. It also affirms TD's commitment to investing substantially in its IT infrastructure, as guided by this plan and the reserve replacement cycle.

Tahoe Donner Information Technology

2020 Strategic Plan



TAHOE DONNER AT A GLANCE



MEMBER STATS



84%
SECOND
HOMEOWNERS

Second homeowners primary residences are concentrated in San Francisco Bay area and Sacramento primarily.

16%
FULL TIME
RESIDENTS



52%
MALE



48%
FEMALE

AGE PROFILE

0-6	4%
7-18	16%
19-30	13%
31-45	21%
46-64	14%
65+	32%



85.4%
HAVE 4-YEAR
OR GRADUATE
LEVEL DEGREE



63.5%
MEDIUM INCOME
OF \$150K OR
HIGHER



\$657,250
MEDIUM HOME
PRICE

INTERESTS



SKIING



BIKING



HIKING



GOLF



WATER
SPORTS



OTHER
RECREATION
AND FAMILY
ACTIVITIES

VISITOR STATS

400,000 visitors annually

Passionate about outdoor recreation and nature, very tech savvy

Primarily reside from San Francisco Bay area and Sacramento

2. VISION, VALUES AND GOAL



VISION

The Tahoe Donner IT Department will be an exemplary team that meets the needs of a complex growing organization.

MISSION

Continue to improve information technology services to integrate resort and support services. Enhance the members experience and operational efficiencies across all customer facing platforms.

VALUE

IT will provide exemplary technology services supporting the aspirations of the organization based on our shared values:



3. SYSTEM PRIORITIES

IT is increasingly becoming the “soft infrastructure” in modern organizations providing the connectivity and harnessing the data-derived intelligence from and for increasingly networked organizations. In thinking through TD’s business needs and opportunities identified in the preceding section, it became evident that it would be unwise to simply “solve” each need and opportunity in a piecemeal or siloed manner. It is crucial to formulate our IT strategy from a holistic perspective. Drawing on internal resources, industry trends and optimal IT practices, the following guiding principles were developed to inform our project portfolio and implementation choices.

INVEST IN IT AS PART OF MISSION-CRITICAL INFRASTRUCTURE

Upgrade EOL (End of Life) and “legacy” systems: With best-in-class solutions, TD can take advantage of the latest technologies and ensure necessary and qualified IT support. Modernizing system architecture will also lay the foundation for greater integration across systems.

Streamline, then automate business processes: TD’s legacy systems can lock the organization into outdated and inefficient business processes. Future modernization efforts will allow TD to take a fresh look at its business processes and redesign them to streamline the workflow and also make them more resilient. Thoughtful automation will increase business efficiency and reduce human error.

Leverage mobile technologies to increase efficiency: TD is entering an era of greater reliance on enterprise mobile solutions to transparently integrate the office and real world. Mobile technologies at TD will have to support business and operational functions across the enterprise. Mobile technologies will play a dominant role in delivering the vision of a real-time TD where operational activities are visible and managed in real-time, delivering very significant benefits in terms of improved customer service and member satisfaction.

Expand use of online technologies to better serve and engage members: Online technologies are critical to deploying self-service transactions by customers. These services will not only have to be easy-to-use but also encompass the complexities of our member-based organization. Online technologies will have to be carefully designed to ensure that the customer experience is smooth, consistent, convenient, and secure. Social technologies offer unprecedented opportunity to leverage a real-time media for customer messaging as well as responding to customer concerns.

Improve information transparency and accuracy for members: An enhanced customer service experience gives members real-time access to information they care about, such as amenity closures, transaction history, stored value balances. Fortunately, there are solutions that meet these needs.

Mitigate technology risk: As stewards of substantial personally identifiable information, member and employee data must be treated appropriately and security must continue to be at the forefront of all day to day operations, future improvements and new business initiatives.

Develop integrated technology solutions that cut across operations: With systems that “talk to” one another, TD can streamline and enhance the flow of information across functional silos and even combine and analyze information in new ways.

Enhance two-way information flows by expanding the use of cloud technologies: This will enable information to pass instantly to-and-from various operating and business departments, TD profit centers, and ultimately, our members. Accurate and timely information will allow a greater degree of control of operations and allow greater real time flexibility to pricing.

Leverage IT for better tracking of business performance: A good monitoring function tracks decision-relevant information, presents critical information in digestible formats, and enables management to drill down as required.

EFFECTIVELY STEWARD IT RESOURCES

Leverage “off-the-shelf” technologies where appropriate: While internally developed solutions are a well-deserved source of pride, “best-in class” off-the-shelf solutions (where appropriate) will allow TD to stay at the technological forefront while achieving high cost-efficiencies.

Optimize existing systems, end-to-end: IT needs to work closely with users to specify requirements upfront, maximize system functionality, ensure systems are fully “owned” by the department, and ensure users have regular opportunities for training (inhouse or through vendors).

Software is abstract, complex, hard to measure and even more difficult to value. Before Tahoe Donner develops or purchases a software product, it is essential for us to research and understand all aspects of the software and its interrelation to the broader networks.

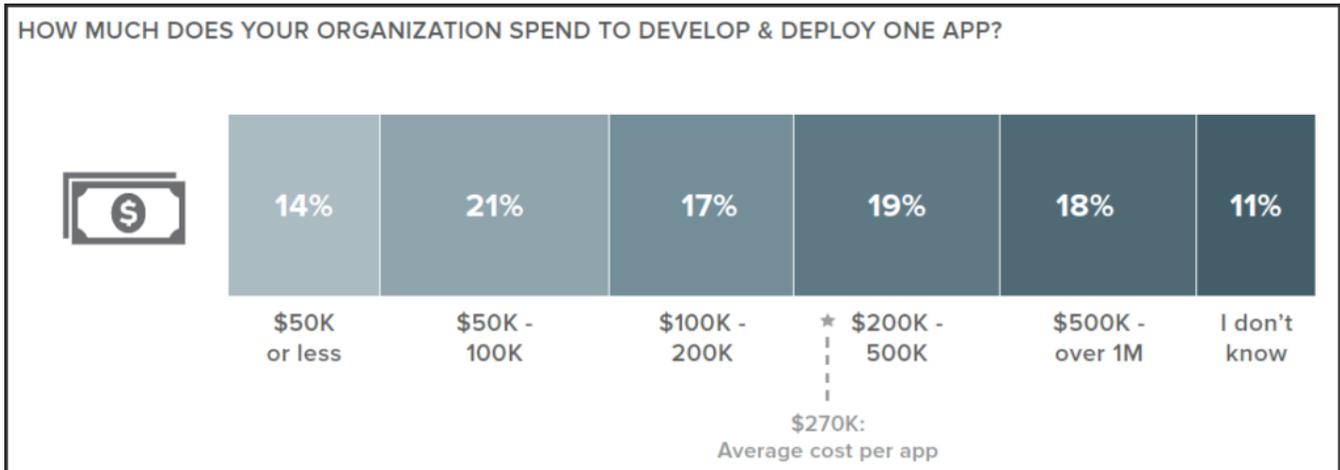
The current industry trendsetter, Vail Resorts, Inc. (NYSE: MTN), reported a total net revenue of nearly two billion dollars in the twelve months ending July 31, 2017. Unlike Vail, Tahoe Donner does not have budgetary resources to develop completely integrated technology solutions from the ground up. Instead, we must work with other independent resorts and developers to architect and employ middleware solutions between applications appropriate to each of our lines of business in order to alleviate user “pain points” and present a holistic Tahoe Donner experience.

This however does not come without challenges. A Kinvey report based on a November 2014 survey of CIOs and mobile leaders found that mobile application development is “costly, slow and frustrating.”

Tahoe Donner Information Technology

2020 Strategic Plan

Fifty-six percent of mobile leaders surveyed say it takes from 7 months to more than one year to build one “app” or application. Eighteen percent say they spend \$500,000 to over \$1,000,000 per app, with an average of cost per app of \$270,000.



Tahoe Donner will conceivably have exponentially higher development costs due to multiple interrelated profit centers with varying operational complexities between public, members, accompanied and unaccompanied guest validation.

4. CURRENT OBJECTIVES AND INITIATIVES

Objectives

- Recognize that IT and the information garnered from our programs is a strategic asset.
- Maintain a robust, reliable, modern, and interoperable technology infrastructure to support data collection, analysis, and reporting that assists fiscal and operational decision making.
- Continue to update and regularly replace IT infrastructure via the reserve replacement process, IT infrastructure.
- Ensure appropriate staffing levels that safeguard the department remains nimble and efficient to meet member needs.
- Support new initiatives and ongoing business intelligence data mining requirements - particularly as relates to multi-tier peak-nonpeak pricing.
- Meet the technology expectations of our technocentric member base.

It is important to note that we need to treat this Strategic Plan as part of an ongoing, dynamic context, as technology is ever-changing and needs to be adjusted, often in real-time to meet the evolving needs of our membership in this evolving technological environment.

Initiatives

SHORT TERM (1-12 MONTHS)

- Online Store (Complete Replacement)
 - Research, propose and implement a new modern ecommerce platform that supports our business complexities
- Digital Member Card for Apple Wallet, Google Passbook
 - Develop, test and deploy an RTP-integrated digital member card solution
- Video Conferencing Upgrades Mezzanine and Meadow Room
 - Upgrade Mezzanine and Meadow rooms to improve reliability and ease of use
- Win10 Enterprise Upgrade

Upgrade existing Windows 7 systems before 2020 end of life. This is required to maintain compliant with credit card processor.

- Improved Amenity Smart Phone Coverage

Research, propose, implement and educate members on improved WIFI at Trout Creek and The Lodge

- Trout Creek Remodel

Work with operations and capital projects to upgrade audio, video, surveillance and WIFI during remodel

LONG TERM (13-36 MONTHS)

- Integrated Customer Relationship Management (CRM) system

Collaborate with external marketing development resources to push data from RTP to a CRM platform

5. CUSTOMER SUPPORT

Providing competent and timely support to staff across the organization is one of the most important day-to-day IT function. During our regular interactions with amenity managers, supervisors and front-line users, we consistently solicit troubleshooting and improvement requests via our internal IT work order system.

Although a fast-moving target that regularly gets displaced by new management and board directive, the underlining IT support strategy is to prioritize work orders into tiers.

Tier 1 (Immediate Business Critical)

- Core infrastructure uptime (e.g. site connectivity, database availability and phones)
- Revenue generating uptime (point of sales and ShopTD)

Tier 2 (High Priority)

- Back-of-house workstation support
- Board meeting support

Tier 3 (As Soon As Possible)

- Non-revenue customer/member facing technical issues (e.g. webcams, digital signage and weather stations)
- Committee meeting support

Tier 4 (Day to Day Operational)

- Ongoing assigned project deadlines
- Process improvement, continuing education and product research

6. ORGANIZATION AND STAFFING

TD's IT department team is made up of technically competent, motivated problem-solvers who are intellectually curious and eager to play a key role in making TD a leader in resort IT. To help deliver on this plan, TD IT continues to strive to create a business culture that is focused on delivering realistic business solution on-time and within budget. Individuals within the IT team have been designated to manage the design, acquisition and implementation specific of capital projects with very specific accountabilities. To further elevate the IT team's performance trajectory, a number of staffing, business process and cultural shifts are being implemented within the IT Team.

- Modernizing the skills mix to fit the evolving enterprise architecture
- Immediate operational needs prioritization and project management
- Greater collaboration with department managers and end users
- Linking individual bonus structures to project success
- Greater strategic partnering with external technology vendors and consultants to ensure access and utilization of best-in-class solutions and expertise
- Collaborating with other mountain resorts on IT challenges and innovative solutions

Our continued technology modernization strategy will require a constantly changing mix of technical skills. The demographic of our members requires the IT team to reconfigure its competencies to deliver value in a more agile technological environment. Shortages are expected in several job categories throughout the organization including technical specific skillsets, and these shortages could worsen as more lucrative technical positions continue to emerge in the Reno market. Additionally, as Truckee cost of living metrics continue to trend higher in nearly every trackable category the divide between the Reno and Truckee markets will continue to handicap the appeal of TD employment. TD also must compete with larger resorts, government agencies and contractors for skilled staff. Recruiting the best IT talent in a competitive yet dynamic marketplace will require TD to proactively attract, develop, and retain new talent. To meet the need of staffing flexibility as well attracting quality staff with the appropriate skillsets, IT has to address competitive compensation and have the ability to tailor compensation and terms of employment to optimize its capabilities.

LinkedIn data from 2017 shows a worldwide employee turnover rate of 10.9 percent whereas the tech sector showed the most volatility with 13.2 percent employee turnover rate. Of course,

Tahoe Donner Information Technology

2020 Strategic Plan

sometimes turnover is inevitable. TD IT must be prepared to lose star talent and ensure business continuity during turnover. To that end, TD must adequately document procedures and configurations to assist in the transfer knowledge during turnover. In addition, the allocation of appropriate funds for onboarding and training must remain budgeted.

Under these highly competitive circumstances, the IT department must be highly proactive, with a nimble recruitment process. The support of HR is critical in adopting a continuous recruitment strategy with participation in career fairs, engagement of recruiting teams, and the promotion of TD attractiveness as an innovative and fun place to work.

Sectors with the Highest Turnover Rates

1.		Technology (Software)	13.2%
2.		Retail & Consumer Products	13.0%
3.		Media & Entertainment	11.4%
4.		Professional Services	11.4%
5.		Government/Edu/Non-Profit	11.2%
6.		Financial Services & Insurance	10.8%
7.		Telecommunications	10.8%
8.		Oil & Energy	9.7%
9.		Aero/Auto/Transport	9.6%
10.		Healthcare & Pharmaceutical	9.4%

7. CYBER THREATS

The IT department is focused on securing technology services to protect against cyber threats, which are increasing in scope and frequency. At the same time, the IT department will continue to evolve, and enable innovative ways for city departments to share information and services.

Critical to our success is a strong foundation of governance practices that promote transparency and efficiency. The IT security workforce is a top priority. The IT department will invest in the IT security workforce to ensure it is prepared to support our evolving information, cybersecurity, and technology needs.

In almost every way, employees are our greatest asset. Sometimes employees may take cybersecurity requirements too lightly, leading to dramatic consequences for the organizations they work for. According to a report by the security company Kaspersky Labs, careless or uninformed staff are the second most likely cause of a serious security breach, second only to malware. In 46% of cybersecurity incidents in the last year, careless, and/or uninformed staff have contributed to the attack. The IT department must strive to raise awareness of information security risks, train and educate technology users, and implement next generation security tools.

Through an industry best practice, multi-tiered, multi-vendor approach, TD will protect sensitive data with robust security and privacy programs, in addition to implementing and monitoring compliance with security and privacy policies and standards.

The following protective measures are in place:

- Web Filtering – Monitoring and restricting internet access and blocking malicious web sites. Immediate operational needs prioritization and project management
- Penetration Testing – Performed periodically to evaluate computer and network security by simulating cyber-security attacks from internal and external threats
- External and Internal Vulnerability Scans – Scans our internal and external devices network for vulnerabilities. Scan detects and identifies potential points of exploit, detects and classifies
- Anti-virus software – Monitoring, detecting and cleaning all association computers
- Patch Management Software – Ensuring all computers are updated to protect against the most recent threats

- Network Access Controls – Restricts network access to those computers found to be not in compliance
- External Network Security Device – High performance firewall network appliance and software that protects our network perimeter against intrusion and cyberattacks.

