

# **Yachats Information Technology**

**Review & Report – 7/3/2017**

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## **Information Technology System Overview**

There are two primary IT systems for Yachats, one that has been hosted at GoYachats.com for the past 8 years, as well as a newer system at YachatsOregon.org. Both systems currently share the same database and business logic for most information (property data, community calendar, etc.), though a large part of the functionality is linked back to GoYachats.com. Because of this, the underlying city information (property inventory, public calendar, etc.) is identical between these two systems.

GoYachats.com currently hosts:

- Room/Venue Reservation system
- Business Licensing & Tax information
- An Email system to automatically send scheduled reminders, as well as custom templates and invoices
- Property Information system, which may be searched and filtered for specific information
- Visitor Information, with pages that may be modified by business and organization owners
- Communications Log
- A user account system for business and organization owners to log in and manage data, as well as city staff for administrative functions and data recording.

YachatsOregon.org currently supports:

- The Document Library
  - Includes categorization and file metadata (creation & modification date, file size, etc.)
  - Includes document searching through Google Custom Search
  - Includes filtering by category
- Water Reporting System, including importing/exporting data
- Property Information system, which may be searched and filtered for specific information (much like the GoYachats implementation)
- Policies & Regulations repository

The new site (YachatsOregon.org) will also be the system for future projects. The GoYachats.com page will eventually be geared to serving general information to visitors and tourists, while the new site will host more systems for city administration and management.

Note that other systems (accounting software, library catalog, utility metering and billing, etc.) are not in the scope of this review. These are third-party systems that are not considered part of the system development.

## **Observations**

General observations about the Yachats Information Technology system:

- The new system is designed well, with future expansion and growth in mind. There are some tweaks and minor improvements to be made, but the framework is there to add related features fairly easily – one such example is the fee scheduling & billing plan, as it can make use of the already-existing reservation system. The new site is also set up for long-term reliability with a relatively low maintenance cost, as it is hosted off site and is backed up regularly.
- I am *very* impressed with the level of automation with the current system.
  - From an end-user perspective, it is easy to complete required forms for business licenses, enter and calculate tax and billing information, and reserve meeting spaces in city buildings. Instead of having to fill out paper forms or calculate taxes quarterly by hand, these functions (as well as reminder emails, invoices, and confirmations) are automatically handled by the system.
  - From a city staff perspective, some functions have been reduced to a simple approval/denial action for some requests. Training for requests and forms is still needed; this is now focused on training for online data entry instead of through a paper system.
  - From an auditing and accountability perspective, administrative actions are automatically recorded in one location, in a consistent, accessible way. All email communication from the system is recorded and logged, uploaded documents to the Document Library have the uploader name and creation date saved, and other information is recorded on a monthly basis.
  - This system appears to serve the community well. Some components are used less often than others (business owners do not often update their own listings in the service pages, for example), the ones currently in development have direct applications for the city administration. Office staff have identified a few issues with the current system – for example, the same form is used for both business licensing and vacation rental licensing, so there are a few input fields (business name for rentals, for example) that are not an exact fit for administrative needs. Nonetheless, I don't believe there is a single solution (or a small set of applications) available off-the-shelf that would serve Yachats as well as what has been created by Greg Scott and the development team.

For current services, and projects currently underway:

- The Document Library is very close to completion. The only major task left for the Library is to add keyword searches with category filters – a task that is estimated to be completed by the end of July. Even though the Document Library has not been marked as complete, it is still very functional. The most important features are currently supported; keyword search is not yet ready, but saving, downloading, indexing, and updating documents are all features that are available and are currently in use.
- The Water Reporting System has a few roadblocks, but the major holdup (and the root cause for other issues in this system) is a discrepancy in the metering data. The inconsistency of the metering units makes it difficult to verify the system's handling of the data, and the discrepancy does not currently allow dependable analysis of water usage. The other functions, such as import and export of the water data, as well as monthly adjustments for the city, are implemented and available as part of this system. That said, I understand this component is a lower priority than some of the other projects that the IT development team is currently spending their resources on.

- The Reservation System seems to work well. A future project, the Fee Schedule/billing system, may be able to be built on top of this, somewhat reducing the amount of work required.
- Tax Reports and Business Licensing are very impressive. The ability to send quarterly reminders, as well as keep track of Yachats business' tax and license information, is something that appears to save a significant amount of time for city staff.
- The Email system and Communication Log has been in service for some time. I did not see any issues with these systems, and they appear integral for current projects, such as Tax Reporting, as well as future projects, like the email distribution lists.
- Property Inventory appears complete – fairly detailed information about Yachats properties are accounted for. However, there are some data fields that are incomplete. Information such as water service need more information to be entered for some properties.
- Property and organization owner information is somewhat fragmented – there is some information stored within the Property Inventory, and some of the same information is simultaneously recorded for organizations. This makes it somewhat difficult for users and administrative staff to update information for these items, as there isn't a single, authoritative data source in the systems for property or organization owners.
- Documentation on most of these workflows have been available for quite some time; however, they are a little difficult to access (Adobe Flash is required to reach the site help page for GoYachats.com) and some pages are out of date.

#### Viability of the systems in the future:

- System maintenance is straightforward. The current service provider manages operating system updates. The database and programs operate in an industry-standard framework, making migration or transfer to another service provider fairly easily if a different provider needs to be chosen in the future.

#### Feedback from Yachats city staff:

- There are some systems that do not work as intended, or do not exactly match the needs of day-to-day operations. As outlined above, it is difficult for users to update information for property and organization owners, as the system needs to be updated multiple times for the same data.
- Some forms (such as ones in the commons reservation system) are difficult to use, or request information that the customer or requester do not know. Additional information required for requests to be accepted into the system may be confusing for customers, and often require assistance from the city staff to complete.
- There are some edge cases that are not handled by the GoYachats.com interface.
  - One example given by staff is the ability to prorate license fees for businesses that have applied for licenses near the end of a calendar year. The current system sends invoice emails twice, even though one payment is required (and has been paid).
  - As mentioned in a previous section, the same form is used for both business licensing and vacation rental licensing causes some confusion in entering correct (or unnecessary) information.
- Reporting on past-due invoices is needed, but is not currently available in the GoYachats.com interface. There is a way to sort invoice information for each quarter, but it may not be intuitive for users. I'm not sure how long this addition has been asked for, but it appears to be a major request that the staff would appreciate.

## Recommendations

- The idea of separating detailed proceedings, city functions and internal management from general visitor information is a sound one. Using the two sites to realize this, with GoYachats.com as the commercial/informational side, and the YachatsOregon.org site as the administrative side is a logical choice.
- Data input and entry may need to be improved – for systems such as the Property Inventory and Water Reporting, the programs are in place, but without the correct data in the database, these projects may not be used to their full potential.
- Documentation for these systems is important. To avoid repeated or redundant training on how the system should be used, I suggest updating documentation for the GoYachats.com site and making it accessible to site users without specific programs (like Adobe Flash) required.
- It is not my position to determine or advise projects to be prioritized. That said:
  - I see both the proposed Complaint Tracking system and the specified Fee Schedule system as fairly important components that would improve current workflows, as well as potentially identify common issues Yachats is facing in a visible, accountable manner.
  - Primary users of the systems, Yachats administrative staff, are concerned that their feedback is not being considered in the decision process for project priorities. The development team factors usability issues into current and future projects to some degree, and provides updates and fixes for the systems. There are times, however, when user experience should be prioritized above development of new projects, and in some cases more than it has been in the past.
- It is my belief that resources are not being wasted. It is also important to remember that working on fixes based on continuous user feedback is not an unexpected use of resources – rather, it is an important part of the development process. A system is not necessarily complete when all features in the project specification are fulfilled – it is a continuous process that involves feedback and incremental modification.
- Including the city staff in on more steps of the development process for future projects would be very helpful for the perceived value of the systems, as well as improving the direction of project development even further. This would include evaluating current workflow, including staff input in the project requirements and/or specifications, and integrating feedback once the project is put into use.

## Final Thoughts

Automating administrative processes through Information Technology systems can enable massive improvements for public services. As the amount of services requested increases while staff size stays the same, effective use of IT services mitigate the workload required of city staff. While this is especially relevant to Yachats, where the city administration is relatively lean compared to other cities, this is not a unique problem to the city or to the State of Oregon. As I'm sure you know, planning and updating administrative processes in anticipation for growth should be done sooner rather than later, before problems arise.

The IT Systems under review, headed by Greg Scott, serve this need very well for the unique local challenges and expectations that need to be met. There could be more done to include users in the process of creating these systems, as well as responding to issues raised by frequent operators. The overall direction that these projects have taken are reasonable, and anticipate the need for more services to be automated while being sustainable and relatively easy to maintain compared to software projects of similar size and complexity.

Even if results are not immediately available, the resources saved in using Information Technology to automate regular, repetitive, or routine tasks will accumulate over the lifetime of the systems used. These resources may be used to advance higher priority city projects, make informed decisions based on consistent, realistic data, and plan additional projects to better serve the Yachats community.