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Considerations for the Small to Mid-Sized Residential Builder

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One of the most critical and challenging decisions a small to mid-sized business can make is what software solution(s) to implement as their primary business management software. There are so many facets of the business to consider and the invest in time and money can be quite significant. Making the right selection, one that scales with the organization and is flexible enough to meet your needs, can be made easier if you know what to consider and where to go for assistance.

The primary components you'll need to evaluate are the functionality, the technical aspects of the solution, and the implementation process.

FUNCTIONALITY

As with any software solution the most important question is "does it do what we need it to do"? There is no simple yes or no. This is going to depend not only on the functionality you require, but how important it is to you. The items below outline the components we feel should receive particular focus when it comes to your primary business solutions' functionality.

Estimating Tool

If you are building 3 homes per year, working your purchase orders to calculate your retail pricing and estimating is your best option. If you're building 10 homes a year, calculating your estimates by hand is still acceptable, however, if you are building 25+ homes, or will in the near future, a more robust estimating tool will be required. As accurate estimates are one of the core components to the profitability of each job, it is important that you weigh this sales pricing and estimating functionality heavily. A system that is overly complex will be costly to implement and maintain, and will also become a frustration to your users. However, a system that does not allow you to quickly and accurately produce estimates will drag down your organization, particularly if you offer several models and/or options.

Purchasing

- Does the solution provide performance tracking at the trade level?
- Does the purchasing solution provide functionality specific to your industry, such as variance purchase orders?
- Does the purchasing solution automate the sending of documents, such as purchase orders, to suppliers and subcontractors?
- Does the purchasing module provide a mechanism for approval rules? Can these approval rules be set at the project or job level?

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Subcontract Management

Are you working in a parts and bid rate world or do you work almost exclusively with turnkey subcontractors? How critical and what is required of your subcontract management functionality will depend heavily upon your specific environment. If you do work with a significant number of turnkey subcontractors, then you will need to ask yourself the following questions:

- Does the software track subcontractor insurance and licenses?
- Does the software store subcontract data, such as pricing, and is that pricing automatically used?
- Is the contract pricing date effective?
- Does the solution store historical pricing?
- What are the rules for applying the subcontracts and how granular can they be?
- Can my subcontractors access the system remotely for critical things, such as viewing schedules or open warranty work?

Accounting System

Financials are at the heart of your organization, regardless of your industry. Thankfully, basic accounting standards have seen no dramatic changes, other than SOX, since 1968. However, that doesn't mean there aren't questions to be answered when it comes to the financial portion of your solution. Some of the key questions are:

- Is it included or are you required to purchase a separate package and integrate? If the accounting solution is separate, some additional considerations are:
  - Which accounting packages are integrated, and to what level?
  - How is integration performed and what are the costs associated with this?
  - Is the integration real-time?
  - Is the integration supported by both software solution providers?
- Is Accounts Payable included and fully integrated, into the Purchasing portion of the system?
  - Will you be able to track costs back to individual jobs?
  - If your business requires it, is OCIP or Insurance deduction management available?
- Is there Budget vs. Actual Tracking / Ongoing Profitability down to the individual job level?
- Does the system track work done/invoices sent, such as required for bank loan draw documentation?
- What integrated modules are available that relate specifically to your needs, such sales and services.

Sales Management, Design Center Management, & Marketing

Keeping a clear line between want and need will be the toughest challenge when evaluating your Sales Management and Marketing options. A substantial amount of thought should be put into your requirements. Attractive, robust sales management solutions demo well, but often include
costly, unnecessary features. However, a company on an aggressive growth plan will require advanced features which solidly integrate into your environment.

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In addition to your specific requirements keep in mind the following:

- Be sure to consider if the application's workflow functionality or reporting tools can satisfy some of the sales management wants and needs. This is an area than can become costly quickly. The advice of an independent consultant can be of great value during this portion of review.
- What functionality do you need in terms of Options? If you are building 5 houses a year, typically everything is an option. If you are building 25 or more houses a year you are likely building standard models with options and need option management. Be sure to look at what level of option management is available. Does the option selection, for example the flooring option of carpet, allow for attribute selection as well, such as color, and style? What approval workflows take place on options?
- Are surveys and traffic tracking components a requirement? If so, does that functionality exist or can it be integrated within the sales office application?
- Does the system adequately handle both prospect and buyer information, including post-closing?
- Do you need, or does the system include a module for Customer Relations Management (CRM)? CRMs are often the heart of Marketing, a strategic component in residential homes sales, but they can also be costly to implement and maintain. Don't purchase unnecessary CRM components, but do verify that a CRM module can be added at a later date or an external CRM application can be easily integrated (see more under the Integration section below).
- Clearly evaluate your options for website and sales office kiosk integration.
- Will the system handle your commission tracking and sales assignment to your desired level?

Warranty

Warranty activity management needs will depend upon your tracking level needs and volume of annual homes sold. For a small builder, tracking warranty activity within an independent tool may suffice. For a builder selling more than 50 homes per year an integrated warranty application will be necessary. Be sure to evaluate the mobile access abilities of any warranty solution. Being able to enter and maintain warranty data from the field will greatly improve the value of the warranty management portion of the solution and will increase buyer satisfaction.

Be aware, if a system does not include out-of-the-box warranty management functionality be sure to determine what your options are for 3rd party **real-time integration** solutions.

If warranty is to be managed in house, be sure the application can easily tie warranty incurred costs back to the project, job. Additionally, confirm that tracking the warranty activity back to the vendor level is available for vendor performance review.

Scheduling

The ability to schedule both internal resources and subcontractors for each job, without performing redundant activities, can greatly reduce the amount of time spent managing schedules and provides a centralized source

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for all stakeholders in the schedule. Remember, reduced cycle time = increased profits. The things to look for in the scheduling portion of your solution include:

- Ability to reschedule a job from a point in time.
- Ability to notify related parties of scheduling changes, including subcontractors.
- Ability to track original and actual activity start and end dates.
- Available through remote access, preferably a web portal for both field personnel and trade partners.
- Ability to attach documents to specific tasks.
- Ability to share documents and information related to the activities, both at the project level and job level.
- Ability to trigger workflow activity based on scheduling and/or task updates.

Rebates

For a larger builder, rebate tracking can net millions of dollars in returns each year. For small to mid-sized builders it can be difficult to realize similar percentages of benefits due to the volume purchasing requirements and the time investment it takes to manage the varieties of rebate structures. For this reason, we do not recommend a rebate management mechanism be a requirement of your primary business solution.

We do suggestion that you do not discard the value of rebates, but rather leverage volume purchasing vendors, such as Keystone Exchange, an independent rebate management solution, such as HomeSphere, or manage your rebates through an internal application or spreadsheet based solution.

Compare your options for managing rebates with your specific objectives and requirements in mind. Your independent solution consultant can help you determine the best route based on your purchasing foundational information.

Document Management and Contract Management

Document Management refers to a solution which stores documents and related meta data regarding the document. Often times a document management system will also have versioning and audit tracking. It is not typical for smaller organizations to require such a robust document storage solution. The exception to this rule occurs most when the document management system is a prerequisite for another module.

Contract Management refers specifically to the management of legal documents, such as sales contracts, addendums, etc. and their supporting documentation. A contract management solution should provide the ability to run various levels of workflows against the documents. For example, a contract management solution should be able to notify related parties once a contract

has been signed, and include a copy of the signed contract. Does a smaller builder require such functionality? No. In fact, it may be even more costly for a small builder to maintain such a solution. However, a builder

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producing 50 homes or more per year would benefit from an effective contract management system that included workflow capabilities. See more regarding workflows in the following section.

Contract Management solutions also demo well. Take care to document what you expect the workflow process to look like and carefully evaluate this functionality during the proof of concept portion of your evaluation.

Workflows

Workflow functionality comes in just behind business logic requirements as your highest priority. The ability to act and react based on events or circumstances of your choosing will give your organization the flexibility it needs to create the work processes they desire. A strong workflow system will pay for itself over and over again. For example, the software doesn't automatically send a notice to a sub that they have an outstanding activity, but can a workflow be set up to do so? The software doesn't notify purchasing when pricing is needed for a custom option, but can a workflow be set up to do so?

The ability to create custom workflows that respond to events that occur within the solution will reduce the need for custom code and/or additional manpower.

Do not dismay if the system does not come with an out-of-the-box workflow tool. Look at your options for adding workflows via other mechanisms. For example, if the software runs on SQL Server, can SQL Server Integration Services (a component that is included with SQL Server at no additional cost) achieve the necessary results?

Understanding your business processes (what should be automated vs. what can be automated and what your alternative workflow solutions are) will allow you to make the best possible determination when it comes to the out-of-the-box workflow requirements of your primary business solution.

Once again, this an area where your independent business solutions consultant can provide valuable insight.

Remote Access

Whether you are building 10 homes a year or 750 homes a year, the ability to access systems remotely can significantly reduce costs, both in time and travel. If you will be building a minimum of 25 homes in the next 5 years we recommend that you select a solution that allows field personnel appropriate remote access, specifically related to scheduling, warranty work, and the ability update any workflow tasks.

An additional bonus, is remote access for non-employee personnel, such as subcontractors and homeowners alike. Look closely at the costs for this functionality as it varies greatly from included to quite expensive, based on the software solution.

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TECHNICAL ASPECTS (On Premise Solutions, Hosted Solutions, Cloud Based Systems)

On Premise Solutions

An on premise solution means that both the hardware and the software involved in the system is physically located on your premise. These systems can be managed by internal staff or through a 3rd party support provider.

On premise solutions can have a lower long term cost as there is not a need for continuous payments to the remove provider. On premise can be also be attractive as it typically provides for a greater level of control, often times a greater level customization, and can typically run without internet connectivity.

While on premise can seem highly attractive, it is important to keep in mind that on premise solutions require greater in house knowledge, particularly in the technology area. Also, an on premise solution creates demands for backups, security solutions, and disaster recovery plans. On premise implementations typically take longer as well. On premise solutions are often best when internet connectivity is a concern, when solution functionality varies between on premise and cloud based and the on premise functionality is desired, or when there is a need for greater control of the system/environment.

Keep in mind, an on premise solution may or may not include the ability for field personnel and trade partners to access their tools. Evaluate remote access capabilities and requirements closely when looking at on premise systems.

Hosted Solutions

In a hosted environment a provider will provide the environment for an on premise solution, which is then accessed through a Virtual Private Network (VPN) or Remote Desktop (RDP) connection, or alternative tool, such as Citrix. The hosting provider is responsible for maintaining both the hardware, software, security, disaster recovery, and basic support. The levels for each of these components depends upon your Service Level Agreement (SLA) with the hosted provider.

Hosted solutions allow an organization to outsource the technology components of a solution while still retaining any benefits of the on premise solution. The exceptions to this being that an ongoing fee will now be paid to the hosted solution provider and an internet connection will be necessary for all users at all times. Hosted solutions are appealing to those with solutions that cannot or should not be cloud based, but yet need to outsource the technical responsibilities related to the solution.

Cloud Based Systems

A cloud based environment is similar to a hosted solution, in that the backend systems are maintained by the provider. However, in a cloud based system the applications are web based and therefore are accessed through

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a browser. There is no need for a VPN, RDP, or other type of remote access tool. Much like the hosted solution – there is a dependency on internet connectivity, and there will be perpetual fees as long as the service is provided. The other main drawback to cloud based systems is that they are often times less customizable, although this needs to be evaluated on a case by case basis. The ease of implementation, maintenance, and low upfront cost often times makes the cloud base environment an excellent fit for small to mid-sized organizations.

Reflecting on the type of system it is important to note that the organization's setup may be determined by the type of software solution. For example, Dynamics 365 for CRM is available in all three environment scenarios, but NewStar Enterprise is available only in on premise or hosted formats.

If you are in a remote location with very limited internet access an on premise solution would be the only acceptable option for you. If your parent organization mandates cloud based solutions only, the decision has been made for you. Unless you are under one of these extremes, do not base your decision primarily on the environment options, however, do not forget to take them under consideration either. Be sure to discuss your wants and needs heavily with those involved in the solution selection process.

Level of Integration Capabilities

When selecting a primary business management solution, it is critical to take into consideration the integration capabilities of the software. Does the solution have an Application Programming Interface (API) or a Software Development Toolkit (SDK)? These allow software developers and other solution providers to integrate with your system. Even if this is not a requirement at your current size, part of being a scalable solution, one that can truly grow with you, is the ability to work with/talk to other systems.

Be careful not to confuse import/export functionality with an API or SDK. Imports and exports often require human interaction to complete the activity. While this is acceptable under some scenarios, it will not address a long term need. For example, your organization maintains employees in an HR system. When an employee is terminated in the HR system the corresponding account needs to be disabled in your primary business solution. Will someone need to do this manually every time OR will the user need to manually import a file OR can this happen automatically between the two systems?

Not only will an API or SDK allow existing systems to work together, it also significantly expands your options for customization. For example, your application may be a Windows based solution, but occasionally information needs to be populated by mobile users. A developer could create a front end web application that would then send the record(s) back into the system. Because the application is using an API or SDK and not going directly against the backend tables the business rules of the application will be followed.

If you are planning on your primary business solution to be in place for five years or more an API or SDK, or other adequate method for interfacing with the system, is of high importance.

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Reporting Options

How many reports come out-of-the-box? It doesn't matter. Every solution comes with a series of out-of-the-box reports. They will be attractive reports. They will be efficient reports. They may be even useful reports. What they won't be is every report you'll ever need. Bottom line – no matter which system you work with you are going to want to change a report or create a new report.

Things you need to consider when it comes to creating or editing reports:

- How are the newly created or modified reports delivered to the end user? Will they access them the same way as the existing reports or will something be different?

- What language is the report written in and what software is required to be able to work with the reports?
    - Does your staff have the skillset and tools to work with these or will they need training and additional software?
    - How much will it cost in both training and tools?
    - How common is the reporting tool? The less common a reporting tool the more difficult it will be to find a resource when the need arises.
- If you are in an on premise or hosted environment, what are the additional hardware/software requirements to feed reports? (i.e. SSRS, Crystal Enterprise, client components, etc.)

SQL Server Reporting Services (SSRS) and Crystal Reports dominate the marketplace today, but are by no means the only choices. Discuss with your IT staff or IT consultant the reporting options and related requirements regarding reporting.

Please note, if no custom report option exists, can you access the backend data through ODBC or other mechanism?   If you cannot access your data outside the application in any way and cannot create custom reports against the system, the system should likely be removed from consideration.

Backend System Requirements

How much weight the backend system has on your decision making will depend heavily upon whether or not you are selecting a cloud based solution or on premise. If you are on premise, a hosted solution, or plan to potentially migrate the cloud based to on premise at a future date the backend system is critical.

You will need to know the hardware details, such as how many servers, how much memory do they need, and so on. You will also have storage requirements, but remember, space is typically inexpensive. Additionally, there will be an operating system requirement, such as Windows Server or Linux. You will need to know not only the license cost, but how the operating system will play in the environment. Keep in mind that a 'foreign' server type will require additional knowledge of your IT staff and may impact the cost of your hosting solution.

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You will also need to know how your data will be stored as this will impact your disaster recovery plan, your daily maintenance, the knowledge requirements of your IT staff or your hosting provider, and the options for accessing your data. The more common and robust the backend data storage system the better the accessibility, scalability, and functionality. We recommend a solution running on a relational database platform, such as Microsoft SQL Server or Oracle. Flat file data storage should generally be avoided.

MAKING A DECISION

Get Feedback

Most importantly, when looking at a software solution, talk to others that have implemented the software. Use not only the references provided by the organization, but reach out to some others as well. Not sure who to reach out to? Crash a User Group or look for a LinkedIn group. If you already have an established relationship with an independent consultant, talk to them as well.

Evaluate

Perform an honest evaluation of your needs and wants, along with an evaluation based on where to expect to be 5 years from now.

Proof of Concept

Depending upon the level of investment and your expectations, some level of proof of concept should be performed. While seeing is believing, it isn't guaranteeing. Don't assume everything you see in the demo will be as OOB as it appears. If you have minimal budget for the proof of concept, work with an independent consultant that may have performed some, if not all, of your necessary validation steps as part of other client evaluations.

Supportability and Scalability

Be sure to select a solution that can scale with your organization and one that is also easy to support. Immature software can quickly become obsolete by the 'next best thing' and one off software solutions can be costly in terms of support.

Seek Independent Guidance

Seek the guidance of an independent consultant that knows your industry and the type of software you are focused on. An unbiased, second opinion will provide an additional layer of confidence in your selection.

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IMPLEMENTATION

Participation or Observation

What is the amount of internal participation available? Can the time be made available for your resources to actively participate in every aspect of the implementation? Does it make sense to augment your staff during implementation or will you be leveraging consultants to perform the transition almost entirely? Determining this up front will allow you to plan for the appropriate expenses and identify the correct resources, as well as the timeline.

External Support

Your staff will have varied levels of exposure to the business solution concept and the specific software solution itself. Team members will not only require training, but also guidance, throughout the implementation process. You will need external resources to assist in your implementation, or even a re-implementation of your primary business solutions.

Your options for external support include:

- Industry software specialists. These are teams that are familiar with both your industry and the related software package. We find these specialists to be the most accessible, effective, and agnostic when it comes to implementations.
- Professional services groups. These consultants work for the software solution provider. They are typically well versed in the application, but can fail to be agnostic when appropriate.
- Large firm consulting organizations. These big name organizations will have access to vast resources, but may be less familiar with the specific software, your industry, and will have a less intimate/less accessible relationship with your team.

Phase it In

Rome wasn't built in a day, nor were the Great Pyramids. Thankfully, you're not building a Wonder of the World, nor are you building an ancient city. However, you are taking on a serious undertaking. For that reason, we recommend you phase it in. Start with your critical components, Accounting and Purchasing, and then phase in your Scheduling, Document Management, and so on. This will allow you to move at a pace that is appropriate for both your users and your budget.

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CONCLUSION

This document is not meant as a complete guide, but rather a starting point to help you plan for your journey when considering your software solution options. Whether you are on the cusp of a decision or merely bouncing around the idea that it's time for a new solution, understanding what your critical consideration factors will help you plan for the future.

As you step onto the path of continuous improvement through software solutions, remember that Cornerstone Solutions has the selection and implementation experience, the industry knowledge, and the technical expertise to make your vision a reality.

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