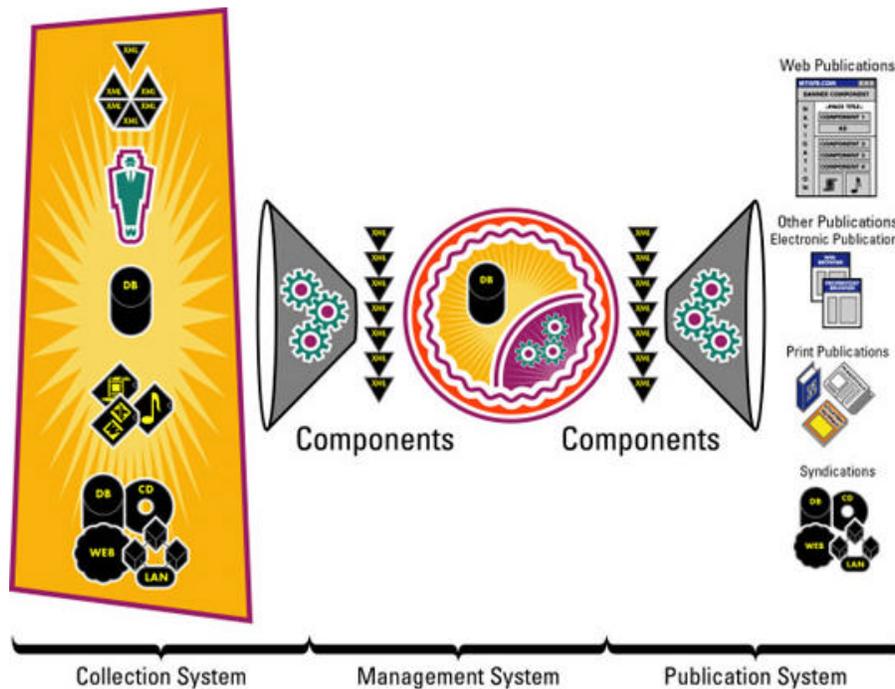


Where to Start with Content Management

A CM Domain White Paper

By Bob Boiko



This white paper is produced from the Content Management Domain which features the full text of the book "Content Management Bible," by Bob Boiko. Owners of the book may access the CM Domain at www.metatorial.com.

This paper gives an overview of how to approach a content management project. It is most applicable to a large organization but would work with little modification in a smaller organization.

Table of Contents

Table of Contents	2
Understanding the CMS Project Process	3
Getting Ready for a CMS	5
Start with the project team	5
Look for pain in the organization	7
Assess the current mandate	7
Assess the organization's assumptions	8
Audience assumptions	8
Publication assumptions	8
Content assumptions	9
System assumptions	9
Preliminary Deliverables	11

Understanding the CMS Project Process

Any large development/integration project has these broad phases:

1. Business justification
2. Requirements gathering
3. Design
4. Implementation
5. Deployment
6. Maintenance

The process I propose for doing a CMS project is quite a bit like the general process, as shown in Figure 1.

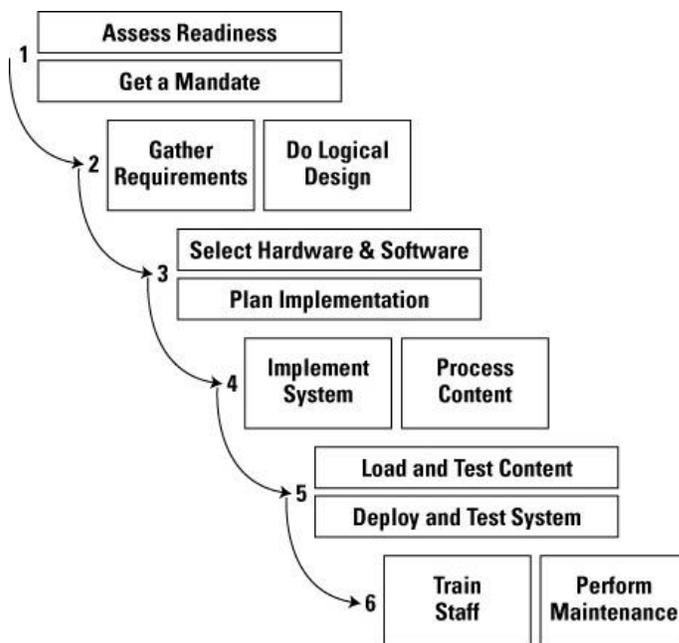


Figure 1: The CMS project process follows the same general process as any other large development project.

Even though I use some different names, the ideas are generally the same, as follows:

7. **Business justification:** This step is taken care of in my readiness assessment and mandate processes. In these two processes, you decide what the organization has accomplished so far and then build consensus around a plan of attack. The readiness assessment is discussed later in this chapter.
8. **Requirements gathering:** This is a specific step in my CMS process, but it is not as extensive as the standard process. I favor a short requirements-gathering phase, followed directly by what I call logical design. During logical design, you continue to gather requirements of a sort, but your real task is to fashion those requirements into a clear idea of what your system must accomplish.

9. **Design:** In my process, this step begins with logical design, but cannot conclude until you have selected a particular CMS system. In system selection, you use the requirements you have completed, and part of the design, to create an evaluation process for selecting a CMS product (or, possibly, concluding that you want to build your own). Before you select a system, you have to do enough requirements gathering and design to know what you want. Before you complete the design, you have to know what product you will be using to account for the product in the design. Between design and implementation, then, is a system selection stage that overlaps them both.
10. **Implementation:** In my model, this step includes the last part of what is often categorized as design - specifications. I call specifications the physical design of the system and include it as the first part of implementation. Following physical design, CMS implementation proceeds as usual - with a lot of programming. In addition to programming, though, in a CMS project, a lot of content processing might need to be done. To be accomplished by the time the system is ready, this preparation work needs to be started as soon as possible.
11. **Deployment:** As with other systems, during this step you install the system in its "production" environment and test it there. In a CMS project, however, loading and testing the content and publications that the CMS produces is also part of deployment.
12. **Maintenance:** In my model, as in other enterprise systems, a CMS project never ends - it just goes into maintenance mode. This is doubly true of a CMS, where you will be adding content continually and will also want to restructure the repository and publications on a regular basis.

The major difference between the CMS process I use and the standard software development cycle is that in the CMS process, you do enough design to fully understand what you want to have happen and to be able to select a product (or choose to build your own). Then you select a system that can achieve the design you have made. Next, you complete design by developing the specifications for your system. After that, you are back on the usual implementation, deployment, and maintenance mill. One other significant feature of a CMS project, over and above the usual kind, is the potential size of the content processing portion of implementation. In the standard development project, moving data into the system is not nearly the task that it can be in a CMS. Of course, a CMS project is a large-scale systems integration project, so it shares a lot with other projects where software must be purchased and integrated into the organization.

Getting Ready for a CMS

To get ready for a CMS, you can start within whatever project team you happen to have. Working outward, you can survey the organization for signs of pain related to poor, or nonexistent, information processes and catalog them for later use. It is most important to try to uncover and document whatever CMS mandate might exist in your organization, to see just how much of a project is currently expected and by whom. Your biggest task is to catalog the current assumptions in the organization on the following issues, which are of most importance to a CMS:

☞ Audiences

☞ Publications

☞ Content

☞ Infrastructure systems

Having assessed all of that, you will be ready to go from what exists in the organization to what needs to exist to successfully implement a CMS.

Start with the project team

Some individual or group must have been given the task of figuring this all out. I state it so vaguely because that is about how precisely most organizations have defined the problem at the start. Generally, there is a loose consensus that something must be done, but when you ask, "Done about what?" the answers vary. The problems most often cited are the ones I have listed elsewhere. In most minds, they boil down to this statement: "It is too expensive and ineffective to handle our Web presence in the ad hoc way we have handled it so far." Somewhat more enlightened minds see the duplication between the Web and other publications as an unnecessary evil. Very few can succinctly define the problem or frame a comprehensive solution.

Even in the fog, everyone seems to have a gut sense that there must be a better way to handle the large and growing body of content that the organization is amassing. Few know to apply the words "content management" to the problem or solution.

In sum, a person or small group is directed by someone to figure it out. Let's call this group the project team. Unfortunately, this someone who directs the team to figure it out (the project initiator) is often not someone who has the perspective to see the forest for the trees. As often as not, the project initiator has a particular problem to solve (like "I can't get my changed pages on the site fast enough"). In addition, the initiator might or might not have the authority, skill, or desire to pursue the kind of big solution that I present here.

But at least he or she had the foresight to get the process started. What the team will soon need is a solid set of sponsors that do have the perspective to see the entire problem, the foresight to envision a whole solution, the authority to mandate a solution, the skill to negotiate throughout the organization, and the desire to transcend organizational politics and do something new and risky, but replete with reward.

One way or another, then, a team is created to figure out how to more effectively create a Web site and, maybe, other publications as well. Job one for this team is to get their bearings in the organization and chart a course toward a solution that will stick. If they are a savvy team, they will not rush toward a quick-fix solution. Rather, they will hang back a bit (despite the pressure to produce) and try to define the problem, realistically assess the progress the organization has made, build consensus around an appropriate solution, and then begin to build a system.

Admittedly, the savviest team in the world might not be able to resist the pressure of nearsighted goals and deadlines, but the savvier they are, the more the team will realize that, in the end, their own success will be judged not on how quickly they acted, but on how well their solution worked.

Still, an enormous amount of finesse and fortitude can be called for if you are being asked to do X and you believe that you need to do 100 times X. Of course, I am painting the darkest picture here, a picture of sponsors not up to the job and teams with myopic mandates. I have seen too many of these sorts of situations not to acknowledge them and provide some moral support to those who face them. I have also seen sponsors who are up to the task and teams whose mandate is broad indeed.

At any rate, I'll assume that the team has management that is enlightened enough to expect and respect a fair amount of up-front due diligence. This due diligence amounts to understanding what the organization has accomplished already; gaining general agreement on the goals and success metrics of the project; compiling the requirements for audiences, publications, content and infrastructure; and educating the organization to ensure that there is enough of a shared vocabulary and concept set that you can communicate and agree.

The core tasks of the project team show directly the skills the team needs to have in order to succeed. The following list overviews these skills which you will need to have in at least one member of your team:

☞ **Analyze and assess your organization.** For this task, you need a business analyst. This person is responsible for answering questions like, What groups need to be involved? Whom do I contact to get permission to...? Who are the key supporters we need to have on our side? Who needs what education? How do we maneuver through the organization's bureaucracy? How will we build consensus around a mandate? How do we align and extend organizational goals? How do we measure success? Someone from management is a logical choice for this job, but it must be someone who can manage "up" and not down. It must also be someone who is quite analytic and strategic in her approach.

☞ **Understand your audiences.** You need an audience analyst. This person is responsible for figuring out who the appropriate audiences are, what they want, what you want from them, how finely to divide them, what good analyses exist in the organization, how to align your system to current marketing approaches, what data you need to collect on audience members, and how to collect it. Someone from marketing or public relations is a logical choice for this job, but it must be someone who is less focused on campaigns and more focused on analysis. Someone from an editorial background is also a possibility, but in this case, you need to be sure the person is comfortable being quite quantitative in her approach to audience analysis.

☞ **Understand the publications** that your organization will be creating from the system. Thus, you need a publication analyst. Even if your first plan is only to create a Web site, you should still have your eyes open for the ways in which the Web site needs to share with other publication efforts. This person is responsible for finding out what publications exist now, how they share information, how they are produced, how often they are produced, what their audiences are, how they are distributed, and how they can be deconstructed into pieces that a CMS can produce and coalesce. Someone from the current Web effort, or another major publication group, is a logical choice for this job, but that person must be able to climb out of the publication she has been creating and look beyond the particulars of a publication, to how publications in general can be created.

☞ **Understand the content** that the system will manage. This task requires a content analyst. This person is responsible for finding out what kinds of content you have, what you need, how it serves audiences and publications, how it can be divided into content classes, how each class can be reduced to a set of content elements, and how those elements can be fashioned into a metadata framework for tagging content. She is responsible for understanding how information is produced in the organization and where it can be found. She will assess the amount of work it will take to write or acquire content and how much will be needed to start and run the system. Someone from an editorial background is a logical choice for this job, but it must be someone who is less focused on creative writing and more

on mechanics. Someone with a library background is another good choice, but the librarian must be able to understand the creation process as well as the cataloging process.

☞ **Understand the computer infrastructure** upon which the system will run. You therefore need a technology analyst. This person is responsible for understanding all of the systems in the organization that will interact with the CMS. She is also responsible for understanding any constraints or technical requirements the organization might have. Later, she will be central in the selection of any new hardware or software you will need to build the system. She must be able to understand and piece together every piece of technology used, from the first authoring application to the final piece of JavaScript in an end user's browser. Someone from a development or IT systems background is a logical choice for this job, but she must have a head for content as well as data. A technologist who is comfortable ignoring the human parts of the system will not do.

You will need to bring all of the diverse perspectives together and unite them around a clear vision of how they all fit together. Thus, you will need a project leader who can form and articulate a clear plan of attack that takes advantage of all the skills in the team. This person needs to have a little bit of the skills of each team member but also a wider perspective of the entire system and process. Because she will often be improvising (for lack of any established process), she needs to be a strong communicator and a forceful director. Finally, she needs to embody an information perspective. That is, rather than focusing too much on any of the team member skills, she brings them to bear on the central problem of the entire project - what is the right system for us to best collect, manage, and publish the information and functionality that our audiences want, and from which our organization can benefit.

After the system is in development, of course, you will need other skills. But the skills you need later are just a deeper and more technical version of the skills just discussed.

Look for pain in the organization

A good way to begin any conversations when examining your organization's CMS needs is to ask what information problems the person is facing. If you ask (and even if you don't), you probably will hear a plethora of issues, dilemmas, worries, and horror stories that surround the core issues of content management. Certainly, if you do not hear a lot of woe, you should question the need for a CMS! Be sensitive not only to the types of problems, but also to the actual stories that people tell. These stories will come in very handy when educating the organization, bring a measure of "ground truth" to the abstract discussions you will find yourself in, and keep your team on track toward solving the problems that are most pressing. As you hear these stories, do the following:

☞ **Record and categorize them.** Distribute them freely to let everyone know where the problems are.

☞ **Try to find the common themes.** These are the major issues for your organization to resolve.

Try to rate the severity of the problems. See if you can put some numbers around the comments you hear, especially concerning the problems of a lot of information, slowness of the system, people complaining, and unsatisfied customers.

Assess the current mandate

If you are extremely lucky, there is a one-page, crystal-clear description of what the organization expects to accomplish with a CMS. The page has a paragraph that anyone can understand that says why this system is necessary and what it will do. It then goes on to list the major goals of the system. Finally, it has a shortlist of the criteria by which the system's success will be measured.

More likely, you have had a set of discussions with the project initiator, where you learned of her goals and requirements. You might have an e-mail message or a memo that reiterates the discussions. Maybe that is all there is, but maybe not. Where did the initiator get the idea? Were others involved? Is there some wider initiative of which this is a part? If you dig around a bit (gently, of course), you might find that a number of overlapping movements have led to your project and that it serves a number of organizational goals. If others are unaware of the connections, you have material for an education plan. Most likely, there is a loose agreement (and some disagreement) on the issues surrounding a CMS. Where exactly is the agreement and who agrees? Where is the disagreement and what are the divergent opinions?

In addition to the text of a mandate (or lack of one), you should explore its scope. Given your current understanding of how far-reaching your system will need to be, are the right people involved? Are other initiatives out there that are not connected to this one that maybe should be?

Assess the organization's assumptions

For each of the kinds of analyses you must do, there is a set of relevant documents and people in the organization that you have to find, understand, and present back to the organization.

Audience assumptions

You would be exceedingly lucky to have a good audience analysis in your hands at the start of your assessment. On the other hand, you would be in a very strange organization, indeed, if there were not a tremendous amount of raw material that you could use to begin a good audience analysis. Any marketing or public relations group worth its budget will have a lot of information about the organization's customers, constituents, members, or whatever else audiences may be called. If some or all of your audiences are internal staff, then the human resources department is the place to go for the divisions and groupings that matter.

I'll stress again that this is raw material, but at this point, raw material is all you need. Your purpose is not to complete an audience analysis, but to see what the organization has to offer when you do one later. Editorial groups are also storehouses of audience analysis. Although the amount of written material might be sparse, you will find no lack of people who have thought about audiences and have a very clear idea of who they address in their work. Finally, the people in your organization that are in the most contact with audiences will have a lot of good, practical input for you to put in the hopper with the more abstract definitions you will get from people who think about, but do not actually talk to, audience members. As you work to uncover information about audiences, keep an eye out for key members of audience groups. Is there someone out there who typifies a particular audience? Would that person be willing to talk to you, or even consult with the project team, concerning what is best for her peer group?

Publication assumptions

All organizations create some set of publications (even if it is only internal information). To implement a CMS successfully, you must decide which publications ought to be part of the system and, then, how to subsume them into a CMS, where they can share content, functionality, and design.

To begin this process, you can simply catalog the publications your organization produces that might be part of the system. It is quite likely that each major publication your organization creates comes from a different publication group. Each group is focused on a particular author group, content set, and publication format. One group, for example, might produce case studies and industry intelligence for sales support. Another group might produce documentation for post-sales training. A third group might produce an internal newsletter that highlights recent advances and best practices. Talk to the people in each of these groups to find out what content is in their publication, how often it is produced, who receives it, and how it is delivered.

Just as important as understanding the structure of current publications is understanding the structure and attitudes of publication groups. Find out how the groups are staffed, who does the writing and other content creation, and who does the layout and other production tasks. How do these groups feel about the idea of a CMS? Do they understand it? Do they support it? How do they think it will impact their jobs? This sort of information will be crucial to you later as you develop an approach to implementing the system.

Content assumptions

In the end, you will have to be very specific about the information you include in your CMS. To start, however, you can cast a much wider net and find out what kinds of information are out there in the organization and what sorts of information people are assuming will be included. As with audience information, it is unlikely that anyone has created the definitive guide (eventually, you will), but there should be an enormous amount of raw material in the organization. Rather than trying to amass the whole bulk of information that might be included, focus on collecting representative samples and any catalogs that might exist. Catalogs can be anything from official content inventories to the TOCs and indexes of existing publications to a listing of the files in a directory.

Tip

It is almost lost wisdom that, at the DOS prompt, you can navigate to a directory and use the command **dir /s > filelist.txt** to save into that directory a file called filelist.txt. The saved text file lists names and details about all files and subdirectories in that directory. (Or, to just get a list of filenames with paths, you can add the switch **/b**.)

Without a CMS, content and publications are pretty much the same thing. That is, the publications contain the content that you will collect and manage. A group creating industry analyses now, for example, will be creating the content and simultaneously publishing it (as, say, printed white papers).

Just as important as creating a general content inventory is discovering the structure and attitudes of the content groups. What staff and workflow do they use now? Do they use any automation systems, templates, or style sheets? What kind of standards do they adhere to? Is there an editorial guide? What are their assumptions about their audiences? How do these groups feel about the idea of a CMS? Do they understand it? Do they support it? How do they think it will affect their jobs? This sort of information will be crucial to you later as you develop an approach to implementing the system.

System assumptions

Eventually, you will need a thoroughgoing analysis and specification for the technological structure of the CMS and for how it will interact with other organizational systems. To start, however, a simple description of the requirements people have on their minds, and a listing of existing systems, will do.

Especially in a large organization, there are likely to be a variety of conflicting requirements that technical staff would like to set for the CMS. Some groups already might have begun working with a particular CMS and will want the entire organization simply to adopt theirs; other groups might have a strong preference for one development environment over another. Still others will have requirements based on a particular sort of content or publication that they want to create. People concerned with the organization's infrastructure (the IT group, for example) will want any new systems to tie into the existing network and Web systems.

Avoid adding to the debate at this point and simply record and categorize what you hear. Later, you can spend the time it will take to reconcile these various opinions into the best fit for the

entire effort. From the very start, your best position is not as a combatant in the war of requirements, but as a mediator and neutral provider of unbiased information.

For each system that you come across that might have to interact with the CMS, find out how it is able to communicate with other applications. For example, is it able to exchange data using XML? How does one connect to it? Is it accessible from a Web server outside the firewall?

Of particular interest is the Web infrastructure your organization uses. On what platform does your Web presence run? What databases and application server software (if any) are in use? What methods are there for moving information to the Web server (or servers)? How is content replicated and distributed worldwide (if it is)?

Similarly, study the distribution of information in non-Web publications. How must print files be delivered to the printer? How are mass e-mail messages and faxes distributed today? How are publications that come in file form distributed internally?

Finally, gather what information you can on collection tools and processes now in use. What authoring tools do groups use? Have they created any productivity tools? What development skills do they possess and how have they been applied?

Preliminary Deliverables

As you prepare your organization to begin a CMS project, you can prepare the following tangible outputs to document your progress and provide a starting place for the rest of the process:

- ✂✂ **A readiness assessment** gauges the organization's progress toward a CMS in a number of key dimensions.
- ✂✂ **A document inventory** catalogs all of the plans, memos, decisions, and other artifacts that you can uncover about past and current CMS-related initiatives.
- ✂✂ **A state-of-the-system report** summarizes your findings in an easily understood and consumed form.
- ✂✂ **An education plan** identifies the people in the organization who need to know more about content management and how and what you will attempt to teach them.
- ✂✂ **A preliminary project plan** charts out the major phases of the coming project and broadly estimates the amount of effort you expect each one to take.

In Chapter 13 of my book "Content Management Bible," I detail these deliverables and discuss how you might go about creating them.

The effort you put in up-front to understand where your organization has been, who the players have been, and what they have accomplished so far will be handsomely rewarded throughout the rest of your project. In fact, whether or not there *is* a project might depend largely on how well you can fit it into these parent efforts. Even if you do so more casually than I describe, don't neglect to do the following:

- ✂✂ Assess the knowledge of your project team (if you have one).
- ✂✂ Find the major pain spots in the organization.
- ✂✂ Discover what sort of mandate exists for your effort.
- ✂✂ Assess the assumptions that the organization has now for the CMS audiences, publications, content, and systems.
- ✂✂ Develop a knowledge base of relevant documents, be able to say how far the organization has gotten in any previous CMS-like efforts, know who needs more education and how you will help them get it, and be able to roughly estimate the project before you.