

Corporate Information Factory Components

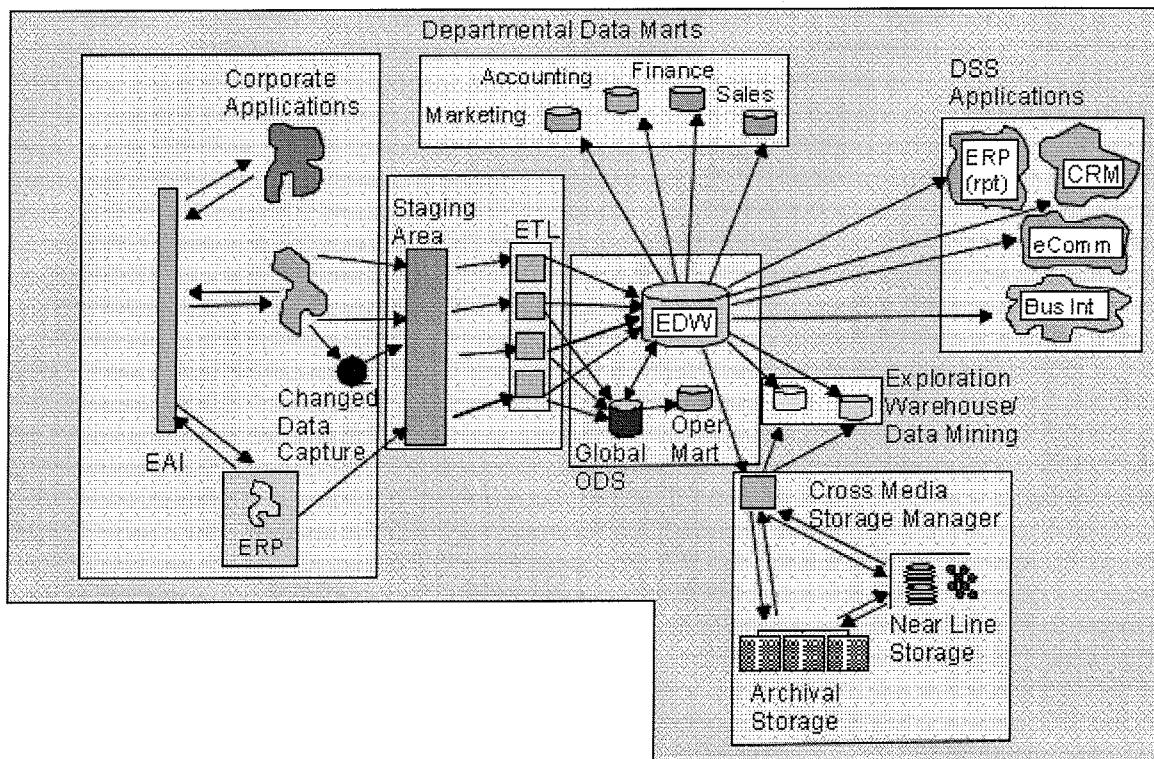
by W. H. Inmon

First there were applications, then online applications, followed by extract processing. Next came a spider's web mess of data and systems, then data warehouse. From data warehouse sprang the Corporate Information Factory with its many architectural components:

- ⌘ The ODS
- ⌘ The data marts environment
- ⌘ DSS applications
- ⌘ Exploration/data mining warehouses
- ⌘ Alternate storage, et al.

Figure 1 shows the Corporate Information Factory.

Corporate Information Factory



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Figure 1

The Corporate Information Factory (CIF) is the target architecture; built like a city - deliberately in some cases, spontaneously in others. It is constantly evolving, growing and reinventing itself over time.

Now take a look at the technology in the CIF. What are some common technologies found there?

⌘ On the hardware side:

Compaq	EMC
H-P	IBM
NCR	Sun

⌘ On the software side for DBMS:

DB2	Oracle
SQL Server	Teradata

⌘ On the software side for non DBMS support:

Ascential	Business Objects
Computer Associates	Cognos
Crystal Decisions	DataFlux
Hyperion	Informatica
Kalido	PeopleSoft
SAS	and a cast of hundreds more

Whatever happened to the day when there was one vendor? Or was there ever a day when there really was a single vendor? Was that just an idea that sounded good at the time but was only a theory, not a reality? One of the industry's definitive sources, ACR's survey of top computer executives and their technical environments, shows that not *one* organization can be found that has a single set of DBMS software. Everyone has multiple types of technology.

This is especially true as organizations start to embark on the Corporate Information Factory adventure. The types of hardware and software in the CIF environment are like little bunnies in the springtime - they tend to multiply spontaneously.

Why is there no such thing as "one stop shopping" for CIF technology? Why does no one vendor support everything you need? There is, after all, great appeal to having one vendor to turn to when things don't work quite right.

There are several very good reasons why multiple technologies are found across the CIF landscape; vision, complexity and history.

Vision

Corporations simply have never envisioned anything as grand as the Corporate Information Factory. Instead they have bitten off one part, not the whole, for some very good reasons. The research and development costs for the technology required for the entire Corporate Information Factory would break even the largest corporation's bank. The complexity and length of time to build technology for support of *all* of the CIF is beyond even mighty and rich corporations such as IBM. Anyone less well-financed doesn't even merit consideration.

If the corporate vision for all the technology required for the Corporate Information Factory was not there from the beginning, then it is no wonder that the technology that follows does not support the entirety of the CIF.

Complexity

There are *many* diverse skill sets and disciplines required throughout the Corporate Information Factory. It is noteworthy that these skill sets are *very* different and that it is impossible for any one person to be a true expert at all of the skill sets that must be included. There is a need for deep technical understanding of:

- ⌘ OLTP technology,
- ⌘ Data warehouse technology,
- ⌘ OLTP technology,
- ⌘ Statistical processing,
- ⌘ Very large data base management,
- ⌘ Archival data management,
- ⌘ Parallel processing,
- ⌘ Security,
- ⌘ Distributed metadata management,
- ⌘ Data quality management,
- ⌘ Reporting, and the list goes on and on.

Indeed the different technologies found within the Corporate Information Factory are remarkable and very diverse. Some organizations have made an entire career and have created and developed a market place niche in understanding and furthering a type of technology. IBM understands centralized transaction processing. Teradata understands parallel processing. SAS understands analytical processing, and so forth. These large and successful organizations have a wealth of background and history in understanding what their core competency is. One way of stating their depth is to say that they have forgotten more than anyone else will ever know about their specialty. Anyone who casually says, "Oh, we are going to rewrite the book on an existing technology" (whatever the technology) faces daunting obstacles. Yet all these technologies and more constitute the Corporate Information Factory.

History

Once a vendor and a technology start to become established in the marketplace, they gain certain momentum, kind of like a beach head in an invasion in war time. That vendor owns certain turf and can defend that turf fairly easily. It becomes difficult for anyone else to intrude on that market space. Once the customer base has established a buying pattern, it is difficult - brutally difficult in some cases - to alter that pattern. And the breadth of the Corporate Information Factory is such that many technologies are required.

Thus it is curious that some vendors are trying to become all things to all people. Trying to become the single source technology vendor for the Corporate Information Factory is a very curious goal. Even trying to become the single source technology vendor for even major parts of the CIF is a curious goal. Because of the breadth of it and because of the reasons listed above, one stop shopping for the Corporate Information Factory in terms of technology simply is not realistic.

A much better stance for a vendor to take is to:

- ⌘ Improve their portion of the Corporate Information Factory as best they can. Make improvements within their own excellence zone,
- ⌘ Recognize that their technology will have to work cooperatively with other components of the Corporate Information Factory. Trying to make and keep a technology in a proprietary state is

counterproductive.

Another way to look at the larger, evolving picture is to look at other industries and their growth. Consider the automotive industry, for example. In the early immature days of the automotive industry, the economies of scale and the advantages of mass production were discovered. During those days if you wanted a model T you could have it in any color you wanted, as long as you wanted black. Henry Ford wanted everything to look the same, much like some vendors want all technology inside the Corporate Information Factory to look like their technology. If Henry Ford had had his way there never would have been snappy Porsches with open tops, SUV's full of kids rushing to soccer games, Harley Davidson motorcycles with leather-clad, bearded riders wearing a do and dark glasses, and Mack trucks with drivers hauling goods all over the countryside. But the forces of maturity and the market place did not let the notion of one size and one brand win. Given time and market place forces, the same will happen to the vendors and the technology found inside the Corporate Information Factory.