

## Case Study—Evolution of Swinghandles

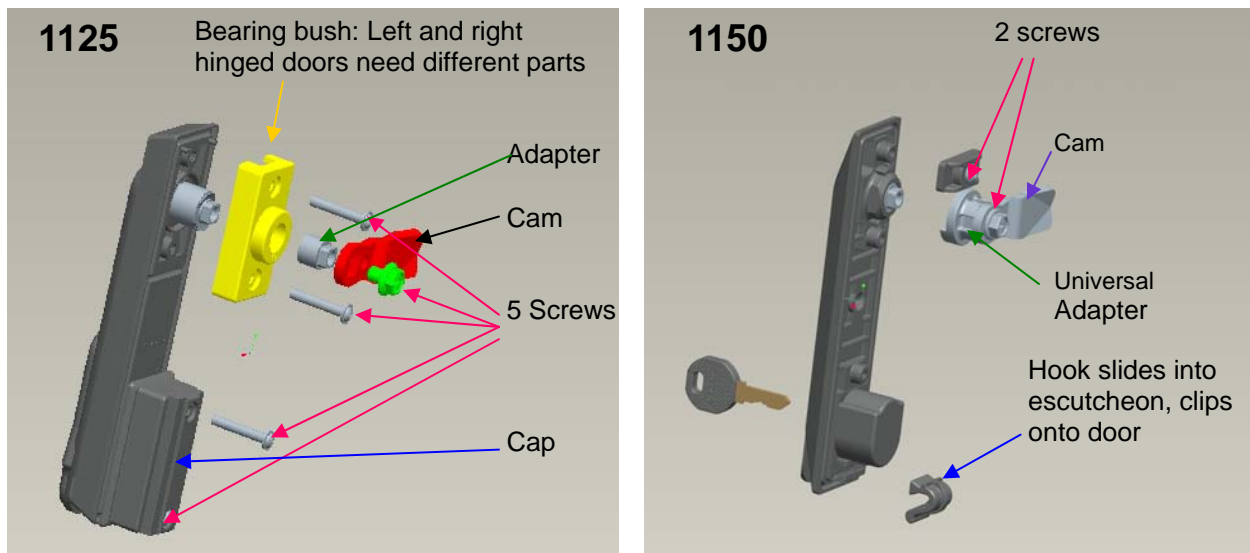
In the United States the evolution of the swinghandle has been closely tied to the development of data centers.

In the mid '90s servers, then called microcomputers, began to be placed in computer rooms displacing old mainframes. The cooling needed by the mainframes was at first adequate for the servers which were placed in open racks. Security required that a few of these had lockable doors, For these relative few doors the existing swinghandle designs were fine.

The default handle at that time was the versatile EMKA 1125. As was typical at that time installation was not simple or fool proof. The parts count was high: 5 screws, one wave washer, a cap, a bearing bush, one adapter, and a gasket in addition to the handle. A different bearing bush was needed for left and right hinged doors.

This installation process became impractical as demand for enclosed racks ballooned. EMKA responded with the 1150 which required just two screws to mount and one to attach the cam. Also its classic low profile appearance matched the “high-tech” appearance of data centers.

The EMKA 1150 handle was a bottle-neck buster.



The original 1150 was all die cast zinc rather than the GR nylon of the 1125, it felt very solid, but the full cost benefit of the reduced parts count and fast installation was not realized.

Further Increases in demand justified the investment in tooling to make the escutcheon in glass reinforced nylon, this kept the solid feel of the handle and reduced the cost and weight. The opportunity was taken to modify the handle so that the lock cylinders could be “field swapped,” a valuable feature for collocation centers and master key systems.

EMKA’s drive to reduce costs caused us to look at a less expensive material for the handle part. Our standard 30% glass reinforced nylon allowed perceptible flex; this impacted the end user’s perception of quality. 50% glass reinforced material met both cost and function goals.

We further simplified the installation method (see the hook above) eliminating a screw.

As security and operational efficiency requirements increased, EMKA added an electronic locking option with operating software. An alternative for collocation centers where cost is more critical than optimum security is a combination lock version.