

# Data integrity drives Dongkuk Steel growth

Replicating ERP and MES data in near real-time protects critical business processes



*“Dongkuk Steel Mill has invested in state-of-the-art business technology to support non-stop, 24x7, year round business services. By implementing HP Data Protector software, we’ve created a dual up architecture that provides near real-time data backup, improving the overall fault tolerance of our infrastructure and supporting improved business continuity.”*



Kang Jun Jeong  
Manager, Process Innovation Design PI Team 1  
Dongkuk Steel Mill

HP customer case study: HP Data Protector Software provides the near real-time data back-up needed to support business continuity

Industry:  
Manufacturing

## Objectives

- Secure, reliable data storage.

## Approach

- Continuous data back-up of ERP and enterprise portal data.

## Business technology improvements

- Near real time backup of 3 terabyte ERP and 1 terabyte MES.
- Enterprise solution simplifies and streamlines support requirements.

## Business benefits

- Improved integrity of business technology systems’ data.
- Lowered risk of downtime to business systems.
- Improved stability of systems critical to strategic decisions and business processes.



In its first five decades of operation, Dongkuk Steel Mill Co. Ltd. earned its position as Korea’s leading steel maker by pursuing a course of manufacturing innovation. The mill was an early adopter of “electric arc furnace” technology, for instance. This technology can reduce the amount of energy per unit weight required to mill steel. Electric arc furnaces can also be started and stopped more quickly than blast furnaces, which allows mills to respond more flexibly to fluctuations in steel demand.

More recently, Dongkuk Steel Mill has embraced business technology to drive process innovation and reduce operating costs. Through a process innovation initiative, and by implementing Enterprise Resource Planning (ERP), Manufacturing Executive System (MES) and Supply and Demand Chain Planning and Management systems, the mill has optimized its management processes from planning and procurement through manufacturing, inventory management, and delivery.

These new systems—nineteen altogether—must share data to operate properly. Features such as real-time scheduling of order delivery, for instance, require the coordination of data across the entire organization, from order receipt to supply chain management to fulfillment.

## Customer solution at a glance:

### Primary applications

- Data backup and business continuity

### Primary hardware

- HP Superdome server

### Primary software

- HP Data Protector software
  - Online Backup
  - Zero Downtime Backup
  - Instant Recovery
  - Manager of Managers (MoM)
- ERP: SAP ERP
- APO/APS: SAP APO/APS

### HP Services

- HP consulting and architecture design
- HP implementation and testing services

It follows, therefore, that Dongkuk's business data must be stored and managed reliably. So Dongkuk Steel has implemented HP storage software. Today, this software serves as Dongkuk's data infrastructure lynchpin, delivering the error-free and efficient data storage required to optimize the company's other business technology environments.

### Data integrity and continuous operation

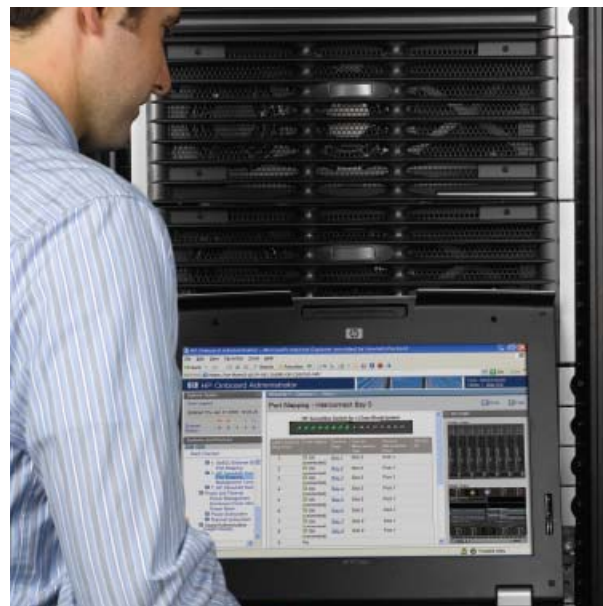
As Dongkuk implemented its business technology systems, it identified a number of fundamental business needs. For example, it must ensure the integrity of its systems through continuous data back-up of its ERP and enterprise portal data. It needs to enable continuous operation of its business systems through high fault tolerance.

Dongkuk addressed these needs through a dual back-up architecture using HP Data Protector software, and enlisted HP to assist with planning the architecture design, as well as implementing and testing the configuration.

Within this new data back-up environment, HP Data Protector software replicates critical data across an integrated data center comprising four physical locations: Dongkuk facilities in Busan, Incheon, Pohang, and Dangjin. The configuration leverages a number of the software's modules, including Zero Downtime Backup, Instant Recovery, Online Backup, and Manager of Managers (MoM) to enable near real-time back-up and restoration of data disks and tape. As a result, the integrity of Dongkuk's business and transaction data is protected, and should there be a service interruption, the data can be rapidly restored to ensure business continuity.

In addition, because the software is designed to minimize impact on server CPU and I/O, it reduces the risk that back-up processes will degrade the performance of other critical business systems. The datasets the system must accommodate are large: the ERP system backup alone must accommodate three terabytes of data daily. But with HP Data Protector software, there is minimal risk that the back-up processes will impact the performance of the other data systems.

And as an enterprise back-up system, the HP technology solution enables Dongkuk to avoid issues and costs associated with supporting multiple data back-up applications.



Since implementing the HP Data Protector software environment, Dongkuk has performed numerous scheduled back-ups across its business technology architecture. The software has executed these back-ups flawlessly.

### Growing capacity, effective management

Today, Dongkuk is building a new factory which will expand its steel production from 1.5 million tons of thick steel plate annually to 4.1 million tons. And the business technology investment it has made will enable the company to fully leverage its new production capacity to respond to new opportunities in the global market. Dongkuk Steel executives are equipped to make better decisions about resource allocation and business strategy. And the company's inventory costs will be optimized through improved demand forecasting and shortened delivery lead times.

By implementing the HP Data Protector software solution, Dongkuk has further strengthened and stabilized this business technology by ensuring that the data which it captures and manages is continuously available and secure.

## Technology for better business outcomes

To learn more, visit [www.hp.com](http://www.hp.com)

© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

4AA2-3745ENW, December 2008

