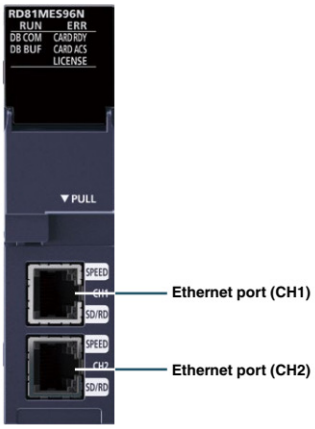
MES Interface Module

RD81MES96N

Database connection



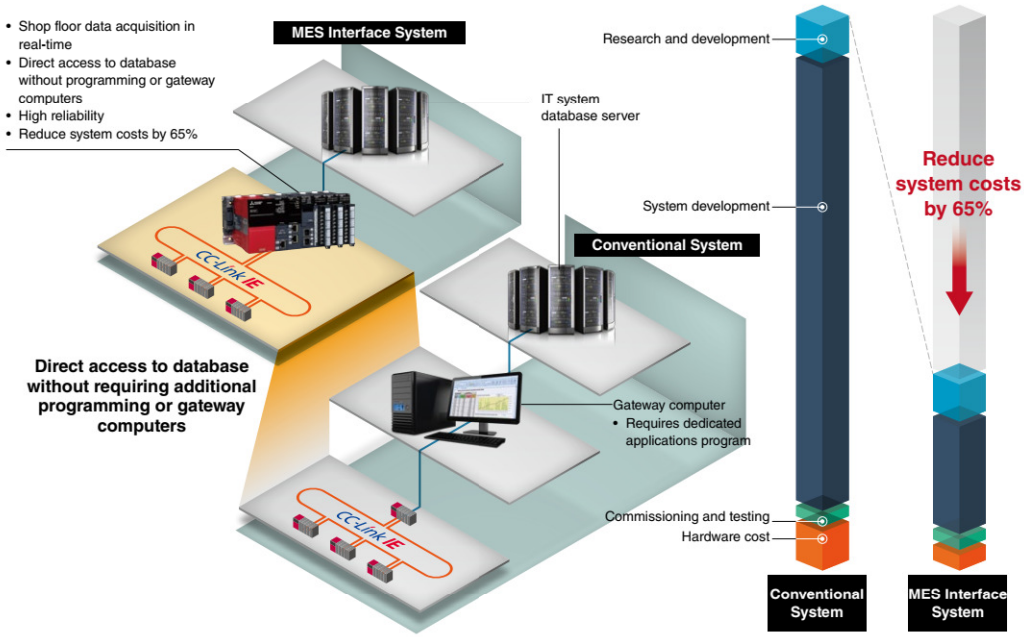
Along with ever-changing manufacturing trends, improving machine productivity and maintaining manufacturing quality through meticulous traceability have become a fundamental part of manufacturing. MES Interface modules address these requirements by providing direct database connectivity for IT systems and facilitating automatic SQL*1 text generation using intuitive configuration setup software. Modules allow production data from the shop floor to be inserted into database records directly; for example, providing real-time production status that enables quicker response to production-related problems.

*1. Structured Query Language is a programming language designed for managing data in a relational database.

System configuration costs reduced by 65%*2

MES Interface modules enable direct connectivity between IT database servers and programmable controllers on the shop floor, eliminating the need for gateway computers or specified programs. Being much more reliable than computers, the MES Interface saves on maintenance costs typical of computers.

*2. Assumption based on a typical control architecture.



MES Interface module specifications

Item	RD81MES96N
Database connection	
Supported database*3	Oracle® Database, Microsoft® SQL Server®, Microsoft® Access®, MySQL®, PostgreSQL
SQL text	SELECT, INSERT, UPDATE, DELETE, Multi-SELECT, Multi-INSERT*4, STORED PROCEDURE
Database communication action field	65,536
Accessible CPU module*3	MELSEC iQ-R, MELSEC-Q, MELSEC-L, MELSEC iQ-F, MELSEC-F Series
Data sampling interval	
High speed data sampling (ms)	Sequence scan time synchronization, 1…900 (up to 32K points)
General data sampling (s)	0.1…0.9, 1…3600
Function	
DB record read/write	Reads/writes data in the database of the host information system
Device memory read/write	Reads/writes device memory data of the CPU module
Trigger condition monitoring	Monitors values of the time or device tag components etc., and starts jobs when a trigger condition changes from false to true (the condition is satisfied)
Data operation and processing	Performs four arithmetic operations, obtains remainder, performs character string operation, etc.
Program execution	Executes a program on the server through a MES Interface module
DB buffering	Buffers the data sent to the database, and resend it after recovery, when the data cannot be linked due to the disconnection of the network between MES Interface module and the database or failure of the database etc.
REST server*5	Enables job-related operations and job information acquisition from the REST client (Also supports the XML process function for the MELSEC-Q Series MES interface module)
Firmware update*3	●

*3. For more information, please refer to the relevant product manual.

*4. Supported only when used with a SQL Server® database.

*5. REST: Representational state transfer