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Intelligent Transmission System Solution

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DF8000 SCADA/EMS intelligent transmission dispatching system

System overview

DF8000 SCADA/EMS system, based on CORBA specifications, conforms to SOA architecture and IEC61970 standards, incorporating the latest computer co technology, database technology, object-oriented technology, component technology and Internet technology, so as to develop a new-generation transmission

DF8000 SCADA/EMS system is developed under the unified platform and modularized design, covering the generation applications, monitoring and control a operation analysis and optimization applications, intelligent analysis & auxiliary decision-making applications and simulation applications. It enables not only s monitoring, control and optimization problems on the power generation and transmission sides, but also fully protecting the investment of customers through t component technology.

Software architecture
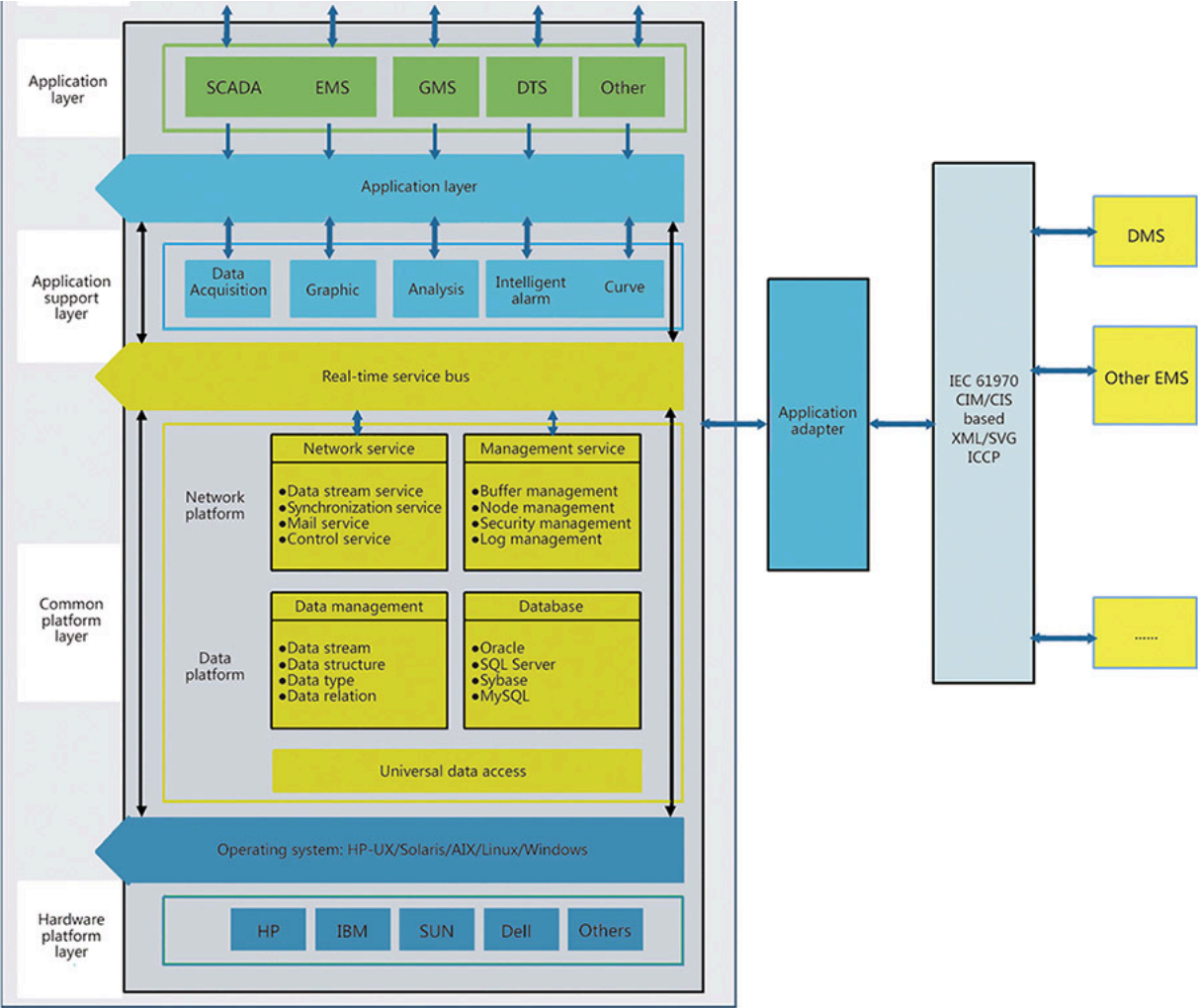
Features

• Based on IEC62351 and NERC cyber security standards.

• Following IEC61970 standards and supporting the integration with smart substations through IEC61850.

• Based on distributed acquisition and monitoring technology, supporting massive RTUs access.

• Based on SOA architecture, enabling horizontal integration and vertical penetration of the system.

• Comprehensive intelligent dispatching aid decision-making function, enabling the development from the analytical dispatching to the intelligent dispatching.

• Supporting the mixed hardware and operating systems, ensuring system security, usability and scalability while fully protecting customer investment.

• Powerful protocol library technology and enabling quickly accessing to various standard protocols, and rapidly customizing and developing non-standard pro

• The network platform is based on the distributed application trigger mechanism, enabling the free deployment and free migration of services, and, under ext
achieving all system functions with only one server.

• Support dual-activity mode of main and standby systems.

Main functional modules

Application	Main functions
Real-time monitoring and analysis	Data acquisition , storage and retrieve

	Report, remote maintenance and WEB
Network analysis and optimization	Network topology, state estimation
	Powerflow, short circuit analysis
	Contingency analysis, static voltage stability
	Transient stability, sensitivity analysis
	Optimal power flow, AVC
Power generation control and dispatching	Load forecasting, AGC, Reserve monitor
	Economic dispatch, generation scheduling,
	Interchange transaction scheduling
	Maintenance scheduling, production cost analysis
	Unit commitment
Intelligent aid decision making	Power outage range analysis, power outage load transferring, overload transferring, intelligent switching order, aid d load shedding, risk analysis of looping
	power supply risk analysis and power grid risk assessment,
	aid decision making of fault line selection for single-phase to ground and comprehensive fault analysis
Training simulation	Steady-state simulation
	Dynamic-state simulation
	Dispatcher training
	Evaluation of training results
	Test mode

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A Range of RTU Products   Multi-functional Protection Devi…

GATEWAY   Smart terminals in power-distrib…

Smart Primary equipment   ANSI Series Meter

IEC Series Meter   Environmental protection and e…

System Solutions

Smart Grid

Smart City

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Market Distribution and

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