



3K Business Model



Bigdata



B2Bi

Crypto
Currency

AI

Cloud

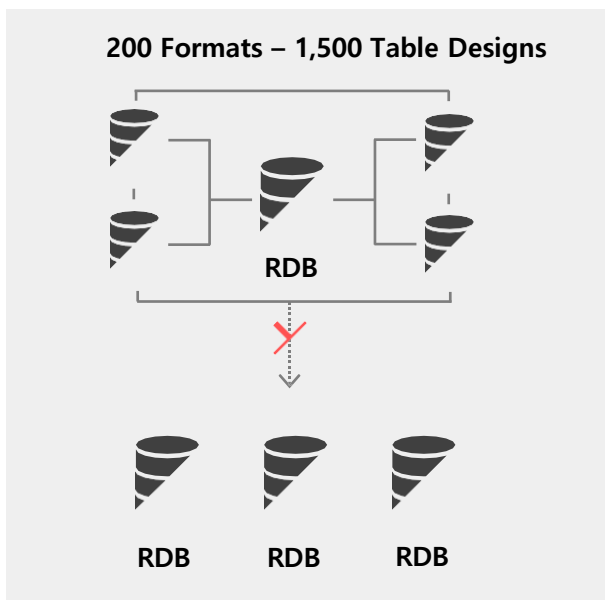
IoT

Security

Integration

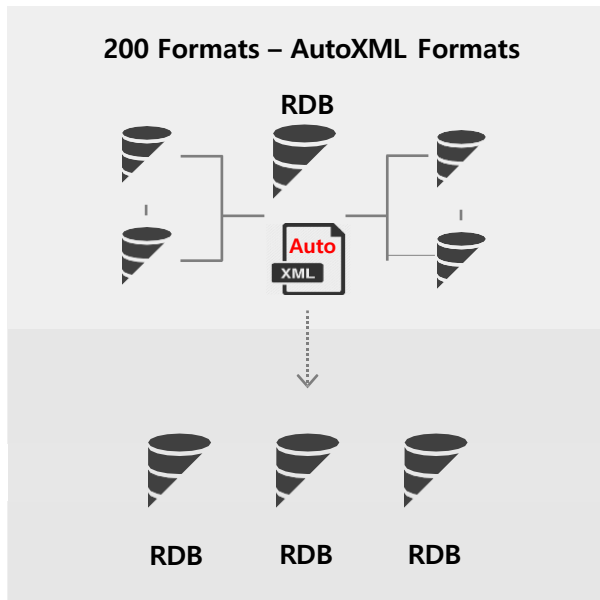


Before AutoXML was introduced



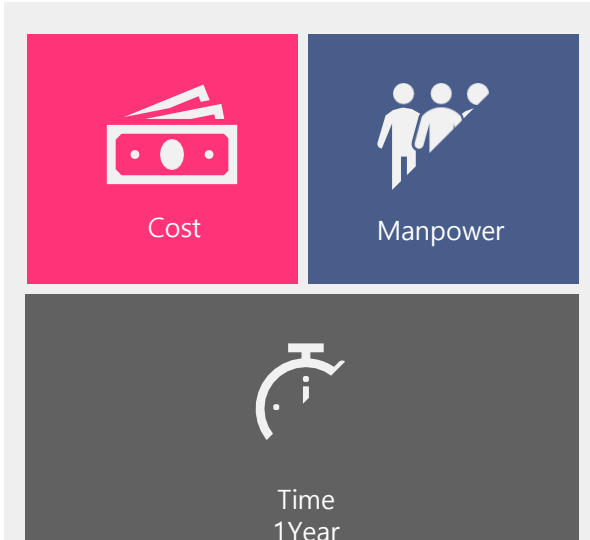
- Internal integration (SCM, ERP, Vartz, etc.) is difficult.
- External integration is difficult.
- Integration and linkage costs are high due to lack of standards.
- Real-time service is difficult.
- Establishing electronic trade services is difficult.

After introducing AutoXML



- Internal integration (SCM, ERP, Vartz, ...) is easy.
- External integration is easy.
- Integration and linkage costs are low because there are no standards.
- Real-time service is easy.
- Establishing electronic trade services is easy.

AutoXML application effect

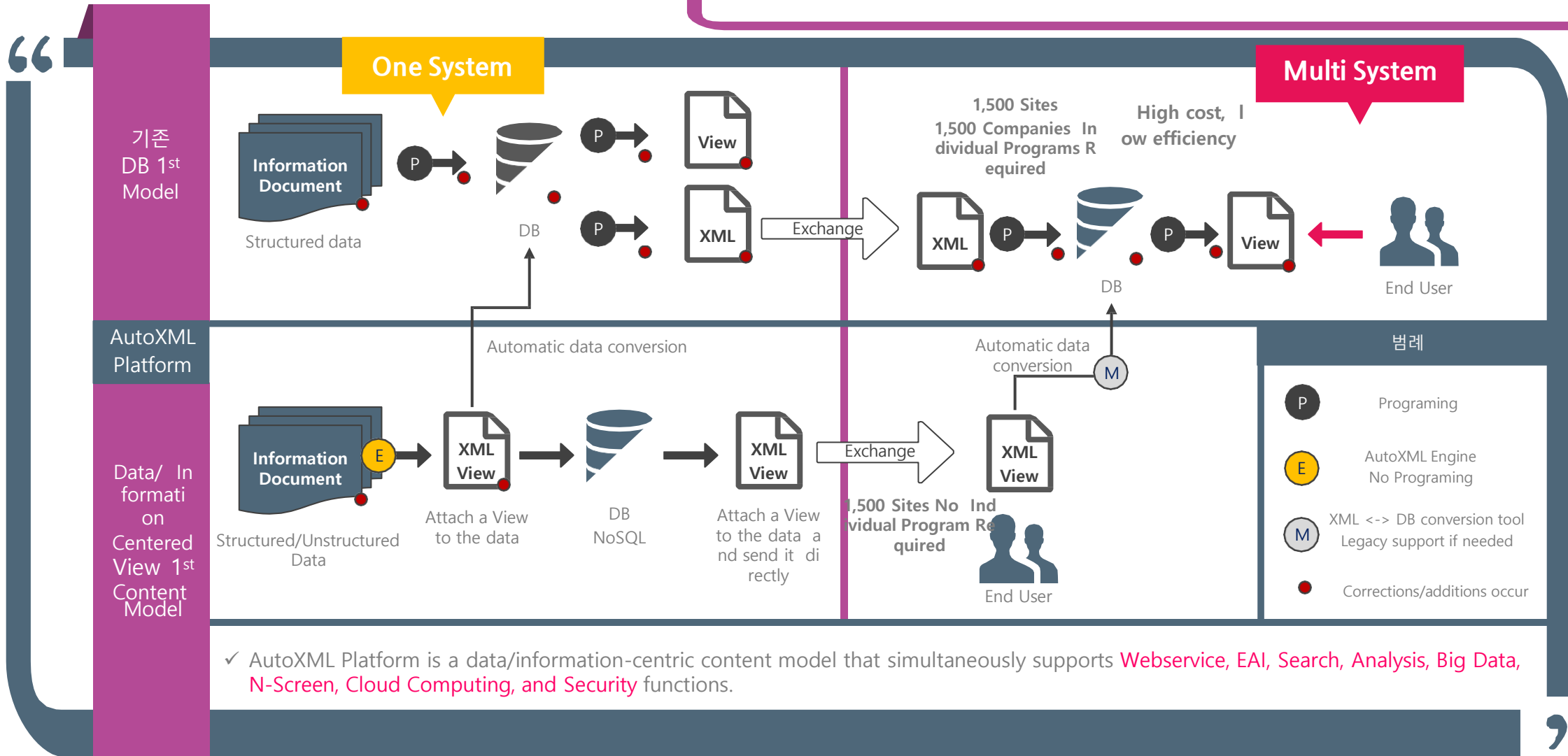


Down

System Construction - Hyundai Motor Company

Hyundai Motor Supply Chain Management PoC

- “
- ✓ The existing supply chain management system is a “high cost” structure with high cost, large manpower, and long-term requirements.
 - ✓ The AutoXML method achieves the “low cost” goal through low cost, small manpower, and short period of time with the Content Model.
- ”



System Construction - Hyundai Motor Company

Hyundai Motor Company SCM Supply Chain Integration System Construction Project

- The existing EDI (Electronic Document Interchange) essential functions for exchanging data/documents have been replaced with AutoXML technology.
- The AutoXML-based web service platform has basic data/document exchange and security functions and links information from existing systems.

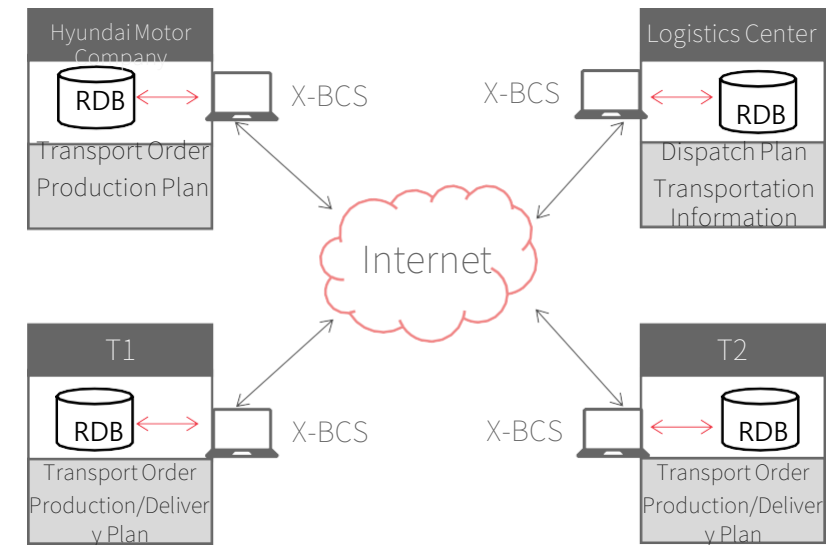
Configuring Web Services

Characteristic

- * W3C AutoXML standard document exchange
- * 100% implemented on the web
- * Interconnection with X-BCS Registry/Repository
- * Strong authentication/security system
- Low cost of document exchange
- Integration with existing systems (EAI)

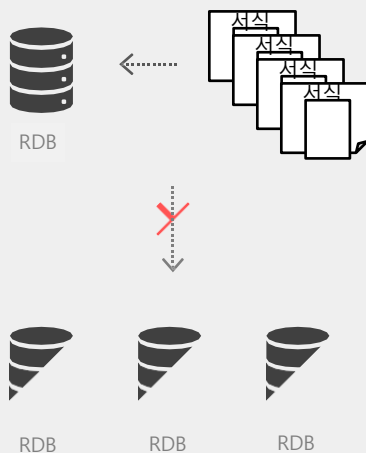
Division	Existing EDI	X-BCS EDI
User Experience	EDI-specific software	Web Browser
Scalability	Lowness(Coding)	Flexibility (Mapping)
Installation and maintenance costs	Relatively expensive	relatively cheap
Usage Document Format	Own format	W3C AutoXML

X-BCS Use Case: Hyundai-Kia Automotive SCM Structure



Before AutoXML was introduced

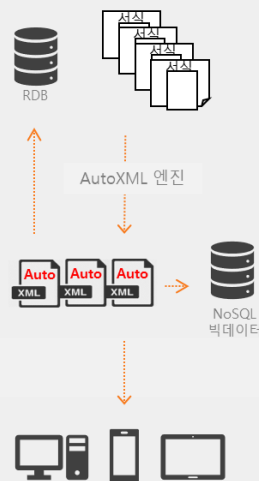
200 Formats – 1,500 Table Designs



- Huge **cost/labor** for designing 1,500 tables
- **Difficulty** in linking and integrating with other systems
- **Difficulty** in expanding the system
=> **Development failure**

After introducing AutoXML

200 Formats – AutoXML Formats



- 200 **formats solved with AutoXML format**
- **Easy** to link and integrate with other systems
- **Easy** to expand the system
- => **Project success**

AutoXML application effect



Cost
1.2 billion
-> 180 million

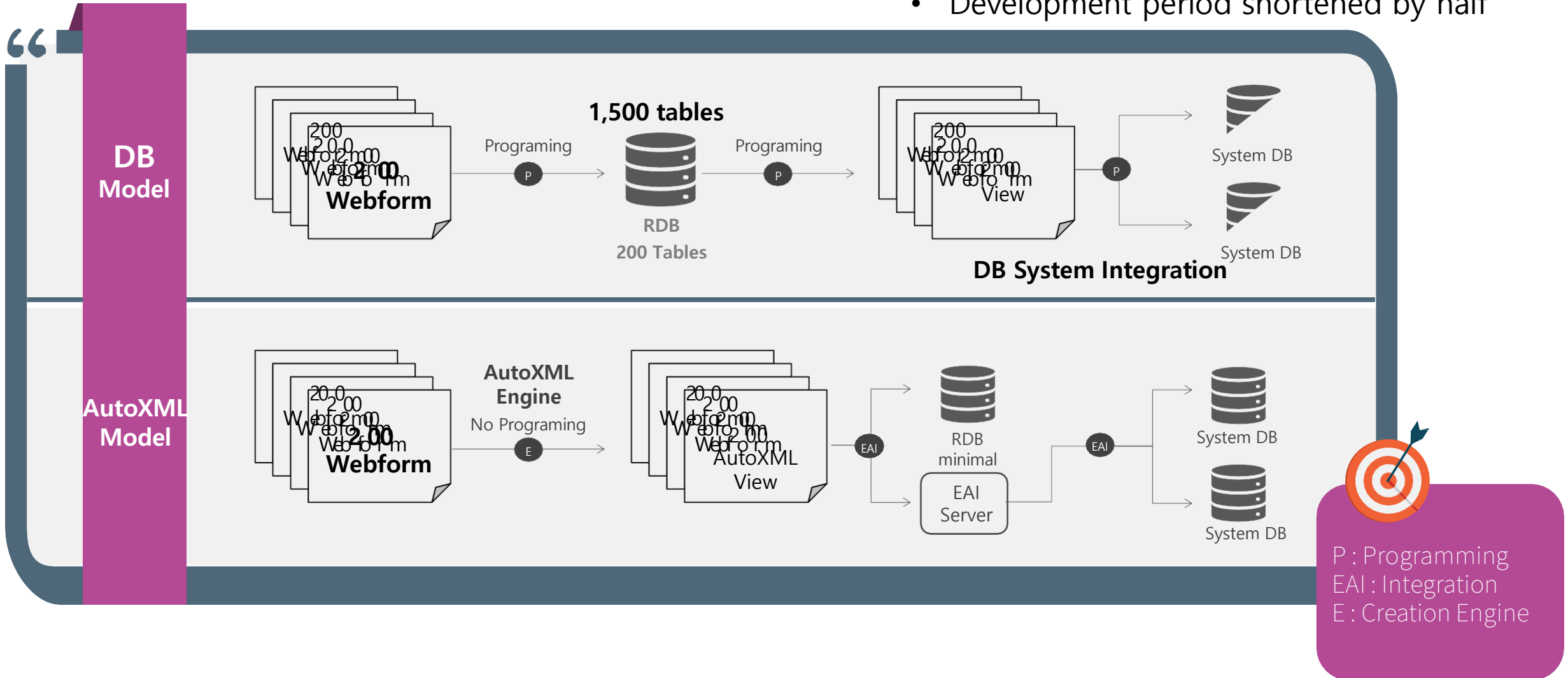


Manpower
120M/M → 8M/M



Time
10 Month → 2 Month

**80% Down &
Problem Solved**





Problem

Difficulties in creating 200 ITSM forms

- The workload increases rapidly due to many repetitive tables in the 200 or so forms

Large-scale coding manpower, Oracle usage and Manpower investment, long-term occurrence

=> High-cost cost structure

- Oracle-centered and work force, Java manpower, long-term work period due to increased coding volume

Solution

200+ formats completed with 3Ksoft's formats

- Created on the Web as an XML + XSL integrated document and saved as XML
- Supports saving XML data to RDB and NoSQL (approval and permission management)

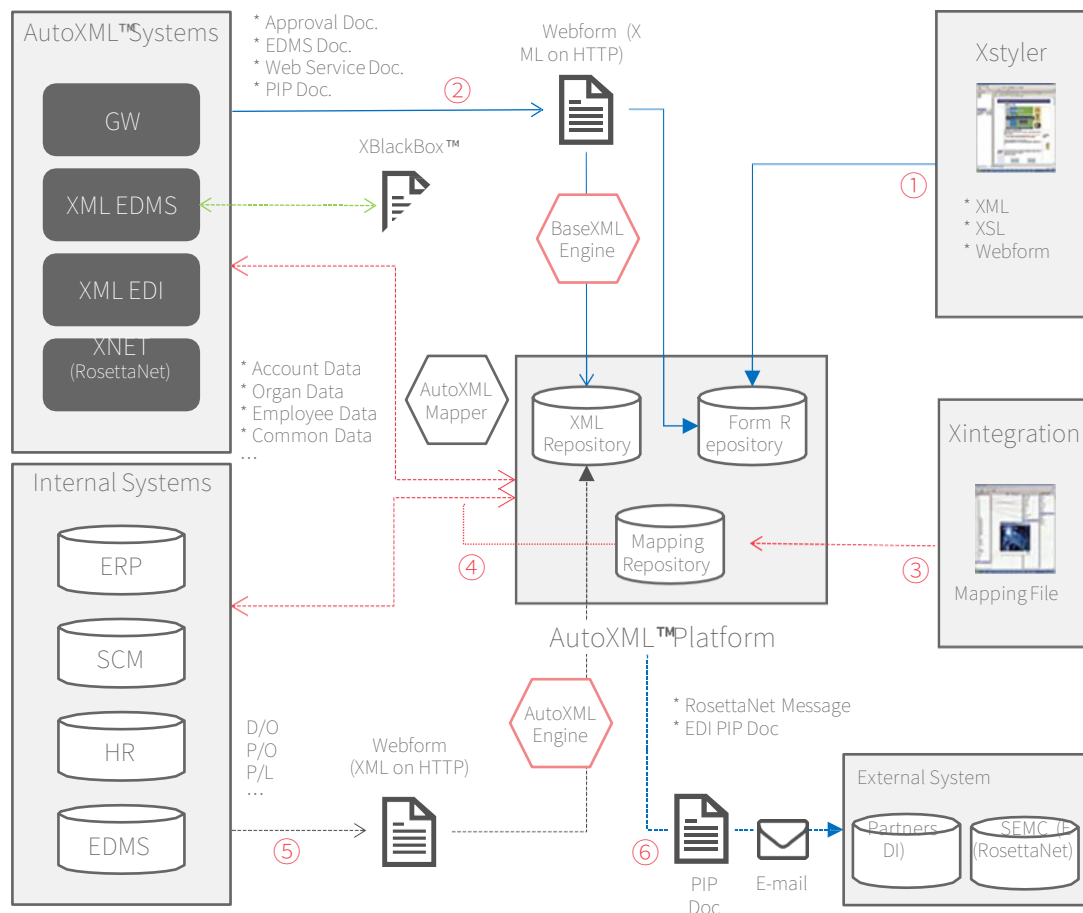
Providing innovative improvements through automation application and NoSQL application Low-cost cost structure - Minimizing Oracle purchases and utilizing Open Source NoSQL and reducing manpower



System Construction– Sony Ericsson RosettaNet

Sony Ericsson RosettaNet (electronics industry standard) implementation case

AutoXML RosettaNet (Electronics industry standard) System Process



ROSETTANET

- Integration with AutoXML-based electronic approval groupware
- AutoXML-based Web Service (e.g. Mtekvision's Master Data integration)
- AutoXML-based content management system
- AutoXML-based document security management system
- Electronics industry standard AutoXML-based B2B RosettaNet e-commerce framework
- Building an integrated information system based on AutoXML

Application Effects

Building a business environment with seamless internal and external work flow

Reducing costs when expanding systems or work by introducing AutoXML-based infrastructure

Enhancing external reliability by building a global standard B2Bi system (RosettaNet)

System construction – Sony Ericsson RosettaNet

Sony Ericsson Builds RosettaNet (XML-Based E-Commerce Standard)

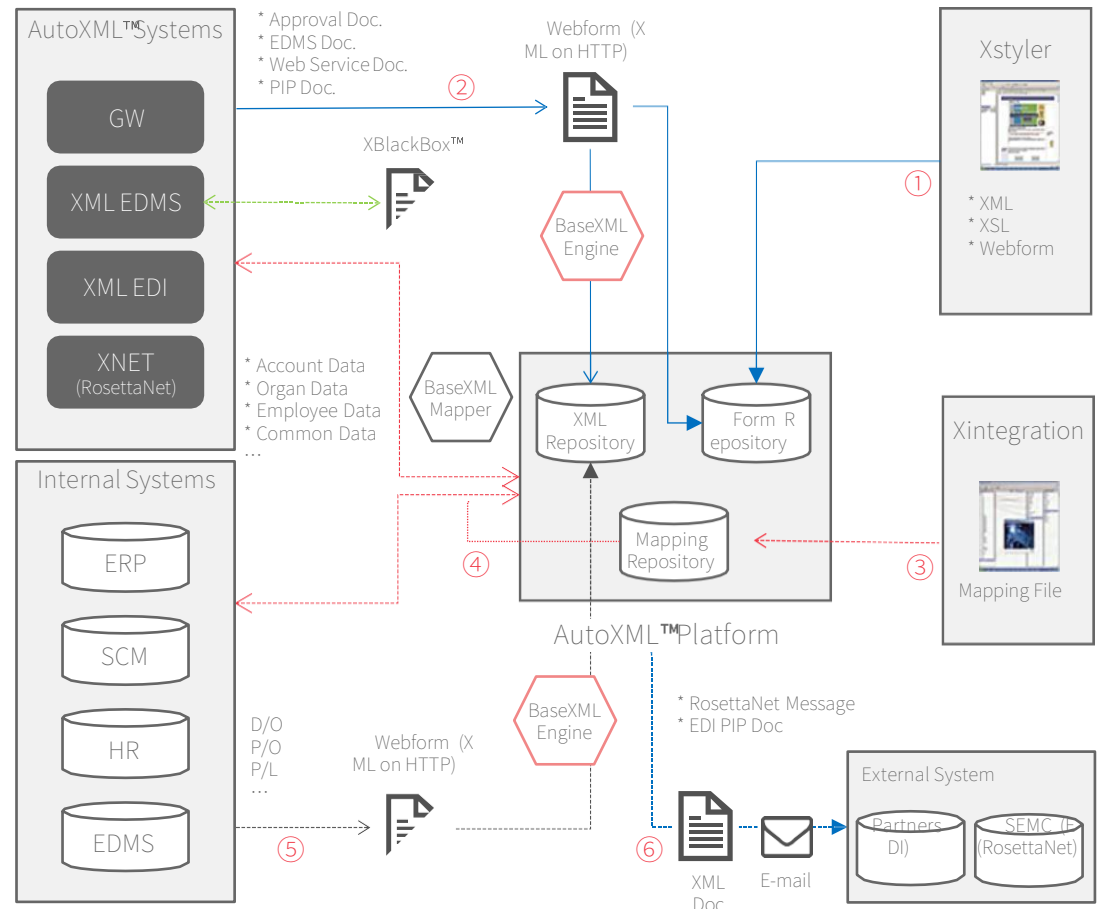
AutoXML RosettaNet (Electronics industry standard) System Process

Background of application

- Need to build infrastructure to integrate data and business processes that penetrate various legacy systems
- Establishment of an integrated EDI system that reflects SONY Ericsson's production plan in ERP and links the corresponding ERP delivery plan to SONY Ericsson ERP (SAP R3) through B2B communication (RosettaNet) through G/W approval

Applicable Effect

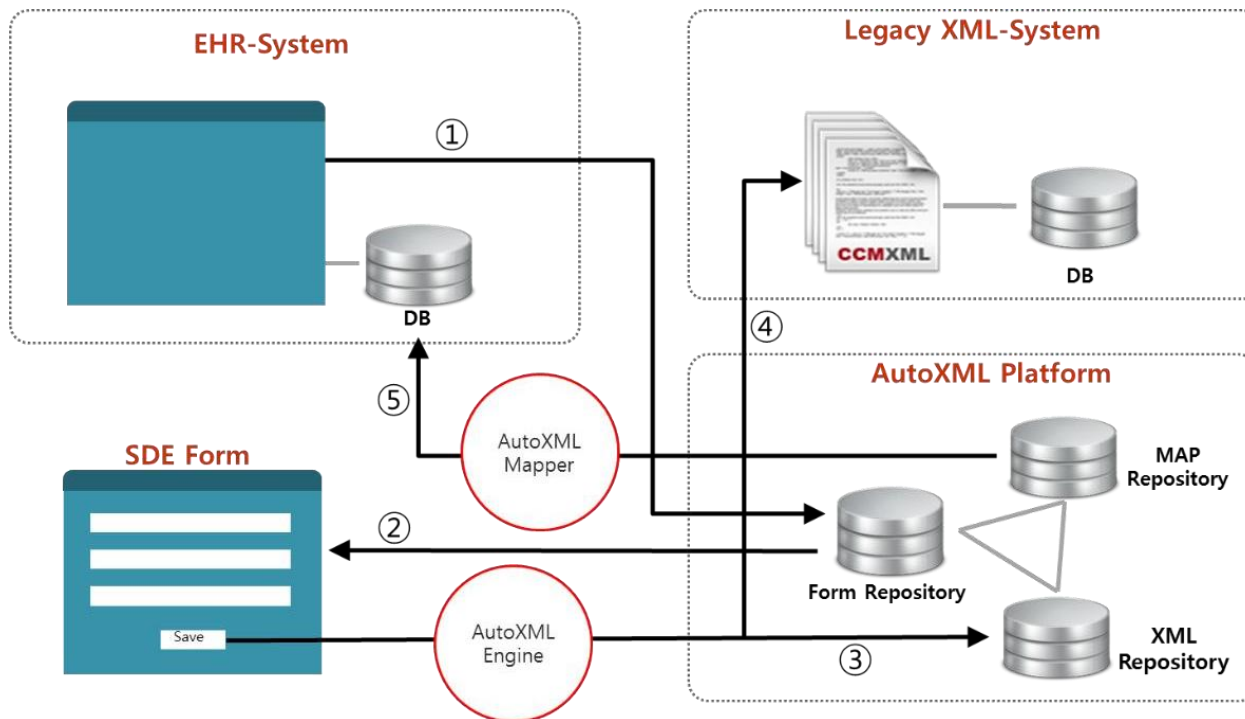
- Creating a business environment with seamless internal and external work flow
- Reduce costs when expanding systems or operations by introducing AutoXML-based infrastructure
- Improving external reliability by building a B2Bi system (RosettaNet) that meets global standards



System Construction – Police Hospital

Construction of Police Hospital EHR/EMR (XML-based HL7 standard) integrated system

EHR(Electronic Health Record) Related AutoXML Development Methodology Process



- ✓ The world's first implementation of a medical information integration system using the EHR standard XML document established by HL7 (HL7, the global standardization organization for medical information)
- ✓ Supports Legacy with technology that integrates structured data and unstructured data and processes them by attaching views
- ✓ Cases that can overcome the failure of hospital big data integration, such as Asan Medical Center and Soonchunhyang Hospital

전자신문 December 29, 2008 Page 08

Successful application of Korean CCM EHR Business Unit, first introduced to police hospital

(CCM) 기반 전자건강기록(EMR) 시스템이 경찰 병원에 성공적으로 도입돼, 이 모델의 실용화 및 국제화를 앞당기게 됐다.

28일 전자건강기록(EHR)사업단에 따르면, 최근 경찰병원에서 업계 및 정부관계자가 모인 자리에서 2005년부터 연구해 온 한국형 임상콘텐츠모델(CCM)의 실제 적용 사례를 시연과 함께 대중에게 처음 공개하며 차세대 EMR솔루션의 가능성을 선보였다.

이는 한국형 임상콘텐츠모델(CCM)의 첫 실전적용 사례로, 기존 EMR 시스템에서 자주 사용되는 임상 개념을 우리나라 실정에 맞게 사전 정의해 진료 시점에 의사가 쉽고 신속하게 많은 양의 임상

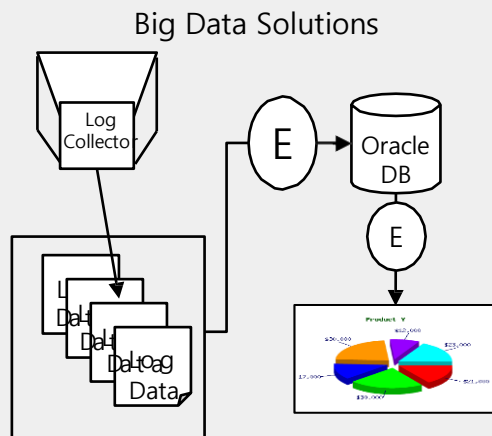
함과 확장성을 갖추고 있어 한국형 의료정보모델의 국제화 가능성을 시사한다.

이번 시범프로젝트는 EHR사업단의 지위로, 국민보훈공단 일산병원에서 임상콘텐츠모델을, 건국대학교병원에서 임상서식 템플릿을 제공했다. 또 XML전문기업인 쓰리케이소프트(3Ksoft)와 IT서비스업체인 오토에버시스템즈가 참여했다.

관련 업계에서는 벌써 CCM(임상콘텐츠모델) 기반의 차세대 EMR시스템이 전체적인 프로젝트 기간 단축 및 사용자 퍼포먼스 개선에 크게 기여할 것으로 보고 적극적인 상용버전 개발에 나서고 있다.

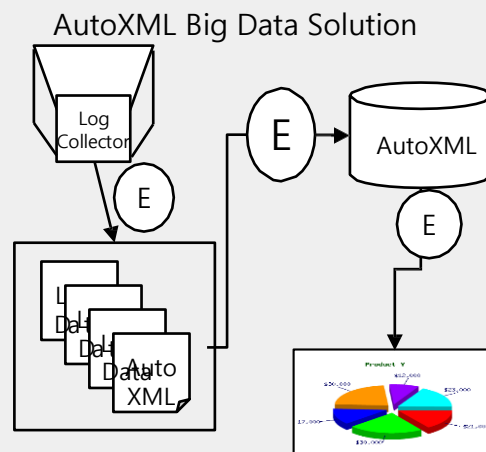
Solution Development – Big Data Solution: FireEye (Malware Detection System)

Before AutoXML was introduced



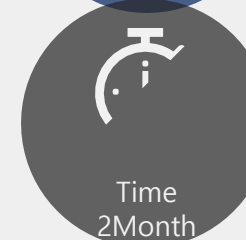
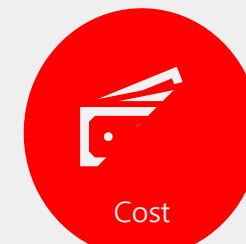
- Only **3 months** worth of data can be stored
- Search/analyze takes **10 to 20 minutes**
- Unstructured data **cannot** be collected and stored
- Real-time analysis is **difficult**
- Building requires **a lot of** development costs, man-hours, and time

After introducing AutoXML



- **20 years** worth of data storage
- Search/analyze in **3 seconds**
- **Easy** to collect and store unstructured data
- Real-time analysis **possible**
- **Low** development cost, man-hours, and time required for construction

AutoXML application effect



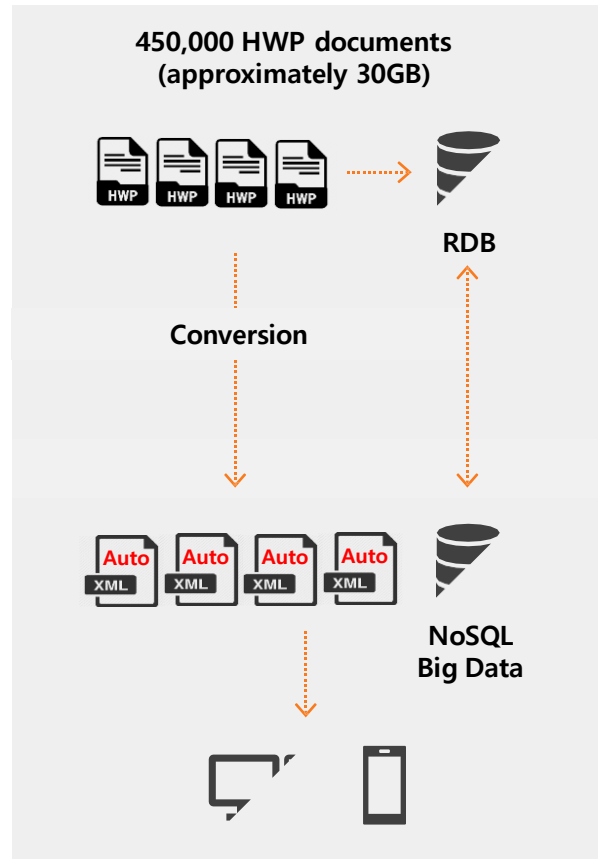
Down & Troubleshooting

About 1000 times faster

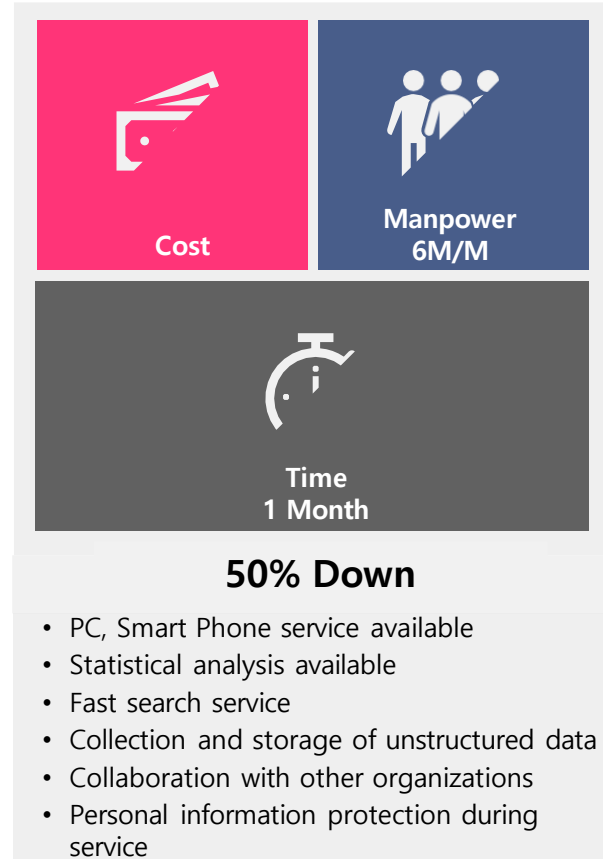
Before AutoXML was introduced



After introducing AutoXML

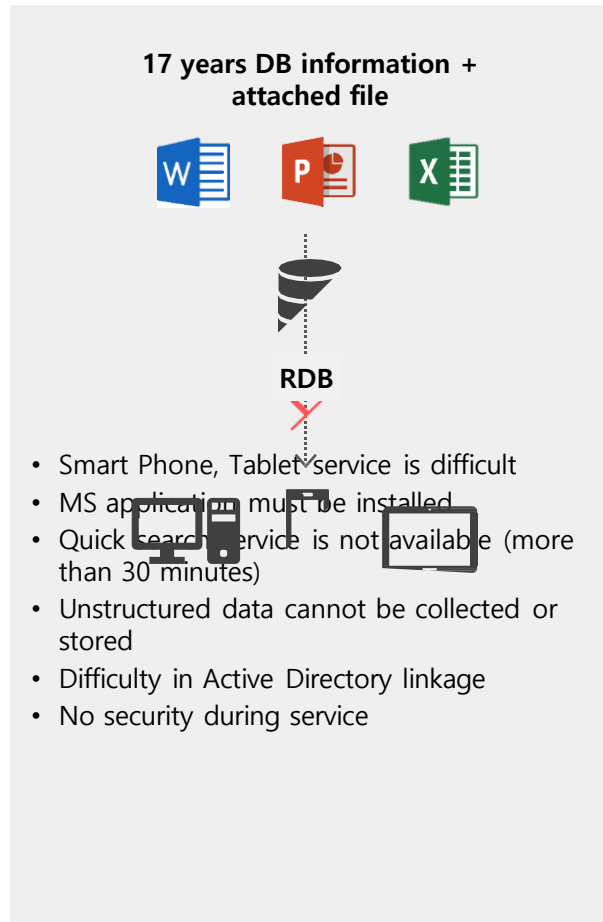


AutoXML application effect

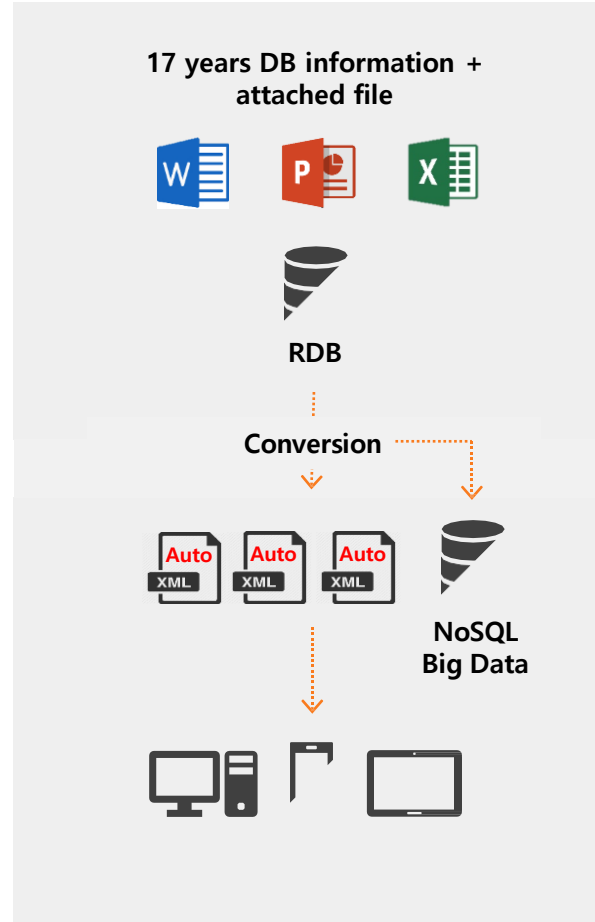




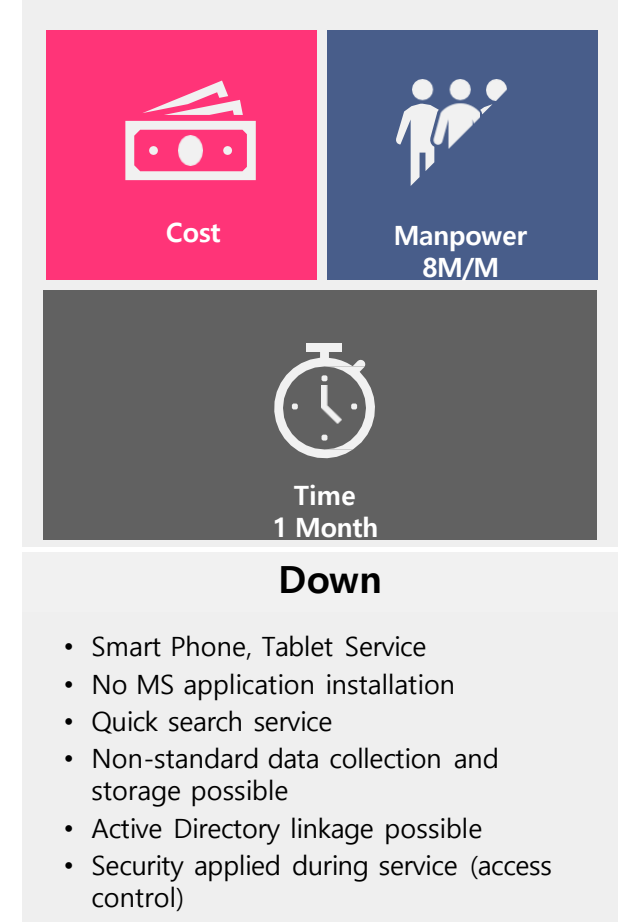
Before AutoXML was introduced



After introducing AutoXML



AutoXML application effect





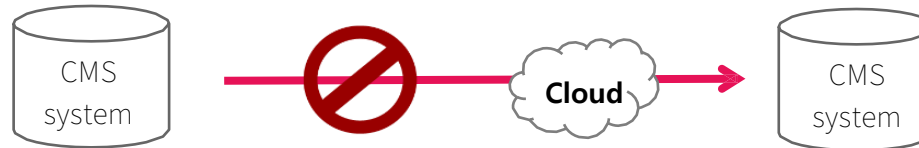
Problem



- Even though it was a product from the same vendor, the legacy information (DB) of the existing CMS system could not be transferred to the cloud server.
- Every time we review work records that have been in place for the past 10 years, we seek solutions to inefficient work processes (e.g., taking more than 2-3 hours to find related documents).



Mando Group Information Management System (CMS)



Issues with search tasks and difficulties in searching/analyzing information from Legacy DB to new cloud server (Microsoft SharePoint) and difficulties with cloud services



- Converting Mando document/file contents to standard XML with 3Ksoft's large-capacity conversion technology
- Building a big data-based search system through NoSQL storage
- Providing searched documents as cloud documents with views



Expected Benefits of AutoXML Solution

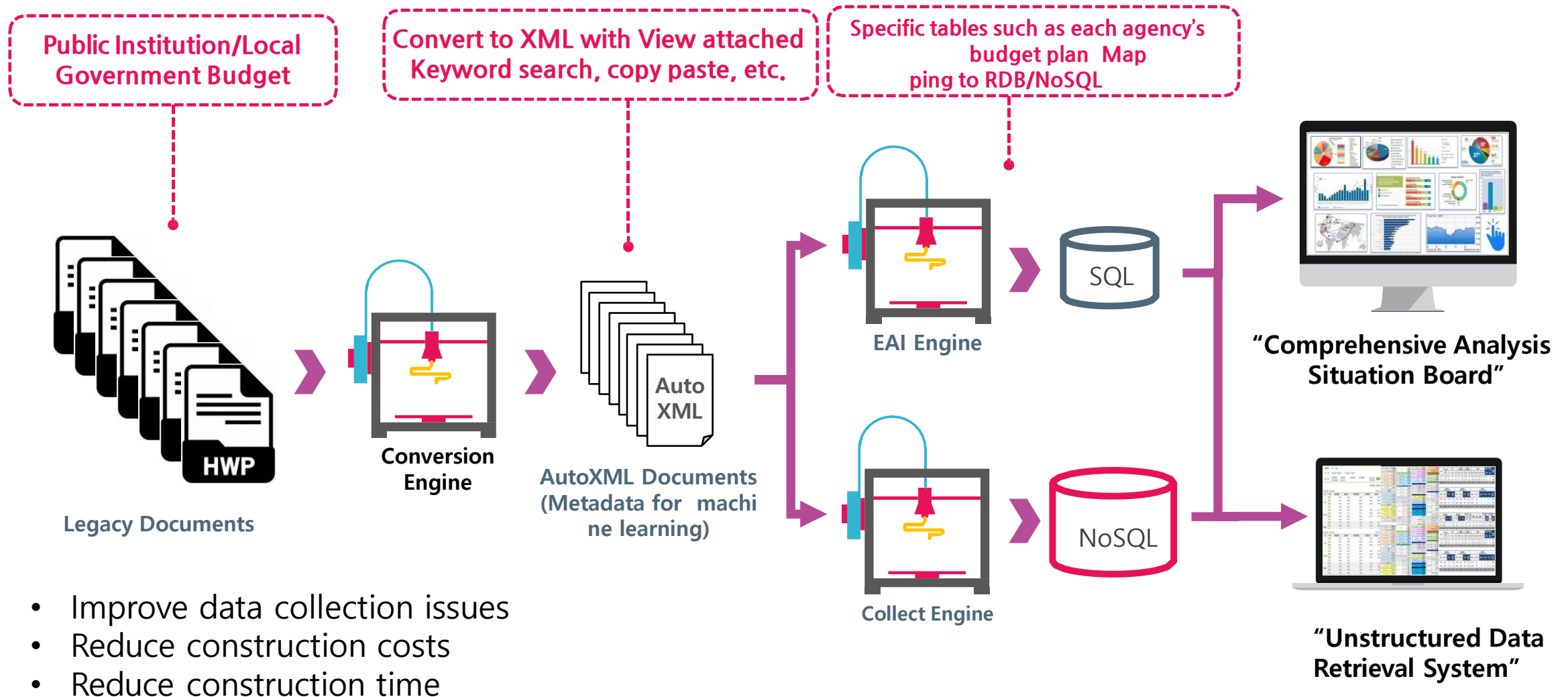


- Converting Mando document/file contents to standard XML with 3Ksoft's large-capacity conversion technology Cloud upload
- Fast application of work with new cloud upload of existing document/file contents
- Fast N-Screen search
- Security function with access restriction by task/rank
- User authority management, etc.



Solution Development – Data Solutions: Ministry of Finance

PoC of Korean budget plan under the Ministry of Strategy and Finance's public institutions/local governments





Problem

Difficult to collect and process 700,000 cases of adverse drug safety incidents per year in different formats overseas

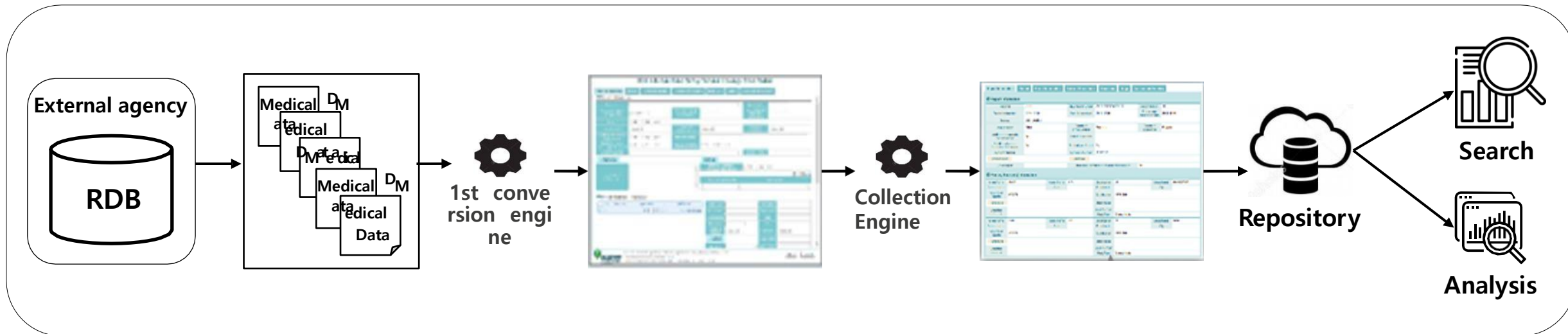
- It is difficult to build and utilize a system by storing XML in RDB, and XML has unspecified items and items are continuously added.
- Existing RDBs have limitations because they have to create and store items.



Solution

Introducing 3Ksoft AutoXML to process all 700,000 cases as W3C standard XML

- Inputs necessary data into NoSQL and RDB when necessary
- Provides data search, analysis statistics, etc. based on XML data



- AutoXML development methodology is a content-centered development methodology that enables productivity, speed, cost reduction, and shortened development period compared to existing methodologies.
- Easily create Web Forms and enter information through AutoXML Toolkit, which provides a WYSIWYG GUI interface.
- Automatically generate XML with View via AutoXML Engine
 - Information can be verified as it is created
- The generated XML can be immediately distributed for collaboration.
 - Share data with other systems and users without programming
- Easy to modify via AutoXML Toolkit when changing items and UI

Productivity

50%

Increased productivity by approximately 50% compared to conventional methods

Development period

50%

Development period shortened by approximately 50% compared to general methodology

Cost reduction

50%

Cost reduction of approximately 50% compared to general methodologies

Field	Organization	Contents
Public	 Incheon International Airlines	HWP manual documents to
	 National Human Rights Commission	Remove ActiveX , 300k Unstructured data (HWP/PDF document) Metadata , search , statistics , formatting
	 Korea Institute of Drug Safety	Overseas site Automatic collection / verification / storage / analysis of large volumes of data
	 Chungbuk Office of Education	Cloud- based W3C standard document digital textbook , e-book replacement possibility confirmed
	 National Police Agency	CCTV real-time detection and notification of wanted vehicle number . Real-time processing. Building
Finance	 Congress	AI National Assembly and big data-based legislative information service , various legislative data Standardization and Analysis Processing
	 Shinhan Financial Group	ITSM (IT Equipment Service Management System) construction and system integration and linkage . (Shinhan Financial Group , Shinhan Bank , Shinhan Insurance , Shinhan Card , etc.)
	 Woori Investment & Securities	Woori Bank updates FireEye , a solution from NASDAQ in the US, to collect and analyze Big Data real-time malware information .
	Card VAN operator	Real-time credit card analysis system based on Big Data , full data utilization without loss
enterprise	 Fireeye	Financial System Malware Virus Detection Big Data Solution (NASDAQ Solution) FireEye updated to AutoXML Platform .
	 Hyundai Motor Group	Hyundai Motor Supply Chain Management - Establishing a collaborative system for purchasing orders for partners (cost reduction) and shorten the process ...)
	 Mando Group	Microsoft's SharePoint Cloud and 3K Joint Venture - Responsible for conversion of
	 Emtek Vision	Data security applied Building
medical treatment	 sony ericsson	For international trade Rosetta Net Solutions and Systems Implementation
	 Police Hospital	XML- based electronic health record system and World's first Building
	 HRE, HL7	X-EHR Products in collaboration with healthcare standards body HL7 Build