웹 서비스 전략

정철용
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Web Services

- Loosely coupled software components delivered over Internet standard technologies
  - SOAP over HTTP for transport
  - UDDI for registry and discovery
  - e-Business XML standards
  - Security and trust frameworks
  - Event notification

A Web Service

- A business function or a business service
- A modular entity
  - that delivers services on demand
  - through a well-defined interface
  - incorporating robust event notification
- can be accessed by another application
  - a user through a client interface,
  - a client,
  - a server or
  - another Web service

Business Goal of Web services

- To enable enterprises to focus on core competencies while outsourcing all other functions
  - Credit authorization
  - Just-in-time productivity and quality-of-service monitoring

네트워크 기업의 배경: Unbundled Businesses

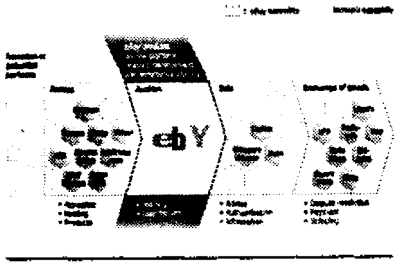
	Customer Relationship Management	Product Innovation and Commercialization	Infrastructure Management
Economic Driver	• Economies of scope • High cost of customer acquisition makes it imperative to gain large wallet share	• Speed of development • Early market entry allows for a premium price and large market share	• Economies of scale • High fixed costs make large volumes essential to achieve low unit cost
Determinant of Profitability	• Share of wallet	• Number and quality of distribution channels	• Utilization of facilities; low-cost operations
Competition	• Battle for scope; rapid consolidation; a few big players dominate	• Battle for talent; low barriers to entry; many small players thrive	• Battle for scale; rapid consolidation; a few big players dominate
Culture	• Customer focused; service oriented	• Employee focused; coddling the creative stars	• Cost focused; stress standardization, predictability and efficiency
Examples	• Cendant, Auto-by-Tel, Yahoo!	• AP Wire service, Nielsen	• First Data Corp, UPS, Mckesson, Safeway, US Web

Network 기업

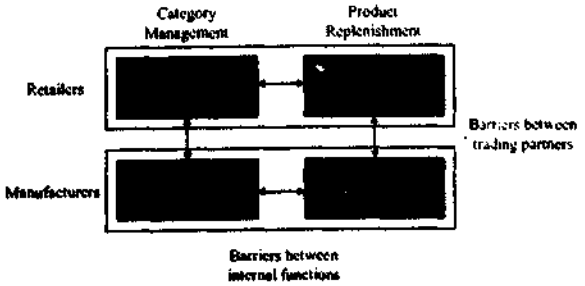
- Network기업의 출현

  - 공통어휘의 정보표준을 통해 네트워크 유지
    - 참여자간 고객, 상품, 스케줄, 재고, 비용 등 데이터에 대한 정보교환
  - 고객도 시장정보 생성자로서 네트워크 구성원
- Network기업의 구성
  - Network Orchestrator
    - 네트워크 기획, 참여기업의 선정 및 초청, 성과관리, 수익공유 등
  - Specialists
    - 네트워크 구성원의 상호작용으로부터 Orchestrator가 필요하는 지식과 전문성에 대한 접근
    - 네트워크 구성원의 상호 자산공유에 의한 효율성 실현
    - 서비스 리드니스의 경우, Orchestrator 고객에 대한 접근

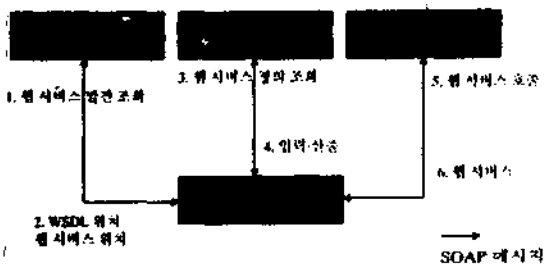
Strategic Symphony



Barriers in Inter-Organizational Systems

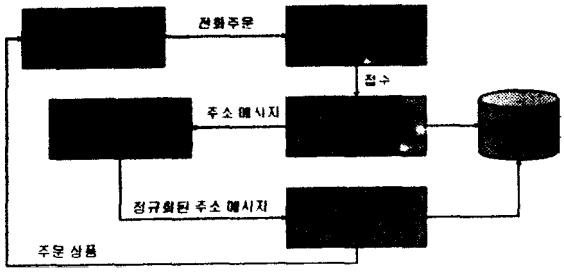


웹 서비스 프레임 웍



주소 정규화 웹 서비스

주문충족 프로세스



웹 서비스 발견

SOAP 메시지: get_serviceDetail 조회에 대한 UDDI response

```
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
 <Body>
  <serviceDetail generic="1.0" xmlns="urn:uddi-org:api"
                 operator="www.ibm.com/services/uddi" >
    <businessService businessKey="..." serviceKey="...">
      <name>AddressStandardization</name>
      <description xml:lang="en">Standardizes Mailing Addresses</description>
      <bindingTemplates>  <bindingTemplate bindingKey="..." serviceKey="...">
        <accessPoint URLType="http">
          http://web03.primordial.com:8081/pcmagdemo/SOAPServlet</accessPoint>
        <tModelInstanceDetails>  <tModelInstanceInfo tModelKey="..."/> ...
          <overviewURL>http://web03.primordial.com:8081/pcmagdemo/wsdl/
                       AddressStandardization.wsdl</overviewURL>
...
 </Body>
</Envelope>
```

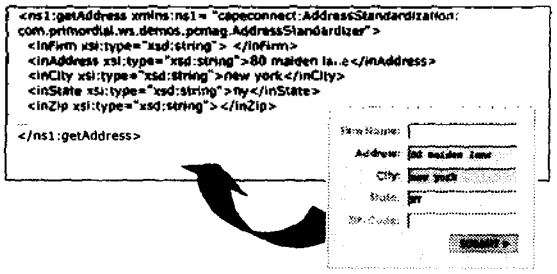
웹 서비스 정의

AddressStandardization.wsdl

```
<?xml version="1.0" encoding="UTF-8"?>
<definitions name="AddressStandardization"  >
<message name="getAddress">
   <part name="inFirm" type="xsd:string"/>
   <part name="inAddress" type="xsd:string"/>
   <part name="inCity" type="xsd:string"/>
   <part name="inState" type="xsd:string"/>
   <part name="inZip" type="xsd:string"/>
   <part name="inUsername" type="xsd:string"/>
   <part name="inPassword" type="xsd:string"/>
</message>
<portType name="AddressStandardization">
   <operation name="getAddress">
     <input message="tns:getAddress"/>
     <output message="tns:getAddressResponse"/>
   </operation>
</portType> ...
<service name="AddressStandardization">
   <documentation>My WSDL Comment</documentation>
   <port binding="tns:AddressStandardizationBinding" name="AddressStandardization" >
     <soap:address location="http://web03.primordial.com:8081/pcmagdemo/SOAPServlet"/>
   </port>
</service>
</definitions>
```

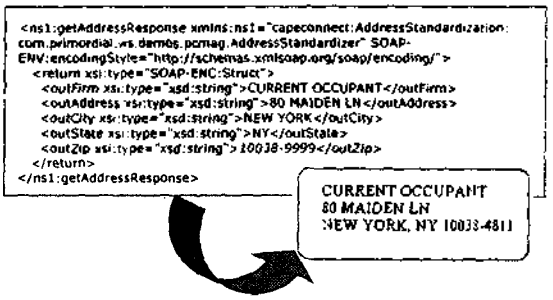
웹 서비스 호출

웹 서비스 호출 폼과 SOAP_Request.xml 메시지



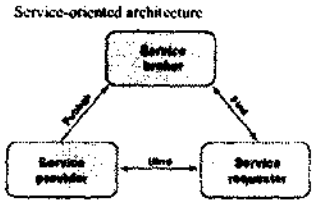
웹 서비스 결과

SOAP_Response.xml 메시지와 웹 서비스 결과 폼



Web Service Examples

- Service-based SW functionality
  - Web-based e-mail
  - HNC's eFalcon
  - Experian's e-series
  - Doubleclick's Dart
  - PayPal's e-Payment
- Web Service broker
  - Www.grandcentral.com



Web Service Platforms

- Microsoft .NET
- IBM Dynamic e-Business
- Sun ONE(Open network environment)
- Oracle Dynamic network services
- HP

웹 서비스의 영향

- System acquisition
  - Hosting models of software services
  - Buy, build or lease

- Supply chain reorganization

- Virtualization of enterprises

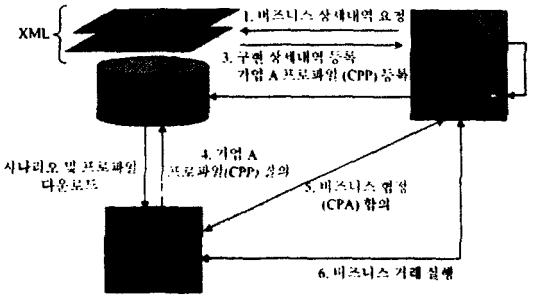
웹 서비스와 IT관리

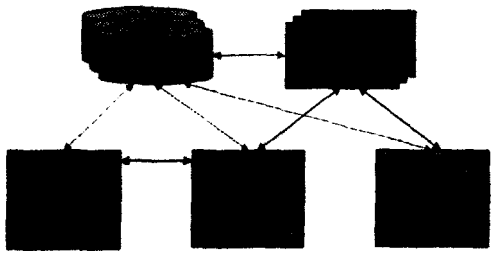
- IT관리의 변화: 기획중심적
  - 유지보수의 개념 및 비용: switching cost?
- 정보기술 투자자산의 특이성 감소
- 내부 및 외부 정보시스템간의 통합 용이
- 기업간 업무프로세스의 통합 용이
  - 데이터 표준화 이해로 인한 장애요인 감소
- 시스템 확장: 프로세스, 데이터의 유연성 확대
  - 시스템간 : loose coupling
- 정보공유 도구의 다양성 증대
  - e-Marketplace의 어려움,
  - 정보전달도구: 허브모형, Hub and Spoke 모형

웹 서비스 장애요인

- Lack of proven
  - Business models
  - Revenue generation models
  - Trust
- 기술적 장애
  - Security problem
  - Service discovery and standard
  - Service switching

ebXML e-비즈니스 아키텍처



웹 서비스와 ebXML의 비교

웹 서비스와 ebXML