

Glauxsoft AG, Bern

(short)
ebXML presentation

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<http://www.schlegel.li/ebXML/>

Presentation Overview

Presentation content

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ebXML

ebXML stands for electronic business XML.

- ebXML is framework for global electronic business.
- ebXML provides an infrastructure for electronic business.

Why do we need a standard for electronic business?

-> To achieve inter-operability, or to lower costs for inter-operability.

ebXML

OASIS (Organization for the Advancement of Structural Information Standards) and UN/CEFACT (United Nations Center For Trade Facilitation And Electronic Business) sponsored ebXML.

Technically very good but both organization have a tight budget hence no big marketing hence lower penetration.

But ebXML can be implemented royalty free!

Use case

Company A has 100 suppliers, each with a different Enterprise Information System (EIS).

For the supply chain, the planning system of Company A needs to access inventory data of its suppliers inventory systems.

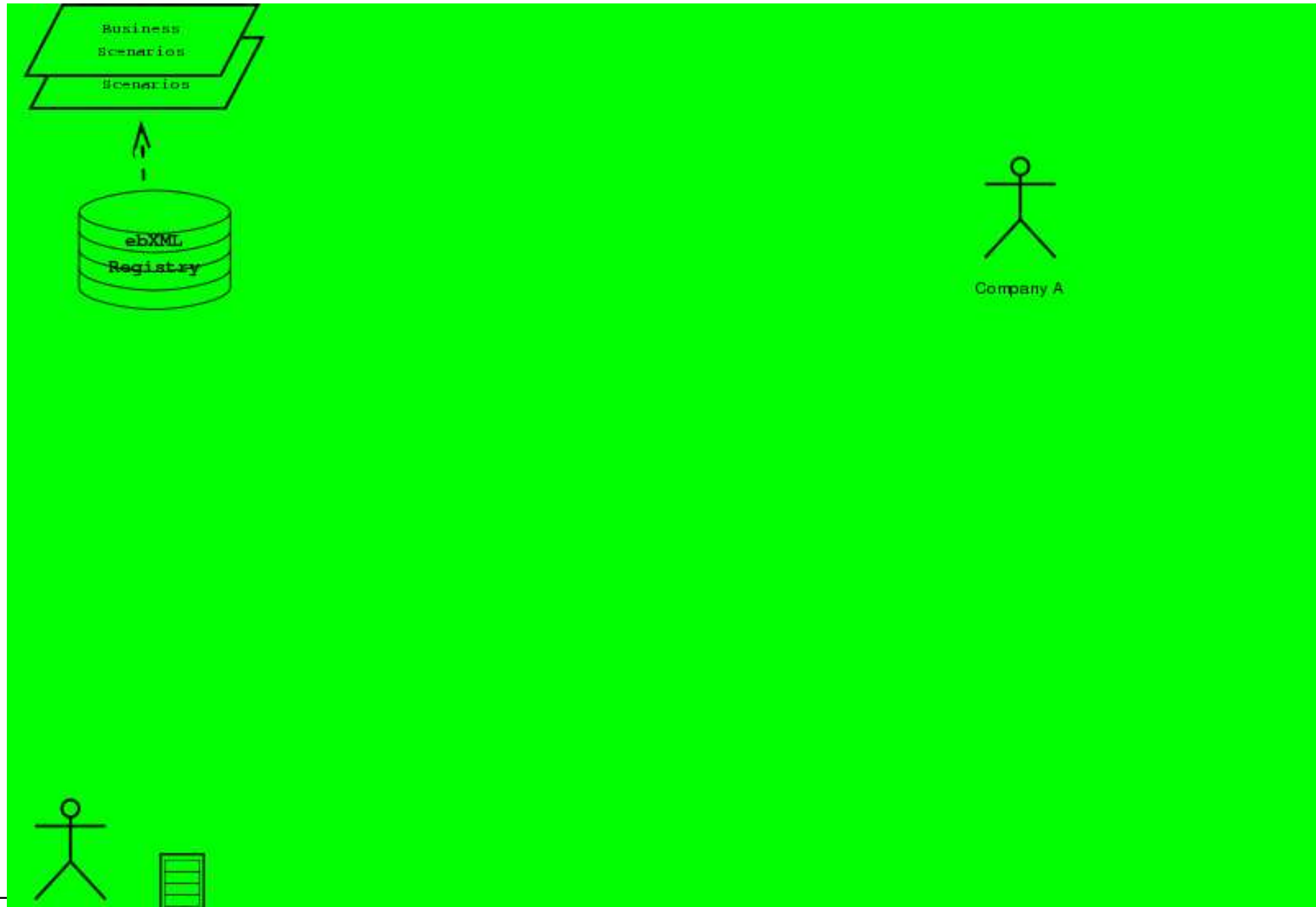
Electronic Business needs

what is necessary for e-biz (inventory use case)?

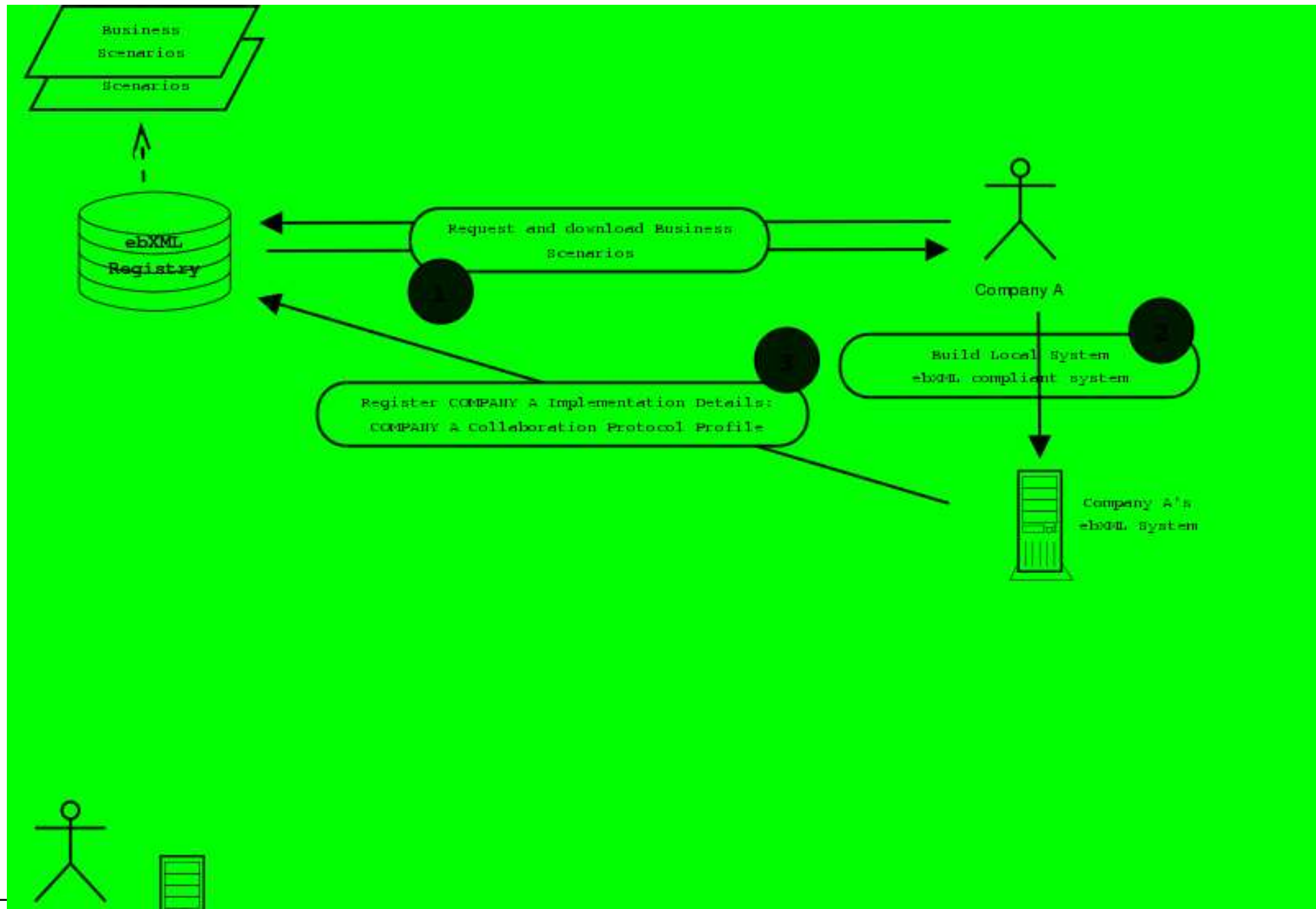
- common business transactions (eg sending an inventory request)
- common data-interchange formats (eg structure and semantic of inventory request and response)
- description of a party's capability
- registry to store and discover business transactions, formats and party's
- negotiation on business terms; results in an agreement
- common messaging

adopted from Web Services Architect, Romin Irani

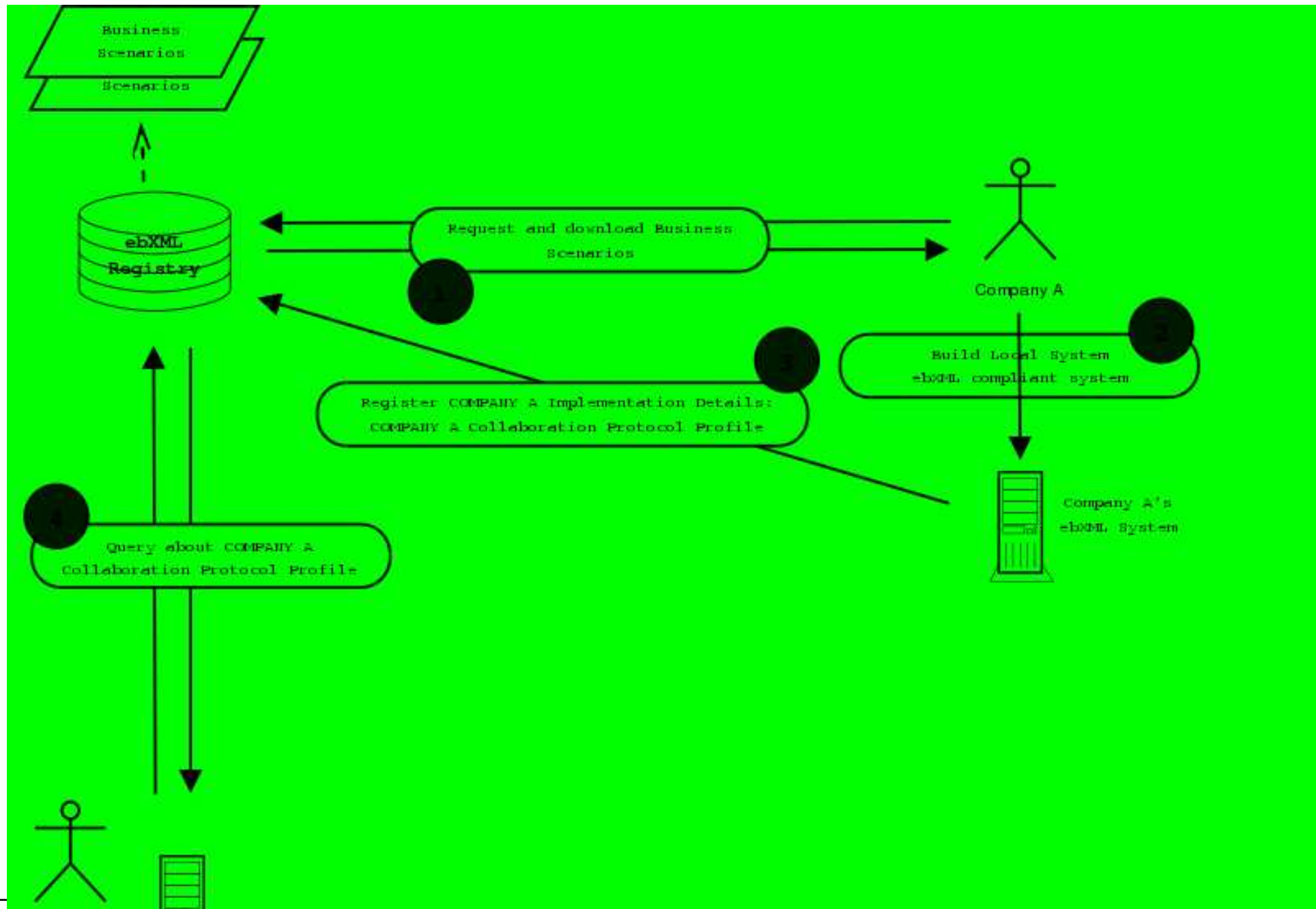
ebXML by example (1/5)



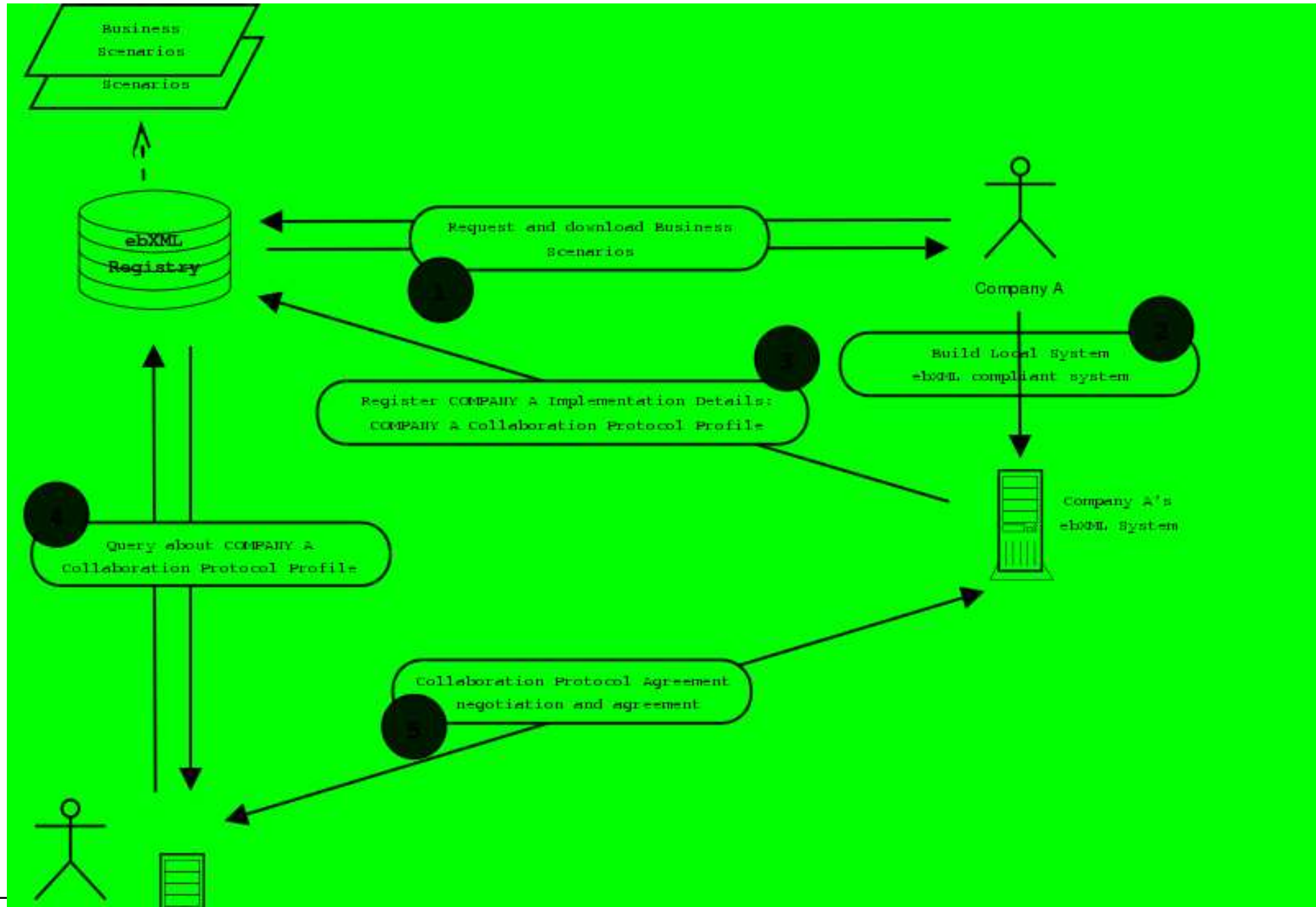
ebXML by example (2/5)



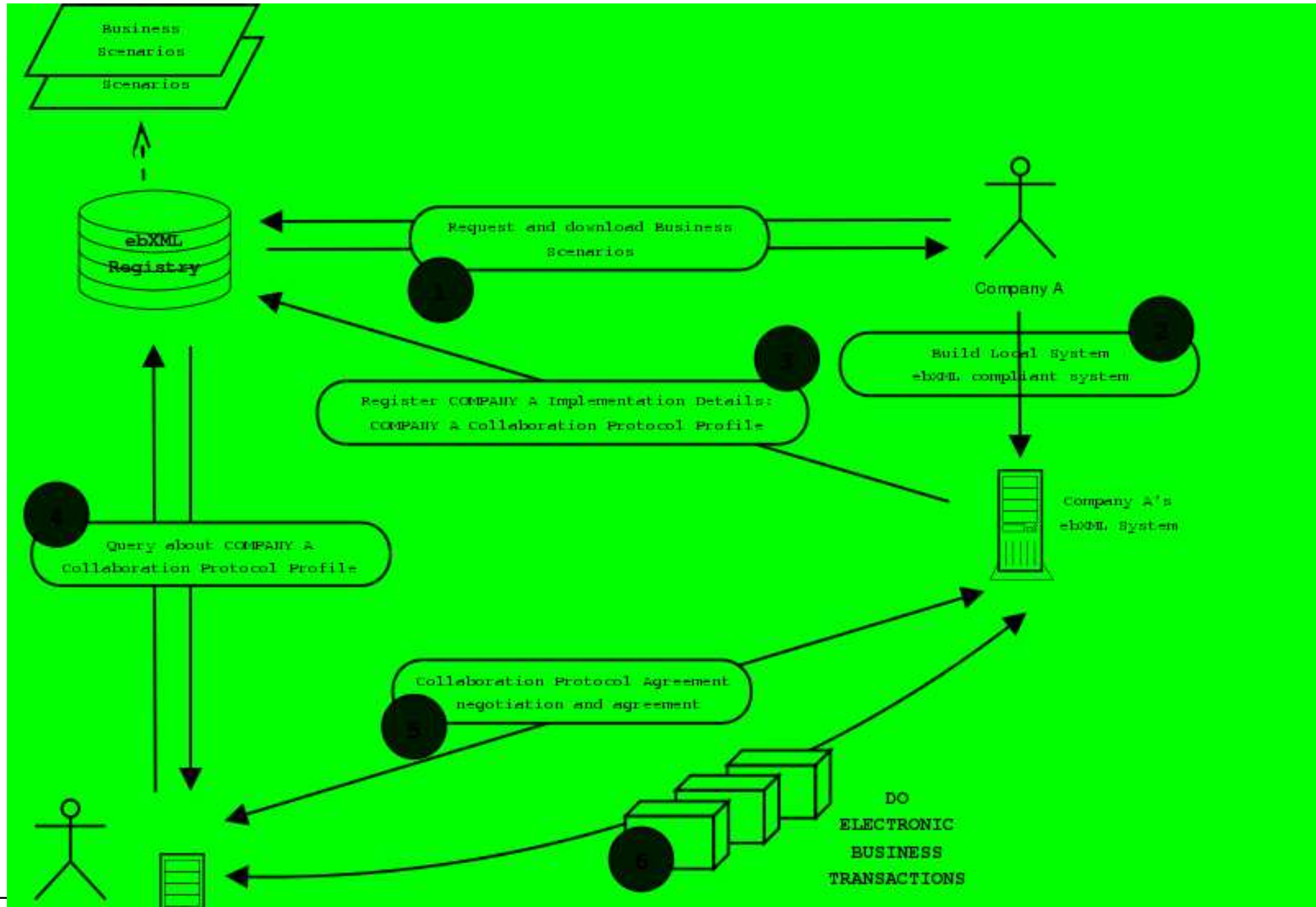
ebXML by example (3/5)



ebXML by example (4/5)



ebXML by example (5/5)



ebXML by example (description) (1/3)

Description of the individual steps of the ebXML example ...

1) Company A decides to do electronic business the ebXML way and considers implementing a local ebXML compliant application.

Company A browses the ebXML Registry to see which collaborative business processes, business documents and business information entities are already available and, in the best case, if it can reuse the ones required for its business needs.

In the case that company A wants to engage in a collaborative business process, which is not registered yet, company A analyses, and then models the missing collaborative business process and registers it in the ebXML Registry to make it available for its business partners or its industry. The same is true for business documents or business information entities.

ebXML by example (description) (2/3)

2) Company A needs a local ebXML system (composed of an ebXML Business Service Interface (BSI) and an ebXML Messaging System) to communicate with trading partners but first the company has to create a Collaboration Protocol Profile (CPP) which describes the supported collaborative business process capabilities, constraints and technical ebXML information such as choice of encryption algorithms, encryption certificates and choice of transport protocols.

3) Company A registers its CPP to the ebXML registry. From that point on, company A is publicly listed in the ebXML Registry and is likely to be discovered by other companies searching for new trading partners.

4) Company B is already registered at the ebXML registry and is looking for new trading partners. Company B queries the ebXML Registry and receives company A's CPP. Company B then has two CPP's: Company A's CPP and its own. The two companies have to come to an agreement on how to do business. This agreement is called a Collaboration Protocol Agreement (CPA) in the ebXML terminology. Company B uses an ebXML CPA composition tool to derive a CPA template from the two CPP's. The two CPP's have to be complementary to each other, for example both parties must be capable to run the same collaborative business process.

ebXML by example (description) (3/3)

5) The CPA template has to be accepted by both parties. A CPA negotiation finalises the CPA template to a final CPA. In this example both ebXML systems have negotiation capabilities. If the ebXML systems do not have this capability then human to human negotiation is necessary. Once a final CPA has been negotiated both parties are ready for electronic business.

6) The companies then use the underlying ebXML system to exchange business documents conforming to the CPA.

ebXML Specifications

The ebXML framework is described in a series of specifications and technical reports.

- ebXML Business Process Specification Schema
- ebXML Registry Information Model (*)
- ebXML Registry Service Specification (*)
- ebXML Collaboration Protocol-Profile and Agreement Specification (*)
- ebXML Message Service Specification (*)
- ebXML Core Components (#)

* ISO Certified as ISO 15'000 Parts 1 through 4

currently in the ISO certification process

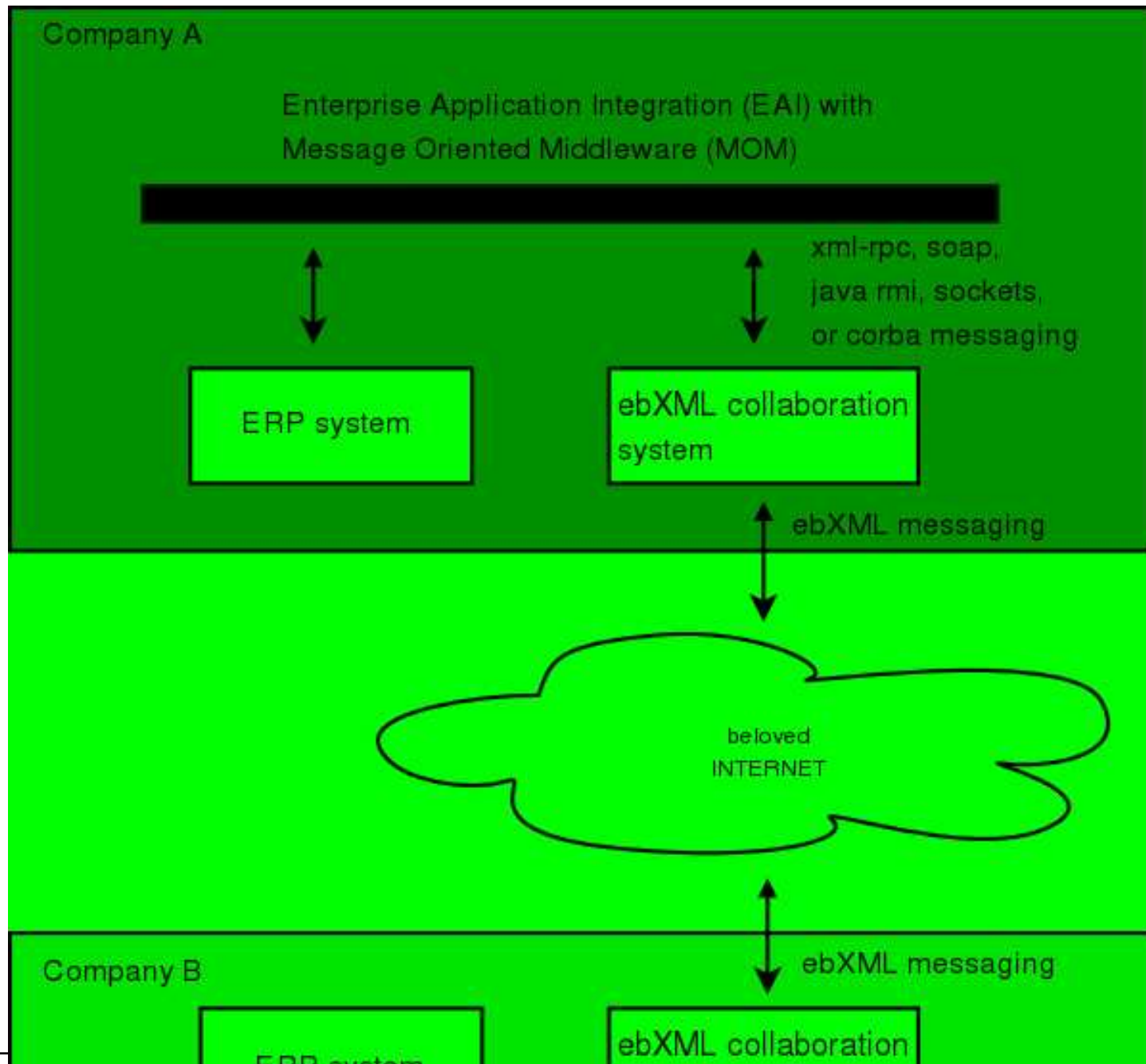
B2B Inventory based on ebXML demo! (cheated)

DEMO

This demo is a proof-of-idea (not 100% specification compliant).

The inventory business process (XML file) is executed by a ebXML business process execution engine. So thats cool!

Demo setup



Thats it!

ebXML resources:

- <http://www.ebXML.org>

Open Source ebXML resources:

- <http://www.freebxml.org>

- <http://www.schlegel.li/ebXML> :)

Thanks :)