3B - Taking 2E Into The Cloud

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who are Desynit?

About us

— Based in Bristol, U.K

— Customers worldwide

— Technology Mix

  − 2E/Plex IBM i & MS SQL Server

  − Java & .Net

  − salesforce Cloud Platform

  − Web & mobile applications

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ca 2E/Plex
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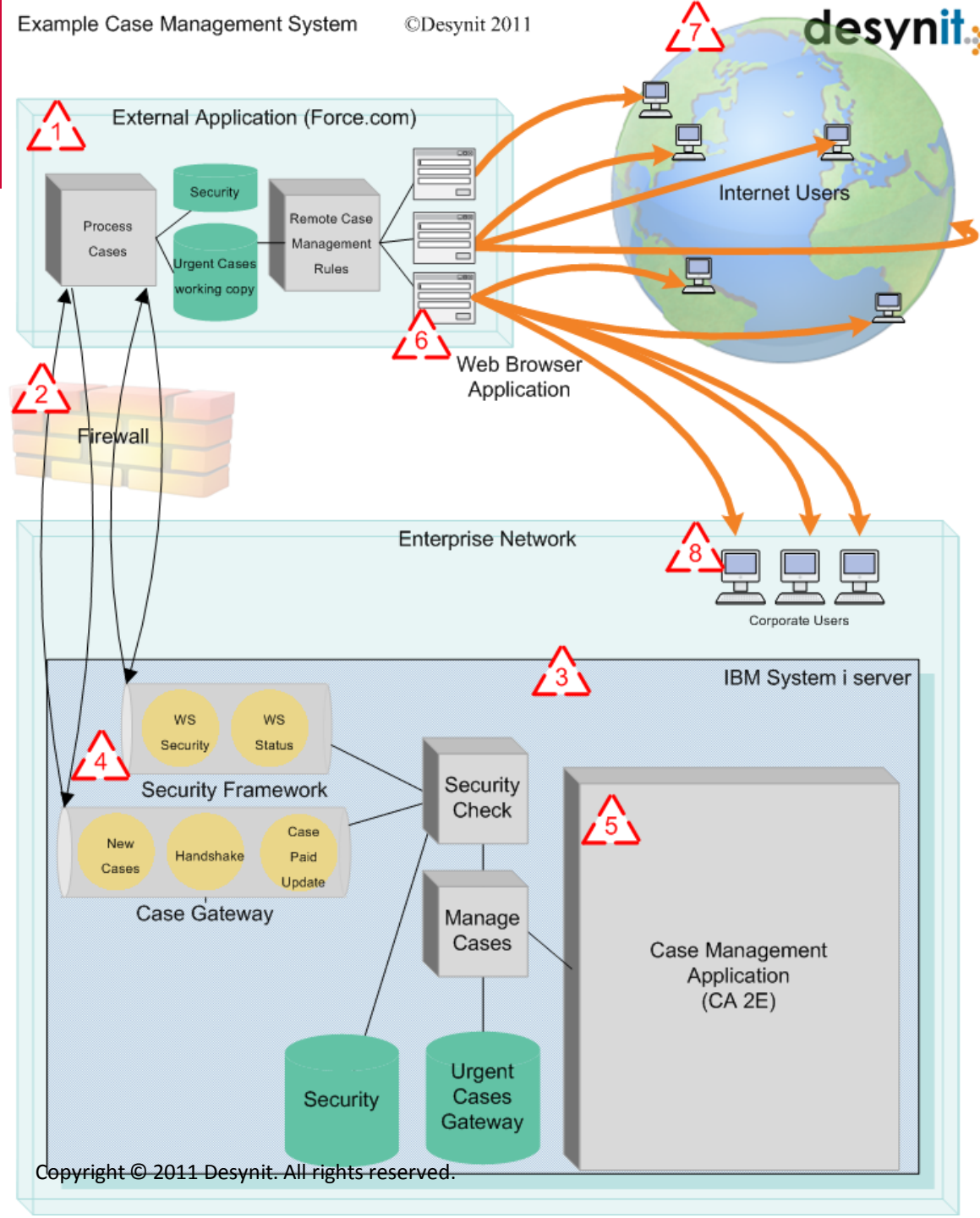# what do we need to talk about?

Going to the cloud

— The business and technical scenario

— 2E web services infrastructure

— The Salesforce platform

the business and technical scenario

What we had to work with

— Long established 2E COBOL environment

— Legal case management application

— Another large project in progress in the same 2E model

— Build a web portal to replace paper & fax system

— "Take a look at salesforce"

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2E into the cloud

Example Case Management System   ©Desynit 2011

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External Application (Force.com)

Process Cases

Security

Urgent Cases working copy

Remote Case Management Rules

Web Browser Application

Internet Users

Firewall

Enterprise Network

Corporate Users

IBM System i server

WS Security

WS Status

Security Framework

Security Check

New Cases

Handshake

Case Paid Update

Case Gateway

Manage Cases

Case Management Application (CA 2E)

Security

Urgent Cases Gateway

the business and technical scenario

Plan of attack

— Proof of concept creating 2E web services

— Apply SOA principles to the 2E environment

— Understand the capabilities of the Force.com platform

— Learn some Apex & Visualforce

— Evaluate our choices "why are we using Salesforce"

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# 2E web service framework

What features do we need to include?

— Web services which follow SOA principles

— An end-to-end security model

— Ability to manage and monitor connections
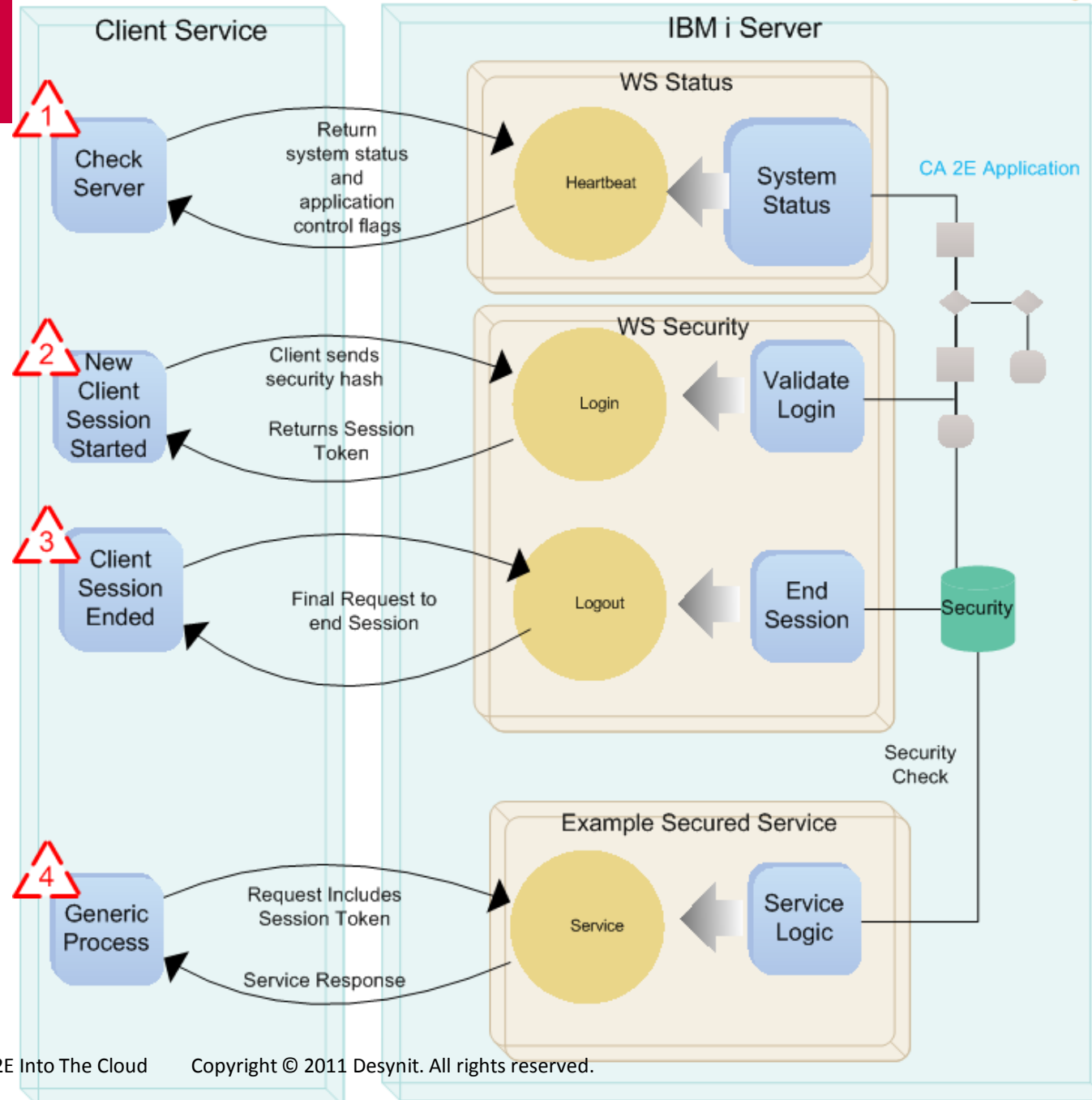
SOA principles

SOA Design Patterns – 8 design principles

1. Standardized service contract

2. Service loose coupling

3. Service abstraction

4. Service reusability

5. Service autonomy

6. Service statelessness

7. Service discoverability

8. Service composability

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CA 2E Web Service Security Framework   ©Desynit2011
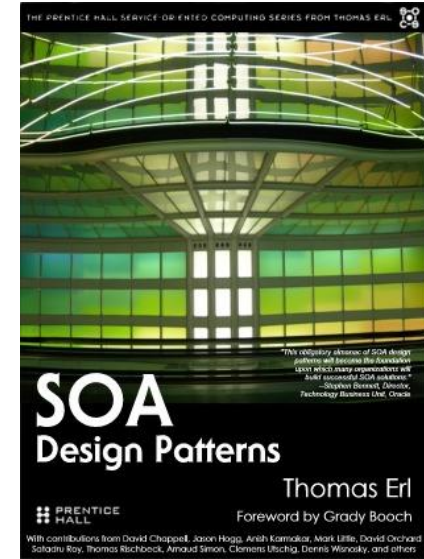
security model

Transport security

— Messages passed using https

— SSL certificate purchased and installed on IBM i

— Requests limited to known IP address ranges

— IWS/IAS doesn't support SOAP message WS-Security

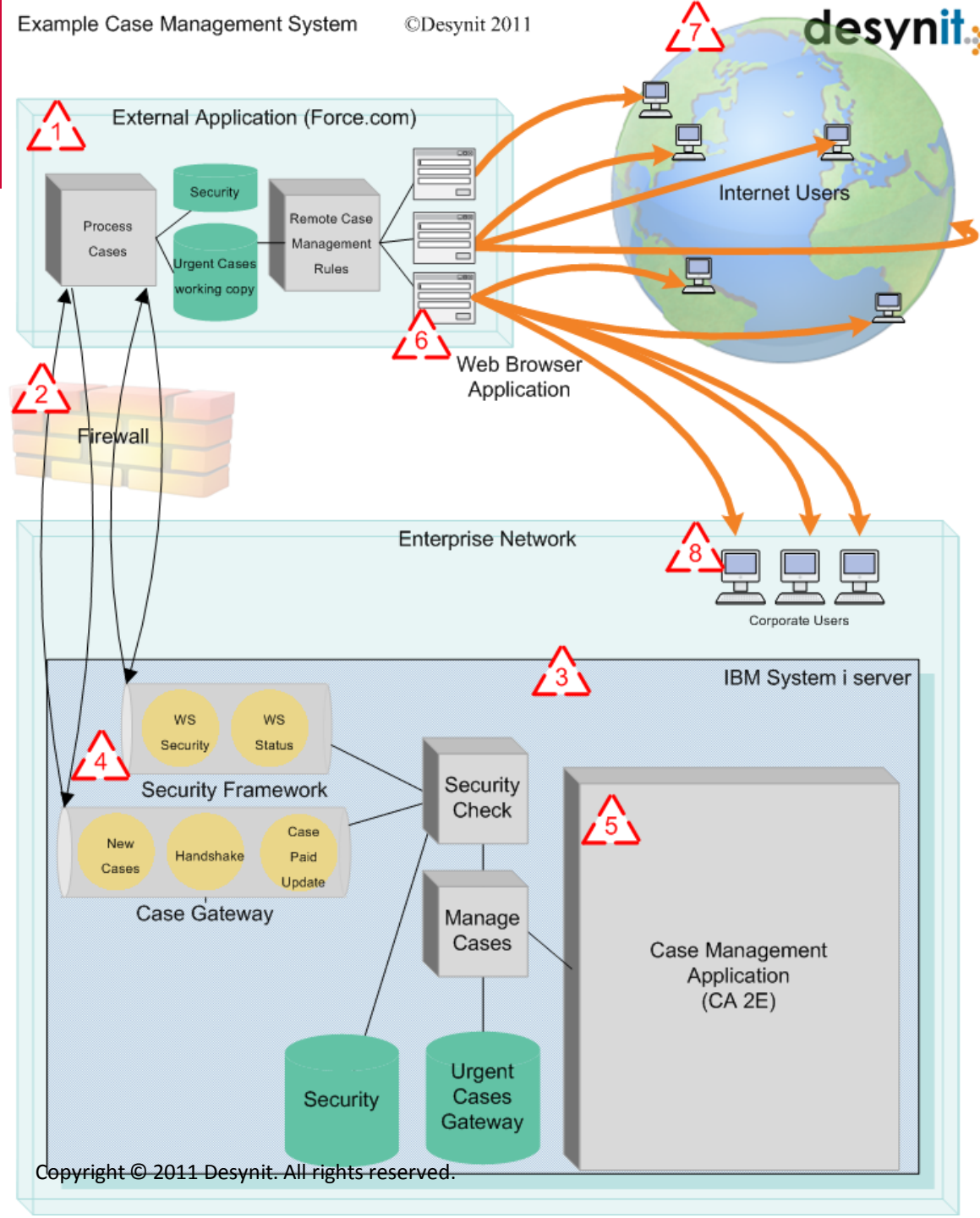 – Have to write our own user/function security

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security model

User/function security

— Follow guidance from https://www.owasp.org

— Site based security model

— Give trust to Salesforce login

— Verify user and assign session token

— Each request validates if user is allowed to run function

— Implemented in 2E, standard code in each action diagram

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manage and monitor

Control interaction and feedback service status

— Database trigger only touch point with existing application

— Background job set up to run periodic "heartbeat" service

— User staging table used for Salesforce to advice new accounts

— Data "ownership" retained by 2E system on the IBM i

— History and audit files

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live application

Example Case Management System   ©Desynit 2011

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salesforce platform

Cloud benefits

—Zero cost development environment

—Java-like language

—No software upgrade or hardware responsibilities

—Global coverage and scale

—Opaque licence model (takes time & talking to understand)

—Salesforce imposed "governor limits" on total web service calls

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Salesforce platform

Salesforce with 2E

— Imports 2E WSDL fine

— We made use of simple lists instead of using arrays

— Built own XML fragments into some fields in the message

— Passed big records one at a time

— Used web services to transfer data, rather than real time display

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what do we know now?

Going to the cloud

— How structure 2E functions as services

— How to secure 2E web services

— What it's like to work on a cloud platform

— 2E web services offer an excellent way to integrate

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what should you do now?

Going to the cloud

—Secure, mobile technology is the future

—Embrace Cloud technology – it can work hand in hand with your existing systems

—There are no barriers to entry – you can trial Force.com for FREE

—Speak to Desynit as we have expertise which will be applicable to your business
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"consider the benefits"