Capital Markets Day 2011

A closer look at maintenance

What are the deliveries associated with the maintenance fees that clients pay

Georg Hetrodt, CTO
Business model and revenue components

SimCorp business model

Contents

• The value created in the maintenance process
• What is included in the maintenance fee
• The processes, tools and organisation behind the deliveries to the clients
Three main elements of maintenance

- Perennial guarantee
- Service levels
- Error correction

Pre-requisite adherence to yearly upgrade
SimCorp’s operating model

Corporate divisions
- Global Product & Marketing Management
- SimCorp Global Services
  - Professional Services
  - Implementation
  - Support
- Strategic Research

Market unit
- Operations
- Sales
- Presales
- Implementation
- Customer Services
- Professional Services

Development
- Business Applications
- Platform and Frameworks
- Tools and Processes
- Doc
- QA
- Core
Service levels

Error correction

Perennial guarantee

R&D
- Product Management
- Strategic Research
- Development

Customer Services & Development
Support and development geography

139 employees dedicated to supporting SimCorp’s clients
Customer service avg. seniority 5.2 years

- Customer service (115)
- IST-units developers (24)
Service levels

**Office hours:**
8:30 a.m. to 16:30 p.m.

**Option:**
Continuing rectification of Severity level 1 errors outside of working days

**Option:**
Additional support between 7:30-8:30 a.m. and/or additional support between 4:30-5:30 p.m.

**Option:**
Additional support before 7:30 a.m. and/or additional support after 5:30 p.m.

Pre-requisite – adherence to the semi-annual release cycle
**Severity Level 1 - Critical Business Impact.**

**Definition:** A critical business process is not usable with no acceptable Solution. Production use of the System is stopped or so severely impacted that Customer cannot reasonably continue work.

**Response:** SimCorp will begin work on the error immediately after notification of the error, and will engage and allocate development staff during Working Days until a Solution is achieved. Target resolution time of eight (8) hours during Working Days.

**Severity Level 2 - High Business Impact.**

**Definition:** A critical business process is not usable with no acceptable solution, but the Customer’s production use of the System is continuing, however, there is a serious impact on the Customer’s productivity and/or service levels.

**Response:** SimCorp will begin work on the error within 1 Working Day, and will engage and allocate development staff during Working Days until a Solution is achieved. Target resolution time of 2 Working Days.

**Severity Level 3 - Medium Business Impact.**

**Definition:** A critical business process is not usable but an acceptable Solution is available, or a non-critical business process is not usable with no acceptable Solution. The Customer’s work has minor loss of operational functionality.

**Response:** SimCorp will provide initial response as fast as commercially reasonable. SimCorp will use reasonable commercial effort to provide a timely Solution in accordance with the gravity of the problem in a coming release.

**Severity Level 4 - Low Business Impact.**

**Definition:** A non-critical business process is not usable but an acceptable Solution is available, or a business process is usable, but nevertheless has an error. Errors with negligible consequences, requests for information or documentation clarification regarding the System. There is little or no impact on the operation of the System. The Customer’s implementation or production use of the System is continuing and there is no work being impeded at the time.

**Response:** SimCorp will provide an initial response as fast as commercially reasonable.
Result of the IST initiative: Support performance

![Graph showing average days from reported to delivered support performance from 2007 to 2011. The graph includes three trend lines: Error, 1-Critical, Error, 2-High, and Linear (Error, 2-High). The graph indicates a decrease in average days from reported to delivered support over the years.](image-url)
SimCorp investment into client support

Since August 2010 SimCorp has had International Specialist Teams of developers in all of our six regions:

- 24 specialist developers and business consultants working together locally
- Enhanced support processes - a “Just In Time” (JIT) delivery system
- To improve support delivery performance
- To improve robustness in support deliveries: ‘first time right’
Result of the IST initiative: Support performance

- Satisfying our clients’ needs
- Clients have different needs for patching errors – our ‘Just In Time’ delivery system is designed to meet those needs per individual client
Committed to continuous improvements

Our local support presence

- Ensures the right attention to client business critical errors
- Ensures a stable and smooth support flow
- Removes waste early in our support processes

<table>
<thead>
<tr>
<th>Delivered within 24 hours</th>
<th>Year To Date</th>
<th>△</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Priority</td>
<td>2011</td>
</tr>
<tr>
<td>Error</td>
<td>1-Critical</td>
<td>94%</td>
</tr>
<tr>
<td></td>
<td>2-High</td>
<td>25%</td>
</tr>
<tr>
<td>Questions</td>
<td>NA</td>
<td>50%</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td>38%</td>
</tr>
</tbody>
</table>
Increased client satisfaction & internal support process efficiency

Visible improvements:

- Faster first-time delivery in accordance with client agreements
- The JIT system has enforced global prioritisation of support issues
- Always working on the most important client issue
- Reduced internal waste makes us more efficient
- A scalable support system that supports future growth
Error statistics

- Client errors (WS) 12 month moving average Indexed July 2009=100
- Installed licence base Indexed July 2009=100
- Client errors/Installed base
Balance between innovation and quality – a continuous challenge

Commitment to
- reliable software development process
- continuous process improvements
- quality focus
- responsiveness towards clients
Balance between innovation and quality – a continuous challenge

SimCorp initiatives to improve quality

Client’s acceptance of less change and usage of production track
Two Track Patch Procedure

Upgrading

New service pack

Service Pack

PROD

IMPL

4.5

1/2

1/8

4.6

1/2

1/8

4.7
Software configuration management – Flow for several changes

Registered
- Apl correction 1
- Apl correction 2
- C# build
  - C# Correction 1
  - C# Correction 2
  - C# Correction 3
- Apl correction 3
- Apl correction 4

ReadyForTest
- Apl correction 2
- C# Correction 1
- C# Correction 3
- Apl correction 3

Approved
- Build - 5.0-SP1-IMPL-20110930-1
  - Apl correction 2
  - C# Correction 1
  - Apl correction 3

Released
- 5.0-SP1-IMPL-20110930-1
Status levels and branches

Registered
Ready for test
Approved
Released

SP0 = IMPL
SP1
SP2

Development/
PatchVersion

Approved Versions
Test Versions

SimCorp
SimCorp Dimension environment

<table>
<thead>
<tr>
<th>Test installations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 300 internal test installations</td>
</tr>
<tr>
<td>• 150 database instances split on 14 database servers (16 CPU/32 GB) ) with over 30TB data</td>
</tr>
<tr>
<td>• 10 file servers covering different OS (Windows2003 Server, Windows2008 Server)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restricted access</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Access to test environment and the possibility of changing configuration is restricted to ensure and enforce compliance with SAM recommendations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Virtual environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Many components in our environment must run isolated on a dedicated server. For that purpose we now have more than 100 servers running on a virtual platform</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Execution servers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Automatic test is executed on 40+ execution servers (typically 4 CPU and 8 GB memory) running five different operating systems</td>
</tr>
</tbody>
</table>
Service levels

Perennial guarantee

Error correction
12 years track record: Two releases of SimCorp Dimension every year
Benefits of the semi-annual release cycle

- Access to new functionality
  - Enhancements included in the maintenance fee
  - New sales modules

- Technical upgrades ensure infinite life time of SCD

- Yearly upgrades are cheaper than irregular upgrades after longer periods

- Yearly upgrades are faster than irregular upgrades after longer periods

- Be Ready for Change
Product Management

Input for development in new releases
- Corporate strategy
- “Need-to-have” (legislation changes)
- Domain strategies
- Market unit strategies
- Platform improvements
- Market research

Product management prioritizes the requests via business cases
- The result: long and short term product plans for SimCorp Dimension across all domains
Release 4.9 overview

Theme: Regulatory compliance

In the wake of the financial crisis, current and proposed regulations from government and international bodies have forced the way that banks do business. This has had a significant impact on the investment management industry. With unprecedented regulatory scrutiny and the expansion of new local and international standards, it is a vital task for investment management organizations to understand and implement regulations in a timely manner. The Investment Management Association has made significant progress in this area. This guidebook is designed to help your investment management team to understand and comply with the new compliance regulations, enabling your team to be more efficient and effective in performing their duties.

System Environment

- Portfolio Management
- Trading
- Settlement
- Accounting
- Connectivity

Transaction processing and holdings
Market data and securities
Booked values, P&L and market evaluations

Financial Instruments

- Compliance
- Risk Management
- Performance
- Fund Accounting
- Reporting
Sensitivity key ratios in the Asset Manager

Sub-fund accounting framework can be added to FO holdings

Want to learn more?

Asset Manager – Historical browsing

FX forward simulations

Simulation filter

Broker Algorithm

Profit/loss figures in the Asset Manager

Asset Manager – Modelling client restrictions

Trading

New module

Why use the Broker Algorithm Module?

- Single platform for equity execution - cash, program and algorithmic
- Sophisticated solution using the latest market standards
- Open and transparent cost structure and strategies
Technology Platform Roadmap

- The reference for future platform changes
- Updated twice a year
- Available from your account manager
- Also available on the SimCorp Web Support site
Graded platform support scheme

<table>
<thead>
<tr>
<th>Platform Technology</th>
<th>Rel. 4.7</th>
<th>Rel. 4.8</th>
<th>Rel. 4.9</th>
<th>Rel. 5.0</th>
<th>Rel. 5.1</th>
<th>Rel. 5.2</th>
<th>Rel. 5.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows XP – 32-bit</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows XP – 64-bit</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Vista – 32-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Vista – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows 7 – 32-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows 7 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows 7 SP1 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2003 R1/R2 – 32-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2003 R1/R2 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2008 – 32-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2008 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2008 R2 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Windows Server 2008 R2 SP1 – 64-bit</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>XenApp 4.5</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>XenApp 5.0</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>XenApp 6.0</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>XenDesktop 4.0</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>XenDesktop 5.0</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Oracle 10g R2 Standard</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Oracle 10g R2 Enterprise</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Oracle 11g R2 Standard</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Oracle 11g R2 Enterprise</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Microsoft .NET Framework 3.5 (SP1)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Microsoft .NET Framework 4.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Internet Explorer 6.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Internet Explorer 7.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Internet Explorer 8.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Internet Explorer 9.0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Unicode, UTF-8 and UTF-16</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
What is part of maintenance and support agreement

**The perennial guarantee – SimCorp maintains SimCorp Dimension in order for it to remain updated with the market requirements and the requirements of SimCorp’s clients**

**Benefit from SimCorp’s R&D spending on 24% of revenue which for at large part goes to maintaining SimCorp Dimension**

**Each of SimCorp’s clients has a right to receive new upgrades of SimCorp Dimension. On an annual basis SimCorp releases two new versions, one in February and one in August**

**By following the release cycle clients do not have to engage in a costly and time consuming re-implementation of the system**

**Clients have the right to receive support in accordance with an agreed service level agreement. Includes hotline, error handling and correction**

**SimCorp has local support centres in each market region**

**Clients have access to de-central development capacity**