

Capgemini's next generation Application Management Platform

Business Aware, Future Proof



Introduction

Companies and other large organizations face a growing number of opportunities and challenges, which require their IT function and its services to become more 'Business Aware' and 'Future Proof' to deliver on market-oriented objectives such as:

- Offering a superior value proposition and service levels to their end customers
- Reducing time-to-market responding to changing consumer behavior and the need to support multiple channels-to-market
- Accelerating access to opportunities from globalization based on a relevant value proposition, while maintaining a prudent cost structure, etc.

Large organizations often have a siloed and vastly heterogeneous application landscape, which results in IT management and business performance challenges. In order to remain competitive, businesses constantly need to control costs, so that the IT organization must be prepared to deliver more with less. This dual objective is attainable only if firms realize cost reduction combined with innovation (aligned to the strategic intent of the firm) as two sides of the same coin.

Capgemini's next generation Application Management Platform

Capgemini's next generation Application Management (next generation AM) Platform is a business process-oriented, industrialized approach to application management that delivers:

- 'Always-On' availability to execute business transactions
- Pervasive cost reduction
- A 'Business Aware' and 'Future Proof' IT landscape

Our next generation AM Platform recaptures the essence of why applications were implemented in the first place—to deliver business transactions. It reduces the need for expensive external transformation which are often not based on practical insights from day-to-day execution.

The Capgemini next generation AM Platform enables clients simultaneously to capture business value from next-gen industrialization and transformation. It is implemented in accordance with Capgemini's Collaborative Business Experience™ model, which yields better, faster, and more sustainable results. Crucially, it does not adopt the 'rip-and-replace' approach to your existing investments.

Capgemini's next generation AM platform has **four pillars or facets**. The pillars incorporate a judicious blend of IT execution and business-IT strategy to ensure the optimum levels of next-gen industrialization and transformation value delivery in client engagements. These pillars and their respective elements are deployed and adapted to deliver a value proposition consistent with the needs of each client engagement

01 Increased Effectiveness in IT Service Delivery and pervasive Cost Reduction



Speed-to-Value Levers

The four pillars are backed-up by a broad range of Speed-to-Value levers that add substantial business benefit compared to the traditional application management approach. Our next generation AM Platform deploys several Client Collaboration Assets that help us shape a value proposition, relevant to each client with depth and rigor. Capabilities of the Speed-to-Value Framework and tools span:



Qualitative value proposition shaping (available for iPad)

Aligned to individual client context and business needs



Quantitative modeling (speed-to-value tool)

To enable monetization of cost reduction opportunities (beyond savings from traditional managed services) and benefits from IT transformation



Client simulation functionality (speed-to-value tool)

using "drag and simulate" (abstracting complexities) to visualize the impact of various measures



These tools encapsulate ~60 automation tools across:

IT Input = reduction or elimination of labor / resources +

IT Output = simplification & technical debt reduction and delivering incremental business capability +

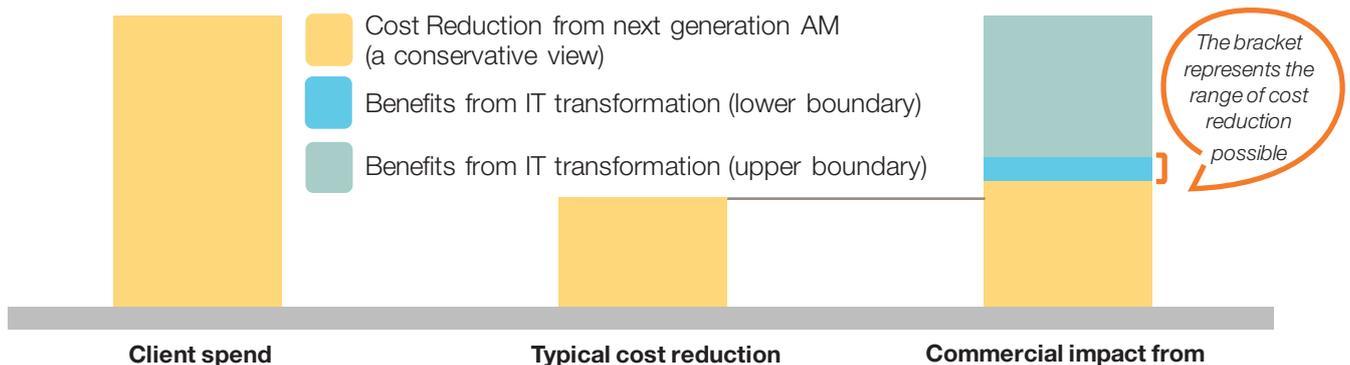
Business Outcomes = to ensure that business transactions run without loss of a heart beat

These levers are implemented in accordance with the findings from the Client Value Discovery sessions supported by our portfolio analysis and insight tools such as **economic Application Portfolio Management (eAPM)** and the **Wide-angle Application Rationalization Program (WARP)**. The following diagram illustrates the typical value realization from the speed-to-value levers over the span of a client engagement.

Capgemini's next generation Application Management Platform

In accordance with the client's business needs and buyer values, next gen AM 3.0 delivers 3 times the commercial impact per € or \$ of existing client spend from:

- Increased Cost Reduction
- Structural Cost Reduction (from improvements to reduce costs beyond those based on labor arbitrage), and
- Monetization of benefits from practical IT transformation



Description of Capgemini's next gen AM Platform

Pillar 1: Increased effectiveness in IT Service Delivery while realizing pervasive Cost Reduction encompasses:

(a) Smart Organization Model

A choice of an appropriate service strategy is made for each part of the IT portfolio e.g. Manage-Maintain the application landscape, Custodial Model for low-care applications, etc. based on the portfolio characteristics. This in turn, drives the build-out of Service Design and Service Operations. Based on the business requirements, organization transformation initiatives (staffing structures, capability building) are incorporated in developing the Application Management Target Operating Model (TOM).

(b) Improvements in operational processes and rigor

Capgemini's Swift Sustain and EzTrans Transition Methodologies map stakeholder drivers and any changes in commitment levels required to establish the enabling environment for service transition. This is followed by analysis of the client's IT portfolio using our eAPM/WARP tools, so as to provide inputs for (a) the development of the Transition Solution and (b) the transformation needs of the IT Portfolio. Focused Transition Methods are deployed for in-flight projects and product applications that have a release-based requirement.

Approaching steady state, Capgemini's *AM-In-a-Box* and *Service-Management-as-a-Service* (SMaaS) toolkits enable engagements to jumpstart quickly from a library of process definitions, work practices and procedures. Delivery assurance is secured by rigorous adherence to Capgemini's PointZERO® full lifecycle approach (to eliminate defects at source) and Delivery Assurance Program Frameworks (to address business risks). Capgemini's 10 Lean Foundations ensure that all client engagements become increasingly efficient over time. Elements of Capgemini's Continuous Improvement Framework are used to recommend and implement ITIL process standardization and test process improvements using Capgemini's TMap NEXT® - Test Management Approach.

(c) Reduction in maintenance effort due to an uplift in the quality of the baseline

Capgemini leverages its investment in Application Intelligence tools (such as CAST and others) to proactively scan application code and understand the Technical Control Flow required to support code modifications and drive enhancements in the functional documentation of applications.

(d) Improved resolution effectiveness aided by automation

Automation of Application Management activities and pervasive instrumentation across the depth of the IT stack provides client organizations with the ability to improve resolution effectiveness and Service Integration experience. This is complemented by Service Operation procedures that incorporate monitoring, development of SIPs based on Failure Mode and Effects Analysis (FMEA), Root Cause Analysis (RCA) and Lean Sigma. Automation and monitoring solutions are linked to Alert and Event Management methods and procedures to drive resolution effectiveness and reduce the volume of work for Application Management teams.

Our approach to Automation involves the structured application of a subset of our ~60 in-house developed and market tools. These tools have been proven on engagements and leverage the latest technology such as Artificial Intelligence, Robotics, Autonomics, DevOps and Application Performance Management.

Caselet #1: For a leading North American manufacturing client, the EzTrans Transition Methodology involved assessment of code quality and identification of hot spots during transition. A total of 109 interface diagrams were developed and automation was deployed which resulted in an 80% reduction in high-priority incidents and a 60% reduction in Middleware exceptions.

Caselet #2: For a leading European retailer, 300 reports were generated using an in-house tool across their global operations. The queries took between 8 and 48 hours to execute. The same queries were re-engineered to execute in 2 to 10 minutes, thereby delivering substantial performance improvements.

Caselet #3: For a leading North American consumer goods client, a monitoring solution was implemented across their portfolio spanning multiple technology platforms. Over 80% of the monitoring checks were automated. This resulted in more than 60% improvement in productivity.

(e) Work volume reduction

In Capgemini's next generation AM engagements, instrumentation deployment is used to drive shift left resolutions. Preventive maintenance efforts and proactive initiatives such as vulnerability analysis, reduction in redundant inventory items, and reduction in compute power requirements are implemented, to reduce the volume of work.

Pillar 2: Service Integration and Experience is driven by the following elements:

- a) Organizational Model: a Business Service Integration approach is driven by an Integrated Service Management Office and focused management of the Service Catalog
- b) An integrated Service Desk is established to avoid issues from going back and forth between resolution teams, to provide holistic outcomes and improve First Call Resolution (FCR)
- c) Widely deployed instrumentation provides metrics-based Service Performance Management covering all Service Providers in the IT landscape, and drives fix-before-fail resolutions
- d) Distributed Digital Delivery dashboards help foster cross-location Application Management team collaboration

Pillar 3: Improved Effectiveness of Business Processes

Traditional IT metrics such as SLAs, often leave business stakeholders with the feeling of "metrics green but experience red". Remediation of this situation requires that IT service providers improve their business alignment with the client's requirements while enhancing IT effectiveness simultaneously. As a first step to realize this, IT actions are aligned to the Business KPI Tree, to incorporate the relationship between business and IT metrics that reflect the in-flight health of business transaction instances —at Capgemini, we call the latter SMART AM KPIs.

Business Process Focus to improve outcomes

Business Process Focus commences with the development of strategic principles to guide the definition of the future state of the IT landscape and business processes. This is followed by creating Business Capability Maps for each Line of Business (LoB) to understand the number of applications servicing each business capability from which insights are developed for potential optimization. Thereafter, Priority Business Capabilities (and key business processes within these capabilities) are identified using composite scores across multiple perspectives. Simultaneously, inputs from Customer Advocacy methods are also used to identify and select Priority Business Capabilities and business processes. After this, an analysis of the execution effectiveness of business processes is undertaken followed by the development of SMART Application Management KPIs and other relevant business metrics. These KPIs are measured based on 'inside-out' and 'outside-in' insights, so that solutions can be proposed aligned to (a) Operational improvements, (b) Improvements that require joint actions with the client, and (c) Improvements that require investment in technology including SMAC and Internet of Things.

Caselet #4: For a leading North American financial services client, use of autonomic resolution methods across a range of service interventions resulted in:

- 90% savings on tasks related to Reporting Incidence and Restarting Servers,
- 90% savings on Database Query to fetch records and notify admin tasks,
- 60% savings on tasks related to checking connection to multiple databases, and so on.

Caselet #5: For a leading European financial services client, the use of integrated real-time dashboards resulted in 50% reduction in the monitoring efforts for the Statement Execution process.

Caselet #6: For a leading global manufacturing client, the following results were delivered:

1. Erroneous Stock Replenishment requests led to downstream issues in the central Stock Planner; fix-before-fail solutions were deployed, leading to a 50% increase in processing efficiency
2. The rate of availability of critical information (correct Replenishment Orders) was improved by 15%, enabling the Customer Support staff to service DSAs effectively
3. The product availability on e-Commerce site was increased by 16%.

Based on the Portfolio Analysis and insights derived from deploying the Capgemini eAPM and WARP tools, combined with the work related to Business-IT TOM referenced above, Application Development Factories can be established to realize the Point of Arrival (PoA) Application Landscape. These factories can be set up to cover enhancements, report development, interface development, SAP Advanced Business Application Programming (ABAP) development etc. Application Rejuvenation Factories (across a range of patterns depicted below) can also be implemented to realize the Point of Arrival Application Landscape.

These factories are staffed with core-flex teams covering relevant pools of Estimators, Business Analysts, Architects and Designers. DevOps and Agile best practices can be incorporated into these factories to improve the accuracy and dynamism of Builds and Releases. These factories also serve to aggregate demand, harness synergies (taking into account the business-IT context) and deliver productivity gains. These gains result from the deployment of best practices around people, process and tooling and the re-use of strategic business-IT components to reduce time-to-market while realizing rapid cost reduction.

Retain pattern

<p>Sustain</p>  <p>Keep the application 'as is' with minimum new capability development and cost</p>	<p>Reduce</p>  <p>Reduce functionality in the application by enabling the same functionality elsewhere</p>	<p>Consolidate</p>  <p>Reduce duplicate applications by driving functional technology based consolidation of application while creating new capabilities</p>	<p>Expand Services</p>  <p>Componentization to expose services and reduce coupling with infrastructure/ data representation to improve flexibility</p>	<p>Build</p>  <p>Green Field Development/ leverage the best instance and add new capabilities</p>
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Remediate pattern

<p>Version upgrade</p>  <p>Undertake a technology version upgrade of the application</p>	<p>Web enablement</p>  <p>Web interface development to a legacy application without changing the host</p>	<p>Wrapper development</p>  <p>Wrap & expose business logic within a legacy application for use by modern programming environments such as, J2EE .NET</p>	<p>Re-platform</p>  <p>Move the application to a modern platform with superior environmental capabilities</p>	<p>Re-engineer</p>  <p>Reverse engineer business logic from a legacy application, and undertake business process transformation to build a modern application</p>
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Retire pattern

<p>Migrate</p>  <p>Undertake Functionality and/or Data Migration of an application (perhaps to decommission it) to a target application</p>	<p>Decommission</p>  <p>Retire the application in a controlled manner, while preserving essential data</p>
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Capgemini's next generation Application Management is backed by Client-Centric Commercial Models

Different commercial models can be designed using the findings from individual Client Value Discovery sessions to ensure that: (a) pricing is linked to the client's value drivers and usage patterns, (b) opportunities are exploited to self-fund transformational efforts, (c) opportunities to transfer spend from Capex to Opex are included, (d) any commercial implications of Change Management are business-friendly, and (e) Win-Win client vendor relationship management arrangements are incorporated to accelerate the realization of transformational benefits and deliver structural improvements to the IT landscape.

Bringing it all together, our approach combines various facets of next-gen industrialization (Organization Structure Models, Process, People and Automation) leading to deeper and more effective cost reduction. These combined with the benefits from IT transformation, **helps us deliver substantially more commercial impact per \$ or € or £ of existing client spend.**

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About Capgemini

With 180,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2014 global revenues of EUR 10.573 billion.

Together with its clients, Capgemini creates and delivers business, technology and digital solutions that fit their needs, enabling them to achieve innovation and competitiveness. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

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Capgemini's next generation Application Management Platform

Capgemini's next generation Application Management Platform is a business value-oriented, industrialized approach for managing client applications that provides always-on business transactional capability while pervasively reducing costs by creating a business aware and future proof IT application landscape. Already deployed across multiple sectors, Capgemini's next generation Application Management Platform is proven to increase the effectiveness of clients' business processes, provide them with superior Service Integration and deliver a better customer experience.

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