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THOUGHT LEADERSHIP REPORT
ON BEHALF OF AMDOCS

B2B USER EXPERIENCE DIGITALISATION

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EXECUTIVE SUMMARY

The characteristics of the digitalised interface between Communications Service Providers and consumers are becoming well known and are being aggressively implemented in many CSPs.[1] But the definition of the equivalent for the enterprise customer is not yet well understood. Analysys Mason conducted interviews of both enterprises and CSPs to determine the current deficiencies in the user experience, projected future needs, and mapped them against the new technologies that are becoming available. The result is this thought leadership paper that characterises our current view of the B2B (enterprise) digitalised interface of the future.

The digitalised enterprise operations environment of the future will be based on five key attributes:

- **Cloud based**: software running in public or private clouds that provides a digitalised interface accessible by the customer, partners and the CSP for input of information, what-if analysis, and status information on orders and in-place services.
- **Collaborative design:** between the DSP and the enterprise customer, since human direct interaction is still important during and after the complex sales and support process.
- **Analytics enabled**: past, current and projected future usage information will be available as part of the whole process.
- **Ecosystem aware**: the creation and consumption of the goods and services will be spread amongst the members of the entire value chain, requiring vastly increased information sharing.
- **AI powered**: Automation of most of the design, validation, and implementation of the services will be needed to reduce errors, proposal generation time, and implementation.
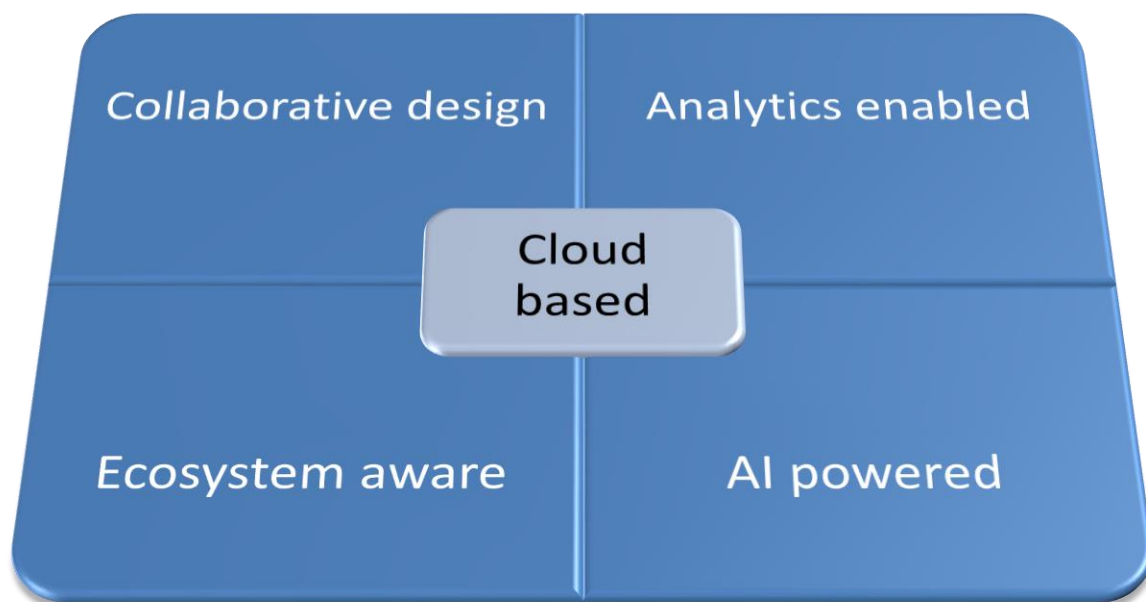

INTRODUCTION

The enterprise market provides 15% to 25% of the revenue to a CSP today, and is expected to grow considerably. This makes the enterprise market strategically important to Communications Service Providers (CSPs) as they transition into becoming the Digital Service Providers (DSPs) of the future.

There are four types of enterprise interfaces important to the CSPs. Here, we will focus only on the first:

-   Enterprise customers of the DSP who purchase goods and services from the DSP.
-   Suppliers of goods and services to the DSP for its resale (some of which may come from other, further upstream suppliers).
-   Other CSPs and DSPs for services that transcend DSPs' geographic boundaries.
-   Downstream DSPs that bundle the goods and services of the DSP with its own and provide them to other parties in the downstream value chain.

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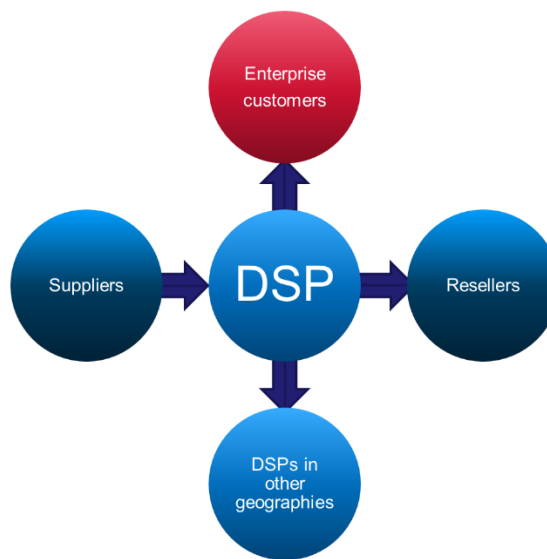
In the consumer segment, a new era of digitalisation of the user experience is well underway and is considered a matter of survival by most CSPs. The requirements of this digitalisation have been set primarily by the web-scale companies, complicated by the more complex offerings of CSPs.[2]

The requirements for digitalisation of the user experience in the enterprise market are known to be different because of the vastly more complex services that are provided to meet the more complex needs of the enterprise customers. This complicates the entire process. But, what *are* the needs of a digitalised user experience for the enterprise customers? Based on interviews with both enterprises and CSP employees involved in sales and marketing for enterprises, as well as a deep understanding of the new technologies available today and in the near future, we present here a set of key characteristics that we believe will define the B2B Digitalised User Interface of the future.[3]

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[2] See, for example, http://www.analysysmason.com/Research/Content/Comments/Digital-eXperience-index-Aug2016-RMA11-RMA15/#04%20August%202016 .

[3] A summary of these findings was presented as a webinar. Please see the Analysys Mason web site at: http://www.analysysmason.com/About-Us/News/Webinars/Webinar-B2B-digital-experience-CSPs/

KEY NEEDS OF ENTERPRISES

The evolution of BSSs is driven by the convolution of the current and future needs of the customer and suppliers, with the new software technologies that make possible new ways of operating. Here, we describe the results of surveys of the parties and the new technologies that are available now, or on the horizon, that will power the changes.

Survey results – current unmet needs

In surveys undertaken by Analysys Mason on behalf of Amdocs, 81 mid-market enterprise customers in 10 industry verticals and 30 CSP B2B sales groups were polled. The purpose was to determine the needs in offering digital and assisted engagements to address enterprise customer expectations,

ENTERPRISE SURVEY KEY RESULTS

Enterprises buy, on average, six services from CSPs, including the usual communications services of voice, data, and VPNs, as well as other, non-traditional services, but especially these three:

- IT services – cloud, data centre solutions
- Unified communications solutions
- Security services solutions

Enterprises greatly value customisation and flexibility – it is more important than price. But this customisation increases the complexity of the interactions, leading to 20% of the enterprises waiting over a month to receive and initial sales quote and 50% needing multiple iterations to get the right proposals. Even then, 50% of the enterprises encountered problems when receiving services from their CSPs – the wrong service, or a bill that did match the service delivered.

Enterprises want more agility and faster additional of new services and features.

Real-time offer creation of virtualised services are expected to be necessary in the B2B space in the future.

CSP SURVEY KEY RESULTS

Increasing the win rate is more important than margin. Greater agility could decrease revenue loss from enterprise customers by over 10%.

The sales systems are viewed by CSPs as the major challenge in B2B. 60% of enterprises need multiple iterations to get the right proposal, taking too much time, with 37% of CSPs thinking that custom elements are the main culprit in extending the proposal time.

COMPARISON OF SURVEY RESULTS

The results of the CSP and enterprise surveys track one another well, with one clear exception – the desirability of self-service by the enterprises. Most enterprises want some self-service – flexible control over their service plan and usage across their business - but one-third of CSP sales executives strongly believe that it would be unwise.

CSPs that provide basis self-service portals provide order tracking information, a dashboard of real-time billing information, and self-ordering of simple services.

But 25% of CSPs think that face-to-face is indispensable and 47% of the enterprise customers say they prefer assisted channels during the sales process.

These speak to the need for the sales part of the solution to be a collaborative one between the enterprise customer and the CSP sales and engineering staff, instead of pure self-service.

Expected future needs

As CSPs move more towards meeting the overall ICT needs of enterprise customers, their mix of services will continue to be enriched with new services and products from third parties. To achieve agility in these offers, faster partner onboarding (which now takes over six months in most cases) and updating of offers will be necessary, as well as more digitalised trading interfaces for ordering, usage analysis and projections, and order and service status.

Technology directions

We see several key technology directions that will enrich the solutions that are deployed for B2B interactions over the next five years.

| Key technology directions in the next five years	
Big data analytics providing service-level information	*Giving information about a specific part of the network and service that is related to that customer or partner.*
Robust inter-company interfaces for interconnection of ecosystem partners and customers	*Similar to cloud service broker functions of security and entitlements and the ease of defining and implementing software interfaces.*
AI-driven software for design of customer networks and services	*Replacing the human engineering work, moving it up front in the sales process, rather than taking a month to do it and then feeding it back.*
Methodologies for structured specification of network and IT services	*Yang and other technologies providing structured specification of virtual and physical network functions, allowing more structured capture of customer needs and automated designs.*
Virtualized network slicing for highly customized, dedicated solutions	*In the future, virtualised network slices can be dynamically allocated to specific customers and specific services in complex ways. These can be put under the direct control of the customer.*

CHARACTERISTICS OF THE FUTURE DIGITALISED ENTERPRISE OPERATIONS ENVIRONMENT

Given these key needs and the technology directions, we anticipate that the digitalised operations interface of the next five years will be defined by five key characteristics:

- The operations will be on-line and cloud based, available to the enterprise customer as well as the CSP sales and engineering personnel. They will be acutely aware of security and entitlements of the various participants.
- The systems will be intrinsically collaborative in design, allowing individual as well as joint work between the parties. In particular, the identification and ordering phases of complex offerings will require substantial collaboration.

- The entire process will be enabled by advanced analytics, identifying current and future usage patterns, probable available resources and performance characteristics for the pre-sales stages, and real-time network data for the delivery and support stages.
- The systems will be powered by AI-enabled automation, providing sophisticated alternatives that will operate open-loop to support the human collaboration component of the pre-sales process, and closed-loop in the delivery and support processes.
- The systems will be acutely aware of the fact that the offers don not come from a single vendor, but are an orchestration of multiple providers in overall ecosystems. This will require sharing of information in real-time as well as automated on-boarding of new ecosystem partners and their new offerings.

These five key characteristics will be evidenced in many places of the overall enterprise customers' experience as shown in Figure 4.
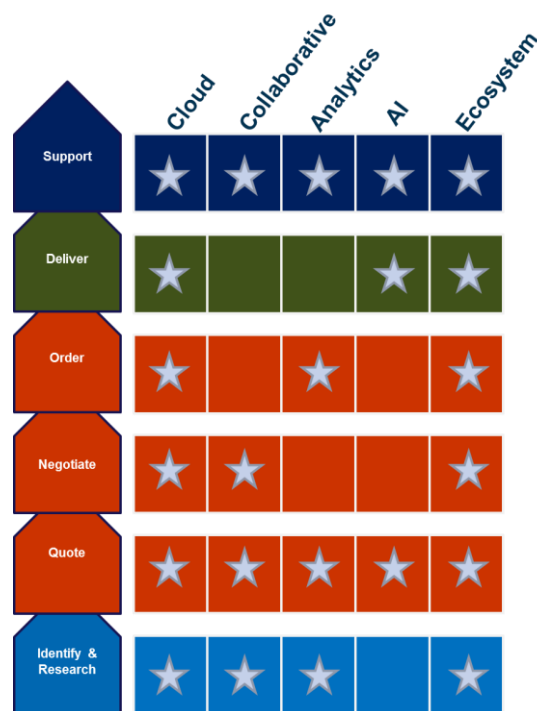
These characteristics will influence the design of the feature/functionality of the systems themselves, the user interfaces for the DSPs and, especially in the future, the user interfaces for the enterprise customers and the DSP's ecosystem partners. Analysys Mason is not engaged in defining a set of criteria for measuring the degree of digitalisation of the enterprise operations and will be using these criteria to define an "Enterprise Digital eXperience Index" (E-DXI) as a companion to its current consumer-focussed DXI.

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