

2017 Annual Meeting of Members

Welcome – we will begin in a few minutes



2017 Annual Meeting of Members

Welcome

Today's Agenda



- Chairman's Introduction
 - Motion #1: Minutes of last Annual Meeting of Members (AMOM) meeting
- Introduction of Directors
 - Motion #2: To appoint Directors
- Financial Report
 - Motion #3: To appoint Auditors
- Annual Report
 - Forum strategy, progress of key strategic programs and outlook for the next 12 months
- Q&A
- Any Other Business

Motion

Propose that the available minutes shall be taken as a true and fair record of the Annual Meeting of Members held on November 9, 2016.

Proposed: David Pleasance, *TM Forum ChairmanSeconded*: Nik Willetts, President & CEO, TM Forum

Note: Only Principal contacts may vote. Please do not vote again if you have already placed your vote via the online survey.

Role of TM Forum Board of Directors

tmforum

- Provide leadership
- Set strategy and vision
- Balanced to represent membership
- Providers and enterprises hold a majority seat
- Act as Trustees of the corporation
- Directors hold a seat on the TM Forum Board for two years

Proposed Board Slate

Alpna Doshi

Royal Philips

for 2 year term

Renewed in 2016

Group CIO, Business

Transformation & IT

Returning Officers

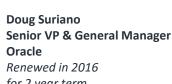


Jane Chen **Chief Information Officer ZTE Corporation** Renewed in 2016 for 2 year term



Harmeen Mehta **Global CIO Bharti Airtel** Renewed in 2016 for 2 year term





Michael Lawrey

Renewed in 2016

CTO & Vice President

for 2 year term

Haiping Che

Huawei

Independent

Renewed in 2016 for 2 year term

Former Chairman TM Forum



Bhaskar Gorti President of **Applications & Analytics** Nokia Renewed in 2016

for 2 year term



Bob de Haven General Manager, Worldwide **Communications & Media**, Microsoft Renewed in 2016

for 2 year term





David Pleasance Deloitte/Independent Chairman, TM Forum Renewal of Appointment

Renewal of Appointment

New Officers







Steffen Roehn CIO & Advisor **Reliance Jio** New Appointment

New Appointment

Gary Miles

Amdocs

BT

Chief Marketing Officer

New Appointment

Rachel Higham



Thierry Souche Group CIO Orange Group New Appointment





Nik Willetts **President & CEO** TM Forum

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Olga Martynov CFO TM Forum



Motion

Propose that the eligible Members present hereby ratify the appointment of the persons listed on the TM Forum website to serve on the Board for a period of two years, and shall be Trustees under the laws of New Jersey.

Proposed: David Pleasance, *TM Forum ChairmanSeconded*: Michael Lawrey, Chair of Finance & Audit Committee

Note: Only Principal contacts may vote. Please do not vote again if you have already placed your vote via the online survey.

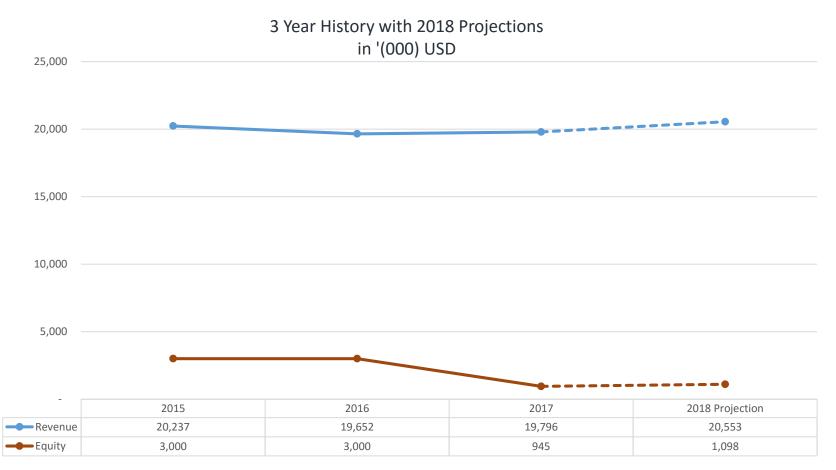


Financial Report and Appointment of Auditors

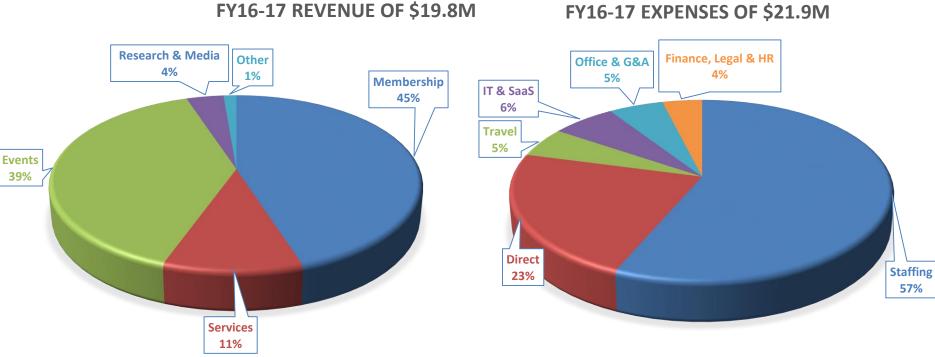
Olga Martynov, CFO Treasurer and Secretary to the Board

TM Forum Revenue and Member Equity





FY 16-17 Sources and Uses of Funds



tmforum

Balance Sheet



	September 30, 2017	September 30, 2016
Cash & Investments	3,840,066	5,017,656
Net Accounts Receivables	4,420,582	4,042 <mark>,</mark> 677
Net Fixed Assets	1,608,808	1,406,358
Deposits & Prepaid Expenses	1,367,722	778,260
Total Assets	11,237,178	11,244,951
Accounts & Taxes Payable	937,905	579,767
Deferred Revenue	<mark>6,960,156</mark>	6,855,978
Future Expense Accruals	990,739	515,660
Total Liabilities	8,888,801	7,951,405
Total Member Equity	2,348,377	3,293,546
Total Liabilities & Equity	11,237,178	11,244,951 _©

Audit Report

- tm**forum**
- The 2016/17 Audit was completed by our external auditors at Smolin, Lupin, & Co., PA
- Auditors expressed "unqualified opinion" which confirms that Forum's financial records and statements are fairly and appropriately presented, in accordance with Generally Accepted Accounting Principles (GAAP).
- The audit opinion was clean meaning no material misstatements and no material adjustments to the financials
- Management has signed the representation letter, stating that all material provided to the auditors is complete and accurate
- The audit report is available to members by request to the CFO omartynov@tmforum.org

Motion

Propose that Smolin, Lupin, & Co., PA shall be appointed as auditors for the corporation for the financial year 2017/18.

Proposed: David Pleasance, TM Forum Chairman

Seconded: Michael Lawrey, TM Forum Director and Chair of Finance Committee

Note: Only Principal contacts may vote. Please do not vote again if you have already placed your vote via the online survey.



Annual Report 2016-17

Nik Willetts, President & CEO

Senior Leadership





David Pleasance, Chairman of the Board

Partner at Deloitte with multiindustry transformation experience and perspective



Nik Willetts, President & CEO

Experienced industry leader in digital transformation



Tim Banham MD, Member Engagement



Olga Martynov CFO



Dr Andy Tiller EVP, Collaboration & Innovation



Paul Wilson M CMO I



Mike Treacher MD, Events, Research & Media

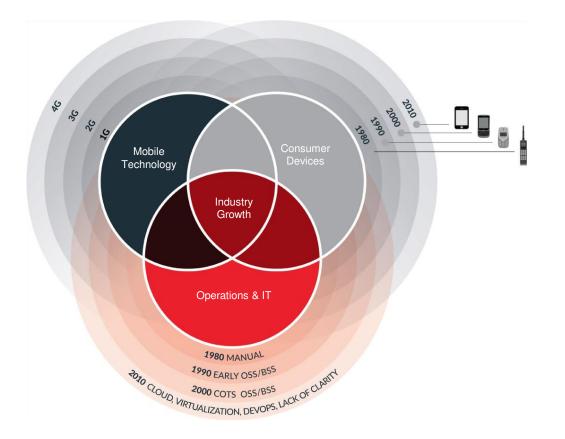


Industry Context

Nik Willetts, President & CEO

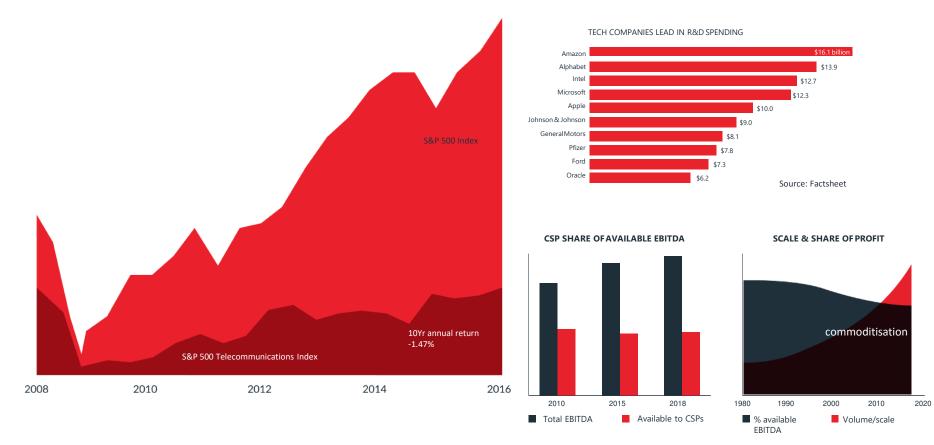
The first 4 generations of mobile followed a repeatable recipe



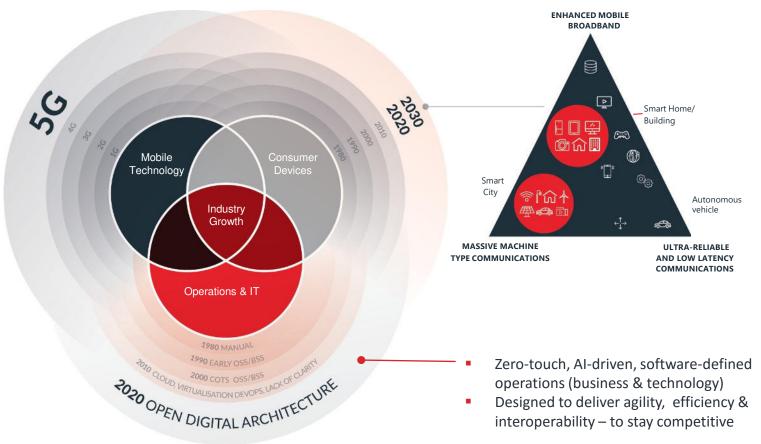


In the last decade, connectivity has become a commodity





Future success demands transformation of core operations & IT



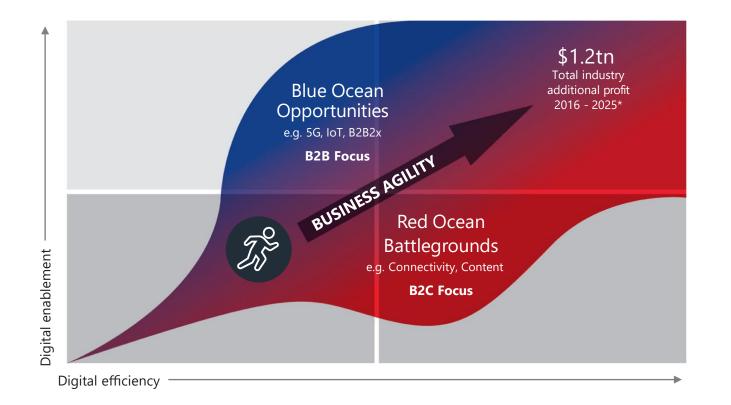
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Transformation demands a clear ambition, executed fast



Digital Ecosystem Enabler **Digital Partner Digital CSP** Traditional CSP **Digital enablement** Digital efficiency

Speed and agility are the most important factors in unlocking growth tmforum





Annual Report: Key Achievements from 2017

2017 Achievements: Open APIs deliver interoperability & agility 50+ Open APIs, supported and used by 680+ members & 4,600 professionals



35 Open API Manifesto Signatories

2	2					Ор
Accenture High performance, Delivered.	airtel	amdocs	Atos	axiata	вт	API
cenx	cerillion	中国移动 China Mobile	China unicom@ilituil	e Enterprise Web		API
					ERICSSON	Cor
Otiya	EXFO	Globe	HUANNES	IBM	infonova BearingPoint.	Ind
Infosys	mycomosi	🔗 MyRepublic	Netcracker	() NTT	ORACLE.	API
II IIOSyS Ingcomosi	- i di di un	and Hercideker	ONII		Op	
orange"	SIGMA	sigscale	TATA CONSULTANCY SERVICES	ប TELFLOW	Telefónica	Ser
TELSTRA	SYSTEMS Inc.	GVlocity	vodafone	ZTE中兴		M by

Open API growth	2016	2017
APIs published	28	52
API manifesto signees	14	35
Companies using	200	680+
Individuals using	1,400	4,600+
API community	0	24,000
Open Hacks	3	5
Service Provider Markets	0	27

MEF's APIs for LSO accelerated and underpinned by extending TM Forum Open APIs

2017 Achievements: Catalyst Program Grows in Breadth & Depth

- 120+ unique participating companies in rapid-fire collaborative proof-of-concept program, addressing the industry's most pressing problems
- 32 Catalyst Projects delivered at TM Forum Live in Nice, May 2017
- 9 Catalysts Projects delivered at TM Forum Live in Singapore, Dec 2017



2017 Achievements: Smart City Digital Ecosystem Development tmforum

100+ organisations signed City as a Platform Manifesto & **1,000+** people attended Smart City In Focus, Yinchuan City as a Platform Manifesto Signatories





2017 Achievements: Other Collaborative Programs



- Zero-touch Operations, Orchestration & Management
 - Design guidelines for Customer, Service, and Resource Management Platforms (including Hybrid Infrastructure Platform)
 - Best practice guides: On-boarding automation packaging using TM Forum Open APIs to implement Platforms
 - Support for ONAP R2 Beijing and R3 Casablanca Release
- Customer Satisfaction & Data Analytics
 - 500 new metrics developed & Big Data Analytics Solution Suite updated for personalized services in CX
 - Guidance on analytics in customer lifecycle model, customer sentiment, and non-animate "Things" as users
- Internet of Everything Management
 - Open IoE Community now has 41,500 members
 - Business Assurance working group has re-imagined Revenue Assurance and related practices in the context
 of Internet of Everything and the Digital Economy



2017 Achievements: TM Forum Live! 2017









2017 Achievements: 75,000 readers of monthly research reports and daily market analysis tmforum



TM Forum Case Study Handbook 2017 – Digital business: How to make the leap



5G: IS PLATFORM

THE KILLER USE CASE?

AI: THE TIME IS NOW DECEMBER 2017

> ı, Chief Analyst <u>prum.org</u>

Managing Editor orum.org

IUNE 2017



DIGITAL TRANSFORMATION TRACKER 1: THE RACE IS ON June 2017 | www.tmforum.org

Microservices: Piecing together a strategy

2017 Achievements: A firm membership foundation



- Member retention is up at **89%** in 2017 vs 80% in 2016
- Net promoter score is up at **23** in 2017 vs 10 in 2016
- Service Provider engagement increased and vendor engagement remained solid

Notable new joiners this year:

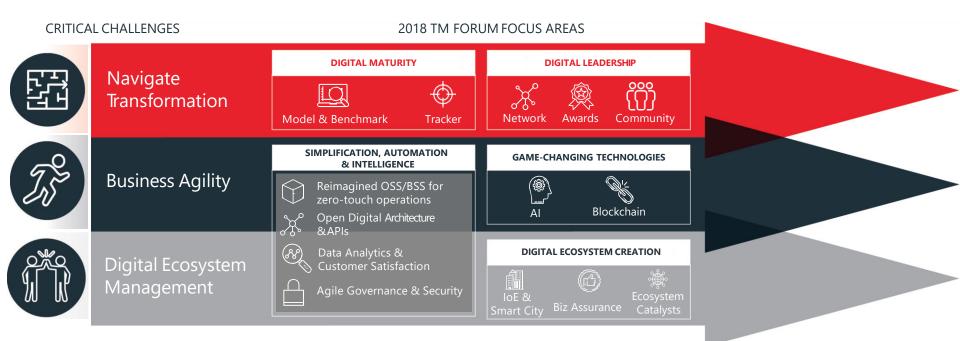




2018: It's Time to Transform our Industry

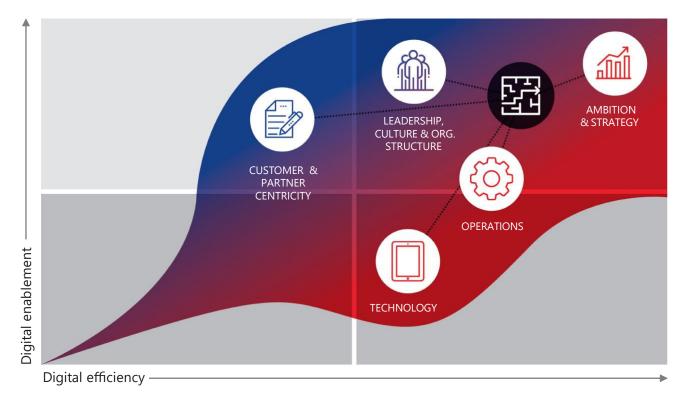
Our focus for 2018: Driving rapid transformation of operator agility & efficiency





1/5 Digital Transformation – it happens in concert, not silos





OUR DIGITAL MATURITY MODEL HELPS GUIDE THE WAY

1/5 Digital Maturity Model – developed by industry, for industry

Robert Walker - UAT Organization 1 - Leader Endorsed by													
Browser & tablet Survey	Evidence				а	• amdocs	BearingPoi	nt. B	r 😥	P国移动通信 CHINA MOBILE	P +		China unicom中国联播
delivery with analysis & 'heatmap' output	You are responsible	for parts of this section. Touc	ch to change	-	De	eloitte.				orange	PCCWG	ilobal	ΤΛΤΛ
Customer Engagement	IMPORTANCE	AS-IS CAPABILITY	TO-BE CAPABIL	ITY	G	THE GC INDEX*	vodafone						
1.1.1 The customer experience is personalized based on past digital navigations, history and interactions with the organization	4	3	5	· .									
1.1.2 Targeted and relevant customer content is delivered through sophisticated analysis and marketing techniques	4 	3	5 - Automated p			Mi				¢¢		ŶţŶ	
1.1.3 The organization makes it easy for customers to personalize their experience themselves across multiple digital channels and devices	5	3	processing of m moves in custor interacting on pr	Customer		Strategy		Technology		Operations		Culture, People, Organization	
1.1.4 A range of digital tools are provided for customers to personalize their experience	4	2	to-be preferred (Customer Engagement	Communicates and interacts with bage bid customen through these of personalised content, including have customers interact with avails bie products and services.	Brand Management	Develops and realistains a consistent, differentiating, and transactivy transf across digital channels.	Applications	Manages and to and mobile, virtual weinble and devices paper of one used to support digital strategy and business processes.	Agile Change Management		Culture	De free and with Mine cognitorial behaviors to Mello, attac, vitan, Immodia facos, etc. (A. calars) tonal asthe digt als antomation strategy and initiation.
1.1.5 The organization makes it easy or seamless for the customer to interact or do business, using different methods online or on mobile	5			Customer Experience	Provide accenteries with a reveating, positively not high provided const- sources, and integrated const- chancel experiences accenterios and places.	Ecosystem Management	Analyses internel and esteened basiness and spars ling conditions, indeding therms has, tobaid essaysteems collection in the spin- extended schwarks the digital portfolio, while shw log common geals.	Comected Things	Support adovelopmentand integration of consultation/justs (regardings of mobility state) and and/caferinter rail and minimal abilabilities.	Automated Resource Management	Antoneo has by banching, in grant forwards a discussion discussion of the second secon	Leadership & Governance	De from ancientablishes inscire ship, gowernerou, a cocurrite billing commercing, inclusion rights, sporescening, incoset ion focus, etc. to facilita the safety and manufarg the object transformations long and billions.
1.1.6 All customer interactions are conducted across digital channels	5		++++	Customer Insights& Behaviour	Or inst halves white stilled highly around catement where stilled highly denot equal takes and quark take of bothque halve and quark take defance ros.	Finance& Investment	Optimizes the financial (Asseminant management for cigital strategy development and association to any coprobation development, build a digital association of the an digital association of the many the inclusivy peen, but also many the inclusivy peen, but also	Data & Analytics	Utilizes androwegias its data efficiently and efficient by to the insightburnalytics and support is appreciations in its watch legisland regulationy requirements.	Integrated Service Management	htegrated service management provides and maintains a single parts of htegratic from for a source to perform their actions. It supports the continuum from full services to self-service.	Organisational Design & Talent Management	Colifere moleculabilities the organizational foundation, briest menugementprocesses and organization temporar the digital banador mation strategy
				Customer Trust & Perception	Pocar onhigh carlonwr confiderc e I ewi pleod on thorgenia tionto de liwr apinte sync ted sindrafed o' qarky acorroy, aecarby andprivosy negonability.	Market & Customer	Utilite aprocesses and tools to gein He algences bout the market, competition moleculares, and apples the information to digital efforts.	Delivery Governance	Hen welldcos mented guide lines, procedures, rules and atender de to drive both 17 dievelopment and deployment.	Real-time Insights and Analytics	Pard degeneticities and states of the spectra to a characteristic balance and the she de- operation and states and the she de- densities and states and states and destination and states and states and destination and states and states and and the states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and and states and states and states and states and states and states and and states and states	Workforce Enablement	Defines enclassible has the computeric as invariantly, shifts and hords to encyclower the autority service employees and their party service providers, to work calculaters have most effectively and the shifty.
 First industry-agreed digital maturity model, launched May 2017 5 dimensions, 28 Sub-dimensions, 179 criteria Training tools and partnership options now available 				8		Partfolia, Ideation & Innovation	Define a sof focilitates sigital incontinuinto producto, processe, and financial outcomes.	Network	Ensures that noise of structures is focused on increasing aging acade ing, as caring noise of what is a loss of a structure of or.	Smart and Adaptive Process Management	Rest Constanting Congression and the approximation of the second strategic of		
			vilabla			Stakeholder Management	While the digital status energy digital supplements on digital energy energy as half between general contrast the status energy and the status energy and derived the transmission of the status energy and derived the status energy and the status energy and digital end and the status energy and the status energy and the status end and the status end of the status end of the status end of the status end of the status end of the status end of the status end of the status end between the status end of the status end of the status end between the status end of the statu	Security	Flam for an dynamit wij a ddrawn cyfer thrans, winn obl tin, and as carly yn cymfaron regainmerto Deb bliefen as er yn ffen toge te a coes to a nell wedda ard rythen	Standards and Governance Automation	Ina digital enterprise, standards andgovernance activities a state of cognitivities menu generativitit automat adaudiling, exporting and avreadiation of issues.		
Training, tools and partnership options now available						Strategic Management	Implementalization or rules, methods and task to developments arranges digital strategy and establiship provet across the organization to achieve basineer new br.	Technology Architecture	Drives over all technology alignment white searching converter of Manu- statephress aligned to business strategy Occhestrates meny change Butrawd to business in short ginadismess.				
				-						_			_

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2/5 Digital Leadership



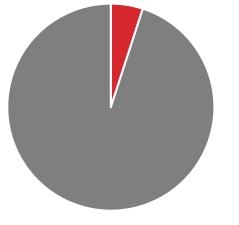


We are helping the UK Government with its £300m+ 5G program 'Digital Leadership Workshops' for CTIOs & Members' Senior Leadership Teams

Identify & recognise industry leaders

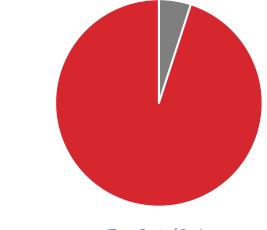
3/5 Simplification, automation, intelligence Driving towards zero-touch business and technology operations

1990s Mindset Cost-centric: "Reduce the 5%"



- IT Rest of Business
- 'Internal supplier' of support systems
- Monolithic systems design
- Waterfall management & governance
- Deep technology expertise

2018 Mindset Impact-centric: "Transform the 95%"



■ IT ■ Rest of Business

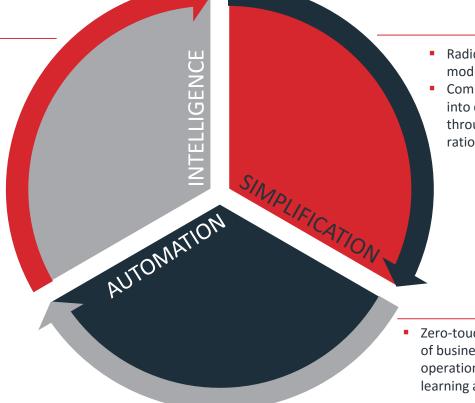
- Integral to innovation & improvement
- Modular, API-enabled design
- Highly agile front-end; super-stable backend
- Technology & business expertise



3/5 The digital telco demands a new operating model...



- Business decisions driven by realtime data, analytics and artificial intelligence
- Continuous view of end-to-end customer experience, constantly driving product and service evolution and innovation

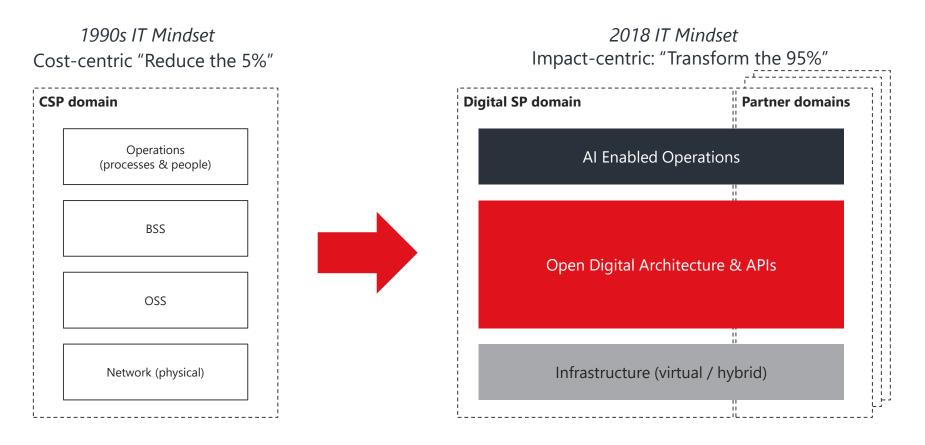


- Radically simplified, flexible and modular business processes
- Componentization of technology into discreet business capabilities through abstraction, APIs and rationalization of legacy systems

 Zero-touch, closed-loop automation of business and technology operations, enabled by machine learning and artificial intelligence

3/5 And demands we reimagine OSS & BSS





3/5 The next step - Open Digital Architecture



Contents



SECTION 1 Executive Summary



SECTION 2 What's driving the ODA?

- 2.1. The digital transformation imperative
- 2.2. Platform business models
- 2.3. Technology enablers2.4. The collaboration imperative

)7 SECTION 3 Re-imagi

👌 at&t

Re-imagining OSS/BSS

3.1. What are the business requirements?3.2. Overall architectural approach and design principles



What can ODA do for you?

4.1. Internal transformation planning4.2. Roadmap planning4.3. Streamlining procurement



vodafone

5.1. Layering and separation of concerns5.2. Componentization and decomposition

BT

SECTION 6 Appendix: For

Appendix: Foundations of the Open Digital Architecture

- 6.1. Marketplaces and ecosystems 6.2. Integration with TM Forum
- Open APIs 6.3. Hybrid platform architectures
- 6.4. City as a platform







Open Digital Architecture

Whitepaper available in allable in the arty rebruary

A blueprint for success in the digital markets of tomorrow

4/5 Harnessing game-changing technologies: AI and Blockchain tmforum



- Artificial Intelligence (AI)
 - 10 current Catalyst projects are using AI
 - New AI collaboration project initiated for Release18, aims to bridge the AI and telecoms ecosystems
 - Moving beyond simple automation to autonomic orchestration through machine learning / AI
 - Applications to management of virtualized networks | customer experience | service optimization | fraud...
 - ODA single data architecture and intent principle
- Blockchain
 - Five current Catalyst projects are using Blockchain
 - Catalysts ongoing work will examine impact to Frameworx and other Forum assets
 - "Sandbox" environment demonstrated use cases that are highly relevant to Forum members and highlighted the advantages and limitations of smart contracts and distributed ledgers

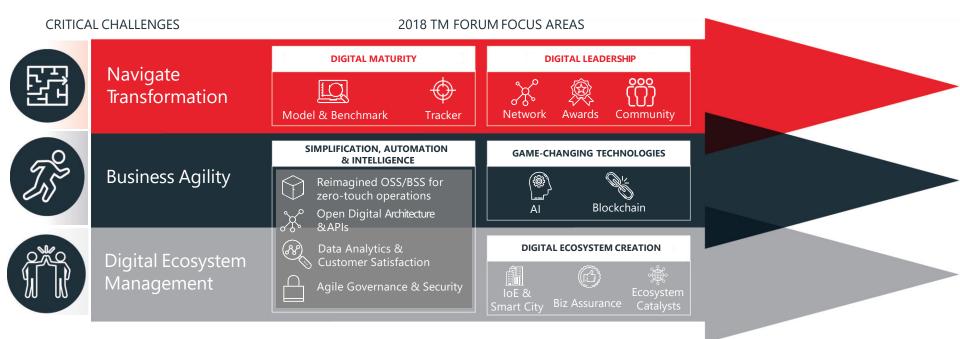
5/5 Managing Digital Ecosystems





Join our agile collaborative programs as we transform the industry





Let's collaborate!

Global event program

'TM Forum Live!' is now 'Digital Transformation World'

- Action Week, Lisbon, 5-9 Feb
- World: Nice 14-16 May
- Americas: Dallas, 13-15th Nov
- Asia: Kuala Lumpur, 4-5th Dec
- ME: Dubai 21-23 Jan '19

Our events profile Catalysts our Research & Media work and more



Make use of knowledge, tools & training

TELLIGEN

AUTOMATION

SIMPLIFICATION

tm**forum**

Frameworx

A blueprint for best practice business operations to accelerate and de-risk transformation projects

> EXPERT-LED TRAINING COURSES AVAILABLE

CURATE FX: SIMPLIFYING COLLABORATION

Open APIs

Standardized interoperability for IT systems and partner integration projects

> EXPERT-LED TRAINING COURSES AVAILABLE

Agile OSS/BSS Toolkit

A collection of toolkits for realizing OSS/BSS solutions based on the latest IT practices.

Analytics Toolkit

A set of best practice guidebooks, use cases and other resources to help members use data analytics to inform decision making.

Customer Centricity Toolkit

Comprehensive guidebooks, use cases, tools, models and metrics for optimizing every business process for the best customer experience,

> EXPERT-LED TRAINING COURSES AVAILABLE

Agile Operations Toolkit

A collection of toolkits with a range of resources for realizing agile operations



Any Questions & Any Other Business?

Please type your question in the question window now

Thank you for your participation!

Contact us:

- Nik Willetts, nwilletts@tmforum.org
- Olga Martynov, omartynov@tmforum.org
- David Pleasance, dpleasance@tmforum.org

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