Change as key challenge
IT knows that if left alone, systems and applications (& the associated services) will normally not fail. It is change that causes problems, up to 80% of service failures are down to changes implemented by IT. The problem is that Business is constantly demanding change in IT to satisfy changes imposed on it by Compliance/Regulatory requirements, markets, M&A, etc. As a result IT often struggles to keep up, or be responsive in a timely (to the Business) manner, especially if it hasn’t automated IT, ie the processes, the event management, the response to failure, and so on, across the whole of IT, not just parts of it, and also across the Silos.
Thus, IT has to trade-off the various factors of Time, Cost & Quality in order to minimise/mitigate Risk to business. In a survey run by the Economist Intelligence Unit, nearly half said that at least a quarter of their IT projects are delivered late, nearly a quarter will decrease quality and testing of an IT project in order to prevent a delay, i.e. meet the original timelines, despite the fact that the Design, architecting and development phases overran.

Forrester found that typically nearly three-quarters (70%) of IT budgets was spent simply on keeping the current “show on the road”, leaving only just over a quarter left for innovation, which includes responding to the Business’s demand for change.

A global study has been carried out by Economist Intelligence Unit (EIU) to determine the pain points of IT. This study was carried out 3rd time in a row.
ITILv3

Control vs. chaos
ITIL laying the foundation of SOA transformation
The concept of abstraction
  Service testing
  SLA/SLO/Contracts
Over the last decade, we have seen a radical change in the way the IT organization operates. This change has been mainly driven by the need for the IT organization to deliver concrete value to the business.

At the beginning of time was IT as a Technology Provider, the focus was on Stability and Cost Control….It was the era of IT Infrastructure Management… IT were technical experts etc…

Then came IT as a Service Provider and the era of IT Service Management. The focus was on Supply and Demand and in particular the positioning of IT as a service provider…OLAs and SLAs starting flourishing inside the enterprise…and IT was perceived as a cost center, an expense to control…. Although I used the past tense, this is very most of our customers are with different degree of maturity.

The next step in the maturity spectrum is to move from a Service Provider to a Strategic Partner, that is that IT becomes a fundamental differentiator for business growth. IT extends beyond its role of service provider by becoming an enabler for new business creation (e-commerce) or for better ways of doing business (RFID). Here IT budgets are driven by business strategy….

ITIL has also been part of this journey. As mentioned before, ITIL v2 was very operations focused, and HP embraced ITIL as a best practice for running operations. We developed our reference model to supplement ITIL v2, and continue to help customers implement ITIL v2 processes. With the introduction of ITIL v3, we see much of our learnings included in the new standard. Much of what HP has included in the reference model, will be used in ITIL v3, which should not be a big surprise since HP is a major contributor to ITIL v3. We see ITIL v3 as extending the scope of ITIL, embracing both IT and Business service management, linking strategy, applications and operations in a similar way to our BTO initiative.
This is still representative of IT and the relationships and dependencies between the various components that have built up over time. It is this “spaghetti” that is already difficult to maintain, understand and remember the relationship & dependencies between each of them which therefore makes impact analysis very difficult, if not impossible to do in an automated fashion. Thus, even authorised changes can bring down a critical service – which means that it is very, very difficult for IT to provide the flexibility and agility that Business needs to meet its ongoing demands for change.
With ITIL v2, Service is fairly key, it was not the entire focus as it is with v3. All the publications have “Service” in the title.

Setting the scene (middle) is Service Strategy, laying out guidelines for the IT organization, how to deliver value, which service portfolios to offer, etc.

Service Design – translates strategic plans and objectives into designs and specifications ready to be built.

Service Transition – takes the IT service design and implements it into the production environment.

Service Operation – management of the IT services on a day-to-day basis.

Continual Service Improvement – ensuring that the IT service meets it’s service level objectives over-time; ensuring that the overall IT Service Management implementation is able to support the needs of the IT services and their customers – and that improvement/corrections are made as required. Each of the life-cycle stages is subject to Continual Service Improvement.

Up to this point, we have defined the Core ITIL V3 publications.
ITIL v3 Definition: General service
A means of delivering value to Customers by facilitating Outcomes Customers want to achieve without the ownership of specific Costs and Risks

OGC, 2007
ITIL v3 Definition: IT Service
A Service provided to one or more Customers by an IT Service Provider. An IT Service is based on the use of Information Technology and supports the Customer's Business Processes. An IT Service is made up from a combination of people, Processes and technology and should be defined in a Service Level Agreement.

OGC, 2007
With Business Service Management, which usually requires an approach such as ITIL, various layers of service are created, monitored and managed. Each layer includes components that are combined to provide a “service in the layer above. Even the Business Service Model components are composed into one or more Business Processes, as we’ll see on the next slide.

One of the things you're trying to do with service-oriented architecture is avoid complexity, not have 30 different services that more or less do the same thing. You're trying to get reuse. With a thousand services, the likelihood of any reuse is virtually zero.

Just having services doesn't mean you have a service-oriented architecture. It's not about the number of services you have. It's the number of ways you use the services you already have.

It's not about the number of services you have. It's the number of ways you use the services you already have. That's really what defines service-oriented architecture in many ways. And that's a subtlety lost on a lot of people. It's not the services, it's the reuse of services that's really the value. The fact that you're sharing a resource across the organization is the value of service-oriented architectures.
Here is a typical Claims Request (business) process, which as you can see is actually made up of more than one Business Service, e.g. CRM, Claims Handling system, and so on.
For every service, there are (at least) 2 participants – the provider and the consumer. There is also a “service” interface defined which details how the service may be requested, what data is required/expected with the request, what functionality will be performed on that data, and what data will be returned on completion.

With today’s IT services, this service interface is different for each “resource” or “service” type. Thus the abstraction level for these IT services is at the technology level, e.g. storage, servers and their OS, APIs for applications. Therefore, in order to compose IT Services into Business Services, and hence into Business Processes requires knowledge of the different interfaces, which leads to complex and time-consuming integration effort.

With SOA, the service interface is the same irrespective of the service type. Thus SOA provides an abstraction layer at the service level, which facilitates the composing of IT Services into Business Services, and hence into Business Processes using the same interface definition throughout. This enables the Business to compose/change Business Process without needing to know the underlying “delivery” technology.
As with all services, there exists a contract between the consumer and provider, even if it is implied, e.g. best efforts. This contract will include the definition of availability requirements (e.g. hours of the day/week/year) as well as the capacity/demand that the consumer will place on the service, or that the provider can cope with. This is usually articulated and measured through the use of an SLA.
The SLA between the Consumer and the Provider exists for all the “levels” of service, IT Infrastructure, Application, Business Service and Business process. The difference between them is only who the Consumer and Provider is, although typically they are both in IT at the Infrastructure and Application level, and include the business or external consumers at the Business Service or Process level. If all the Consumers and providers are within the same organisation, then the adherence to the SLAs tends to be less than if any of them are external. Also, the SLAs for any service generally become SLOs for the service layer above.

With an SOA, it is very important that SLAs are strictly defined, monitored and measured as the Provider may not know the Consumer directly, especially when the service is used in “higher level” services that the Provider never envisaged when he created his service.
ITILv3 and the business (and SOA?)
SOA require business alignment
ITILv3 facilitate business alignment
ITILv3 and SOA transformation (technical/organizational)
The typical relationship between the Business and IT, is “us and them”. One is led by the CEO and the other by the CIO. Business requirements are usually “lobbed” over the wall between them for IT to somehow deliver a service against the often not too detailed or specific requirements. This would not be so bad if it was simply between the CEO and the CIO, but the reality is that there are usually multiple Lines of Business generating quite different and disparate requirements, and there are various people in IT that need these requirements sorting/aligning with their specific areas. That is why Business Analysts are recommended to act as the interface between the two to ensure that the requirements are detailed and specific enough and that IT delivers on against them.

Today however, in order to deliver agility to the business IT needs to provide abstracted services with a (preferably) common service interface so that they can be easily composed with little or no integration effort to execute Business processes. Equally, though Business has to define its Business processes in reusable “chunks” that can be applied to multiple Business Processes, across each of the regions, Business Units and customer markets. That is SOA not only enables Business & IT Alignment, but actually requires it for it all to be truly successful.
SOA benefits and ITILv3
  Business benefits
  Technical benefits
  Architectural benefits
Computer Business Review and Datamonitor ran a survey across a number of companies and asked the following questions. First, they asked what benefits they expected to get from adopting SOA, and they top 4 were:

- Reduced cost
- Increased IT flexibility
- Increased Business agility
- Improved integration between systems or applications
What are the actual benefits achieved with SOA?

In areas where your company has already adopted a service-oriented approach, if any what have been the actual benefits experienced from that approach?

They then asked what were the actual benefits achieved by those that had already adopted SOA, and the top 4 were:

- Reduced cost
- Increased IT flexibility
- Increased Business agility
- Improved integration between systems or applications

Which is good news for those adopting SOA, but also is probably a first in the IT industry, whereby the benefits promised by a new technology have actually been achieved!
So, what are the typical key value propositions businesses identify as desirable enough to implement SOA. Well, there are a few.

I think the key ongoing requirements are related to business agility – the capability to be truly market driven in the way you run a business. As innovation today is a key competitive differentiator, IT needs to enable this in new and better ways – hence SOA is the only viable architectural approach that actually can deliver this today.

But beware! Even though this slide lists “Business value you get from implementing SOA”, this is a challenge far more complex than the technology itself, as we said earlier. In order to take advantage of SOA, People and Processes (IT and business) needs to change as well. This could be the iceberg that sank the Titanic – unless we are prepared for it. ITIL helps us prepare.

<table>
<thead>
<tr>
<th>Business value proposition</th>
<th>Key business drivers</th>
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<tbody>
<tr>
<td>Integration</td>
<td>• Integrate legacy systems (avoid rip-and-replace)</td>
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<tr>
<td></td>
<td>• Enable mergers and acquisition integrations</td>
</tr>
<tr>
<td>Reduced cost</td>
<td>• Eliminate duplication across people, process and technology</td>
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<tr>
<td></td>
<td>• Facilitate reuse</td>
</tr>
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<td></td>
<td>• Improve resource utilization</td>
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<tr>
<td>Business agility</td>
<td>• Increased sensitivity and responsiveness to market developments (Business/IT integration)</td>
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<tr>
<td></td>
<td>• Reduced time-to-market</td>
</tr>
<tr>
<td></td>
<td>• Innovation (process, product, service)</td>
</tr>
<tr>
<td>Business flexibility</td>
<td>• Business value chain integration</td>
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<td></td>
<td>• Efficient collaboration with business partners</td>
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<tr>
<td>Lower risk</td>
<td>• Business process and operations transparency</td>
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<tr>
<td>Regulatory compliance</td>
<td>• Comply with national law</td>
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<tr>
<td></td>
<td>• Comply with international law</td>
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<tr>
<td></td>
<td>• Comply with specific industry regulations</td>
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</table>
ITIL & SOA - IT benefits

With respect to IT, these are the benefits & goals that ITIL & SOA bring:

• ITIL
  − Enables IT to consistently deliver services within the agreed SLAs across the enterprise.

• SOA –
  − Enables IT to consistently deliver \textit{loosely-coupled, reusable} services within the agreed SLAs across the enterprise.
For a transformation of a business to be successful, then Agility and Scalability are key success factors. This is particularly true for an SOA transformation, where extra effort is required to implement applications, business processes, etc as discrete services, which can then be combined in any order to create new business processes, etc.
For SOA, the transformation journey typically starts with the need to provide “simple” integration between systems, applications and subsequently business processes. This is a fairly well understood problem, and usually involves abstracting the integration interface, but is still done point to point with regards to data exchange, and processing.

To transition to a true SOA, then the services need to be shared, and this introduces a raft of new issues, such as Governance, Quality & Management, for which (new) processes must be put in place before the services are shared (not afterwards as this rarely works and the problems simply mount up to take on even larger consequences when they are addressed).

The next step on the journey requires SOA to become mainstream, i.e., SOA becomes BAU. And for this, you must have IT fully automated with regards to its processes, event management, response to failure, etc. The best way to do this is to merge it into the ITSM (ITIL) processes that already exist (following an ITIL transformation).
Complete SOA Transformation Requires Adoption on all Dimensions
Change as key challenge

ITILv3

Control vs. chaos
ITIL laying the foundation of SOA transformation
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ITILv3 and the business (and SOA?)

SOA require business alignment
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ITILv3 and SOA transformation (technical/organizational)

SOA benefits and ITILv3

Business benefits
Technical benefits
Architectural benefits

Conclusion
This is a simplified illustration of the Service design workflow. Service design is the second stage in the ITIL Service Lifecycle.

So, looking at the ITILv3 Service Design process, where is it we can influence a key SOA performance indicator: REUSE?

If you imagine hundreds of projects in the pipeline building business services passing through Service Design in sequence or in parallel. This slide aims at outlining which processes and supporting systems need to be involved. The complexity becomes phenomenal, but this is exactly what the ITIL Service design best practices are aimed at sorting out.

The fundamental question boils down to three options: Build, Reuse or Procure a given service.

SOA has the potential to significantly reduce complexity in this workflow, depending on how much standardization we achieve in the various phases. A well integrated workflow around SOA will eventually also help us to make our decision faster and more accurate. This will in turn allow us to harvest another key value from SOA: Reduced TIME TO MARKET. However, this will need to happen across the Service Transition process that eventually deploy the service into production.

Note that the Service design processes often distinguish between Business and technical capacity, availability etc. This is also important when you consider the organizational changes that has to happen in order to take full advantage of SOA.

We have also added Enterprise Architecture as a discipline embedded in ITILv3 along with COBIT and several blank processes (that can be any necessary other input).
ITIL and SOA

Nothing special about SOA – SOA exacerbates the issues that IT is already facing (exaggerating your need to deploy ITIL – Faster ITIL with SOA)

Is it possible to successfully deploy SOA if you do not have control (ITIL)?

ITIL is a requirement to deliver agility and to align business in order to exploit SOA benefits.

Point out the interface(s) between ITILv3/SOA Governance

How ITIL enable organizational change in order to reap SOA benefits
As part of “automating” IT and making it more flexible, Virtualisation is a key technology that is used. Three areas: Server Virtualization, Storage Virtualization, and Service Oriented Architecture.

For each, Summit Strategies have found that you are at least twice as likely to have successfully implemented these if you have already gone through an ITSM transformation. In each area the move in ITSM is from inexperienced to experienced is rapidly accelerating.
Here is some of the learning from the many organisations that have either started, or are well on the road to an SOA transformation.

The key to success is integrating and aligning your ITIL and SOA initiatives early. Make sure that there is sufficient cross-representation of the IT operations staff and software developers in both efforts. Establish a coordinating committee that ensures the overall goals and specific procedural guidelines of the initiatives are tightly coupled. And build into your ITIL framework and SOA an ongoing communications and reporting mechanism to encourage real collaboration.
Thank You

http://www.hp.com/go/soa