# Digitalizing your business processes

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# Agenda

▸ **Introduction**

▸ The Context

▸ Create the Structure: A Process Architecture

▸ Identify Candidate Processes

▸ Annotate Processes for Digitalization

▸ Long-Term

# Introduction

- ▸ I've been active in process technology for more than 25 years.

- ▸ Currently, I am an independent consultant, working with clients for:
  - ▸ Modeling of business processes and process architectures, and
  - ▸ Developing internal standards and training materials.
  - ▸ Conducting online and classroom training classes for BPMN.

- ▸ I was the lead author of the BPMN specifications.

- ▸ I'm also an adjunct professor at Stevens Institute of Technology Business School, teaching a course in Process Innovation & Management.

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# The Digital World

▸Smart devices and Internet of Things (IOTs).

- ▸ Any Device
- ▸ Any Context
- ▸ Anywhere
- ▸ Any Network
- ▸ Any Business
- ▸ Anyone

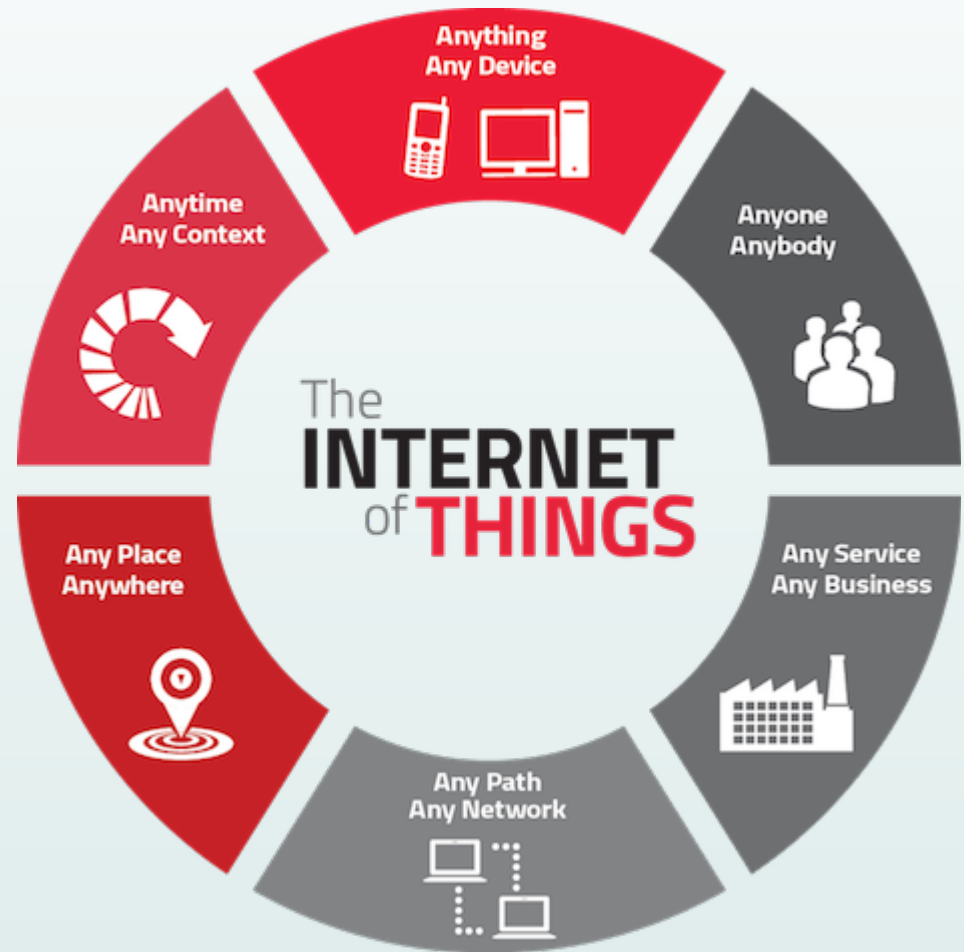▸We're interested in the digital technologies for digitalization.



Image: Iotleague: http://ow.ly/YFhs308FxMv

# The Digital World

▸The IOT is growing exponentially.

▸Starting with about a million devices in 1992.

▸Expected to be 50 billion by 2020.

▸By 2050, most of world's population will be connected.



http://theconnectivist-img.s3.amazonaws.com/wp-content/uploads/2014/05/Unknown.png
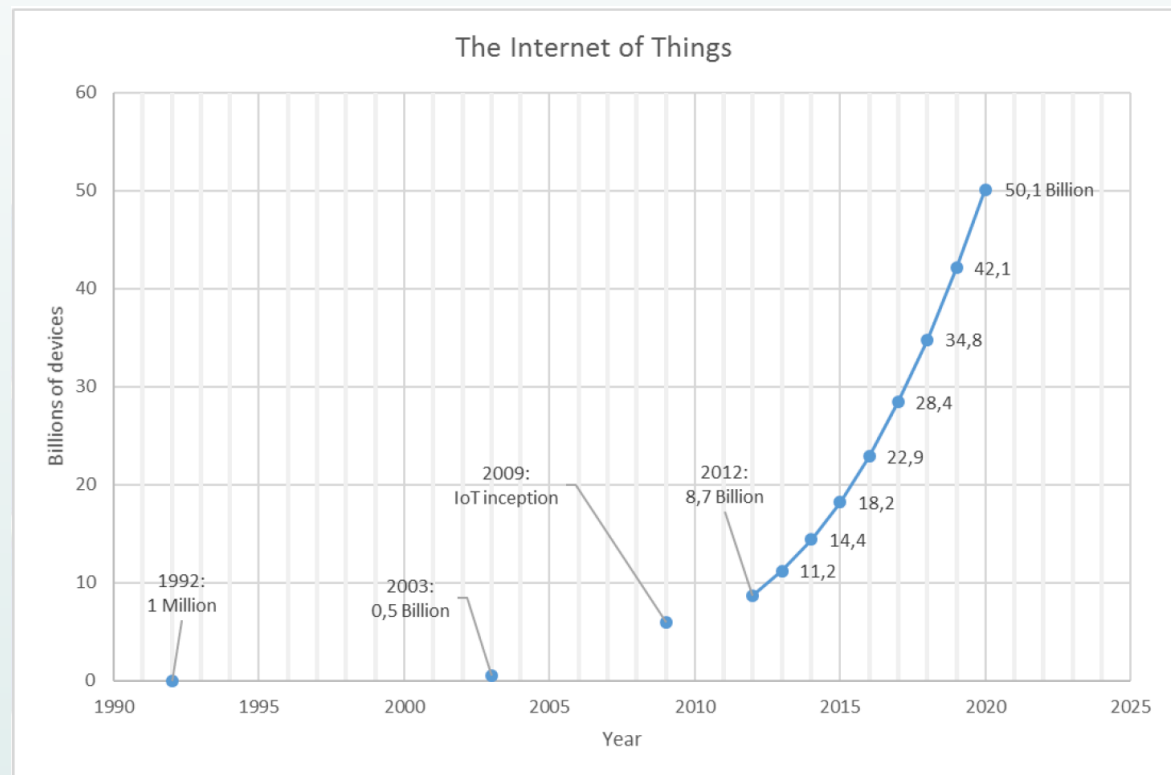
# Digital Transformation

▸ What is Digital Transformation?

- ▸ The change an organization makes when applying digital technologies.
- ▸ Relatively new – started around 2000.

▸ What is your current status?

- ▸ Digital Maturity
- ▸ How do you utilize smart devices and the Internet of Things (IOTs)
  - ▸ Sensors
  - ▸ "The digital devices within a given process may be exchanging information between themselves. This will add another complexity and challenge to the process design.[1]"
  - ▸ Extending to customer



[1]Jeston & Craig: Down Under: The Internet of Everything and BPM. BPTrends Oct 2015

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# Digital Transformation

▸ There are a lot of strategic choices a company can make, setting the direction and prioritizing investments.

▸ A recent survey by BP Trends of the next hot thing in BPM:
  ▸ With these choices:
    ▸ Case Management
      ▸ Unstructured Processes – knowledge work
    ▸ Transformation
      ▸ E.g., the goals of BPR
    ▸ Digital Transformation
    ▸ Cognitive-Driven Change
      ▸ Adding intelligence, e.g., Watson
    ▸ Other
  ▸ The results are that 57% of respondents believe that Digital Transformation is the next big thing…

# Digitalization

▶ What is Digitalization?

  ▶ The process of applying the change within an organization.



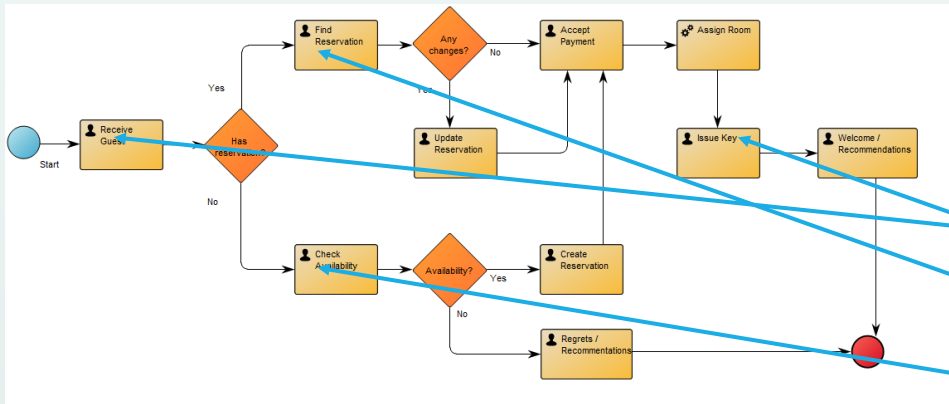Image: Colm Hannon, Hannon Digital: http://ow.ly/MqtV308yjvC

# Process of Digitalizing Processes…

▸How do you know a Process needs to be digitalized?

   ▸ Through these steps…

▸Define Strategy and Goals

▸Define a connected Process Architecture (Business Architecture).

▸Identify Candidate Processes through "pulling the strings" in the connected Process Architecture

▸Annotate Candidate Processes

▸Re-engineer Processes

▸Set up Center of Excellence to maintain

# Why Digital Transformation

▸Why should you do it?
  ▸ Does it fit your strategy?

▸What is the payoff?
  ▸ Better service
  ▸ Competitive advantages
  ▸ Customer acceptance

▸There may be roadblocks (legacy) that complicate things.

# Define Strategy

▶ For example, using Michael Porter's approach identifies the competitive forces that shape strategy.

  ▶ This approach seeks to define and improve a company's position within a market.

  ▶ Is a digital transformation a part of the strategy?
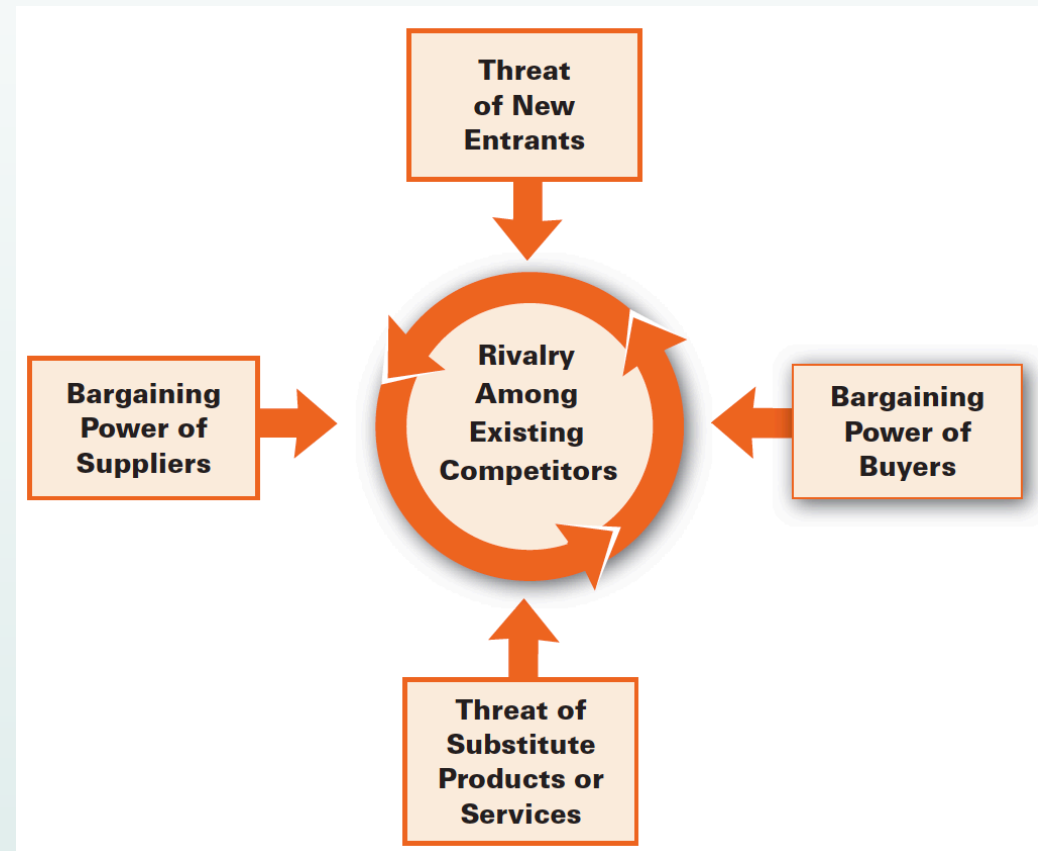


Image: The Five Competitive Forces That Shape Strategy (Porter), Jan 2008, Harvard Business Review
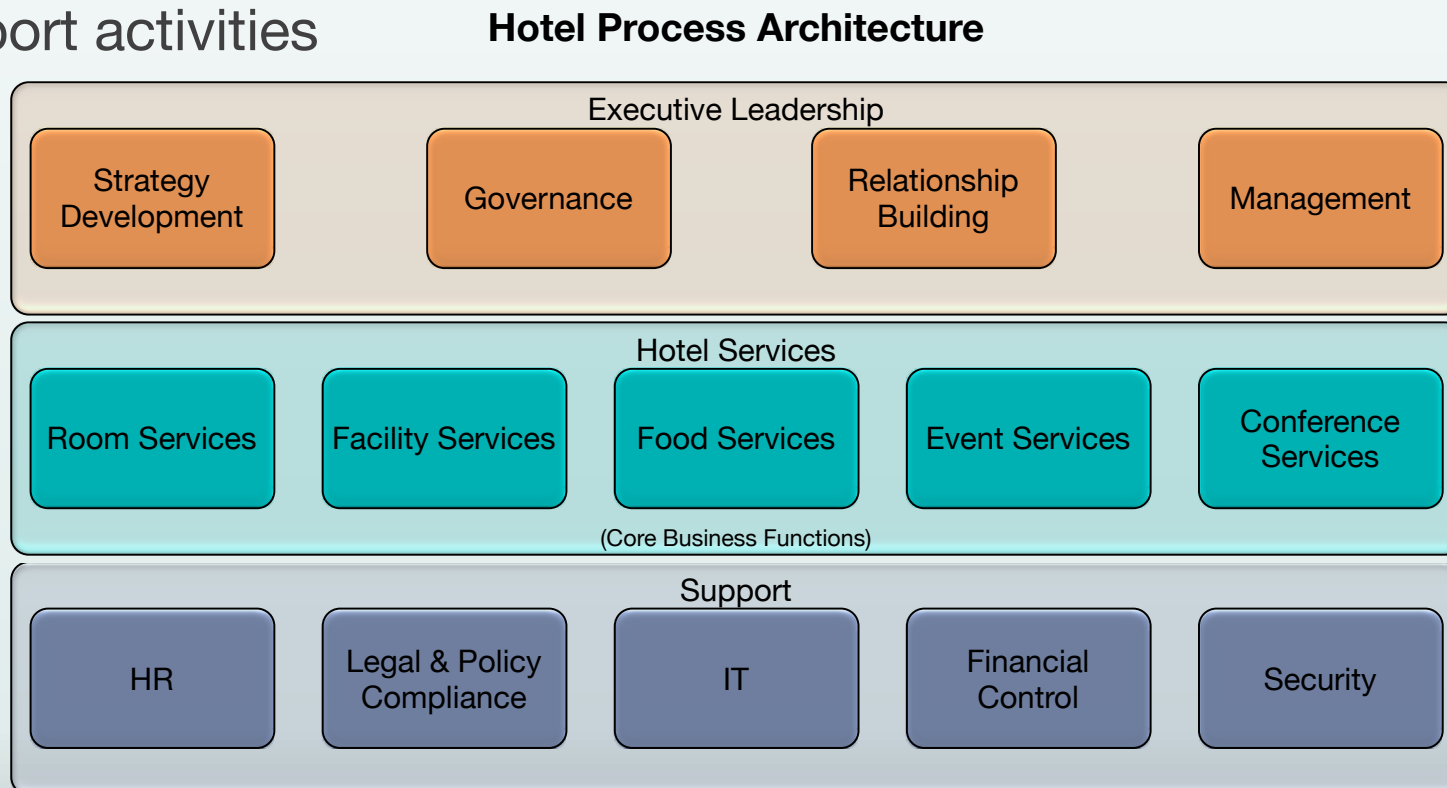
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# High-level Process Architecture

▸Management activities

▸Core business activities

▸Support activities

**Hotel Process Architecture**

| Executive Leadership | | | |
|---|---|---|---|
| Strategy Development | Governance | Relationship Building | Management |

| Hotel Services | | | | |
|---|---|---|---|---|
| Room Services | Facility Services | Food Services | Event Services | Conference Services |

(Core Business Functions)

| Support | | | | |
|---|---|---|---|---|
| HR | Legal & Policy Compliance | IT | Financial Control | Security |

# Drill into the Process Architecture

▸The high-level elements of the Process Architecture can be functions or capabilities.

▸Add more detail by drilling into the high-level elements.
  ▸ The drill-down will reach processes usually between Level 3 and 5.
  ▸ This is the value provided by the organization.

▸This structure is the Process Architecture.
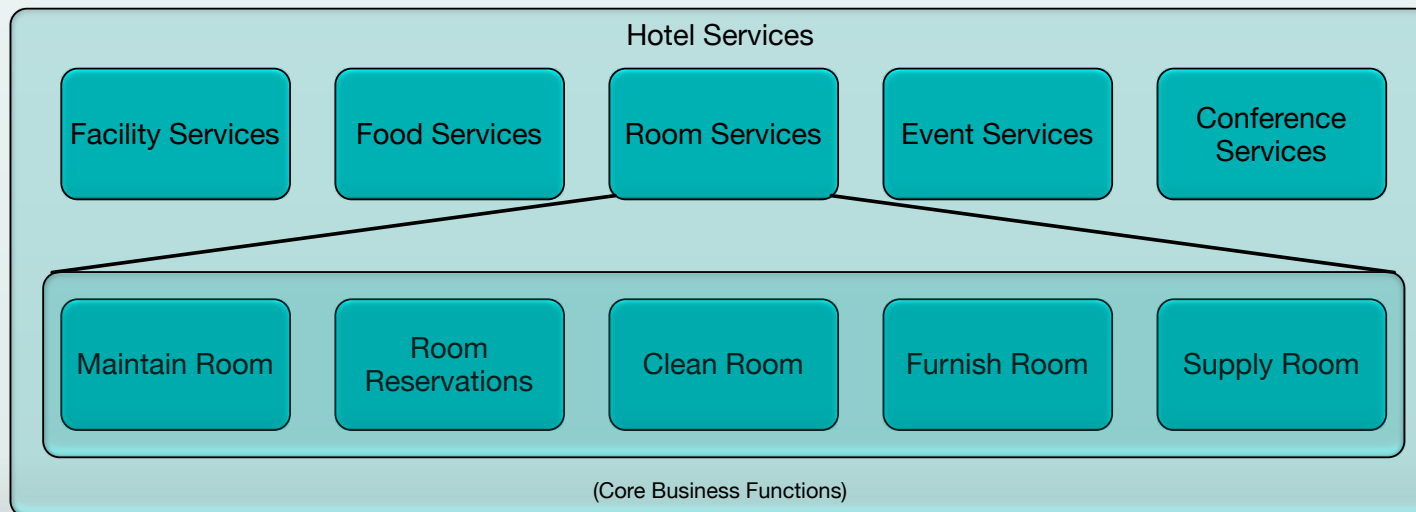
# Collect The Pieces

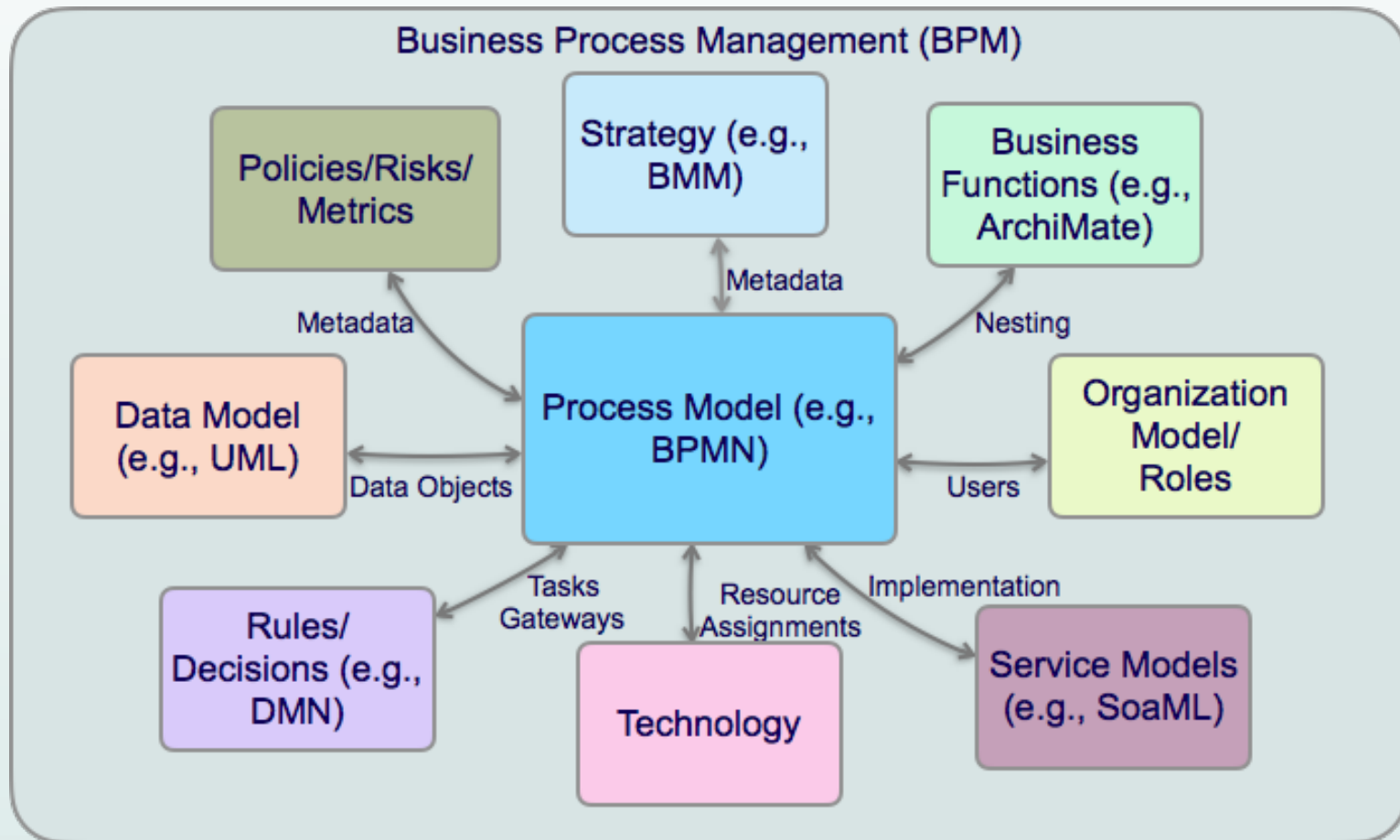▸First of all, use modeling tools to maintain the information and the connections.

  ▸ Use Standards.

▸While BPM refers to process management, there are many types of models and artifacts necessary to manage processes – or reduce organizational complexity.

▸The aspects of BPM should be defined and then connected to the Process Architecture.

# Collect The Pieces



Business Process Management (BPM)

- Policies/Risks/Metrics
- Strategy (e.g., BMM)
- Business Functions (e.g., ArchiMate)
- Data Model (e.g., UML)
- Process Model (e.g., BPMN)
- Organization Model/Roles
- Rules/Decisions (e.g., DMN)
- Technology
- Service Models (e.g., SoaML)

Metadata · Metadata · Nesting · Data Objects · Users · Tasks Gateways · Resource Assignments · Implementation

# Connect All The Pieces

▸The business models of the BPM solution are the logical groupings.

▸Use processes and functions/capabilities as thoroughfares connecting business models

▸These business models can be connected through their relationships to processes and the higher-level functions/capabilities.
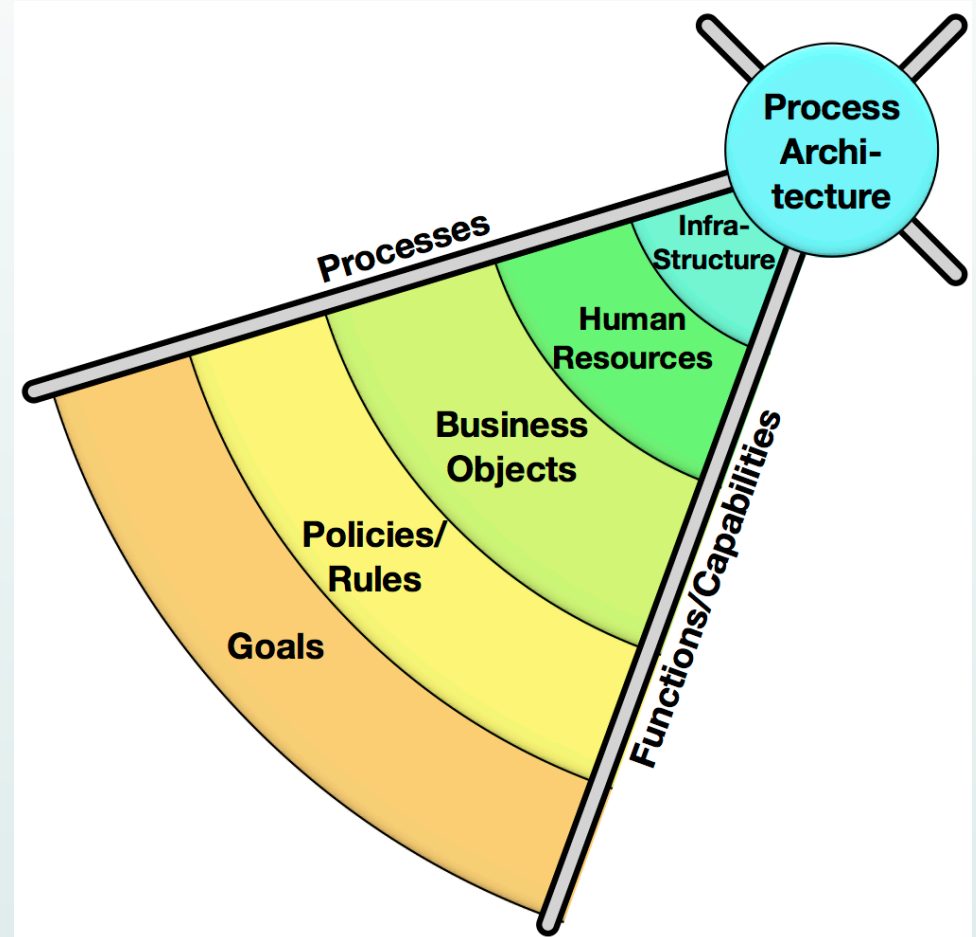
# Connect All The Pieces

▸ As part of connecting the pieces, a process in the Process Architecture should be connected to a wide variety of supporting information.

  ▸ Processes intended for automation require much of this information anyway.

  ▸ Not all processes in the Process Architecture require the detail needed for automation, but enough information to "pull the strings" should be included.
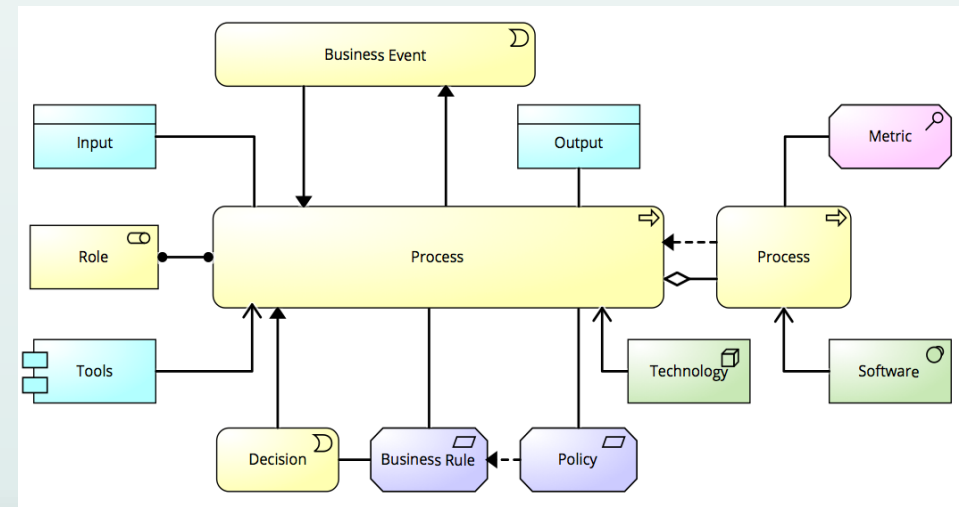
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# Start With Goals

- Goals are specific – what the organization wants to accomplish.
  - There will be a hierarchy of goals.

- The contents of the Process Architecture should fulfill those goals.

- Connect to other things like:
  - Business Model Canvas
  - Value Stream Modeling

- Goals related to digitalization will help identify the target Processes for the transformation.
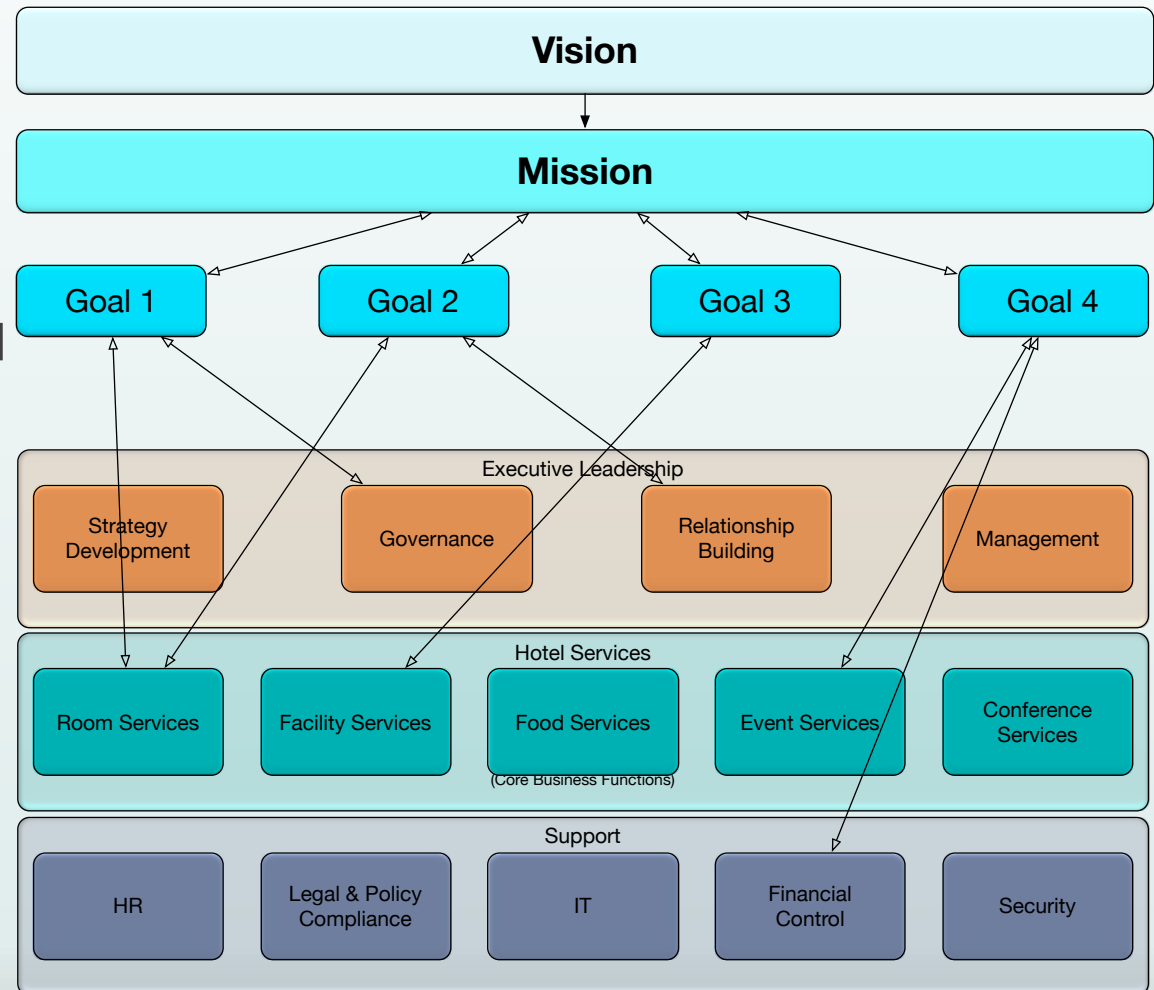
# View All The Pieces

▸Once all the pieces are tied together there are many ways to view the information.

▸These views are additional benefits from a connected Process Architecture. Such views include:

  ▸ Manager's view

  ▸ Value chain view

  ▸ External interaction view
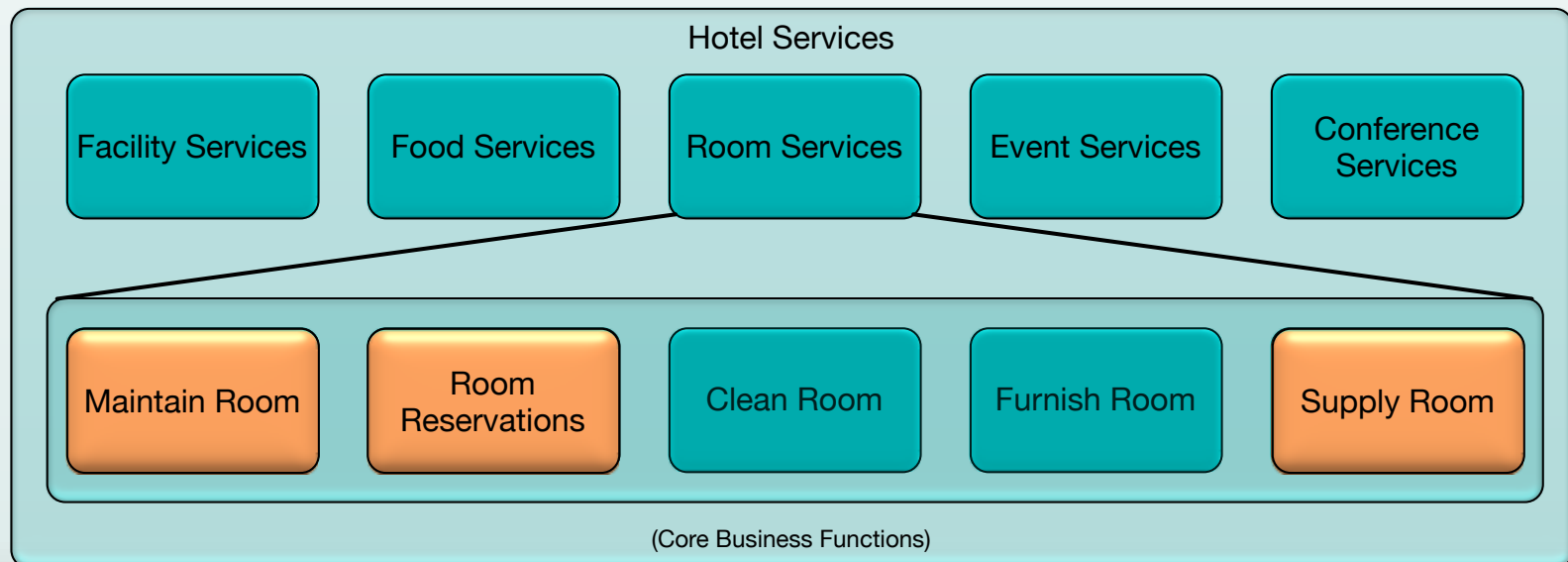
  ▸ Customized views

  ▸ Etc.

# Pull the Strings

▸Another benefit of a connected Process Architecture is the ability to understand the impacts of digital transformation.

▸Heat maps can be generated, for example:

- ▸ If a business rule changes, what processes are affected?

- ▸ What are the critical systems or processes?

- ▸ What processes do not impact organizational goals?

  - ▸ They why do them?

- ▸ Which Processes should be digitalized?

# Heat Maps

▸What parts of the Process Architecture should be prioritized for digitalization.

  ▸ E.g., for Room Services:

    ▸ Maintaining Room functions may have sensors.

    ▸ Room Reservations.

    ▸ Room supply containers may have sensors.

Hotel Services

| Facility Services | Food Services | Room Services | Event Services | Conference Services |
|---|---|---|---|---|

| Maintain Room | Room Reservations | Clean Room | Furnish Room | Supply Room |
|---|---|---|---|---|

(Core Business Functions)

# Agenda
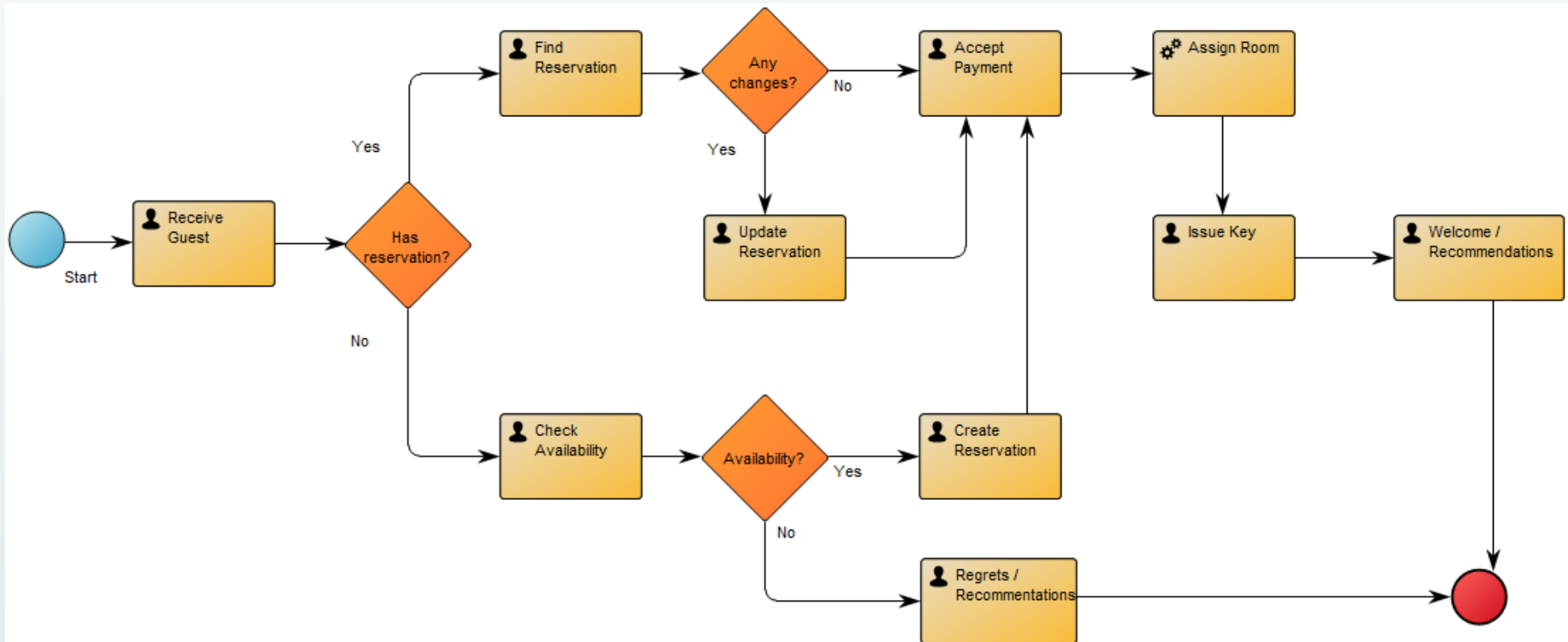
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# Example Process – As-IS

▸Here is a hotel guest reception Process before digitalization.

# Example Process - Annotated

▸Identify points for digitalization…
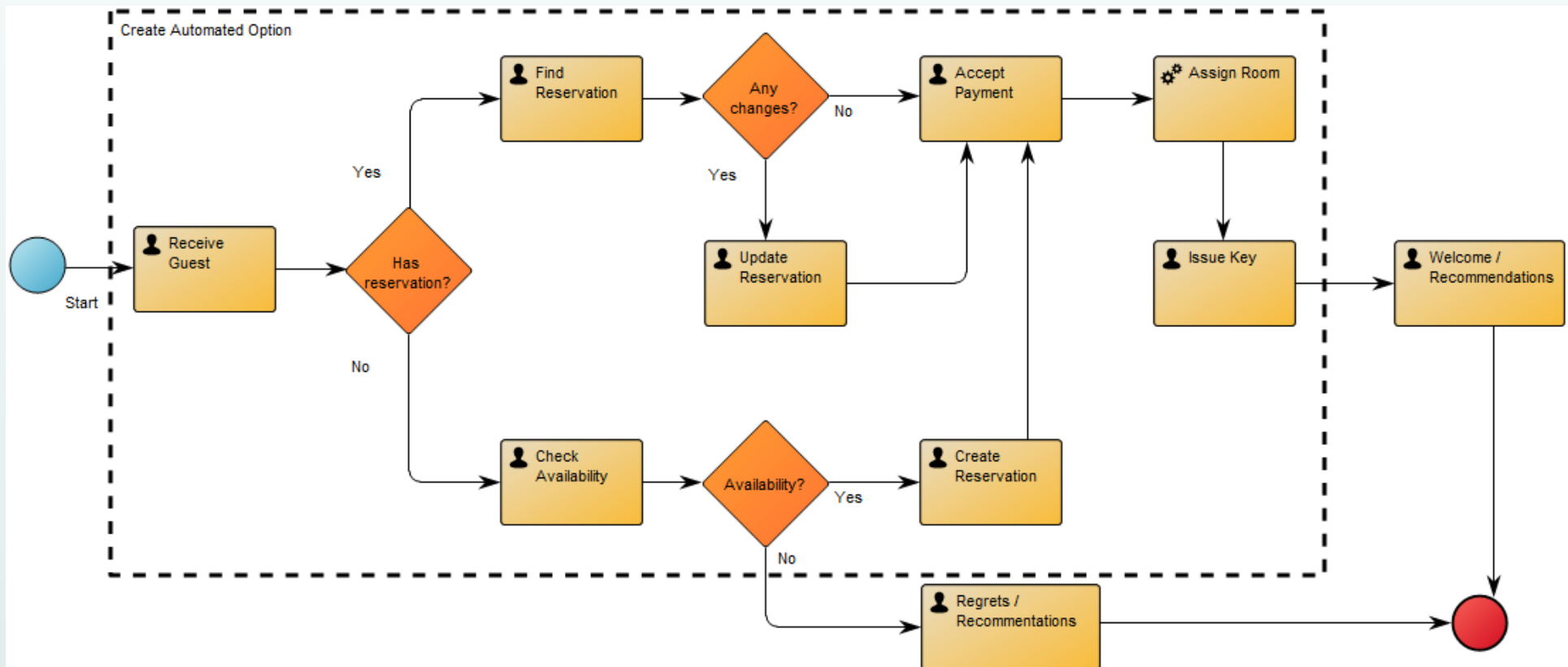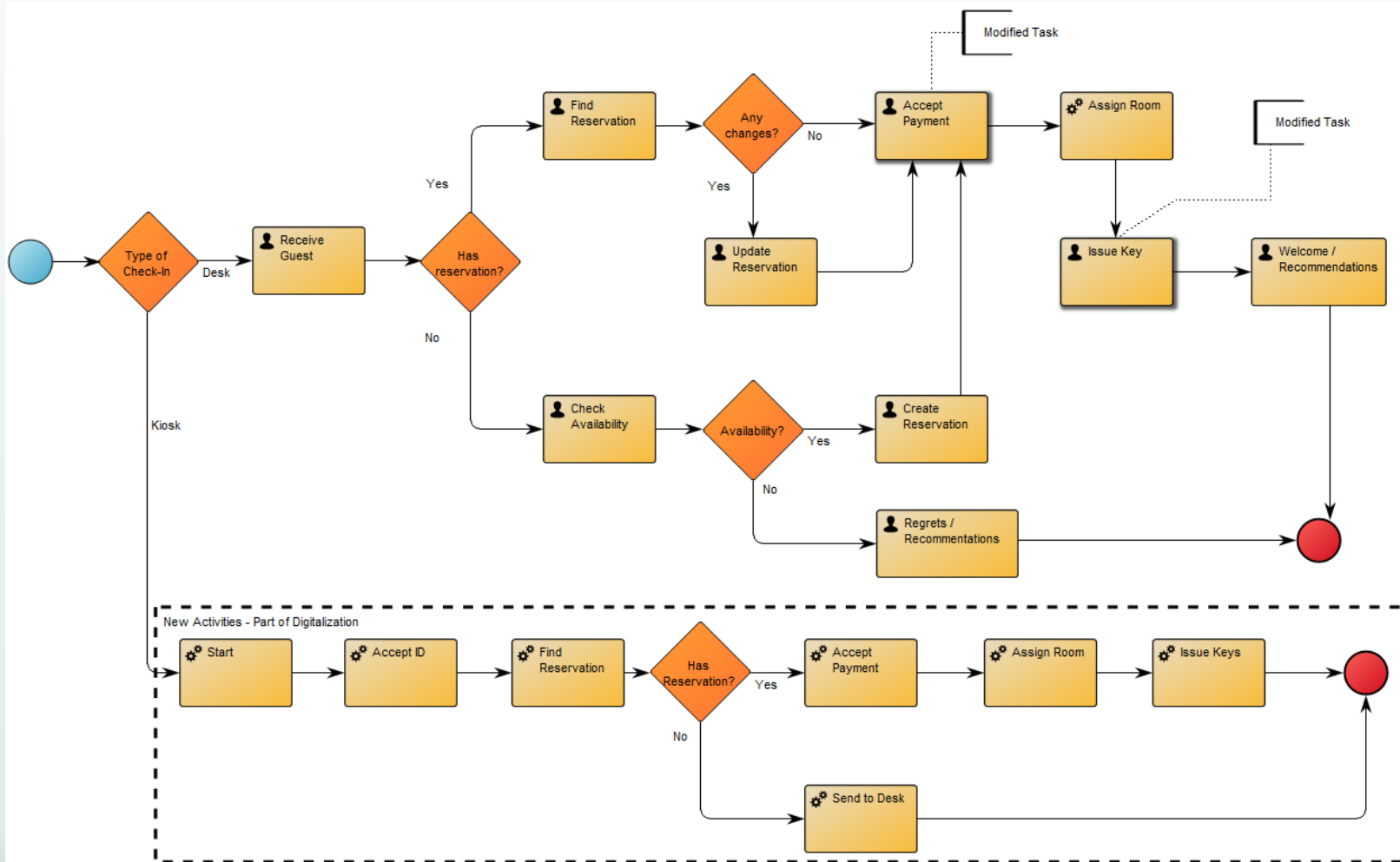
# Example Process – To-Be

# Example Process – To-Be

▸Note that the re-engineered Process is a bit more complex than the as-is Process.

▸This is expected when adding more options to the customer.

  ▸ Making it easier on the customer is often harder on the supplier.

▸The next step is to roll out the new Processes backed by the new technology…

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# Digital Transformation Maintenance

▸This actually applies to all parts of the Process Architecture.

▸Recommendation: Set up a center of excellence (CoE) to support the maintenance of the company Processes.

▸The CoE will:

- ▸ Provide and maintain the process documentation assets of the company.

- ▸ Define tool and documentation standards across the company.

- ▸ Provide training and enablement for company staff.

- ▸ Etc.

# Thank You

Questions?

▸Visit my website: www.bpmadvantage.com

▸Need training in BPMN?: www.bpmadvantagetraining.com

# References

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