ENABLING A DIGITAL TRANSFORMATION @ EDP

Lisbon, October 2019
Big data driven supply/demand matching enabling distributed energy resources

Comprehensive, centralized asset data enables risk-based asset maintenance

Smart grid and smart pipes with sensors/control to enable visibility and transactive controls

Field workers have mobile access to maps, data and work management tools

Customer interactions are driven by insight, segmentation and choice

Platform enables next generation transactive marketplace

Live situational awareness of the grid

Back-office digitalization and data-enabled decision making

IT seen as a trusted advisor and partner to the business

Modular and evolutionary architecture based on APIs/ microservices

IT helps drive agility into the business through agile management practices

High quality and agile application development

Containerized infrastructure based in cloud

Full adaptation of devOps with fixing being executed by developers

Automated testing and deployments to production with E2E monitoring

Customer-centric organization available online and mobile

User-centric design embedded into all processes

Business > IT > Architecture > Applications > Infrastructure > Maintenance > Operations > Service Desk

Use case: Business

ROLE OF IT_

IMPACT OF DIGITAL_
ENSURE FLEXIBILITY
/ New applications (custom and SaaS) should have all functionalities broken down as distinct microservices, deployed in containers
/ Microservice should ensure all orchestration between front and back apps

ENSURE SCALABILITY AND SPEED
/ Automated testing and deployments to production with E2E monitoring
/ Containerized infrastructure based on cloud (infrastructure as code)

ENSURE REUSABILITY
/ Abstract applications from each other (contract logic)
/ Business driven logic (names and catalogues)
/ Lightweight integration

BUILD IT FASTER
/ IT embedded in cross-functional teams
/ Proper support from centres of competence
ALL DEVTEAMS IN EDP ARE OUTSOURCED

How to have an contractual framework to natively support Agile way of working and to foster DevOps teams with full accountability?
AGILE MATURITY_

Staff augmentation on T&M

- Staff augmentation on time & material contract basis
- EDP pays for individual resource time
- EDP manages their day-to-day activities and work products

Managed Team on T&M

- EDP pays for a whole agile team on a time and material contract
- Cap is defined per iteration and vendor is paid based on usage within the capped amount

Output Driven

- Vendor is paid based on size of Epics. Epics are sized upfront
- Actual stories can change
- EDP has no control over vendor personnel (or the numbers deployed)

/ Evolution of the sourcing model according to the Agile maturity
/ Shared Risk
/ DevOps competences alignment (1 cross functional team)

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/ Items are executed and completed according to the DoD (Definition of Done) criteria

/ EDP pays monthly the work units concluded in the sprints that ended that month
DIFFERENT MATURITY LEVELS, WHERE TO FOCUS

How to help each team/product achieve its most potential?
Continuous Delivery Model

This framework identifies the different stages to achieve a Continuous Delivery state.

It's a roadmap to continuous delivery.
OBJECTIVE LINE
it matches the continuous delivery state. Not all products/applications will reach the line (technical or business constraints might apply)

STAGES
each segment has different criteria that must be fulfilled in order to achieve the next maturity state. All criteria should be met in order to achieve the next maturity stage

different MATURITY LEVELS for each segment

TRANSFORMATIONAL SEGMENTS
that evaluate different vectors important for the continuous delivery. Each segment is responsibility of the CoE
WHAT ARE THE REAL BENEFITS?

Foundations
REDUCING MANUAL OPERATIONS

Automatic Deployment Evolution

- Automatic
- Total Deployments

Jan-18, Jul-18, Jan-19, Jul-19
Increasing Throughtput
Increasing previsibility
Teams more aligned and know what to expect one from another

Delivery against the expected_
# delivered storypoints / # expected storypoints

/ sprint

1 2 3 4 5 6 7 8 9 10 11 12 13
CASE STUDIES @ EDP

EDP Online increased the NPS in 81% using agile@EDP processes with cloud native technology.

81% increase in NPS
Collect is the new system responsible for all the payment and collection processes. It processes 55M operations a year with a value of 6.000M€. It was implemented using Agile@EDP.

The main benefits are:
/ Increasing reliability of the incoming payments from our customers
/ Providing real-time payment processes improving customer experience and service
/ Increasing flexibility in the integration of new payment channels
/ Providing autonomy to operation teams to customize the different components of the collection process
/ End-to-end monitoring capability of the payment process and alerts for detection of constraints
/ Centralization of operational activities of the operation team

(*) proposal for delivery in Waterfall methodology. Assuming no delays.
AGILE & DEVOPS IN NUMBERS

- > 80 Agile Products
- ~ 300 DevOps Pipelines
- > 700 Trained People
- > 30 Hourly Automated Builds
- > 1500 People Working in Agile
- > 70% Automatic Deploys

Multi geography products
Full scale Agile in several EDPC and other business units
IT products, non-IT products and mixed products, multi and single teams
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<th>Challenges</th>
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<td>/ Driven by business oriented outcomes</td>
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<td>/ Rollout infrastructure as a code for all cloud</td>
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<td>/ Increase continuous delivery maturity</td>
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<td>/ Spread Agile into business teams</td>
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Thank you to our amazing sponsors and partners!
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Lisbon | EDP Auditorium
30th Sep - 1st Oct