Digitální transformace států v Evropě

Lidé, proces, technologie

Patrick Bikar
Fast IT Practice Lead, Cisco EMEAR
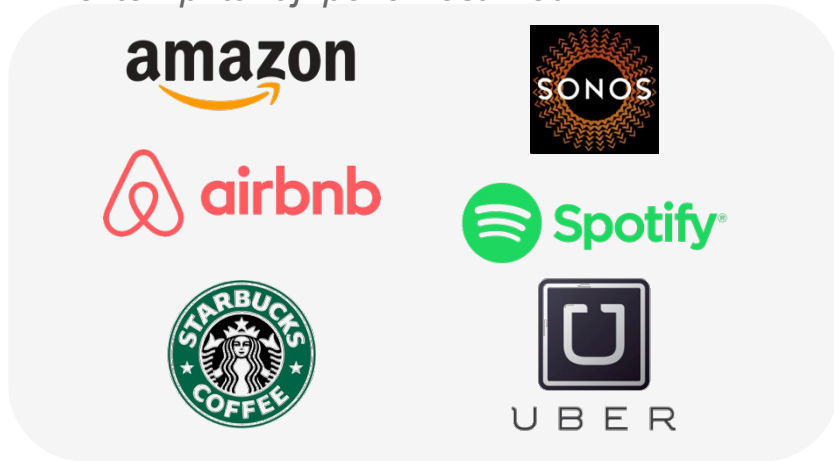https://FastIT.zone
@FastITzone
pbikar@cisco.com

Agenda

1. Co je "Digitální transformace státu?"

2. Změna způsobu jakým je IT provozováno a rozvíjeno : *Lidé – Proces – Technologie*

3. Vybudování Fast IT stragie vaší organizace

Digitální transformace státu. Na základě Fast IT.

Někteří přitahují pozornost médií…

Ale digitalizaci sledujeme v každé organizaci

- Co znamená "Digitalizace" pro stát? Využití "technologií" pro:
  1. Zlepšení služeb občanům
  2. Zefektivnění fungování státu
  3. Nabídnutí nových hodnotových řetězců
- Tradiční IT je ve většině případů velmi rigidní/pomalé/drahé a vede k ➔ šedému IT
- CIOs musí tvořit nové přístupy: k technologiím, lidem, procesům **= Fast IT**

Kontext: Digitizace, IoT, DevOps, Data Analytics, Cloud, Mobilita, ad. ➜ Government potřebuje od IT více

Otázka: Jak může CIO oživit fungování IT oddělení?

Lidé
Procesy
Technologie

Dilemata každého CIO:
- Spokojenost uživatelů ☹
- Zpožděné projekty (& snižování rozpočtu)
- Inovace /digitalizace (?)
- Outsourcing & Cloud (?!)
- Nastavení Faster IT ???

Vývoj Státní digitální strategie,
Na základě Government Cloud & Cisco Fast IT

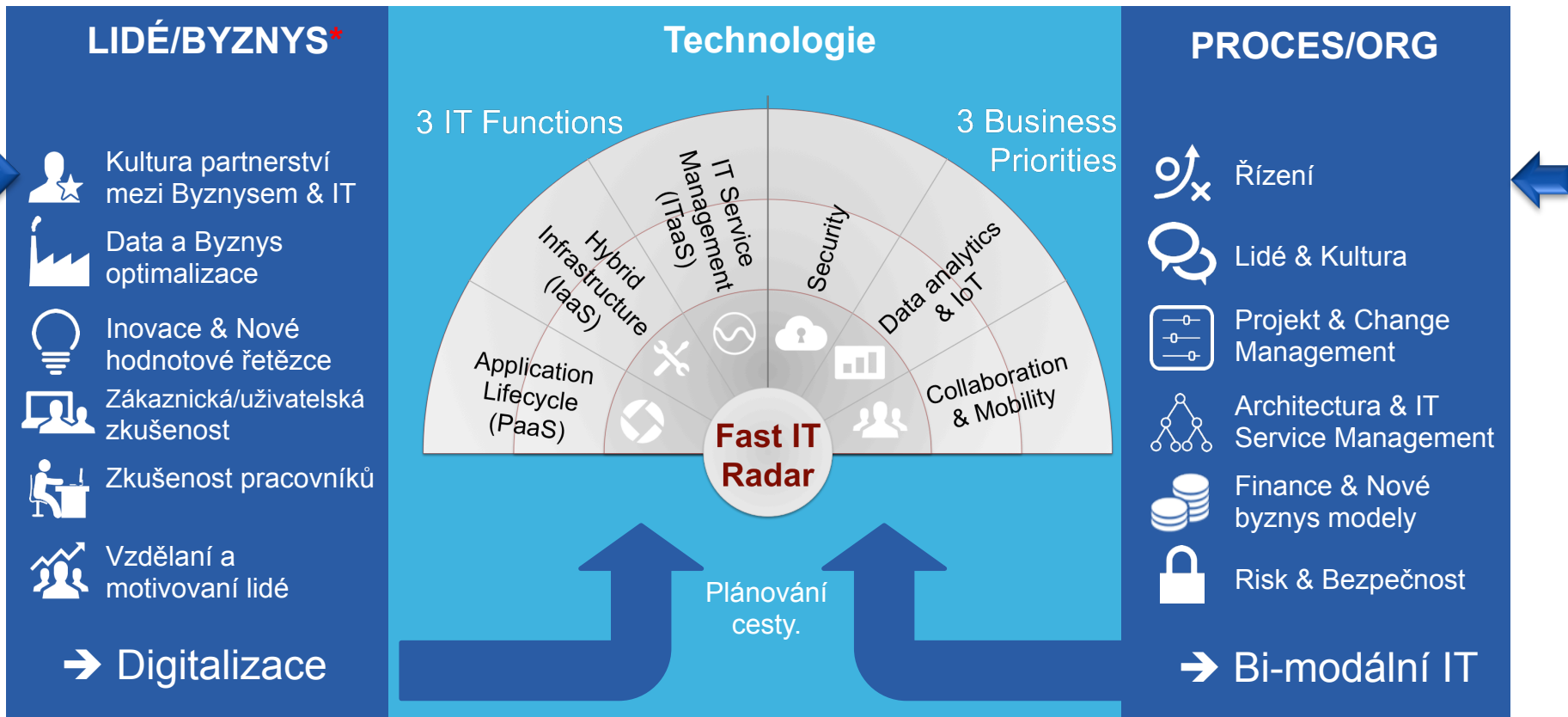| Výzvy	Řešení	Výstupy/poučení
• Prosinec 2014: nový zákon o konsolidaci veškerých IT nákladů do jedné státní centrální agentury. Konsolidace 40+ datových center • Jde o více než technologii, zásadní peronální @ procesní výzva - a příležitost • #1 "bolehlav" pro stání CIO: jak zajistit zcela nový operační model IT pro podporu Státní digitální strategie a zároveň snížit náklady	• Cisco, společně se svým partnerem nabídlo nasazení a proces metodologií Fast IT • Cílem bylo poskytnout celkovou strategii pro transformaci *lidé – procesy - technologie* a naplnit vzrůstající očekávání občanů, průmyslu a úředníků • Nasazení zabezpečeného Government Cloudu a Státní bezoečné sítě	• CIO byl zvolen "CIO roku" • "Pro úspěšnou digitální transformaci je třeba nejprve změnit mentalitu, jednání a návyky pracovníků. Nová IT strategie dramaticky změnila administrativu." • Státní digitalizace: rozšířila příležitosti ve zdravotnictví, školství,policii,apod. Prakticky ve všech součástech statní administrativy Slovinska.

Mezinárodní letiště

- Společnost vlastní, provozuje a rozvíjí síť 10 letišť.
- Společnost byla založena v roce 2010 a je plně vlastněná státem. V roce 2015, odbavila její letiště 37.6 milionů cestujících.
- Zákazníky jsou cestující, letecké společnosti a nájemci obchodů, kanceláří a hotelů v majetku Společnost. Soutěží s ostatními letišti na celém světě být atraktivní pro letecké společnosti.
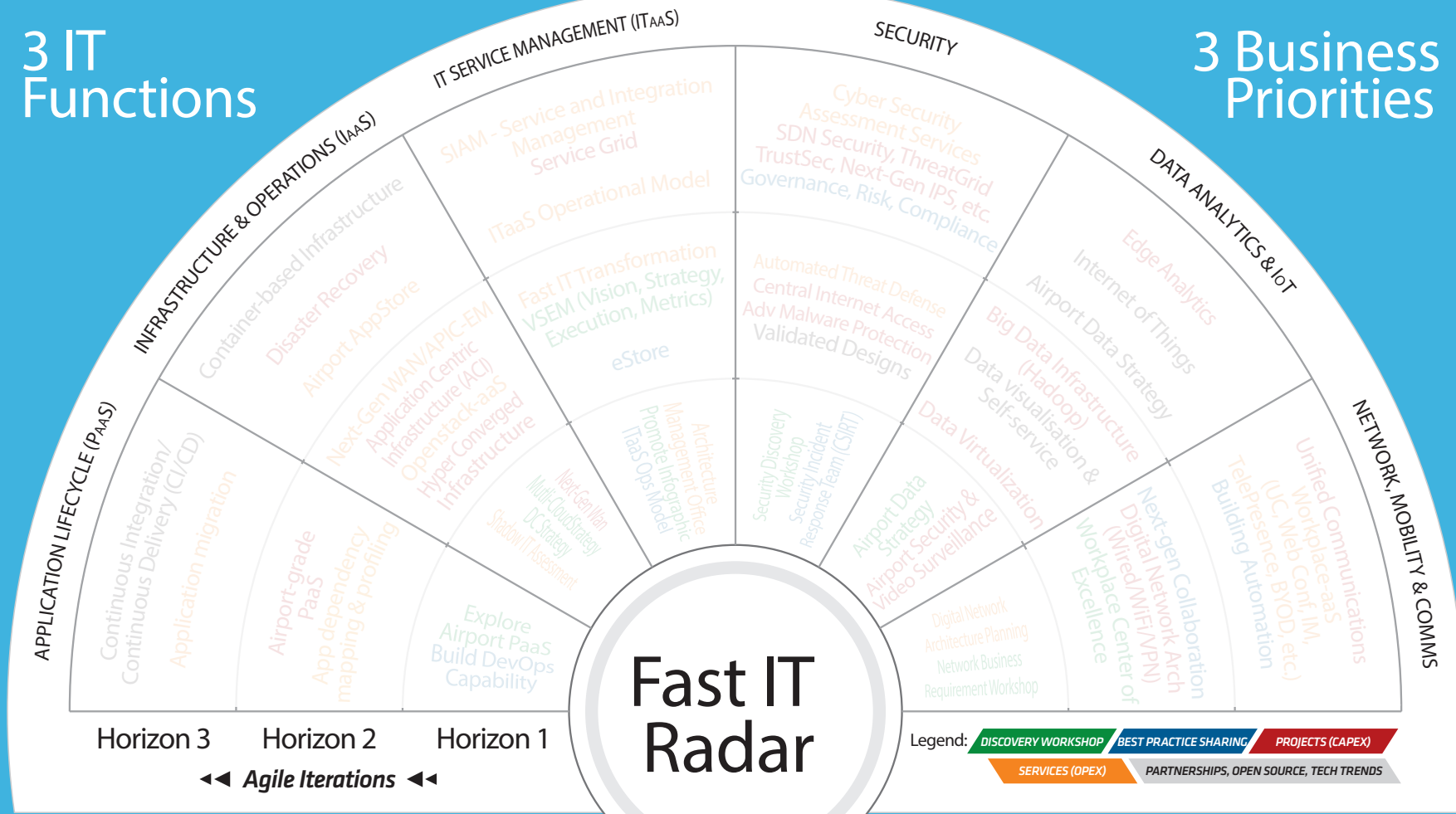
Fast IT = Evoluce IT oddělení pro umožnění digitalizace státu

LIDÉ/BYZNYS*

- Kultura partnerství mezi Byznysem & IT
- Data a Byznys optimalizace
- Inovace & Nové hodnotové řetězce
- Zákaznická/uživatelská zkušenost
- Zkušenost pracovníků
- Vzdělaní a motivovaní lidé

→ **Digitalizace**

Technologie

3 IT Functions

3 Business Priorities

IT Service Management (ITaaS)

Hybrid Infrastructure (IaaS)

Application Lifecycle (PaaS)

Security

Data analytics & IoT

Collaboration & Mobility

Fast IT Radar

Plánování cesty.

PROCES/ORG

- Řízení
- Lidé & Kultura
- Projekt & Change Management
- Architectura & IT Service Management
- Finance & Nové byznys modely
- Risk & Bezpečnost

→ **Bi-modální IT**

"BYZNYS" ve smyslu oborové části organizace

Fast IT Radar

3 IT Functions

3 Business Priorities

IT SERVICE MANAGEMENT (ITaaS)

SECURITY

DATA ANALYTICS & IoT

NETWORK, MOBILITY & COMMS

INFRASTRUCTURE & OPERATIONS (IaaS)

APPLICATION LIFECYCLE (PaaS)

IT Service Management (ITaaS)
- SIAM - Service and Integration Management Service Grid
- ITaaS Operational Model
- Fast IT Transformation VSEM (Vision, Strategy, Execution, Metrics)
- eStore
- Architecture Management Office
- Promote Infographic ITaaS Ops Model

Infrastructure & Operations (IaaS)
- Container-based Infrastructure
- Disaster Recovery
- Airport AppStore
- Next-Gen WAN/APIC-EM
- Application Centric Infrastructure (ACI)
- Openstack-aaS
- Hyper Converged Infrastructure
- Next-Gen Wan
- Multi-Cloud Strategy
- DC Strategy
- Shadow IT Assessment

Application Lifecycle (PaaS)
- Continuous Integration/Continuous Delivery (CI/CD)
- Application migration
- Airport-grade PaaS
- App dependency mapping & profiling
- Explore Airport PaaS
- Build DevOps Capability

Security
- Cyber Security Assessment Services
- SDN Security, ThreatGrid
- TrustSec, Next-Gen IPS, etc.
- Governance, Risk, Compliance
- Automated Threat Defense
- Central Internet Access
- Adv Malware Protection
- Validated Designs
- Security Discovery Workshop
- Security Incident Response Team (CSIRT)

Data Analytics & IoT
- Edge Analytics
- Internet of Things
- Airport Data Strategy
- Big Data Infrastructure (Hadoop)
- Data visualisation & Self-service
- Data Virtualization
- Airport Data Strategy
- Airport Security & Video Surveillance

Network, Mobility & Comms
- Unified Communications
- Workplace aaS (UC Web Conf, IM, Telepresence, BYOD, etc.)
- Next-gen Collaboration
- Digital Network Arch (Wired/WiFi/VPN)
- Building Automation
- Workplace Center of Excellence
- Digital Network Architecture Planning
- Network Business Requirement Workshop

Horizon 3   Horizon 2   Horizon 1

◄◄ *Agile Iterations* ◄◄

Legend:
- DISCOVERY WORKSHOP
- BEST PRACTICE SHARING
- PROJECTS (CAPEX)
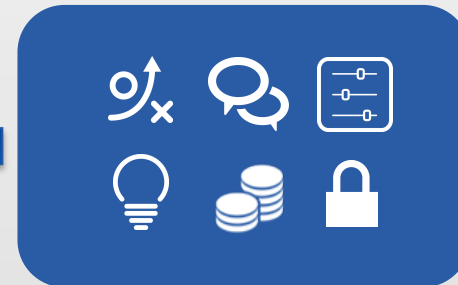- SERVICES (OPEX)
- PARTNERSHIPS, OPEN SOURCE, TECH TRENDS

Infografika Fast IT: Skládá všechny komponenty dohromady

LIDÉ & BYZNYS

PROCES & ORGANIZACE

FAST IT STRATEGIE

TECHNOLOGIE

IT Functions

IT Service Strategy, Delivery & Support

Security

Business Priorities

Infrastructure & Operations (I&O)

Data analytics & bE

Application Lifecycle

Collab. & Mobility

Fast IT Radar

FlyCorp

PEOPLE & BUSINESS

Culture of Partnership between Business & IT
- The business needs a digitization partner they can rely on. Managing outsourcing contracts is not enough.
- Local IT is needed to be present & responsive to business needs, otherwise Shadow IT and "kingdoms" rise.
- Business needs technical guidance from IT, and there is a problem when the knowledge is with outsourcers
- IT must drive IT projects with the knowledge and involvement of the business.

Data Insights & Digitized Processes
- No Chief Data Officer: no clear rules for data definition, quality, trust, policies, integration, etc.
- Many data silos with no real-time correlation/visualization: difficult to generate coherent business insights
- IT should not own specific business apps, as they don't have focus on the business processes and data.
- Business needs to own the data, the business processes and the specific apps (but not the generic apps)

Innovation & New Value Chains
- Involve all partners in a Digital Airport Living Lab: operations, real-estate, commercial, admin, etc.
- Don't let outsourcing sacrifice Innovation: Put IT Suppliers & IT Vendors to work.
- Experiment with the business (AGILE sprint) and orchestrate Proof of Concepts. Monitor new tech.
- Focus on Use Case Scenarios (e.g. traveller experience in new pier, remote security, personalized ads, etc.)

Passengers, Airlines and Tenants Experience
- Personalized digitized experience is a strategic objective to attract more passengers in FlyCorp airports.
- In order to offer better services to passengers, more insight is needed: current location, destination, airline, departure time, interests, profile, etc. This will help boost commercial sales.
- Incentivize (granular rebates) the airlines to encourage their customers to spend more time at the airport.

Workforce Experience and Operational Efficiency
- Everyone + everything connected on reliable, secure, location-aware network (including WiFi)
- Major operational efficiencies to be realized through Airport Collaborative Decision-Making (ACDM): ground handling, gate, baggage reconciliation, assistance for reduced mobility persons, etc.
- Current focus is on administration, but operations/real-estate/commercial are in big demand (inc. BYOD).

Skilled and Motivated People
- Proactive and blended training curriculum to get everyone on-board with the Airport Digital Strategy.
- Attract, train and retain young talent and senior experts. Break the high turn-around cycle.
- "People Deal": positive work environment where employees can flourish & excel.
- Empower people, encourage/reward innovation, celebrate successes.

DIGITAL AIRPORT STRATEGY

Airport Digitization presents a critical opportunity for FlyCorp to profoundly transform and improve the way it competitively runs aviation operations, safety & security, commercial and real estate, aviation services, infrastructure & support, and administrative activities.

To succeed, FlyCorp must become a **technology company**, with **IT as a key business enabler**, not as a cost center. IT will progressively be offered **"as a Service"**, through an automated IT Service Catalogue, addressing in the most cost-effective way the evolving digital needs of travellers, business units, employees, airlines and airport partners.

FlyCorp IT will drive an effective IT **Vision/Strategy/Execution** framework, establish clear **organizational boundaries** between business and IT, develop the right **IT service portfolio** supported by robust **sourcing strategy**, and provide **rock-solid IT infrastructure**.

IT is committed to becoming FlyCorp's trusted advisor for Digital Airport Transformation.

Flagship IT Initiatives
1. Drive IT Steering Model Transformation Journey with an Architecture Management Office: Infrastructure & Operations > Service-Oriented Organization > Technical Arch > Business Arch > Fast IT. Reset and clarify the Business/IT Boundaries to maximize project efficiency and ROI.
2. Build the Digital Network Architecture: wired, wireless, VPN, location-aware, access control, secured, highly-available, IPv6, policy-based, Quality of Service.
3. Drive New Business Insights through Corporate Data Strategy. Focus on Data Virtualisation, Data Warehouse Expansion, Mobile Analytics, and the Internet of Things.
4. Accelerate Application Onboarding and simplify maintenance. Rationalize IT Demand/Supply through a self-service, automate IT Portal ("FlyCorp eStore") providing access to all types of IT Services.
5. Deploy Next-Gen Security: IoT, automated threat defense, IP video surveillance, IP access control.
6. Modernize Workplace & Collaboration, for all types of employees, in all FlyCorp locations.

PROCESS & ORGANISATION

Governance, Strategy and Decision-making
- Redefine the boundaries between business and IT. IT must provide rock solid infrastructure and the generic applications; the business should own the data and apps specific to them.
- Today, business projects are treated in siloes and handed over to outsourcers.
- IT manages too much and becomes the bottleneck. IT cannot be the software factory for all FlyCorp.
- Need to get the IT house in order: Infrastructure & Operations > Services > Technical > Business > Fast IT

People, Culture and Communication
- Transparency is needed: communicate the IT governance, strategy and decision-making.
- IT needs to be present and "own the problem" and not point to the outsourcers for the resolution.
- Communications is key: business partners need to understand why a project is taking longer and what they need to do. Very difficult to find the right person in FlyCorp IT who will solve the problem.

Planning, Execution & Change Management
- Establish global & local metrics/SLAs to shape and drive organizational changes
- Need to streamline and speed up the "concept to implementation" process
- ITIL: mature processes for change/incident/problem/demand management. Work with outsourcers.

Architecture & IT Service Portfolio Management
- Build clear IT development plan and communicate it to the business partners.
- Build a common platform for all applications. Don't treat every new app is treated as a new IT project.
- Build the ITaaS organisation, powered with a centralized IT Service catalogue with automated fulfilment
- Reduce waste of resources and budget through IT assessment (apps, catalog, servers, storage, network)
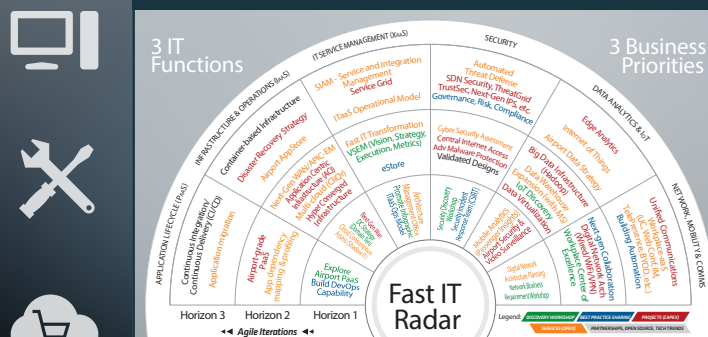
Finance & Sourcing Optimisation
- Drive holistic multi-sourcing strategy: balance IT-led purchases (e.g. network) with business-led purchases (e.g. apps). Balance outsourcing (cost focused) with in-house delivery (innovation focused).
- Pre-plan handovers between outsourcers and retain the knowledge and expertise inside FlyCorp.
- Create transparency around IT finance and billing. Benchmark FlyCorp IT against market pricing.

Risk Management & Cyber Security
- Risk profile of FlyCorp Airports is increasing exponentially: more apps, more devices, more access.
- Little awareness of what connects to the network today: network-based security approach needed.
- Cental Security Operations Center (SOC) can offer security services to all FlyCorp airports and buildings.
- Procurement of security solutions is fragmented resulting in high costs. Need to consolidate purchasing

TECHNOLOGY

Application Lifecycle Acceleration (PaaS)
- Enable the business with a platform to rapidly develop apps in an agile way (e.g. Airport Collaborative Decision Making)
- Rationalise licence utilization and huge application sprawl
- Build a common approach/vision to application lifecycle
- Investigate Platform as a Service (PaaS) as the standard way for integrating and maintaining applications in the future.
- Solve Lifecycle problems: IT can't upgrade server because the app too old + business can't upgrade the app because server too old.
- Application profiling: provide a detailed map of all information systems currently managed. What is the migration path?
- Encourage outsourcers to adopt agile procurement methods

Infrastructure & Operations (IaaS)
- Build multi-DC/multi-cloud strategy
- Automated infrastructure: provisioning of application stacks (network, compute, storage, security) in minutes, not weeks
- Not about managing servers, it's about running applications in an agile way
- Build self-service portal through which all IT services can be ordered and fulfilled automatically. Support DevOps practices.
- Build state-of-the-art data center services: disaster recovery, SLA, support, security, capacity, reliability, cost per VM, etc.
- Connect all FlyCorp premises (HQ + Remote): cost savings + performance increase + airport-grade security

IT Service Management (XaaS)
- Set up an Architecture Management Office, led by FlyCorp Architects
- Build the FlyCorp eStore (ITaaS):
- Provide users rapid access to all IT services
- Build service catalogue + automated fulfilment.
- Focus on services offered, not on the products.
- Communication Strategy (infographic) to crystalize new culture
- VSEM for bi-directional communication (top-down & bottom-up)
- Drive organizational change with key measurement points/SLAs
- Establish new service-oriented job roles e.g. "service owner"

3 IT Functions

3 Business Priorities

IT SERVICE MANAGEMENT (XaaS)

SECURITY

DATA ANALYTICS & IoT

NETWORK, MOBILITY & COMMS

INFRASTRUCTURE & OPERATIONS (IaaS)

APPLICATION LIFECYCLE (PaaS)

Fast IT Radar

Horizon 3 | Horizon 2 | Horizon 1

◄◄ *Agile Iterations*

Legend: DISCOVERY WORKSHOP | BEST PRACTICE SHARING | PROJECTS (CAPEX)
SERVICES (OPEX) | PARTNERSHIPS, OPEN SOURCE, TECH TRENDS

Cyber Security
- Foster a balanced IT Security Framework, with model for information security classification
- Drive consolidated approach to wired, wireless and VPN access. Enable a consistent secure Mobility (MDM, NAC, TrustSec, BYOD).
- Integrated Security Systems to provide comprehensive approach "Before, During and After" an incident
- Provide robust Network Access Control, to segregate devices depending on security profile. Centralize Internet access to reduce attack surface. Provide automated threat defense.
- Extend role of Security Operation Center to cover all FlyCorp airports and buildings Proactive Security logs monitoring.

IoT and Data Analytics
- Build Information & Data Strategy for FlyCorp (Chief Data Officer)
- Data virtualization: correlate/connect islands of information provide real-time information and insights to FlyCorp Business Units and Partners
- Plan Big Data Infrastructure (Hadoop)
- Enable self-service and Data Visualization (Tableau)
- IoT will be a driver for cost-effective operations and increased customer satisfaction.
- Relevant or existing IoT applications at FlyCorp: Video surveillance, Access control, IP-based handwash cleaners, tracking of passengers inside the terminal using WiFi, queuing monitoring, runway LED lighting, parking, Asset tracking, Personnel tracking, building management systems, Self-service Checking, Boarding gate, etc.

Network, Mobility & Communications
- Build the Digital Network Architecture, with a unified strategy for access & mobility: Wired + Wireless + VPN + MDM + Network Segregation + Quality of Service. Restore the trust in the network.
- Strategic goal is to integrate all parties into one communication system and IT is at the center. This requires the deployment of a robust Local Area Network for ground traffic handling, etc. Need to have timestamp. Dedicated bandwidth (=Quality of Service). Rationalize Workplace Strategy throughout the Ministries
- Evolve Unified Collaboration Platform, which will be a key enabler for culture change and establish new ways of working.
- Enable TelePresence for inter-airport collaboration

Citace vyjádření zúčastněných CIO k Fast IT

""Vaše doporučení, jenž jsme začlenili do našich plánů řízení nám pomohla transformovat interní IT oddělení a lépe podporovat "byznys" části naší organizace"

Instituce EU

"Jsem velmi vděčný za pomoc Cisca ve věci státní digitalizace. Dotkla se nejen technologických řešení, ale také nám pomohli identifikovat potřebné změny a úpravy organizačních procesů a znalostí požadovaných zaměstnanců. Myslím si a věřím, že použití Fast IT metodiky je důležitým příspěvkem k naší cestě vpřed.

Ministerstvo pro bezpečnost a spravedlnost

"Rád bych vám ještě jednou poděkovat za zpracování strategické Fast IT strategie, je výborným výchozím bodem pro naši Cloud strategii a velkým přínosem pro komunikaci s resortními CIO . Prezentace dokumentů byla velmi pozitivně hodnocena naším ministrem."
"

Východní Evropa vláda

"Ve spolupráci s vámi se nám podařilo strukturovat všechny problémy, které jsem delší dobu vnímal. Nyní máme akční plán, se kterým mohu velmi dobře pracovat. [...]. Fast IT digitalizační mapu jsme umístili v každé zasedací místnosti budovy IT oddělení"
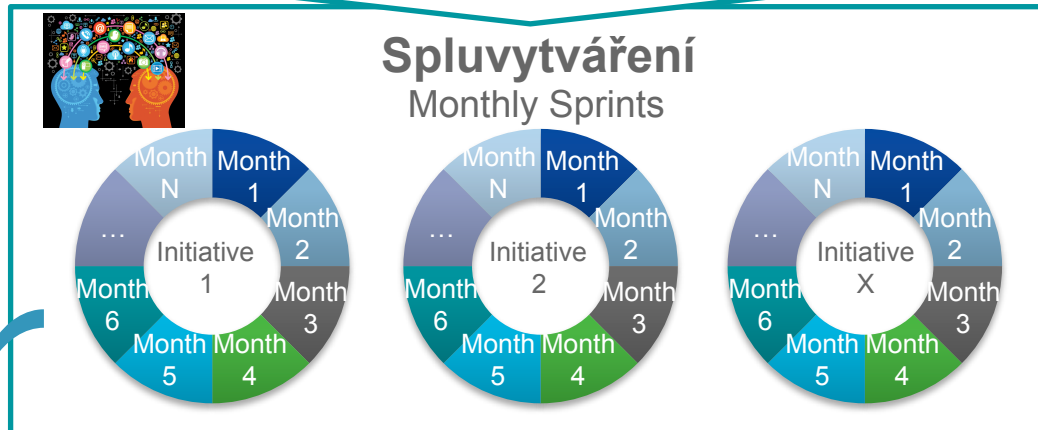
Národní penzijní fond

Fast IT: od Vize přes Spoluvytváření po Realizaci

1

Envision

Fast IT : Interviews → Analysis → Readout

10 key stakeholders   2 weeks
90 minutes each

1. Fast IT Radar
2. Fast IT Report
3. Klíčové IT Iniciativy

2

Spluvytváření
Monthly Sprints

Initiative 1 — Month 1, Month 2, Month 3, Month 4, Month 5, Month 6, ..., Month N

Initiative 2 — Month 1, Month 2, Month 3, Month 4, Month 5, Month 6, ..., Month N

Initiative X — Month 1, Month 2, Month 3, Month 4, Month 5, Month 6, ..., Month N

3

Realizace
Projekty

Design → Pořízení → Nasazení → Provoz

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@FastITzone
pbikar@cisco.com

CISCO

TOMORROW starts here.