

Device management

April, 2018



Agenda

Introduction

Why do we need device management?

Device management activities

Operational efficiency

Compliance & security

Exercises



Introduction

Typical device lifecycle

Devices will ...

Come and go

Disappear

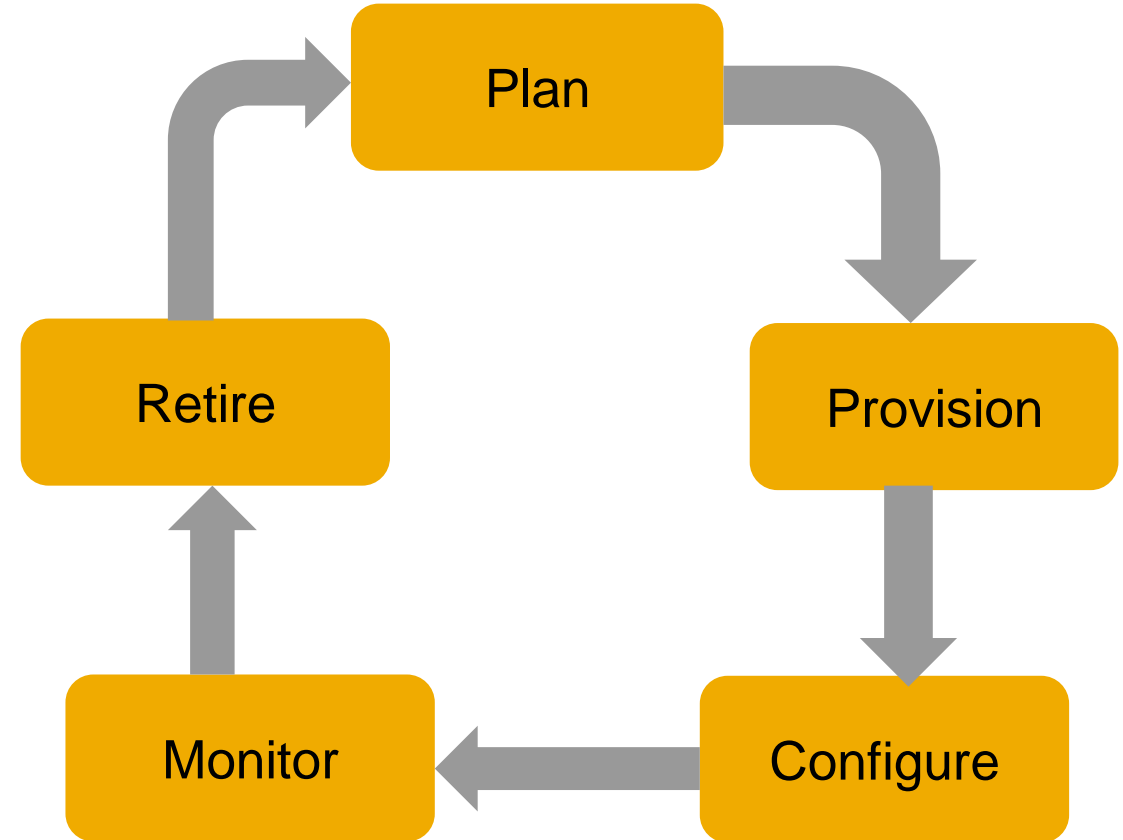
Fail

Misbehave

Get compromised

...

And someone has to take care of it 😊



Why device management?

Operational efficiency (less cost)

Improve employees to devices ratio

Reduce travel expenses

Less damage & repair (e.g. predictive maintenance)

Business agility & QoS (more income)

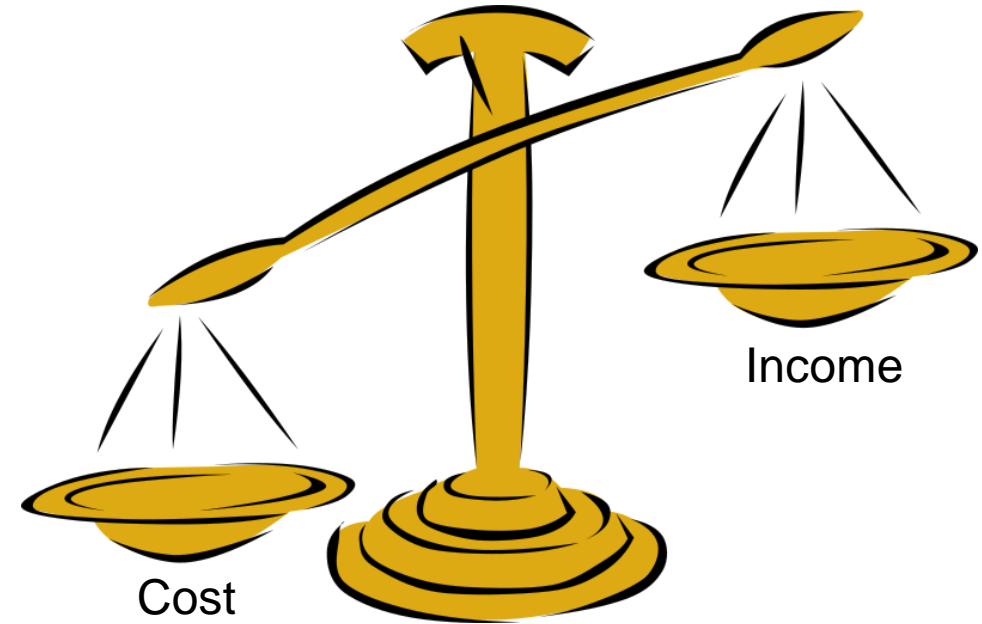
Respond to business demand

Identify & resolve issues faster

Compliance & Security (manage risk)

Don't break the law

Spot and handle security incidents efficiently



Risks

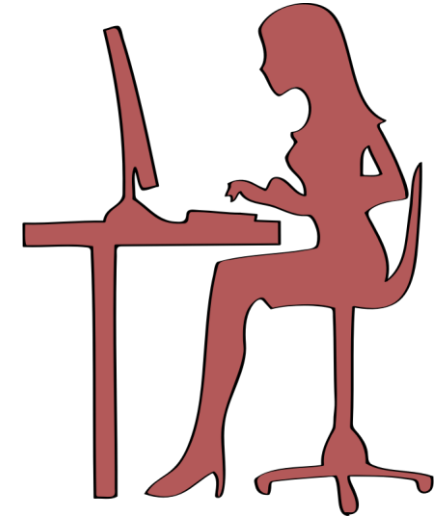


Device management activities

Efficiency (1 of 2)

Provisioning, replacement & retirement

- Reduce personnel cost (e.g. customer self service)
- Optimize field ops schedules
- Integrate with existing systems (e.g. CRM, ERP)
- Handle heterogeneity (anticipate different hardware)



Warranty & claims management

- Optimize device specific workflows (e.g. serial numbers ...)
- Analyze statistic to identify root causes

Efficiency (2 of 2)

Monitoring

Battery, network, storage and other resources

Performance (e.g. faulty sensor)

Context awareness (geo location, environment)



Maintenance

Configurations & updates

- OTA updates (with safe mode)
- Bulk operations
- Scheduled maintenance windows (minimize downtime)
- Rolling updates

Minimize downtime (automatic failure recovery)

Smart alerting (that doesn't flood 😊)



Compliance & Security

Compliance

Restricted change management

- Who is allowed to push an update or reconfigure a device?

Data privacy

- Who is allowed to look at device/customer data?

Auditing

- Who did the above things, when and why?

Security

Secure provisioning

Intrusion detection & Device blacklisting

User reset & safe update for compromised devices

...



Thank you