



Endpoint Security in industry 4.0 era

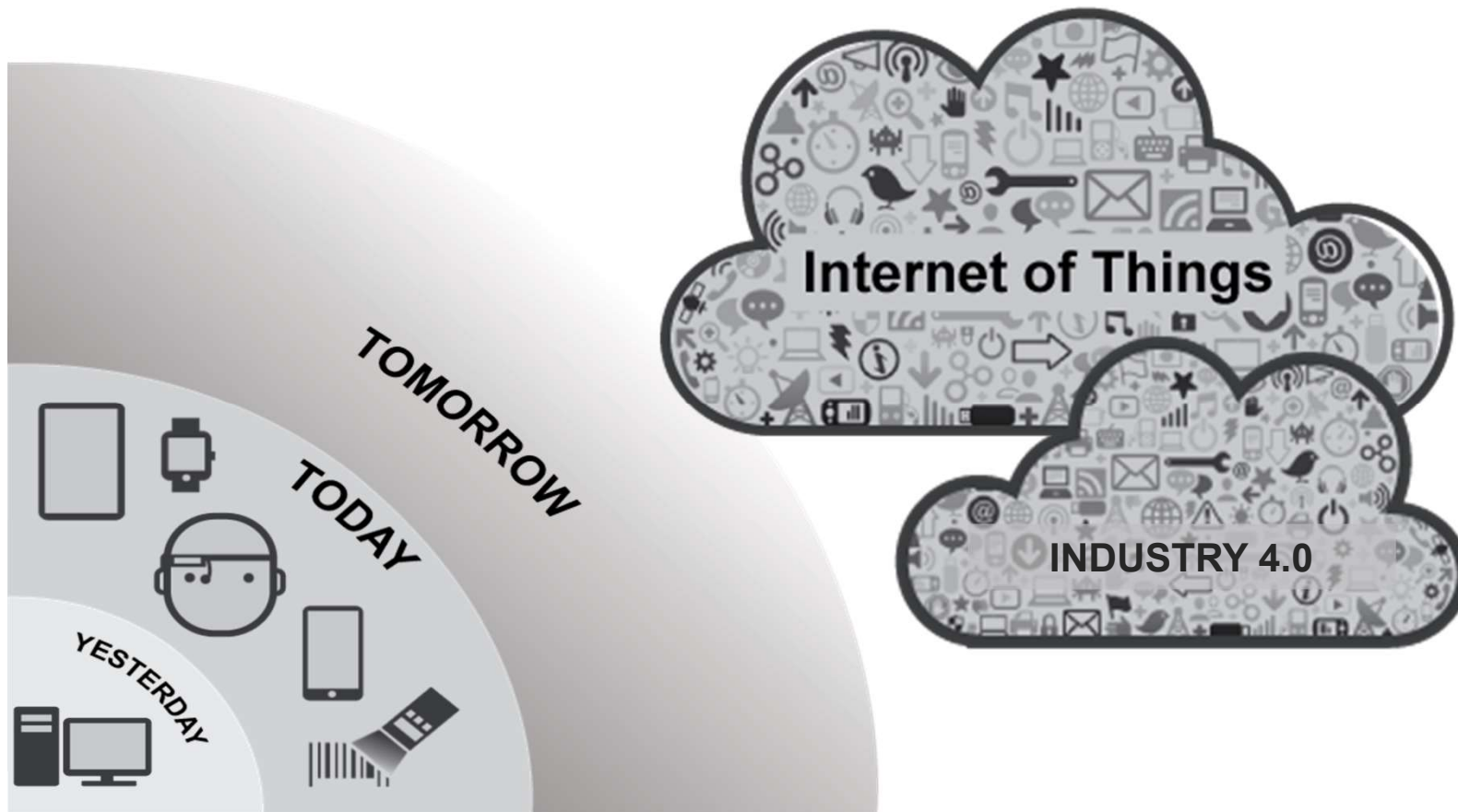


Marek WODA, PhD
Senior Technical Consultant

Industry 4.0 Era – pains & gains



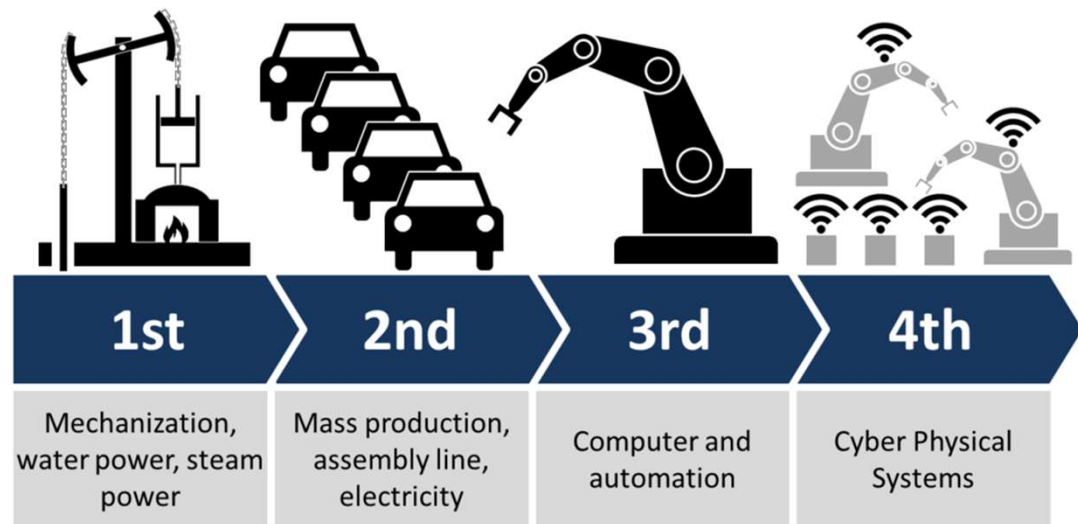
Evolution of the Workplace



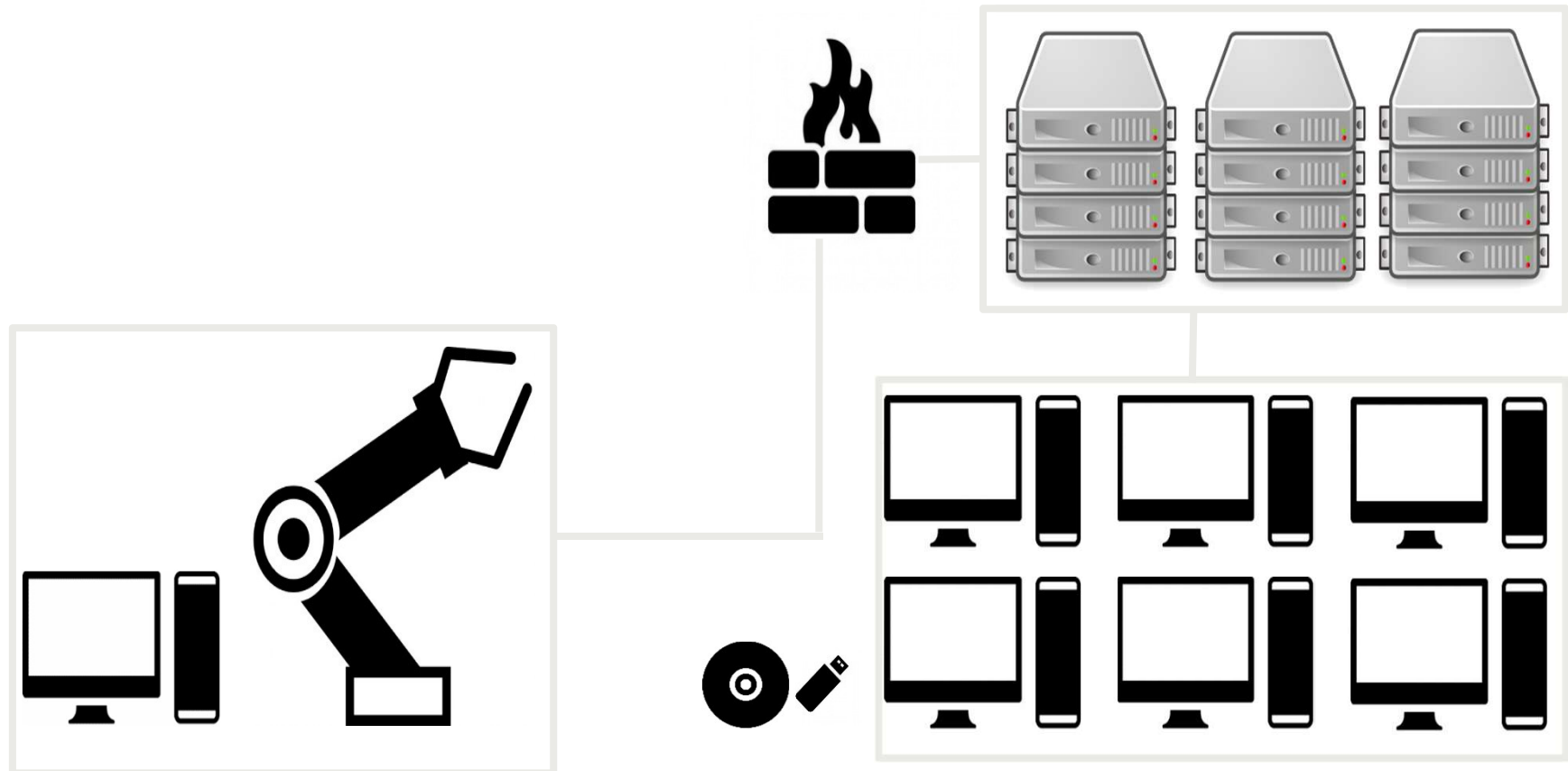
Industry 4.0 – Definition

Current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the *Internet of Things* and *Cloud Computing*

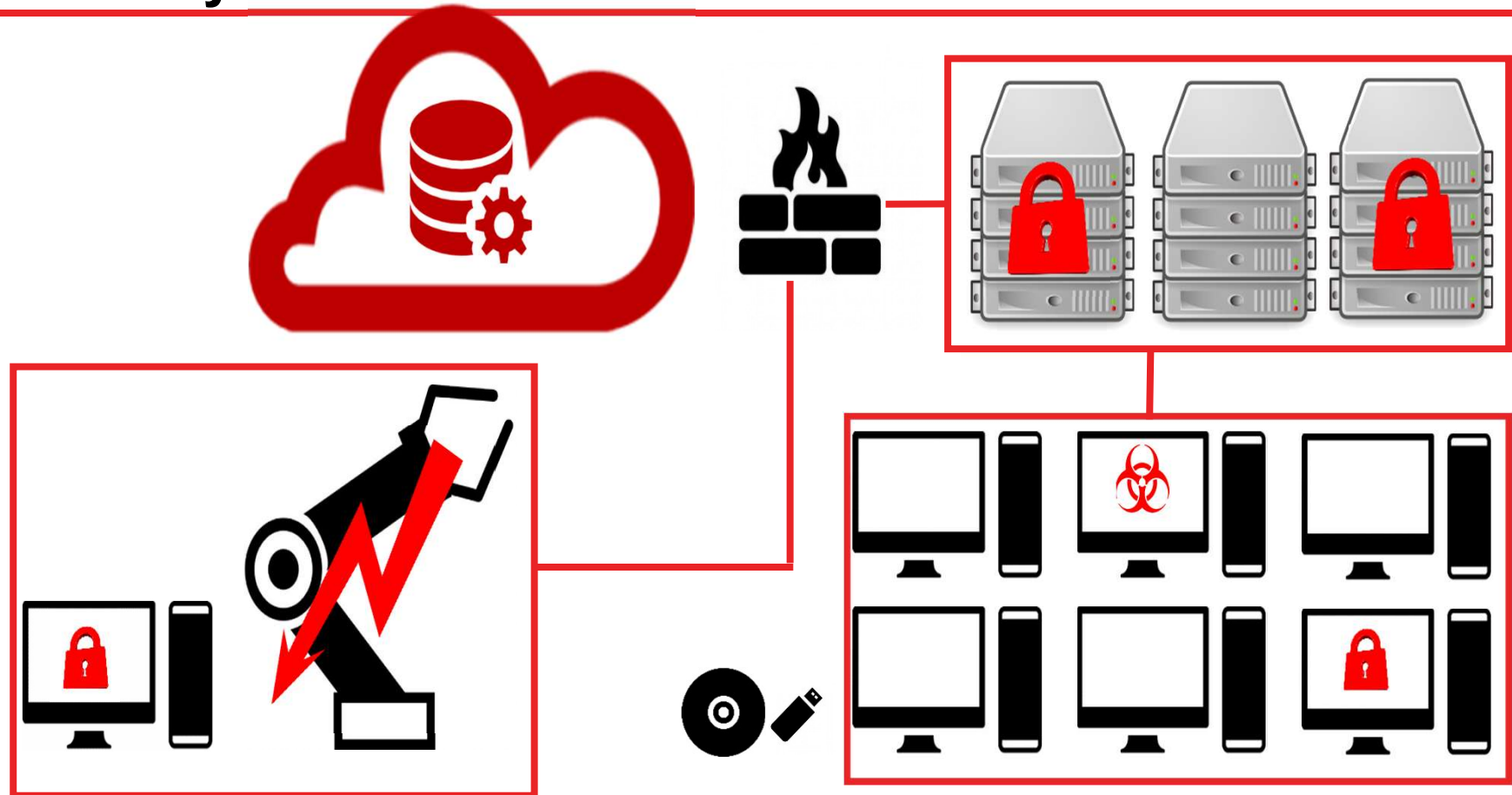
**Flexible Low Cost
Automation**



Industry 4.0 – Scenario



Industry 4.0 – Scenario



Industry 4.0 – Facts

Every second a company is hit by digital attacks



Threat #1

USERS



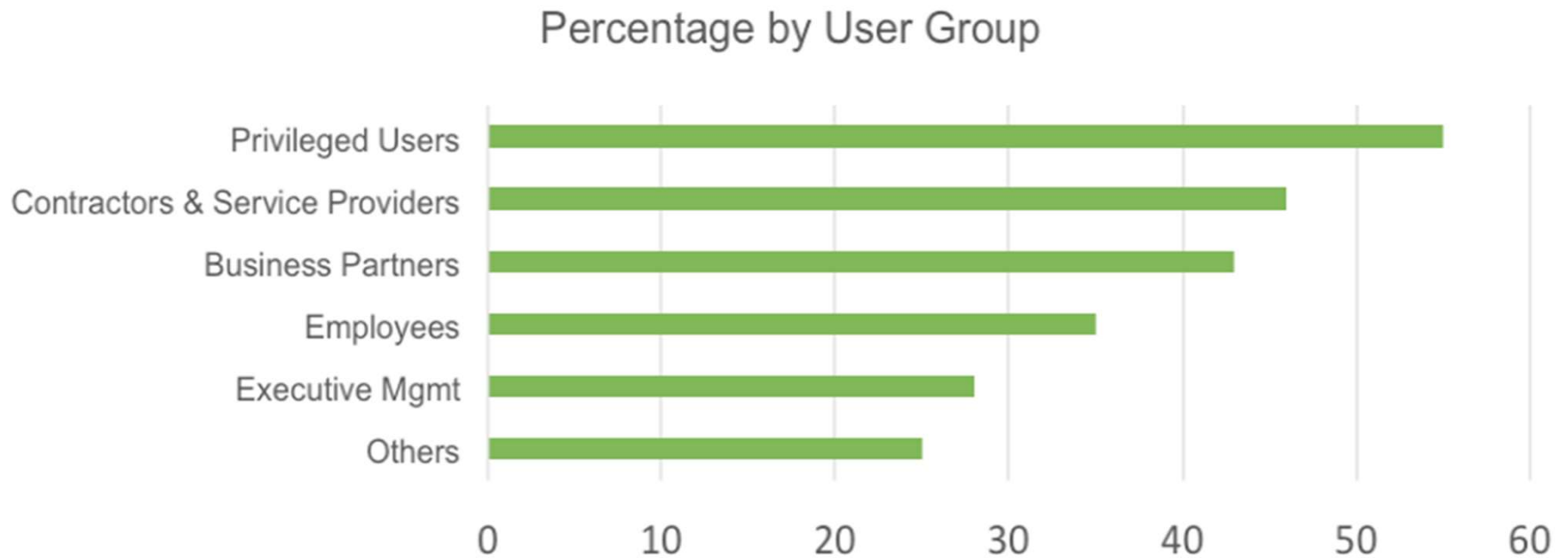
Threat #1

USERS

60%

Attacks are targeted to end user!

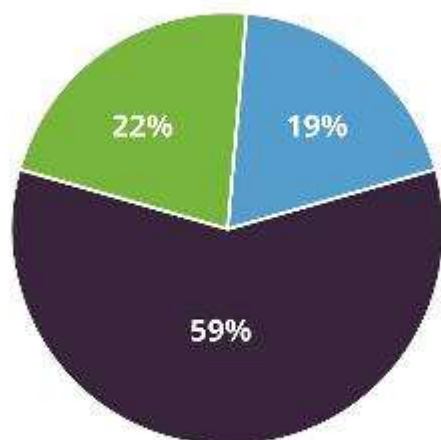
Threat #1



<https://www.skyhighnetworks.com/cloud-security-blog/protecting-against-your-biggest-vulnerability-privileged-user-threat/>

Threat #1

What Kind of Internal Threat (from Employee or Contractor)
Are You Most Worried About? *(select one)*



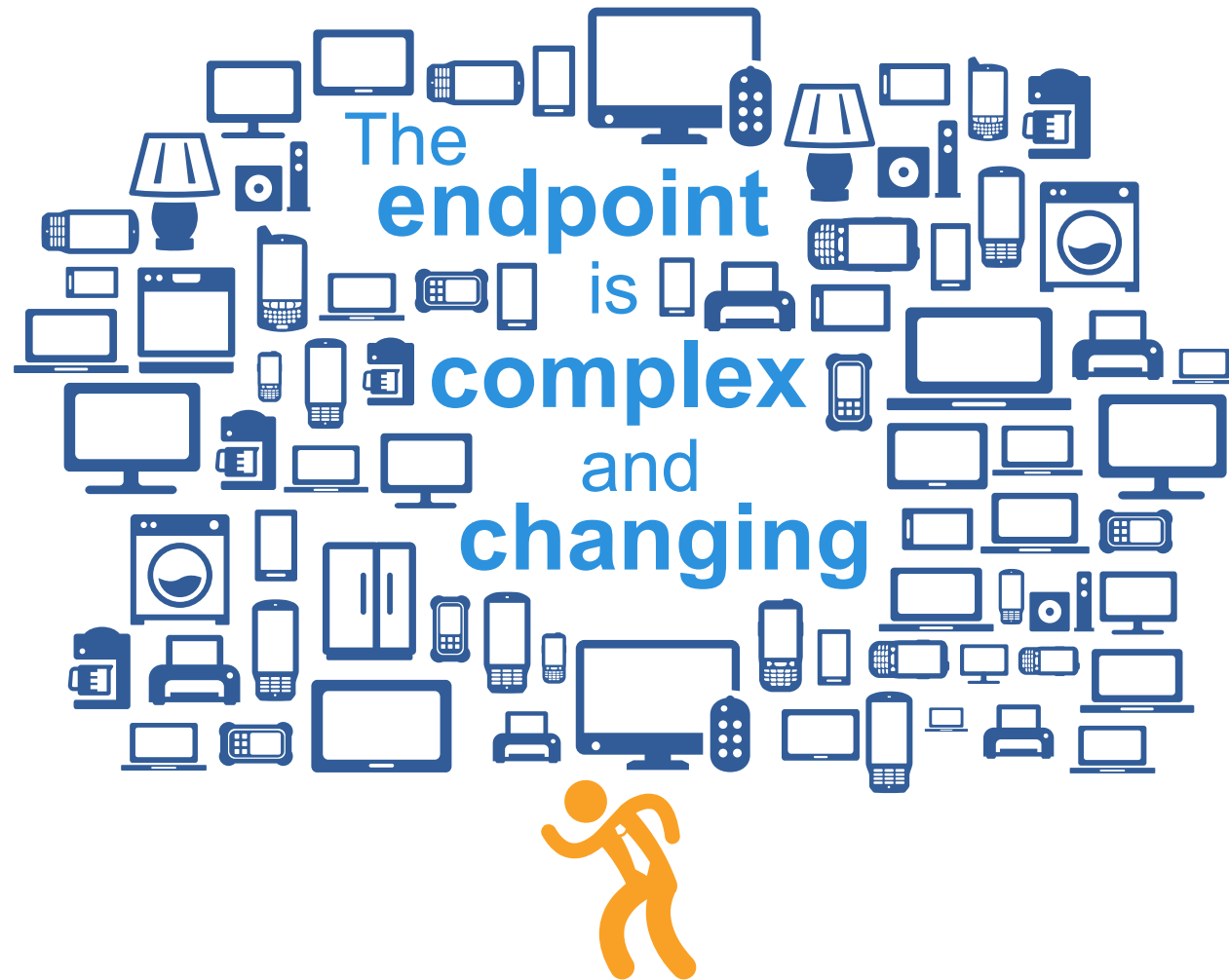
- Careless User (insider who inadvertently puts sensitive data at risk)
- Compromised User (insider whose credentials are stolen, or unknowingly introduces malware into the enterprise)
- Malicious User (insider who deliberately steals or destroys company assets)

<https://www.imperva.com/blog/top-insider-threat-concern-careless-users-survey/>



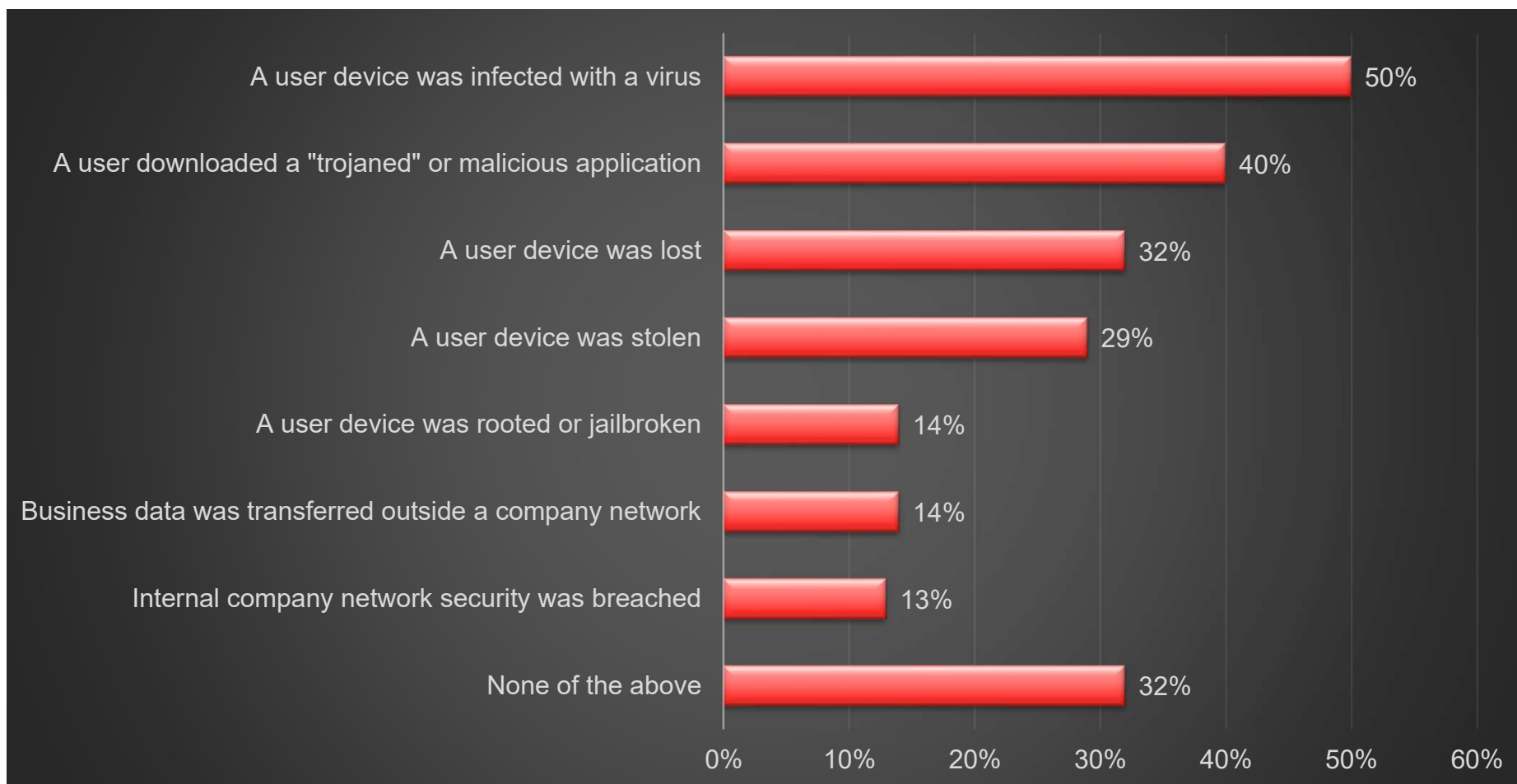
Threat #2

DEVICES





Which of the following security breaches occurred in the last 12 months in your organization?





70% **35%**

MOBILE DEVICE LAPTOP PC

personally own the devices they
use to perform their jobs

40%

regularly use insecure
methods for sharing company
data

50%

all business tasks are
performed outside the
physical workplace

5%

surveyed organizations indicate they are fully
prepared to support all modern endpoint
management requirements



Customer expectations

I want to work in any place, in any time using any device.







Process Chaos

67%

of service desks
time is spent
firefighting

"I am stuck in firefighting long call queues, call abandonment, rates, resolution times are up - rather than service improvement"

I have to balance current needs with new but we don't get additional resources"

"We are inconsistent in the way we handle issues"

"We are our own worst enemy in some cases our service level breaches have been caused by our own changes"

SDI Benchmarking Report



Dissatisfied End User Customers

96%

of desks state that they will use more self-help and self service facilities in the future

SDI Benchmarking Report

"My end users are complaining they can't get access to new applications quickly"

"We have long call queues and 30% are just password reset requests"

"IT does nothing to help me in my job, I'll find my own IT software"



What is going on

70%

of respondents do not measure cost per call, and 74% do not measure cost per email

SDI Benchmarking Report

"I can't see into our operation to justify our performance or budget requirements for more resources"

"I can't pull the reports I need quickly"

"We don't always get information from other IT teams"

IT Complexity

52%

Do not have
enough resource
available

93%

Said that their
service desk needs
to be **more efficient**

“ We can’t leverage existing
IT investments so we are
using several siloed
systems to manage the
service desk.”

“ We are creating
errors and
unnecessary
delays through our
own inefficiencies.”

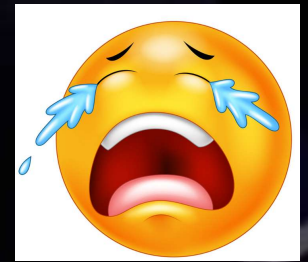
SDI Report – Anatomy of a Service Desk



Service Desk Staff are Unhappy.

- “Staff morale is at an all time low and its having knock on effect in how they deal with end user customers”
- “They have too much to do and no resources”
- “They are constrained by outdated processes and systems which don’t match our employee expectations of what they should get from IT support”
- Staff skills are not improving and they are leaving to get better jobs

SDI Benchmarking Report



FBI: 9 steps to protect against RANSOMWARE attacks

- 1 Patch the critical operating systems and applications
- 2 Ensure that antivirus software is up-to-date and that regular scans are scheduled
- 3 Manage the use of privileged accounts
- 4 Implement access control that focuses on the data
- 5 Define, implement, and enforce software rules
- 6 Disable macros from Microsoft Office files
- 7 Implement applications whitelisting
- 8 Restrict users to virtualized or containerized environments
- 9 Back up critical files frequently





Top 5 things you can do to stay secure

1

Remove/control admin rights

2

Remediate OS vulnerabilities

3

Remediate app vulnerabilities

4

Implement application whitelisting

5

Control peripheral connections

Security and automation – stay secure inside your organization

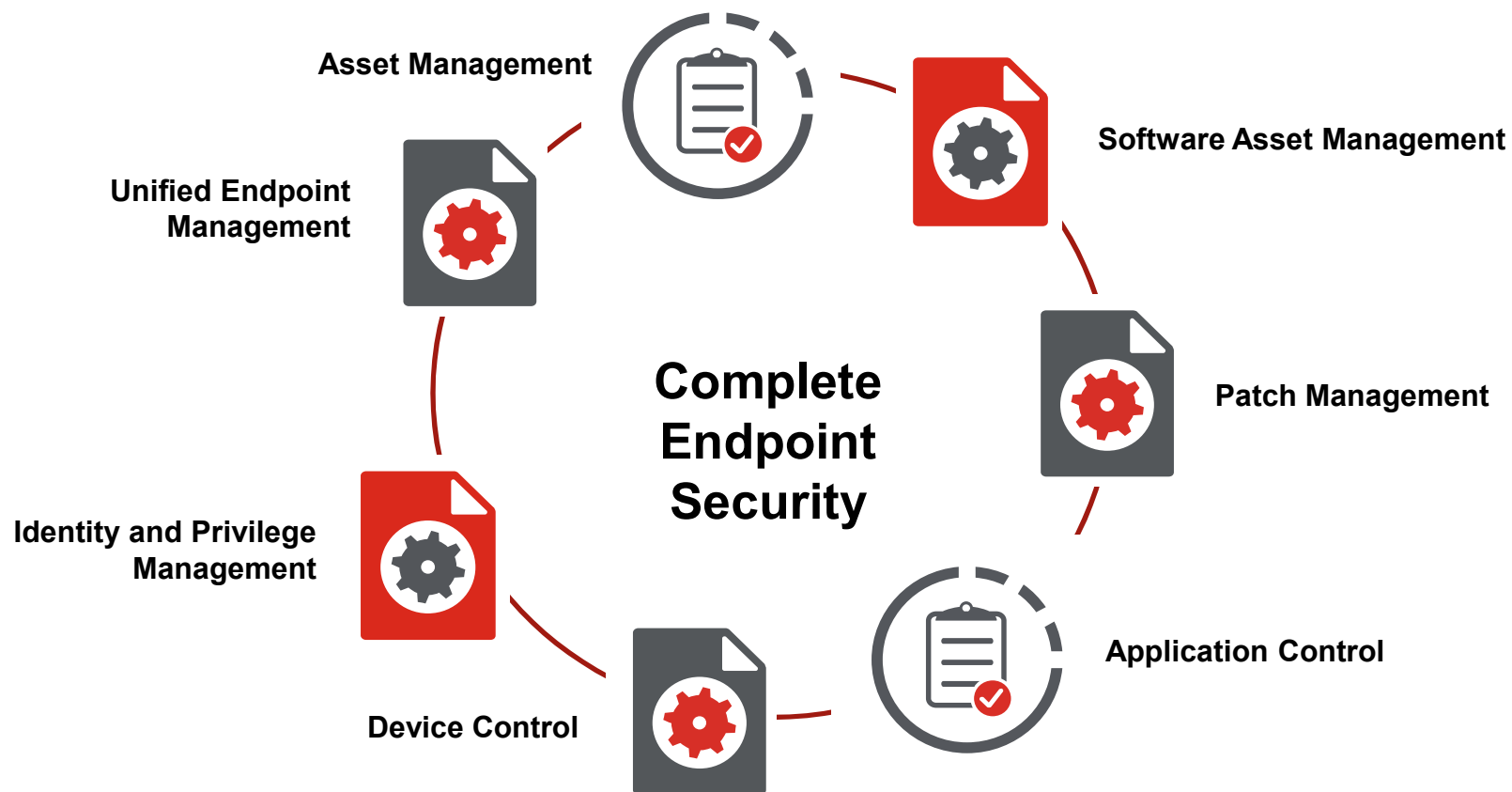




**PREVENTION
IS BETTER
THAN
CURE**



Endpoint Security according IVANTI





Why Patch Management

83%

of breaches are made through
3rd party applications

11%

of breaches are made through
Operating Systems



Patch Management

Ivanti has about 60% of the global patching market

- 1. Ivanti Patch for Endpoints Manager (Clients, Servers)**
- 2. Ivanti Security Controls (Clients, Servers)**
- 3. Ivanti Patch for Linux, UNIX, Mac**
- 4. Ivanti Patch for SCCM**



Application Control

ivanti



Application Control
powered by AppSense

- Prevent Malware & Ransomware
- Remove admin rights from users
- Elevate or restrict privileges
- Enforce licensing / ensure compliance

ivanti



Environment Manager
powered by AppSense

- Replace legacy logon scripts & GPOs
- Speed up logon times
- Eliminate profile corruption
- Simplify Windows migrations
- Consistent desktop on multi-platforms

ivanti



Performance Manager
powered by AppSense

- Improve user experience
- Patented CPU management
- Physical memory management
- Dramatically increase server density
- Consistent quality of service



Device Control



1. Discover all removable devices that are currently connected or have ever been connected to your endpoints.

2. Assess all “plug and play” devices by class, group, model, and/or specific ID and define policy through a whitelist approach.

3. Implement file copy limitations, file type filtering, and forced encryption policies for data moved onto removable devices.

4. Monitor all policy changes, administrator activities, and file transfers to ensure continuous policy enforcement.

5. Report on device and data usage to document compliance with corporate and/or regulatory policies.



Why IT Asset Management?

Software Audit

Compliance

Hardware Lifecycle/Refresh

Asset Loss

Software Lifecycle/Refresh

Security Threat



License Optimizer (SAM)

Supported Vendors

ORACLE®

ORACLE®
DATABASE

ORACLE®
WEBLOGIC

ORACLE
iAS

IBM

SAP®

WebSphere®

PowerVM

IBM
DB2®

Informix®
software

AIX®

Microsoft

Microsoft®
Hyper-V™

Microsoft®
SQL Server™

Microsoft®
Active Directory

Microsoft®
Hyper-V™

Windows Server

Microsoft®
SharePoint™

vmware®

PowerVM

CISCO®

EMC²



Data Summary Vendor Overview

Advanced view ☒ Basic view

Vendors

Showing: Vendors

hide reconciliation types

Reconciliation (Full)

Reconciliation 02 February 2017

Reconciliation type

Full

Partial

Modelled

Reconciliation: Reconciliation 02 February 2017

type to filter vendors

All Vendors

By compliance

By shortfall

By surplus

By licenses

By exposure

Microsoft

Compliance **77.19%**

No. of Programs 142,489

Licenses 193,179

Shortfall -32,500

Surplus 83,198

Exposure **£8,579,476.00**

IBM

Compliance **85.18%**

No. of Programs 35,144

Licenses 430,820

Shortfall -52,176

Surplus 130,891

Exposure **£6,121,181.00**

Adobe Systems Inc

Compliance **15.98%**

No. of Programs 6,546

Licenses 1,982

Shortfall -5,500

Surplus 936

Exposure **£903,919.00**

Oracle Corporation

Compliance **73.66%**

No. of Programs 19,414

Licenses 46,986

Shortfall -5,174

Surplus 32,686

Exposure **£723,817.00**

Symantec Corporation

Compliance **79.78%**

No. of Programs 18,268

Licenses 38,467

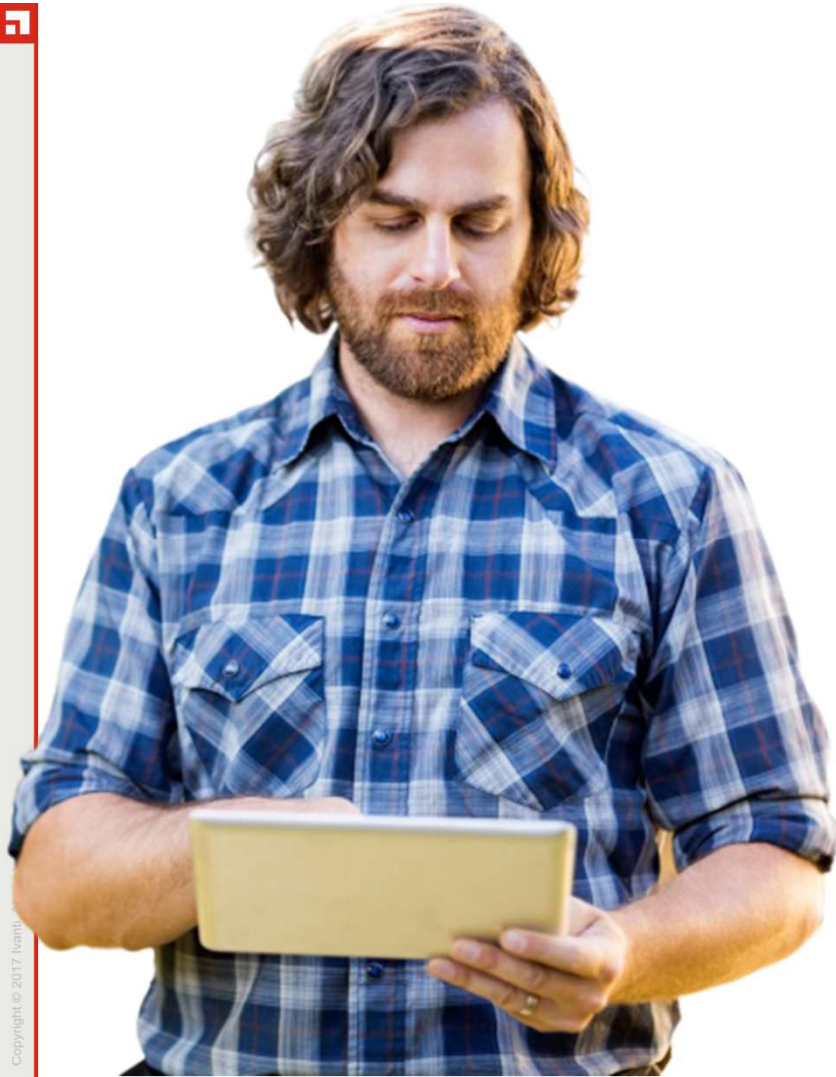
Shortfall -3,594

Surplus 23,893

Exposure **£432,062.00**

Our goal

Enable users to be their most productive, and in the same time helping IT depts keeping full control.

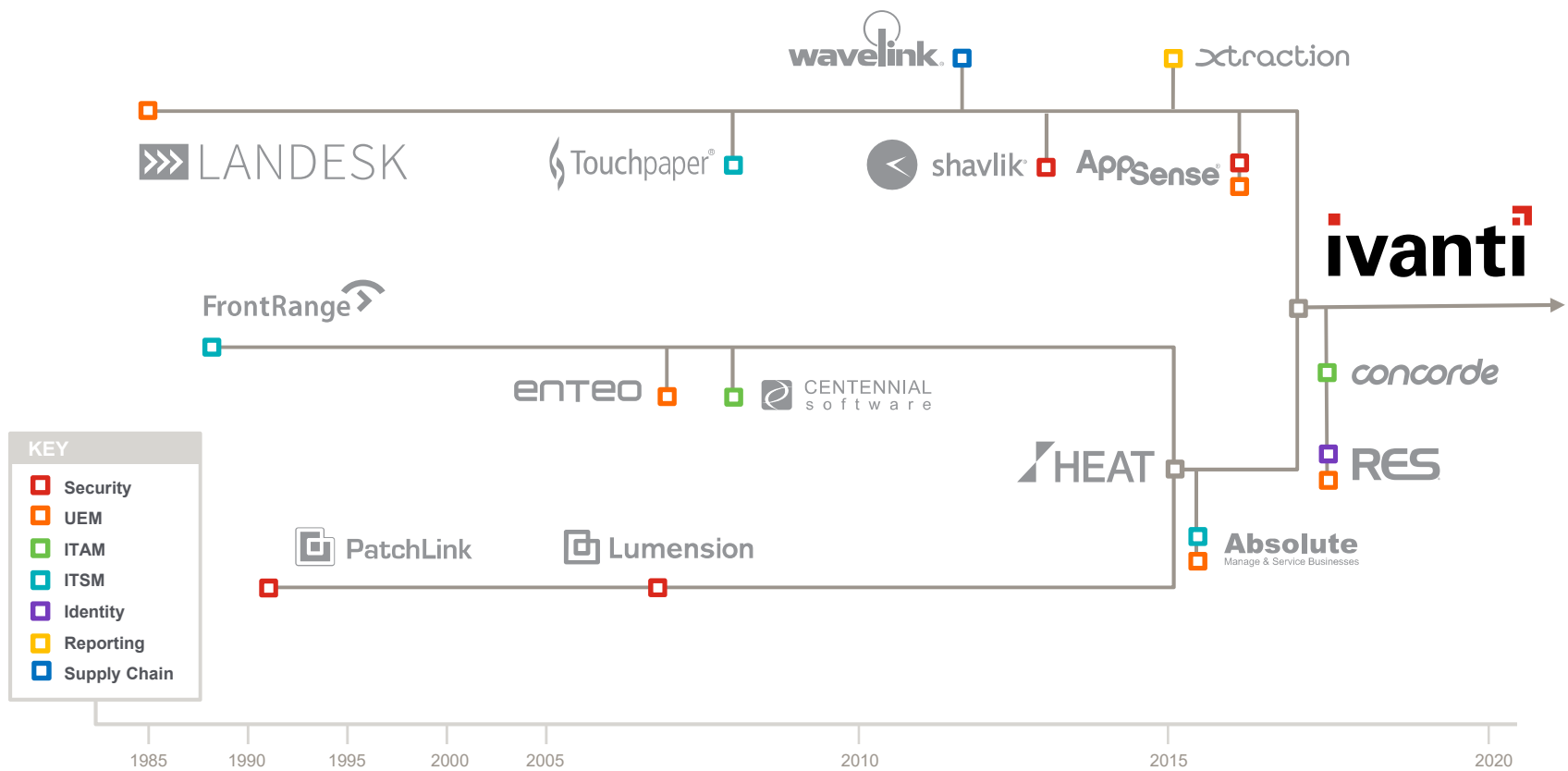




- Established in 1985, owned by Intel by 12 years
- Actual owner is Clearlake Capital Group
- HQ in Salt Lake City, UT. USA
- 1900+ employees in 36 countries
- 27 500+ customers, 47 M+ endpoints
- 1500+ partners
- 10 acquisitions from 2012 (the last is RES)
- EMEA Support Center in Warszawa
150 employees



Ivanti DNA





Gartner - Magic Quadrant - IT Service Support Management Tools

ITSM: Moving in the Right Direction

2016 Magic Quadrant



2017 Magic Quadrant



2018 Magic Quadrant





Info-Tech Research Group – ITSM Report

IT Service Management Category Report

SOFTWARE REVIEWS

Data Quadrant





PinkVERIFY ITIL Certification

No need to reinvent the ITSM wheel

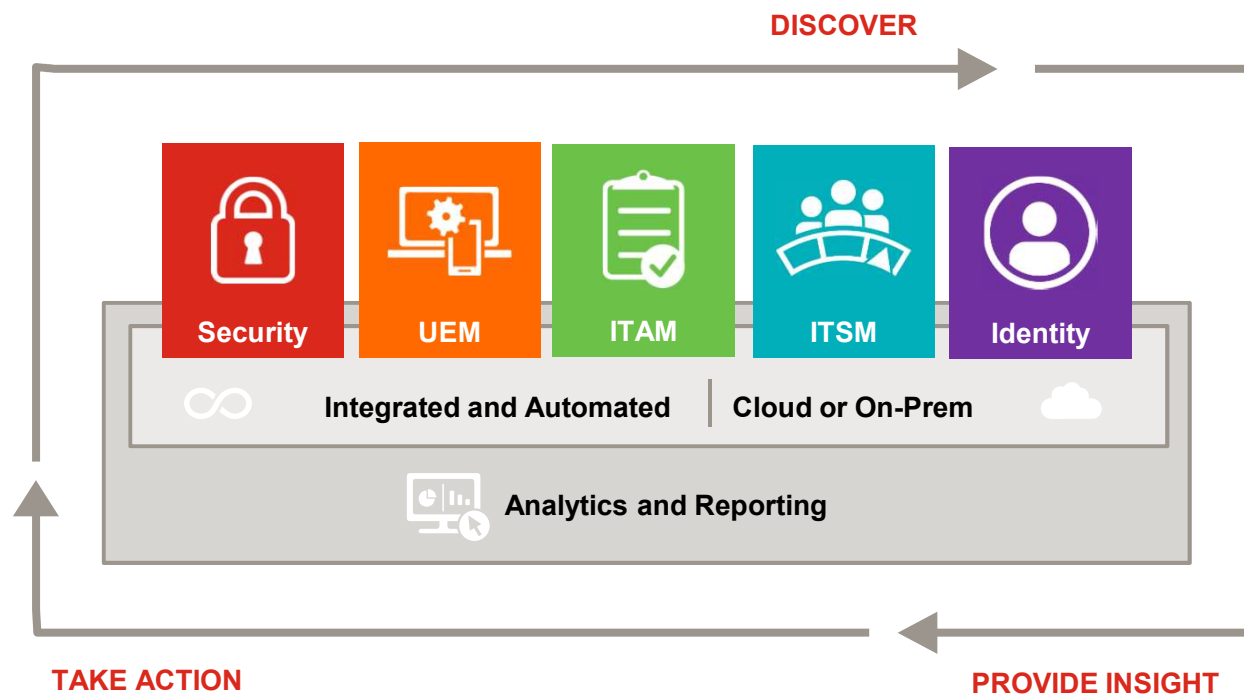


- ITIL Incident Management (IM)
- ITIL Service Catalog (SCM)
- ITIL Problem Management (PM)
- ITIL Service Portfolio Management (SPM)
- ITIL Change Management (CHG)
- ITIL Knowledge Management (KM)
- ITIL Request Fulfillment (RF)
- ITIL Availability Management (AVM)
- ITIL Release and Deployment Management (REL)
- ITIL Event Management (EV)
- ITIL Service Asset and Configuration Management (SACM)
- ITIL Financial Management (FM)
- ITIL Service Level Management (SLM)



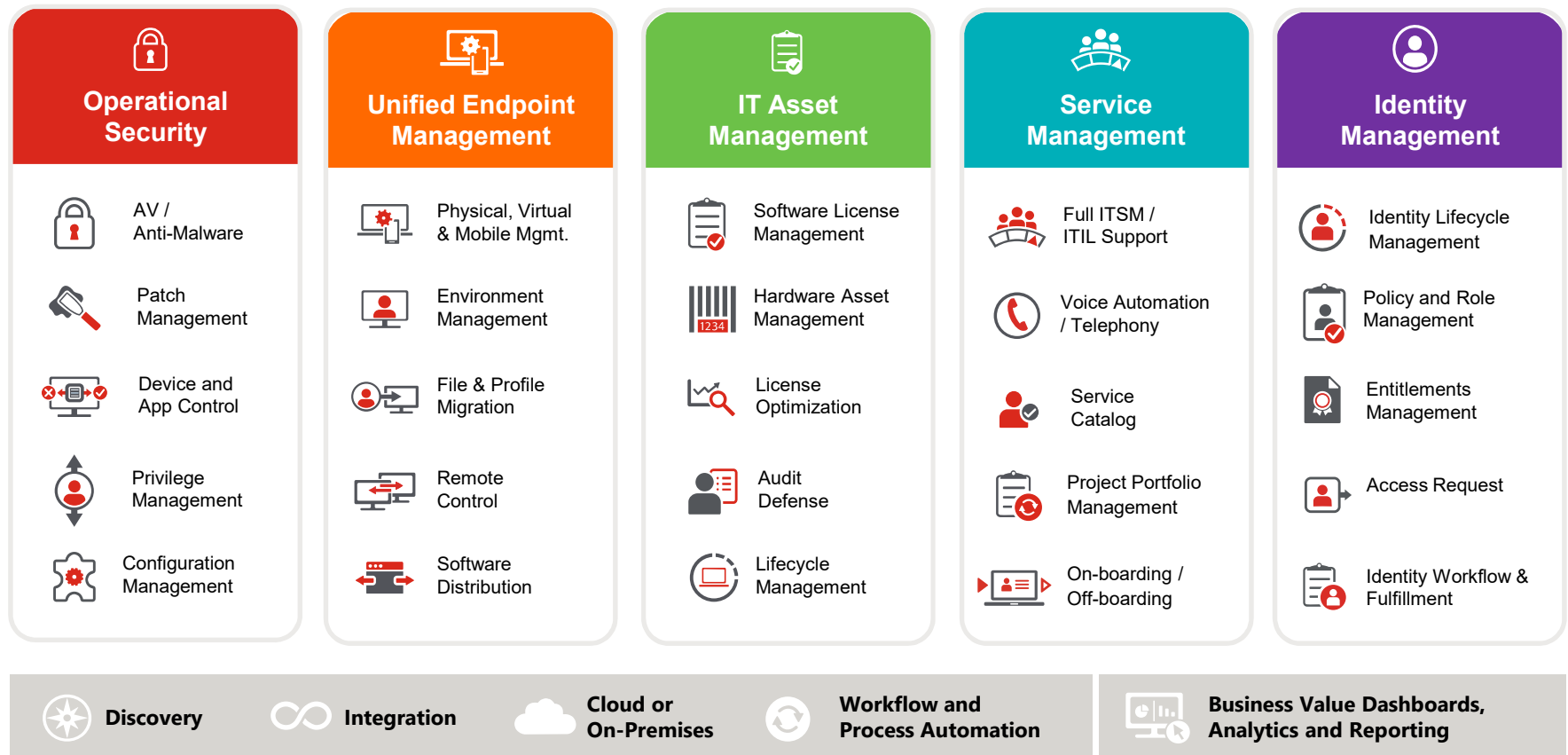


Unified IT





Unified IT - Ivanti Portfolio





Do you have any questions?



Thank you!

Find out more:

WWW: www.ivanti.com

Forums: <http://community.ivanti.com>

Twitter: [#goivanti](https://twitter.com/goivanti)



Thank you for your attention