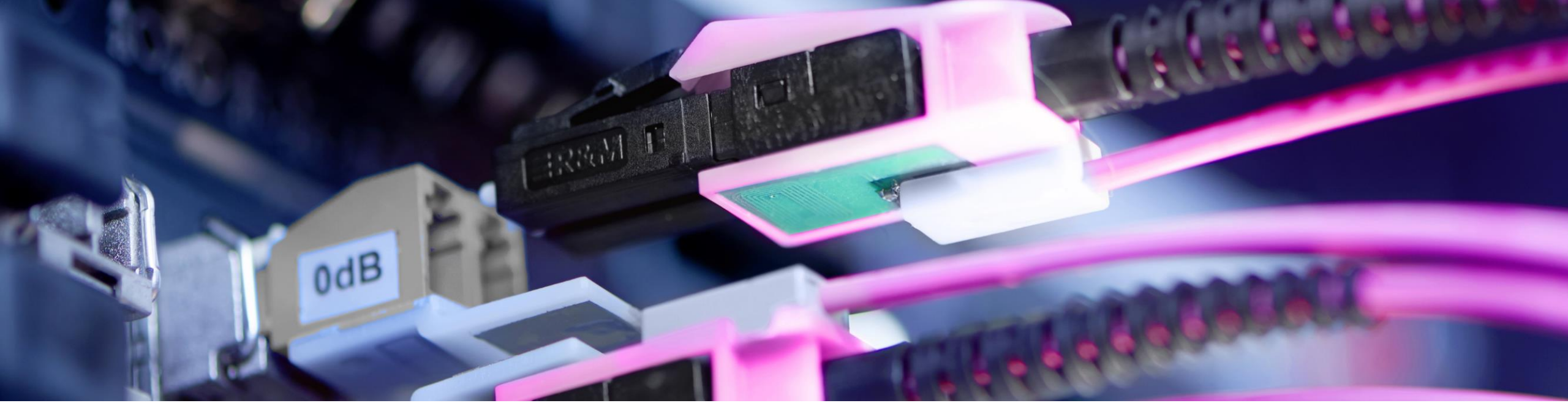


The Maturity Model for Automated Infrastructure Management

Dr. Thomas Wellinger, Market Manager Data Center

BICSI, Athens, 15. November 2019


Polish Air Traffic Control ensures
the safety of 2,500 daily flights over Poland.
15,500 ports.


65,000 m² office and trading surface
with 125,000 ports.


76.5 km² surface for 200 million
passangers. 4,500 km copper and
1,600 km fiber optic cabling
90,000 RJ45 ports.

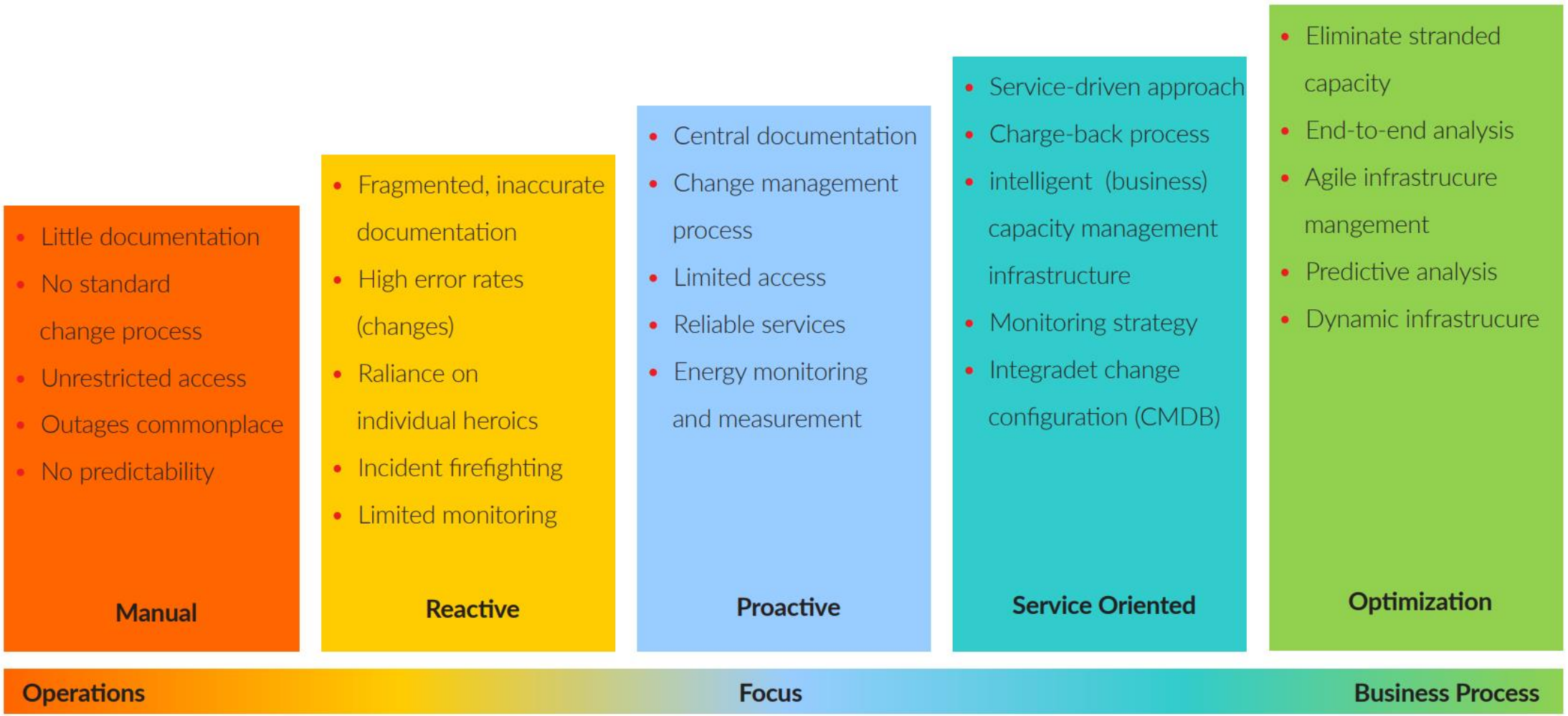
My Goal

- You understand the Five Levels of the Maturity Model for Automated Infrastructure Management (AIM)

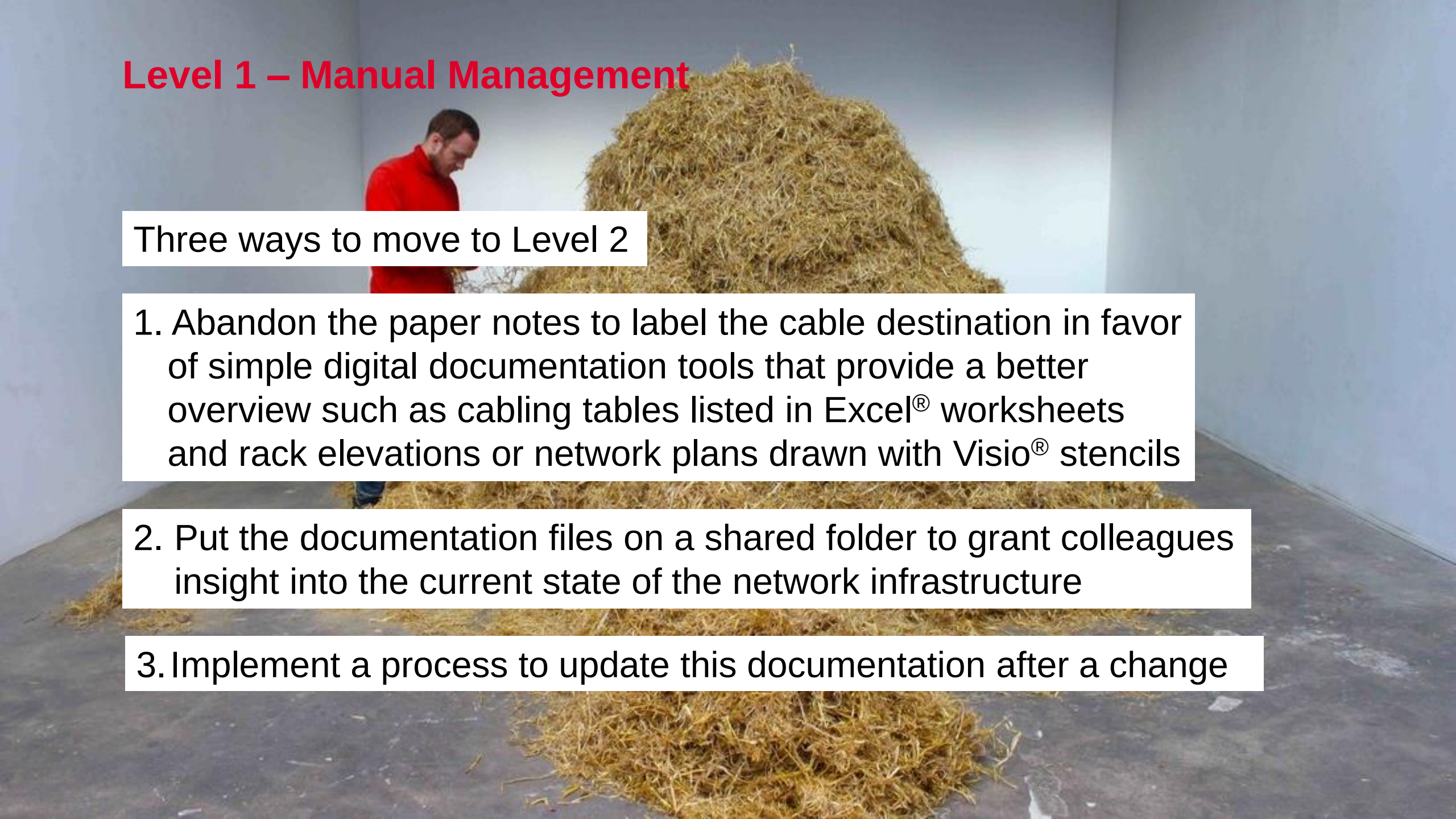
- You have a guideline how to identify the current infrastructure’s status and how to proceed to the next level

Using the term Automated Infrastructure Management (AIM), the TIA TR-42 and ISO/IEC WG3 SC25 groups have developed the following standards:

- TIA 606-B: Administration Standard for Commercial Telecommunications Infrastructure, 2012
- ISO/IEC 14763-2: Information Technology—Implementation and operation of customer premise cabling, Part 2: planning and installation, Amendment 1, 2015
- ISO/IEC 18598: Automated Infrastructure Management (AIM) Systems—Requirements, Data Exchange and Applications, 2016


Little documentation
No standard change process
Unrestricted access
Outages commonplace
No predictability
Manual
Fragmented, inaccurate documentation
High error rates (changes)
Raliance on individual heroics
Incident firefighting
Limited monitoring
Reactive
Central documentation
Change management process
Limited access
Reliable services
Energy monitoring and measurement
Proactive
Service-driven approach
Charge-back process
intelligent (business) capacity management infrastructure
Monitoring strategy
Integradet change configuration (CMDB)
Service Oriented
Eliminate stranded capacity
End-to-end analysis
Agile infrastrucure mangement
Predictive analysis
Dynamic infrastrucure
Optimization
Operations
Focus
Business Process

Level 1 – Manual Management



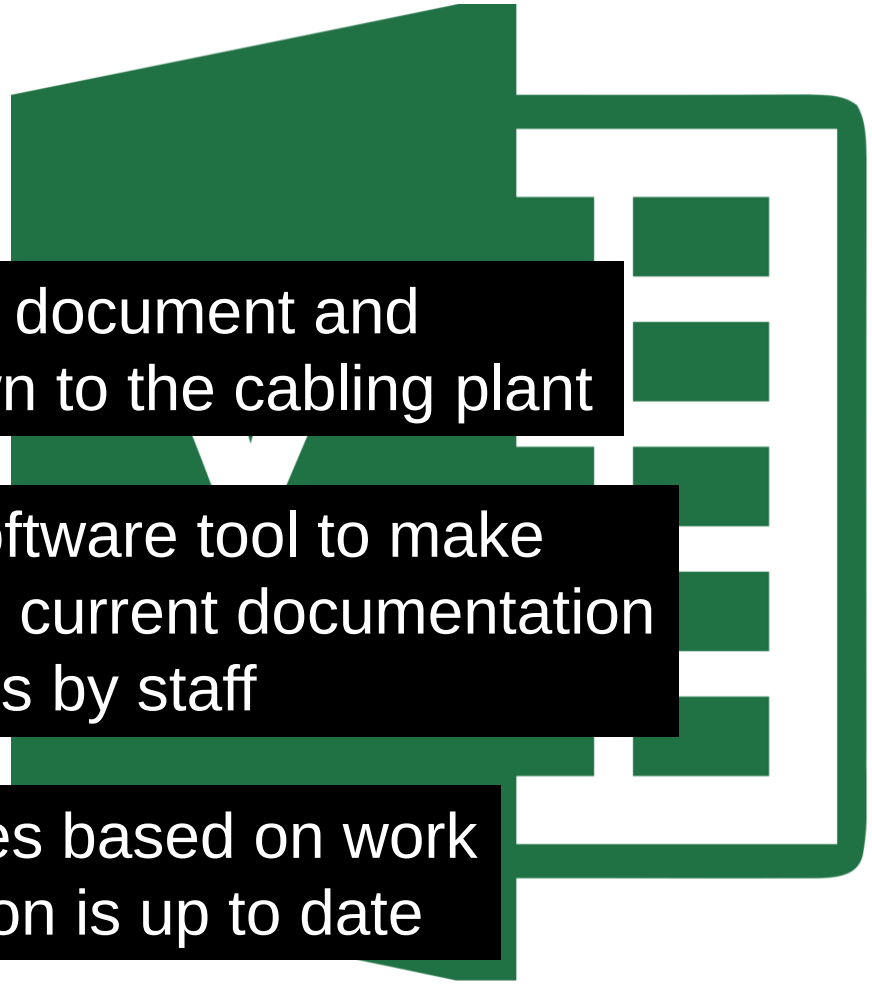
Three ways to move to Level 2

1. Abandon the paper notes to label the cable destination in favor of simple digital documentation tools that provide a better overview such as cabling tables listed in Excel® worksheets and rack elevations or network plans drawn with Visio® stencils

2. Put the documentation files on a shared folder to grant colleagues insight into the current state of the network infrastructure

3. Implement a process to update this documentation after a change

Level 2 – Reactive Management



Three ways to move to Level 3

1. Introduce a centralized software tool to document and manage the entire IT infrastructure down to the cabling plant

2. Implement user access rights to this software tool to make sure that everybody is working with the current documentation and to prevent inadvertent modifications by staff

3. Implement managed change processes based on work orders to ensure that the documentation is up to date

R&M

Level 3 – Proactive Management

Three ways to move to Level 4

1. Deploy a monitoring system that provides a real-time visibility into the critical connectivity

2. Integrate this monitoring system with work orders to ensure supervision and proper execution of changes

3. Use searches, reports and automatic route finder functions to optimize the usage of installed capacity


Identification via RFID tag
on the connector.

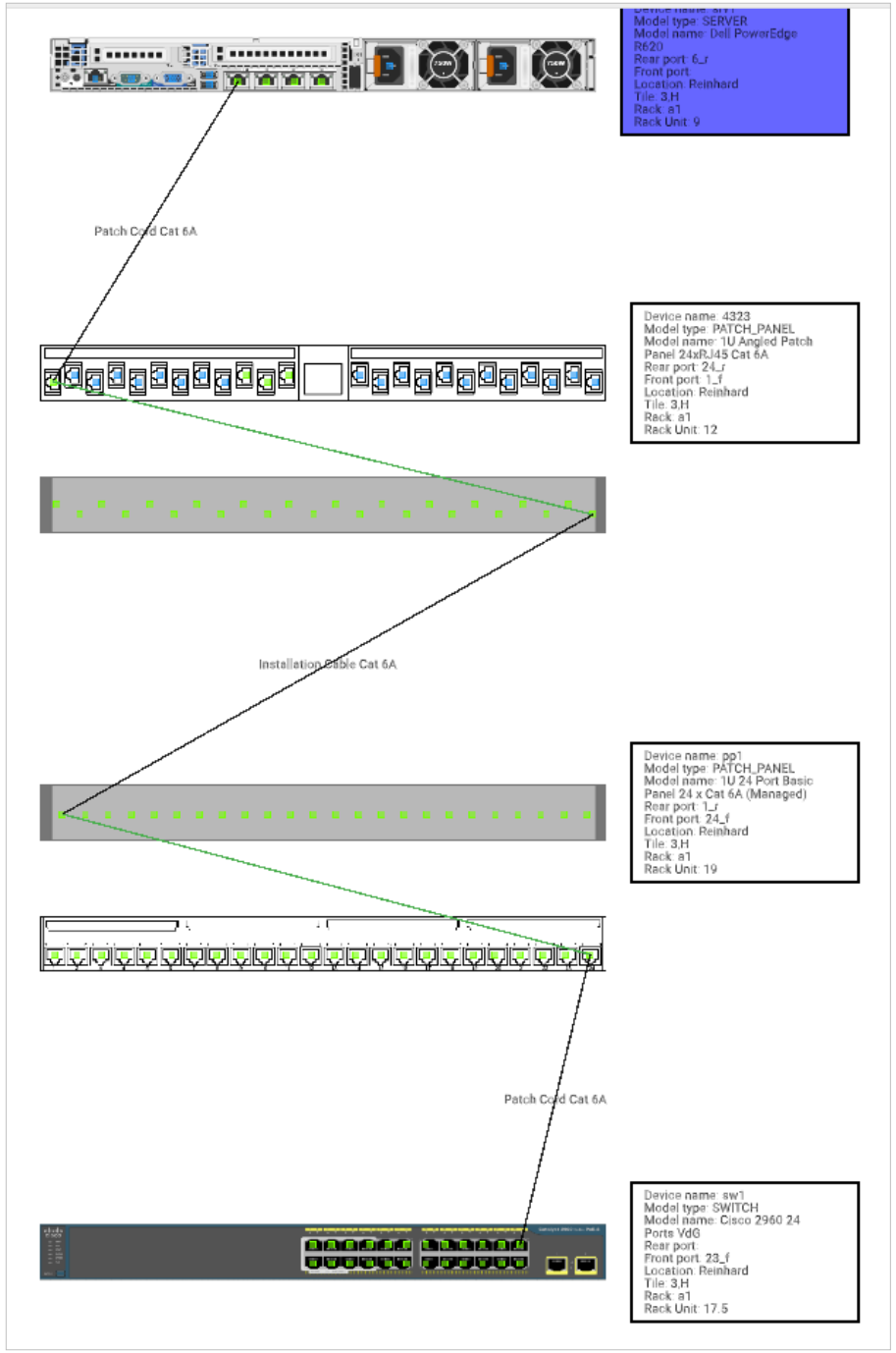
Level 4 – Service Oriented Management

Three ways to move to Level 5

1. Start monitoring power consumption for the documentation and visualization of power utilization conditions, and the recognition and notification of faults or power disruptions

2. Create dashboards to obtain a rapid overview of critical system resources and KPIs

3. Use a tracking system to track the usage of resources over time, allowing you to identify potential hotspots well in advance



Full insight into each connection. In real-time.

R&M

Level 5 – Optimization Management

At this stage, a deployed AIM system enables organizations to optimize business processes from an IT infrastructure perspective.

It eliminates stranded capacity, facilitates end-to-end analysis and agile infrastructure management and supports predictive analysis and dynamic infrastructure.

With comprehensive automation and reliable real-time analytics, the infrastructure undergoes continuous improvement.


The Maturity Model for
Automated Infrastructure
Management
bit.ly/34aFhyR
Σας ευχαριστώ.