Agenda

Why ADA?
The Problem
The Solution
Critical Success Factors
Pitfalls and Limitations
ADA and ROI
Conclusion
The purpose of an Automated Discovery Application (ADA) is to keep the CMDB data current, reliable and trustworthy.
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• CMDB needs automation to manage its complexity
  – Configuration Management Data Base (CMDB)
  – CMDB supports many ITIL processes like Change, Problem, Incident, Help Desk Management
  – It contains infrastructure information (hardware and software) of the IT estate
  – Initially accurate, but as time progresses it can become more and more outdated
  – To manage the complexity of its operation, it needs automated methods to constantly update its information to be current with the real world
A CMDB is like a swimming pool
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• Analogy of water and data
  – When installed, the pool has fresh and clean water
  – Without proper maintenance (filter pumps and chemicals), water becomes stagnant and the pool becomes unusable
  – Similarly, without proper maintenance, the CMDB data becomes out of date, untrustworthy and eventually unusable
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- Why is this the case?
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• Why is this the case?
  – **Infrastructure Lifecycle** (build, commission, decommission) operates on all devices and applications in the IT estate
  – Information about the IT estate changes on a regular basis
  – Infrastructure data updates are not always made to reflect the real world
Solution 1: Update CMDB manually by providing policies, processes and procedures (PPP)
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- Why doesn’t this work?
  - Enforcement of the PPPs are difficult in an extended, often multi-national organization
  - Often, PPPs are different for the same company in different parts of the world
  - Staff often don’t have the time, or they forget, to update the CMDB on every change of infrastructure that is made to the IT estate
Solution 2: Automate the CMDB update process using an ADA
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• Initially, CMDB data is current and reliable.

• An ADA helps to manage complexity by automating the laborious and error-prone manual efforts of updating the CMDB.
Solution 2: Why doesn’t this work?

- Often ADA projects are difficult to implement due to overruns in time and budget
- Building connections (called **Credential Management**) to the target devices is difficult to implement
- This task is usually 80% of the work of implementing an ADA and the major reason why they fail
Solution 3: Automate the CMDB update process with ADA and automate the ADA credential management process.
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- Manage the complex task of connecting to target devices
  - Credentials allow connection of the ADA to the target devices in the network
  - Credential Management is about Provisioning, Verification and Reporting
  - Use an automated toolset to provision and verify credentials on hundreds of servers at a time

![CMDB Data Accuracy Graph]
Utilize an automated toolset for credential management of an ADA implementation (for credential-based ADAs)
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• The main critical success factor
Utilize an automated toolset for credential management of an ADA implementation (for credential-based ADAs)

• The main critical success factor
  • Provides a means of successfully completing ADA projects within time and budget
  • Allows non-experts to provision and verify credentials and provide reports
  • Independent of the ADA
  • Separates the credential management process from the discovery scans
    – Makes it easier to solve connection problems
    – Speeds up delivery of ADA projects
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There are other critical success factors for implementing an ADA:

**Create a process flow**
- Provision > Verify > Scan

**Baselining**
- Identify a set of servers to scan
- => better progress reporting

**CMDB Integration**
- Provides the ROI for the ADA implementation

**Knowledge capture**
- Wiki tool for ADA documentation, progress reports, etc.

**Ensure Credential Management is part of the Infrastructure Lifecycle**
- Add credentials to each newly commissioned target device

**Naming conventions**
- Helps to identify location and purpose of servers by their name
A number of pitfalls have been observed in implementing and managing ADAs

<table>
<thead>
<tr>
<th>Pitfall</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>System administrators don’t know how to resolve ADA connection issues</td>
<td>Provide a root cause analysis document with typical problems and their solutions.</td>
</tr>
<tr>
<td>System administrators unhelpful or unavailable to provision credentials or deploy agents</td>
<td>Obtain authorization to provision ADA connections from the highest IT authority and assure that the IT management hierarchy also authorizes this activity.</td>
</tr>
<tr>
<td>Credentials or agents unable to be deployed or delayed by in-company infrastructure teams</td>
<td>Engage the credential provisioning or agent deployment via a fully funded project</td>
</tr>
<tr>
<td>Stakeholders fear the introduction of the ADA</td>
<td>Provide roadshows and forums to explain the advantages of the tool compared to manual methods.</td>
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There are limitations of the automated approach to discovering IT infrastructure components

**Manual effort**
- Not all infrastructure data can be gathered automatically – e.g. location, licensing and ownership data must be entered manually into the CMDB

**Work culture**
- Work culture in the organization may not align with the idea of a centrally managed infrastructure tool

**Security**
- Security concerns about the ADA connections to target servers may interfere with or prevent full deployment

**Target device credentials or agents may stop working over time**
But what about the cost of the ADA? Is it justified? The short answer is, “Yes!”
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Return on Investment (ROI)

- ADA costs = Initial project cost + marginal cost per target device
- ADA costs << ROI for large numbers of target devices

ADA Scans

- Regular and automated scans of a company’s infrastructure provide reliable centrally managed records of IT estate

Productivity Increased

- Translates to reduced costs and increased productivity and profit for the business.
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Conclusion – ADAs provide the foundation of an ITIL® based Service Management implementation

• An ADA has many benefits to a large organisation
• They manage complexity of CMDB updates in a structured, reliable and well organised manner
• Technical challenges exist for implementation, but can be solved using automation
• Pitfalls and limitations of ADAs exist but…
• ROI is justified for large numbers of target devices
Thank You