Landscape Analysis Report Data Sources

In version 2.x, there are several different data sources where data is extracted. The table below describes in detail the data sources used to generate a Landscape Analysis Report.

<table>
<thead>
<tr>
<th>Datasource</th>
<th>Description</th>
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| InfoStore                     | • The InfoStore is the Central Management Server API for querying InfoObjects from the CMS system database  
                                • Used for specific queries not covered by Coarsegrain, we utilize highly optimized InfoStore queries to minimize performance footprint  
                                • For queries returning 1000 or more objects, we use a batch algorithm to optimize performance in large CMS databases  
                                • The query BatchSize is customizable in the application preferences                                                                   |
| SAP Host Agent                | • Hardware data, operating system configuration, and metrics are collected via secure Web Service calls to the SAP Host Agent  
                                • Custom operations are used to safely collect files (install manifest, trace logs) from remote BI hosts                                |
| Java Management Extensions (JMX) | • JMX is used to collect Java Virtual Machine statistics from Java Application Servers through the use of common JMX MBeans       |

Criteria for including data in the Landscape Analysis Report

- Data for an analysis type can be collected in less than 10 minutes
- Information is useful to be reviewed on a re-occurring basis
- Data can be collected without introducing a large performance hit on the target system
- Change Analysis and Alerting can be applied to the collected data

User Data Folder

In the BIPST 2.x, any landscapes that you execute are stored as individual XML files in your user data folder. By default, this location is `C:\Users\User\AppData\Roaming\BISupportTool\data`. The files in this directory are used to display the Landscape Analysis Report History. Since the user data location is stored outside of the BIPST client directory, previous instances of the Landscape Analysis Report will persist after you upgrade your BIPST client.
When you execute a Landscape Analysis Report, there are two distinct phases that occur during this process. The first phase, is the **Data Extraction** phase followed by the second phase which is the **Report Generation** phase. By de-coupling these two phases, it makes the landscape data itself portable. If the landscape data XML is sent to another user, that user can generate a report based on the same data in their own BIPST client.

### Data Extraction Phase

- User selects which analysis types to include in the report and specifies any date filters
- User logs on to a CMS system
- BIPST uses this CMS system to lookup the landscape definition in preferences.xml and connection details are retrieved
- Data is collected from the various data sources for each node in the specified landscape
- BIPST loads the alert definitions from `<BIPST_INSTALL>/BISupport/bin/resources/Alerting/alerts.xml`
- Each metric/property alert threshold is evaluated against the stored alert definitions and if alert threshold is breached, the alert is written into the object at extraction time (this ensures the triggered alerts are always present in each landscape report instance)
- A number of System Alerts (complex system defined alert algorithms) are also evaluated at extraction time
- Landscape data XML is created and stored in BITOOL user data folder
- Data is written to the XML in various top level nodes (each top level node representing one type of analysis)

### Report Generation Phase

- Landscape data XML is read from the BIPST user data folder
- Each individual analysis report is rendered based on the contents of the Landscape data XML
- Content is displayed using a browser widget which is embedded in the BIPST client (browser settings are inherited from the default browser)
- User experience is made interactive and navigable via the use of HTML, Javascript, CSS, and JQuery
- Charts and Visualizations are generated via the BI Platform Visualizations library (CVOM) and charts are temporarily stored in htm cache for embedding with the HTML of the report
• Multiple landscape analysis reports can be opened at one time and are separated by viewing tabs