

Instruction

Integration Niagara N4 MS Outlook Calendar Integration

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Description

Microsoft 365 Room Occupancy Integration with Niagara 4 Intelligent room occupancy directly from Microsoft 365. The Microsoft 365 Room Occupancy Integration enables the integration of meeting room occupancy information from the Microsoft Outlook Calendar directly into Niagara 4. Using the Microsoft Graph API, calendar information from defined resources (meeting rooms) is retrieved and provided as Niagara data points. This allows real-time room occupancy data to be used for building automation, visualization, and energy management applications.

Requirements

Niagara 4.x (>= 4.7)
alvassiMSOutlookCalendar Licence

Preparation for the Microsoft 365 Administrator

Microsoft Outlook Integration / Microsoft Graph API – App-only Access
For the integration of Microsoft Outlook calendar data into Niagara 4, we use the Microsoft Graph API. This interface enables secure access to calendar information within a Microsoft 365 tenant without requiring an active user login (App-only Authentication).
Authentication is performed through a registered application in Microsoft Entra ID (Azure AD). A secure service-to-service connection is established using OAuth 2.0 authentication with a Client Secret.
For the setup, the Microsoft 365 Administrator requires the following three pieces of information from the tenant:

- Tenant ID
  Unique identifier of the Microsoft 365 organization.
- **Client ID (Application ID)**
  Unique identifier of the registered application in Microsoft Entra ID.
- **Client Secret**
  Secret key used for secure authentication of the application with Microsoft Graph.

The application requires the following Application Permissions to access the required Outlook calendar and room occupancy information:

- **Place.Read.All**
  Provides access to information about rooms and resources (e.g., meeting rooms) configured in Microsoft 365.
- **Calendars.Read**
  Allows reading calendar information within the authorized mailboxes.
- **Calendars.ReadBasic**
  Allows reading basic calendar information such as subject, start time, and end time of appointments.
- **Calendars.Read.Shared**
  Allows reading shared calendars, for example shared room calendars.

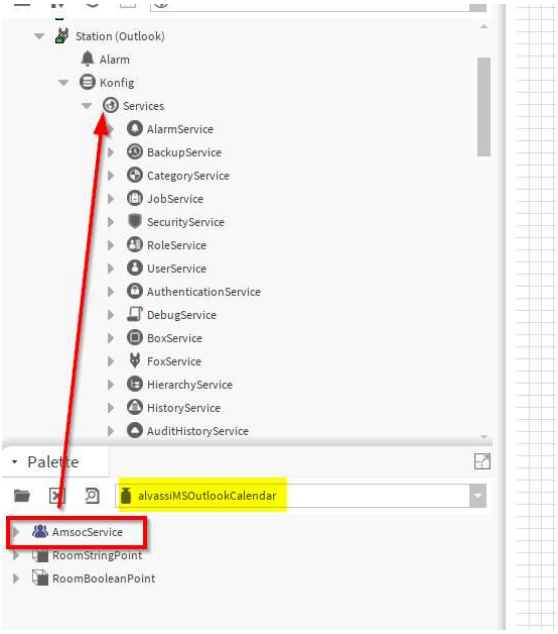
After successful configuration, Niagara 4 can automatically query the current occupancy status of meeting rooms from Microsoft Outlook via the Microsoft Graph API.
This allows data points such as:

- **Room Occupied**
- **Room Free**
- **Occupancy Status**

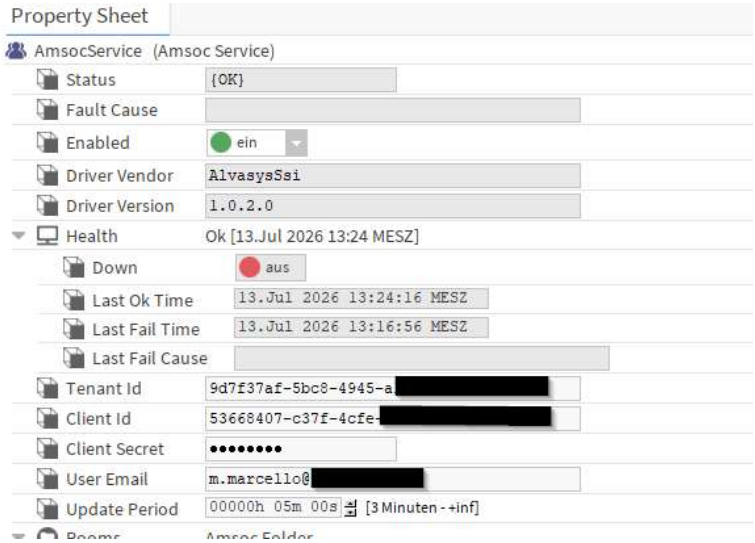
to be provided in Niagara 4 and used for visualization, automation, and further building automation applications.
The technical foundation is based on the Microsoft documentation:
https://learn.microsoft.com/en-us/graph/tutorials/java-app-only?tabs=aad

Niagara 4 Integration

1. The Niagara Station requires an Internet connection to retrieve data from Microsoft Online (Microsoft Graph API / Outlook Calendar).
2. Installation of the **alvasysMSOutlookCalendar-rt.jar** module on the Niagara Station:
   - The module must be installed in the **Modules** folder of the station and then enabled.
3. Installation and configuration of the **AmSocService**:
   - Add the service under **Services** in the Niagara Station and configure it accordingly.

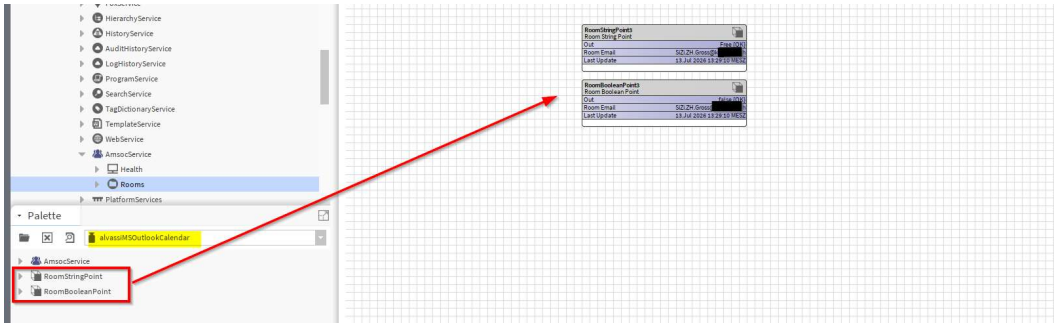


4. Entering the Configuration Data
   - Tenant ID (von MS Outlook Administrator)
   - Client ID (von MS Outlook Administrator)
   - Client Secret (von MS Outlook Administrator)
   - User E-Mail-Adresse (valid Email-Adresse)
   - Update Zeit (5min Standard Minimum 3min)

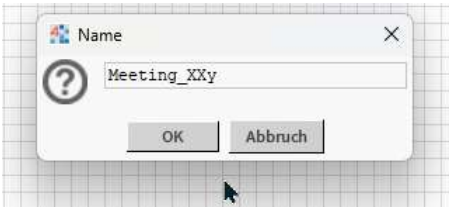


5. Adding New Rooms (RoomPoint) as String or Boolean Points

- The rooms are created under the **Rooms** folder.
- There is no limitation on the number of room data points that can be added.

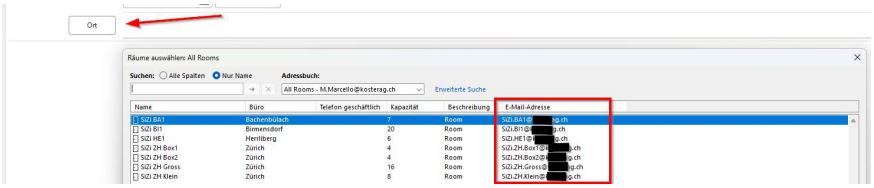


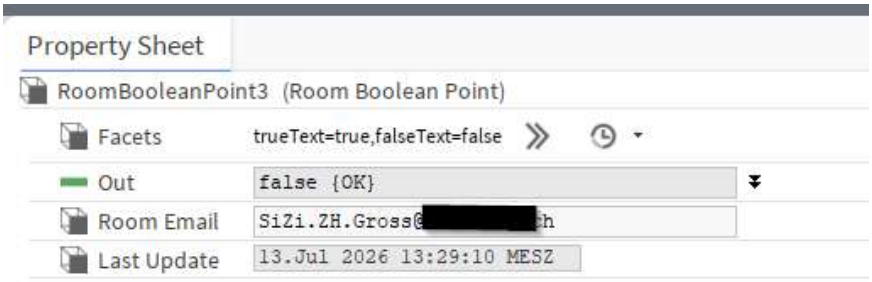
6. Set namen



7. Enter the corresponding room email address in the RoomPoint

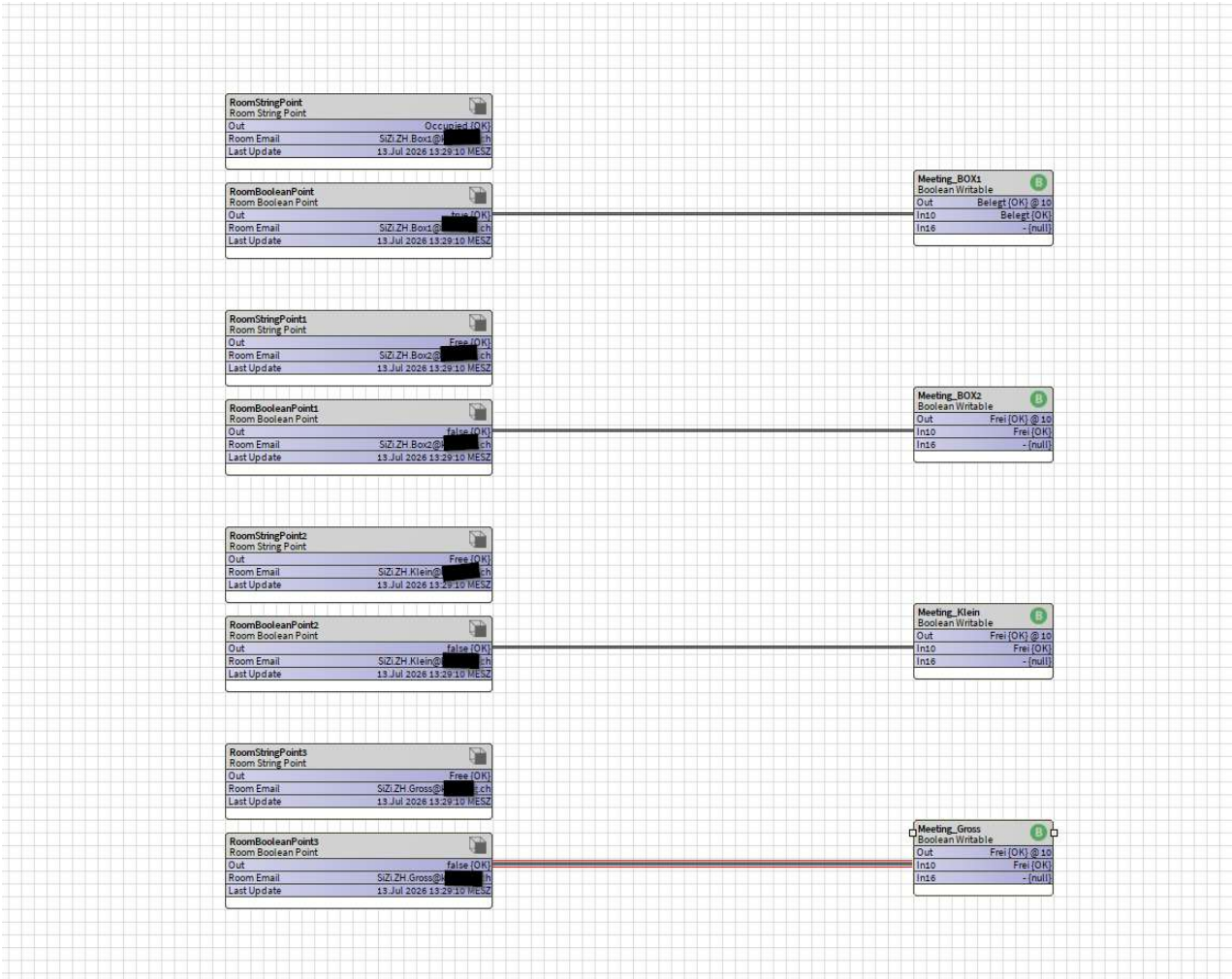
- Each room has its own email address, which is used for assigning and retrieving the calendar data.





7. Automatic Data Point Polling After Adding Rooms

- After adding the rooms, they are automatically queried as data points.
- Each created **RoomPoint** is updated by default every 5 minutes (adjustable via the **Poll Interval** setting).
- The received status information is then available as data points within Niagara.
- These data points can be freely used in existing logic and linked with additional functions.



Historie

Name	Datum	Änderung
Marcello Meriano	13.07.2026	Dokument erstellt

Test Versionen:
N4.15.1.16

Youtube:
https://www.youtube.com/@alvasysautomationag3852

Links:
https://www.alvasys.ch/support

Kontakt:
Feedbacks:
support@alvasys.ch