

RALLY FIELD TECHNICIAN APP – API SPECIFICATION (REST)

This document defines the main REST API endpoints for:

- Technician Mobile App
- Admin Panel

Base URL (example):

<https://api.rally-tech-app.com/api>

AUTHENTICATION

POST /auth/login

Request:

```
{  
  "email": "tech@rally.ca",  
  "password": "string"  
}
```

Response 200:

```
{  
  "token": "jwt-token-string",  
  "user": {  
    "id": 1,  
    "name": "Muhammad Bilal",  
    "email": "tech@rally.ca",  
    "role": "TECHNICIAN"  
  }  
}
```

Response 401:

```
{ "error": "Invalid credentials" }
```

All subsequent requests require:

Header: Authorization: Bearer

TECHNICIAN APP ENDPOINTS

1) BUILDING LIST

GET /buildings

Query Parameters (optional):

search string // name, address, etc.
technology_id number // filter by technology
complexity_min number // 0–100
complexity_max number // 0–100

Response 200:

```
[  
{  
  "id": 1,  
  "display_name": "7 Lorraine Dr",  
  "city": "Toronto",  
  "state": "ON",  
  "country": "Canada",  
  "primary_technology": "Nokia",  
  "complexity_score": 80,  
  "required_techs": 2  
},  
...  
]
```

2) BUILDING DETAILS

GET /buildings/{id}

Path:

id number

Response 200:

```
{  
  "id": 1,  
  "display_name": "7 Lorraine Dr",  
  "address_line1": "7 Lorraine Dr",  
  "city": "Toronto",  
  "state": "ON",  
  "country": "Canada",  
  "lat": 0,
```

```
"Ing": 0,  
"serviced_by": "Rally",  
"technology_type": "GPON",  
"infrastructure_type": "ClearTrack",  
"techs_per_install_raw": "80%1 and 20%2",  
"complexity_score": 80,  
"required_techs": 2,  
"technologies": [  
    { "id": 1, "name": "Nokia" },  
    { "id": 2, "name": "SmartOLT" }  
],  
"parking": {  
    "description": "P2 Visitor, register at concierge",  
    "images_count": 3  
},  

```

3) BUILDING PARKING IMAGES

GET /buildings/{id}/images?category=PARKING

Response 200:

```
[  
{  
    "id": 1,  
    "title": "P2 Visitor Entrance",  
    "description": "Entrance near ramp",  
    "file_url": "https://cdn/parking1.jpg"  
},  
...  
]
```

4) RISER GUIDANCE FOR FLOOR

```
-----  
GET /buildings/{id}/risers/floor/{floor_id}
```

Purpose:

Return nearest risers above/below and East/West logic for technician.

Response 200 (example dual risers):

```
{  
  "building_id": 1,  
  "floor_id": 11,  
  "floor_label": "1",  
  "single_riser": false,  
  "east_side": {  
    "nearest_above": {  
      "riser_id": 5,  
      "riser_name": "Riser East 3",  
      "floor_label": "3"  
    },  
    "nearest_below": {  
      "riser_id": 4,  
      "riser_name": "Riser East G",  
      "floor_label": "G"  
    }  
  },  
  "west_side": {  
    "nearest_above": {  
      "riser_id": 7,  
      "riser_name": "Riser West 2",  
      "floor_label": "2"  
    },  
    "nearest_below": null  
  }  
}
```

Response 200 (single riser):

```
{  
  "building_id": 1,
```

```
"floor_id": 11,  
"floor_label": "1",  
"single_riser": true,  
"riser": {  
    "riser_id": 2,  
    "riser_name": "Main Riser",  
    "floor_label": "B1"  
}  
}
```

5) RISER DETAILS

GET /risers/{id}

Response 200:

```
{  
    "id": 5,  
    "building_id": 1,  
    "name": "Riser East 3",  
    "side": "EAST",  
    "floor": { "id": 13, "floor_label": "3" },  
    "description": "Closet behind fire door",  
    "images": [  
        { "id": 30, "file_url": "https://cdn/riser1.jpg" }  
    ]  
}
```

6) ONT CONFIGURATION PDF LIST

GET /buildings/{id}/tech-pdfs

Query:

technology_id (optional)

Response 200:

```
[  
    {  
        "id": 1,  
        "title": "Nokia ONT Config – 7 Lorraine",
```

```
"technology": { "id": 1, "name": "Nokia" },
"file_url": "https://cdn/ont1.pdf"
}
]
```

7) PROFILE

GET /me

Response 200:

```
{
"id": 1,
"name": "Muhammad Bilal",
"email": "muhammad.bilal@rally.ca",
"role": "TECHNICIAN"
}
```

ADMIN API ENDPOINTS

All admin endpoints require role = ADMIN.

1) ADMIN – BUILDINGS CRUD

GET /admin/buildings

- List with filters (search, technology, city)

POST /admin/buildings

Request:

```
{
"display_name": "7 Lorraine Dr",
"address_line1": "7 Lorraine Dr",
"city": "Toronto",
"state": "ON",
"country": "Canada",
"serviced_by": "Rally",
"technology_type": "GPON",
"infrastructure_type": "ClearTrack",
"techs_per_install_raw": "80%1 and 20%2",
```

```
"override_complexity": false,  
"complexity_score": null,  
"required_techs": null,  
"notes": ""  
}
```

Response 201:

```
{ "id": 1, ... }
```

PUT /admin/buildings/{id}

- Same fields as POST, supports override_complexity.

DELETE /admin/buildings/{id}

- Soft delete recommended.

2) ADMIN – FLOORS

GET /admin/buildings/{id}/floors

POST /admin/buildings/{id}/floors

Request:

```
{ "floor_label": "5", "sort_order": 5 }
```

PUT /admin/floors/{floor_id}

DELETE /admin/floors/{floor_id}

3) ADMIN – RISERS

GET /admin/buildings/{id}/risers

POST /admin/buildings/{id}/risers

Request:

```
{  
  "name": "Riser East 3",  
  "side": "EAST", // SINGLE / EAST / WEST  
  "floor_id": 13,  
  "description": "Closet behind fire door"  
}
```

PUT /admin/risers/{id}

DELETE /admin/risers/{id}

4) ADMIN – IMAGES

GET /admin/buildings/{id}/images

POST /admin/buildings/{id}/images

multipart/form-data:

building_id number

floor_id number (optional)

riser_id number (optional)

category string (PARKING/RISER/LOBBY/OTHER)

title string

description string

file binary

DELETE /admin/images/{id}

5) ADMIN – ONT PDF MANAGEMENT

GET /admin/buildings/{id}/tech-pdfs

POST /admin/buildings/{id}/tech-pdfs

multipart/form-data:

building_id number

technology_id number

title string

file binary

DELETE /admin/tech-pdfs/{id}

6) ADMIN – USER MANAGEMENT

GET /admin/users

POST /admin/users

Request:

```
{  
  "name": "New Tech",  
  "email": "new.tech@rally.ca",  
  "role": "TECHNICIAN"  
}
```

PUT /admin/users/{id}

- Update role/status

DELETE /admin/users/{id}

- Soft disable recommended

ERROR RESPONSE FORMAT

All errors follow:

```
{  
  "error": "Short error code",  
  "message": "Human readable message",  
  "details": { ... optional extra info ... }  
}
```

SECURITY & VERSIONING

- All endpoints are under /api.
- JWT-based authentication.
- Role-based authorization for admin endpoints.
- Future versioning:

/v1/buildings, /v1/admin/buildings etc.

END OF API SPEC DOCUMENT