

ANNEXURE 8: API-3: Custom -> zget_orgstruct

API	System	Description	Paradigm -Protocol – Serialisation/Data Format	Authenticated / Unauthenticated
API-3	Custom -> zget_orgstruct	Retrieves the Org Structure information from SAP HR	REST -.HTTP - JSON	Open

The Organisational Structure data comes from SAP. Specifically, it comes from SAP HR.

In order to get this data from SAP, a web service was developed in SAP for our solution to make use of. The entire structure is returned in a single call to this web service. Because of this, calling it is slow (sometimes longer than 30 seconds) and therefore we cannot query this data from SAP in realtime. The good thing is that we don't really need to. Restructurings, addition of Directorates, Departments, Branches and Sections happens infrequently so the assumption is that it is safe to retrieve this information every hour.

The data is received in a JSON format as an array of Organisational Units. Each Organisational Unit has the following structure:

```
{ unitid: "70001881", unittext: "Corporate Services", parentid: "70000000", tlevel: "2 ", pernr:  
"10045887", firstname: "Faith", surname: "Mary Jane", role: "Executive Director", emailadd:  
"mary.jane@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "0862012577",  
cell_number: "" }
```

The fields mean the following:

- unitid: The Id of this Organisational Unit in SAP. This cannot be changed once a unit has been created
- unittext: The name of this Organisational Unit in SAP.
- parentid: The Id of the parent Organisational Unit in SAP. This is how the hierarchy is conveyed by the SAP web service. It is neatly flattened into one dimension so that we can have fun unflattening it back into the original hierarchy.
- tlevel: This is not the number of cups of tea per day that someone in this level drinks, as the name suggests. This is simply the level in the hierarchy. 1 is for City Manager. 2 is for Directorates. 3 is for Departments. 4 is for Branches and 5 is for Sections. There is nothing beyond Sections returned to us by the SAP web service.
- pernr: Staff Number or "personnel number" of the person in charge of this Organisational Unit, abbreviated so that only a SAP HR person can understand what it means.
- firstname: First Name of the above-mentioned staff member
- surname: Surname of the above-mentioned staff member
- role: Job Title of the above-mentioned staff member
- emailadd: Email Address of the above-mentioned staff member
- tel_number: Phone Number of the above-mentioned staff member
- fax_number: Fax Number of the above-mentioned staff member
- cell_number: Mobile Number of the above-mentioned staff member

If no person occupies the position in charge of this Organisational Unit then pernr, firstname, surname, role, emailadd, tel_number, fax_number and cell_number will contain empty strings. Information in these fields is only returned by the SAP web service if that data exists in SAP for that staff member. The other fields unitid, unittext, parentid and tlevel are all compulsory.

To illustrate the relationship between unitid and parentid in slightly more detail, we have seen that the Corporate Service directorate has a unitid of 70001881. This means that 70001881 should be the value of the parentid field for all of its Departments. Those departments are shown here:

```

{unitid: "70002012", unittext: "Information Systems and Technology", parentid: "70001881", tlevel: "3 ",
pernr: "1000000", firstname: "Joe", surname: "Bloggs", role: "Director", emailadd:
"JOE.BLOGGS@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "0865760463",
cell_number: "0841234567"}
{unitid: "70002005", unittext: "Customer Relations", parentid: "70001881", tlevel: "3 ", pernr:
"10001234", firstname: "Jane", surname: "Public", role: "Manager", emailadd:
"JANE.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "0865761948",
cell_number: "08412345678"}
{unitid: "70001133", unittext: "Occupational Health, Safety & Employee Wel", parentid: "70001881", tlevel:
"3 ", pernr: "10044444", firstname: "Hellen", surname: "John Citizen", role: "Director", emailadd:
"JOHN.CITIZEN@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "", cell_number:
"0821234567"}
{unitid: "70002694", unittext: "ED Corporate Services Support", parentid: "70001881", tlevel: "3 ", pernr:
"10055555", firstname: "Chad", surname: "Public", role: "Senior Professional Officer", emailadd:
"CHAD.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "", cell_number:
"071000000"}
{unitid: "70002742", unittext: "Finance (CSS)", parentid: "70001881", tlevel: "3 ", pernr: "10333333",
firstname: "Bevan", surname: "Public", role: "Manager", emailadd:
"BEVAN.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "0865760572",
cell_number: "0840000000"}
{unitid: "70003103", unittext: "Support Services (Corporate Services)", parentid: "70001881", tlevel: "3
", pernr: "10000000", firstname: "Brenda", surname: "Public", role: "Support Services Manager",
emailadd: "BRENDA.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "",
cell_number: "0848000000"}
{unitid: "70002002", unittext: "Human Resources", parentid: "70001881", tlevel: "3 ", pernr: "10007777",
firstname: "Justine", surname: "Public", role: "Director", emailadd:
"JUSTINE.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214000000", fax_number: "0865762890",
cell_number: "0846000000"}
{unitid: "70001900", unittext: "Specialised Technical Services", parentid: "70001881", tlevel: "3 ", pernr:
"10020000", firstname: "James", surname: "Public", role: "Director", emailadd:
"JAMES.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214000000", fax_number: "", cell_number:
"0848000000"}
{unitid: "70001059", unittext: "Development Information & GIS", parentid: "70001881", tlevel: "3 ", pernr:
"10000000", firstname: "Keith", surname: "Bloggs", role: "Director", emailadd:
"KEITH.BLOGGS@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "0865760172",
cell_number: ""}
{unitid: "70001155", unittext: "Employment Equity", parentid: "70001881", tlevel: "3 ", pernr: "10000000",
firstname: "Nkosinathi", surname: "Public", role: "Manager", emailadd:
"MICHAEL.PUBLIC@CAPETOWN.GOV.ZA", tel_number: "0214001234", fax_number: "",
cell_number: ""}

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