

Graduate Assignment

## Introduction

Cisco video endpoints, typically used for conference and video calls, can communicate their status and call information over REST interface as either JSON or xml formats. Objective of this assignment is to receive the xml response back from such endpoint and present the status and call information in a format that allows administrators to spot any issues easily as well as details about the general status of the device.

## Choosing a language

Feel free to choose any language you are comfortable with, for the assignment. Some popular choices could be Nodejs, C++, Perl, C#. You will get judged on completeness of the assignment, presentation of the video endpoint data, visual indicators for critical issues. Try to be as creative with the presentation as possible, this is your chance to ‘wow’ the judges*. You may want to express your coding abilities (e.g; xml parsing) rather than relying on third party/open source libraries.*

## Requirments

Each video endpoint contains rich system information that can be requested on demand as an xml or JSON data. Attached is a sample of ‘status.xml’ we’d use for this assignment.

Requirements are:

* A client side utility that requests above xml file every 1 minute.
* For purpose of this assignment, we can read it from file system instead of requesting from a server.
* Parse the document and retrieve the following information:
  + System Info <**SystemUnit**>

Hardware Details

Product Id

Product Platform

Product Type

Software Details

Diagnostic Information

State information

* + Peripherals Connected <**Peripherals**>

If Peripheral is a camera, get additional info from <**Cameras**>

* + Call Details, if live <**Call**>
  + Network Info such as MAC, IPv4, IPv6 <**Network**>
  + Capabilities <Capabilities>
  + System Time <**SystemTime**>
  + Contact Info <**ContactInfo**>
* Present the above data in an easy to read/view format
* Visually indicate any anomalies or errors or crtical information

## Submission

You can zip up all the details into your assignment for submission. It should include following information as a minimum requirement:

* Language chosen and why?
* High level design. (A visio diagram or hand drawn image)
* How to deploy the solution.
* Screenshots of formatted data presentation, in case we are not able to run the solution.
* Source code.
* Steps to deploy the solution.

Please submit to **Belinda Ikin** [Belinda.Ikin@ir.com](mailto:Belinda.Ikin@ir.com)