

Use case	Production Monitoring		
Client:	Mando Automotive India Pvt Ltd	Service provider:	Arka Automaatons Ltd
Created by:		Last update by:	
Date created:		Last revision date:	
Description/Goal:	<i>Live Production monitoring of the different parts manufactured and in a shift of each day</i>		
Actors:	Mando Automotive India / Arka Automaatons		
Preconditions:	<ul style="list-style-type: none"> • The production count of each shift are got from the PLC are being posted in the Shift WhatsApp Group by the Shift Supervisor • As the readings are taken by a person human error is significant. • From recording the data to analyzing the data, the entire process is time consuming. • Decision making on production is delayed due to this process. • Difficult to pinpoint the downtime of the production line. • Production Manager is not able to get the Live data. 		
Postconditions:	<ul style="list-style-type: none"> • Production count of each production line from the Mitsubishi Q Series PLC is read by the data logger are being posted in the Cloud Server • Data is acquired every 20 sec • Web based and Android Application is developed in order to view the Live Data of production Line • Thus, providing live data to the Production Manager remotely, which enhances his decision making and monitoring of the production as per the schedule. 		
Flow:	<p>The diagram illustrates the data flow process. On the left, four PLC units are connected to a central Switch via RJ45 cables. Each connection is labeled 'RJ45' and 'TCP/IP'. The Switch is connected to an IoT Gateway via a '4G/Ethernet' link. The IoT Gateway is connected to a Cloud server, which is then connected to a 'Report View' interface on a mobile device.</p>		

Alternative Flows:	NA
Exceptions:	<i>About 10 Exceptions</i>
Requirements	<ul style="list-style-type: none">• ALL the PLC to be in the same IP address range, else• To have the required managed switch to provide the VLAN services, which must be studied in detail