

# PRODUCTION PROVING Use Cases

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## 1

# Monitoring and Health Check Use Cases

The table below provides details of the use cases agreed with the business. They provide a high-level view of the key functionality that is required by the business for the production proving system and are associated to the business requirements.

	Epics	Use cases	Descriptions	Triggers	Business Owners
Monitoring & Health Check	<b>System Monitoring</b>	Prove unexercised/less exercised functionalities/SRVs working correctly	This use case allows Production Proving function user to prove the live functionalities are working correctly by using unexercised SRVs and monitoring the responses.	Deployed functionalities are not yet exercised Identified SRV that is not frequently exercised	DCC Operations
	<b>Early Life Support</b>	Prove new functionality following a release	This use case allows a Production Proving function user to carry out monitoring of new functionality that has been released into the live environment using all available service request variants to production proving devices.	New functionality is released into production	
	<b>Early Life Support</b>	Prove change in functionality following a release	This use case allows a Production Proving function user to carry out additional monitoring of areas that has been impacted by a change using all available service request variants to production proving devices.	Changes is released into production	
	<b>Early Life Support</b>	Prove incident fix following a release	This use case allows a Production Proving function user to carry out additional monitoring of areas where fixes has been applied in the live environment using all available service request variants to production proving devices.	Fix(es) is released into production	

## 2 Triage and Diagnostics Use Cases

	Epics	Use cases	Descriptions	Triggers	Business Owners
Triage & Diagnostics	<b>Triage and Diagnostics</b>	Investigate an incident	This use case allows a Production Proving function user to determine the root cause of an incident by sending service requests that can verify the end to end performance between user, communication hubs and other HAN devices. This allows the user to diagnose any fault by interpreting different service request formats.	Incident reported by service user(s) SRV failure observed in production proving dashboard	DCC Operations
	<b>Triage and Diagnostics</b>	Replicate an incident or a fault	This use case allows a Production Proving function user to reproduce faults by sending service requests production providing devices.	Incident reported by service user(s) Fault identified in production Fault identified with device types	
	<b>Service User Production Proving</b>	Prove correct configuration of new devices	This use case allows a Production Proving function user to prove the best configuration setting for new devices before they are rolled out for wider use. This will allow user to prove new devices by sending various service request variants and monitoring responses.	Need to provide assurance before introducing new device(s) into production	
	<b>Service User Production Proving</b>	Provide production proving support for service user	This use case allows a Production Proving function user to provide extra support and assurance to service user based on request. This allows user to use all available service requests and responses to demonstrate confidence to the service user.	Service user support request received	

# 3

## Product Validation Use Cases

	Epics	Use cases	Descriptions	Triggers	Business Owners
Product Validation	<b>Firmware Assurance</b>	Prove upgrade of device firmware over the air	This use case allows Production Proving function user to upgrade device(s) firmware over the air using service request/s to production proving device(s).	Need to prove OTA upgrade of firmware following a release/change/fix Need to upgrade firmware on devices	DCC Operations/ DCC Products Team (CTO)
	<b>Firmware Assurance</b>	Prove retro loading (rollback firmware version) of device firmware over the air	This use case allows Production Proving function user to rollback device(s) firmware version over the air using service request/s to production proving device(s).	Need to prove retro loading of firmware version following a release/change/fix Need to retro load firmware on device(s)	
	<b>Firmware Assurance</b>	Prove operability of new firmware on device(s)	This use case allows Production Proving function user to prove the successful operability of new firmware on device(s) by proving the operation of the firmware across many business scenarios.	Need to prove the successful operation of a new firmware on device before rolling out to other Users	

# 4 Functional Verification Use Cases

	Epics	Use cases	Descriptions	Triggers	Business Owners
Functional Verification	Release Testing	Prove system functioning correctly during uplift window	This use case allows Production Proving function user to prove that the production environment is functioning as expected during uplift outage before it is made available to service users.	Need to carry out 'Redline' testing	DCC Operations
	Post-Release and Change Production Proving	Prove system functionalities following new release	This use case allows Production Proving function user to prove the system functionalities are working correctly post release of new functionality by sending various service request to prove various business scenarios.	New functionality is released into production	
	Post-Release and Change Production Proving	Prove system functionalities following a change	This use case allows Production Proving function user to prove the system functionalities are working correctly post release of a change by sending various service request to prove various business scenarios.	Changes is released into production	
	Post-Release and Change Production Proving	Prove system functionalities following a fix	This use case allows Production Proving function user to prove the system functionalities are working correctly post release of a fix by sending various service request to prove various business scenarios.	Fix(es) is released into production	
	Post-Release and Change Production Proving	Prove system functionalities are not impacted following introduction of new functionality/change/fix	This use case allows Production Proving function user to prove that set(s) of predefined system functionalities are not impacted by the introduction of new functionalities, changes or fixed to production.	New functionality, change, fix into production	