



RELEASE MANAGEMENT STRATEGY

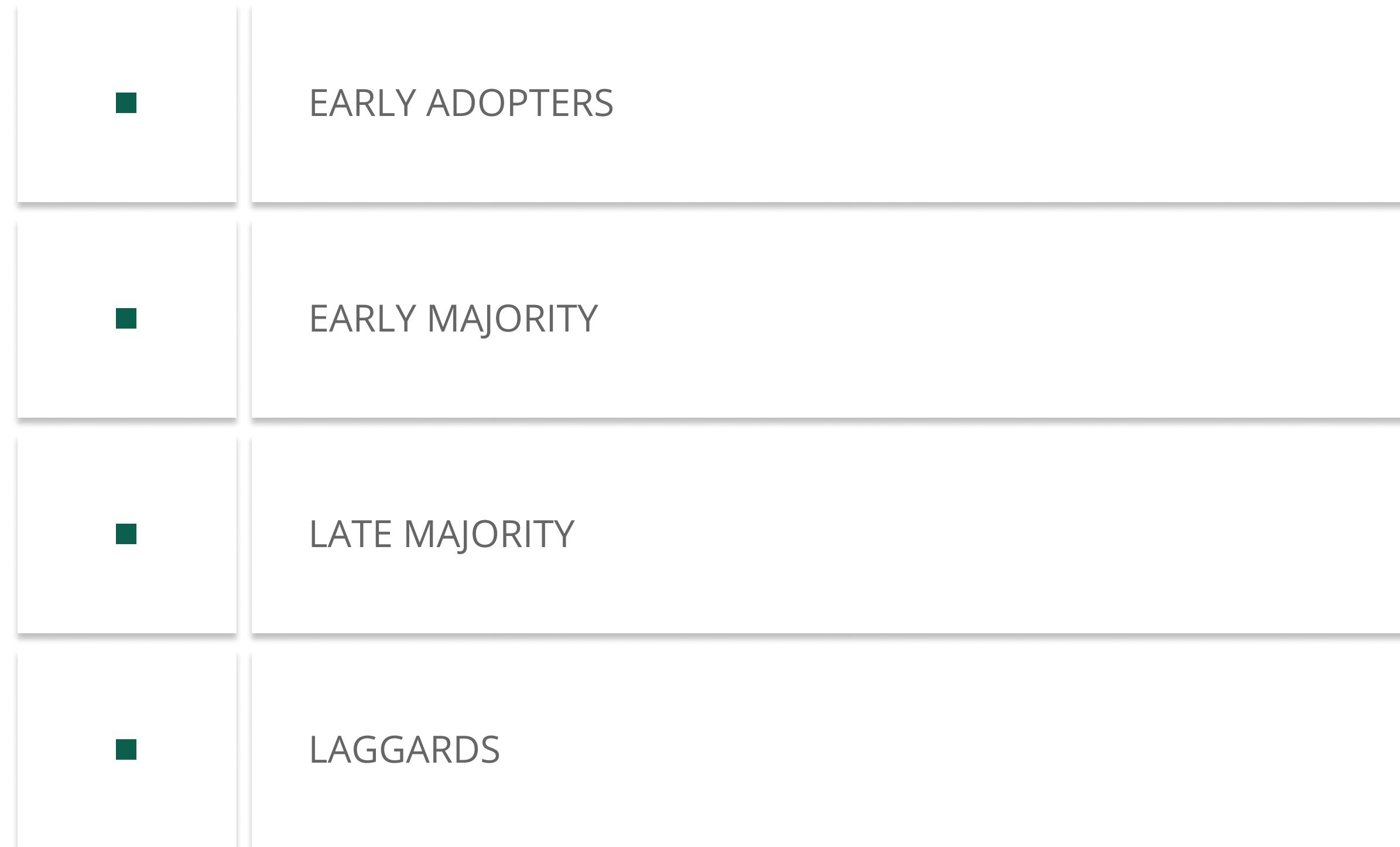
MINEOPERA TE OP PRO 3.0



CUSTOMER UPGRADE

PLAN

- CUSTOMER CATEGORIES
- CUSTOMER UPGRADE PRIORITY LISTS
- UPGRADE PLAN ASSESSMENT



REGION

CUSTOMER CATEGORIES



REGION

■ PRIORITIZED CUSTOMER UPGRADE LIST

■ TENTATIVE UPGRADE SCHEDULE

CUSTOMER UPGRADE
PRIORITY LIST



REGION

-

ASSESS PM, PD & SERVICES RESOURCES

UPGRADE PLAN
ASSESSMENT



CUSTOMER UPGRADE

ASSESSMENT

- ONBOARD PANEL GAP ANALYSIS
- ONBOARD PANEL DEVELOPMENT



PANEL GAP ANALYSIS

UPGRADE PLAN
ASSESSMENT

- PRIORITIZED CUSTOMER UPGRADE LIST
- TENTATIVE UPGRADE SCHEDULE



M	MUST HAVE
S	SHOULD HAVE
C	COULD HAVE
W	WILL NOT HAVE

CUSTOMER REQUIREMENTS

MOSCOW PRIORITY



CUSTOMER REQUIREMENTS

- MUST HAVE
- SHOULD HAVE

GENERIC PANEL
ASSESSMENT



CUSTOMER REQUIREMENTS

CUSTOMER AGREEMENT

- COULD HAVE
- WILL NOT HAVE



ONBOARD PANEL

DEVELOPMENT

- PRIORITIZE AGREED CUSTOMER REQUIREMENTS
- SUBMIT INTO DEVELOPMENT PROCESS



AE & PM	FUNCTIONAL REQUIREMENTS
UI/UX	UI/UX DESIGN TEAM
PM	EPIC CREATION
PO	PD ESTIMATE

ONBOARD PANEL

DEVELOPMENT
PROCESS



PO/PM	PD SCHEDULING
PD/QA	PD & QA
FC	FEATURE COMPLETE
PR	PRODUCT RELEASE

ONBOARD PANEL

DEVELOPMENT
PROCESS



APAC	<u>OP PRO CUSTOMISATIONS</u>
EMEA	TBD
NAFTA	TBD
LATAM	TBD

ONBOARD PANEL

REGION CUSTOMIZATION
PAGES



PRE-UPGRADE CHECKLIST

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RELEASE MANAGEMENT

CUSTOMER CATEGORY	<CUSTOMER-CATEGORY>
CUSTOMER UPGRADE PRIORITY	<CUSTOMER-UPGRADE-PRIORITY>
UPGRADE PLAN ASSESSMENT	<TRUE/FALSE>



SERVER SPECIFICATIONS

HARDWARE

NAME	<Server-Name>
MODEL	<Server-Model>
PROCESSOR	<PROCESSOR>
PROCESSORS	<PROCESSORS>



SERVER SPECIFICATIONS

HARDWARE CONT.

MEMORY	<MEMORY>
DRIVE SPACE	<DRIVE-SPACE>
NETWORK ADAPTER	<NETWORK-ADAPTER>



SERVER SPECIFICATIONS

VIRTUALIZATION

VM HOST PROCESSORS	<VM-HOST-PROCESSORS>
VM GUEST RAM	<VM-GUEST-RAM>
VM HOST HARD DRIVE	<VM-HOST-HARD-DRIVE >
VM GUEST ALLOCATED MEMORY	<VM-GUEST-ALLOCATED-MEMORY>



SERVER SPECIFICATIONS

VM CONFIGURATION

2 Ubuntu Servers	<TRUE-FALSE> <MIN-VERSION-16.04 >
VM SQL VERSION	<VM-SQL-VERSION> <MIN-VERSION-SQL Server 2008 R2 >
PRIMARY IP	<PRIMARY-IP-ADDRESS >
BACKUP IP	<BACKUP-IP-ADDRESS>



SERVER SPECIFICATIONS

VM CONFIGURATION (CONT.)

VIRTUAL IP
ADDRESS

<VIRTUAL-IP-ADDRESS>



SERVER SPECIFICATIONS

VERSIONS

UBUNTU VERSION (PRIMARY & BACKUP)	<UBUNTU-VERSION> <MIN-VERSION-16.04-LTS>
POSTGRESQL VERSION	<POSTGRESQL-VERSION> <MIN-VERSION-POSTGRESQL-9.5 >
SQLITE VERSION	<SQLITE VERSION> <MIN-VERSION-3.11.0>



SERVER SPECIFICATIONS

OP PRO VERSIONS

X86-64-LINUX VERSION	<X86-64-LINUX-VERSION> <MIN-VERSION-3.001.002>
GVOS VERSION	<GVOS-VERSION> <MIN-VERSION-GVOS-6.2-1>



CLIENT SPECIFICATIONS

VERSIONS

WINDOWS VERSION	<WINDOWS-VERSION> < MIN-VERSION-8/8.1 (32-bit/64-bit) >
OPPRO MANAGER VERSION	<OPPRO-MANAGER-VERSION> < MIN-VERSION-3.0-002 >



PLATFORM SPECIFICATIONS

VERSIONS

	CORELP, COREHP, DISPLAY 9
LEGACY UI/UX	<PLATFORM-VERSION> <MIN-VERSION-2.25>
NEW UI/UX	<OPPRO-MANAGER-VERSION> <MIN-VERSION-2.26>



EQUIPMENT

VERSIONS

winsys
winsys-leica

<WINSYS-VERSION> <MIN-VERSION-3.0-002>

winsys-gvos

<WINSYS-GVOS-VERSION> <MIN-VERSION-APP-CORE-LP-B29>



SITE EQUIPMENT

MODELS

CAT MODELS	<LIST-CAT-MODELS>
KOMATSU MODELS	<LIST-KOMATSU-MODELS>
LIEBHERR MODELS	<LIST-LIEBHERR-MODELS>
P&H MODELS	<LIST-P&H-MODELS>



SITE EQUIPMENT

(CONT)

HITACHI
MODELS

<LIST-HITACHI-MODELS>

LE TOURNEAU
MODELS

<LIST-LE-TOURNEAU-MODELS>

OTHER
MODELS

<LIST-OTHER-MODELS>



SITE INTERFACES

TYPES

VIMS ENABLED	<TRUE-FALSE>
VIMS SENSORS	<LIST-OF-ENABLED-SENSORS>
PLM ENABLED	<TRUE-FALSE>
PLM VERSIONS	<LIST-PLM-VERSIONS>



SITE INTERFACES

EQUIPMENT (CONT)

VHMS ENABLED	<TRUE-FALSE>
VHMS SENSORS	<LIST-OF-ENABLED-SENSORS>
PLM ENABLED	<TRUE-FALSE>
PLM VERSIONS	<LIST-PLM-VERSIONS>



SITE SURVEY

BASE STATION

IP ADDRESS	<IP-ADDRESS>
BROADCAST PORT	<BROADCAST-PORT>
CONST. ENABLED	<CONSTELLATIONS ENABLED>
VERTICAL OFFSET	<VERTICAL-OFFSET>



SITE SURVEY

UHF RADIO

RADIO FREQUENCY	<RADIO-FREQUENCY> >SL&FR<
RADIO CHANNEL SPACING	<RADIO-CHANNEL-SPACING> >SL&W<
FORWARD ERROR CORRECTION	<TRUE-FALSE> >SL%F<
RADIO COMP. MODE	<RADIO-COMPATIBILITY-MODE> >SL@S<



SITE SURVEY

UHF RADIO (CONT)

SET TX
ADDRESS

<TRUE-FALSE> >**SL#Q**<

SET RX
ADDRESS

<TRUE-FALSE> >**SL&W**<



UPGRADE STRATEGY

MINEOPERA OP PRO 3.0



PROJECT INFORMATION

OVERVIEW

■	CLIENT NAME
■	OPERATION TYPE (GOLD, COAL ETC)
■	EXISTING OR NEW CUSTOMER



PROJECT INFORMATION

PERSONNEL

■	ACCOUNT MANAGER
■	PROJECT MANAGER
■	PROJECT ENGINEER
■	SUPPORT ENGINEER
■	SITE CONTACT



SITE INFORMATION

PERSONNEL

- ENGINEERING CONTACT
- MAINTENANCE CONTACT
- OPERATIONS CONTACT
- IT CONTACT



SITE INFORMATION

EQUIPMENT

- LIST OF EQUIPMENT RUNNING NEW UI/UX (LP TRUCK & SHOVEL)
- LIST OF LEGACY EQUIPMENT
- LIST OF INTERFACES
- LIST OF CUSTOMIZATIONS



SITE INFORMATION

SERVERS

■	PRIMARY SERVER OS AND POSTGRES VERSION
■	SECONDARY SERVER OS AND POSTGRES VERSION
■	JVIEW SERVER VERSION



SITE INFORMATION

NETWORK INFRASTRUCTURE

- SITE NETWORK TYPE (LTE OR WIFI)
- SITE RUNNING OPENVPN
- SITE NETWORK SECURITY
- SITE IP ADDRESSES FOR SERVER AND EQUIPMENT



SITE INFORMATION

NETWORK INFRASTRUCTURE
(CONT)

- SURVEY BASE STATION INFORMATION (**FEATURE: INT. UHF**)
- SURVEY UHF RADIO NETWORK (**FEATURE: INT. UHF**)



UPGRADE

STEPS

- PROVIDE SITE TRAINING
- UPGRADE SECONDARY (OS, POSTGRES, OP PRO)
- FAIL OVER TO **SECONDARY**
- UPGRADE EQUIPMENT (ONE OF EACH TYPE) TO NEW VERSIONS
OLD PANELS



UPGRADE

STEPS

- UPGRADE FLEET TO NEW 3.0 VERSION RUNNING OLD PANELS
- UPGRADE PRIMARY (OS, POSTGRES, OP PRO)
- RUN NEW 3.0 FOR TWO WEEKS OR UNTIL STABLE
- INSTALL NEW GVOS SERVICE



UPGRADE

STEPS

- ENABLE NEW UI/UX ON ONE OF EACH EQUIPMENT TYPE (LP SHOVEL, LP TRUCK)
- RUN NEW PANELS AND GVOS FOR TWO WEEKS OR UNTIL STABLE
- ENABLE REST OF UI/UX EQUIPMENT
- FAIL OVER BACK TO **PRIMARY**



SITE TRAINING

MINEOPERAPE OP PRO 3.0



TRAINING

STEPS

- | | |
|---|-------------------------------|
| ■ | GO OVER INFORMATION PACK |
| ■ | GO OVER UAT AND SCOPE OF WORK |
| ■ | TRAIN ON OFFICE APPLICATION |
| ■ | TRAIN ON NEW PANEL UI/UX |



DEMO ENVIRONMENT

MINEOPERA TE OP PRO 3.0



DEMO ENVIRONMENT

DETAILS

GVSERVER VM (MINSRVAPP01) IP	10.0.1.4
SECONDARY (MINSRVAPP02) IP	10.0.1.5 (PUBLIC: 20.64.157.95)
MINSRVAPP01	RUNNING JAMSCLUSTER AND GVOS
MINSRVAPP02	RUNNING EQUIPMENT GVOS SERVICE